A Curriculum Audit™

of the

New Haven Public School

New Haven, Connecticut

Fourth grade students working on a project at Hooker Elementary

Curriculum Management Solutions, inc.
5619 NW 86th Street, Suite 500
Johnston, IA 50131

July 2019

A Curriculum Audit™

of the

NEW HAVEN PUBLIC SCHOOL

New Haven, Connecticut

Curriculum Management Solutions, inc.
5619 NW 86th Street, Suite 500
Johnston, IA 50131

Date Audit Presented: July 2019

Members of the New Haven Public School Audit Team:

Lead Auditors
Dr. Zollie Stevenson, Jr.
Ms. Patricia Braxton

Auditors

Dr. Holly Kaptain	Dr. Sarah Mitchell
Dr. Lynne Christensen	Ms. Laurie Pace
Dr. Abbie Cook	Dr. William Poston
Dr. Maureen Cotter	Dr. Deitra Spence
Dr. Penny Gray	Ms. Colleen Stearns
Dr. Tonya Hyde	Mr. David Surdovel
Dr. Robert Iuzzolino	Ms. Olivia Zepeda

Table of Contents

Table of Exhibits

Table of Photographs

A Curriculum Audit™

of the
New Haven Public Schools
New Haven, Connecticut

I. INTRODUCTION

This document constitutes the final report of a Curriculum Audit™ of the New Haven Public Schools. The audit was commissioned by the New Haven Public Schools Board of Education/Governing Authority within the scope of its policy-making authority. It was conducted during the time period of April 1-4, 2019. Document analysis was performed off-site, as was the detailed analysis of findings and site visit data.

A Curriculum Audit™ is designed to reveal the extent to which officials and professional staff of a school district have developed and implemented a sound, valid, and operational system of curriculum management. Such a system, set within the framework of adopted board policies, enables the school district to make maximum use of its human and financial resources in the education of its students. When such a system is fully operational, it assures the district taxpayers that their fiscal support is optimized under the conditions in which the school district functions.

Background

Leadership in the New Haven Public Schools provided the following overview of the city of New Haven, Connecticut, and the school district to provide a demographic and community context for the audit report.

New Haven Public Schools is a unique, midsize urban district with 21,264 students. It is one of three cities in Connecticut with over 123,000 people. Connecticut continues to show much larger than average gaps in the racial and socioeconomic distribution of its people, as well as in the area of student achievement, even in the most recent National Assessment of Educational Progress (NAEP) results. To briefly describe New Haven Public Schools, it is a district with both diversity and cultural sameness, and in general need of improvement.

New Haven is a city that has a large Black and Hispanic population, which is common in urban Connecticut public schools. The per capita income of the city in 2000 was $16,393, and 72% of New Haven Public School students qualify for free and reduced lunch. Such numbers indicate that New Haven has a student population that has socio-economic disadvantage and great ethnic, linguistic,and financial diversity. Approximately 88% of the 21,264 students are minority: 38% Black, 47% Hispanic, and 13% White.

New Haven is a city with ethnic enclaves and geographic clusters, similar to other cities. There is a strong Italian presence in the East Shore area, where the Nathan Hale K-8 school is located. Nathan Hale, located in the East Shore area, has the district's highest percentage of White students, followed closely by Hooker Middle School, which is located in the Yale neighborhood. These two neighborhood schools have at least 20% more White students than others in the district.

Neighborhood patterns also show in other schools in the district; notably, schools in the Fair Haven section of town have a higher than average percentage of Hispanic students, and those in the western Hill section and central Dixwell section have a higher than average percentage of African American students. Seventeen of the 43 schools are interdistrict magnet schools, and many are intra-district schools of choice. Over 3,000 students from 28 different towns attend New Haven Public Schools. Out of 30 Elem/K-8 schools, only 10 are neighborhood schools, along with two high schools. However, within the schools there is also segregation of students and the common tendency to continue tracking, which isolates students.

It is important to note that the magnet school program started well before the Connecticut Case of Sheff-O'Neill. It has the goal of reducing ethnic isolation and expanding New Haven Public Schools to the rest of the community. Participation in the intra- and inter-district magnet programs is voluntary, a model that has been proven to produce long-term interracial exposure. Combined with the fact that every school in the district is being rebuilt, the magnet program serves as a model for regional desegregation that has benefits to all students.

District Improvement Plan 2004-2012

The previous district initiatives focused on an improvement plan that was a continuation of a document developed in 2004. In this document, New Haven Public Schools proclaimed "Bold Goals" to be achieved by 2008, which state that 95% of students:

- would be ready to start kindergarten;
- achieve proficiency in reading and math;
- achieve social development goals; and
- eliminate the achievement gap between minorities and White students.

These bold goals were largely a result of work with the Stupski Foundation in 2006-07 that encouraged the district to reach for high expectations and focused on identifying some organizational issues and processes within the district. This work was followed by a state-required evaluation of the district in 2007 that was generally favorable, but was still viewed through the lens of reducing the achievement gap.

The 2008-2011 District Improvement Plan used the same general categories for its goals and laid out specific, achievable measures with benchmarks for each year. For student achievement goals, the district aimed for an increase of 25% in the number of students scoring at proficient or above on the state test in three years, as well as a reduced achievement gap (10% or less) in math, reading, writing, and science state test scores. In order to achieve these goals, district leaders worked for months to identify district-wide, research-based educator actions. As reported to the board of education in early 2008, the district chose to focus on high quality teachers and administrators, effective use of data teams at all levels, maximizing use of instructional time, and starting a research-based early literacy response to intervention (RtI) program. At the same time, the district continued the previous school construction and magnet school initiatives, and by 2018, nearly every school building had been renovated or rebuilt.

School Reform 1.0 2009-2013

Longtime mayor John DeStefano and former superintendent Reginald Mayo embarked on the "School Reform 1.0" initiative. Mayor DeStefano proposed that dramatic school reform take place in order to exponentially increase the gains made in student achievement. His proposal was developed over several months as part of a mayoral campaign and involved the key idea of reducing the achievement gap by implementing organizational changes. The plan called for four components:

- high expectations, accountability, and earned autonomy;
- high-quality, motivated principals and teachers;
- a portfolio approach to schools where the board of education and central office provides differentiated and efficient supports; and
- engaged students, families, and community.

As presented to the board of education and the public, the plan called for focusing on the achievement gap and the dropout rate. The plan had a special focus on preparing minority students for college with a promise to pay for their college tuition. It aligned with the goals of the 2008-2011 district improvement plan, but proposed a focus on a three-tiered system of schools to motivate and support increases in student achievement. This reform initiative began in 2009 with the introduction of the new teacher's contract, which tied teacher evaluation to student performance for the first time, followed by the hiring of the Assistant Superintendent for Portfolio Schools Garth Harries. Mr. Harries was not only in charge of the portfolio schools, but also oversaw

the Talent Council, which was in charge of a large Teachers Incentive Fund grant that funded many initiatives in the district. The district also renewed its attention to high school performance along with college and career initiatives, including the New Haven Promise scholarship program.

School Reform 2.0 - 2013-2016

With the retirement of both Mayor DeStefano and Superintendent Mayo after 21 years of working together, the district underwent some changes. Garth Harries was appointed interim superintendent after Dr. Mayo's retirement and continued work on the reform, now referred to as School Reform 2.0. The board of education was no longer fully appointed, but did include two new elected members. The new mayor, Toni Harp (who remains mayor through 2019), made some additional appointments to the board. The board and Superintendent Harries worked through some issues, including budget problems and re-organization of central office positions. During this time, the district also began a strategic planning process.

Change and Transition in 2016

In 2016, after some disagreements about budget and the split of one of the comprehensive high schools into academies, the board and Superintendent Harries parted ways. Dr. Mayo returned as interim superintendent from October 2016 until March 2018 while the board selected a new leader.

Dr. Carol Birks was selected as superintendent of schools in March 2018. She conducted a transition report and reorganized the central office. During this time, several new administrators joined the district. The district is currently dealing with a large deficit and is initiating the planning process with the new leadership.

Exhibit 0.1 provides a list of the current and past superintendents of the school district.

Exhibit 0.1

List of Superintendents
New Haven Public Schools
SY 1992 to SY 2019

Superintendent	Years of Service
Dr. Reginald Mayo	1992-2013
Garth Harries	2013-October 2016
Dr. Reginald Mayo (Interim)	October 2016-March 2018
Dr. Carole Birks	March 2018-Present
Source: New Haven Public Schools, Superintendents, Document provided by the School District.	

There have been three superintendents and one interim superintendent in the New Haven Public Schools since 1992. Dr. Reginald Mayo had the longest service—21 years and 2 years as interim superintendent.

Enrollment Trends and Forecast

Enrollment patterns for the New Haven Public Schools for school years (SY) 2014-2019 as well as enrollment forecasts for SY's 2020-2022 are presented in Exhibit 0.2. The enrollment pattern uses existing data that the school district has published for each of the school years. The enrollment forecasts reflect likely enrollment patterns if conditions remain as they are in the school district and are projections based on past enrollment trends.

Exhibit 0.2

Enrollment Trends and Forecast
New Haven Public Schools
SY 2014 to SY 2022
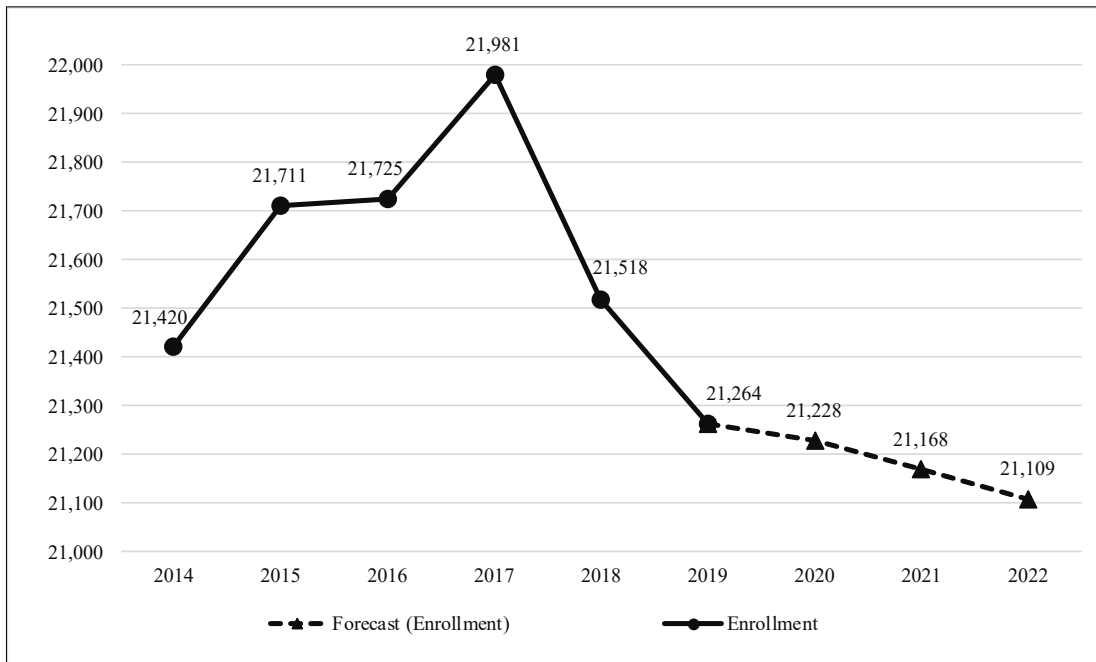
Source: Student Enrollment Trend, Student Counts by School and Year, New Haven Public Schools – Document provided by the New Haven Public Schools

Exhibit 0.1 shows that:

- Student enrollment in SY 2014 was at 21,420.

- Enrollment in SY 2019 was at 21,264, a decline of 156 students from SY 2014 (< 1%).

- Enrollment peaked in the school district during SY 2017 at 21,981 students.

- Since SY 2017, enrollment in the school district has declined by 717 (3%) students in SY 2019.

- Enrollment is forecasted to decline to 21,109 in SY 2022, a decline of 872 (4%) from SY 2017 and a decline of close to 1% (155 students) from SY 2019 to SY 2022.

A continued decline in enrollment is forecast for the New Haven Public Schools.

The district's mission and goals presented to auditors are shown below:

Mission of the New Haven Public Schools:

"The New Haven Public Schools will provide an outstanding education that extends beyond graduation and prepares students to be the next generation of leaders, innovators and problem-solvers. There will be high quality instruction and learning for every child, every day, in every classroom and environment."

Strategic Objectives of the New Haven Public Schools:

The New Haven Public Schools has developed six strategic objectives that are to be accomplished between the years 2017-2020.

Strategic Objective 1:

Shaping the Whole Child Through Personalized Learning Experiences: Provide each student with the individual instruction and support necessary to his or her specific learning, social, emotional and physical health needs & development.

Strategic Objective 2:

Student Growth & Achievement: Improve student achievement for all students with a particular focus on high need students and Students of Color.

Strategic Objective 3:

Engagement Through Collaboration, Communication and Transparency: Adults and students engage by actively collaborating, communicating, sharing responsibility and are transparent about their work and their learning in order to create a positive learning environment for all.

Strategic Objective 4:

Strong and Coherent Systems and Structures: Optimize the district's performance and accountability utilizing strong and coherent systems and structures that align with the CSDE and the needs of New Haven Public Schools.

Strategic Objective 5:

Effective Teaching, Leading, and Learning: Build capacity of our adults to in order to improve student growth and achievement.

Strategic Objective 6:

Resource Alignment: All district resources (time, money and people) are aligned to the explicit priorities of the district.

Audit Background and Scope of Work

The Curriculum Audit™ is a process that was developed by Dr. Fenwick W. English and first implemented in 1979 in the Columbus Public Schools in Columbus, Ohio. The audit is based upon generally-accepted concepts pertaining to effective instruction and curricular design and delivery, some of which have been popularly referred to as the "effective schools research."

A Curriculum Audit™ is an independent examination of four data sources: documents, interviews, site visits, and online surveys. These are gathered and triangulated, or corroborated, to reveal the extent to which a school district is meeting its goals and objectives and whether they are internally or externally developed or imposed. A public report is issued as the final phase of the auditing process.

The audit's scope is centered on curriculum and instruction and any aspect of the operations of a school system that enhances or hinders its design and/or delivery. The audit is an intensive, focused, "postholed" look at how well a school system such as New Haven Public Schools has been able to set valid directions for pupil accomplishment and well-being, concentrate its resources to accomplish those directions, and improve its performance (however contextually defined or measured) over time.

The Curriculum Audit™ does not examine any aspect of school system operations unless it pertains to the design and delivery of curriculum. For example, auditors would not examine the cafeteria function unless students were going hungry and, therefore, were not learning. It would not examine vehicle maintenance charts unless buses continually broke down and children could not get to school to engage in the learning process. It would not be concerned with custodial matters unless schools were observed to be unclean and unsafe for children.

The Curriculum Audit™ centers its focus on the main business of schools: teaching, curriculum, and learning. Its contingency focus is based upon data gathered during the audit that impinges negatively or positively on its primary focus. These data are reported along with the main findings of the audit.

In some cases, ancillary findings in a Curriculum Audit™ are so interconnected with the capability of a school system to attain its central objectives that they become major, interactive forces, which, if not addressed, will severely compromise the ability of the school system to be successful with its students.

Curriculum Audits™ have been performed in over 500 school systems in more than 41 states, the District of Columbia, and several other countries, including Canada, Saudi Arabia, New Zealand, Bangladesh, Malaysia, and Bermuda.

The methodology and assumptions of the Curriculum Audit™ have been reported in the national professional literature for more than two decades, and at a broad spectrum of national education association conventions and seminars, including the American Association of School Administrators (AASA); Association of Supervision and Curriculum Development (ASCD); National Association of Secondary School Principals (NASSP); Association for the Advancement of International Education (AAIE); American Educational Research Association (AERA); National School Boards Association (NSBA); and the National Governors Association (NGA).

This audit was conducted in accordance with a contract between New Haven Public Schools and Curriculum Management Solutions, inc. All members of the audit team were certified by Curriculum Management Solutions, inc.

Sixteen professionally licensed curriculum auditors served on the New Haven curriculum audit team, and the members' biographies are delineated in Appendix A.

System Purpose for Conducting the Audit

The New Haven Public Schools contracted with CMSi to provide the district with a thorough review of the quality, implementation and effectiveness of its current curriculum. District administrators indicated that this type of comprehensive audit has not been undertaken before. The district leadership would like to use the findings of the audit to address areas of revision, areas that need to be augmented with technology, and areas of the curriculum that will require more extensive supports for teachers to implement it with fidelity. The audit will allow the district to use its resources effectively to move forward from the current curricula and maximize how human and fiscal resources are used strategically. It will be used to inform the strategic planning process. Some of the information and reporting may additionally be used to inform needs assessment documents for future grant applications.

Approach of the Audit

The Curriculum Audit™ has established itself as a process of integrity and candor in assessing public school districts. It has been presented as evidence in state and federal litigation concerning matters of school finance, general resource managerial effectiveness, and school desegregation efforts in Kansas, Kentucky, New Jersey, and South Carolina. The audit served as an important data source in state-directed takeovers of school systems in New Jersey and Kentucky. The Curriculum Audit™ has become recognized internationally as an important, viable, and valid tool for the improvement of educational institutions and for the improvement of curriculum design and delivery.

The Curriculum Audit™ represents a "systems" approach to educational improvement; that is, it considers the system as a whole rather than a collection of separate, discrete parts. The interrelationships of system components and their impact on the overall quality of the organization in accomplishing its purposes are examined in order to "close the loop" in curriculum and instructional improvement.

II. METHODOLOGY

The Model for the Curriculum Audit™

The model for the Curriculum Audit™ is shown in the schematic below. The model has been published widely in the national professional literature, including the best-selling book, *The Curriculum Management Audit: Improving School Quality* (1995, Frase, English, Poston).

A Schematic View of Curricular Quality Control

General quality control assumes that at least three elements must be present in any organizational and work-related situation for it to be functional and capable of being improved over time. These are: (1) a work standard, goal/objective, or operational mission; (2) work directed toward attaining the mission, standard, goal/objective; and (3) feedback (work measurement), which is related to or aligned with the standard, goal/objective, or mission.

When activities are repeated, there is a "learning curve," i.e., more of the work objectives are achieved <u>within the existing cost parameters</u>. As a result, the organization, or a subunit of an organization, becomes more "productive" at its essential short- or long-range work tasks.

Within the context of an educational system and its governance and operational structure, curricular quality control requires: (1) a written curriculum in some clear and translatable form for application by teachers in classroom or related instructional settings; (2) a taught curriculum, which is shaped by and interactive with the written one; and (3) a tested curriculum, which includes the tasks, concepts, and skills of pupil learning and which is linked to both the taught and written curricula. This model is applicable in any kind of educational work structure typically found in mass public educational systems, and is suitable for any kind of assessment strategy, from norm-referenced standardized tests to more authentic approaches.

The Curriculum Audit™ assumes that an educational system, as one kind of human work organization, must be responsive to the context in which it functions and in which it receives support for its continuing existence. In the case of public educational systems, the support comes in the form of tax monies from three levels: local, state, and federal.

In return for such support, mass public educational systems are supposed to exhibit characteristics of <u>rationality</u>, i.e., being responsive to the public will as it is expressed in legally constituted bodies such as Congress, state legislatures, and locally elected/appointed boards of education.

In the case of emerging national public school reforms, more and more this responsiveness is assuming a distinctive school-based management focus, which includes parents, teachers, and, in some cases, students. The ability of schools to be responsive to public expectations, as legally expressed in law and policy, is crucial to their future survival as publicly-supported educational organizations. The Curriculum Audit™ is one method for ascertaining the extent to which a school system, or subunit thereof, has been responsive to expressed expectations and requirements in this context.

Standards for the Auditors

While a Curriculum Audit™ is not a financial audit, it is governed by some of the same principles. These are:

Technical Expertise

CMSi-certified auditors must have actual experience in conducting the affairs of a school system at all levels audited. They must understand the tacit and contextual clues of sound curriculum management.

The New Haven Public Schools Curriculum Audit™ Team selected by the Curriculum Management Audit Center auditors who have been school superintendents, assistant superintendents, directors, coordinators, principals and assistant principals, as well as elementary and secondary classroom teachers in public educational systems in several locations: Arizona, Arkansas, District of Columbia, Georgia, Iowa, Maryland, New Jersey, North Carolina, Pennsylvania, Rhode Island, Texas, and Washington.

The Principle of Independence

None of the Curriculum Audit™ Team members had any vested interest in the findings or recommendations of the New Haven Public Schools Curriculum Audit™. None of the auditors has or had any working relationship with the individuals who occupied top or middle management positions in the New Haven Public Schools, nor with any of the past or current members of the New Haven Public Schools Board of Education.

The Principle of Objectivity

Events and situations that comprise the database for the Curriculum Audit™ are derived from documents, interviews, site visits, and online surveys. Findings must be verifiable and grounded in the database, though confidential interview data may not indicate the identity of such sources. Findings must be factually triangulated with two or more sources of data, except when a document is unusually authoritative such as a court judgment, a labor contract signed and approved by all parties to the agreement, approved meeting minutes, which connote the accuracy of the content, or any other document whose verification is self-evident.

Triangulation of documents takes place when the document is requested by the auditors and is subsequently furnished. Confirmation by a system representative that the document is, in fact, what was requested is a form of triangulation. A final form of triangulation occurs when the audit is sent to the superintendent in draft form. If the superintendent or his/her designee(s) does not provide evidence that the audit text is inaccurate, or documentation that indicates there are omissions or otherwise factual or content errors, the audit is assumed to be triangulated. The superintendent's review is not only an additional source of triangulation, but is considered summative triangulation of the entirety of the audit.

The Principle of Consistency

All CMSi-certified curriculum auditors have used the same standards and basic methods since the initial audit conducted by Dr. Fenwick English in 1979. Audits are not normative in the sense that one school system is compared to another. School systems, as the units of analysis, are compared to a set of standards and positive/negative discrepancies cited.

The Principle of Materiality

CMSi-certified auditors have broad implied and discretionary power to focus on and select those findings that they consider most important to describing how the curriculum management system is functioning in a school district, and how that system must improve, expand, delete, or reconfigure various functions to attain an optimum level of performance.

The Principle of Full Disclosure

Auditors must reveal all relevant information to the users of the audit, except in cases where such disclosure would compromise the identity of employees or patrons of the system. Confidentiality is respected in audit interviews.

In reporting data derived from site interviews, auditors may use some descriptive terms that lack a precise quantifiable definition. For example:

"Some school principals said that…"

"Many teachers expressed concern that…"

"There was widespread comment about…"

The basis for these terms is the number of persons in a group or class of persons who were interviewed, as opposed to the total potential number of persons in a category. This is a particularly salient point when not all persons within a category are interviewed. "Many teachers said that…," represents only those interviewed by the auditors, or who may have responded to a survey, and <u>not</u> "many" of the total group whose views were not sampled, and, therefore, could not be disclosed during an audit.

In general these quantifications may be applied to the principle of full disclosure:

Descriptive Term	General Quantification Range
Some…or a few…	Less than a majority of the group interviewed and less than 30%
Many…	Less than a majority, more than 30% of a group or class of people interviewed
A majority…	More than 50%, less than 75%
Most…or widespread	75-89% of a group or class of persons interviewed
Nearly all…	90-99% of those interviewed in a specific class or group of persons
All or everyone…	100% of all persons interviewed within a similar group, job, or class

It should be noted for purposes of full disclosure that some groups within a school district are almost always interviewed in toto. The reason is that the audit is focused on management and those people who have policy and managerial responsibilities for the overall performance of the system as a system. In all audits, an attempt is made to interview every member of the board of education and all top administrative officers, all principals, and the executive board of the teachers' association or union. While teachers and parents are interviewed, they are considered in a status different from those who have system-wide responsibilities for a district's operations. Students are rarely interviewed unless the system has made a specific request in this regard.

Interviewed Representatives of the New Haven Public Schools

Board Members	Teachers
Superintendent	Principals/Assistant Principals
Deputy Superintendent	High School Students
Assistant Superintendents	Mathematics Supervisor
Literacy Supervisor	Arts Supervisor
World Languages Supervisor	Science Supervisor
Social Studies Supervisor	Health/P.E. Supervisor
English Learners Team	Special Education Supervisors
English Learners Coaches	Special Education Leadership Team
Parents	Chief Operating Officer
Regular and Special Funds Managers	Technology Department
Custodial/Maintenance Manager	Teachers Union Representatives
School Administrators Union Representatives	Paraprofessionals Union Representatives
Custodian Union Representatives	Early Childhood Team
Pupil Services Managers	Technology staff
Data and Testing Supervisor	Community Partners
Transportation and Food Services Managers	School Choice and Enrollment Staff
Human Resources Manager	Social Emotional Learning Manager
Parent Coordinator	Magnet School Coordinator
Instructional Coaches in Schools	Magnet Resource Teachers
Security Manager	Truancy Manager

Approximately 168 individuals were interviewed during the site visit phase of the audit.

Data Sources of the Curriculum Audit™

A Curriculum Audit™ uses a variety of data sources to determine if each of the three elements of curricular quality control is in place and connected one to the other. The audit process also inquires as to whether pupil learning has improved as the result of effective application of curricular quality control.

The major sources of data for the New Haven Public Schools Curriculum Audit™ were:

<u>Documents</u>

Documents included written board policies, administrative regulations, curriculum guides, memoranda, budgets, state reports, accreditation documents, and any other source of information that would reveal elements of the written, taught, and tested curricula and linkages among these elements.

<u>Interviews</u>

Interviews were conducted by auditors to explain contextual variables that were operating in the school system at the time of the audit. Such contextual variables may shed light on the actions of various persons or parties, reveal interrelationships, and explain existing progress, tension, and harmony or disharmony within the school system. Quotations cited in the audit from interviews are used as a source of triangulation and not as summative averages or means. Some persons, because of their position, knowledge, or credibility, may be quoted more than once in the audit, but they are not counted more than once because their inclusion is not part of a quantitative/ mathematical expression of interview data.

<u>Site Visits</u>

All school building sites were toured by the CMSi audit team. Site visits reveal the actual context in which curriculum is designed and delivered in a school system. Contextual references are important as they indicate discrepancies in documents or unusual working conditions. Auditors attempted to observe briefly all classrooms, gymnasiums, labs, playgrounds, hallways, restrooms, offices, and maintenance areas to properly grasp accurate perceptions of conditions, activities, safety, instructional practices, and operational contexts. The auditors visited 45 schools/learning centers during the week of April 1-4, 2019, in the New Haven Public Schools.

<u>Online Surveys</u>

The auditors administered surveys to principals/assistant principals, teachers, and parents to collect additional information regarding practices being implemented in the school district. Survey responses were received from 43 principals/assistant principals, 428 teachers, and 48 parents. The surveys allow stakeholders to provide auditors with valuable feedback regarding strengths and weaknesses in the system. Findings from these surveys were incorporated in the audit report.

Standards for the Curriculum Audit™

The CMSi Curriculum Audit™ used five standards against which to compare, verify, and comment upon the New Haven Public Schools's existing curricular management practices. These standards have been extrapolated from an extensive review of management principles and practices and have been applied in all previous Curriculum Audits™.

As a result, the standards reflect an ideal management system, but not an unattainable one. They describe working characteristics that any complex work organization should possess in being responsive and responsible to its clients.

A school system that is using its financial and human resources for the greatest benefit of its students is one that is able to establish clear objectives, examine alternatives, select and implement alternatives, measure results as they are applied against established objectives, and adjust its efforts so that it achieves a greater share of the objectives over time.

The five standards employed in the CMSi Curriculum Audit™ in New Haven Public Schools were:

1.   The school district demonstrates its control of resources, programs, and personnel.

2.   The school district has established clear and valid objectives for students.

3.   The school district demonstrates internal consistency and rational equity in its program development and implementation.

4.   The school district uses the results from district-designed or -adopted assessments to adjust, improve, or terminate ineffective practices or programs.

5.   The school district has improved productivity.

A finding within a Curriculum Audit™ is simply a description of the existing state, negative or positive, between an observed and triangulated condition or situation at the time of the CMSi audit and its comparison with one or more of the five audit standards.

Findings in the negative represent discrepancies below the standard. Findings in the positive reflect meeting or exceeding the standard. As such, audit findings are recorded on nominal and ordinal indices and not ratio or interval scales. As a general rule, audits do not issue commendations, because it is expected that a school district should be meeting every standard as a way of normally doing its business. Commendations are not given for good practice. On occasion, exemplary practices may be cited.

Unlike accreditation methodologies, audits do not have to reach a forced, summative judgment regarding the status of a school district or subunit being analyzed. Audits simply report the discrepancies and formulate recommendations to ameliorate them.

III. EXECUTIVE SUMMARY

A Curriculum Audit™ is basically an "exception" report. That is, it does not give a summative, overall view of the suitability of a system. Rather, it holds the system up to scrutiny against the predetermined standards of quality, notes relevant findings about the system, and cites discrepancies from audit standards. Recommendations are then provided accordingly to help the district improve its quality in the areas of noted deficiency.

The auditors were invited by the district administrative team to conduct a curriculum management audit of the New Haven Public Schools (NHPS) during the week of March 25, 2019. NHPS policies, plans, curriculum, access to the educational programs and activities, student achievement and productivity of the support offices and programs were analyzed and evaluated against a set of pre-defined standards and indicators of quality, noting any discrepancies from the standards. These constitute the *findings* of the audit. The auditors then provide recommendations to help the district address the discrepancies noted in the report. The recommendations represent the auditors' "best judgment" regarding how to address the discrepancies contained in the report. It is expected that the superintendent and her staff will review the findings and recommendations and make decisions regarding how and when to address the suggested steps for resolving the discrepancies in relationship to the audit standards. The recommendations serve as the *starting point* for a discussion of how to deal with the documented findings.

Standard audit practice is that the superintendent and the district's school board (board) *receive* an audit, but they do not *accept or approve* it. After review of the audit report, the board may request the response of its superintendent of schools to the audit recommendations. When the superintendent's response is received, then the board and administrative team decide how they will act upon the recommendations. Such actions generally require a minimum of 5-7 years to implement. In this manner, the administration and the board become accountable for what occurs in the school system after an audit report

The New Haven Public Schools is a large urban school district and is comprised of a majority minority student population that is culturally and linguistically diverse. NHPS has many challenges and issues related to student achievement, complicated by rigorous state standards and demanding state assessments. Historically, the school district has had plans to improve student achievement outcomes dating back over 15 years, and has been unsuccessful in improving the achievement of its poor students of color over that time. The implementation of those plans has been fraught with challenges, in both political and practical aspects. Board policies have not been updated regularly and the organizational structure is not sufficiently governed by clear lines of authority and job descriptions. Such documents are necessary to provide direction and assure accountability in implementing assigned tasks to effect needed changes. The current administrative staff reported challenges in gaining board approval for adding needed positions and for eliminating redundant ones. The school district continues to see serious achievement gaps between various student subgroups in comparison with state and national performance and standards, and the goal of equal success in learning for all students has not yet been realized across the system.

As the district embarks on the process of developing a strategic plan, six district-developed strategic objectives have been initiated in the effort to provide direction to teachers, principals and central office staff as well as other stakeholders (see Introduction).

The school district is facing strong challenges, among them solidifying the direction of the school district; addressing a significant operating budget deficit; addressing equity issues in the distribution of financial and human resources to schools; and closing the achievement gap among its linguistically and culturally diverse student populations when compared to state and national peers.

The superintendent was prudent in requesting an external, objective, and incisive scrutiny of the system. If the New Haven Public Schools is to enhance the quality and performance of its curriculum and impact student achievement outcomes, then an external, standards-based review process can assist the district in prioritizing its direction and improvement strategies. This audit report will help clarify issues confronting the system that are worthy of focus and attention that need improvement in the future in order to take the entire system to the next level of effectiveness.

Most notably, included in the audit findings are issues pertaining to inadequacy of existing board policies that either do not exist or have not been updated in nearly two decades; inadequacy of organizational structures and job descriptions; gaps and weaknesses in clear policy and procedures across the system; inequity in educational opportunity and success; inconsistent educational programming across the system; insufficient quality of curriculum documents and assessment tools and their alignment to standards and state assessments; ineffective use of feedback in instructional and budgetary decision making, and inconsistent attention to student needs, equity, and services in establishing processes and in allocating resources to schools.

The audit team visited all schools in the district, and the audit team also interviewed approximately 102 individuals during the site visit that took place the week of March 25-28, 2019. The auditors also analyzed data from surveys administered to principals/assistant principals, teachers and parents to collect additional information regarding practices being implemented in the school district. Survey responses were received from 35 principals/assistant principals, 585 teachers and 123 parents. Findings from these surveys were incorporated in the audit report. Over 1,000 documents were obtained from the system, which the auditors reviewed. A list of those documents is found in <u>Appendix B</u> of this report.

The audit examined functions, processes, and procedures across the district designed to manage the design and delivery of curriculum and its evaluation across the entire system, using five standards or areas to organize the analyses:

1. **CONTROL**: The school district demonstrates its control of resources, programs, and personnel.

2. **DIRECTION**: The school district has established clear and valid objectives for students.

3. **EQUITY AND CONSISTENCY**: The school district demonstrates internal consistency and rational equity in its program development and implementation.

4. **FEEDBACK**: The school district uses the results from district-designed or -adopted assessments to adjust, improve, or terminate ineffective practices or programs.

5. **PRODUCTIVITY**: The school district has improved productivity.

Findings were determined within each standard; these findings summarize areas of weakness in the system that is impeding the system's ability to support improved teaching and learning and to increase student achievement.

Findings

An abbreviated summary of the findings in the above five standards include the following:

Standard 1: Control

The auditors found the New Haven Public School's board policies, rules and regulations to be outdated and inadequate in both content and specificity to guide all necessary aspects of the management of curriculum and of the educational program. Specifically, the auditors found that 72 of the policies related to curriculum management were over 20 years old, with adoption dates going back to 1999 or 1995. Of the 80 curriculum management-focused policies reviewed, only eight by-laws and two policies had been adopted in since 1999. Board policies scored a 6 out of possible 78 possible points in meeting the criteria for quality curriculum management (8%). Adequacy requires a score of 70%.

Auditors found that the district level organization chart has current positions delineated but lacks positions that are critical for curriculum design and delivery. Auditors also noted that several critical positions were vacant. Effective school districts have established clear roles and lines of authority, which appear to be missing in New Haven. Policy guidance regarding job descriptions is weak and most are missing linkages to curriculum design, delivery, and evaluation functions and the categories of personnel who report to them. There were multiple job descriptions for the same positions, particularly for teachers. Hiring processes also appeared to be implemented inconsistently.

The auditors also reviewed documents and conducted interviews relative to planning processes in the school district. There are a lot of plans at the department and school levels in the district, however, plans and planning do not meet audit standards. There are no policies, regulations, or other comprehensive, written guidance on

planning functions at the district or department level. There is a 2015 planning guide for the school improvement planning process, and the *New Haven Public Schools District Continuous Improvement Plan 2018-2021* is incomplete. Plans and planning are not visibly linked to budget or resources. The use of actual student achievement data is inconsistent across departments and school improvement plans. In general, planning in the New Havens Public Schools District does not meet audit standards.

The auditors collected information from interviews and surveys regarding elements related to the direction, control and clarity of the school district in terms of the processes being implemented to guiding the work of district employees. The auditors summarized perceptions when they were identified as a concern by at least three of the school districts stakeholder groups (board members, central administration, principals/assistant principals, teachers, parents, students, and community partners). Feedback from interviews and surveys indicate that there are significant, perceptual concerns of stakeholders regarding the direction and nature of relationships in the New Haven School District. Specifically, concerns were raised regarding: 1) Board-Administration dysfunction, politics, tension, and inappropriate behavior; 2) Low morale, poor climate, fear, and lack of trust; 3) Poor communication; 4) Lack of cohesion/disconnect among departments/levels; and 5) Lack of vision, protocols, clarity, and accountability. These negative perceptions seem to have created a culture of fear which has impacted the levels of trust, clarity and morale among stakeholders regarding the direction of the New Haven Public School District.

Standard 2: Direction

The auditors found a strong foundation for curriculum at K-8, with 100% of core and non-core courses having corresponding curriculum. At high school, less than 20% of all the core and non-core courses offered have a corresponding curriculum. Almost all guides have the recommended components, but the formats are inconsistent, and the specificity of the components is not sufficient to meet audit standards for adequacy. The guides especially need greater clarity concerning what mastery of the concepts, knowledge, and skills looks like; no guides except for world languages received fully adequate ratings.

Teachers reported using a variety of resources to direct instruction. Teachers have not had or attended trainings in using the curriculum; several others reported not having access to resources referenced in curriculum documents and others were not sure how to access the curriculum that does exist. Overall, the auditors determined that the guides are not all user-friendly and offer teachers varying levels of support depending on the content area.

The auditors closely examined the reading program and determined that district leaders have identified strong, research-based components for the program, but not all components are clearly defined, especially in the structure for instructional time and how teachers should use that time. In a deeper analysis of the assessments provided in the curriculum, alignment with the standards was inconsistent, and the contexts and cognition types of the assessments were not adequately (deeply) aligned with the Smarter Balanced assessment (SBA). There was a far greater rate of misalignment with the Smarter Balanced Assessment Consortium tests (SBAC) than with the standards; alignment with the SBAC tests was lowest in math along the context dimension.

Standard 3: Equity and Consistency

The auditors found that inequities exist across the district in access to programs and services, in disciplinary actions, and in special education and gifted referrals and identification. Resources are not allocated with an intent to level the playing field; funding to schools is insufficiently monitored, resulting in students' unequal access to programs, resources, and services. Although offering schools of choice can be a strength, the monitoring and supervision of the various magnets and programs has been insufficient to maintain equity and ensure all students' needs are served. Instructional practices observed in classrooms did not align with district expectations for rigor and high student engagement; whole-group approaches were the dominant modes of instruction and differentiation of content or process and product was seen in a small percentage of classrooms. Cognitive demand of classroom activities and student samples of work was low, overall, and contexts were not found to be of the more engaging, authentic types.

Programs that serve specific student subgroups are not clearly defined and are inconsistently implemented across schools. The (English learner) EL program is not serving students effectively; direction for its implementation is not clear and half of school-based administrators reported viewing the EL program as poor or mediocre. Most

EL students are not taught by trained teachers. The identification of gifted students lags behind the state by a wide margin; white and Asian students are identified at a much higher rate than their African American and Hispanic counterparts, resulting in disproportionate representation.

Professional development is ongoing and frequent across the district but is not coordinated by any single office nor designed to support the delivery of district curriculum. This vital function for improving instructional capacity is not driven by observed need. Monitoring practices are inconsistent; there is little direction in district documents concerning expectations and guidelines for monitoring and no consistency concerning the purposes of it.

Standard 4: Feedback

When focusing on planning for assessment, scope of the curriculum covered by assessments, assessment trends, and the use of assessment and program evaluation data, the auditors found that the New Haven Public Schools would benefit from a singular and focused comprehensive assessment plan that specifically defines the critical characteristics essential for directing the district's efforts in assessment and student achievement.

The auditors found that the scope of formal assessment in New Haven Public Schools was inadequate to guide decision making about the written and taught curriculum in all core and non-core courses. For a district to achieve adequacy for scope, 100% of core courses and at least 70% of non-core courses must have an assessment instrument. Overall, 17% of New Haven Public School courses had a formative assessment and 9% had a summative assessment, which did not meet the requirement for adequacy.

New Haven Public Schools score lower than both state and national averages on assessments in all student groups. Data indicate widening achievement gaps between special education and general education, English Learner (EL) students and general education, and between Black/African American and White students. There are disparities in achievement between these student groups with no indication that this situation will change unless current conditions in the district are improved.

The auditors found that the district does not have a program evaluation plan to guide decision makers in using data regarding the selection, implementation, monitoring, or termination of instructional programs. The auditors also determined that the use of data to inform decision making is inconsistent throughout all schools and at all levels of the system. There is no systematic process to train educators in the use of data and no assurance that data are being used effectively in the classroom to influence teaching and student achievement. The auditors did note that the district has begun a data improvement process initiative to guide the use of data for improved student achievement.

Standard 5: Productivity

The auditors found that budgeting in New Haven Public Schools did not use formal assessment procedures to verify program efficacy or results, and there is no systematic linkage between funding and board-adopted priorities. Without connections to the system's mission and focus cost-effectiveness data on allocations for programs and service, the system could end up apportioning fiscal resources indiscriminately and serving the students and community ineffectively, inequitably, or inconsistently. Current budget development and decision-making processes of New Haven Public Schools are not yet fully adequate in assuring system-wide cohesion and productivity.

Overall, auditors found school facilities in New Haven Public Schools to be adequate, but there is no comprehensive, systemic, long-range plan to maintain, upgrade, and update the varied systems in the renovated and newly constructed buildings based on prioritized needs of individual school sites. Facilities improvements are being funded and implemented without benefit of multi-year comprehensive planning and long-range projections to ensure program consistency and quality across the district. The auditors were provided the Five-Year Capital Plan and budget narratives. The district is using this documentation as a facilities plan; however, it does not meet the audit criteria for a comprehensive facilities plan nor does it follow *Board Policy 7100*, which requires development of a master facilities plan. Analysis of the district Work Order System shows inconsistent handling of maintenance issues across buildings in the district. Interviews and survey responses also indicate that some facilities are not well maintained.

Although the district has collaborated with the City of New Haven and other local and state partners to garner grants and special programs to leverage funds and discounts to obtain technology resources, the auditors found technology planning to be inadequate to guide the integration of technology in the teaching and learning environment. The auditors also found that the district lacks a comprehensive plan for instructional technology programming and technology resources are unevenly distributed throughout the district.

Finally, auditors determined that while intervention programs are being utilized by staff across the district, New Haven Public Schools lacks policy direction and a systematic process for evaluating interventions to determine program effectiveness. The district has a process in place to assist schools in identifying students for targeted instruction to improve achievement and provide general guidance regarding effective literacy strategies, recommended scientifically research-based intervention programs, and assessments to use to continuously monitor student progress, adjust teaching as needed, and to determine suitability of the selected intervention. However, there are no specific, defined procedures for monitoring the effectiveness in implementing the process at the various school campuses or determining the effectiveness of the interventions currently being used in the district.

RECOMMENDATIONS

The auditors provided recommendations for the school board and the superintendent intended to direct and improve the curriculum management system in the New Haven Public Schools and to foster quality control in teaching and learning. The key recommendations include the following:

Recommendation 1: Establish a clear district vision for effective student learning and engagement and make this vision the focus for all planning and decision making district-wide. Modify planning processes to have specific, focused action steps and clear linkages to budget/resources and aligned professional development to support the realization of the district's instructional vision. Improve processes for evaluation, monitoring, and support for effective implementation of school continuous improvement plans. Develop clear and integrated written plans that meet audit criteria and are communicated to all stakeholders. Establish an organizational structure to inform and direct responsibilities and focus efforts and work across the system; improve communication and clarity of roles and responsibilities through specific, high quality job descriptions and consistent communication protocols.

Recommendation 2: Develop and implement a comprehensive curriculum management system. Redesign and direct curriculum revision to ensure curriculum documents are of the highest quality and support instruction and student learning. Deeply align current district-developed assessments to the Common Core State Standards. Define and communicate expectations concerning an instructional planning model as well as a Framework for Strategies that clarifies expectations for curriculum delivery. Connect monitoring and professional development to these expectations.

Recommendation 3: Establish clear expectations for equity and equal access district-wide and a commitment to serving all students in the district equitably. Assure equal access to programs, including magnet programming, and to the curriculum, and improve parent and community relations to increase involvement, enrollment, and student achievement. Establish specific goals and plans for programs serving special populations. Commit adequate resources to the improvement of these programs, and create a coordinated system for implementing them district-wide.

Recommendation 4: Establish a vision for effective instruction in New Haven Public Schools, and create a system to support delivering the district curriculum in alignment with that vision. Design and implement a coordinated, system-wide professional development program that is differentiated, focused on curriculum delivery, aimed at equipping teachers with effective instructional approaches associated with high levels of student achievement, and aligned with the district vision. Establish and implement consistent standards and procedures for monitoring and evaluating the delivery of the curriculum and teachers' engagement of students.

Recommendation 5: Develop and implement a comprehensive set of policies that direct a sound system of curriculum management and control. Develop and implement administrative guidelines that establish a framework for consistent decision making at all levels of the system. Establish expectations in policy that provide clear direction for the most critical district functions related to curriculum management.

Recommendation 6: Develop and implement a comprehensive plan for student assessment and program evaluation that will provide meaningful data for decision making to support improved student achievement. Require systematic evaluation of major programs and interventions linked with evidence of student learning to provide feedback for decisions regarding program selection, continuation, expansion, modification, or termination.

Recommendation 7: Adopt a three-year plan for implementation of a performance-based budgeting and allocation system for New Haven Public Schools' campuses, departments, programs, and services.

Recommendation 8: Design and implement a long-range facility planning process to provide for short-term and long-term facility and maintenance needs. Include all components of comprehensive long-range facilities planning with clear linkage to educational priorities, goals, and objectives in the district's strategic planning, including the district's continuous improvement plan and the Five Year Capital Plan. Incorporate planning for all operations, emphasizing information and instructional technology.

Recommendations (presented in order of priority):	Suggested Timeline for Completion:
Recommendation 1: Planning, organizational structure, human resources	**Five years for full completion** • Development of strategic plan: 1-2 years, beginning immediately. • New Table of Organization: 3-6 months, beginning immediately; 3-12 months to fill all vacant positions. • 3-5 years to institutionalize the communication structures, expectations for collaboration, the district vision, and cohesive direction for the system.
Recommendation 2: Curriculum management system, revision of written curriculum	**Three years for curriculum management plan; 5-7 for complete curriculum guide revisions.** • Development of curriculum management plan: 6-12 months, beginning with newly appointed administrators over curriculum and assessment. • Expectations for curriculum design, in preparation for curriculum revision: 6-18 months, depending on the timeline of hiring of critical leadership positions. • Curriculum revisions: 5-7 years for all content areas. Revisions to mathematics are most critical, followed by English language arts. Support structures for differentiation must continue to be built over the next 3 years in both content areas. • Expectations for curriculum delivery: 12-18 months, depending on the timeline for hiring of critical leadership positions and the completion of a district strategic plan that delineates district vision and priorities for curriculum delivery and student engagement. • Definitions for specific expectations for content area instruction: may begin immediately, to be completed (for congruence) immediately following the general district-level expectations for instruction and student engagement.
Recommendation 3: Equity and Monitoring Equity	**Five years for full implementation and institutionalization of equity-monitoring system (if all positions are filled)** • Developing guidelines and expectations regarding the monitoring of equity across the system: 12-18 months. • Developing written guidelines, plans, and expectations for programs serving special populations: 6-18 months (depending on staffing). • Dissemination and implementation of those guidelines: 1-3 years. • Implementation of various recommended support systems across the district: 2-5 years.

Recommendations (presented in order of priority):	Suggested Timeline for Completion:
Recommendation 4: Vision for Instructional Delivery and Its Support	**3-5 years for full implementation of recommended actions.** • Expectations for monitoring and coaching: 12-24 months. • Guidelines for professional development, development of a professional development plan, in concert with the curriculum management plan: 1-2 years. • Implementation of guidelines for instructional monitoring, coaching, professional development: 3-5 years.
Recommendation 5: Policy	**5 years for full policy review, revision, and development.** • Timeline for the review, revision, and development of policy: Beginning immediately, 6-12 months. • Implementation of timeline and the revision of policy: 5 years.
Recommendation 6: Student and Program Assessment	**5 years for full implementation of system** • Developing a plan for student assessment and program evaluation: 1-2 years (pending staffing), subsequent to the development of a curriculum management plan • Implementation of new procedures and expectations: 2-5 years.
Recommendation 7: Program-based budgeting	**3 years for full implementation (pending staffing).** • Establish procedures for program-based budgeting and collaborative budget-building to assure equity: 12-18 months • Implement steps in budget process: 1-3 years.
Recommendation 8: Facilities Planning	**2-3 years for full implementation** • Developing a facilities plan: 12-24 months, pending initiation and completion of district strategic plan. • Implementing the facilities plan: 2-3 years.

IV. FINDINGS

STANDARD 1: The School District Demonstrates Its Control of Resources, Programs, and Personnel.

Quality control is the fundamental element of a well-managed educational program. It is one of the major premises of local educational control within any state's educational system.

The critical premise involved is that, via the will of the electorate, a local board of education establishes local priorities within state laws and regulations. A school district's accountability rests with the school board and the public.

Through the development of an effective policy framework, a local school board provides the focus for management and accountability to be established for administrative and instructional staffs, as well as for its own responsibility. Such a framework enables the district to create meaningful assessments and use student learning data as a critical factor in determining the overall success of the educational program.

Although educational program control and accountability are often shared among different components of a school district, ultimate fundamental control of and responsibility for a district and its operations rests with the school board and top-level administrative staff.

What the Auditors Expected to Find in the New Haven Public Schools:

A school system meeting CMSi Curriculum Management Audit <u>Standard One</u> is able to demonstrate its control of resources, programs, and personnel. Common indicators are:

- A curriculum that is centrally defined and adopted by the board of education;

- A clear set of policies that establish an operational framework for management that permits accountability;

- A clear set of policies that reflect state requirements, local program goals, and the necessity to use achievement data to improve school system operations;

- A functional administrative structure that facilitates the design and delivery of the district's curriculum;

- A direct, uninterrupted line of authority from school board/superintendent and other central office officials to principals and classroom teachers;

- Organizational development efforts that are directed to improve system effectiveness;

- Documentation of school board and central office planning for the attainment of goals, objectives, and mission over time; and

- A clear mechanism to define and direct change and innovation within the school system to permit maximization of its resources on priority goals, objectives, and mission.

Overview of What the Auditors Found in the New Haven Public Schools:

This section is an overview of the findings that follow in the area of <u>Standard One</u>. Details follow within separate findings.

Auditors found that district leadership did not have sufficient control of district resources. Policies are not current and do not align with current regulations; the 72 of the 80 policies most related to a curriculum management system and educational program delivery are more than 20 years old. The auditors found that 8% of the audit criteria for sound control of curriculum design and delivery were met by policy and regulations. Board policies lacked adequate content to provide direction to the staff on most key issues, and many were not aligned with current regulations. There was no evidence of a policy review process to assure that policies are reviewed and updated regularly.

Auditors found that planning in the district is ongoing and there is an intention to develop a long-range strategic plan to direct and coordinate efforts across the system. Most plans, however, were inadequate in overall design to serve as a system catalyst for improvement. The district's current plan provides direction for five priority areas and seven key measures of success but does not yet include an action plan with assigned roles, responsibilities, and budget to drive district implementation. There are no policies, regulations, or other comprehensive, written guidance on planning functions. Plans and planning are not visibly linked to the budget, and the most critical functions of the district (curriculum design, delivery, and assessment) are not directed by a coordinated plan.

The organizational chart has been updated, but the current administrative structure is inadequate to support the key functions of the system, due to positions that remain unfilled and a need for additional positions to direct magnet programming, professional development, and curriculum. Job descriptions are not adequate in design to clarify roles and responsibilities and there are no tightly aligned processes for decision-making. Auditors found that limited organizational structures to provide direction and control; inadequate board policies; insufficient administrative procedures; missing, outdated, and/or multiple versions of organizational charts; and missing and inadequate job descriptions have all contributed to a lack of centralized focus and continuous improvement system-wide.

Finally, the auditors also found there is a lack of clear focus and communication across the system to maintain constancy of purpose and attention to the most critical responsibility of the district: improved student learning. District stakeholders report perceptions of fear, mistrust, and uncertainty concerning who is responsible for what at the district office. The relationship between the board and administration has not been conducive to supporting improvement and change.

Finding 1.1: Board policies and administrative regulations are outdated, missing, and inadequate to provide quality control and direction for effective management of curriculum and other district functions.

Board policy is the most critical element of any effective school district. Policy sets expectations for how curriculum will be designed, developed, delivered, monitored, and measured within parameters that define what quality instruction looks like and how the central office will support student learning. Administrative regulations are directions developed by the superintendent that clarify policies or provide detail for policy implementation. Together, policy and regulations exist to guide decision making and to ensure that decisions are congruent with system-level goals, priorities, and values. When policies and administrative procedures are absent or vague, the content and quality of educational decisions are left to the discretion of individuals, and outcomes may not reflect the board's intent.

To determine whether board policies and administrative regulations meet audit standards, auditors conducted a review of all policies found in the online New Haven Public Schools (NHPS) board policy manual. Auditors interviewed board members and administrators regarding processes for policy adoption and revision and regarding the development of administrative regulations, as well as regarding the use of policies and administrative regulations in decision-making processes.

Overall, the auditors found that policy is not up to date with state requirements and that it did not meet the Curriculum Management Improvement Model (CMIM) criteria for adequacy. Policy is not sufficient to direct the design, delivery, and evaluation of curriculum, and the use of policy to direct decision making was found to be limited. Auditors examined policy to determine what direction exists regarding policy development and adoption. They found board policies that reflect the legal authority of the board to adopt and revise board policies and for the superintendent to develop administrative regulations:

- *Policy 2231: Policy and Regulation System* defines bylaws for internal operations of board; describes policy as "statements of intent…to serve as guides to administration for development and implementation of regulations for district operations." The policy identifies regulations "to specify required staff actions" holding the superintendent responsible for the "development and implementation of regulations consistent with board policy," "regulations shall be presented to the board but the board will not adopt regulations" unless requested by the superintendent or required by law, and the policy states, "board policies, board bylaws, and administrative regulations be published in a policy manual."

- *Policy 9310: Bylaws of the Board, Formulation, Adoption and Amendments of Policy* states, (policies) "shall be broad and general and shall indicate a line of action for the superintendent of schools in dealing with specific problems and issues." These policies clearly indicate the role of policy in establishing direction for district operations and the responsibilities of the board and the superintendent with regard to policy and regulation development.

Adequacy of Board Policies and Administrative Regulations

The New Haven Public Schools board policies are organized under nine policy series. Also included in the policy manual are New Haven Public Schools regulations which are used to interpret how to implement the policies.

Exhibit 1.1.1 lists the series by number and title. The number of policies/regulations in each series is provided.

Exhibit 1.1.1

Policy/Regulation Series
New Haven Public Schools
April 2019

Series #	Series Title	# Policies/ Regulations
0000	Mission, Goals, Objectives	1/1
1000	Community Relations	17/4
2000	Administration	16/0
3000	Business and Non-Instructional Operations	38/4
4000	Personnel	40/3
5000	Students	35/12
6000	Instruction	62/5
7000	New Construction	12/0
9000	Bylaws of the Board	34

Exhibit 1.1.1 shows nine policy series with a total of 255 policies and 29 regulations overall; 34 of the policies were listed under series 9000, Bylaws of the Board.

Exhibit 1.1.2 lists the policies and regulations selected by the auditors for analysis because they are considered the ones most related to a curriculum management system and a fundamental support framework for educational program delivery. The selected curriculum management related board policies and regulations are displayed by policy number and title.

Exhibit 1.1.2

Board Policy/Regulations Reviewed by the Auditors
New Haven Public Schools
April 2019

Policy or Regulation #	Title	Date
Series 0000	**Mission, Goals, Objectives**	
0521(a-d)	Nondiscrimination	12-Sep-18
Series 1000	**Community Relations**	
1000	Concepts, Roles, Goals, in Community Relations and Parent-Teacher Communications	10-Sep-07
Series 2000	**Administration**	
2000	Concepts and Roles in Administration	11-Jan-99
2100	Administrative Staff Organization	11-Jan-99
2112	Professional Development	11-Jan-99

Policy or Regulation #	Title	Date
2121	Lines of Responsibility	11-Jan-99
2133	Principals	11-Jan-99
2140	Superintendent of Schools	11-Jan-99
2141	Recruitment and Appointment of Superintendent	11-Jan-99
2231	Policy and Regulation System	11-Jan-99
2250	Monitoring of Process and Product Goals	11-Jan-99
2300	Statement of Ethics for Administrators	11-Jan-99
2400	Evaluation of Administrators	11-Jan-99
Series 3000	**Business and Non-Instructional Operations**	
3000	Concepts, Roles in Business and Non-Instructional Operations	11-Jan-99
3100	Budget	11-Jan-99
3110	Budget Planning	11-Jan-99
3240	Tuition Fees	11-Jan-99
3280	Gifts, Grants, and Requests	11-Jan-99
3224.1	Contracts	11-Jan-99
3516.3	Accident Prevention and Reporting	11-Jan-99
3523.1(a-b)	Acquisition and Updating of Technology	25-Aug-03
3523.3	Computer Security	25-Aug-03
3523.3 (a-i)R	Computer Security	25-Aug-03
3541	Transportation	11-Jan-99
3541.33	Special Transportation for Exceptional Children	11-Jan-99
3542.1	Purpose and Facilities: Food Service	11-Jan-99
Series 4000	**Personnel – Certified/Non-Certified**	
4203	Transfer - Reassignment	11-Jan-99
4206	Staff Development	11-Jan-99
4209	Recruitment and Selection	11-Jan-99
4211	Evaluation	11-Jan-99
4212	Duties of Personnel	11-Jan-99
4403	Employee Attendance	11-Jan-99
Series 5000	**Students**	11-Jan-99
5000	Concepts and Roles in Student Policies	14-Aug-95
5113a	School Attendance and Truancy	14-Aug-95
5123	Promotion, Acceleration, Retention	14-Aug-95
5124	Reporting to Parents	14-Aug-95
5131.119	Bullying	10-Nov-06
5131.911(a-b)R	Bullying	10-Nov-06
Series 6000	**Instruction**	
6000	Statement of Philosophy	14-Aug-95
6121	Non-Discrimination: Instructional Program	14-Aug-95
6140	Curriculum	14-Aug-95
6141	Curriculum Development	14-Aug-95
6141.31	Bi-Lingual Bi-Cultural Education	14-Aug-95
6141.32	Computer Literacy	14-Aug-95
6141.5	Advanced College Placement	14-Aug-95
6142.1	Family Life and Sex Education	14-Aug-95

Policy or Regulation #	Title	Date
6142.101(a-c)	Student Nutrition and Physical Activity (Wellness)	24-Apr-06
6142.2(a-d)	K-12 Writing	14-Aug-95
6144	Controversial Issues	14-Aug-95
6145.3	Publications	14-Aug-95
6145.3(a-c)R	Student Publications	14-Aug-95
6145.51(a-b)R	Honor Society	14-Aug-95
6146	Graduation Requirements	14-Aug-95
6146.1	Grading System	14-Aug-95
6146.2	Statewide Proficiency/Mastery Examinations	14-Aug-95
6152	Grouping	14-Aug-95
6152(a-b)R	Grouping Procedures	14-Aug-95
6153	Field Trips and Community Service	14-Aug-95
6153(a-g)R	Field Trips	14-Aug-95
6154	Homework	14-Aug-95
6154(a-d) R	Homework/Make-up Work	14-Aug-95
6156	Use of Computers	14-Aug-95
6159	Individualized Education Program/Special Education Program	14-Aug-95
6161	Textbooks and Library Books	14-Aug-95
6161(a-g)R	Evaluation of Instructional Materials	14-Aug-95
6161.11	Evaluation of Instructional Materials	14-Aug-95
6161.2	Care of Instructional Materials	14-Aug-95
6161.3	Comparability of Services	14-Aug-95
6164.2	Guidance Services	14-Aug-95
6164.4	Identification of Special Needs and Abilities	14-Aug-95
6171(a-b)	Special Education	14-Aug-95
6171.2(a-c)	Special Education Preschool	12-Sep-18
6172.1	Talented and Gifted Education	14-Aug-95
6172.3	Home Instruction	14-Aug-95
6172.3(a-b)R	Home Instruction	14-Aug-95
6176	Career and Technical Education	14-Aug-95
6180	Evaluation of Instructional Program	14-Aug-95
6181	Evaluation of Special Education Program	14-Aug-95
Series 7000	**New Construction**	
7100	Planning	11-Jan-99
7553	Construction Management Services	11-Jan-99
7554	School Construction Trust Fund/Citywide Building Committee	11-Jan-99
Series 9000	**Bylaws of the Board**	29-May-18
9000	Role of the Board/Members (Powers, Purposes, Duties)	29-May-18
9040(a-b)	Board Related Responsibilities	29-May-18
9110	Number of Members, Terms of Office	29-May-18
9131(a)	Standing Committees	29-May-18
9230	Board Orientation	29-May-18
9240	Board Member Professional Development	29-May-18
9271(a-k)	Code of Ethics	29-May-18
9310	Formulation, Adoption, and Amendments of Policy	29-May-18

<u>Exhibit 1.1.2</u> shows the following:

- Auditors reviewed 80 policies, nine regulations, and eight bylaws of the board that pertain to curriculum management.

- Eight board bylaws and two policies were adopted in 2018 (*Policy 0521: Non-Discrimination* and *Policy 6172a,b,c,: Pre-School Special Education*).

- Seventy-eight policies are at least 12 years old; 72 of those policies are over 20 years old with adoption dates in 1995 or 1999.

Policy Design

Auditors analyzed the policies listed in <u>Exhibit 1.1.2</u> for congruence with audit standards using 26 criteria that are each defined by three characteristics. The auditors assessed the quality of board policies by comparing the content of the policies against the audit criteria for sound curriculum management. The 26 criteria are organized into the five audit standards: control, direction, consistency and equity, feedback, and productivity.

The auditors examined each relevant policy to determine if the audit criteria were met. For each criterion, a score of 1 to 3 points was given based on the content of the policy. If a policy (or several linked together) met the characteristics attached to each criterion, the policy was given the corresponding rating for the number of characteristics met (1-3). If a policy was considered too weak to meet the characteristics, or if there was no policy related to the criterion, a rating of 0 was given. To be considered adequate, 70% of the total possible points for a standard (set of criteria) had to be given. Any characteristics indicated as partially adequate are considered inadequate for the purpose of this analysis. The criteria, characteristics, and results of this analysis are presented in <u>Exhibits 1.1.3</u> through <u>1.1.8</u>.

<u>Exhibit 1.1.3</u> presents information about the auditors' ratings relative to <u>Standard One</u>—Provides for Control.

Exhibit 1.1.3

Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard One to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019

Standard One—Provides for Control: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
1.1 A taught and assessed curriculum that is aligned to the district written curriculum		
• Requires the taught and assessed curriculum to be aligned to the district's written curriculum	6140, 6141	0
• Addresses the alignment of the district's written curriculum with state and national standards for all subject areas and grades (includes electives)		0
• Directs the district's written curriculum documents to be more rigorous than state and national standards to facilitate deep alignment in all three dimensions with current and future high-stakes tests		0
1.2 Philosophical statements of the district instructional approach		
• Has a general philosophical statement of curriculum approach, such as standards-based, competency-based, outcome-based, etc.	6000	1
• Directs adherence to mastery learning practices for all content areas and grades involved in local, state, and national accountability		0
• Directs adherence to mastery learning practices for all grade levels and content areas, including electives		0

Exhibit 1.1.3 (continued) Auditors' Analysis of Board Policy and Administrative Regulations On Audit Standard One to Determine Quality and Degree of Adequacy New Haven Public Schools April 2019		
Standard One—Provides for Control: **Directs the superintendent or designee to oversee the development of board policy to ensure:**		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
1.3 Board adoption of the written curriculum		
• Requires the annual review of new or revised written curriculum prior to its adoption	6140, 6141	0
• Directs the annual adoption of new or revised written curriculum for all grade levels and content areas		0
• Directs the periodic review of all curriculum on a planned cycle over several years		1
1.4 Accountability for the design and delivery of the district curriculum through roles and responsibilities		
• Directs job descriptions to include accountability for the design and delivery of the aligned curriculum	2133, 2400, 2400a	0
• Links professional appraisal processes with specific accountability functions in the job descriptions of central office administrators, building administrators, and regular classroom teachers		0
• Directs professional appraisal processes to evaluate all staff in terms of gains in student achievement		0
1.5 Long-range, system-wide planning		
• As part of the district planning process, policy requires that the superintendent and staff think collectively about the future and that the discussion take some tangible form (This allows for flexibility without prescribing a particular template)	2000, 2220, 2250	0
• Requires the development of a system-wide, long-range plan that is updated annually; incorporates system-wide student achievement targets; and is evaluated using both formative and summative measures		0
• Expects school improvement plans to be congruent with the district long-range plan, to incorporate system-wide student achievement targets, and to be evaluated using both formative and summative measures		0
1.6 Functional decision-making structure		
• Expects an organizational chart that is annually reviewed, presented to the board, and approved by the superintendent	2000, 2100, 2121, 4212	Partial*
• Requires that job descriptions for each person listed on the organizational chart be present and updated regularly to ensure that all audit criteria, such as span of control, logical grouping of functions, etc., are met		0
• Directs and specifies the processes for the formation of decision-making bodies (e.g., cabinet, task forces, committees) in terms of their composition and decision-making responsibilities, to ensure consistency, non-duplication of tasks, and product requirements		0
Standard One Rating (number of points for the six criteria with a possibility of 18)		**2**
Percentage of Points Met (points divided by the number of possible points—18)		**11%**
*Partial ratings are tallied as not met.		
Note: One point was awarded for every characteristic met under each criterion for a maximum of 3 points. No points are awarded when policies fail to meet any characteristics.		
©2018 CMSi		

Auditors' ratings in <u>Exhibit 1.1.3</u> for <u>Standard One</u> indicate board policies that provide for control received 2 of 18 possible points for a total of 11% of possible points received. The policies reviewed are lacking sufficient content, specificity, and direction to meet these audit criteria. At least 70% of the characteristics must be met for the policies to be considered adequate.

Standard One concerns control of system resources. The following presents information about the auditors' analysis of policies for <u>Standard One</u>.

Criterion 1.1: A taught and assessed curriculum that is aligned to the district's written curriculum

This criterion was awarded 0 points. The policies do not require an articulated curriculum pre-K through grade 12 or alignment with the written, taught, and tested curriculum. The policies do not require alignment with state and national standards or direct district curriculum documents to be more rigorous than state and national standards.

- *Policy 6140: Curriculum* states, "The curricula of the schools shall be consistent with the Board of Education's adopted goals and legal requirements."
- *Policy 6141: Curriculum Development* states, "The curriculum shall contain all courses required by the State Department of Education."

Criterion 1.2: Philosophical statements of the district instructional approach

This criterion was awarded 1 point. Auditors did not find policy that addressed mastery learning practices. One policy referenced student performance mastery.

- *Policy 6000: Statement of Philosophy* states, "Curriculum content, technological assistance and instructional strategies will be integrated to raise student expectations, to ensure performance mastery, and to maximize student motivation."

Criterion 1.3: Board adoption of the written curriculum

This criterion was awarded 1 point. The policies do not require annual review of written curriculum or direct annual adoption of curriculum for all grade levels and content areas.

- *Policy 6140: Curriculum* identifies the board of education as responsible for "establishing curricula for the district."
- *Policy 6141: Curriculum Development* states, "There should be a process whereby each discipline will be reviewed at least once every five years."

Criterion 1.4: Accountability for the design and delivery of the district curriculum through roles and responsibilities

This criterion was awarded 0 points. The following policies address job descriptions and personnel appraisal; however, no policies or regulations were found to direct job descriptions to include accountability for curriculum or professional appraisal processes in terms of student achievement.

- *Policy 2133: Principals* identifies principal responsibilities to include assisting teachers with implementation of the instructional program and evaluating effectiveness of instructional program as it is being implemented.
- *Policy 2400: Evaluation of Superintendent and Administrators* describes the evaluation of the superintendent, district administrators, and teachers "as part of an overall district management plan."
- *Policy 2400a: Evaluation of Superintendent and Administrators* identifies that evaluations shall occur annually and address annual performance objectives, professional growth, and appraisal.

Criterion 1.5: Long-range, system-wide planning

This criterion was awarded 0 points. None of the policies reviewed by auditors directed system-wide, long-range planning that incorporates student achievement targets. No policy required that school improvement plans be congruent with the district comprehensive plan.

- *Policy 2000: Concepts and Roles in Administration* provides for the superintendent to develop a district diversity staffing plan for annual review.

- *Policy 2220: Representative and Deliberate Groups* "encourages" the superintendent and staff to create groups to engage in school planning and management.

- *Policy 2250: Monitoring of Product and Process Goals* directs the superintendent "in cooperation with school staff, parents, and other interested persons or groups to establish and maintain a comprehensive plan for monitoring the progress of schools in achieving stated goals" regarding curriculum, environment, and operations.

Criterion 1.6: Functional decision-making structure

This criterion was awarded 0 points. Policy was found to direct the formation of an organizational chart approved by the board, however, there was no directive for annual review by the board or the superintendent. There was no requirement found in policy to ensure all person/positions listed on organizational chart have updated job descriptions. No process was found in policy to guide the formation of decision-making bodies.

- *Policy 2000: Concepts and Roles in Administration* specifies that the superintendent is responsible to direct and coordinate the staff to implement goals and objectives of the board of education.

- *Policy 2100: Administrative Staff Organization* directs the superintendent to organize staff and identify lines of primary authority.

- *Policy 2121: Lines of Responsibility* provides for the superintendent to "maintain a current organizational chart, approved by the board, which identifies lines of primary responsibility and the relationships between district positions."

- *Policy 2220: Representative and Deliberate Groups* identifies parent organizations, councils, cabinets, and committees as groups to be considered by the superintendent and administrative staff to foster good communications and provide input in decision making.

- *Policy 4212: Duties of Personnel* describes elements to be included in job descriptions: job title, job function, required training, and degree of responsibility.

Exhibit 1.1.4 displays the audit criteria and the auditors' ratings for <u>Standard Two</u>—Provides for Direction.

Exhibit 1.1.4

Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard Two to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019

Standard Two—Provides for Direction: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
2.1 Written curriculum with aligned, criterion-referenced formative assessments for all subject areas at all grade levels		
• Requires enough specificity so that all teachers can consistently describe how students will demonstrate mastery of the intended objective	6000, 6140, 6141	0
• Requires formative assessment instruments that align to specific curriculum objectives		0
• Directs that suggestions be provided to teachers for differentiating curriculum to meet students' needs as diagnosed by formative assessments		0
2.2 Periodic review/update of the curriculum and aligned resources and assessments		
• Requires the development of procedures to both formatively and summatively review the written curriculum for all grade levels and content areas	None	0
• Requires the annual review of test banks, benchmark assessments, and other assessment instruments for alignment with the district or state accountability system		0
• Evaluates assessment instruments for alignment to the district curriculum in all three dimensions: content, context, and cognitive type		0
2.3 Textbook/resource alignment to curriculum and assessment		
• Requires textbooks/resources to be regularly reviewed and the resource revision/adoption cycle to align with the curriculum revision cycle	6161, 6161.1R (a-g),	0
• Directs review of all new instructional resource materials for content, context, and cognitive type alignment to the district curriculum and assessment	6161.11, 6161.2,	0
• Directs district staff to identify discrete areas where alignment is missing and provide teachers with supplementary materials to address gaps in alignment (missing content, inadequate contexts, etc.)	6162.7R (a,b), 6162.7 (Appendix)	0
2.4 Content Area Emphasis		
• Directs the yearly identification of subject areas that require additional emphasis based on a review of assessment results	6140, 6141, 2112, 4206	0
• Within subject areas, requires identification by administration of specific objectives, contexts, cognitive types, and instructional practices to receive budgetary support		0
• Requires focused professional development and coaching to support the instructional delivery of the identified priorities within the content areas		0

Exhibit 1.1.4 (continued) Auditors' Analysis of Board Policy and Administrative Regulations On Audit Standard Two to Determine Quality and Degree of Adequacy New Haven Public Schools April 2019		
Standard Two—Provides for Direction: **Directs the superintendent or designee to oversee the development of board policy to ensure:**		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
2.5 Program integration and alignment to the district's written curriculum		
• Directs that all subject-related (e.g., reading, Title I) and school-wide (e.g., tutoring, DARE, AVID) programs be reviewed for alignment to the written and assessed curriculum	6141, 6141.31, 6141.32, 6141.5, 6142.1,	0
• Requires written procedures for both formative and summative evaluation of all new subject-related and school-wide programs before submission to the board for approval	6142.1016, 6142.2 (a-c), 6159, 6171	0
• Directs administrative staff to prepare annual recommendations for subject-related and school-wide program revision, expansion, or termination based on student achievement	(a,b), 6171.2 (a-c), 6172.3, 6176	0
Standard Two Rating (number of points for the five criteria with a possibility of 15)		**0**
Percentage of Points Met (points divided by the number of possible points—15)		**0%**
*Partial ratings are tallied as not met.		
Note: One point was awarded for every characteristic met under each criterion for a maximum of 3 points. No points are awarded when policies fail to meet any characteristics.		
©2018 CMSi		

Auditors' ratings in Exhibit 1.1.4 for Standard Two indicate board policies that provide for control received 0 of 18 possible points, or 0%. The policies reviewed by auditors are lacking sufficient content, specificity, and direction to meet these audit criteria. At least 70% of the characteristics must be met for the policies to be considered adequate.

Standard Two concerns design of the curriculum, the planning involved in that design, and how resources and programs will be incorporated to support the curriculum. The following presents information about the auditors' analysis of policies for Standard Two.

Criterion 2.1 Written curriculum with aligned, criterion-referenced formative assessments for all subject areas at all grade levels

No points were given to this criterion. No policies or regulations were found that required teachers to describe how students will demonstrate mastery of the stated objectives or that the planned instruction provide suggestions for differentiation of instruction.

- *Policy 6000: Statement of Philosophy* indicates that curriculum content and instructional strategies will be integrated to "ensure student mastery."

- *Policy 6140: Curriculum* provides that curriculum be consistent with board goals and legal requirements.

- *Policy 6140: Curriculum Development* states, "The Board deems it essential that the school system continually develop, evaluate, and improve its curriculum in order to achieve its educational goals and objectives."

Criterion 2.2 Periodic review/update of the curriculum and aligned resources and assessments

This criterion was awarded 0 points. No policies or regulations were found that directed the development of procedures to formatively and summatively review the written curriculum. In addition, no policies or regulations were found to review any assessment instruments and to examine the dimensions of content, context, and cognitive type for those instruments.

Criterion 2.3 Textbook/resource alignment to curriculum and assessment

This criterion was awarded 0 points. No policies or regulations were found that require textbook/resources be reviewed for alignment to curriculum and assessment. No policies or regulations require review of content, context, and cognitive type of resources or a requirement for staff to identify areas where alignment is missing. No policies or regulations include language requiring alignment for content, context, and cognitive type.

- *Policy 6161.11: Evaluation of Instructional Materials* provides for school-based committees to select instructional materials. Two-thirds vote by board is required for adoption of a new basic series.

Criterion 2.4 Content Area Emphasis

No points were given to this criterion. None of policies or regulations reviewed directed the yearly identification of subject areas requiring additional emphasis; none of the policies or regulations mentioned identification of specific objectives, contexts, cognitive types, and instructional practices to receive budgetary support.

Criterion 2.5 Program integration and alignment to the district's written curriculum

No points were given to this criterion. While there are policies that discuss various programs, none of the policies require an alignment to the written curriculum and assessed curriculum. No policies or regulations mentioned evaluation of programs and annual recommendations for subject-related and school-wide program revision, expansion, or termination based on student achievement.

Exhibit 1.1.5 displays the audit criteria and the auditors' ratings for Standard Three—Provides for Consistency and Equity.

Exhibit 1.1.5

**Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard Three to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019**

Standard Three—Provides for Consistency and Equity: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
3.1 Predictability of written curriculum from one grade and/or instructional level to another		
• Requires the vertical articulation and horizontal coordination of the curriculum within schools	6000, 6140, 6141	0
• Requires vertical articulation across grade levels and horizontal coordination among schools at a given level for all content areas		0
• Directs the identification of prerequisite skills and their placement in the written curriculum at the appropriate grade/instructional level		0
3.2 Training for staff in the delivery of the curriculum		
• Directs the development and implementation of a district professional development plan focused on effective curriculum delivery that is congruent with the district long-range plan and annual goal priorities	2112, 4206	0
• Requires a process whereby staff are coached over time in the implementation of professional development initiatives		0
• Directs the regular evaluation of the impact of professional development on student achievement, using both formative and summative measures		0

Exhibit 1.1.5 (continued)
Auditors' Analysis of Board Policy and Administrative Regulations On Audit Standard Three to Determine Quality and Degree of Adequacy New Haven Public Schools April 2019

Standard Three—Provides for Consistency and Equity: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
3.3 Delivery of the adopted district curriculum		
• Requires all staff to deliver the curriculum as approved by the board	6000, 6140, 6141	1
• Requires building principals and all central office staff with curriculum responsibilities to review disaggregated assessment results and identify areas where curriculum delivery may be ineffective		0
• Requires an annual report for the board regarding the status of curriculum delivery		0
3.4 Monitoring the delivery of the district curriculum		
• Directs building principals to develop and implement a plan to monitor the delivery of the district curriculum on a weekly basis	2113, 2400, 2400a	0
• Directs central office curricular staff to assist the principal in monitoring the delivery of the district curriculum		0
• Requires periodic school and classroom data-gathering reports from administrators detailing the status of the delivery of the curriculum across the district, with recommendations for the creation of professional development activities or curricular revisions		0
3.5 Equitable student access to the curriculum, instructional resources, and learning environment		
• Requires equal student access to the curriculum, appropriate instructional materials for a variety of learning levels and modes, and appropriate facilities to support the learning environment necessary to deliver the district curriculum	6000, 6121, 6140, 6141, 6141.5, 6152, 6161.1R (a-g)	1
• Directs the development of procedures for fast-tracking students who lack sufficient prerequisite skills for courses such as AP, honors, etc., but need more challenging content		0
• Requires an annual review of equity data (such as access, racial isolation, rigor), the subsequent reporting to the board of those data, and the development of a plan for correcting equity issues		0
Standard Three Rating (number of points for the five criteria with a possibility of 15)		**2**
Percentage of Points Met (points divided by the number of possible points—15)		**13%**
*Partial ratings are tallied as not met.		
Note: One point was awarded for every characteristic met under each criterion for a maximum of 3 points. No points are awarded when policies fail to meet any characteristics.		
©2018 CMSi		

Auditors' ratings in Exhibit 1.1.5 for Standard Three indicate that board policies that provide for control received 2 of 15 possible points, or 13%. The policies reviewed by auditors are lacking sufficient content, specificity, and direction to meet these audit criteria. At least 70% of the characteristics must be met for the policies to be considered adequate.

<u>Standard Three</u> concerns delivery and equitable access to the curriculum. The following presents information about the auditors' analysis of policies for <u>Standard Three</u>.

3.1 Predictability of written curriculum from one grade and/or instructional level to another

No points were given to this criterion. There was no policy requirement for vertical or horizontal articulation. No policy addressed identification of prerequisite skills.

- *Policy 6140: Curriculum* states, "The Board of Education desires that unnecessary duplication of work among the levels be eliminated, and that courses of study and syllabi be coordinated effectively."

3.2 Training for staff in the delivery of the curriculum

This criterion was awarded 0 points. No policy addresses the development of a professional development plan. The policies do not address a focus on instructional delivery, coaching of staff, or a regular evaluation of professional development activities.

- *Policy 2112: Professional Development* directs professional development for administrators for equity and excellence.
- *Policy 4206: Staff Development* describes the board's view of staff development as "a continuous systematic effort to improve educational programs in the district…" and "staff development activities should respond directly to the educational needs of the student body."

3.3 Delivery of the adopted district curriculum

One point was given for this criterion. The following policy requires all staff to deliver board approved curriculum. No policy was found that required the use of disaggregated assessment results or an annual report to the board on the status of curriculum delivery.

- *Policy 6140: Curriculum* states, "The Board of Education reserves the responsibility for establishing curricula for the school district. Teachers shall teach within the approved curricula."

3.4 Monitoring the delivery of the district curriculum

This criterion received 0 points. None of the policies reviewed discussed monitoring the delivery of the curriculum or the role of central office staff to assist principals. The administrator evaluation policy does not mention monitoring the delivery of instruction as part of evaluation.

- *Policy 2400a: Evaluation of Superintendent and Administrators provides* for annual evaluations focused on performance objectives, professional growth, and appraisal.

3.5 Equitable student access to the curriculum, instructional resources, and learning environment

This criterion was awarded 1 point. Polices addressed equal student access to the curriculum, however, there were no statements that addressed fast-tracking for students or that required an annual review of equity data by the board and subsequent planning.

- *Policy 6121: Non-Discrimination: Instructional Programs* addresses "equal opportunity for all students to participate in school programs" and access to opportunities in educational programs.
- *Policy 6140: Curriculum* lists "avoidance of discrimination" as a factor in curriculum.
- *Regulation 6161 a,b,c,d: Evaluation of Instructional Materials* lists criteria for evaluation of materials that include gender roles and ethnic and cultural roles.

<u>Exhibit 1.1.6</u> displays the audit criteria and the auditors' ratings of board policy for <u>Standard Four</u>—Provides for Feedback.

Exhibit 1.1.6

Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard Four to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019

Standard Four—Provides for Feedback: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulation**	**Auditors' Rating**
4.1 A student assessment process		
• Requires the development and implementation of a district student assessment process that goes beyond the state accountability assessment system and includes both formative and summative measures	2250, 6180, 6181	0
• Requires the development and implementation of a district student assessment process that is differentiated to address variations in student achievement (both above and below grade level) and includes both formative and summative assessment measures		0
• Requires assessment instruments to be more rigorous in content, context, and cognitive type than external, high stakes assessments		0
4.2 A program assessment process		
• Directs the development and implementation of a district program evaluation process	2250, 6180, 6181, 6141.31, 6141,32, 6141.5, 6142,1, 6142.2 a-d, 6171a, 6171.2, 6172.1, 6176	0
• Requires each proposed program to have an evaluation process (The process includes both formative and summative evaluations) before that program is adopted and implemented		0
• Directs the program assessment process to link with district planning initiatives, including site improvement plans and the strategic/long-range plan		0
4.3 Use of data from assessments to determine program and curriculum effectiveness and efficiency		
• Requires the disaggregation of assessment data at the school, classroom, student subgroup, and student level to determine program and curriculum effectiveness and efficiency	6152, 6180, 2250	0
• Requires classroom teachers to track and document individual student mastery in core content areas		0
• Requires the development of modifications to the curriculum and/or programs as needed in response to disaggregated assessment data to bring about effectiveness and efficiency		0
4.4 Reports to the board about program effectiveness		
• Requires yearly reports to the board regarding program effectiveness for all new programs for the first three years of operation	2250, 2400, 6140	0
• Requires reports to the board every three years for long-term programs		0
• Requires summative reports to the board every five years for all content areas before any curriculum revisions or major materials acquisition, with the reports delivered prior to the curricular adoption cycle		Partial*
Standard Four Rating (number of points for the four criteria with a possibility of 12)		**0**
Percentage of Points Met (points divided by the number of possible points—12)		**0%**
*Partial ratings are tallied as not met.		
Note: One point was awarded for every characteristic met under each criterion for a maximum of 3 points. No points are awarded when policies fail to meet any characteristics.		
©2018 CMSi		

Auditors' ratings in <u>Exhibit 1.1.6</u> for <u>Standard Four</u> indicate that board policies that provide for feedback received 0 of 12 possible points for a total of 0%. The policies are lacking sufficient content, specificity, and direction to meet these audit criteria. At least 70% of the characteristics must be met for the policies to be considered adequate.

<u>Standard Four</u> concerns feedback concerning the curriculum. The following presents information about the auditors' analysis of policies for <u>Standard Four</u>.

Criterion 4.1 A student assessment process

No points were awarded got this criterion. No policy was found that provided a rigorous and differentiated district student assessment process.

- *Policy 6180: Evaluation of Instructional Program* states, "Appropriate means for continuing evaluation of the entire education program shall be established and maintained."

Criterion 4.2 A program assessment process

No points were awarded to this criterion. None of the policies or regulations reviewed provided a program evaluation process; and no requirement for a district program evaluation system was found in policy.

Criterion 4.3 Use of data from assessments to determine program and curriculum effectiveness and efficiency

No points were awarded for this criterion. None of the policies reviewed speak to the use of disaggregated data nor require teachers to track and document student mastery. There was no mention in policy that requires modification of curriculum or programs based on disaggregated data.

Criterion 4.4 Reports to the board about program effectiveness

No points were awarded for this criterion. Partial credit was awarded because board policy indicates five-year review process for content areas but does not require a report to the board. In addition, there is no policy that requires annual reports to the board regarding program effectiveness for new programs or three-year reviews for long-term programs.

- *Policy 6141: Curriculum Development* indicates that while the board retains its rights and responsibilities to the curriculum, it authorizes administration to organize curriculum committees and includes wording for a committee process that provides a five-year review of each discipline.

Exhibit 1.1.7 displays the audit criteria and the auditors' ratings for Standard Five—Provides for Productivity.

Exhibit 1.1.7

Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard Five to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019

Standard Five—Provides for Productivity: Directs the superintendent or designee to oversee the development of board policy to ensure:		
Audit Criteria and Characteristics	**Relevant Policies and Regulations**	**Auditors' Rating**
5.1 Program-centered budgeting		
• Directs development of a budget process that requires program evaluation, identification of specific measurable program goals before the budget process begins, and documented costs to ensure that expenditures are aligned within revenues and cost-benefit analysis is facilitated	3000, 3100, 3110	0
• Requires adherence to a program-centered budgeting process that includes incremental budgeting based on different program types, delivery, and quality for all curriculum areas (The process provides evidence of tangible connections between allocations and anticipated program outcomes or accomplishments.)		0
• Directs full implementation of a program-centered budgeting process that includes incremental funding possibilities, a process for evaluating options, and the use of program evaluation data linked to budget allocations (This process enables program budget decisions to be based upon documented results and performance.)		0
5.2 Resource allocation tied to curriculum priorities		
• Requires a budget that allocates resources according to documented needs, assessment data, and established district curriculum and program goals and priorities	None	0
• Requires a budget that may be multi-year in nature, provides ongoing support for curriculum and program priorities, and connects costs with program expectations and data-based needs		0
• Directs a budget that provides resources needed to achieve system priorities over time and demonstrates the need for resources based on measurable results and/or performance of programs and activities		0
5.3 Environment to support curriculum delivery		
• Directs facilities that enable teachers to work in an environment that supports adequate delivery of the curriculum	7100	1
• Directs consideration of multi-year facilities planning efforts to adequately support the district curriculum and program priorities		1
• Directs facilities planning linked to future curriculum and instructional trends and to the teaching-learning environment incorporated in the documented system mission and vision statements		0

Exhibit 1.1.7 (continued)

Exhibit 1.1.7 (continued)
Auditors' Analysis of Board Policy and Administrative Regulations
On Audit Standard Five to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019

Standard Five—Provides for Productivity:
Directs the superintendent or designee to oversee the development of board policy to ensure:

Audit Criteria and Characteristics	Relevant Policies and Regulations	Auditors' Rating
5.4 Support systems focused on curriculum design and delivery		
• Provides a clear connection between district support services and the achievement of the district curriculum design and delivery, and evidence of optimization within the system	None	0
• Requires formative and summative evaluation practices for each support service to provide data for improving these services and documented evidence of improvement over time		0
• Requires periodic reports to the board with recommendations for continuing, revising, and/or developing new support services to enhance fulfillment of the mission, including needs-based data		0
5.5 Data-driven decisions for the purpose of increasing student learning		
• Directs the development of specific requirements for data analysis that lead to improved student learning for the core curriculum areas and electives	None	0
• Directs the development of specific requirements for data analysis that lead to improved student learning for all curriculum areas and grade levels (including electives)		0
• Directs the development of specific requirements for data analysis that lead to improved student learning for all operations of the district		0
5.6 Change processes for long-term institutionalization of district priority goals		
• Requires the identification of strategies, grounded in documented assessment of program success or efficacy, to be used by the district to ensure long-term institutionalization of change	None	0
• Directs the development of school improvement plans that address the use of specific change strategies at the building level to ensure the institutionalization of change and improved results or performance		0
• Directs that all district, department, and program plans incorporate procedures for change strategies to ensure the institutionalization of change for improvement and include procedures with formative and summative practices that provide data about change implementation and effectiveness		0
Standard Five Rating (number of points for the six criteria with a possibility of 18)		**2**
Percentage of Points Met (points divided by the number of possible points—18)		**11%**
*Partial ratings are tallied as not met.		
Note: One point was awarded for every characteristic met under each criterion for a maximum of 3 points. No points are awarded when policies fail to meet any characteristics.		
©2018 CMSi		

Auditors' ratings in <u>Exhibit 1.1.7</u> for <u>Standard Five</u> indicate that board policies that provide for productivity received 2 of 18 possible points for a total of 11% of the possible points. The policies are lacking sufficient content, specificity, and direction to meet these audit criteria. At least 70% of the characteristics must be met for the policies to be considered adequate.

Standard Five concerns budgeting, resources, facilities, and data-driven decision making to be used in planning. The following presents information about the auditors' analysis of policies for Standard Five.

Criterion 5.1. Program-centered budgeting

No points were awarded for this criterion. While there is mention of budget planning in policy, there is no mention of a program-centered budget process or a requirement for program evaluation and identification of goals before the budget process begins.

- *Policy 3110: Budget Planning* attends to a budget development process that ensures the budget reflects the boards' goals and objectives.

Criterion 5.2 Resource allocation tied to curriculum priorities

No points were given to this criterion. No policies or regulations were found meeting this criterion.

Criterion 5.3 Environment to support curriculum delivery

One point was awarded to this criterion. There is policy that links master planning to reflecting instructional procedures. No policy was found that indicated multi-year planning or links to future curriculum trends.

- *Policy 7100: Planning* indicates that a master plan will be developed and "reflect needs of current instructional procedures and projected educational programming."

Criterion 5.4 Support systems focused on curriculum design and delivery

No points were given to this criterion. No policies or regulations were found meeting this criterion.

Criterion 5.5 Change process for long-term institutionalization of district priority goals

No points were given to this criterion. No policies or regulations were found meeting this criterion.

Exhibit 1.1.8 presents the summary ratings for all five audit standards based on auditors' analysis of the adequacy of board policies to direct curriculum design and delivery in the district.

Exhibit 1.1.8

**Summary Ratings of the Auditors' Analysis of Board Policy and Regulations
For All Standards to Determine Quality and Degree of Adequacy
New Haven Public Schools
April 2019**

Standard	Number of Criteria	Number of Possible Points	Points Given	Percentage of Adequacy Standard of 70%
One: Control	6	18	2	11%
Two: Direction	5	15	0	0%
Three: Consistency and Equity	5	15	2	13%
Four: Feedback	4	12	0	0%
Five: Productivity	6	18	2	11%
Overall Rating For All Criteria	**26**	**78**	**6**	**8%**
©2018 CMSi				

To be considered adequate, 70% of the total possible points for a standard (set of criteria) had to be given. Percentage of points for each standard ranged from 0% in Standards Two and Four to 13% in Standard Three.

These scores, combined with a total of the 6 points given (i.e., 8%), New Haven Public Schools' policies were determined to be inadequate to meet audit standards and for effective governance.

Auditors conducted interviews regarding the presence and quality of board policies in New Haven Public Schools with board of education members, central office leaders, school administrators, and teachers. The following comments represent stakeholders' perceptions concerning the outdated nature of policy:

- "The district has not…we have not developed policies, rewritten policies, or stayed current with what has happened at the state legislature. There hasn't been a systematic approach to make sure that the policies are all up-to-date and in line with what the district sees is best." (Central Office Administrator)

- "Do they actually get implemented with fidelity across the district is the question [policies, practices, procedures]." (Teacher)

- "The weakness of our district is our outdated policies." (Central Office Administrator)

- "[The School Board] look at policies without a systematic approach" (Central Office Administrator)

- "[There are] mixed messages, conflicting policies, lack of institutional memory and district-wide knowledge now in central office." (Building Administrator, online survey)

- "Policies and procedures are not set up. Many times different people are getting different information on a certain topic." (Building Administrator, online survey)

Exhibit 1.1.9 presents responses from the school administrator survey regarding direction in board policy to inform decision making.

Exhibit 1.1.9

**School Administrator Survey Responses: Direction in board policy to inform decision making
New Haven Public Schools
April 2019**

There is adequate direction in policy for all building-level decision making.

Strongly Disagree 3%
Strongly Agree 7%
Disagree 43%
Agree 47%
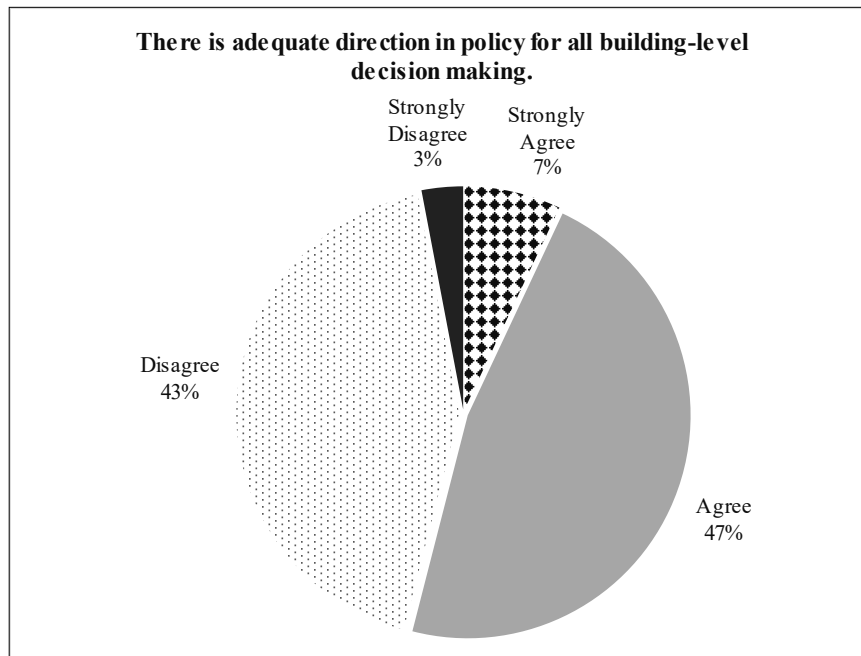
N=30

The following can be seen in Exhibit 1.1.9:

- Forty-six percent of the administrators who responded to the survey reported that they disagreed or strongly disagreed that there was adequate direction in policy for building-level decision making.

- Just over half, 54%, agreed or strongly agreed, showing opposing perceptions.

Administrators attested to the need for clearer direction in policy and from central office (see also Finding 1.4).

Policy Summary

Auditors reviewed board policies and administrative regulations and conducted interviews relevant to audit criteria for quality of control, direction, consistency and equity, feedback, and productivity of the New Haven Public Schools board policies. New Haven Public School Board of Education policies and administrative regulations scores ranged from 0% in Standard Two—Direction and Standard Four—Feedback to 13% in Standard Three—Consistency and Equity. The total board policy and administrative regulation score was 8% (6 of the 78 possible points) therefore not meeting the criteria for quality curriculum management policies. To be considered adequate, 70% of the total possible points had to be awarded.

Auditors concluded that board policies and administrative regulations do not provide quality control for the effective management of curriculum and other district functions. New Haven Public Schools' policies and regulations are outdated and not aligned to legislative requirements of the Connecticut State Department of Education. The school district lacks a consistent protocol for updating policies and regulations.

The *New Haven Public Schools Transition Report 2018-2019* included several suggestions for the review and update of board policies to provide clear direction for instruction, leadership, performance management, professional learning, community engagement, operations, budgeting, programs, and equity and access.

In addition, the auditors noted that the New Haven Public Schools Board of Education recently contracted with the Connecticut Association of Boards of Education (CABE) to review, revise, and update their policy manual.

Finding 1.2: The design of the organizational chart meets three of the six audit principles of sound organizational management. Job descriptions do not provide clear direction for positions and lines of authority and does not assure accountability for the responsibilities of district positions, especially in the areas of curriculum design, delivery, and evaluation.

Clarity of administrative roles and relationships is important to an organization in the productive grouping and management of its tasks and functions. A functional and accurate delineation of administrative relationships is generally depicted in graphic form and identified as an "Organizational Chart." An organizational chart graphically depicts the line of authority and responsibilities from the board of education and superintendent to site principals and classroom teachers for producing student learning.

Curriculum audit criteria require well-defined delineations of responsibilities and lines of authority, which are critical in guiding the design and delivery of a standard, functional curriculum and programs of studies in the district. Such clarity is also essential in assuring accountability for the tasks and responsibilities associated with managing curriculum. When the responsibilities associated with positions are not specifically defined, personnel are either not aware of them or cannot be required to carry them out.

In order to analyze the adequacy of the New Haven Public Schools organizational chart, auditors requested, for review and analysis, copies of appropriate board policies, the New Haven Public Schools organizational charts, district-provided job descriptions, and other documents communicating information about roles and areas of responsibility. Several relevant documents were examined, including the following:

- 2018 Board Approved District Administrative Organizational Chart;
- Department Organizational Charts;
- Job Descriptions; and
- Board of Education Policies and Regulations.

Auditors also interviewed board of education members, members of the district and school administrative staff, and other individuals (support staff, teachers, parents, and community partners) regarding the functions included in the organizational chart and job descriptions.

The auditors examined board policies relative to the administrative organizational chart. The auditors sought to determine if there was adequate direction in policy concerning the components, format, and criteria for organizational charts as well as direction concerning components and design of job descriptions. The auditors looked for the following topics among board policies or regulations:

- A policy requiring job descriptions that include accountability for the design and delivery of an aligned curriculum;

- Policy or regulation that requires professional appraisal processes that address specific accountability functions in job descriptions of all staff and relate to improvement of student achievement;

- Policy calling for an organizational chart that is annually reviewed and approved by the superintendent and presented to the board for its review; and

- Policy specifications for decision-making bodies (e.g., cabinet, task forces, committees) regarding composition and decision-making responsibilities to ensure consistency, non-duplication of tasks, and measured results requirements.

The following policies were found that addressed these topics:

- *Board Policy 2100: Administrative Staff Organization* states, "The superintendent shall organize staff to achieve the school district goals as expressed by the Board and shall identify lines of primary authority for all employees."

- *Board Policy 2121: Lines of Responsibility* states, "The Superintendent, or designee, shall maintain a current district organizational chart, approved by the Board, which identifies lines of primary responsibility and the relationships between district positions."

- *Board Policy 2220: Representative and Deliberative Groups* encourages the superintendent to create and maintain parent organizations, councils, cabinets, and committees.

- *Board Policy 2400: Evaluation of Superintendent and Administrators* identifies evaluation "as part of an overall district management plan for establishing goals and objectives, appropriate programs, and methods of evaluation."

- *Policy 4208: Support Staff* provides for a statement of job requirements developed by the superintendent for all positions that are administrative or supervisory to be approved by the board.

- *Board Policy 4211: Evaluation* describes the purpose of evaluation is to improve job performance or instruction and effectiveness or efficiency of the school system and inform employees how their performance compares to district standards for certified and non-certified staff.

- *Board Policy 4212: Duties of Personnel* describes requirements to be included in all job descriptions for certified and non-certified staff.

None of the policies addressed include accountability for the design and delivery of the curriculum in job descriptions, nor did policy require accountability for the responsibilities of each position outlined in their respective job descriptions to be part of the professional appraisal process. Policy did not require annual review and approval of the district organizational chart by the board. There was no specification in policy to define the composition, decision-making responsibilities, or measured results requirement for specific positions or groups. No board policies or administrative procedures were found requiring or directing the design of system-wide or program-based organizational charts.

The auditors were presented with 15 organizational charts. The auditors reviewed six department organizational charts under the Chief of Operations, two department charts under the Chief Financial Officer, and three department charts under the Deputy Superintendent; the auditors were not presented with department charts under the supervision of the Chief of Talent Development/ Performance Management. The auditors noted that there were two different organizational charts at the district level in the database and two different organizational charts in the database for the Deputy Superintendent.

The NHPS Organizational Chart 2018, examined by the auditors, was recently revised by the superintendent to realign the organizational structure "to increase efficiency and accountability in support of teaching and learning." The organizational chart was presented to the board of education as a "right-size" staffing model on June 6, 2018 and approved by the board on July 31, 2018. The auditors were informed that the chart is an initial attempt to begin the re-alignment of the central office, as the district has several positions not filled. The auditors found that the 2018 district organizational chart did not meet all audit criteria for sound organizational management, as delineated in the narrative that follows.

Auditors found that neither of the two Deputy Superintendent organizational charts presented for analysis align with the current board-approved NHPS Organizational Chart 2018. It was not possible for auditors to analyze the charts to further determine the administrative structures for teaching and learning.

The auditors reviewed the district's official 2018 Organizational Chart and other documents and used the Curriculum Management Improvement Model (CMIM) design principles to examine the organizational structure depicted in Exhibit 1.2.1.

The findings, based on the CMIM Principles of Sound Organizational Management, are primarily directed toward the official 2018 district chart exhibited in Exhibit 1.2.1.

Exhibit 1.2.1

NHPS Organizational Chart
New Haven Public Schools
2018
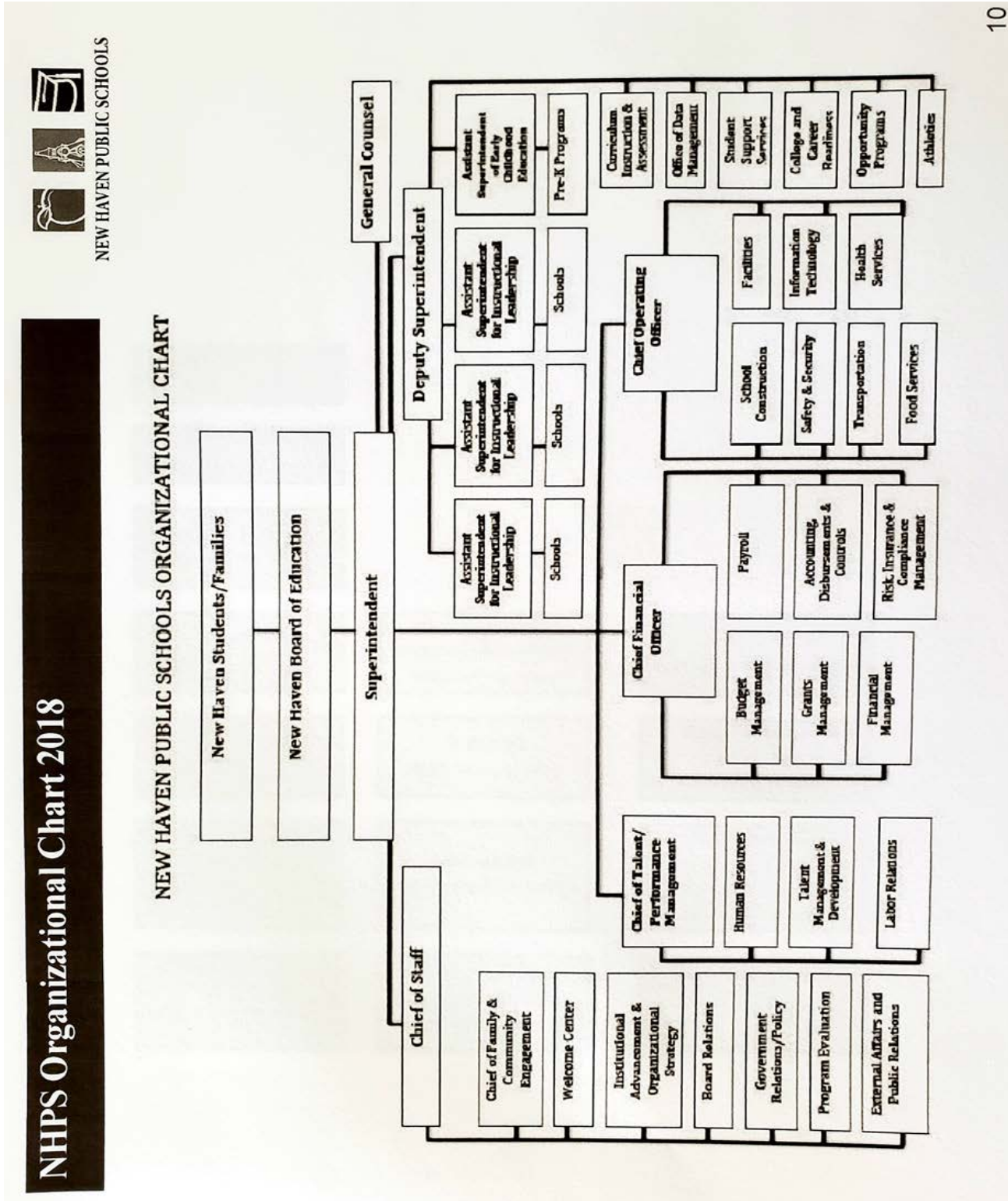
Exhibit 1.2.2

Curriculum Management Improvement Model
Principles of Sound Organizational Management
New Haven Public Schools
April 2019

Principle	Explanation	Met/ Not Met
Span of Control	The range of superiors to subordinates should be 7-12 as a maximum number of persons who are supervised on a daily face-to-face-basis.	Not Met
Chain of Command	A person should have only one superior to avoid their being placed in a compromised decision-making situation.	Not Met
Logical Grouping of Functions	The clustering of similar duties/tasks is employed in order to keep supervisory needs to a minimum (ensuring economy of scale).	Not Met
Separation of Line and Staff Functions	Those administrators carrying out the primary mission of the district are not confused with those supporting it. Also, note that in reporting relationships, line administrators report only to other line administrators, never staff administrators. This keeps the line of accountability for the primary mission of the district uncomplicated.	Met
Scalar Relationships	Roles of the same title and remuneration should be depicted graphically on the same general horizontal plane.	Not Met
Full Inclusion	All persons working within the district carrying out its essential functions should be depicted on the table of organization.	Not Met
©2018 CMSi		

The following is the auditors' assessment of the 2018 NHPS Organizational Chart, based on the criteria presented in Exhibit 1.2.2. Only "Separation of Line and Staff Functions" met the standard.

Span of Control (Not Met): Direct reports for the Superintendent, the four Chief Officers and the Deputy Superintendent fall within the sound management limit of 7-12.

There is a lack of clarity for direct reports to the three Assistant Superintendents of Instructional Leadership and the Assistant Superintendent of Early Childhood Education.

There are no position titles listed for departments under the four Chief Officers, and the Deputy Superintendent. There is a lack of clarity of direct reports for those who serve in those departments.

Chain of Command (Not Met): The organizational chart does not provide clear delineation beyond top-level district administration. The chain of command does not extend to schools or within departments; the auditors did not have supplementary charts that aligned to the new district chart to show departmental-level lines of authority and positions.

Logical Grouping of Functions (Not Met): Functions are grouped together logically on the organizational chart, but key positions for managing curriculum design, delivery, and evaluation are missing. The office of Deputy Superintendent supervises all teaching and learning functions; however, there is no position over all curriculum supervisors, nor anybody coordinating all professional development in the district to support curriculum delivery. There is also no position over magnet schools with the level of authority and responsibility required to assure coordination and alignment of these programs.

Separation of Line and Staff Functions (Met): No major problems with line/staff functions are evident in the organizational chart.

Scalar Relationships (Not Met): Currently, the chart depicts several chiefs at different levels. It is the expectation of the CMIM that all positions with commensurate titles and compensation be at the same horizontal "level."

Full Inclusion (Not Met): The chart does not include principals, assistant principals, coaches, classroom teachers, or other site-based staff.

Overall, the auditors found the organizational structure in New Haven Public Schools needs greater clarity and positions responsible for overseeing the alignment of curriculum delivery with the curriculum design and evaluation functions at the central office level. Inconsistency in leadership and difficulty in finding qualified personnel has contributed to a perception of weakened clarity and communication regarding system focus (see Finding 1.4), which is exacerbated by the need for more cohesive approaches to building capacity and maintaining direction for curriculum delivery (see Findings 1.3 and 1.4).

From interviews, the auditors heard comments regarding organizational weaknesses:

- "One of the things that happens in this district—the right hand doesn't know what the left hand is doing. Most departments don't even know what the other department does." (Central Office Administrator)

- "We are not aligned around what the district needs." (Central Office Administrator)

- "I think that there's a lot of us working on the same thing and we don't even know what the other is doing. The right hand doesn't know what the left hand is doing." (Central Office Administrator)

- "Work is not assigned by where it belongs, but by relationships and who knows who." (Central Office Administrator)

- "[There needs to be] accountability from the top (Central Office/Administrators) to bottom (Teachers/ Students/Parents)." (Teacher, online survey)

Exhibit 1.2.3 presents school administrator survey responses regarding organizational chart.

Exhibit 1.2.3

School Administrator Responses: Organizational Chart
New Haven Public Schools
April 2019

N = 30
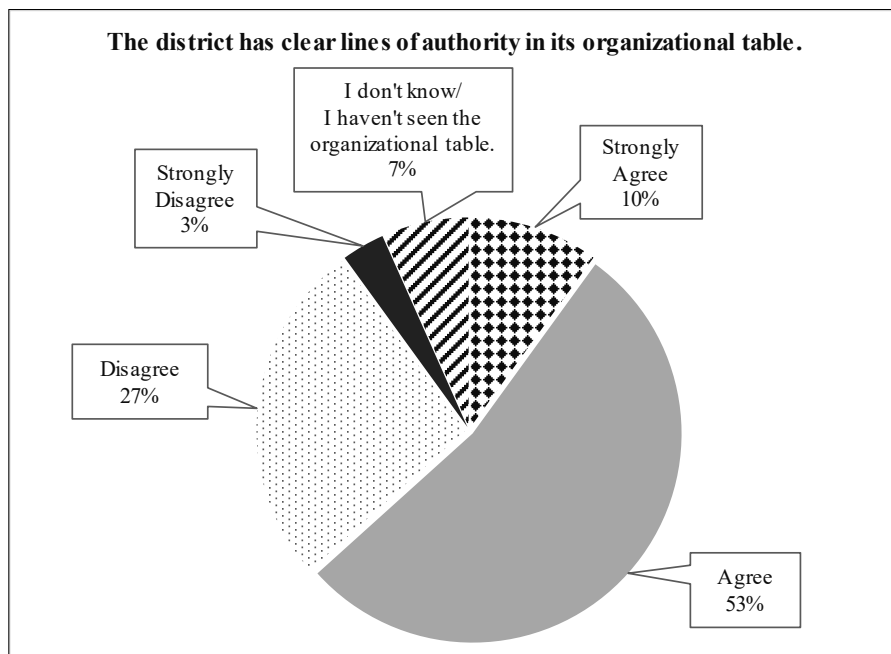
As can be seen in Exhibit 1.2.3, when asked about the lines of authority in the organizational chart, principals responded with the following:

- Almost two-thirds agreed that there are clear lines of authority depicted on the main organizational chart for the system.

- Just under one-third, 30%, disagreed or strongly disagreed that there are clear lines of authority on the chart, and 7% reported they had not seen it.

The auditors found the new organizational chart to be an important step to establishing clear roles and responsibilities across the system, which will be improved further with the focus and clarity of district-level planning and the hiring of needed personnel.

Summary

Board policy requires the superintendent to maintain a current district organizational chart with lines of primary responsibility and relationships between district positions to be approved by the board. However, policy does not require or direct the design of system-wide or program-based organizational charts. The design of the *NHPS Organizational Chart 2018* is inadequate and does not conform to all principles of sound organizational management, including span of control, chain of command, and full inclusion.

Having multiple versions of the district organizational chart in the database is confusing and does not provide for direction and control.

Job Descriptions

Job descriptions are the building blocks of an organization and, ideally, support the organizational chart. They describe the tasks that must be completed in order for the organization to accomplish its mission and state the qualifications necessary to perform those tasks. They also document the relationship of one position to another and the responsibilities for design and delivery of curriculum or support for those core tasks.

Properly written job descriptions provide each employee with clear direction as to his or her authority and responsibility. This direction is necessary for the organization to maintain constancy of purpose. Without good job descriptions, an organization's leaders cannot be sure that all mission-essential tasks are accounted for or that they have a sound basis for hiring or evaluating employees.

To assess the quality of the school system's job descriptions, the audit team reviewed district policies, administrative regulations, job descriptions, and the organizational chart. Their purpose was to determine the extent to which the job descriptions were adequate to support the organizational chart and specified responsibilities for the design and delivery of curriculum.

The audit team found board policy that requires a job description for all certified and non-certified positions and specifies components for a job description.

- *Board Policy 4212: Duties of Personnel* describes the requirements to be included all job descriptions for certified and non-certified staff:
  ○ Job title;
  ○ Duties;
  ○ Type and extent of training required;
  ○ Degree of responsibility assumed; and
  ○ Other related factors.

Staff provided 65 job descriptions to the auditors. The auditors examined the 20 district job descriptions that had clear connections to the design and delivery of curriculum (administrative, instructional, support) and job descriptions for those positions depicted on the organizational chart as direct reports to the superintendent.

Each job description was rated for content quality using the following four audit criteria:

1. **Qualifications**: Job descriptions list the education, certification or licensure, experience, and knowledge, skills, and abilities required for the position.

2. **Immediate links to chain of command**: All employees are informed regarding their supervisor and whom they supervise, and no employee has more than one supervisor.

3. **Functions, duties, and responsibilities**: Detailed information is provided regarding all tasks, related expectations, required services to schools, and other related functions.

4. **Relationship to the curriculum**: Expectations regarding design and delivery of curriculum are specified.

Ratings were awarded using the following indicators, presented in Exhibit 1.2.4.

Exhibit 1.2.4

Curriculum Audit Rating Indicators for Job Descriptions
New Haven Public Schools
April 2019

Rating	Explanation
Missing	No statement made.
Inadequate	A statement made but is incomplete and missing sufficient detail.
Adequate	A more or less complete statement usually missing curricular linkages or sufficient detail regarding curricular linkages/alignment.
Strong	A clear and complete statement, including linkages to curriculum where appropriate or, if not appropriate, otherwise quite complete.
Exemplary	A clear, complete statement with inclusive linkages to curriculum indicated in exemplary scope and depth.
©2018 CMSi	

An analysis of the auditors' rating is presented in Exhibit 1.2.5.

Exhibit 1.2.5

Quality of Selected Job Descriptions
New Haven Public Schools
April 2019

Title	Date	Qual.	Chain of Command	Resp. and Duties	Curricular Linkages
Deputy Superintendent	Missing	Strong	Inadequate	Strong	Strong
Assistant Superintendent for Instructional Leadership	Missing	Strong	Inadequate	Strong	Strong
Assistant Superintendent for Early Childhood	Missing	Strong	Adequate	Strong	Strong
Assistant Superintendent for Curriculum, Instruction, and Assessment	Missing	Adequate	Inadequate	Adequate	Adequate
Director of English Language Learners	Missing	Strong	Inadequate	Adequate	Adequate
Director of Head Start	Missing	Adequate	Inadequate	Adequate	Inadequate
Athletic Director	Missing	Adequate	Adequate	Adequate	Inadequate
Supervisor of Special Education	Missing	Adequate	Inadequate	Adequate	Missing
Supervisor of Early Childhood Education	Missing	Strong	Strong	Adequate	Inadequate
Supervisor of Social Studies	Missing	Adequate	Adequate	Adequate	Adequate
Supervisor for Student Assessment Learning Measures	Missing	Adequate	Inadequate	Adequate	Inadequate
Principal	Missing	Adequate	Inadequate	Adequate	Adequate
Literacy Specialist/Mentor	Missing	Inadequate	Inadequate	Adequate	Adequate
Instructional Coach	Missing	Adequate	Inadequate	Adequate	Adequate
Certified Teacher	Missing	Inadequate	Inadequate	Adequate	Inadequate
Health and Physical Education Teacher	Missing	Inadequate	Inadequate	Adequate	Inadequate
Special Education Teacher	Missing	Inadequate	Inadequate	Adequate	Inadequate
Science Teacher	Missing	Adequate	Missing	Missing	Missing
Chief of Talent/Performance Management	Missing	Strong	Strong	Strong	Adequate
Chief Financial Officer	Missing	Adequate	Inadequate	Adequate	Adequate
Number Adequate or Better		**14**	**5**	**17**	**11**
		70%	**25%**	**85%**	**55%**

Of the 20 selected job descriptions, three received ratings of adequate or higher in all four critical elements (15%). As this percentage is less than the required 70%, job descriptions were determined to be inadequate to meet audit standards for providing position control in the district.

The critical element receiving the most ratings of inadequate was "links to chain of command," with 14 (70%) of the job descriptions rated as inadequate. The critical element receiving the second highest number of inadequate ratings was "curricular linkages," with 11 (55%) of the job descriptions rated as inadequate. None of the job descriptions were found to be exemplary.

The following observations pertain to the 20 job descriptions rated in Exhibit 1.2.5.

Qualifications: Job descriptions need to include required education, certification or licensure, experience, and expected knowledge, skills, and abilities. Nearly all of the rated job descriptions did include knowledge, skills, and abilities in the qualifications section of the job description.

Chain of Command: Job descriptions must include the position's immediate supervisor and a list of subordinates under the position's direct supervision. The Deputy Superintendent job description included a statement of direct report: "This position reports to the Superintendent of Schools." Most job descriptions provided a statement for direct report. However, in a few cases job descriptions indicated two direct reports. For example, the Assistant Superintendent for Instructional Leadership reports to the "Superintendent/Deputy Superintendent." This conflicts with the organizational chart which indicates a direct report solely to the Deputy Superintendent.

Most job descriptions did not include a list of subordinates under the position's direct supervision. A few job descriptions did include specific job titles for their subordinates, for example, the Assistant Superintendent for Instructional Leadership supervises K-12 principals. Auditors noted that the job description for the Deputy Superintendent did not include supervisory responsibility for most of the departments identified on the 2018 district organizational chart.

Functions, Duties, and Responsibilities: Job descriptions have detailed information on all tasks, related expectations, required services to schools, and other related functions.

All but one of the job descriptions were rated as at least adequate for this criterion; four (22%) were rated strong and none were rated as exemplary. Duties and responsibilities for the science teacher were missing in the job description.

Curricular Linkages: Job descriptions describe the relation of the position to curriculum design and delivery.

Most job descriptions with curricular responsibilities included some reference to the curriculum or instructional program. Three (16%) of the job descriptions were rated strong for curricular linkages; none were rated exemplary. Clear, complete statements with inclusive linkages to curriculum indicated in exemplary scope and depth were not found. Job descriptions for non-instructional or operations positions were rated as adequate, although statements of curricular connections were neither present nor required.

None of the job descriptions were dated; many were presented to the auditors in the form of a job posting. Multiple versions of several job positions exist in the database provided to auditors, such as principal, instructional coach, supervisor of special education. In each of those cases, different direct reports were identified. The auditors observed that a job posting on the New Haven Public Schools website identified the direct report for principals to be the Director of Instruction, however, that does not align with the 2018 district organizational chart which indicates the direct report to be Assistant Superintendent of Instructional Leadership. The auditors also observed that the job posting for Chief of Talent/Performance identifies the Deputy Superintendent as the direct report. This conflicts with the 2018 district organizational chart which identifies the Superintendent as the direct report. The job description for Assistant Superintendent of Curriculum, Instruction, and Assessment conflicts with the 2018 district organizational chart, which does not identify an assistant superintendent for that department.

Auditors were not presented with job descriptions for the Chief Operating Officer, Chief of Staff and many of the departments listed under the four Chief Officers and the Deputy Superintendent. Missing job descriptions for department personnel under the Deputy Superintendent include:

- Curriculum, Instruction, & Assessment;
- Office of Data Management;
- Student Support Services;
- College and Career Readiness; and
- Opportunity Programs.

Exhibit 1.2.6 presents school administrator responses to job descriptions.

Exhibit 1.2.6

School Administrator Responses: Job Descriptions
New Haven Public Schools
April 2019

The district has clear job descriptions for each position I supervise/work with.

Strongly Disagree 10%
Strongly Agree 0%
Agree 45%
Disagree 45%

N = 29
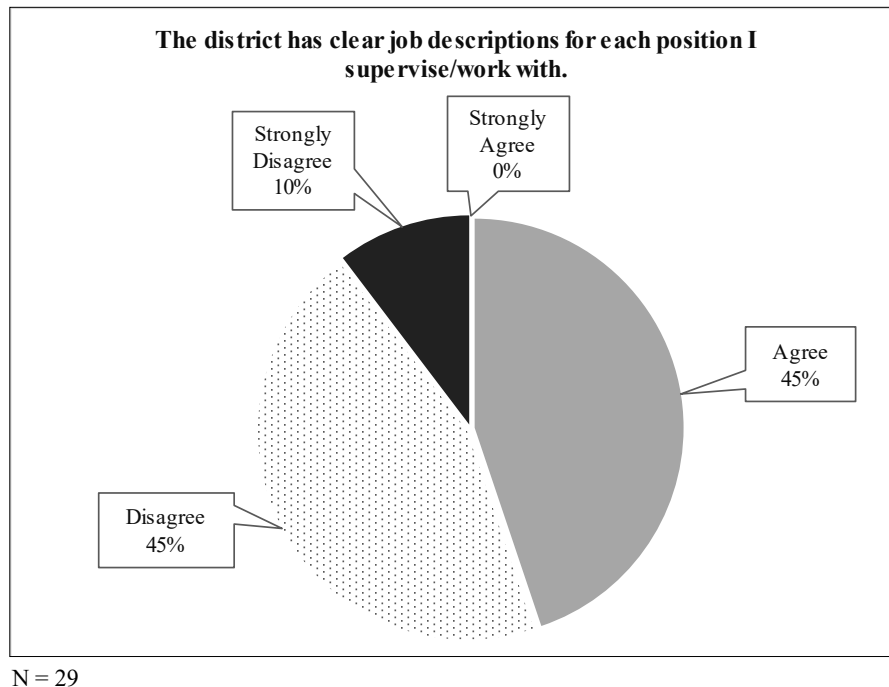
The following can be seen in Exhibit 1.2.6:

When asked about the clarity of job descriptions, over one-half, or 55%, of school administrators disagreed or strongly disagreed that the district has clear job descriptions. Forty-five percent agreed, and none strongly agreed.

Auditors found that New Haven Public Schools historically has had few effective organizational structures to provide direction and control that would assure greater consistency and cohesion across the system. These include long-standing inadequate board policies, no relevant administrative procedures, missing or outdated organizational charts, and insufficient and weak job descriptions. Without these critical structures in place, the district has limited means with which to begin building a foundation to support quality curriculum design and effective delivery and with which to hold schools, programs, and personnel accountable for their responsibilities in serving students. The following comments from stakeholders were regarding roles and responsibilities in the system:

- "The position of Assistant Superintendent of Curriculum and Instruction is vacant and there is no board support for filling this critical position." (Central Office Administrator)

- "People are working in 'silos.' [There are] different messages about assessment, curriculum and instructional practices. Principals are struggling as to what to do. There is no systematic process." (Central Office Administrator)

- "The board did not allow the superintendent to hire and replace people." (School Administrator)

- "A lot of people [are] doing the same thing." (Central Office Administrator)

- "Everyone is feeling out their new roles…trying to figure out their roles." (District Administrator)

- "There is a process in place, and nobody follows it and that seems to be okay." (District Administrator)

- "We need clearly defined roles." (School Administrator)

- "There is just not clarity, all the titles of the positions changed. Now we don't have directors any more we have assistant superintendent, so now they are spread too thin." (School Administrator)

- "This year I had three assistant superintendents to report to, the first one got ill, then I was assigned to another one and within three weeks I was assigned another assistant superintendent." (School Administrator)

Comments about past practices included:

- "In the past, it was part of our job description to provide our numbers and openings. I was told that that is not my job anymore. I feel under attack. I don't like the way it was delivered or the way that they [directors/ assistant superintendents and superintendent] are cutting us out." (Teacher/Coach)

- "The only job descriptions we would have for teachers is when they were grant funded. The job descriptions would vary from school to school." (Central Office Administrator)

- "For the most part, we have job descriptions, but we were only responsible for creating them [in the past] if it was a new position." (Central Office Administrator)

Overall, the auditors found that New Haven Public Schools has had a history of relying on people and relationships to communicate responsibilities and procedures rather than system-level processes and structures, such as an organizational chart and job descriptions. One supervisor commented that several years ago, the district had hundreds of curriculum facilitators working in the schools and supporting curriculum delivery, although no processes and coordinated supports were in place. As one central office administrator stated, "It's not a clean and neat process. There's not an actual protocol, if there's a situation, this is how we're going to address it." The auditors found a culture that has prioritized relationships and the independence of schools but at the sacrifice of consistency, equal access, and equity (see also Finding 1.4).

Human Resources

The auditors then examined human resources and hiring practices across the system. The auditors found there is no clear process for hiring practices and a lack of clarity regarding how teacher vacancies will be filled. Current practices are not clear to building administrators, and support from central office in dealing with marginal employees is also reportedly weak. Almost two-thirds of principals reported that more than 5% of their teachers are marginal, or ineffective, in improving student achievement.

Exhibit 1.2.7 displays data from the online survey regarding the statement that building administrators have adequate assistance from central office personnel in supporting effective instructional delivery in their school.

Exhibit 1.2.7

School Administrator Responses: Support from Central Office
New Haven Public Schools
April 2019
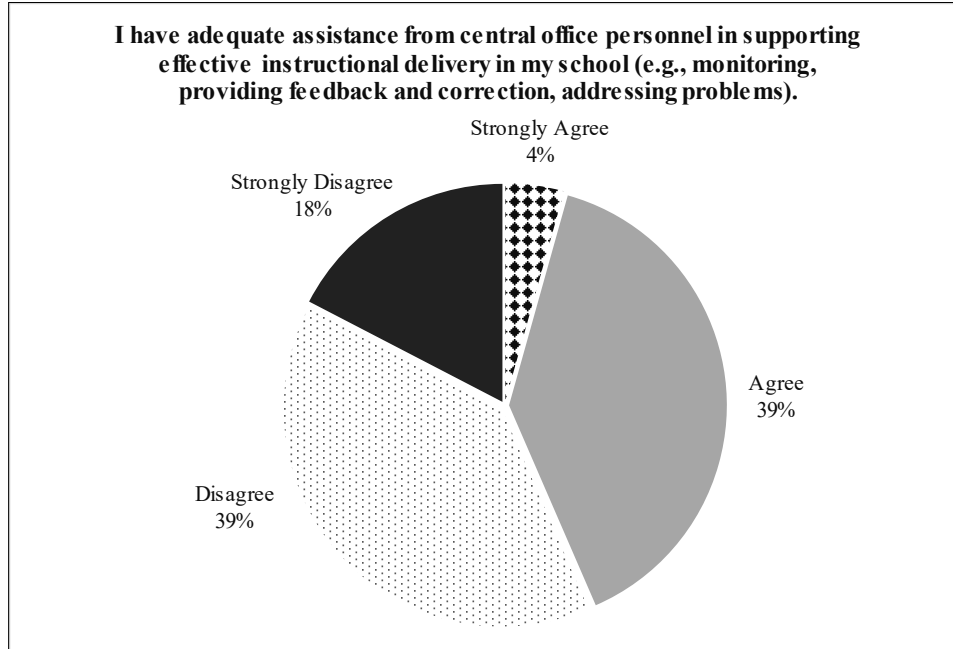
N = 23

The following can be seen in Exhibit 1.2.7:

- Well over one-half of administrators surveyed, 57%, disagreed or strongly disagreed that they have assistance from central office in supporting effective instructional delivery in their schools.

- Forty-three percent (43%) agreed or strongly agreed that they have assistance.

On the survey and during interviews, principals reported a lack of consistency in their support and direction from central office:

- "Because the roles haven't clearly been defined, my assistant superintendent is rarely here."

- "[we need] Transparent Structures and protocols to function efficiently."

- "There are different expectations depending on the assistant superintendent. There is no cohesiveness across the district."

- "[We need] support from central office."

- "[It would improve our district] to have people at central office that were knowledgeable and supportive."

The auditors also asked about support from central office for hiring practices. These responses are presented in Exhibit 1.2.8:

Exhibit 1.2.8

School Administrator Responses: Support from Central Office for Hiring Mid-year
New Haven Public Schools
April 2019

I have adequate support from central office when I have a mid-year vacancy in my building or need a new teacher for the upcoming year.

Strongly Agree 0%
Agree 29%
Disagree 25%
Strongly Disagree 29%
Does Not Apply/Don't Know 17%

N = 24
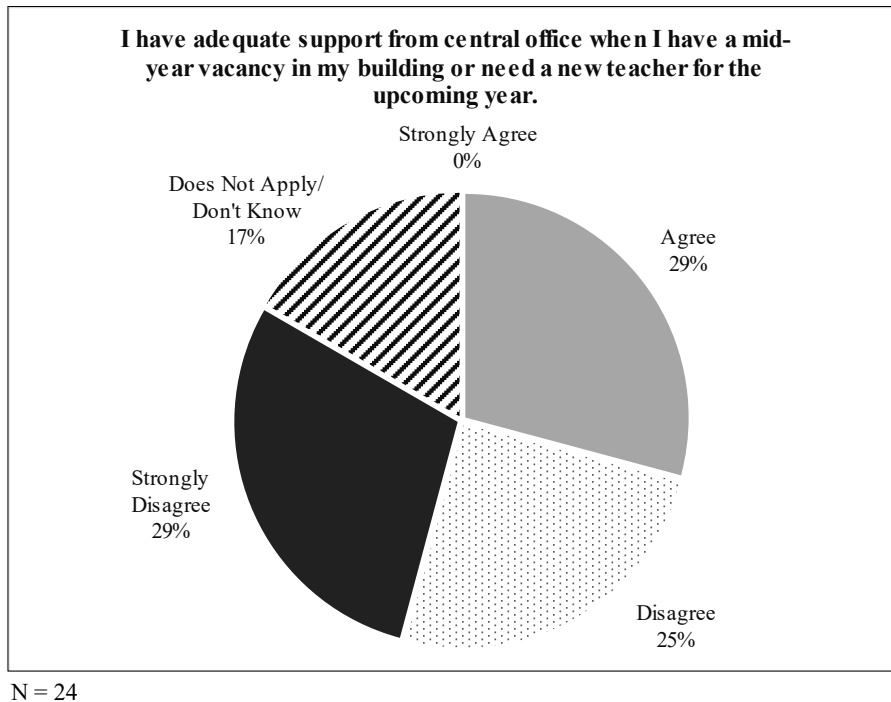
As can be seen in Exhibit 1.2.8:

- Over half of respondents, 54%, disagreed or strongly disagreed that central office provides adequate support if they have a need for a new teacher mid-year or for the upcoming year.

- Less than one-third (29%) agreed, and 17% reported not knowing or that it didn't apply to their position.

The auditors heard many comments during interviews and also on the online survey concerning issues with hiring practices. Regarding difficulties with the process, they heard the following:

- "So we're not sure right now what the protocol will be [for hiring a teacher]. Is the principal expecting our department to hire that teacher or is the principal supposed to hire the teacher? It's unclear." (Central Office Administrator)

- "We offer the person a job in June, but they [HR] can't find the funding code, so the process gets delayed. Last year I had someone quit the week before school started because they were not officially hired. The bureaucracy is pretty bad." (School Administrator)

- "Central Office seems like a hot mess over the last [three] years. It is unclear who does what, seems like there are not enough people in Human Resources, etc." (Teacher, online survey)

Others commented about the high turnover and loss of teachers, even mid-year, and the lack of responsiveness in filling those positions. These comments included:

- "We have a huge turnover. Teachers come and go." (Central Office Administrator)

- "If a teacher goes into a leadership position, they may not fill that vacancy." (Central Office Administrator)

- "Students suffer because many schools have subs in rooms all year and central administration is not even aware after walking through many schools." (Teacher, online survey)

- People are leaving mid-year because they are burnt out, stressed out   (Teacher)

Others commented regarding the difficulties in hiring over the summer, or about the late hiring practices, and the need to be more aggressive in securing quality candidates:

- "Just prior to the beginning of the school year, it was unknown who was coming back in terms of support staff. The unknown is difficult as we start the school year." (School Administrator)

- "Organization and communication in Human Resources [is a weakness]." (Teacher, online survey)

- "We should be looking at potential candidates and do a better job at the entry point." (District Administrator)

- "Last year we were still making offers in August. Two year ago we were able to onboard everyone by mid-July." (Central Office Administrator)

- "I had to take the alternative school teachers and they were not who I felt was right for the job. Now teachers who weren't successful anywhere else are here." (School Administrator)

- "The reason why we hire late is because of the leadership—they don't approve the hires. And if they don't approve the hires we can't hire." (Central Office Administrator)

- "Even for teaching staff—we didn't even start looking until June. And now, we ended up not getting the best staff." (Central Office Administrator)

The auditors also heard comments regarding challenges in dismissing ineffective, marginal personnel. Principals attested to a large number of ineffective personnel; in some buildings it was reported as high as more than half the teaching staff. Exhibit 1.2.9 presents the data from the survey concerning support in dismissing marginal personnel.

Exhibit 1.2.9

School Administrator Responses: Support from Central Office in Dismissing Personnel
New Haven Public Schools
April 2019

I have adequate support from central office when I recommend dismissing/non-renewing personnel.

- Strongly Agree 4%
- Agree 29%
- Disagree 4%
- Strongly Disagree 17%
- Does Not Apply/Don't Know 46%

N = 24
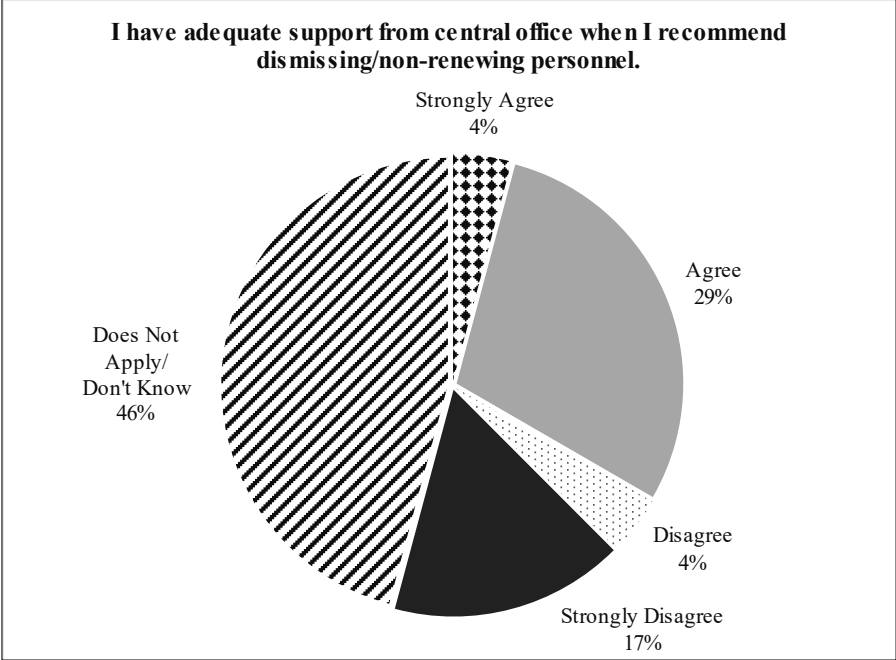
As can be seen in Exhibit 1.2.9, one-third of the group indicated that they had adequate support, but two-thirds reported they didn't know, of which 21% disagreed that they had adequate support. There was considerable difference in perception for this question.

The auditors found considerable inconsistency regarding human resources processes across the system. Hiring practices and securing teachers is seen as a challenge, and the teacher attrition rate is a major concern. No administrator spoke to a clearly defined process for hiring teachers, whether at mid-year or at the end of the year.

Organization Summary

The organizational chart has current positions delineated, but lacks critical positions related to curriculum design and delivery, and a number of positions that are represented have not been filled. Clarity regarding roles and lines of authority is needed. There is weak policy guidance on general elements to be included in a job description with no requirements for design or delivery of the curriculum. Job descriptions are inadequate in delineating clear links to the chain of command. While most job descriptions clearly identified a direct report, many job descriptions did not list subordinates under the position's direct supervision and linkage to curriculum design, delivery, and evaluation functions was weak. Auditors noted multiple instances of inconsistency of job descriptions with the organizational chart and conflicting job descriptions available within the same database. None of the job descriptions were rated "exemplary" in any of the four critical elements. Hiring practices and support from central office in the form of clear processes and procedures for schools are inadequately defined. Principals report a high number of substitutes and positions needing filled, and in some buildings, a high percentage of marginal teachers.

Finding 1.3: Current administration has initiated planning and established interim district goals. Existing plans do not meet audit criteria for adequacy, and clear, long-term vision and focus are a critical need across the system. Current planning efforts, although numerous, are not coordinated across departments and schools.

The planning function in a school system serves to chart the course for progress. Structured planning establishes the vision and mission for all district efforts and affords the district an opportunity to assess and reassess its beliefs, values, commitments, and resources in terms of its vision and mission. A characteristic of an effective school system is the ability to consistently engage in long- and short-range planning focused on the attainment of agreed-upon goals and priorities. Systems without a clear mission and vision that is rooted in beliefs and commitments to their students do not have a clear picture of what ideal educational contexts look like. Defining the system's vision outlines a picture of what it looks like when the system's mission and goals are achieved and provides a common focus for all stakeholders to move toward. Such a focus assures constancy of effort and is supported through the planning process.

Planning is a process by which district leaders envision the district's future and develop the necessary procedures and operations to achieve that future. Embedded in this planning is the ability to modify and adjust direction based upon student needs, new legislation, or changes in the community as district leaders identify, prioritize, and respond to the continually evolving needs of those it serves. The planning process assists district leadership in anticipating emerging needs, developing a framework for systemic action toward the attainment of organizational goals, and strategically focusing activities that create the desired future. Such planning provides clear direction and serves to sustain focus over time while also guiding growth and improvement in an atmosphere of change. In dealing with the complexities of education, change is a constant element that effective school leaders must manage. Without addressing change as it occurs or working to stay ahead of it, school leaders find themselves in a reactionary stance, and systems suffer from fragmentation due to stakeholders making arbitrary, albeit well-intentioned, decisions to confront the unexpected.

Congruence and consistency in planning are critical in school districts intent on meeting goals for successful student learning and achievement as well as for effective operations across the system. The planning process must involve a variety of stakeholders in developing the district's vision, goals, an mission from which the strategies and supportive actions are derived. The mission and goals must address current data as well as future projections to be proactive in supporting improved student learning rather than reactive. The finalized plans must include clear goals; specific, measurable actions to attain them; targeted dates for accomplishing goals; persons responsible for each action and for monitoring others' roles; the identification of resources needed and how they are to be distributed; as well as information about methods for evaluating and reporting on progress.

To obtain a comprehensive understanding of the planning functions and documents in the New Haven Public Schools, the auditors reviewed school board policies, all planning documents provided by the district staff, and interviewed board members, district and school leaders, and staff. Auditors found that current plans and planning processes, although present in evidence for many departments, do not meet audit standards for assuring the improvement of student learning and achievement and establishing the systems necessary to achieve it.

The current district improvement plan, put in place until strategic planning could begin, consists of five priority areas, four to seven goal areas for each priority, a theory of action, and seven key indicators of success. The goals are reasonable and clear, but the plan does not include information to meet any of the criteria for the specific accomplishment of tasks and related district functions. Both schools and departments use the continuous improvement plan format with alignment to the district plan goal areas. All department and school continuous improvement plans lack a direct connection with budget and resource components. Evaluation and implementation of improvement plans lack clear systems and monitoring processes and are inconsistent across the schools.

Exhibit 1.3.1 lists the planning documents and those associated with planning found and reviewed by the auditors.

Exhibit 1.3.1

List of Planning Documents Reviewed by the Auditors
New Haven Public Schools
April 2019

Document	Date
Board Policy	Various Dates
Board Minutes	3/2018 - 3/2019
NHPS District Improvement Plan 2018-2021	12/2018
District Continuous Improvement Plan Progress Monitoring	2018
Elementary/Middle School - School Improvement Plans	11/2018
High School - School Improvement Plans	11/2018
Department Improvement Plan – Deputy Superintendent	10/2018
Department Improvement Plan - Math	10/2018
Department Improvement Plan – Literacy	10/2018
Department Improvement Plan – Arts	10/2018
Department Improvement Plan – History/Social Studies	10/2018
Department Improvement Plan – Science	10/2018
Department Improvement Plan – World Languages	10/2018
Department Improvement Plan – YFCE	10/2018
Department Improvement Plan – School Health Centers	10/2018
Department Improvement Plan – Academics (C/O)	10/2018
Superintendent's Entry Plan Booklet	6/2018(r)
District Goals Presentation	12/2018
Board of Directors Budget Presentation	2/4/2019
New Haven Public Schools Transition Report 2018-2019	2018
PD Plan Template - Academics	7/2018
NHPS Strategic Objectives (2017-2020)	2016
School Change 2.0 NHPS 2020 Strategic Planning Process BOE Update	10/24/2016
2016 Planning Process Overview	2016
District Strategic Operating Planning Process	Undated
NHPS 2016-2017 Strategic Priorities	11/21/2016
School Change Booklet	9/1/2015
School Guide for Development of School Improvement Plans	5/22/2015

The auditors examined policy to determine how much direction exists for planning in policy and regulations. They found that policy does require planning at the district level, and that it is to be directed by the board. Policy also requires plans from multiple departments for specific areas: Technology (*Policy 3523.1a*), Bilingual Education (*Policy 6141.31*), Special Education Programming (*Policy 6171a*), Career and Vocational Education (*Policy 6176*), and Facilities (*Policy 7001*). Policies regarding district-level planning included:

- *Policy 2250: Monitoring of Progress and Goals* directs the superintendent "to establish and maintain a comprehensive plan to monitor the progress of schools."

- *Policy 3000: Concepts and Roles in Business and Non-Instructional Operations* states that the board shall "encourage advance planning through the best possible budget procedures."

The auditors were not provided comprehensive plans for student assessment, special education, program evaluation, curriculum management, or professional development. Policy direction for planning was inadequate

(see also <u>Finding 1.1</u>), and although planning is occurring at the district level, this is only because of the focus of current administration.

The Audit Approach to Analyzing Planning and Plans

The auditors reviewed the New Haven Public Schools planning documents provided by the district and interviewed board members and district personnel to understand the planning processes. Three levels of analysis were used:

1. A review of the district's overall planning process and how it has been implemented within the organization;

2. A review of the district strategic long-range plan auditors selected to represent the district's primary planning document at this time; and

3. A review of school and departmental plans auditors selected to represent continuous improvement.

Using audit criteria, <u>Exhibit 1.3.2</u> summarizes the auditors' analysis of New Haven Public Schools district planning process for planning documents listed in <u>Exhibit 1.3.1</u>. For the planning quality to be considered adequate, six of the eight characteristics must be rated as adequate. Any characteristics rated as partially met are tallied as not met for the purpose of this analysis.

Exhibit 1.3.2

**Level I: Characteristics of Quality Planning Audit Criteria—
Design, Deployment, and Delivery
New Haven Public Schools
April 2019**

There is evidence that…	Auditors' Rating	
	Met	**Not Met**
1. **Policy Expectations:** The governing board has placed into policy the expectation that the superintendent and staff collectively discuss the future and that this thinking should take some tangible form without prescribing a particular template, allowing for flexibility as needed.		X
2. **Vision/Direction:** Leadership has implicit or explicit vision of the general direction in which the organization is going for improvement purposes. That vision emerges from having considered future changes in the organizational context.	X	
3. **Data-driven:** Data influence the planning and system directions/initiatives.	Partial*	
4. **Budget Timing:** Budget planning for change is done in concert with other planning, with goals and actions from those plans driving the budget planning.		X
5. **Day-to-Day Decisions:** Leadership makes day-to-day decisions regarding the implicit or explicit direction of the system and facilitates movement toward the planned direction.		X
6. **Emergent/Fluid Planning:** Leadership is able to adjust discrepancies between current status and desired status, facilitates movement toward the desired status, and is fluid in planning efforts (emergent in nature).		X
7. **Deliberate Articulated Actions:** Staff are involved in a purposeful way through such efforts as school/unit improvement planning, professional development councils, and district task forces that are congruent with the articulated direction of the system or system initiatives.		X
8. **Aligned Professional Development:** Professional development endeavors are aligned to system planning goals and initiatives.		X
Total	1	7
Percentage Met	13%	
*Partial ratings are tallied as not met.		
©2018 CMSi		

Following are the auditors' explanations of ratings displayed in <u>Exhibit 1.3.2</u>.

Characteristic 1: Policy Expectations (Not Met)

While the policies cited refer to various parts of planning, no single policy or regulation found by auditors discusses any long-range planning process nor the creation of a strategic plan. *Policy 2250: Monitoring of Product and Process Goals* directs the superintendent to establish and maintain a comprehensive plan with regard to curriculum, school environment, and school operations but does not give details on what the process should look like, that it be long-term in nature, nor that it coordinate systems district-wide and establish a district-level focus and vision for the work of the system.

Characteristic 2: Vision/Direction (Met)

There is no policy document or regulation that states how the district should approach the planning process. This process is more implicit than explicit. However, New Haven Public Schools Superintendent has generated both a vision and direction for the district stated in the *District Continuous Improvement Plan 2018-2021*. The document also states the mission, core values, five district priority areas with goals, and seven key indicators of success.

The auditors found evidence of ongoing planning and that current administration is working to engage stakeholders in developing a strategic plan. These efforts have been a focus and priority of the current superintendent in an attempt to initiate improvement and cohesiveness across the system. Cohesive, long-range planning is not a requirement of policy nor has it been initiated by the school board.

Three planning documents provided to auditors explicitly stated a planning process:

1. District Goals Powerpoint™ presentation, December 2018. This Powerpoint™ presentation is from the current superintendent and outlines the five district priorities and related actions for the interim until the new strategic plan can be developed. There are metrics provided that correspond with the five priorities for accountability.

2. Board of Education Powerpoint™ presentation (Oct. 24, 2016), *School Change 2.0|NHPS 2020 Strategic Planning Process BOE Update* described timeline, processes, focus groups, and progress monitoring strategies for beginning the strategic planning process.

3. *District Strategic Operating Planning Process* (undated, but priorities are aligned with the Oct. 24, 2016 board presentation document).

The auditors found clear evidence of planning, despite the lack of a current strategic plan. Strategic planning is underway.

Characteristic 3: Data-driven (Partially Met)

The majority of planning mentioned in policy and regulations simply states that planning will happen; it does not describe or require specific measures of student achievement. The *District Continuous Improvement Plan 2018-2021* identifies district-wide priorities, goals, and student performance measures. The auditors were not provided an action plan for implementation.

Department and school plans align with the district priorities and goals. Performance measures with action plans that list steps to be taken and persons responsible for each performance measure are noted in these plans. However, the use of baseline data, targets, and actual student achievement data were inconsistent. This audit report is the main intended data source for the strategic planning process, and the current superintendent plans to use it in developing goals with participatory stakeholders. As such, this criterion was partially met, as the process to collect and use data has been implemented. Written direction in policy for collecting and using data is not adequate (see also <u>Finding 1.1</u>).

Characteristic 4: Budget Timing (Not Met)

There is no policy that links budget planning to the design and delivery of curriculum. District and school plans reviewed by auditors did not include budget information (funding, amount, and link to a specific goal, program, or action).

Characteristic 5: Day-to-Day Decisions (Not Met)

It is expected that day-to-day decisions will be guided by district policies, plans, and staff expertise. In New Haven Public Schools, board policy is inadequate, written guidance in plans is inconsistent, documented processes and procedures do not exist, and there is little consistency in decision making across departments and schools.

Characteristic 6: Emergent/Fluid Planning (Not Met)

Auditors were unable to gauge the fluidity of the planning process with no specific planning process delineated in district documents or in policies or regulations. See Characteristic One.

Characteristic 7: Deliberate Articulated Actions (Not Met)

Current planning efforts are taking place in a challenging academic environment as the leadership seeks to ensure rigor in both curriculum and instruction. Auditors were not presented with a comprehensive curriculum management plan.

Since there is no district curriculum plan, there is no fully articulated strategic direction for the implementation of literacy, math, and science curricula. There is no guidance in policy or regulations for the communications process.

Characteristic 8: Aligned Professional Development (Not Met)

No policies or documented directives were found that required the alignment of professional development to planning goals and initiatives to ensure that capacity is adequate to achieve intended goals.

Auditors heard several comments related to the district's continuous improvement plan or the lack of district-wide strategic planning.

- "The district CIP (Continuous Improvement Plan) is very high level—we are going to launch strategic planning in April. (Central Office Administrator)

- "We have a District Improvement Plan that has 5 priorities. It is Bare Bones. Not a strategic plan, but a placeholder." (Central Office Administrator)

- "We want something to be done about it, but we don't have the skills to say, you've got to say what to do, but then it's another year of planning." (Board member)

- "Planning is not strategic." (Central Office Administrator)

- "[We need a] consistent and clear vision that comes from the top down to each school with follow through and accountability." (School Administrator, online survey)

- "We need a shared vision on where we are going and a strategic plan to get there." (Central Office Administrator)

- "I would like to know what is going to happen soon. It needs to be communicated and they need to have a plan as to what they are going to do with people." (School Administrator)

- "One of the biggest challenges right now is the communication from the top. People need time to plan and things need to be done." (School Administrator)

- "We really need a 5 to 10-year plan to get us where we need to go. One plan that all of the players buy into." (Central Office Administrator)

- "We are in a transitional phase and embarking on a strategic planning process. What should we do and what systems do we need to put in place to improve achievement." (Central Office Administrator)

The auditors found that the historical culture of siloed decision making, high turnover, and the need for clearly defined, consistent procedures, protocols, and processes contributed to a lack of focus and clarity concerning district vision and mission (see also <u>Finding 1.4</u>). The Continuous Improvement Plan is a placeholder and has provided some focus concerning goals and priorities, but strategic planning based on data and needs is a critical

process that is needed to establish a vision for effective learning that all members of the system can support, with defined structures for supporting and realizing that vision.

Quality of the New Haven Public Schools District Continuous Improvement Plan 2018-2021

The New Haven Public Schools *District Continuous Improvement Plan 2018-2021* identifies Vision, Mission, Core Values, five Priority Areas, a Theory of Action, and seven Key Measures of Success. The plan does not include an Action Plan to direct and link budget/finance needs, change and deployment strategies, monitoring, and evaluation.

Auditors observed that the action plan components were left to the Continuous Improvement Plans developed by the district's departments and schools. Taken together (district continuous improvement plan and continuous improvement plans at the department and school levels), the plans form an effort toward a continuum of district-wide improvement. However, taken as a district-wide long-range plan, the New Haven Public Schools *District Continuous Improvement Plan 2018-2021* lacks critical components and is inadequate to effectively direct a cohesive system of improvement in student achievement and other district functions.

The following exhibit summarizes the auditors' analysis of the *District Continuous Improvement Plan* and is followed by explanatory comments. To receive an overall adequate rating on audit criteria for district-wide, long-range plan quality, five of the seven characteristics must be met. Any characteristics indicated as partially met are considered not met for the purpose of this analysis.

Exhibit 1.3.3 lists the curriculum management audit characteristics of a quality planning document and the auditors' assessment of strategy.

<div align="center">

Exhibit 1.3.3

Level II: Characteristics of District-wide Plan Quality
For Design, Deployment, and Delivery
New Haven Public Schools
April 2019

</div>

Characteristics	Auditors' Rating	
	Met	Not Met
1. **Reasonable and Clear:** The plan is reasonable; it has a feasible number of goals and objectives for the resources (financial, time, people) available. Moreover, the goals and objectives are clear and measurable.	Partial*	
2. **Emergent/Fluid:** The plan allows for emergent thinking, trends, and changes that impact the system both internally and externally.		X
3. **Change Strategies:** The plan incorporates and focuses on those action strategies/ interventions that are built around effective change strategies (e.g., capacity building of appropriate staff).		X
4. **Deployment Strategies:** The plan clearly delineates strategies to be used to support deploying the steps and tasks outlined in the plan (e.g., orientation to the change, staff development on the proficiencies needed to bring about the change, communication regarding planned change).		X
5. **Integration of Goals and Actions:** All goals and actions in the plan are interrelated and congruent with one another.		X
6. **Evaluation Plan and Implementation:** There is a written plan to evaluate whether the objectives of the plan have been met (not to evaluate whether or not the activities have taken place). Evaluation components of plans are actions to be implemented; plans are evaluated for their effects or results, and they are then modified as needed. There is both frequent formative evaluation and annual summative evaluation, so that plans are revised as needed.		X

<table>
<tr>
<td colspan="2" rowspan="2">Exhibit 1.3.3 (continued)
Level II: Characteristics of District-wide Plan Quality
For Design, Deployment, and Delivery
New Haven Public Schools
April 2019</td>
</tr>
</table>

Characteristics	Auditors' Rating	
	Met	**Not Met**
7. Monitoring: Systems are in place and are being implemented for assessing the status of activities, analyzing the results, and reporting the outcomes that take place as the plan is designed and implemented.		X
Total	**0**	**7**
Percentage Met	**0%**	

*Partial ratings are tallied as not met.

©2018 CMSi

As evidenced in <u>Exhibit 1.3.3</u>:

Characteristic 1: Reasonable and Clear (Partially Met)

The five priority areas form the basis for the 2018-2021 district continuous improvement plan. Goals are listed under each priority. For example, goals listed under Priority One, "Academic Achievement" state:

1.1.1   All students meet or exceed growth targets in English Language Arts and Mathematics.

1.1.2   All students, preschool thru third grade, develop the socially/emotional skills needed to engage in appropriate Early Childhood learning.

1.1.3   All students read at or above grade level by the end of third grade.

1.1.4   All tenth graders are "on track" relative to the academic standards, including an Algebra grade of C or better and passing all core areas.

1.1.5   All high school students score 500 or better on each of the English Language Arts and Math SAT subject tests.

1.1.6   All students have Student Success Plans.

1.1.7   The graduation rate increases incrementally each year to meet or exceed State targets.

The goals are reasonable and clear; however, the plan lacks budget and resource information and the number of targets is ambitious when all five priority areas are taken into consideration.

Characteristic 2: Emergent/Fluid (Not Met)

The district plan does not provide for the emergent thinking and fluidity to meet the changing demands. Baseline data with annual improvement targets were provided for each of the seven key indicators of success. However, in the absence of action plans, auditors were unable to assess the district's approach to emerging trends.

Characteristic 3: Change Strategies (Not Met)

Since the district plan is a "placeholder" until the strategic planning process is complete, change strategies were not included in the plan.

Characteristic 4: Deployment Strategies (Not Met)

Since the district plan is a "placeholder" until the strategic planning process is complete, deployment strategies were not included in the plan.

Characteristic 5: Integration of Goals and Action (Not Met)

Specific actions were not included in the plan.

Characteristic 6: Evaluation Plan and Implementation (Not Met)

Indicators of success are included with the five priority areas and goals, but these are simply metrics. Evaluation and implementation were not included in the plan.

Characteristic 7: Monitoring (Not Met)

Monitoring is not included in the plan.

Overall, the quality of the plan is insufficient to serve as a long-range plan to improve student learning. The auditors acknowledge that it is the clear intent of the current superintendent to use the data from this report as part of a strategic planning process. Planning is underway currently, and therefore no strategic plan is yet available.

Exhibit 1.3.4 presents responses from the school administrator survey regarding awareness of the district improvement plan that drives the work of the district and individual schools.

Exhibit 1.3.4

School Administrator Survey Responses: Awareness of District Improvement Plan
New Haven Public Schools
April 2019

I am well aware of the district improvement plan that drives the work of the district and individual schools.

The district does not have a strategic/long-range plan. 0%

Strongly Agree 13%

Agree 67%

Disagree 10%

Strongly Disagree 10%

N=30
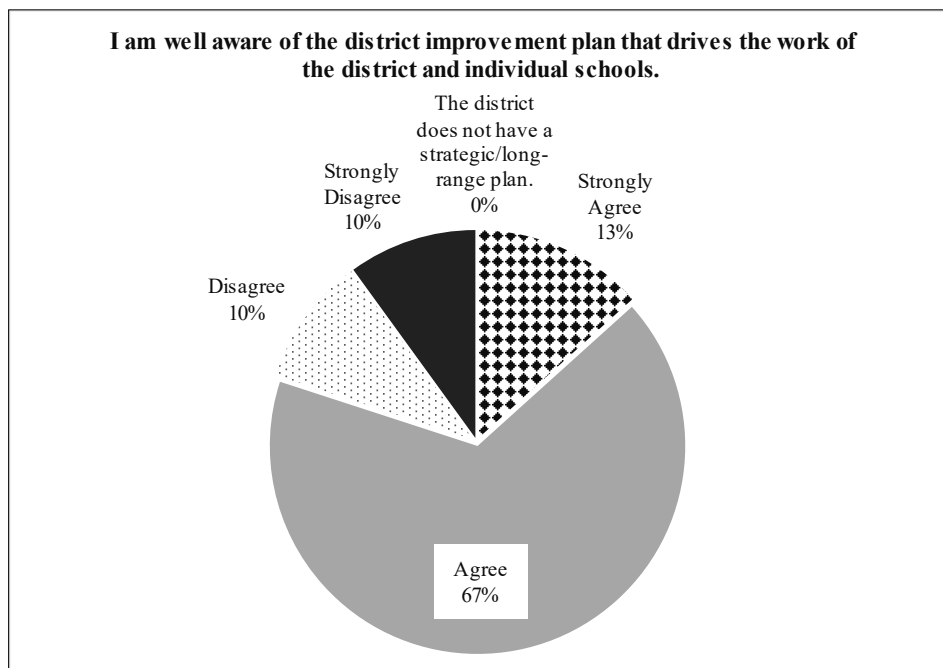
As can be seen in Exhibit 1.3.4:

- The majority (80%) of school administrators are aware of the current district improvement plan.

- Only 20% disagree or strongly disagree that they are aware of the plan.

The auditors found that most administrators are aware of the district's current improvement plan, although decision making at the school level has not yet been aligned to the district plan goals and direction. Systems to coordinate decision making, such as consistent processes and procedures, are not yet clear, and a cohesive focus for all decision making, district-wide, is needed. As one teacher stated, "[A weakness is our] decision making processes." Consistency, communication and clear decision making were all cited as weaknesses across the system, a result of a long history of siloed schools and departments (see Finding 1.4).

The auditors then examined department and school plans for their quality and alignment to the district plan.

Quality of Department and School Plans

The third level of analysis considers the planning documents for the various departments and those from school sites. The same type of characteristics used for the district-wide plan are used in addition to the tracing of connectivity to the district plan. There needs to be a tight line of control that provides the necessary structure throughout the district planning efforts and still allows for creativity and flexibility at all levels. When properly structured, this planning process reduces slack within the system. Slack occurs when connections among departments and schools are not clearly defined.

It is essential that functions related to curriculum management, professional development, program evaluation, and school improvement be guided by board policy and that they adhere to the administrative regulations that provide the backbone for these operations. Equally important is that these functions align to the district-level plan goals and vision. Persons assuming a new position with responsibilities within the system should be able to consult the district plan, board policies, and administrative regulations for guidance in how the disparate operations within the system work in coordination and how they specifically relate to that position. Therefore, such a plan would allow a person to gain an improved understanding of the context of their position.

Exhibit 1.3.5 presents data gathered through the school administrators survey that asks whether multi-year improvement plans are in place.

Exhibit 1.3.5

School Administrator Survey Responses: Multi-Year School Improvement Plan in Place
New Haven Public Schools
April 2019

At my school, we have a multi-year school improvement plan that directs our work.

- Disagree 3%
- Strongly Disagree 0%
- Strongly Agree 33%
- Agree 64%

N=30
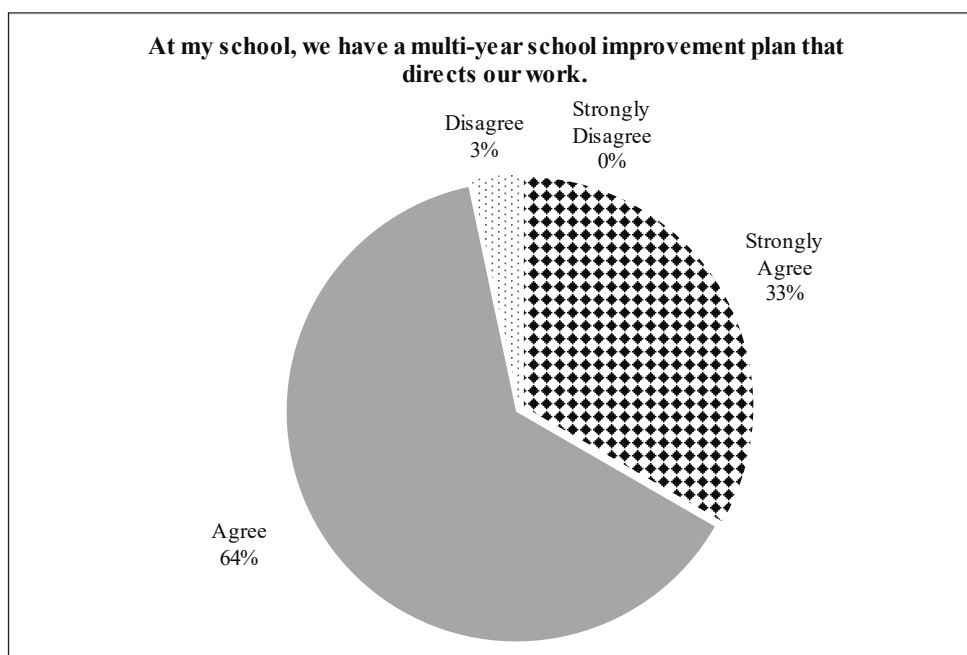
As can be seen in Exhibit 1.3.5, school administrators almost all agreed that there are multi-year school improvement plans in place.

Auditors requested 2018-2019 plans for all New Haven schools and central office departments. Documents were provided for a total of 25 schools, 18 elementary/middle schools and seven high schools, along with 10 department plans. The auditors selected 5 of the 10 department plans for review: Deputy Superintendent, Academics, Math, Science, and English/Language Arts. The auditors randomly selected a sample of 10 school improvement plans for review, three high schools, and seven elementary/middle schools. Auditors were not presented plans for curriculum management, student assessment, professional development, program evaluation, special education, EL, education technology, budget, or communication.

To assess the quality of the department and school improvement plans, the audit team examined planning guidance, the *District Continuous Improvement Plan 2018-2021,* and the sample of department and school improvement plans. The auditors additionally interviewed principals and central office staff. Auditors determined there are no board policies or administrative regulations to guide school or department improvement plans. However, there was a guide, *School Guide for Development of School Improvement Plans (2015),* that provides instruction for the development of school improvement plans. The guidelines in the document were useful for the current school improvement plan structure. Auditors determined that the two documents provided adequate guidance for the preparation of school and department improvement plans.

During this analysis, if the review of plans produced an adequate combined rating on six of the eight characteristics, the plan quality was considered adequate. If a characteristic was deemed partially met, that was noted, but the overall rating for that characteristic was considered not met. Exhibit 1.3.6 reports the number of adequate and inadequate ratings for the total sample of 10 school and five department plans and the overall percentage of adequacy.

Exhibit 1.3.6

Level III: Characteristics of Department and School Improvement Plan Quality
For Design, Deployment, and Delivery
New Haven Public School
April 2019

Characteristics	Auditors' Rating	
	Met	Not Met
1. **Congruence and Connectivity:** Goals and actions are derived from, explicitly linked to, and congruent with the district plan's goals, objectives, and priorities.	X	
2. **Reasonable and Clear**: The plan is reasonable; it has a feasible number of goals and objectives for the resources available (finances, time, people). The goals and objectives of the plan are clear and measurable.		X
3. **Emergent/Fluid:** The plan allows for emergent thinking, trends, and changes that impact the system both internally and externally.	X	
4. **Change Strategies:** The plan incorporates and focuses on those action strategies/ interventions that are built around effective change strategies (e.g., capacity building of appropriate staff).	Partial*	
5. **Deployment Strategies:** The plan clearly delineates strategies to be used to support deploying the steps and tasks outlined in the plan (e.g., orientation to the change, staff development on the proficiencies needed to bring about the change, communication regarding planned change).	Partial*	
6. **Integration of Goals and Actions:** All goals and actions in the plan are interrelated and congruent with one another.	X	
7. **Evaluation Plan and Implementation:** There is a written plan to evaluate whether the objectives of the plan have been met (not to evaluate whether or not the activities have taken place). Evaluation components of plans are actions to be implemented; plans are evaluated for their effects or results and modified as needed. There is both frequent formative evaluation and summative evaluation, so that plans are revised as needed.		X
8. **Monitoring:** Systems are in place and are being implemented for assessing the status of activities, analyzing the results, and reporting outcomes that take place as the plan is designed and implemented.	Partial*	
Total	3	5
Percentage Met	38%	
*Partial ratings are tallied as not met.		
©2018 CMSi		

The summary of aggregated ratings in <u>Exhibit 1.3.6</u> shows that three (38%) of the characteristics were rated as fully met, indicating that the overall quality of the continuous improvement plans in the sample of department and school plans was not fully adequate to support and direct actions and decision making across the system. The following provides details regarding the ratings.

Characteristic 1: Congruence and Connectivity (Met)

All of the school and department continuous improvement plans in the audit sample are explicitly linked to the *District Continuous Improvement Plan 2018-2021* priorities and goal areas. Priorities include:

1. Student Achievement;

2. Talent Management and Development;

3. Organizational Efficiencies and Effectiveness;

4. Culture and Climate; and

5. Family and Community Empowerment.

All of the school and department improvement plans expressed goals as theory of action statements that align with a district priority and/or goal statement from the district improvement plan. For example, one of the literacy goal statements read:

> Curriculum and Instruction: If the NHPS Literacy Department increases capacity of High-Quality Reading Instruction across the curriculum then there will be stronger student outcomes in ELA achievement.

> Aligns with District Priority: Academic Achievement in Literacy

The auditors found the goals to align to the district plan, but not all were clear or specific in terms of their attainment (see Characteristic 2). Comments by school administrators supported the alignment of the goals included in the school and department plans:

- "We get the [improvement plan] priorities from the district for congruence."

- "Each department has an action plans with their goals. We have the school goal with 90% passing. Our focus is in science and math."

Characteristic 2: Reasonable and Clear (Not Met)

Nearly all of the improvement plans identified three goals specific to their department or school with the exception of two plans that identified four goals. Measurable outcomes ranged from one to four for each goal. The essence of a plan is that it identifies what will happen, when it will happen, who will do the work, and what resources will be used. While generally, the plans provide enough detail for the what, when, and who, there is no budget or resource information included. Many of the goals are not clearly measurable, which prevents accountability and clarity of the plans. Only one department, science, mentioned funding in their plan. Without describing budget and resource needs, reasonableness of the plans could not be verified.

Characteristic 3: Emergent/Fluid (Met)

The school and department plans are accompanied by a planning timeline that describes a cycle for plan, do, study, act. The school plans require mid-year and end-of year school self-reviews and a first and third quarter review with building data teams and central office administrators. According to the Deputy Superintendent, the assistant superintendents lead the review of school improvement plans three times a year. Department plans require quarterly central office team progress checks.

Characteristic 4: Change Strategies (Partially Met)

Change strategies in schools and departments were primarily focused on using training and data to improve teaching and student achievement. Goals related to school level professional development were included in all plans reviewed. However, this is an example of the lack of connectivity between school and district level

planning because, while there was no district professional development plan, school plans described needs and plans for much professional development. One principal commented: "Sometimes there are too many changing initiatives, not only is it wasting money, but burns out teachers."

Characteristic 5: Deployment Strategies (Partially Met)

Clear deployment strategies exist in most plans, but not in all. Deployment strategies are critical to assuring follow-through and feasibility.

Characteristic 6: Integration of Goals and Actions (Met)

In the plans reviewed by auditors, the actions planned were consistent with the stated goals.

Characteristic 7: Evaluation Plan and Implementation (Not Met)

The *2015 School Improvement Guidance* document states, "In order to make the plan meaningful, a robust process for monitoring and evaluating the effectiveness of the plan toward meeting short-term and annual outcomes should be adopted." All of the plans identified measurable outcomes for summative measures of progress toward achieving goals. However, the auditors did not find evidence of an evaluation plan specified in any of the planning documents.

Characteristic 8: Monitoring (Partially Met)

The *2015 School Improvement Guidance* document states, "Ideally the plan has outlined activities that can help monitor the success of implementation, such as monthly school leadership meetings to review the plan's implementation and impact." All of the school plans reviewed by auditors ask for "evidence of impact (how will you progress monitor)?" Some schools provided schedules for internal monitoring, such as weekly, monthly, quarterly, while other school plans do not state an internal monitoring schedule. The use of actual student achievement data in monitoring progress was inconsistent across the school improvement plans reviewed by the auditors.

Exhibit 1.3.7a presents data gathered through the School Administrators survey regarding school improvement plans use in decision making.

Exhibit 1.3.7a

School Administrator Survey Responses:
Use of School Improvement Plan as Road Map for Decision Making
New Haven Public Schools
April 2019
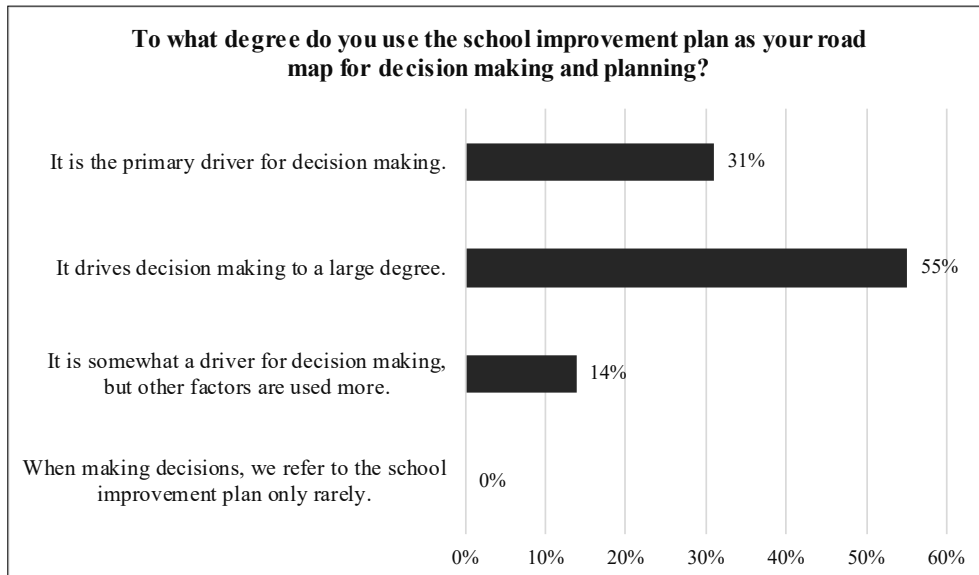
The following can be seen in <u>Exhibit 1.3.7a</u>:

- Almost one-third of school administrators reported that their school improvement plan is the primary driver for decision making at their building.

- Over one-half (55%) report that it drives decision making to a large degree.

- Almost 14% reported that it does drive decision making, but that there are other factors at play.

The auditors then compared teachers' responses concerning the school improvement plans' role in directing decision making with those of the school administrators. <u>Exhibit 1.3.7b</u> presents teacher survey responses to the use of school improvement plans as a focus for building-based decisions.

Exhibit 1.3.7b

Teacher Survey Responses: Use of School Improvement Plan as Focus for Building
New Haven Public Schools
April 2019
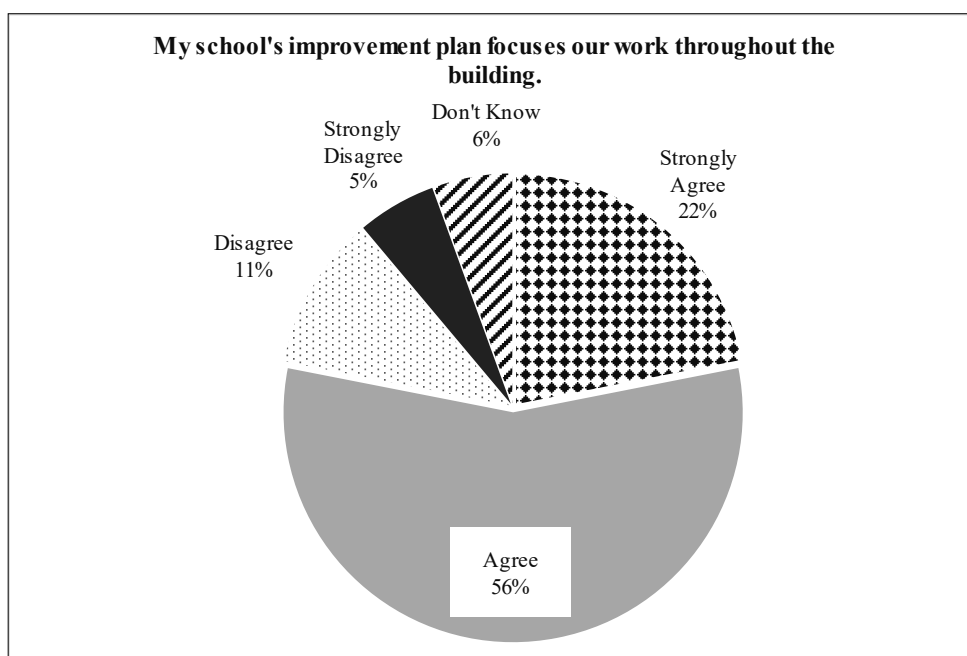
As can be seen in <u>Exhibit 1.3.7b</u>, teachers also attested to the school improvement plans providing a strong focus for decision making in their building. Almost 80% agreed or strongly agreed, and just over 16% disagreed or strongly disagreed.

In interviews with central office staff and building-based staff, the auditors heard the following general comments about planning:

- "There is a disconnect from central office to the building level. The priorities of improvement don't align with the school plans." (School administrator)

- "We are required to submit a school improvement plan, but we don't see how it translates to the district level. We're working in isolation." (School Administrator)

- "We mirror what district has, the superintendent has goals and objectives, we plan accordingly through the academic component and the social emotional learning." (School Administrator)

Planning Summary

There is strong evidence of planning in the New Haven Public Schools, and evidence that district-level planning and goals are directing school and department-level plans. However, the coordination of planning is a recent initiative and decision making is not yet aligned with the district-level focus. Clarity and consistency in response

to plans are not yet in place, and the plans are not adequate in design to support effective and cohesive delivery. There are no policies, regulations, or other comprehensive, written guidance on planning functions at the district or department level that are current. The *New Haven Public Schools District Continuous Improvement Plan 2018-2021* is incomplete, and strategic planning is intended to begin Summer 2019. Plans and planning are not visibly linked to budget or resources. The use of actual student achievement data is inconsistent across department and school improvement plans, and the district needs a common vision for student learning to unify efforts across the system.

Finding 1.4: Perceived dysfunction of the Board/District relationship, politics, and perceived lack of connectedness, coherence, and accountability have created a culture of fear which has impacted the levels of trust, clarity and morale among stakeholders regarding the direction of the New Haven Public Schools. Updated board policies and bylaws for the Standards of Conduct for board and district staff are an area of need for organizational effectiveness.

The working relationships between a Board of Education and the Superintendent of Schools as well as the relationship between those two entities and school district personnel are critical in the realization of the vision and direction established for a school district. Important in the establishment of a positive working relationship is the development of an understanding of the appropriate roles of the policy and the appropriate interactions between the policy makers and the administrators who implement the policies and programs of the school district. This is especially critical as it pertains to issues such as the direction and priorities of the school district; working relationships and standards of conduct that demonstrate coherence, consistency, effective communication; and respect for roles and responsibilities within the chain of command. Critical to this work is the establishing and maintaining of a clear, central vision, mission, and focus for all levels of the system.

Failure to achieve functional working relationships between the board, superintendent, and school district staff can lead to a breakdown in trust and focus and can result in a failure to achieve the desired vision of the school districts as exemplified in the district's strategic goals and objectives. A failure to establish functional relationships has a direct impact on the delivery of the written, taught, and tested curriculum of the school district. This in turn can impact student achievement outcomes and erode stakeholder confidence in a school district.

Curriculum audit criteria requires well-defined delineations of lines of responsibility and authority, which is critical in guiding the design and delivery of a uniform, functional, quality curriculum in the district (see Finding 1.2). To serve as an effective guide in curriculum development, a school district's governance and ethical policy framework must be specific enough to allow governance relationships to function in a manner that is, at minimum, collaborative and cooperative. Policies and other guiding documents, such as bylaws, also should specify the relationships between the policy makers (i.e., the board of education) and school district personnel, including appropriate supervisory roles, line/staff relationships, and standards of conduct (see also Finding 1.1).

The auditors first sought to determine the written direction in documents and processes intended to govern supervisory roles and standards of conduct. The auditors requested, for review and analysis, copies of appropriate written policies, rules, guidelines, and procedures of the New Haven Public Schools. Several relevant documents were provided to the auditors including the following:

- Board of Education Bylaws (which govern the rules of the Board of Education); and

- Board of Education Policies (which provide direction to school district administration and staff).

Auditors also interviewed Board of Education members; members of the district and school administrative staff; and other individuals (support staff, teachers, parents, and community partners) regarding their perceptions of the working relationships and standards of conduct in the school district, as well as regarding the nature of the interactions between the policymakers and school district staff. The auditors also interviewed stakeholders regarding culture and climate issues to determine the extent of a collaborative and cohesive culture working towards a common mission, vision, and goals.

The following Bylaws of the Board were reviewed related to the topics introduced above:

- *Bylaw 9010: Limits of Authority* (1/11/99) states, "The powers delegated to the Board of Education by the State are delegated to the Board as a body. No authority is granted board members acting as individuals…The New Haven Board of Education exercises its powers and duties only when it is convened in an official meeting where a majority of the Board constitutes a quorum to transact business. Members of the Board have no authority except at such Board meetings or when discharging an assignment made by the Board of Education." [Charter of the City of New Haven, Art. VIII, Section 3, a (5)]

- *Bylaw 9040: Board-Related Responsibilities* (1/11/99) states under Board responsibilities in Item 12, "To formulate broad, general polices to guide and govern the operation of the public schools in the City and to delegate to the Superintendent of Schools the responsibility for the development and enforcement of rules and regulations necessary for the implementation of the Board's policies…" [Charter of the City of New Haven Art. XXIX, &150]

- *Bylaw 9310: Formulation, Adoption and Amendment of Policies* (1/11/99) states "The policies adopted by the Board of Education shall be broad and general and shall indicate a line of action to be taken by the Superintendent of Schools in dealing with specific problems and issues. The implementation of such policies is an administrative detail to be performed by the Superintendent of Schools." [Connecticut General Statutes 10-221 Boards of education to prescribe rules]

The following policies were found that addressed the topics above.

- *Board Policy 1250: Visits to Schools* (9/10/07) states, "A Board of Education member who visits a school does so in the capacity of a parent or visitor unless delegated specific tasks by specific Board of Education action."

- *Board Policy 2100: Administrative Staff Organization* states, "The superintendent shall organize staff to achieve the school district goals as expressed by the Board and shall identify lines of primary authority for all employees."

- *Board Policy 2121: Lines of Responsibility* states, "The superintendent, or designee, shall maintain a current district organizational chart, approved by the Board, which identifies lines of primary responsibility and the relationships between district positions.

Though bylaws and board policies did provide information on structural relationships between the board and superintendent, as well as the superintendent and district staff, none of the bylaws or policies adequately addressed standards of conduct that outlined appropriate as well as inappropriate behaviors for personnel serving in the board or school district administrative/staff roles. The bylaws addressed organizational relationships, but did not address standards of conduct. The auditors were provided with draft language for Bylaw 9271(j), which focuses on a Code of Ethics and Standards of Conduct, which has not yet been adopted by the board of education. Board policy contained a Code of Conduct, which was approved most recently in 1999 and focused on organizational relationships, but the board policy Code of Conduct lacked specificity regarding standards of conduct.

Auditors conducted interviews with varied stakeholders of the New Haven Public Schools, including members of the board of education; the superintendent; district administrators, principals, assistant principals, teachers, students, union representatives, community partners and parents. Surveys with closed and open-ended responses were collected from principals/assistant principals, teachers, and parents, and the written comments have been analyzed and incorporated into this finding.

As the auditors conducted the interviews, it became very evident that stakeholders ranging from board members to parents were concerned about what they perceived as the negative relations between the board of education and the administration as well as concerns regarding communication and coherence that exists in the school district. Among the perceptions expressed were tensions in the relationship among board members, between the board and superintendent, and district staff and parents; feelings of being disconnected by personnel at various levels from the direction of the district; concerns regarding poor and/or inconsistent communication; and lack

of clarity regarding the district's vision, procedures, and protocols. The next section will present some of the comments that were collected from the interviews and surveys by general topic area that have been triangulated across three or more stakeholder groups regarding the perceptions collected via interviews and surveys.

Board-Administration relations, politics, conflicts and tension

The Auditors noted the following comments regarding stakeholder perception of dysfunction in the relationships of the board of education among board members; between the board and the superintendent; between the board and district staff; and behavioral issues that cause concern, including perceptions of micromanagement, tension, and inappropriate behavior. These issues were perceived to have a detrimental effect on the sustained focus on improving system functions for managing the educational program and improving student learning district-wide. Stakeholder comments from interviews and surveys are provided below:

- "[There is a] dysfunctional relationship between board and central office." (School Administrator)
- Lots of tension with board (micro managers). (District Administrator)
- "More transparency is needed—too much is hidden by the board." (Parent)
- "What happens [at board meetings] and what has happened is personal. And I feel bad about it. I feel horrible that it's so public." (Board Member)
- "I'm not sure the willingness to work collaboratively is there (on the board)." (Board Member)
- "The board doesn't understand their role as governance." (District Administrator)
- "[There is] micro-management of administrators when news is hot; parents bypass principals and go straight to BOE or media." (Teacher)
- "I'd like to see education taken out of the political ring." (Teacher)"There is in-fighting on the board that has nothing to do with the superintendent and then just basic politics, how do you get your vote." (Board Member)
- "There are a lot of things published about board meetings and sentiment and they are not student centered at all. You would think there are a lot of bad things going on and adults who can't seem to agree." (District Administrator)

The auditors noted that comments regarding perceptions of Board-Administration dysfunction, politics, tension, and inappropriate behavior were provided by board members, district administrators, parents, school administrators, and teachers. Respondents see these issues as negatively impacting the system and the ability to get needed work accomplished.

Others commented on the current morale, climate, and culture in the system. There were perceptions of fear for their position, frustration with current status in the system, and particularly low morale that were expressed on the surveys and during interviews. Stakeholder comments from interviews and surveys included:

- "[A district weakness is] trust and transparency. Groups [within schools] are suspicious of each other. The lack of trust is well earned. Lots of upheaval and overturning. Political. Decisions are made without the knowledge of stakeholders. [It] creates a lack of trust. The board of education is working to get things out in the open. Some people want to hide data." (Parent)
- "Morale is low, but principals do little to address that. The district culture of dysfunction, finger pointing, and blatant racism/savior complex of majority white teachers means that our students are not top of mind in decision making." (Teacher, online survey)
- "There is a very substantial disconnect between central office personnel and principals, assistant principals, and teachers, and this negatively affects almost every aspect of the students' education. It's so poor and severe, in fact, that it's at the level where many teachers are suspicious of nepotism, back-door deals, and other forms of corruption, all of which are suspicions of selfishness and disregard for what's best for the children and families of New Haven." (Teacher, online survey)
- "Staff morale is in the toilet." (District Administrator)

Comments communicating perceptions of a level of fear, a lack of trust and feelings of uncertainty included:

- "People are scared for our school and our job." (Teacher)

- "It's this inconsistency that makes us feel unsafe and unprotected." (Teacher)

- "I think that speaks to a system-wide problem, a lot of fear and a lot of uncertainty." (Teacher)

- "[There is] fear of losing your job, fear of not knowing. A lot of people here are in fear. It's top to bottom. It's everything. There is a lot of fear [across the district]." (District Administrator)

- "The work environment [is a problem]. There is no trust in administration." (Teacher, online survey)

The auditors noted that comments regarding perceptions of low morale, poor climate, fear, and lack of trust were provided by stakeholders from all levels: central office, building leadership, teachers, and even parents.

Communication

The Auditors noted the following comments regarding stakeholder perceptions of poor communication at all levels of the district. Communication is central to supporting and ensuring consistency of effort among levels and across departments. Comments from interviews and designated surveys for the stakeholder group member making the comment are provided below:

- "Timely communication from the Central Office to schools is a weakness." (School Administrator)

- "The first weakness that comes to mind is communications. That's the biggest weakness and it impedes everything else that might be happening." (District Administrator)

- "Communication between the central office and school can be worked on. I wish we would know earlier how many students are coming in." (School Administrator)

- "[Weakness is] communication - amongst board members, across board members and throughout the community." (Community Partner and Parent)

- Weakness? "Communication, I get a robocall for everything but nothing for this (interview), just makes me wonder if they really want parents to come." (Parent)

- "Communication within the district is "tricky"—there are new people in certain positions—not clear what the protocols are." (School Staff Member)

- "Communications with principals is pretty good but they are not accountable. [There is] no oversight." (District Administrator)

- "[We need] consistency, communication and teacher retention." (Teacher, online survey)

- "Communication [is a weakness] between central office and schools." (Teacher, online survey)

- "The communication amongst all stakeholders seems to be lacking at times. Also, at times emails and phone calls to those downtown go unanswered." (School Administrator, online survey)

The greatest number of comments regarding communication were in response to auditors' questions regarding perceived weaknesses of the system. These comments came from all levels of personnel: central office administrators, building leaders, teachers, and parents.

Consistency and Cohesion

In addition to perceptions of ineffective communication, the auditors also received many comments concerning a perceived lack of cohesion and consistency across the system, between departments, or especially between schools and central office. Comments from stakeholder interviews and surveys are provided below:

- "[We need] a board and hierarchy that is in touch with the current issues facing classrooms." (Teacher, online survey)

- "The school district is desperately in need of clear, consistent, and proactive communication. Most importantly, there is no accountability in the district." (Teacher, online survey)

- "I feel like it's disorganized right now. Different communication systems." (Teacher)

- "We need cohesion as a district." (Teacher)

- "At times [leadership is] top down, some people feel that they are coming on hard. Too many deadlines and a lot of times we are at training and not here dealing with things." (School Administrator)

- "We are not organized in our approach." (District Administrator)

- "I think that there's a lot of us working on the same thing and we don't even know what the other is doing. The right hand doesn't know what the left hand is doing." (District Administrator)

- "People are not sitting down at the table to talk. They aren't figuring it out how to make it work. I think it's really problematic." (District Administrator)

A few stakeholders commented on the lack of consistency due to rapidly changing initiatives. These comments included:

- "Sometimes there are too many changing initiatives. Not only is it wasting money, but [it] burns out teachers." (School Administrator)

- "There are too many initiatives. You don't know where to put your energies." (School Administrator)

- "We are a big district and we are trying to do too many things at the same time." (Teacher)

The auditors concluded that cohesion and focus is a perceived weakness from stakeholders at all levels of the system, and that work is still approached from siloes (see also Finding 1.2).

Stakeholder perceptions of protocols, clarity, accountability

The auditors noted the following comments regarding stakeholder perceptions of a lack of clear and consistent protocols, processes, and accountability in the school district. These comments from interviews and surveys included:

- "[There are] mixed messages, conflicting policies, lack of institutional memory and district-wide knowledge now in central office." (School Administrator, online survey)

- "I also believe we need solid protocols that everyone needs to follow, balanced with flexibility to meet the diverse needs of each of our schools." (School Administrator, online survey)

- "There are very severe mismanagements in this district." (Parent)

- "District isn't clear where the nexus of control is. What is the direction of service?" (School Administrator)

- "Strength is moving to a more centralized decision making, this is the right direction. We need to get the schools on the same page." (School Administrator)

- "We need stability. When something is working, it doesn't seem to stay." (Teacher)

- "I think the biggest recurring theme for us is that there is mixed messaging or conflicting agendas." (Teacher)

- "Things come from different directions; nobody is able to make a definitive decision." (District Administrator)

- What needs improvement? "Clarity, fairness, steadiness in approach and building trust between teachers and administration." (Teacher, online survey)

The auditors noted that comments regarding these perceptions were made by stakeholders at all levels: district administrators, school administrators, teachers and parents. The comments all indicated perceptions of a lack of cohesion created by insufficient processes and protocols, clarity, and accountability across the system.

Governance Summary

As noted in the introduction to this finding, perceived conflicts within the board/district relationship, politics, and perceived lack of connectedness, coherence, and accountability have created a culture of fear which has impacted the levels of trust, clarity and morale among stakeholders regarding the direction of the New Haven Public Schools. Updated board policies and bylaws for the Standards of Conduct for board and district staff are needed.

Feedback from interviews and surveys indicate that there are significant concerns by representatives from stakeholder groups regarding the nature of relationships in the New Haven Public Schools. Specifically, concerns were raised regarding stakeholder perceptions of: 1) Board-Administration dysfunction, politics, tension, and inappropriate behavior; 2) Low morale, poor climate, fear, and lack of trust; 3) Poor communication; 4) Lack of cohesion/disconnect among departments/levels; and 5) Lack of clear processes and protocols, clarity, accountability.

The establishment of a positive working relationship that focuses on collaboration, coordination, and communication is needed for the district to realize the vision and direction of the school district. Important in the establishment of a positive working relationship is the development of an understanding of the appropriate roles of the policy and operational functions of a school district and the appropriate interactions between the policy makers and the administrators who implement the policies and programs of the school district. The board of education and superintendent are working to solidify the vision of the school district and to refine the strategic goals and objectives that will lead to improved student achievement and to improve community perceptions. It is critical that the areas noted above based on specific feedback from stakeholders be addressed for the district to be able to move forward.

STANDARD 2: The School District Has Established Clear and Valid Objectives for Students.

A school system meeting this audit standard has established a clear, valid, and measurable set of pupil standards for learning and has set the objectives into a workable framework for their attainment.

Unless objectives are clear and measurable, there cannot be a cohesive effort to improve pupil achievement in the dimensions in which measurement occurs. The lack of clarity and focus denies to a school system's educators the ability to concentrate scarce resources on priority targets. Instead, resources may be spread too thin and be ineffective in any direction. Objectives are, therefore, essential to attaining local quality control via the school board.

What the Auditors Expected to Find in the New Haven Public Schools:

Common indicators the CMSi auditors expected to find are:

- A clearly established, board-adopted, system-wide set of goals and objectives for all programs and courses at all grade levels;

- Demonstration that the system is contextual and responsive to national, state, and other expectations as evidenced in local initiatives and curriculum documents;

- Operations, processes, and tasks set within a framework that carries out the system's vision, goals, and objectives;

- Evidence of comprehensive, detailed, short- and long-range curriculum management planning;

- Knowledge, local validation, and use of current best practices and emerging curriculum trends;

- Written curriculum that addresses both current and future needs of students related to content, contexts, pacing, and cognitive challenge;

- Major programmatic initiatives designed to be cohesive;

- Provision of explicit direction for the superintendent and professional staff; and

- A framework that exists for systemic curricular change.

Overview of What the Auditors Found in the New Haven Public Schools:

This section is an overview of the findings that follow in the area of <u>Standard Two</u>. Details follow within separate findings.

An examination of district documents indicates that individually or collectively, district documents do not provide clear guidance for curriculum management planning. As a result, the district does not have a means of assuring cohesion and consistency in curriculum planning (see <u>Finding 2.1</u>). The scope of written curriculum (the percentage of courses that have a written curriculum guide) does not meet the CMSi Audit standard for adequacy to guide instruction across the district at the secondary level, and reduces the system's ability to plan and measure its work against intended instructional outcomes (see <u>Finding 2.2</u>). The district does not have a consistent format for curriculum components and as a result does not consistently contain the five basic elements the CMSi Audit considers essential to provide quality curriculum guidance to instructors. The inadequate guide quality, vague specifications for student learning, and variance in curriculum guidance impede the district's ability to ensure equal access to a rigorous curriculum for all students. While the district places a heavy emphasis on literacy and reading instruction, the reading program design in New Haven Public Schools inconsistently meets the audit criteria for effective reading programs (see <u>Finding 2.3</u>).

The audit team conducted further analyses of the design of assessments and resources for internal consistency and cognitive complexity. There is inconsistent alignment between the district-adopted and district-developed assessments and the Common Core State Standards and the Smarter Balanced Assessments. A sample resource

analysis revealed inconsistent alignment with the Common Core State Standards in math. This variability in alignment hinders the district's ability to make significant achievement gains on the high-stakes assessment (see Finding 2.4).

Findings within Standard Two focus on the design of the written curriculum and are presented in the following order:

- Curriculum management planning.
- Overall scope of curriculum in the New Haven Public Schools.
- Overall minimal basic components for quality and specificity of curriculum document design, including:
  - Curriculum Use and
  - Effective Reading Program Analysis.
- Internal consistency and congruency of the New Haven Public Schools curriculum to include:
  - Internal consistency and cognitive complexity of English Language Arts District-adopted and -developed Assessments with the CCCSS and the SBA;
  - Internal consistency and cognitive complexity of Mathematics District-adopted and -developed Assessments with the CCCSS and the SBA;
  - Internal consistency and cognitive complexity of grade 7 Mathematics Primary Resource.

Finding 2.1: The district needs a comprehensive curriculum management plan or systematic planning in place to guide the design, implementation, and evaluation of curriculum.

A school district with a strong curriculum management system has a written plan that facilitates the design and delivery of the curriculum. The plan directs the stages of development and review and assigns responsibility for design and delivery to district and school staff members. The plan provides processes for curriculum development, adoption, implementation, monitoring, evaluation, and revision for all courses of study. A comprehensive curriculum management plan provides for system accountability and quality control. It provides a structure for the district to communicate clearly those elements tightly held across the district, ensuring consistency where it matters, and those loosely held, allowing principals and teachers to use school-specific and creative approaches to meet individual student needs. Such a plan provides a blueprint of expectations for internal consistency, increasing the opportunity for effective delivery of a curriculum that is horizontally coordinated, vertically articulated, aligned to assessments, and systematically evaluated to determine effectiveness.

The plan additionally presents the overall vision and philosophy, which is based on district plans and policy, that provides a foundation for the entire instructional program. The vision and philosophy create a framework within which decisions are to be made so as to achieve congruence in operations and processes across the system. Without such direction, there is a greater chance for significant variation in curriculum design, inconsistent adherence to the district-approved written curriculum, fragmented instructional focus, and ineffective monitoring practices. A curriculum management plan provides a structure for the system to communicate its expectations on elements that are tightly held across the district and those where schools have authority to bring about contextual variations, or are considered loosely held. Tightly held is also referred to as tightly coupled, meaning that the roles are connected to a hierarchal chain of command. Loosely held, also referred to as loosely coupled, means that there is limited or no connection among organizational roles. In tightly held curriculum functions, ends, mission, goals, and priorities, student learning objectives, and student assessments are communicated centrally. The expectation is that they are followed throughout the district. In loosely held curriculum functions, there is a degree of autonomy and independence. Exhibit 2.1.1 provides curriculum management functions and components that should be tightly held and those that should be loosely held.

Exhibit 2.1.1

Tightly Held vs. Loosely Held Curriculum Management Functions and Components
New Haven Public Schools
April 2019

CMIM Decision-Making Matrix	
Ends **(Curriculum and Aligned Assessments)**	**Means** **(Instruction and Program)**
Tightly-held **(Non-negotiable)** *District Level*	**Loosely-held** **(Aligned to the Tightly-held but Negotiable by Teacher/Faculty)** *School/Classroom Level*
• Vision, Mission, Goals • Philosophy and Beliefs • Curriculum Objectives—Standards/ Outcomes/Student Expectations/Objectives • Priority Standards/Outcomes/Student Expectations/Objectives • Assessments: criterion-referenced tests, benchmark assessments, diagnostic assessments, progress-monitoring tools • Program guidelines, expectations	• Differentiation of when (within the unit, grade level, or course) each student is taught certain objectives (while maintaining on-level instruction) • Processes, procedures, instructional strategies or approaches • Resources, materials, textbooks, etc. • Programs (e.g. ELL Program, Sp. Ed. Program, Intervention Programs) • Groupings • Staffing • Informal classroom assessments, school-wide assessments for progress monitoring
©2018 CMSi	

Exhibit 2.1.1 shows curriculum management functions and components for the district to consider when allowing school administrators and teachers to make independent decisions about how instruction is delivered and how students are grouped, which strategies and resources are used in the delivery of instruction, and how staff is assigned. These decisions, however, must be aligned with the tightly held functions and components of the district's end goals, mission, student learning objectives, and student assessments in content, context, and cognitive type. A comprehensive curriculum management plan provides essential direction on how the district will align the written, taught, and tested curriculum.

In general, the auditors found no direction in board policies for curriculum management planning and little direction in job descriptions for district expectations regarding responsibilities for the design, implementation of assessment, and evaluation of the district's curriculum. The current process of curriculum management planning in New Haven Public Schools is inadequate to direct teaching and learning in the district and fails to meet audit criteria.

In the absence of specific planning documents dedicated to managing the design, delivery, evaluation, and revision of curriculum, auditors examined the documents identified in Exhibit 2.1.2, visited all schools and 441 classrooms in the district; and interviewed administrators, curriculum supervisors, and teachers to determine the extent of curriculum management planning in the New Haven Public Schools District.

Exhibit 2.1.2

Curriculum Planning Documents and Other Sources Reviewed by Auditors
New Haven Public Schools
April 2019

Document	Date
New Haven Public Schools Curriculum Supervisors Collective Priorities	2017-18
Department Improvement Plans	2018-19
New Haven Public Schools Curriculum Supervisors Professional Learning Proposal	2018-19
New Haven Public Schools Academics: Content Area Curriculum Summaries & Curricula – At-A-Glance	2016
Meeting Minutes	Various
Job Descriptions	Unknown

The documents listed in Exhibit 2.1.2 provided auditors with some insight into curriculum planning in the district, but collectively do not provide a systematic and clear direction for staff to develop, implement, and evaluate curriculum using a comprehensive plan. During the examination of district documents, auditors noted that there are efforts toward providing direction for curriculum and instruction. The following is a brief summary of what reviewers noted in district documents.

- The document titled *New Haven Public Schools Curriculum Supervisors Collective Priorities* provides job responsibilities for Curriculum Supervisors that indicate they are to develop, revise and communicate research & standards-based curriculum to teachers & administrators, as well as provide professional development on curriculum revision/implementation and monitor the implementation of curriculum.

- The document titled *New Haven Public Schools Curriculum Supervisors Professional Learning Proposal* describes outcomes of increased rigor in all components of the workshop model and increased quality of students' academic discussions across all content areas. This document also names participants, provides a timeline, and includes evidence of success to guide the initiative.

- A document titled New *Haven Public Schools Academics: Content Area Curriculum Summaries & Curricula – At-A-Glance* provides a summary of each core content curriculum by grade level and defines how each curriculum will be purposeful, meaningful, supportive, and measurable. The document also identifies community partners, recently purchased materials, and course offerings.

- Document *1.23.Academics Team DIP update 12-3-18* provides a plan for improving curriculum, instruction, and assessment in the district. This document discusses a number of action steps for the revision of district curriculum.

Although the examination of various documents indicates a focus on curriculum and instruction in New Haven Public Schools, district documents do not provide clear guidance or direction for comprehensive curriculum management planning, individually nor collectively. There was no documented process for district curriculum design, implementation, and evaluation, or for the articulation and coordination of the K-12 curriculum, although considerable work on developing curriculum guides has taken place regularly across the district.

Auditors also reviewed job descriptions to determine if roles and responsibilities for the management of curriculum are clearly articulated in New Haven Public Schools. The following is a summary of curriculum management responsibilities found in job descriptions:

- Assistant Superintendent: "Ensures that there is coherence with the strategic plan, school plan, student learning objectives, and performance goals. Ensures an aligned PK-12 instructional program that addresses state, local, and federal requirements to ensure academic achievement. Plans and develops researched programs and supports to be implemented across schools."

- Principal: "directs the overall management of the school including academic, co-curricular, and support programs through coordination of the administrative staff and Instructional Leaders.

- Instructional Coach: "support teaching and learning through modeling, coaching and professional development to improve and accelerate student achievement through quality instruction."

The auditors found some reference to curriculum planning in job descriptions and district documents. However, no single document provides guidance and direction for sound curriculum management planning.

The audit uses 15 characteristics of a quality comprehensive curriculum management plan when evaluating a school district's approach to curriculum design, delivery, and assessment. To be considered adequate, planning elements must exhibit 11 of the 15 characteristics, or 73%. These characteristics are described in Exhibit 2.1.3. A comprehensive curriculum management plan as described in Exhibit 2.1.3 directs not only the design of the curriculum, but also the scope and cycle of implementation and review, the roles and responsibilities of various stakeholders, the procedures for alignment, and the strategies for assessment and for using assessment data for revision and improvement. Although no plan was available, the auditors evaluated existing policies and related documents that also address curriculum responsibilities. Since no characteristics were fully met, the auditors present the characteristics in Exhibit 2.1.3 without ratings.

Exhibit 2.1.3

Curriculum Management Planning Characteristics

Characteristics:
1. Describes the philosophical framework for the design of the curriculum, including such directives as standards-based, results-based, or competency-based; the alignment of the written, taught, and tested curriculum; and the approaches used in delivering the curriculum.
2. Directs how state and national standards will be considered in the curriculum. This includes whether or not to use a backloaded approach, in which the curriculum is derived from high-stakes tested learnings (topological and/or deep alignment), and/or a frontloaded approach, which derives the curriculum from national, state, or local learnings.
3. Defines and directs the stages of curriculum development.
4. Specifies the roles and responsibilities of the board, central office staff members, and school-based staff members in the design and delivery of curriculum.
5. Presents the format and components of all curriculum, assessments, and instructional guide documents.
6. Requires for every content area a focused set of precise student objectives/ student expectations and standards that are reasonable in number so the student has adequate time to master the content.
7. Directs that curriculum documents not only specify the content of the student objectives/student expectations, but also include multiple contexts and cognitive types.
8. Directs curriculum to be designed so that it supports teachers' differentiation of instructional approaches and selection of student objectives at the right level of difficulty. This ensures that those students who need prerequisite concepts, knowledge, and skills are moved ahead at an accelerated pace, and that students who have already mastered the objectives are also moved ahead at a challenging pace.
9. Identifies the timing, scope, and procedures for a periodic cycle of review of curriculum in all subject areas and at all grade levels.
10. Specifies the overall beliefs and procedures governing the assessment of curriculum effectiveness. This includes curriculum-based diagnostic assessments and rubrics (as needed). Such assessments direct instructional decisions regarding student progress in mastering prerequisite concepts, skills, knowledge, and long-term mastery of the learning.
11. Describes the procedures teachers and administrators will follow in using assessment data to strengthen written curriculum and instructional decision making.
12. Outlines procedures for conducting formative and summative evaluations of programs and their corresponding curriculum content.
13. Requires the design of a comprehensive staff development program linked to curriculum design and its delivery.
14. Presents procedures for monitoring the delivery of curriculum.
15. Establishes a communication plan for the process of curriculum design and delivery.
©2018 CMSi

Exhibit 2.1.3 provides a description of characteristics that are found in a curriculum management plan. Current documents and policies in the New Haven Public Schools do not meet any of the characteristics. Specific information related to each of the 15 characteristics follow.

Characteristic 1: Describes the philosophical framework for the design of the curriculum.

The philosophical framework is the guiding force behind decisions regarding curriculum, assessment design, and instructional delivery. A document titled *Academics Team, District Improvement Plan: Curriculum* provides some guidance for the philosophical framework, "If we provide rigorous, culturally relevant, engaging, and differentiated standards-based curriculum across the content areas that provides multiple opportunities for students to apply higher order thinking, literacy, and numeracy skills, then students' ability to transfer essential literacy and numeracy will increase." This statement provides some information pertaining to curriculum design, but lacks the details necessary for a complete philosophical framework, which is required for this characteristic.

Characteristic 2: Directs how state and national standards will be considered in the curriculum.

Policy 6141: Instruction: Curriculum describes some guidelines for state requirements, "The curriculum shall contain all courses required by the State Department of Education; Committees shall review curriculum requirements of the State Department of Education and shall express its recommendations for change, if any, to the Board, which may choose to communicate them to state officials." This policy describes courses but fails to include how state and national standards will be considered.

Characteristic 3: Defines and directs the stages of curriculum development.

In order to meet the requirements for this criterion, the district must define when and how curriculum is to be developed. New Haven *Policy 6140: Curriculum* states, "The Board of Education desires that unnecessary duplication of work among the levels be eliminated, and the course of study and syllabi be coordinated effectively." While this policy describes the coordination of curriculum, it does not lay out a plan for development.

Characteristic 4: Specifies roles and responsibilities of the board, central office staff members, and school-based staff members in the design and delivery of the curriculum.

As previously described, auditors found some evidence of curriculum planning roles for the design and delivery of curriculum including: *Local Policy 6140: Instruction: Curriculum* states, "The Board of Education reserves the responsibility for establishing curricula for the school district. The teachers shall teach within the adopted curricula." A review of job descriptions included the assignment of curriculum duties, including the responsibility for coordination, collaboration, and oversight in curriculum development and implementation. While board policies and job descriptions contained general references to curricular roles and responsibilities, they lacked sufficient specificity to delineate the relationships and lines of authority associated with curriculum and instructional responsibilities, and those responsibilities were not specifically described.

Characteristic 5: Presents the format and components of all curriculum, assessments, and instructional guide documents.

The auditors were not presented with any documents that presented requirements for the components of and format for all curriculum documents.

Characteristic 6: Requires for every content area a focused set of precise student objectives.

The documents examined by auditors did not provide direction regarding the specificity and feasibility of student objectives. There were no written requirements that curriculum should have clear and measurable objectives. Objectives were not provided for every content area (see Finding 2.2). The quality of the objectives varied across content areas (see Finding 2.3).

Characteristic 7: Directs that curriculum documents not only specify the content of student objectives/ student expectations, but also include multiple contexts and cognitive types.

Direction for the inclusion of multiple contexts and cognitive types was not found in any documents that were analyzed by the auditors.

Characteristic 8: Directs curriculum to be designed so that it supports teachers' differentiation of instructional approaches and selection of student objectives at the right level of difficulty.

One document referenced a goal for differentiation: *Academics Team District Improvement Plan Curriculum* states, "By June of 2020, observations in all content areas will show greater levels of student differentiation". Curriculum documents did not include support for teacher's differentiation of instruction nor did they provide guidance on how to make instructional decisions regarding student progress in mastering prerequisite concepts, skills, knowledge, and long-term mastery of the learning.

Characteristic 9: Identifies the timing, scope, and procedures for a periodic cycle of review of curriculum in all subject areas and at all grade levels.

Policy 6140: Curriculum states, "The Board deems it essential that the school system continually develop, evaluate, and improve its curriculum in order to achieve its educational goals and objectives." While this policy describes the need to continually review curriculum, it does not provide specific guidelines of when, how, and which content areas are to be reviewed. Nor did any documents specify what the steps of the review process were.

Characteristic 10: Specifies the overall beliefs and procedures governing the assessment of curriculum effectiveness.

The goals outlined in *Academics Team District Improvement Plan Assessment* states, "Review all assessments to ensure that they are providing high-quality data necessary to make curricular and instruction decisions." The goal describes the need to review the quality of assessments in order to make curricular decisions, but does not describe the specific criteria for doing so nor the procedures that will be used to determine whether the curriculum itself is effective in response to the data.

Characteristic 11: Describes the procedures teachers and administrators will follow in using assessment data to strengthen the written curriculum and instructional decision making.

The goals outlined in *Academics Team District Improvement Plan Assessment* describe a review of all assessments and professional development for teachers in the use of assessments. The goal does not provide the specific procedures for the use of assessment data that teachers and administrators will learn about as part of the professional development goal.

Characteristic 12: Outlines procedures for conducting formative and summative evaluations of programs.

There is no clear direction requiring the use of formative or summative assessment data for the evaluation of district programs. There was no evidence that a systematic process existed in the district for determining which programs were effective and should be continued and which programs should be discontinued for failing to achieve desired results (see Finding 4.4).

Characteristic 13: Requires the design of a comprehensive staff development program linked to program design and delivery.

Policy 4206 P: Personnel – Certified: Staff Development: "Teacher must constantly review curricular content, teaching methods and materials, educational philosophy and goals, social change and other topics related to education." And "staff development activities should respond directly to the educational needs of the student body, including: (a) content areas such as language arts including reading and writing, math, social science and science; (b) methodological areas such as motivation, teaching techniques, and classroom management." While this policy indicates the need for professional development, it does not describe the link to program design and delivery.

The goals outlined in *Academics Team District Improvement Plan Assessment* states, "develop PD for teachers on the curriculum revisions done this year such that they can see the clear links from the written curriculum documents to instruction that takes into account higher order thinking and key strategies for ELs and SPED." This goal, if implemented, will satisfy one component of this criterion. Further development and the requirement for a comprehensive professional development plan specifically linked to program design and delivery is required.

Characteristic 14: Presents procedures for monitoring the delivery of curriculum.

Interview data confirmed that school administrators and instructional coaches carry out formal and informal observations of instruction; however, there is no formalized, consistent approach for monitoring the delivery of curriculum.

Characteristic 15: Establishes a communication plan for the process of curriculum design and delivery.

Auditors were not presented with documents that described a communication plan for the process of curriculum design and delivery.

Overall, the auditors found New Haven Public Schools lack a comprehensive curriculum management plan to direct the development, implementation, and evaluation of curriculum.

In addition to reviewing documents, policies, and job descriptions, the auditors conducted interviews with board members, administrators, teachers, and other staff to identify district expectations, practices, and approaches for curriculum planning. The following are representative comments:

- "Does a curriculum management plan exist? No. There is a department plan that was developed with the person who was in charge of the supervisors in the fall." (District Administrator)

- "We need to develop what needs to be loose and what needs to be tight." (District Administrator)

- "They are using a little bit of everything. I believe that teachers make the decisions for students. I don't think it has to be top down, but there has to be some standards that are being adhered to at some level." (District Administrator)

- "They have been working in silos in their own areas. They are using different templates, different messages around assessment." (District Administrator)

Teachers and administrators spoke to issues that are present when a comprehensive curriculum plan does not exist:

- "There is a lack of consistency in terms of instruction. If they [students] move from one school to another school in the district then they are not guaranteed the same curriculum." (District Administrator)"

- "Lack of curriculum across subjects." (Teacher)

- "The curriculum changes often and we are not given enough time or materials to keep up." (Teacher)

- "Our curriculum has to have a clearer pace, clearer guidelines of expectations of teachers (i.e., discourse, small group, workshop, etc.) and more alignment across schools." (Teacher)

- "Many courses do not have a written curriculum, so there is no such thing as an assured academic experience for students." (Teacher)

- "Communication between departments. Assessment schedules overlap and overwhelm students and teachers." (Teacher)

- "… it is hard for teachers to be consistent if there are not systems in place that allow for continuity in curriculum for more that 3-5 years." (Teacher)

Curriculum Management Summary

The auditors found that the New Haven Public Schools need a comprehensive curriculum management plan to direct the design, delivery, monitoring, and evaluation of the curriculum. Board policies and supplemental documents provide some direction for the planning process but do not have the key components that would guide the development of a quality written curriculum in an organized, consistent manner for all teachers. The current process of planning does not provide for consistency nor sufficiently focus on improving the design of curriculum to better support delivery.

Finding 2.2: The scope of the written curriculum for core and non-core content at the secondary (9-12) level is inadequate to direct instruction; however, the scope of core and non-core content at the elementary (K-8) level is adequate.

Curriculum documents are the written guides that provide direction for teachers as they plan for classroom instruction. Comprehensive curriculum documents contain objectives for student learning, prerequisite skills that are required prior to learning, instructional resources available to teachers, classroom strategies that describe how to approach key concepts of skills, and assessment methods tied to each objective. When curriculum documents are provided in all grades and subject areas, it increases the likelihood that students will have equitable access to the district curriculum. Furthermore, these documents provide for consistency and focus across schools, grades, and courses. When curriculum documents are unavailable or missing components, teachers have to rely on other resources to plan instruction. These resources may or may not be aligned with the system's intended curriculum and may lead to idiosyncratic student access to the district curriculum.

The scope of the written curriculum refers to the extent to which the taught curriculum is covered by written curriculum documents. The scope is considered adequate if 100% of the four core content area courses (the audit defines core as English language arts, mathematics, social studies, and science) and 70% or more of all other courses offered in the system have written curriculum documents. This finding only addresses scope and will describe to what extent written curriculum documents exist for each course offered by the district.

The auditors examined all documents that were provided to the audit team by district personnel. These documents included board policies, course catalogs, district website, department pages, New Haven Public Schools Academics: Content Area Curriculum Summaries & Curricula-At-A-Glance, NHPS Master Course List for High Schools with Assessments and Credits, and a spreadsheet listing the courses offered. Some of these documents and websites were used to determine which courses are currently offered in the district; others were used to determine the scope of the written curriculum. While any one of these documents may not represent a complete curriculum, auditors considered all of the curriculum documents that teachers have available to them as written curriculum. It should be noted that auditors do not consider commercially produced, purchased programs or textbooks as curriculum. These are materials and resources available to teachers to support delivery of the written curriculum, not supplant it. For this reason, auditors did not consider these documents in determining the scope of the written curriculum.

Overall, auditors found little direction for the design development of written curriculum in New Haven Public Schools. The scope of the written curriculum is adequate at the elementary level, but is inadequate to direct teaching and learning at the secondary level.

Auditors looked for board policies that required written curriculum for all subjects and courses. Two board policies provide some guidance for curriculum adoption or purchase, but stop short of requiring a curriculum document for every subject and course.

In their examination of board policies, auditors found the following directives for curriculum:

- *Local Policy 6140: Instruction: Curriculum* states "The Board of Education reserves the responsibility for establishing curricula for the school district. The teachers shall teach within the adopted curricula."

- *Local Policy 6141: Instruction: Curriculum Development* states "The Board deems it essential that the school system continually develop, evaluate, and improve its curriculum." The board also authorizes the administration to "organize curriculum committees, which should be composed of teachers, administrators, parents, and students to review the curriculum and advise the Board on curriculum changes. There should be a process whereby each discipline will be reviewed at least once every five years."

Overall, board policies provide little direction or expectations for written curriculum documents in the district.

Auditors were provided with a variety of curriculum documents representing the scope of the written curriculum in the New Haven Public School District. Exhibit 2.2.1 lists 12 curriculum documents, website locations, and policy documents provided to auditors. These documents were used to assess the scope of the written curriculum in New Haven Public Schools.

Exhibit 2.2.1

List of Curriculum Documents Reviewed
New Haven Public Schools
April 2019

Document	Date
New Haven Public Schools Curriculum Website: English Language Arts/Literacy	Varies
New Haven Public Schools Curriculum Website: Math	2016-17
New Haven Public Schools Curriculum Website: Social Studies	2019
New Haven Public Schools Curriculum Website: Science	2017-18
New Haven Public Schools Curriculum Website: World Languages	2016, 2019
New Haven Public Schools Curriculum Website: Performing & Visual Arts	2019
New Haven Public Schools Curriculum Website: Physical Education & Health	2016
New Haven Public Schools Curriculum Website: English Learners	2019
New Haven Public Schools Curriculum Website: Library Media & Technology	2016
NHPS Master Course List For High Schools with Assessments and Credits	NA
New Haven Public Schools Board Policy	1995
New Haven Curriculum Booklet	2016

For the scope of the district's curriculum to be considered adequate, 100% of the core content areas of English language arts, math, science, and social studies must have a written curriculum, and 70% of non-core subjects must have a written curriculum. The auditors expected to find a document for every subject and course that is taught in New Haven Public Schools. The following sections describe the scope at each grade level span as well as a summary for the entire district. This finding does not address the quality of the written curriculum. The quality of the written curriculum will be reported in Finding 2.3.

Exhibit 2.2.2 illustrates the scope of the kindergarten through grade 8 written curriculum based on documents provided to the auditors. The exhibit displays a listing of content areas taught, the grade level at which the content is taught, the availability of a curriculum guide, the total number of areas requiring a written curriculum, and an indication of the number of curriculum guides that exist. An "X" indicates that a curriculum guide is available.

Exhibit 2.2.2

Scope of Written Curriculum: Grades K-8
New Haven Public Schools
April 2019

Subject Area	Grade Level									Number of Areas Requiring Written Curriculum	Number of Areas With Written Curriculum
	K	1	2	3	4	5	6	7	8		
Core Curriculum											
ELA											
Reading/Language Arts	X	X	X	X	X	X	X	X	X	9	9
Writing	X	X	X	X	X	X	X	X	X	9	9
Mathematics											
K-6 Mathematics	X	X	X	X	X	X	X	X	X	9	9
Pre-Algebra									X	1	1
Science	X	X	X	X	X	X	X	X	X	9	9
Social Studies	X	X	X	X	X	X	X	X	X	9	9
Total Core Areas Requiring Written Curriculum										46	
Total Core Areas With Written Curriculum											46
Percent of Total Scope of core curriculum											100%
Non-Core Curriculum											
Music											
General Music	X	X	X	X	X	X	X	X	X	9	9
Band							X	X	X	3	3
Other Disciplines											
Art	X	X	X	X	X	X	X	X	X	9	9
World Languages	X	X	X	X	X	X	X	X	X	9	9
Health	X	X	X	X	X	X	X	X	X	9	9
Physical Education	X	X	X	X	X	X	X	X	X	9	9
Total Non-core Areas Requiring Written Curriculum										48	
Total Non-core Areas With Written Curriculum											48
Percent of Total Scope of non-core curriculum											100%

Key: Shaded Spaces = Subject not taught at this grade level
O – Course taught but no curriculum available   X – Course taught and curriculum available

As illustrated in <u>Exhibit 2.2.2</u>:

- There are 46 core content area courses offered in grades K-8.

- Forty-six core content area courses or 100%, have a written curriculum. This meets the 100% requirement for adequacy.

- There are 48 non-core courses. Forty-eight, or 100% of these courses have curriculum; this exceeds the 70% requirement for adequacy.

- Health was given credit for having a written curriculum for all grades K-8; although it is unclear how the written curriculum targets instruction at each grade level.

- Overall, 94 courses are offered in grades K-8.

- The overall scope of the written curriculum in grades K-8 is 100%.

Based on this analysis, the scope of the written elementary curriculum for the core content areas of English language arts and reading, math, science, and social studies is considered adequate to direct the teaching and learning process. It should be noted that courses that were not offered at all elementary schools in the district were not included in the scope determination. For example, classes specific to an individual magnet school were not included in this analysis.

Exhibit 2.2.3 illustrates the scope of the secondary curriculum for grades 9 through 12 based on documents provided to the auditors. The exhibit displays a listing of courses taught, and the schools at which the courses are offered are indicated by a "Y."

Exhibit 2.2.3

Scope of the Written Curriculum in Grades 9-12
New Haven Public Schools
April 2019

Course	High Schools										Written Curriculum	
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
CORE												
English												
English 1	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
English 1 Honors	Y		Y							Y		X
English 1 Lab		Y					Y					X
English 1-SC					Y							X
English 2	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
English 2 Honors	Y		Y							Y		X
English 2-SC					Y							X
English 3	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
English 3 - SC					Y							X
English 3 Honors	Y		Y							Y		X
English 4		Y	Y	Y		Y		Y	Y	Y	X	
English 4 Honors	Y		Y							Y		X
English 4-SC					Y							X
AP Lang & Composition	Y	Y	Y	Y	Y				Y	Y		X
AP Lit & Composition	Y	Y	Y		Y	Y			Y	Y		X
American Literature							Y					X
Creative Writ I	Y				Y							X
Creative Writ II	Y											X
Creative Writing									Y			X
Creative Writing .5 cr		Y	Y									X
Pre AP English 1					Y							X
Pre AP English 2					Y							X
Read 180				Y	Y		Y			Y		X
Daily English-OCC					Y					Y		X
11/12 Lit: American Violence					Y		Y					X
11/12 Lit: Hate, Hurt, Healing							Y					X
11/12 Lit: True War Stories					Y		Y					X
11/12 Literature: Identity Lost and Found							Y					X
11/12 Literature: Love & Loneliness							Y					X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
English (continued)												
11/12 Literature: Nightmares in Paradise							Y					X
Journalism		Y		Y	Y					Y		X
Literature 1A							Y					X
Literature 1B							Y					X
Literature 2A							Y					X
Literature 2B							Y					X
Math												
Algebra 1	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
Algebra 1 Honors	Y		Y						Y			X
Algebra 1 Lab		Y	Y		Y							X
Algebra 1 SC					Y							X
Algebra 1A .5 cr							Y					X
Algebra 1B .5 cr							Y					X
Algebra 2	Y	Y	Y	Y	Y	Y			Y	Y	X	
Algebra 2 Honors	Y	Y	Y		Y				Y	Y		X
Algebra 2 SC					Y							X
Algebra 2A							Y					X
Algebra 2B							Y					X
Algebra 3 & Trig					Y							X
AP Calculus AB	Y	Y	Y	Y	Y		Y			Y		X
AP Statistics	Y	Y	Y	Y					Y	Y		X
Calculus		Y				Y			Y	Y	X	
Discrete Math					Y					Y		X
Geometry	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
Geometry A							Y					X
Geometry Honors	Y		Y						Y	Y		X
Geometry SC					Y							X
Pre AP Algebra 2					Y							X
Pre AP Geometry					Y							X
Pre-Calculus	Y	Y			Y	Y			Y	Y	X	
Pre-Calculus A							Y				X	
Pre-Calculus B							Y				X	
Pre-Calculus Honors	Y	Y	Y	Y	Y				Y	Y		X
Pre-College Math	Y			Y								X
Statistics	Y	Y		Y	Y	Y			Y	Y		X
Statistics A							Y					X
Statistics B							Y					X
Stats/Bus Health			Y									X

Course	High Schools										Written Curriculum	
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Math (continued)												
Applied Algebra 2				Y				Y				X
Daily Math-OCC					Y					Y		X
IS ADV Calculus Honors										Y		X
IS Calc BC for Eng										Y		X
IS Discrete Math										Y		X
IS Mathematical Modeling & Epidemiology		Y										X
Math 180 1cr					Y							X
Math and English for the College Bound S			Y									X
Math Foundations										Y		X
Math Wkshp 10							Y					X
Principle Alg & Geom								Y				X
SAT Prep MATH				Y	Y		Y					X
Science												
Anat & Physiology HRC Honors			Y									X
Anatomy & Physiology		Y	Y		Y	Y					X	
AP Biology	Y		Y		Y		Y			Y		X
AP Biology 2 cr				Y								X
AP Chemistry	Y	Y			Y							X
AP Chemistry 2 cr			Y							Y		X
AP Environmental Sci				Y						Y		X
AP Physics	Y	Y										X
Aquatic Ecology									Y			X
Biology A							Y				X	
Biology B							Y				X	
Biology College	Y	Y	Y	Y	Y	Y		Y		Y		X
Biology Honors	Y	Y	Y							Y		X
Biology SC					Y							X
Chemistry A							Y				X	
Chemistry B							Y				X	
Chemistry College	Y	Y	Y	Y	Y	Y		Y		Y		X
Chemistry Honors	Y	Y	Y							Y		X
Chemistry SC					Y							X
Forensic Science			Y		Y	Y				Y	X	
Forensic Science .5cr				Y							X	
Forensic Science A							Y				X	
Health Science					Y							X
Human Physiology	Y									Y		X
Intro Public Health			Y									X
Marine Maml Cons BIO									Y			X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Science (continued)												
Medical Careers			Y		Y							X
Oceanography									Y			X
Phy-Chem A							Y				X	
Phy-Chem B							Y				X	
Phy-Chem College	Y	Y	Y	Y	Y	Y		Y		Y		X
Phy-Chem Honors			Y							Y		X
Phy-Chem SC					Y							X
Physics A							Y				X	
Physics B							Y				X	
Physics College	Y	Y	Y		Y	Y			Y	Y		X
Physics Honors		Y	Y							Y		X
Pre AP Biology					Y							X
Pre AP Chemistry					Y							X
Science Issues .5 cr										Y		X
Topics in Science							Y		Y			X
Anatomy & Training									Y			X
Aqua BiotechII:SpTp									Y			X
Aquacult Bio Tech 1									Y			X
Aquacult Life Sci 1									Y			X
Aquaculture Biology									Y			X
Aquaculture Chemistry									Y			X
Aquaculture Science									Y			X
Aquaculture Tech 2									Y			X
Aquaculture Tech I									Y			X
AquaLifeSci2:Finfish									Y			X
IS ADV Biology		Y										X
IS Adv Physics C: Mechanics		Y										X
IS ANAT & PHYS		Y										X
IS Organic Chemistry										Y		X
IS ORGANIC CHEMISTRY 2										Y		X
IS Physics C: E&M		Y										X
IS SCIENCE RESEARCH										Y		X
Life Skills - Sci					Y					Y		X
NatResrcs/EnvSci1									Y			X
NatResrcs/EnvSci2									Y			X
Social Studies												
20th Century History					Y					Y		X
AP Govmnt & Politics	Y	Y	Y	Y	Y	Y				Y		X
AP Macroeconomics 1 cr										Y		X

Course	High Schools										Written Curriculum	
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Social Studies (continued)												
AP Microeconomics			Y							Y		X
AP Psychology	Y	Y	Y		Y					Y		X
AP U.S. History	Y	Y	Y		Y					Y		X
AP World History			Y									X
Civics	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
Civics - SC					Y							X
Civics B								Y				X
Civics Honors					Y					Y		X
Civics Honors A							Y					X
Civics Honors B							Y					X
Contemporary Law					Y	Y				Y		X
Current Events .5 cr					Y		Y	Y				X
Pre AP U.S. History					Y							X
Psychology		Y	Y		Y					Y		X
Psychology A								Y				X
Res & Hist Analysis					Y							X
U.S. History 1	Y		Y		Y				Y		X	
U.S. History 1 Honors	Y		Y									X
U.S. History 1A							Y					X
U.S. History 1B							Y					X
U.S. History 1 cr		Y		Y	Y			Y		Y	X	
U.S. History 1 cr Honors										Y		X
U.S. History 1 cr SC					Y							X
U.S. History 2										Y	X	
U.S. History 2 - SC					Y							X
U.S. History 2 .5 cr							Y	Y		Y	X	
US History 2 Honors .5 cr							Y			Y		X
World History A							Y				X	
World History B							Y				X	
11/12 History: People and Places							Y					X
Af/Am Hisp/Am Hist			Y									X
African Amer Hist	Y				Y					Y		X
African Genesis	Y				Y							X
Amer Hist Thru Film	Y				Y							X
American Law										Y		X
American Studies					Y							X
AP Human Geography		Y										X
DynamicWrld:Geography			Y									X
Facing History 1							Y					X

Course	High Schools										Written Curriculum	
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Social Studies (continued)												
Facing History 2						Y						X
Intro to Economics			Y									X
IS African-American History										Y		X
Modern World History	Y	Y	Y	Y	Y	Y		Y	Y	Y	X	
New Haven History	Y			Y								X
Pre AP Modern World History					Y							X
NON-CORE												
World Languages												
ARABIC		Y									X	
Arabic 1		Y								Y	X	
ARABIC 1A		Y									X	
ARABIC 1B		Y									X	
Arabic 2		Y	Y							Y	X	
Arabic 3		Y	Y							Y	X	
Arabic 4 Honors		Y	Y									X
Chinese 1	Y					Y					X	
Chinese 2	Y					Y					X	
Chinese 3	Y					Y					X	
Chinese 4						Y					X	
CHINESE IV (DL)	Y										X	
Chinese V (DL)	Y											X
FRENCH		Y										X
French 1	Y	Y	Y		Y	Y				Y	X	
FRENCH 1A		Y									X	
FRENCH 1B		Y									X	
French 2	Y	Y	Y		Y	Y				Y	X	
French 3	Y	Y			Y	Y				Y	X	
French 3 Honors			Y								X	
French 4		Y			Y	Y				Y	X	
IS French 3										Y	X	
IS French Lit										Y		X
Italian 1									Y	Y	X	
Italian 2									Y	Y	X	
Italian 3									Y	Y	X	
IS ITALIAN 4									Y			X
Latin 1			Y	Y						Y	X	
Latin 2			Y	Y						Y	X	
Latin 2 Honors			Y									X
Latin 3										Y	X	

<table>
<thead>
<tr>
<th rowspan="3">Course</th>
<th colspan="9">High Schools</th>
<th colspan="2">Written Curriculum</th>
</tr>
<tr>
<th>Cooperative Arts</th>
<th>ESUMS</th>
<th>Hill Regional Career</th>
<th>HSC</th>
<th>Hillhouse</th>
<th>Metro</th>
<th>NHA</th>
<th>Riverside Academy</th>
<th>Sound</th>
<th>Cross</th>
<th>Present</th>
<th>Not Present</th>
</tr>
</thead>
<tbody>
<tr><td colspan="13">World Languages (continued)</td></tr>
<tr><td>Latin 3 Honors</td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Latino Experience</td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Latino/Carib History</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>IS Latin 4</td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>AP Spanish 2 cr</td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>AP Spanish Language</td><td></td><td></td><td>Y</td><td></td><td>Y</td><td></td><td>Y</td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>AP Spanish Literature</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>IS SPANISH 3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>IS Spanish 4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>NS Spanish 1</td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td>Y</td><td></td><td>X</td></tr>
<tr><td>NS Spanish 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>NS Spanish 3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>NS Spanish A</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>NS Spanish B</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Spanish 1</td><td>Y</td><td></td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td></td><td>Y</td><td>Y</td><td>Y</td><td>X</td><td></td></tr>
<tr><td>Spanish 1A .5 cr</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 1B</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 2</td><td>Y</td><td></td><td>Y</td><td>Y</td><td>Y</td><td>Y</td><td></td><td></td><td>Y</td><td>Y</td><td>X</td><td></td></tr>
<tr><td>Spanish 2 Honors</td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Spanish 2A</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 2B</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 3</td><td>Y</td><td></td><td></td><td>Y</td><td>Y</td><td>Y</td><td></td><td></td><td>Y</td><td>Y</td><td>X</td><td></td></tr>
<tr><td>Spanish 3 Honors</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td>X</td></tr>
<tr><td>Spanish 3A</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 3B</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 4</td><td>Y</td><td></td><td></td><td></td><td>Y</td><td>Y</td><td></td><td></td><td>Y</td><td>Y</td><td>X</td><td></td></tr>
<tr><td>Spanish 4 Honors</td><td></td><td></td><td>Y</td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Spanish 4A</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 4B</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td><td></td></tr>
<tr><td>Spanish 5</td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>Spanish thru the Arts</td><td>Y</td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td>Y</td><td></td><td></td><td></td><td>X</td></tr>
<tr><td colspan="13">Fine Arts</td></tr>
<tr><td>Acting I</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>Acting II</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>Advanced Drawing</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>Advanced Painting</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Y</td><td></td><td></td><td>Y</td><td></td><td>X</td></tr>
<tr><td>AP 2D Design Portfolio</td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>AP 3-D Design</td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
<tr><td>AP Drawing Portfolio .5 cr</td><td>Y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td></tr>
</tbody>
</table>

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Fine Arts (continued)												
AP Music Theory	Y									Y		X
Art 2					Y					Y		X
Art A				Y								X
Art Applications	Y											X
Art B				Y								X
Art History									Y			X
Ballet II	Y											X
Band I			Y	Y	Y					Y	X	
Band II		Y		Y	Y					Y	X	
Band III					Y					Y	X	
Band IV					Y						X	
Ceramics	Y									Y		X
Choral Music I	Y											X
Choral Music II	Y											X
Choreography	Y											X
Chorus							Y	Y				X
Chorus I				Y						Y		X
Chorus II										Y		X
Concert Jazz Band	Y											X
Dance for Non-Majors	Y											X
Dance Mechanics I	Y											X
Directing for the Stage	Y											X
Dramatic Arts						Y						X
Drawing	Y											X
Exploring Visual Design	Y	Y		Y	Y			Y		Y	X	
Guitar Studio	Y											X
Hip-Hop Dance I						Y						X
Instrumental Strings	Y									Y		X
Instrumental Strings II	Y									Y		X
Intro to Sculpture .5 cr										Y		X
IS Band 2										Y		X
IS Band 3										Y		X
IS Band 4										Y		X
IS Drawing										Y		X
IS Guitar II										Y		X
IS JAZZ PERFORMANCE										Y		X
Jazz Ensemble										Y		X
Modern Jazz II	Y											X
Music Production										Y		X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Fine Arts (continued)												
Music Theory I					Y							X
Music Theory I 1 cr	Y											X
Music Theory II	Y											X
Music Theory III	Y											X
Painting	Y											X
Percussion Ensemble	Y											X
Piano & Theory 1A		Y										X
Piano & Theory 1B		Y										X
Piano & Thry 1			Y									X
Piano Class	Y											X
Sculpture	Y											X
Study of Guitar										Y		X
Survey of American Popular Music Bus & T			Y									X
Survey of Dance Tech 2	Y											X
Survey of Vis Arts	Y											X
Technical Theater					Y							X
Theater for Non-Majors	Y											X
Theatre Studies I	Y											X
Theatre Studies Rotation	Y											X
Visual Arts							Y					X
Wind Ensemble	Y											X
Physical Education												
Physical Education	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	X	
Physical Education 2 .5 cr			Y		Y	Y				Y	X	
Other Electives												
10th Gr Gtewy Proj						Y						X
3D Modeling & Animation		Y										X
60's				Y								X
ACCELL - ESL 1					Y						X	
ACCELL ELL SUPPORT										Y	X	
ACCELL-ESL 2					Y						X	
ACCELL-ESL 3					Y						X	
ACCELL-ESL 4					Y						X	
Accounting 1 Honors			Y									X
Accounting 1			Y				Y					X
Accounting 2							Y					X
Achieve 3000										Y		X
Adv AquaTechnique									Y			X
Adv Weight Training										Y		X

<table>

| | Exhibit 2.2.3 (continued) Scope of the Written Curriculum in Grades 9-12 New Haven Public Schools April 2019 | | | | | | | | | | | |
</table>

Exhibit 2.2.3 (continued)
Scope of the Written Curriculum in Grades 9-12
New Haven Public Schools
April 2019

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Other Electives (continued)												
Advanced Acting 1 cr	Y									Y		X
Advanced Carpentry/Woodworking										Y		X
Advanced Crafts										Y		X
Advanced TV Production	Y											X
Advisory			Y	Y	Y	Y	Y		Y			X
Agriculture Tech 1									Y			X
Agriculture Tech 2									Y			X
Animal Anat & Phys									Y			X
Animation						Y						X
AP Comparative Government & Politics										Y		X
AP Computer Science					Y							X
AP Computer Science Principles										Y		X
Authen Voice In Writ	Y											X
Auto Tech 1 .5 cr										Y		X
Auto Tech 2										Y		X
Auto Tech 3										Y		X
Baking and Pastry										Y		X
Basic Design	Y											X
Brain and Behavior							Y					X
Broadcast 1					Y							X
Build Construct Tech										Y		X
Bus Econ w/ Quant Appl 1 cr						Y						X
Bus Ethics & Finan Plan 1 cr						Y						X
Business and Sports Mgt .5 cr			Y									X
Business Concepts and Careers 1 cr			Y									X
Business Law			Y		Y	Y						X
Business Psychology						Y						X
Business Spanish			Y									X
Civil Engineering		Y										X
Civil Rights				Y								X
CNA: Nurse's Aide								Y				X
College Seminar 1A							Y					X
College Seminar 1B							Y					X
College seminar 2A							Y					X
College seminar 2B							Y					X
Comm & Social Skills-OCC					Y					Y		X
Comm 1 Graphic Tech										Y		X
Comm 2 Adv Graphic										Y		X
Community Service							Y					X

Course	High Schools										Written Curriculum	
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Other Electives (continued)												
Community Service-40 Hrs								Y				X
Comp Sci and Software Eng		Y										X
Composition/Arrange	Y											X
Computer Appl I 1 cr			Y		Y			Y				X
Computer Appl II		Y										X
Computer Literacy										Y		X
Computer Networking & Engineering		Y										X
Constitution Law .5 cr				Y					Y			X
Constitutional Law	Y											X
Constitutional Law 1 cr					Y	Y						X
Construction 1/Carpentry .5 cr										Y		X
Culinary Arts 1					Y					Y		X
Culinary Arts 2										Y		X
Culinary Arts 3										Y		X
Daily Living					Y					Y		X
Digital Electronics		Y										X
Digital Media .5 cr			Y									X
Digital Media and Movie Making (DM3)		Y								Y		X
Digital Media Movie Making Adv. Studio										Y		X
Digital Skills 21										Y		X
Documentary Film										Y		X
E-Commerce&Entrep		Y				Y						X
Emerg MED Tech			Y									X
Engineering Design & Development		Y										X
Entrepreneurship					Y							X
Entrepreneurship 1										Y		X
Environment & Adapt									Y			X
Environmental Science	Y	Y								Y		X
Ethics in Business .5 cr			Y									X
Fash & Wear Art	Y											X
Fashion & Merchandising .5 cr			Y									X
Financial Planning										Y		X
First Aid & CPR										Y		X
FLEX									Y			X
Flight Instrum & Cntrl Systems		Y										X
Food Service Mgt 1 cr										Y		X
Foods 1					Y							X
Freshman Seminar				Y								X
Freshman Seminar .5 cr										Y		X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
	High Schools										Written Curriculum	
Other Electives (continued)												
Graphic Design	Y				Y							X
Health Law			Y									X
High School Health .5 cr			Y		Y					Y		X
History					Y							X
History of Sports										Y		X
Hospitality and Tourism .5 cr			Y									X
Info Tech R&D		Y			Y							X
Interdisciplinary Reading			Y									X
Interdisciplinary Reading 2			Y									X
International Business .5 cr			Y									X
International Issues .5 cr		Y			Y					Y		X
International Issues 1 cr						Y						X
Internship						Y	Y			Y		X
Intro to Business										Y		X
Intro to Construction					Y							X
Intro to Engineering Design		Y										X
Intro to Film Studies A		Y										X
Intro to FilmStudies						Y				Y		X
Intro to Psychology	Y											X
Intro to Technology	Y											X
Introduction to Pharmaceutical Studies										Y		X
IS Adv Graph Arts										Y		X
IS Analog Electronics										Y		X
IS Capstone .5 cr			Y									X
IS Comptr Program										Y		X
IS Fashion Styling & Branding										Y		X
IS Game Theory										Y		X
IS Global Perspectives		Y										X
IS Graphic Design										Y		X
IS History of Medicine										Y		X
IS Instrumentation & Control Tech		Y										X
IS Intro Clothing Construction										Y		X
IS Kinesiology										Y		X
IS Leadership Studies										Y		X
IS Medieval Italian Lit		Y										X
IS NSE Prep										Y		X
IS Personal Finance										Y		X
IS SAT Strategies										Y		X
IS SPORTS MEDICINE										Y		X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Other Electives (continued)												
IS WEBSITE MANAGEMENT										Y		X
JROTC 1					Y							X
JROTC 2					Y							X
JROTC 3					Y							X
JROTC 4					Y							X
Legal Sys-Mock Trial				Y								X
Library Service/Aide			Y	Y								X
Life Skills					Y					Y		X
Life Skills - English					Y					Y		X
Life Skills - Math					Y					Y		X
Marine Construct I									Y			X
Marine Engineer I									Y			X
Marine Engnr 2:SpTp									Y			X
Marketing										Y		X
Marketing 1			Y									X
Marketing 2			Y									X
Medical Response Tech			Y									X
Medical Spanish			Y		Y							X
MedSciTech						Y						X
Mixed Media										Y		X
Multi Media Productions						Y						X
Nutrition & Weights					Y					Y		X
Ocean Engin II:SpTp									Y			X
Ocean Engineer I									Y			X
Office Assistant						Y						X
Peer Leadership	Y					Y						X
Per Fit/Life Choice .5 cr			Y									X
Pers Fin/Marketing	Y				Y							X
Personal Finance			Y						Y	Y		X
Phil&CriticalThink		Y										X
Photography 1	Y									Y		X
Photography 2										Y		X
Photoshop	Y											X
Plant/Greenhouse Tech 1									Y			X
Plant/Greenhouse Tech 2									Y			X
Poetic Time Machine	Y											X
Poetry				Y								X
Prin of Engineering		Y										X
PrinOfFin&FinSrvcs						Y						X

| Course | High Schools | | | | | | | | | | Written Curriculum | |
	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Other Electives (continued)												
Printmaking										Y		X
Programming 2						Y						X
PSY OF STORY TELLING	Y											X
PSYCH PRE-AP/HONORS										Y		X
Reading and Speaking in the Community					Y							X
Recording Arts	Y									Y		X
Resource	Y	Y	Y	Y	Y	Y		Y	Y	Y		X
Resource - ELL										Y		X
Resource - Math					Y							X
Resource - Vision										Y		X
Resource A				Y			Y					X
Resource B				Y			Y					X
Resource K-8		Y										X
R-Flex Reading							Y					X
Robotics		Y			Y							X
SAT Prep EBRW .5 cr					Y							X
Senior Capstone Project Full Year			Y			Y			Y	Y		X
Senior Seminar				Y						Y		X
SmallBusnEntrprnrshp									Y			X
Social Justice and Theatre	Y											X
Social Justice Seminar		Y										X
Sociology		Y			Y							X
Sports Lit					Y							X
Sports, Politics, Culture .5 cr										Y		X
STEM Careers			Y									X
Studio Lab Band I	Y											X
Study Hall		Y					Y		Y			X
Supp Learn Community				Y								X
Swimming			Y		Y					Y		X
System 44				Y						Y		X
Teacher Assistant .5 cr			Y									X
Teacher Asst	Y	Y		Y	Y	Y	Y			Y		X
Teacher Prep 4					Y							X
Technology Capstone		Y										X
Technology Topics		Y										X
TRUE CRIME NOVELS				Y								X
TV Production	Y											X
Vessel Constr&Ops 2/SpTp									Y			X
Vessel Operations I									Y			X

Course	Cooperative Arts	ESUMS	Hill Regional Career	HSC	Hillhouse	Metro	NHA	Riverside Academy	Sound	Cross	Present	Not Present
Exhibit 2.2.3 (continued) **Scope of the Written Curriculum in Grades 9-12** **New Haven Public Schools** **April 2019**												
Other Electives (continued)												
Vet Science 2:Sp Topics									Y			X
Veterinary Science 1									Y			X
Video Game Design & Devel										Y		X
Video Game Design Advanced Studio										Y		X
Vietnam 1				Y								X
VOCATIONAL					Y					Y		X
Web & DB Design					Y	Y						X
Web Design 1			Y									X
Wilson Reading										Y		X
Wilson Reading 1B										Y		X
Women's Studies Hist					Y							X
WORK EXPERIENCE					Y			Y				X
Work Internship-OCC					Y					Y		X
Work Readiness Skills-OCC					Y					Y		X
World of Tech 1	Y											X
Writ the Novella	Y											X
Writing Seminar					Y					Y		X
Writing Workshop						Y						X
Yearbook		Y								Y		X
Total Core											31 (17%)	156
Total Non-Core											49 (14%)	310
Total High School											80 (15%)	466

Key to High School Abbreviations: Cooperative Arts & Humanities (Cooperative Arts); Engineering Science University Magnet School (ESUMS); Hill Regional Career Magnet (Hill Regional Career); High School in the Community (HSC); James Hillhouse High School (Hillhouse); Metropolitan Business Academy (Metro); New Haven Academy Magnet (NHA); Sound School (Sound); Wilbur Cross (Cross)

As illustrated in Exhibit 2.2.3:

- There are 187 core content area courses offered in grades 9 through 12. Seventeen percent of the courses have a written curriculum document. This does not meet the 100% requirement for adequacy.

- Three hundred fifty-nine non-core content area courses are offered in grades 9 through 12. Of the non-core content area courses, 49 (14%) have a written curriculum document, which does not meet the 70% criteria for adequacy.

- The overall scope of the written curriculum for grades 9 through 12 is 15%.

Based on this analysis, the scope of the written high school curriculum for the core and non-core areas is inadequate to direct the teaching and learning process. Exhibit 2.2.4 provides a summary of the secondary course offerings by content area.

Exhibit 2.2.4

Scope of Written Curriculum by Subject Area: Grades 9-12, Including 6-8 at ESUMS
New Haven Public Schools
April 2019

Content Area	Number of Course Offerings	Offerings with Curriculum Documents	Percent of Offerings with Curriculum Documents
Core Content Areas			
English	35	4	8%
Mathematics	43	7	16%
Science	61	12	20%
Social Studies	48	8	17%
Subtotal Core Content Areas	**187**	**31**	**17%**
Non-Core Content Areas			
World Language	62	37	60%
Arts	67	5	7%
Physical Education	2	2	100%
Other Electives	228	5	2%
Subtotal Non-Core Content Areas	**359**	**49**	**14%**
Total	**546**	**80**	**15%**

As noted in Exhibit 2.2.4:

- The core content area scope calculations range from a low of 8% in English to a high of 20% in science.

- None of the core content areas has 100% coverage.

- Physical education is the only subject that has written curriculum for 100% of courses.

- Fourteen percent of the non-core content areas have written curriculum documents, which does not meet the 70% requirement for adequacy.

- Only 2% of general electives, including CTE courses, have written curriculum documents.

- Overall, 15% of the courses have a written curriculum document.

To achieve adequacy, curriculum documents must be available for 100% of core courses and at least 70% of non-core areas. Overall, curriculum guide documents are available for 14% of core and non-core course offerings at the high school level, including grades 6 through 8 at ESUMS. None of the core content areas had written curriculum documents for all courses. The scope of the written curriculum in grades 9-12, including grades 6-8 at ESUMS, does not meet the audit standards for adequacy.

Exhibit 2.2.5

Scope of Written Curriculum Summary:
Kindergarten through Grade 12
New Haven Public Schools
April 2019

Grade Levels	Core Areas		Non-Core Areas		Total Areas	
	Total Core Offerings	Core Areas With a Written Curriculum	Total Non-Core Offerings	Non-Core Areas With a Written Curriculum	Total Course Offerings	Total Areas With a Written Curriculum
K-8	46	46	48	48	94	94
9-12	187	31	359	49	546	80
Total	233	77	407	97	640	174
	Core Areas = 33%		**Non-Core Areas = 24%**		**Total Areas = 27%**	

As can be noted in <u>Exhibit 2.2.5</u>:

- Auditors identified 640 courses offered in grades K-12 in New Haven Public Schools. Curriculum documents were presented to auditors for 174 core and non-core courses.

- Core area courses had written curriculum for 77 of 233 courses, or 33%, which does not meet the 100% audit standard for core content areas.

- Curriculum documents were presented for 97 of 407, or 24%, of non-core courses, which does not meet the 70% audit standard for non-core content area courses.

In addition to reviewing district curriculum documents and policies, the auditors also conducted interviews with district and school administrators, teachers, and parents and administered an online survey to identify opinions and beliefs about the scope of the written curriculum in New Haven Public Schools. During interviews, auditors received a variety of comments related to the scope of the written curriculum. Following is a representative sample of the comments received:

Many individuals interviewed described a lack of curriculum in the district:

- "There is no social studies curriculum in 5th grade." (Teacher)

- "Curriculum. We have not had an updated curriculum in 15 years. The curriculum that was given to us years ago was just a series of random mini-lessons, not a full curriculum that built on top of the mastered concept." (Teacher)

- "First of all, what curriculum has been provided to 6-8 ELA teachers? Second, even if it was provided, the district has a tendency to pass down BLAND and undifferentiated curriculum that is not culturally relevant to my students. So, a) I haven't been provided curriculum, and b) I probably wouldn't use it if I were." (Teacher)

- "There is no district curriculum for my subject." (Teacher)

- "What curriculum? Most subjects don't have any." (Teacher)

- "We do not have curriculum for all areas." (District Administrator)

- "There are concerns of either the district curriculum about writing the curriculum is lacking or nonexistent and we have to develop it new." (School Administrator)

- "I know there are many courses that don't have a curriculum." (School Administrator)

- "With changes at the district level, I am not really sure where we are, there might not be formalize curriculum like for English." (School Administrator)

- "If there is a curriculum, the new teachers get it at the new teachers training. Some of it is online." (School Administrator)

Curriculum Scope Summary

The scope of the written curriculum is inadequate at secondary to direct instruction in New Haven Public Schools. The auditors found few policies or regulations that required a written curriculum document for all courses offered in the district. Elementary core and non-core academic areas reached the audit standard of 100% for core and 70% for non-core required for adequacy. Core (17%) and non-core (14%) academic areas at the secondary level both fell short of meeting the audit requirements of 100% for core and 70% for non-core required for adequacy.

Finding 2.3: The overall quality of the curriculum guides in New Haven Public Schools is inadequate to provide direction for teachers and promote alignment of the written, taught, and tested curriculum.

The written curriculum is the school system's way of guiding and directing classroom instruction. Quality curriculum documents align the written, taught, and tested curriculum and describe specific, measurable objectives that clearly define mastery. The curriculum documents provide guidance on assessments that appropriately evaluate student learning, prerequisite knowledge and skills, as well as major instructional resources and strategies that support student learning. When curriculum is designed with quality and specificity, there is clear vertical alignment and coherence among courses in a content area. In turn, this provides direction for learning and efficiency in system-wide implementation. Direction within the curriculum includes rigorous learning activities and assessments that are aligned to the content, context, and cognition of the learning objectives. Additionally, quality curriculum specifies instructional resources and teaching strategies that support student mastery of the learning objectives. A well-designed curriculum leads to efficiency because it limits the amount of time teachers need to spend determining what to teach and locating appropriate resources; instead, teachers can focus on high-quality implementation of the curriculum.

To determine the overall quality of the written curriculum, auditors reviewed board policies to identify expectations for quality; examined district curriculum documents presented to them as curriculum guides; and interviewed district leadership, school leaders, teachers, students, and parents across the district. The curriculum guides were examined and rated for minimal basic component criteria for curriculum document quality and specificity using the rubric presented in Exhibit 2.3.1.

Overall, the curriculum guides presented to auditors included the components considered essential for quality. However, the components did not have the specificity necessary to direct teaching and learning in the New Haven Public Schools. The feasibility of the curriculum is limited due to the disorganization of the curriculum and the difficulty in locating all of the curriculum components on several online platforms and in various binders. Additionally, teachers' use of the curriculum is inconsistent across New Haven Public Schools, possibly due to the limited coherence and the varying formats found within the curriculum.

To determine direction for the design of curriculum in the New Haven Public Schools, the auditors examined board policies. The following board policies directly or indirectly address curriculum guide content and format:

- *Board Policy 6140: Instruction – Curriculum* requires that district curriculum shall meet the needs of the students in the district; address a range of abilities, aptitudes and interests; align to the goals of the residents of the school district; value the mobility of the student population; and be devoid of discrimination.

- *Board Policy 6141: Instruction – Curriculum Development* outlines the guidelines for curriculum development, including providing for the diverse needs of students and the inclusion of courses of study that which students have specifically requested.

- *Board Policy 6142.2(c): Instruction – K-12 Writing* provides guidelines for the inclusion of writing in all curricula in Kindergarten through Grade 12.

Overall, policy documents provided limited direction for the design and development of curriculum. In response to the audit team's request for curriculum documents, district personnel provided 93 curriculum guides covering core and non-core courses and subjects from kindergarten through grade 12. Auditors received access to online curriculum guides and resources as well as English Language Arts binders with printed curriculum documents.

The method for the storage of the curriculum was inconsistent across and even within the content areas. Some content areas used binders to store the curriculum while other content areas used the online platform to house curriculum. Curriculum that was stored online was accessed through two main websites; one was being phased out of use while the other was the main source of the current year's curriculum. Locating all of the current curriculum documents required searching through all of the available folders and determining which were the most current. There was also inconsistency in the organization of the curriculum across content areas.

The auditors found similar basic components on the curriculum maps across all core content areas:

1. A list of concepts to be learned each quarter;

2. A list of Performance Tasks or suggested assessments; and

3. A list of content standards, either by unit or quarter.

In addition to curriculum maps, some courses included units with more detailed direction for classroom instruction. For the courses that included units of study, a similar format was used across all the content areas. These units included:

1. Suggested pacing, provided in weeks;

2. Unit Questions, including Essential Questions and Supporting Questions;

3. Enduring Understandings;

4. Core Standards;

5. Suggested Materials and Resources;

6. Suggested Learning Activities;

7. Suggested Assessments and Performance Tasks; and

8. Academic Vocabulary.

All English language arts, science, and mathematics curriculum contained units with the components listed above. Some social studies courses also had units with the components listed above, including grades 6 through 8 and some high school social studies courses.

In addition to the curriculum maps and unit maps, auditors found curriculum materials that included sample lessons and performance tasks. However, these components were inconsistent across and within the content areas and were stored in multiple online platforms and binders. Overall, if the curriculum for a course or grade level included units of study, the auditors found these to have the minimum components they look for in written curriculum. The auditors then rated the degree of specificity of these components to determine overall quality of the curriculum.

The minimum components and the rubric used to evaluate their specificity are presented in Exhibit 2.3.1.

Exhibit 2.3.1

Curriculum Management Improvement Model Frame One Analysis:
Minimal Basic Components for Curriculum Document Quality and Specificity

Criterion Descriptors	Value
Criterion One: Clarity and validity of standards	
No standards present	0
Vague delineation of standards	1
States tasks to be performed or skills/concepts to be learned	2
States for each instructional objective the what, when (sequence within course/grade), how actual standard is performed, and the amount of time to be spent learning (requires re-write or refining of the original language of the standard). The number of instructional objectives is feasible.	3

Exhibit 2.3.1 (continued) Curriculum Management Improvement Model Frame One Analysis: Minimal Basic Components for Curriculum Document Quality and Specificity	
Criterion Two: Congruence of the curriculum to the testing and evaluation program	
No evaluation approach	0
Some approach of evaluation stated	1
States skills, knowledge, concepts which will be assessed	2
Each instructional objective or cluster of objectives has a corresponding formative and summative assessment, with rubric if required (as with performance-based assessment)	3
Criterion Three: Delineation by grade of the essential skills, knowledge, and attitudes	
No mention of required skill	0
States general knowledge students should have acquired in prior grades/courses	1
States prior general experience needed for the specified grade level	2
States specific documented prerequisite or description of discrete skills/concepts required prior to this course (may be a scope and sequence across grades/courses)	3
Criterion Four: Delineation of the major instructional tools in the form of [multiple] textbooks and supplementary materials	
No mention of instructional resources	0
Names instructional resources for some instructional objectives (less than 50%)	1
Names instructional resources for most instructional objectives (more than 50% but less than 100%)	2
States for each instructional objective or cluster* of objectives the "match" between the basic resources and instructional objectives (100 percent)	3
Criterion Five: Suggested strategies and approaches for classroom use	
No approaches cited for classroom use	0
Overall, vague statements on how to approach the content in the classroom (address less than half of the content objectives)	1
Provides general suggestions for approaches; gives general suggestions for at least half of the learner objectives	2
Provides specific examples, by instructional objective or cluster* of objectives, on how to teach, model, or engage students with key concepts/skills in the classroom	3
*In the case of assessments, instructional tools and resources, and suggested strategies and approaches, these may be clusters. For example, one suggested approach may in fact address multiple objectives, such as a cluster of objectives.	

The first three components are considered critical; they define exactly what students should learn (objectives), the sequence in which they need to learn it (prerequisites), and what mastery of the objectives looks like (assessment). These three components represent what should be tightly held by the district, which is the most critical information provided in the curriculum. The last two components are loosely-held, but are still critical components of the curriculum and should be included as suggestions. Resources and instructional strategies should be included in the curriculum as suggestions for instructional delivery; teachers need the flexibility to select the strategies, approaches, and resources that best fit the needs of their students in response to data.

Each curriculum guide presented to auditors was rated from 0 to 3 on each of the five criteria; a 3 represents the highest rating. The total score was obtained by adding the ratings for each criterion. The highest score a curriculum guide may receive is 15 points. A curriculum guide is considered strong if it received a score of 12 or higher. The mean ratings for each criterion and the mean rating for the total guide ratings are then calculated. Exhibits 2.3.2 through 2.3.6 present the auditors' ratings for each curriculum guide with a mean rating for each of the five criteria. Exhibit 2.3.7 presents the auditors' summary of all non-core curricula, and Exhibit 2.3.8 presents the summary of all K-12 New Haven Public Schools curriculum.

Exhibit 2.3.2 presents the auditors' ratings for English language arts curriculum guides presented by district personnel.

Exhibit 2.3.2

Ratings of CMIM Minimal Basic Components and Specificity
K-12 English Language Arts Curricula
New Haven Public Schools
April 2019

Curriculum Guide	Date	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strats	Total Rating
Kindergarten	2012-2013	2	2	0	2	3	9
1	2012-2013	2	2	1	2	3	10
2	2012-2013	2	2	1	2	3	10
3	2014	2	2	0	2	3	9
4	2014	2	2	0	2	3	9
5	2014	2	2	0	2	3	9
6	2013	2	2	0	2	3	9
7	2013	2	2	0	2	3	9
8	2013	2	2	0	2	3	9
9 English	2016	2	2	0	2	3	9
10 English	2016	2	2	0	2	3	9
11 English	2016	2	2	0	2	3	9
12 English	2016	2	2	0	2	3	9
Mean Rating for Each Criterion		**2.0**	**2.0**	**0.2**	**2.0**	**3.0**	**9.2**

As shown in Exhibit 2.3.2:

- Curriculum guides' mean ratings ranged from 9 to 10.

- The grades 1 and 2 curriculum guides received a rating of 10, while all other curriculum guides received a rating of 9.

- The strongest category was Clear Approaches for Classroom Use, which earned a mean rating of 3 on the 0-3 scale

- The weakest category was Delineation of the Prerequisite Essential Skills, Knowledge, and Attitudes, which earned a mean rating of 0.2 on the 0-3 scale.

The mean rating for the English language arts curriculum guides was 9.2 on a scale of 0-15, which does not meet the 12 points required for adequacy.

Criterion 1: Clarity and specificity of objectives

Mean Rating: 2.0

All of the English language arts curriculum guides included CT Core Standards and district-generated objectives in a Know/Do chart that identify what students will be learning. The standards are not refined from their original wording to clarify what mastery looks like and to provide teachers greater specificity concerning how students should practice their learning. The curriculum guides did provide direction for the use of specific tasks to be performed that are aligned to the Know/Do objectives. No time allocations are provided for grades 6-8. Time allocations are generally provided for kindergarten through grade 2 and grades 9-12 in multi-week time frames, but time allocations are specifically provided for grades 3-5 with articulation of daily objectives throughout each unit.

The kindergarten through grade 2 curriculum guides provided a specific order for the units, but no direction for the length of time. The grades 3-5 curriculum guides were developed to be taught in order, with beginning and

ending dates. Grades 6-8 curriculum guides provided a general unit order. Grades 9-12 curriculum guides were developed to be taught in any order, with some units overlapping between grades 9 and 10 or grades 11 and 12. While the curriculum overview explained that students should complete four units each year in grades 9-11, there is no designated order for the units. In grade 12, students are required to complete two units provided in the curriculum and two additional units determined by the school, department, and teacher.

Criterion 2: Congruity of the curriculum to the assessment process

Mean Rating: 2.0

In order to earn a three for this criterion, each objective or cluster of objectives in the curriculum guide must be tied to a district and/or state performance assessment. While each of the performance tasks in the English language arts curriculum outlined the skills, knowledge, and concepts that would be assessed, teachers had autonomy to choose from a bank of performance tasks that are not specifically linked to any one unit's cluster of objectives or individual objective. Without a clear connection between the assessment and the specific objective or objectives, there may be repetition from grade level to grade level. This design does not ensure that teachers will choose the appropriate performance assessments for the objectives they are purportedly teaching.

Kindergarten through grade 2 curriculum guides required an assessment that must be completed during the unit, but does not tie the assessment to specific objectives. The grades 3-5 curriculum guides, which are in draft form, also provided some direction for the congruity between course objectives and performance assessments. These units outlined three options for the performance task that students must complete. However, there is no connection articulated between the performance task and specific objectives. Grades 6-8 and grades 9-12 curriculum guides lack a connection to specific performance tasks for each unit. The curriculum provided a bank of performance tasks from which teachers could choose for any unit. The curriculum overview stated, "When planning a unit, teachers should begin by meeting with their departments to identify possible pairings between task and unit. These pairings can then be grouped into semester, courses, or years, as the department sees fit […] Almost every task can be paired with almost every unit […] Some tasks and units are meant to be paired due to specific demands placed on us by the Core Standards or the nature of the content, but for the most part departments are free to create pairings that work for their students and their school."

Criterion 3: Delineation of the prerequisite essential skills, knowledge, and attitudes

Mean Rating: 0.2

In order to earn a three on this criterion, curriculum guides must state the specific prerequisite skills and conceptual understanding required prior to this learning. This may include a scope and sequence across grade levels. The auditors did not receive a scope and sequence for English language arts, and none of the curriculum guides for grades 3-12 stated the prior experienced needed. A phonics scope and sequence was provided for grade 1 and grade 2. The progression was adopted from the Common Core State Standards and provided a general sequence for phonics instruction.

Criterion 4: Delineation of the major instructional tools

Mean Rating: 2.0

In order to earn a three on this criterion, curriculum guides must state the match between the instructional resource and the objectives. None of the English language arts curriculum guides provide this level of specificity for the required and suggested instructional tools. However, each of the English Language Arts curriculum guides provided the names of the core texts as well as supplemental texts and resources to be used for instruction in each unit, earning all grade level curriculum guides a score of two for this criterion.

Criterion 5: Clear approaches for classroom use

Mean Rating: 3.0

The English language arts curriculum guides included a bank of lessons at all grade levels that provided specific examples of how to approach key concepts and skills in the classroom. These included lessons for Reading

Workshop, Writing Workshop, and Phonics instruction in kindergarten through grade 2, as well as lessons organized by skill/concept in grades 6-12.

Overall, the ELA curriculum guides provide inadequate specificity to promote the alignment between the written, taught, and tested curriculum. The elementary grade levels provide more specificity around the congruity of the curriculum to the assessments than the secondary grade levels, but with minimal direction for assessment in grades 6-12. The strongest element across all grade levels is the specificity for how teachers may approach key skills and content in the classroom. These examples were generally provided in the form of reading and writing workshop mini-lessons, and these were considered a definite strength. However, there is inadequate direction provided in the curriculum guides to support the appropriate use or sequence of these mini-lessons, and the lack of clarity and connection to discrete, focused skills

Next, the auditors examined the mathematics curriculum for the minimal basic components for quality and specificity. Exhibit 2.3.3 displays the results of this analysis.

Exhibit 2.3.3

Ratings of CMIM Minimal Basic Components and Specificity
K-12 Mathematics Curricula
New Haven Public Schools
April 2019

| Curriculum Document Title | Date | 1 | 2 | 3 | 4 | 5 | Total Rating |
		Obj	Asmt	Prereq	Res	Strats	
Kindergarten	2015-16	2	1	0	2	3	8
1	2015-16	2	1	2	2	3	10
2	2015-16	2	1	2	2	3	10
3	2015-16	2	1	2	2	3	10
4	2015-16	2	1	2	2	3	10
5	2015-16	2	1	2	2	3	10
6	2016-16	2	2	2	2	3	11
7	2015-16	2	2	3	2	3	12
8	2015-16	2	2	3	2	3	12
Algebra I	2016-17	2	2	2	2	1	9
Geometry	2016-17	2	2	2	3	2	11
Algebra II	2016-17	2	1	2	1	0	6
Precalculus	2016-17	2	1	2	1	0	6
Mean Rating for Each Criterion	**2.0**	**1.4**	**2.0**	**1.9**	**2.3**	**9.6**

As shown in Exhibit 2.3.3:

- Curriculum guides' ratings ranged from 6 to 12.

- The grades 7 and 8 mathematics curriculum guides met ratings of adequacy with a rating of 12, while the Algebra II and Precalculus curriculum guides received the lowest rating of 5.

- The strongest category was Clear Approaches for Classroom Use, which earned a mean rating of 2.3 on the 0-3 scale

- The weakest category was Congruity of the Curriculum to the Assessment Process, which earned a mean rating of 1.4 on the 0-3 scale.

Only two guides in mathematics met the quality standard for an acceptable curriculum guide. The mean rating for all guides was 9.6 out of a possible 15 points, which does not meet the standard for a quality curriculum guide.

Criterion 1: Clarity and specificity of objectives

Mean Rating: 2.0

All of the mathematics curriculum guides stated the skills to be learned during each quarter of the school year and provided a specific order for the units. The kindergarten through grade 8 curriculum guides specified which tasks and lessons from the textbook should be taught, including time allocations. However, the lessons were not tied to specific objectives or standards and did not state how the objective is to be performed. Algebra I and Geometry curriculum guides provided a general sequence of lessons from the textbook, with a general amount of time for each unit to be completed in a quarter. Algebra II and Precalculus curriculum guides included a pacing guide with general suggestions for pacing of the units through the school year.

Criterion 2: Congruity of the curriculum to the assessment process

Mean Rating: 1.4

In order to earn a 3 for this criterion, each objective on the curriculum guide must be tied to a district and/or state performance assessment. The kindergarten through grade 5 curriculum guides included performance tasks, but did not state the skills, knowledge, and concepts that would be assessed. Grades 2 through 5 included a bank of performance tasks that specified the objectives being assessed; however, the curriculum guides did not provide direction for administering these performance tasks. While each of the performance tasks in the mathematics curriculum guides in grades 6 through 8, Algebra I, and Geometry outlined the skills, knowledge, and concepts that would be assessed, the performance tasks were not tied to specific objectives. The Algebra II and Precalculus curriculum included a bank of assessments with no direction provided on the curriculum guides for their use. This lack of specificity leads to confusion about the use of assessments and how they are to be used in the course.

Criterion 3: Delineation of the prerequisite essential skills, knowledge, and attitudes

Mean Rating: 2.0

In order to earn a 3 on this criterion, curriculum guides must state the specific prerequisite skills and conceptual understanding required prior to this learning. The grade 7 and grade 8 curriculum guides were rated a 3 on this criterion because they included a description of discrete skills and concepts from prior years. The grade 1 through Precalculus mathematics curriculum guides provided a general scope and sequence of concepts and skills taught at each grade level. However, there was no direction on the kindergarten curriculum guide for the required prerequisite knowledge and skills.

Criterion 4: Delineation of the major instructional tools

Mean Rating: 1.9

In order to earn a 3 on this criterion, curriculum guides must state the match between the instructional resource and the objectives. The Geometry curriculum guide provided this level of specificity, stating the connection between each lesson's Student Learning Outcome and the primary and supplemental resources, earning this curriculum guide a rating of 3. All other mathematics curriculum guides named the lessons from each instructional resource that should be taught for each lesson. The Algebra II and Precalculus curriculum guides named the basic instructional resource but did not name any supplemental resources.

Criterion 5: Clear approaches for classroom use

Mean Rating: 2.3

The kindergarten through grade 8 curriculum guides earned a rating of 3 on this criterion because they provided specific examples of how to approach key concepts and skills in the classroom. The Algebra I and Geometry curriculum guides provided a general list of instructional strategies, but these strategies were not tied to specific skills or concepts from the curriculum. The Algebra II and Precalculus curriculum guides did not provide any direction for approaching key concepts in the classroom.

Overall, the mathematics curriculum guides were inconsistent in design and direction. There was limited direction for the approach for assessment and its congruity to the curriculum. Assessments were primarily stand-alone performance task banks that were not referenced on the curriculum guides. For grades 6 through Precalculus, there was heavy reliance on the instructional resources with little additional direction from the district curriculum documents.

Next, the auditors examined the science curriculum for the minimal basic components for quality and specificity. It should be noted that at the time of the site visit, new K-5 science guides were in development to align with the Next Generation Science Standards. These guides were not yet completed for review, so the analyses were performed on the older guides in use at the time. Exhibit 2.3.4 displays the results of this analysis.

Exhibit 2.3.4

Ratings of CMIM Minimal Basic Components and Specificity
K-12 Science Curricula
New Haven Public Schools
April 2019

Curriculum Document Title	Date	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strats	Total Rating
Kindergarten	2018	2	2	3	3	2	12
1	2007-08	2	2	2	3	2	11
2	2007-08	2	2	2	3	2	11
3	2007	2	2	2	3	3	12
4	2007-08	2	2	2	3	3	12
5	2009-10	2	2	2	3	3	12
6	2007-08	2	2	2	3	3	12
7	2017	2	2	3	3	3	13
8	2017	2	2	3	3	3	13
PhyChem	2017	2	2	2	2	3	11
Biology	2017	2	2	2	2	3	11
Chemistry	2017	2	2	2	2	3	11
Physics	2001	2	2	2	2	2	10
Anatomy	2001	2	1	0	2	2	7
Forensics	2008	1	2	0	2	3	8
Environmental		1	2	0	2	3	8
Mean Rating for Each Criterion		**1.9**	**1.9**	**1.8**	**2.6**	**2.7**	**11.1**

As shown in Exhibit 2.3.4:

- Curriculum guides' ratings ranged from 7 to 12.

- The kindergarten and grades 3-8 science curriculum guides met the minimum score required for adequacy, with a rating of 12; the Anatomy curriculum guide received the lowest rating with a score of 7.

- The strongest category was Clear Approaches for Classroom Use, which earned a mean rating of 2.7 on the 0-3 scale.

- The weakest category was Delineation of the Prerequisite Essential Skills, Knowledge, and Attitudes, which earned a mean rating of 1.8 on the 0-3 scale.

Seven science guides met the quality standard, scoring 12 or more points on a 15 point scale, but nine guides failed to meet the standard.

Criterion 1: Clarity and specificity of objectives

Mean Rating: 1.9

A general program guideline of 100 minutes per week is provided to direct how long science should be taught in kindergarten through fifth grade. Curriculum guides for kindergarten through fifth grade stated what skills and content should to be learned throughout each unit and within each lesson and stated how the objective should be performed. However, because the sequence of units varies from campus to campus based on science kit availability, there is no direction for the scope and sequence for the units in the kindergarten through grade 5 curriculum documents. In grades 6 through 8, objectives were listed in the curriculum guides and a general amount of time for learning was stated in multi-week time frames.

High school science curriculum guides were inconsistent in the direction provided for the clarity and specificity of objectives. PhyChem, Biology, Chemistry, and Physics curriculum documents included a pacing guide that articulated the sequence of units, but did not provide specific guidelines for the amount of time to be spent learning. The Anatomy curriculum guide listed the standards for the course. Environmental curriculum guides included a collection of discrete units, but did not provide direction for the pacing and sequence of the units.

Criterion 2: Congruity of the curriculum to the assessment process

Mean Rating: 1.9

In order to earn a 3 for this criterion, each objective on the curriculum guide must be tied to a district and/or state performance assessment. Science curriculum guides stated the skills, knowledge, and concepts that would be taught, but did not articulate which of these would be assessed. Kindergarten through grade 6 curriculum guides included links to assessments in the science kits, but there was no connection between the assessment and the course objectives. The science curriculum in grades 3 through 8 included a bank of performance tasks, but no connection between the assessments and objectives.

Grade 7 and grade 8 curriculum guides included significant tasks for each unit, and PhyChem curriculum guides included unit assessments and sample assessment questions, but did not provide connections between the questions and course objectives. Chemistry and Physics assessments had objectives keyed to each performance task and assessment question, but curriculum guides did not key all course objectives to district or state assessments. Anatomy curriculum included a bank of performance tasks, but there was no direction provided for their use on the curriculum guides. The Forensics and Environmental curricula included performance tasks and a capstone activity that listed the content, knowledge, and skills being assessed.

Criterion 3: Delineation of the prerequisite essential skills, knowledge, and attitudes

Mean Rating: 1.8

The New Haven Public Schools Science Curriculum At-A-Glance provided a general scope and sequence of topics for all courses, Kindergarten through High School. In order to earn a rating of 3 for this criterion, the curriculum guides must state the discrete skills and concepts required prior to the grade level. The kindergarten, grade 7, and grade 8 curriculum guides provided the core themes, content standards, and expected performances required for prior grade levels, earning each of these curriculum guides a rating of 3. The Anatomy, Forensics, and Environmental curriculum guides did not state any required skills, and these courses were not included on the Science Curriculum At-A-Glance document, earning each of these curriculum guides a rating of 0. All other science curriculum guides earned a rating of 2 on this criterion because they were included on the Curriculum-At-A-Glance document.

Criterion 4: Delineation of the major instructional tools

Mean Rating: 2.6

The kindergarten through grade 8 curriculum guides named instructional resources, supplemental texts, and websites. Additionally, the guides stated the match between the kits, textbooks, and lessons and the course objectives, earning these grade levels a rating of 3 on this criterion. PhyChem, Biology, and Chemistry curriculum guides provided a list of resources for each lesson in the unit, and the Anatomy and Forensics curriculum guides named the basic instructional resource for the course.

Criterion 5: Clear approaches for classroom use

Mean Rating: 2.7

In order to earn a 3 on this criterion, curriculum guides must provide specific examples for how to approach key concepts in the classroom. The kindergarten through grade 2 curriculum guides provided general approaches for embedding science instruction in the school day. The grade 3 through grade 8, PhyChem, Biology, and Chemistry curriculum guides included a list of suggested lessons with links to labs and activities. Physics, Anatomy, and Environmental curriculum guides provided a general list of suggested activities and links to websites with further guidance for approaching the subject. The Forensics curriculum documents included lessons that teachers could use to teach the concepts for the course.

Overall, the science curriculum guides were inconsistent in design and direction. While five of the kindergarten through grade 6 curriculum guides earned an adequate rating of 12 or higher, no direction was provided for the sequencing or pacing of units in these grade levels. While the grade 7, grade 8, and high school science curriculum guides provided a scope and sequence, little direction was given for the pacing of the curricular units. The strongest criterion across the science in all grade levels was the specificity provided for how to approach key concepts and skills in the classroom.

Next, the auditors examined the social studies curriculum for the minimal basic components for quality and specificity. Exhibit 2.3.5 displays the results of this analysis.

Exhibit 2.3.5

Ratings of CMIM Minimal Basic Components and Specificity
K-12 Social Studies Curricula
New Haven Public Schools
April 2019

Curriculum Document Title	Date	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strat	Total Rating
Kindergarten	Not Provided	2	2	0	2	2	8.0
1	Not Provided	2	2	3	2	2	11.0
2	Not Provided	2	2	3	2	2	11.0
3	Not Provided	2	2	3	2	2	11.0
4	Not Provided	2	2	3	2	2	11.0
5	Not Provided	2	1	3	0	2	8.0
6	2018-2020	2	2	3	2	2	11.0
7	2015-16	2	2	3	2	2	11.0
8	2015-16	2	2	3	2	2	11.0
Modern World History	2015-16	2	2	3	2	3	12.0
United States History	2015-16	2	2	3	2	2	11.0
Civics	2015-19	2	1	3	2	2	10.0
Mean Rating for Each Criterion		**2.0**	**1.8**	**2.8**	**1.8**	**2.1**	**10.5**

As shown in Exhibit 2.3.5:

- Curriculum guides' ratings ranged from 8 to 12.

- The Modern World History curriculum guide met a rating of adequacy with a rating of 12, while the kindergarten and grade 5 curriculum guides received the lowest rating of 8.

- The strongest category was Delineation of the Prerequisite Essential Skills, Knowledge, and Attitudes which earned a mean rating of 2.8 on the 0-3 scale.

- The weakest categories were Congruity of the Curriculum to the Assessment Process and Delineation of Major Instructional Tools, which both earned a mean rating of 1.8 on the 0-3 scale.

The mean rating for the social studies curriculum guides was 10.5 on a scale of 0-15, which fell short of the 12 points required for adequacy.

Criterion 1: Clarity and specificity of objectives

Mean Rating: 2.0

Kindergarten through grade 6 curriculum guides provide a list of learning outcomes organized by social studies strands. The grade 5 unit documents are provided and list the objectives for the unit, but did not include direction for the pacing of the units and did not articulate how the standards are performed or the amount of time to be spent learning. A Scope & Sequence was provided for grades 6 through 8 social studies courses, which included a list of objectives organized by quarter. The grade 6 curriculum guide included a Content Expectations document with objectives organized by Social Studies strand, but did not provide sequencing or pacing direction.

Auditors were not provided a course overview or Scope & Sequence for Modern World History or U.S. History courses. The unit maps provided contained a list of standards for the unit, but did not provide the specific amount of time to be spent learning the objectives or the sequence in which they should be taught. The Civics curriculum guides provided the list of standards on a course overview and within discrete unit maps, with general direction for the pacing of units provided in multi-week timeframes.

Criterion 2: Congruity of the curriculum to the assessment process

Mean Rating: 1.8

In order to earn a 3 for this criterion, each objective on the curriculum guide must be tied to a district and/or state performance assessment. The kindergarten through grade 4 curriculum guides included suggested assessments for each unit, but these assessments were not matched to the objectives. Grade 5 curriculum maps provided a prompt for a performance task assessment, but did not list the skills, knowledge, or concepts that will be assessed. The grade 6 curriculum guides included general assessment suggestions, and a bank of performance tasks was provided for grades 6-8, but these performance tasks were not keyed to the units or to course objectives.

Modern World History and U.S. History curriculum guides included descriptions of performance tasks with a description of the skills, knowledge, and concepts that will be assessed. Civics curriculum guides provided a general approach for assessment but did not include the skills, knowledge, or concepts that will be assessed. General rubrics were provided for high school social studies written assessments, but no direction was provided on the curriculum guides for the use of the rubrics.

Criterion 3: Delineation of the prerequisite essential skills, knowledge, and attitudes

Mean Rating: 2.8

In order to earn a rating of 3 for this criterion, the curriculum guides must state the discrete skills and concepts required prior to the grade level. The Kindergarten – High School Core Grade Level Skills Matrix articulated the literacy and social studies objectives taught in each grade level. Additionally, the Kindergarten through High School Social Studies Scope & Sequence provides a list of topics taught by quarter. In grades 3-5, curriculum guides included specific content expectations for each of the grade levels.

Criterion 4: Delineation of the major instructional tools

Mean Rating: 2.0

In order to earn a 3 on this criterion, the curriculum guides must state the match between the basic instructional resources and the curriculum objectives. The kindergarten through grade 4 curriculum guides named the instructional resource, but did not match the resources to the objectives. The grade 5 curriculum guide did not name the instructional resource. The curriculum guides for grade 6 through high school named the major instructional resource and supplemental resources, but did not state the match between the resources and the course objectives.

Criterion 5: Clear approaches for classroom use

Mean Rating: 2.1

In order to earn a rating of 3 on this criterion, curriculum guides must provide specific examples for how to approach key concepts and skills in the classroom. The kindergarten through grade 4 curriculum documents included a list of suggested activities, but did not match these activities to the curriculum objectives. The grade 5 curriculum guide included a bank of lessons organized by topic, but did not include a connection between the lessons and course objectives. Grades 6-8 curriculum guides included a list of suggested activities. Civics and U.S. History curriculum guides listed general learning strategies, while the Modern World History curriculum guides provided specific approaches with links to lessons embedded in the curriculum guide.

Overall, the social studies curriculum guides did not provide adequate specificity to promote the alignment between the written, taught, and tested curriculum. Little direction is provided for the pacing of units and learning objectives. While assessments are generally provided, there are few links between the assessments and the learning objectives, so teachers do not have direction to guide the assessment process. The strongest component of the social studies curriculum was the scope and sequence of topics that describes the literacy and social studies skills that span across Kindergarten through high school. This document provided teachers easy access to information about prior and subsequent grade levels' learning objectives.

Exhibit 2.3.6 presents the auditors' ratings for all non-core curriculum guides presented to them by district personnel.

Exhibit 2.3.6

Ratings of CMIM Minimal Basic Components and Specificity
K-12 Non-Core Curricula
New Haven Public Schools
April 2019

Curriculum Document Title	Date	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strat	Total Rating
World Languages							
PreK-5 World Languages	2016	2	3	2	2	3	12
Level I World Languages	2016	2	3	2	2	3	12
Level II World Languages	2016	2	3	2	2	3	12
Level III World Languages	2016	2	3	2	2	3	12
Level IV World Languages	2016	2	3	2	2	3	12
Mean Rating World Languages		**2**	**3**	**2**	**2**	**3**	**12**
Visual and Performing Arts							
Kindergarten General Music	Unknown	2	2	2	2	3	11
1st Grade General Music	Unknown	2	2	2	2	3	11
2nd Grade General Music	Unknown	2	2	2	2	3	11
3rd Grade General Music	Unknown	2	2	2	2	3	11
4th Grade General Music	Unknown	2	2	2	2	3	11
5th Grade General Music	Unknown	2	2	2	2	3	11
Grade 5-6 Beginning Chorus	Unknown	2	2	0	2	3	9
Beginning Band	Unknown	2	2	0	2	2	8
Intermediate Band	Unknown	2	2	0	2	2	8
Advanced Band	Unknown	2	2	0	2	2	8
Grade 2 Visual Arts	Unknown	2	3	2	1	0	8

Curriculum Document Title	Date	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strat	Total Rating
Visual and Performing Arts (continued)							
Grade 3 Visual Arts	Unknown	2	3	2	2	3	12
Grade 4 Visual Arts	Unknown	2	3	2	1	0	8
Grade 5 Visual Arts	Unknown	2	3	2	2	2	11
Grade 6 Visual Arts	Unknown	2	3	0	2	3	10
7/8 Visual Arts	Unknown	2	3	0	2	3	10
Grade 7 Visual Arts	Unknown	2	3	0	2	3	10
Grade 8 Visual Arts	Unknown	2	3	0	2	3	10
Mean Rating Visual and Performing Arts		**2.0**	**2.4**	**1.1**	**1.9**	**2.4**	**9.9**
Physical Education & Health							
Kindergarten PE	Unknown	2	2	0	0	3	7
1st Grade PE	Unknown	2	2	2	0	3	9
2nd Grade PE	Unknown	2	2	2	0	3	9
3rd Grade PE	Unknown	2	2	2	0	3	9
4th Grade PE	Unknown	2	2	2	0	3	9
5th Grade PE	Unknown	2	2	2	0	3	9
6th Grade PE	Unknown	2	2	2	0	3	9
7th Grade PE	Unknown	2	2	2	0	3	9
8th Grade PE	Unknown	2	2	2	0	3	9
HS PE	Unknown	2	2	2	0	3	9
Health	Unknown	0	0	0	0	3	3
Mean Rating Physical Education & Health		**1.8**	**1.8**	**1.6**	**0.0**	**3.0**	**8.3**
English Learners							
Kindergarten Biliteracy	Unknown	2	2	0	1	2	7
1st Grade Biliteracy	Unknown	2	1	0	1	2	6
2nd Grade Biliteracy	Unknown	2	1	0	1	2	6
High School ESL	Unknown	2	1	0	2	3	8
Mean Rating English Learners		**2.0**	**1.3**	**0.0**	**1.3**	**2.3**	**6.8**
Library Media and Technology							
K-12 Library Media	2016	2	2	0	0	2	6
Data source: NHPS Curriculum Documents presented by district personnel; online curriculum							

A summary of the ratings for all non-core curriculum presented to auditors by district personnel is presented in Exhibit 2.3.7. The mean criterion ratings for each subject area are presented as well as an overall mean criterion rating for all non-core curriculum documents.

Exhibit 2.3.7

Ratings of CMIM Minimal Basic Components and Specificity
Summary of K-12 Non-Core Curricula
New Haven Public Schools
April 2019

Curriculum Subject Area	1 Obj	2 Asmt	3 Prereq	4 Res	5 Strat	Total Rating
World Languages	2	3	2	2	3	12.0
Visual and Performing Arts	2	2.4	1.1	1.9	2.4	9.8
Physical Education and Health	1.8	1.8	1.6	0	3	8.2
English Learners	2	1.3	0	1.3	2.3	6.9
Library Media and Technology	2	2	0	0	2	6.0
Total Mean Rating	**2.0**	**2.1**	**0.9**	**1.0**	**2.5**	**8.6**
Data Source: NHPS Curriculum Documents presented by district personnel; online curriculum documents						

As can be noted from Exhibit 2.3.7:

- World Languages curriculum guides received the highest mean rating of the non-core subjects, with a mean rating of 12, which is considered adequate. Components influencing the rating were the alignment of course objectives to district and state assessments and the inclusion of specific approaches for teaching course concepts. All World Languages courses included the same topics and general units at the same level, with variations as needed. Unit maps provided specific approaches for teaching course concepts and Language Specific Pages included sample lessons for approaching the content for each language at each level.

- Visual and Performing Arts curriculum guides received the second-highest rating, with a mean score of 9.8, which is not considered adequate. A pacing guide was provided for elementary visual and performing arts and sample units were present for each grade level. The strongest component of the Visual and Performing Arts curriculum is the inclusion of rubrics that articulate the match between the course objectives and the performance assessments.

- Physical Education and Health curriculum guides included a Kindergarten through High School Scope and Sequence. Curriculum units included objectives with the sequence for learning, a description of how the objectives were to be performed, and specific approaches for how to teach key concepts in the classroom. No resources were provided on the curriculum guides, and the Health curriculum provided a bank of lessons with no direction for implementation.

- As a group, non-core curriculum guides received the lowest rating in Criterion 3: Delineation of the Prerequisite Essential Skills, Knowledge, and Attitudes (0.9).

The mean rating for all 39 non-core curriculum guides was 8.6, which is overall not considered adequate.

A summary of all means for all New Haven Public Schools curriculum guides, including core and non-core courses by criterion and subject area, is provided in Exhibit 2.3.8.

Exhibit 2.3.8

Ratings of CMIM Minimal Basic Components and Specificity
Summary of K-12 Curricula
New Haven Public Schools
April 2019

Curriculum Subject Area	1	2	3	4	5	Total Rating
	Obj	Asmt	Prereq	Res	Strat	
English Language Arts	2.0	2.0	0.2	2.0	3.0	9.2
Mathematics	2.0	1.4	2.0	1.9	2.3	9.6
Science	1.9	1.9	1.8	2.6	2.7	10.9
Social Studies	2.0	1.8	2.8	1.8	2.1	10.5
Non-Core Courses	2.0	1.2	2.9	1.0	2.5	9.6
Total Mean Rating	**2.0**	**1.7**	**1.9**	**1.9**	**2.5**	**10.0**
Data Source: NHPS Curriculum Documents presented by district personnel; online curriculum documents						

As can be noted from Exhibit 2.3.8:

- No subject area curriculum guides earned a mean rating of 12, which is the minimum rating necessary to meet adequate quality according to audit standards.

- Criterion 5, Clear Approaches for Classroom Use, received the highest total mean score with a mean rating of 2.5 for all New Haven Public Schools curriculum guides.

- While the English language arts curriculum guides received the lowest mean score of 9.2, these curriculum guides also had the most congruence of the curriculum to the assessment process and the most specific examples of how to approach key concepts in the classroom.

- While the science curriculum guides received the highest mean score of 10.9, these curriculum guides also had significant gaps in the delineation of the necessary prerequisite skills, knowledge, and attitudes for each course.

- Criterion 2, Congruity of the Curriculum to the Assessment Process, received the lowest total mean score with a mean rating of 1.7 for all New Haven Public Schools curriculum guides.

The mean rating for all subject area curriculum guides was 10.0 on a scale of 0-15, which does not meet the 12 points required for adequacy.

In addition to the analysis of curriculum guides for adequacy, auditors conducted interviews with teachers, school administrators, district administrators, parents, students, and board members. The following comments were made to auditors describing the quality of the written curriculum:

- "We have designed a curriculum that is to meet a standardized test. It's not necessarily the best curriculum." (Teacher)

- "Looking at the Common Core Standards and what are the Priority Standards is something the teachers have not gotten training on, and the Scope & Sequences have not been updated." (Teacher)

- "Math leans heavily on commercial materials for curriculum guidance." (Central Office Administrator)

- "Curriculum is more than a pacing guide, which seems to be the focus." (Central Office Administrator)

- Curriculum does not reflect the diversity of the student population." (Teacher, online survey)

- "[There needs to be] more direct alignment to CCSS-especially in literacy." (Teacher, online survey)

Curriculum Feasibility

The English language arts curriculum had the most significant issues with feasibility due to the volume of curriculum materials provided and the lack of direction for their use. ELA curriculum was stored in 3-inch binders and was divided by curricular component (Reading Workshop, Writing Workshop, Small Group Instruction, Performance Tasks). However, there was no direction for how teachers should use the different components to create a comprehensive, balanced literacy lesson, and the volume of materials was overwhelming for teachers to use. Teachers described the lack of feasibility of the English Language Arts curriculum:

- "[The] literacy curriculum…does not cover grammar or spelling enough, units are scattered, same stories used for multiple grades, too much pride in the fact the district wrote it and not enough acceptance of the holes in it." (Teacher, online survey)

- "[The literacy curriculum] is very verbose and needs to be unpacked before it can be accessed. It is not user friendly in the least." (Teacher)

- "There are a lot of objectives and the literacy department wants them taught at a very fast pace." (Teacher)

Use of Curriculum

Auditors administered a survey to teachers and school administrators, interviewed district-level and campus-level personnel, and visited classrooms to determine the degree to which teachers use the district curriculum. The use of the district curriculum was inconsistent among those who were interviewed and completed the online survey. Additionally, respondents reported that district curriculum is difficult to access or does not include the resources they need to plan for instruction. Two hundred and seventy-four teachers responded to the question: "If you are responsible for planning and delivering instruction, what resources do you use most frequently?" The results are shown in Exhibit 2.3.9.

Exhibit 2.3.9

Teacher Response: Use of Curriculum to Plan and Deliver Instruction
New Haven Public Schools
April 2019
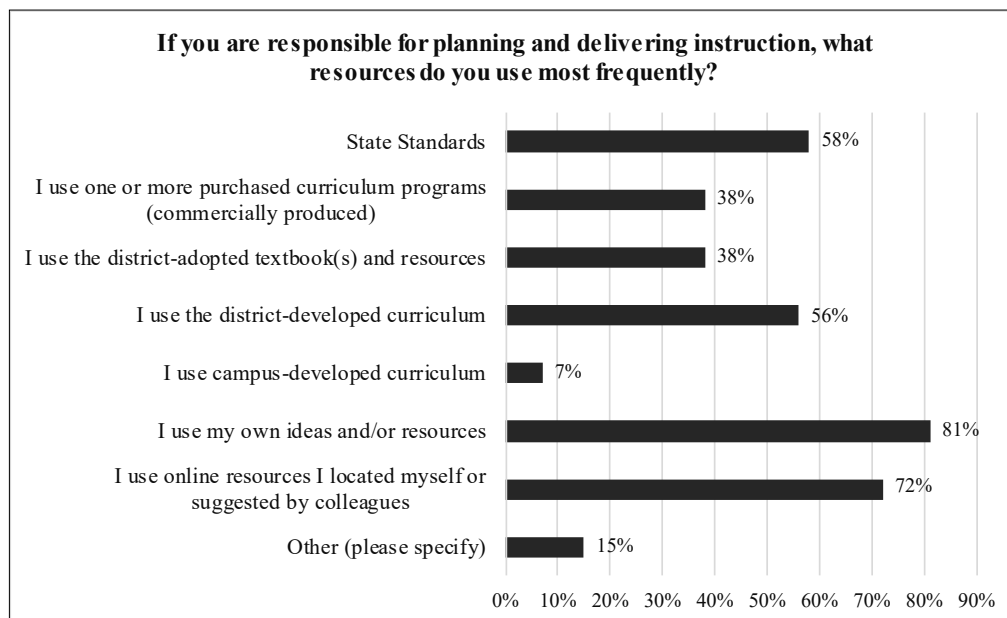
As noted in Exhibit 2.3.9:

- Eighty-one percent of teacher respondents said they use their own ideas or resources to guide instruction.

- Seventy-two percent of teacher respondents said they use online resources to guide instruction.

- The district curriculum is used by 56% of teacher respondents.
- Thirty-eight percent of teacher respondents use district-adopted textbooks and resources or commercial programs to guide instruction.

Teachers report using various resources beyond the district curriculum to guide instruction. Survey responses and interviews revealed that there is a lack of consistency in what teachers use to guide instruction:

- "With the Next Generation Science Standards, we are in a worse position. The district materials are pretty useless. We are generating units ourselves, in our building." (Teacher)
- "Teachers are using a little bit of everything. We need some standards." (Central Office Administrator)
- "I have my own effective, research-based materials, strategies, and interventions, based on state and district standards." (Teacher)
- "I do not use district-developed curriculum. We use purchased curriculum." (Teacher)
- "I developed a curriculum for my department to use in their classes." (Teacher)
- "I use many of my own purchased materials." (Teacher)

Access to curriculum that meets the minimal expectations for quality is inconsistent across New Haven Public Schools. Auditors noted the lack of organization among content area curriculum guides and documents, with little consistency and cohesion among the available curriculum components and curriculum guides in the core content areas. Several respondents noted the lack of cohesion and varying levels of access to the curriculum, both within a single content area and across content areas:

- "There is tremendous coordination with one of the [curriculum] departments, but not with the others." (Teacher)
- "There is no vetted literacy curriculum, it was pieced together." (Teacher, online survey)
- "I have access to the curriculum in binders and on Google drive, and it was also attached in an email from the content supervisor." (Teacher)
- "There is another curriculum, password protected, that only teachers have." (Central Office Administrator)
- "When I have asked about curriculum, it's willy-nilly all over the place. They say it's because we are all doing different things. I don't necessarily buy that." (Board Member)
- "I wish there was more guidance on the curriculum for art teachers." (Teacher)
- "District gives some a curriculum binder. Some areas just list the standards; others give a list of materials." (School Administrator)

When asked about what needs to change in the school district, several respondents' answers referred to the need for cohesion among the curriculum guides:

- "Cohesion and one curriculum based on student needs with resources and lessons." (School Administrator)
- "We need cohesion as a district." (School Administrator)
- "A straightforward curriculum that meets the Common Core State Standards […] that is easy for teachers to plan from and also has the necessary materials." (School Administrator)
- "It would be helpful if all curricula were housed in the same place." (School Administrator)

Teachers, school administrators, and district administrators reported that the curriculum is difficult to use and access:

- "There is various confusion over the curriculum documents used for quarterly assessments." (Teacher)

- "The resources for science are not easily accessible or understandable." (Teacher)

- "Although the district curriculum is developed and could be a great tool for the district, knowledge of how to access or use it has not been disseminated adequately." (Teacher)

- "The curriculum is not accessed the same way for all grade levels. Depending on the grade you teach, the curriculum may not be easily accessible or organized. It is not all housed in one place." (School Administrator)

District personnel shared that they are not aware of curriculum or that people in the district do not know how to use it:

- "I could not tell you what curriculum [resources] we use." (Board Member)

- "There is no social studies curriculum, Kindergarten through sixth grade. There are standards, but nothing in writing." (School Administrator)

- "Do we have Singapore Math here? Yes. But it turns out nobody actually uses it; nobody knows how to operationalize it in a meaningful way." (Board Member)

- "There is no science. The science is what we've developed at our building. Social studies is nonexistent as well." (Teacher)

- "What curriculum? Most subjects don't have any." (Teacher)

Teachers and school administrators reported that they do not have access to the materials they need in order to teach the written curriculum. The science kits that are intended to be used in conjunction with the district curriculum are shared by multiple campuses and are delivered by the district office. The English language arts curriculum is based on core texts that a number of teachers report not having access to on their campus. Following are quotes from teachers and administrators that describe the uneven access to the resources necessary to teach the curriculum:

- "[A] severe lack of resources hinders our overall growth…and by resources I am referring to technology, Human Resources and curriculum resources." (Teacher, online survey)

- "No online support for SpringBoard due to funding." (Teacher)

- "[A weakness is the district's] ability to supply needed materials for our current reading and math curriculum." (Teacher, online survey)

- "We have not been provided with an appropriate number of materials needed to fully utilize the math and phonics curriculum." (Teacher)

- "Here we are saying, 'Have fidelity in curriculum,' but we can't purchase the resources [for the schools]." (Central Office Administrator)

Curriculum use was inconsistent across the system, based on the survey and interview data provided by teachers and administrators. Survey respondents reported that district curriculum can be difficult to access, disorganized, and lacks cohesion in areas. The teachers also reported inconsistent access to the resources needed to teach it.

Effective Reading Program

There are two major approaches to teaching reading in American schools. The first involves the technical, letter-based skills that are generally covered in the first few years of elementary school and includes word decoding, letter-sound identification, and other such phonics-related practices. The second approach involves active engagement, which refers to the depth and intensity with which the reader connects to, interprets, and understands a text. This approach sometimes focuses on oral language skills, comprehension, questioning,

connecting, and other meaning-making processes. Both instructional approaches are important and cover different aspects of the reading process, but must be implemented with appropriate timing and appropriate emphasis to ensure maximized learning. A strong Tier I Literacy program includes both approaches in their balanced reading program.

Auditors evaluated the New Haven Public Schools reading program using the research-based recommendations described below and determined if the reading program met or did not meet each of the recommended characteristics. Each characteristic was evaluated singly. A rating system was not employed for this evaluation; therefore, there is not a quantitative rating for the New Haven Public Schools literacy program. Instead, this evaluation is intended to provide an overview of the strengths and weaknesses in the program and serve as rationale for recommendations found later in this report.

Overall, the auditors found that New Haven curriculum personnel have developed a framework for literacy instruction with curriculum that has several research-based and quality components. However, the integration of these components is weak, and explicit direction concerning the structure of the literacy block is not adequate.

Meaning Making (Partially Met) Auditors expect to find a literacy program with an underlying philosophy of meaning making. This means that the program is reflective of a philosophy that the purpose of reading is to make meaning—to derive meaning from what is being read. Reading, writing, speaking and listening all exist as forms of human communication; understanding the message of each is the intent and purpose behind these skills. No skill exists in a vacuum; we read what has been written by someone else or ourselves; we listen to hear what someone else has to tell or say to us; we speak in order to convey a message to an audience; and we write to share a message or idea with our readers or to express personal thoughts for ourselves or others. The study of language in the English language arts classroom contributes to clarity of meaning when both consuming and producing ideas. A strong literacy program includes the intentional study of language, including vocabulary, grammar, and mechanics, in order to better understand and communicate the meaning of complex ideas. Skills should progress in complexity and connect to texts students are reading and written products students are creating.

The General Overview of the New Haven Public Schools Literacy program stated, "The K-2 curriculum supports a balanced literacy classroom." The English language arts unit maps provided extensive lists of Enduring Understandings and Essential Questions, designed to promote meaning making in the literacy classroom. However, the performance tasks provided in the curriculum did not demand students make meaning of what they've read or convey messages that demonstrate they've derived meaning from what they read. Instead of requiring students to analyze and evaluate texts, the performance tasks assessed students' basic comprehension of texts, as in a simple retell. The performance tasks are not tied to the Essential Questions or Enduring Understandings of a unit, and the suggested reading activities and mini-lessons included in the curriculum units primarily focused on basic comprehension or summarization of texts. These tasks did not require students to evaluate the message of the text and the techniques employed by the author; nor did they require students to communicate their understanding of author's intention and craft or to connect with the texts at a personal level. While the program overview stated, "All readers, from the youngest, are expected to make meaning," the instructional approaches and performance tasks in the curriculum did not demand the active and personal meaning-making process; thus, the New Haven Public School literacy curriculum did not fully meet this recommended characteristic.

Incorporates all components of quality reading programs (Partially Met) Closely related to the underlying philosophy of meaning making, this characteristic expects the literacy program to include the critical components of phonemic awareness, phonics, vocabulary, fluency/expression, and comprehension. However, emphasis on comprehension is a priority and is continuously emphasized throughout the four other components. In other words, the other skills are worked on in meaningful contexts so students are completing activities that still have meaning for them and students are not working on skills in isolation.

The curriculum for elementary literacy did not fully meet this recommended characteristic due to the discrete reading, writing, vocabulary, language, and phonics sections of the curriculum that do not connect to unit maps. Unit maps are written with separate sections for reading and writing and there was no direction in the unit map

for the integration of language arts skills or phonics. The unit maps provided direction for the reading skills and writing skills that should be taught in specific quarters of the year but did not articulate how those two separate components of the curriculum inform or relate to one another. There is no scope and sequence of grammar and mechanics skills or vocabulary skills by grade level, nor for specific phonics skills at primary. For example, the Quarterly Focus Overview in the Grade 3 – Grade 5 literacy curriculum binder outlined the reading and writing genres and the performance tasks for each quarter. In quarter four, students read fiction texts and write opinion pieces. The performance task direction required students to complete one research task and one reading task. In order for students to be prepared to write effective opinion pieces, they would need extended opportunities to read argumentative pieces, study authors' argumentative techniques as they connect to the intended message, and respond to argument texts. However, the reading focus for this quarter was on fictional texts. This creates a disconnect between the reading and writing workshop.

Emphasizes real literature and real-life reading samples (Met) Auditors expect to find a literacy program that emphasizes the use of books and reading material that are authentic or found in almost any library as reading material people are interested in reading. Students consistently apply newly learned skills, after guided practice, with authentic literature. This means there is a decrease in the use of contrived passages or books that are written only as part of a program or to control Lexile range or reading level.

The New Haven Public Schools literacy curriculum met this recommended characteristic due to the use of core novels in the CORE (Central Organizing Reading Experience) component of the literacy curriculum. This component of the literacy curriculum requires that "students across the district will read certain core texts in common." Further, curriculum documents provide direction around using literature circles in the reading classroom after the completion of the core text. Core titles, Literature Circle titles, and Independent titles generally include high-quality, widely-respected children's literature.

Based on the gradual release of responsibility model (Met) Auditors expect to find a program that emphasizes the gradual release of responsibility model when teaching students reading and writing skills. The gradual release of responsibility refers to a continuum of reading and writing activities that progress from most dependent to most independent. As instructional components of the literacy block, these would include read-alouds, shared reading, guided reading, and independent reading time, as well as corresponding writing components: shared writing and independent writing. The intent is to provide adequate support in students' zone of proximal development so they can successfully achieve independent proficiency.

The New Haven Public Schools literacy curriculum met this recommended characteristic due to the explicit guidance provided for the Gradual Release of Responsibility Model described in the General Overview. The General Overview stated, "The gradual release model is the structure for all the mini-lessons developed by teachers in the curriculum." A review of the mini-lessons provided in the curriculum confirm this lesson structure for reading and writing mini-lessons. Further, the General Overview provided rubrics to evaluate read-alouds, shared reading, and guided reading during classroom instruction. The rubrics are designed with the gradual release of responsibility framework for teaching and state the literacy protocols that support this framework.

Clearly defined Literacy Block (Partially Met) Auditors expect to find a program that has recommended time allotments for the literacy block at every grade level with defined components, the amount of time to devote to each, and how these components are to be delivered in conjunction with the district curriculum. Models for each component are available to teachers. The components of the literacy block support flexible student groupings, such as small group instruction.

The New Haven Public Schools literacy curriculum did not fully meet this recommended characteristic because there was no direction provided on the curriculum documents for phonics instruction or language instruction, which includes the explicit teaching of vocabulary, grammar, and mechanics skills. The model literacy block included in the General Overview provides clear time guidelines for the Reading Workshop (60 minutes, five times per week), Writing Workshop (45 minutes, five times per week), and Core/Literature Circles (45 minutes, five times per week) components of the curriculum, with designated time for each, daily. The model literacy block expectations also included limited direction for the inclusion of Small Group Instruction (three to five

times per week), but did not provide guidance for how to accomplish this component because the primary three components of the literacy block exhaust the available 180 minutes for literacy instruction each day.

Is responsive to data to the individual student level (Partially Met) Auditors expect to find direction in the curriculum for the use of data from assessments that assess miscues and comprehension as well as Lexile levels and vocabulary acquisition for individual students, which are used to group students for targeted instruction (small-group, pair, or individual). The assessments are mostly administered in-person (60%, minimum) and reflect adequate cognitive demand.

The New Haven Public Schools literacy curriculum provides limited direction around the use of data to group students in small groups, pairs, or individually. The Small Group Instruction section of the literacy curriculum provided descriptions of small-group learning structures and explanations of their purpose; however, direction for grouping students according to data is stated generally, "Students should be grouped according to the instruction needed to guide them as readers." Curriculum documents do not name fluency, comprehension, Lexile levels, vocabulary acquisition, or skills acquisition as possible grouping strategies, and there is no universal assessment named to inform students groups across all New Haven Public Schools.

Has a defined sequence of skills (Not Met) Auditors expect to find a literacy program with a clearly defined sequence of phonics, language and mechanics, and vocabulary building skills K-6 (or beyond) with identified resources for teaching the sequence common to all schools and classrooms. Resources are evaluated for adherence to best practices and research in the sequence of skills and manner in which they are presented.

The New Haven Public Schools literacy curriculum did not meet this recommended characteristic due to the lack of a scope of sequence for instruction. Further, curriculum guides did not provide any direction for teaching phonics, language, or vocabulary. Discrete mini-lessons are provided in the Writing Workshop and Literacy Block sections of the curriculum documents, but there is no connection between these discrete collections of mini-lessons and the curriculum units. Further, the mini-lessons provided are not identified by grade level, which contributes to a possibility for replication of some skills and the omission of others across grade levels and a lack of consistency across New Haven Public Schools.

Integrates other content area skills and concepts (Partially Met) Auditors expect to find a literacy program that builds on the concepts, knowledge, and skills taught in other content areas to reinforce cross-content knowledge and increase students' familiarity with a wide range of texts from various time periods. In order to increase students' interest level and connection to texts, literacy programs should expose students to a variety of topics across various content areas.

The New Haven Public Schools literacy curriculum did not meet this recommended characteristic due to the lack of cross-content articulation on the curriculum guides. While students will read a large volume of books through the Core titles, Literature Circles, and Independent Titles options, the curriculum guides did not describe the content of the books and did not name the cross-content connections of the books students may read. The literacy performance tasks provided general connections to other content areas through the "Possible Curricular Connections" section on the performance task description. However, the articulation noted is general, such as "Social Studies, Science, Technology," and did not provide direction for explicit cross-curricular connections.

Curriculum guides (Partially Met) Auditors expect to find curriculum guides that provide direction for the English Language Arts and Reading skills that must be mastered. Additionally, curriculum guides provide direction for how to sequence skills, bundle them for manageability, and teach them across all components of the literacy block, while keeping a focus on making meaning and using authentic literature. Guides should also be designed to support flexible student groupings for targeted, student-centered instruction.

The New Haven Public Schools English language arts curriculum guides did not provide adequate specificity to promote the alignment between the written, taught, and tested curriculum. As described in Exhibit 2.3.2, the mean rating for the ELA curriculum guides was 9.2 on a scale of 0-15, which does not meet the 12 points required for adequacy. The elementary grade levels provide more specificity around the congruity of the curriculum to the assessments than the secondary grade levels, with minimal direction for the assessment approach in grades 6-12. The strongest element across all grade levels was the specificity for how teachers may approach key

skills and content in the classroom. These examples were generally provided in the form of reading and writing workshop mini-lessons. However, there is insufficient direction provided in the curriculum guides to support the appropriate use or sequence of these mini-lessons, so this characteristic was not fully met..

Student access to high-quality, on-level text (Met) Auditors expect to find a literacy program that integrates strategies to allow students to continue to practice literacy skills with text at an appropriate instructional level and representative of authentic literature. Students should have opportunities to engage with complex texts through classroom structures such as literature circles, thematic studies of multiple genres, and independent reading. Leveled readers are leveled according to a widely accepted system, such as Fountas & Pinnell, that represent both fiction and non-fiction titles.

The New Haven Public Schools English Language Arts curriculum met this recommended characteristic through the "three pronged plug" design described in the General Overview in the curriculum binder. This design approach includes core instruction using "specific core books read each quarter via a genre approach to the study of literature;" peer supported learning, including Literature Circles; and Reading Workshop, which incorporates extended independent reading. However, while the curriculum required student access to high-quality grade-level texts, teacher survey responses revealed that teachers do not have equitable access to the books required for the curriculum:

- "We need books." (Teacher)

- "Resources and training have not been given by the district." (Teacher)

- "Yes, the district does address what classroom instruction should look like. However, the district does not provide adequate resources that would make the classroom instruction they desire possible." (Teacher)

- "The outline for the workshop model is provided; however, the resources and supplemental materials are not easily accessible or understood." (Teacher)

Auditors expect to see alignment between the curriculum requirements and resource allocation on campuses. As noted, survey responses showed that some teachers are not able to teach the curriculum as it was written due to a lack of required resources on some campuses.

Resource selection (Not Met) Auditors expect to find clear guidelines regarding the minimum criteria for a resource to be considered for adoption. Resource criteria should include specificity for highly-valued program components, such as the presence of authentic texts, leveled readers using a widely accepted system that corresponds to assessments (such as Fountas and Pinnell), or a research-based phonics progression.

The New Haven Public Schools English Language Arts program did not meet this recommended characteristic due to the lack of resource guidelines provided to auditors. The General Overview in the curriculum binder outlined the structure of the curriculum and the tenets of the program, but did not describe how curricular resources are chosen and did not define the process for choosing the core books, Literature Circle texts, or Independent texts.

Appropriate, Targeted Data (Met) Auditors expect to find multiple high-quality instruments available and in use for evaluating students' reading skills. These include instruments that focus on miscue analysis, comprehension, vocabulary, and fluency. These instruments are not exclusively on-line, but include at least one measure that is administered in person.

The New Haven Public Schools English Language Arts program met this recommended characteristic through the New Haven Public Schools SRBI: Literacy Strategies and Interventions Handbook, which outlines the four different types of assessments administered in the SRBI process.

While teachers are using various assessment instruments across New Haven Public Schools, the curriculum documents did not provide direction for assessment administration or use. The assessment instrument provided in the curriculum documents is The Evaluation Tool, which addresses the concepts and skills in the Common Core State Standards. These are rubrics for evaluating student writing, but do not address reading comprehension

skills or fluency. English Language Arts curriculum documents should describe the connection between the SRBI assessments and classroom instruction.

Data Use (Partially Met) Auditors expect to find a literacy program in which data are frequently and consistently used to determine how students should be grouped during guided reading or small group learning time, as well as for progress monitoring and to select texts with which the students will be practicing reading skills. Data are also used to determine the effectiveness of reading instruction and to identify continuing areas of students' weaknesses that should be targeted with future instruction.

The New Haven Public Schools literacy curriculum provided general guidance for forming groups for Guided Reading, but lacked specificity to adequately support teachers' instructional practices. In the Reading Workshop Small Group Instruction section of the curriculum binder, the process for using data to inform Guided Reading groups generally said, "Multiple data points should be used when grouping students for guided reading. These data points include both formal and informal assessments, observations of reading behaviors and anecdotal notes taken both during conferring and previous guided reading lessons." Teachers were cautioned against using a single data point, such as *Developmental Reading Assessment* (*DRA*), but are not provided specific guidance around which combination of data points should be frequently gathered and used to make grouping decisions.

Monitoring (Not Met) Auditors expect to find clear criteria in place for how building leaders are to monitor reading instruction at all grade levels. Data from monitoring and evaluations are used to determine teachers' needs for continuing staff development.

The New Haven Public Schools literacy program did not meet this recommended characteristic due to the lack of direction for monitoring staff development needs. Auditors were presented with documents outlining a professional development plan for literacy teachers that included Rigor in the Reading/Writing Workshop, Raising the Level of Rigor in Academic Conversations, Planning for Effective Independent Reading and Writing, and Measuring Impact. There is no indication on the professional development plan that data will be the driver of professional development offerings or requirements for teachers' attendance. The professional development plan described the evidence of success for each professional development offering, but did not describe the objective or purpose of each professional development provided to teachers, nor were any guidelines found for building administrators to monitor the delivery of the literacy program across campuses, in an effort to promote fidelity to the balanced literacy model.

Program Evaluation (Not Met) Auditors expect to see that the district uses data from multiple formative tools as well as high stakes assessments to monitor program quality and effectiveness. Data are used to make decisions regarding program improvement and revision.

Auditors were not presented with any program evaluation tools or references to program evaluation in the New Haven Public Schools literacy curriculum documents. Therefore, the literacy program did not meet this recommended characteristic (see also Finding 4.4).

Curriculum Quality Summary

Auditors found that the overall quality of the curriculum guides in New Haven Public Schools did not have the specificity necessary to provide clear and specific direction to teachers and to promote alignment of the written, taught, and tested curriculum. Assessments were vague and not clearly linked to specific skills or clusters of objectives. Auditors also found that curriculum use is inconsistent among the teachers in New Haven Public Schools. District personnel reported that the lack of access to the curriculum, due to inconsistency and disorganization, leads to the use of a wide variety of sources beyond the district curriculum as sources of direction for classroom instruction. Limited access to resources by certain campuses and the limited specificity concerning the skills, concepts, and knowledge students must master has contributed to inconsistent access to content across schools. A thorough evaluation of the New Haven Public Schools literacy program revealed areas of real strength with areas needing improvement to better support the district's vision for effective instruction. While various components of the literacy program are available for use, there is little connection between

the different components and no direction for the use of data to inform grouping, instruction, professional development, or curriculum refinement.

Finding 2.4: District-adopted and developed assessments are not consistently aligned with the CCSS and the SBA for content, context and cognition. Performance tasks in ELA and math offer contextual variety and higher cognitive demands. Frequently, resource items are not aligned for content and cognition with the CCSS.

Quality written curriculum is the most critical tool district leaders can provide to teachers. In addition to having minimum components of objectives, assessments, and prerequisite skills, as well as suggested strategies, approaches, materials, and resources, the content of those components must align in multiple dimensions with state standards and high stakes assessments. These dimensions include content, context, and cognitive type. Content refers to the skills, processes, knowledge, concepts, or vocabulary students must learn. Context refers to how they are to practice or demonstrate that learning, such as in a real-life situation or with pencil and paper. Cognitive type refers to the nature of the cognitive engagement the learning demands. Looking at alignment along all three dimensions gives teachers and administrators a specific picture of the extent, nature, and degree of alignment of the activity, resource, or lesson with the intended standard or high stakes assessment.

An issue of particular importance to the New Haven Public School District is the alignment of the English language arts and mathematics curriculum in the dimensions of content, context, and cognitive type to the Common Core State Standards (CCSS) and the Smarter Balanced Assessment (SBA). Alignment to high stakes assessments is a critical factor in preparing for student success on that assessment. The student's tasks in the classroom and the work that they are engaged in predicts their performance on assessment measures. It is a fundamental principle of the audit that the work students encounter in the classroom must deeply align with any assessments, particularly high stakes measures. Deep alignment requires meeting and exceeding the demand of the test along all three dimensions: content, context, and cognitive type. When districts assure that the curriculum and its supporting resources and materials are aligned deeply to the assessments, there is far greater likelihood that there is sufficient alignment with the Common Core State Standards themselves.

The premise of deep alignment is that what students encounter on a district assessment must minimally meet the demands of the high-stakes assessment in all three dimensions if the high–stakes assessment is rigorous, and exceed it if the assessment is not. This alignment is necessary if students are to be adequately prepared for whatever they encounter on the state test. In context, this means an assessment must incorporate multiple ways for a student to demonstrate mastery of content. In cognitive type, this means the assessment must be at least as cognitively demanding as the high stakes test, or more so if the high stakes test is not rigorous. The more students successfully encounter contexts and cognitive types that are more challenging than a high stakes test, the more likely they will be successful on them.

Deep alignment is particularly important when the high stakes tests are low-level, multiple-choice exams. With multiple-choice items, there is no way to determine if students actually thought through a process and worked a problem to determine the correct answer or if they simply guessed. Unless a student must show their work or write an explanation for how they came to that answer, there is no way to know if the student has truly mastered the content. Such a context is narrow and does not allow students to exercise their learning in different ways that are cognitively demanding. Assessments must go beyond such a limited context, incorporating open-ended and short answer items that require students to demonstrate their level of understanding and mastery of concepts, skills, and knowledge. The emphasis is on skill mastery, and the focus is depth, not breadth.

In order to provide district leaders with information about alignment with the CCSS and the SBA, a number of sample analyses were conducted. In the first analysis, externally developed and locally developed English language arts (ELA) and mathematics assessments were compared with the CCSS and the SBA to ensure the instruments provide a sound and valid measurement of students' progress toward mastering the standards and were deeply aligned with the SBA. District monitoring assessments must meet or exceed the demands of the high stakes tests, particularly in the areas of context and cognition, in order to adequately prepare students for successful performance on different iterations of the state assessments. District-adopted and developed assessments that were analyzed included district developed performance tasks, externally developed IABs, and

externally developed reading assessments. The auditors used the assessments that were made available to them by district personnel in ELA and math. In the second set of analyses auditors examined a mathematics resource for alignment with the CCSS in all three dimensions. Resources and student activities suggest how students will engage with the content. An extensive review of student work is discussed in (Finding 3.5).

Overall, the auditors found that the district-adopted and developed assessments for both the English language arts and mathematics did not consistently provide context variation or cognitive demand to be fully aligned with the CCSS nor fully prepare students for the demands of the SBA. Deep alignment for context and cognition with the SBA was infrequent; however many of the performance tasks, particularly in ELA, met the high expectations of the SBA on all dimensions, content, context, and cognitive type. Resource alignment analysis found that the expectations described in the CCSS were not met in many of the examples for content and cognition.

The auditors began an in-depth analysis in ELA and math by selecting items from district-adopted or district-developed assessment items from representative grade levels. Two different analyses were conducted for each item. First, the auditors determined if there was a match in content to the identified CCSS. If the district assessment item met the expectations of the CCSS in content, further analysis was conducted for context and cognition and labeled Met, Partially Met, or Not Met. In the second analysis, each district assessment item was analyzed in an effort to determine topological or deep alignment along the dimensions of content, context and cognition with the SBA. As described for the first analysis, if the district assessment item was a match for content, further analysis was conducted for context and cognition. If the content, context, or cognitive type of the assessment item fully matched the content, context, or cognitive type of the SBA, it was considered topologically aligned. If the district assessment exceeded the content, context, or cognitive type of the SBA, it was identified as deeply aligned. If the content, context, or cognitive type of the district assessment item did not fully match the SBA, it was classified as misaligned.

To perform the analyses of cognitive type, auditors used the framework based on Bloom's Taxonomy of Cognitive Domains as presented in Exhibit 2.4.1.

Exhibit 2.4.1

Description of Cognitive Types in Bloom's Taxonomy
New Haven Public Schools
April 2019

Cognitive Domain	Definition of Type	Additional Clarification Comments
Knowledge	Includes those behaviors and test situations that emphasize the remembering, either by recognition or recall, of ideas, material, or phenomena.	Ranges from the specific and relatively concrete types of behaviors to the more complex and abstract ones, including the interrelations and patterns in which information can be organized and structured. Remembering is the major psychological process involved.
Comprehension	When confronted with a communication, written or oral, they are expected to know what is being communicated and to be able to market some use of the material or ideas contained in it.	Three types: translation, interpretation, and extrapolation. Emphasis is on the grasp of the meaning and intent of the material.
Application	Apply comprehension in a situation new to the student without prompting; requires transferring of knowledge and comprehension to a real situation.	Emphasis is on the remembering and bringing to bear upon given material the appropriate generalizations or principles.

	Exhibit 2.4.1 (continued) Description of Cognitive Types in Bloom's Taxonomy New Haven Public Schools April 2019	
Cognitive Domain	**Definition of Type**	**Additional Clarification Comments**
Analysis	Break down the material into its constituent parts, make explicit the relationships among the elements, and then recognize the organizational principles of the arrangement and structure that holds together the communication as a whole.	Emphasis is on the breakdown of the material into its constituent parts and detection of the relationship of the parts and of the way they are organized. Not to be confused with the comprehending the meaning of something abstract (which is comprehension).
Synthesis	Putting together elements and parts so as to form a whole, to a pattern or structure not clearly there before.	Focus on creative ability of the student but within limits of a framework. Must draw upon elements from many sources and put these together in a structure or pattern not clearly there before. Should yield a product.
Evaluation	Making of judgments about the value, for some purpose, of ideas, works, solution, methods, material, etc.	Involves use of criteria as well as standards for appraising the extent to which particulars are accurate, effective, economical, or satisfying. May be quantitative or qualitative. Are not opinions but judgments based on criteria.
Source: Taxonomy of Educational Objectives, Benjamin Bloom, Editor, Longman, 1956		
©2018 CMSi		

The auditors used the classifications presented in Exhibit 2.4.1 for the analyses found in subsequent exhibits.

English Language Arts District-adopted and -Developed Assessments Alignment Analyses with the CCCSS and the SBA

The intent of the first analysis is to determine how well the district-adopted and -developed assessments in the New Haven Public School District align with the CCSS and the SBA in the dimensions of content, context, and cognition. Particular attention is given to the alignment between the district-adopted and developed assessments and the SBA in order to determine if these assessments are deeply aligned with the high stakes assessment.

The district uses a number of ELA assessments, which are described in Exhibit 2.4.2.

Exhibit 2.4.2

Description of ELA Assessments
New Haven Public Schools
April 2019

Assessment Name	Description
DIBELS	"The Dynamic Indicators of Basic Early Literacy Skills® (DIBELS) are a set of procedures and measures for assessing the acquisition of early literacy skills. They are designed to be short (one minute) fluency measures used to regularly monitor the development of early literacy and early reading skills."

Exhibit 2.4.2 (continued) Description of ELA Assessments New Haven Public Schools April 2019	
Assessment Name	**Description**
Fountas and Pinnell Benchmark Assessments	"Benchmark Assessment System (BAS)….The Fountas & Pinnell Benchmark Assessment Systems provide teachers with precise tools and texts to observe and quantify specific reading behaviors, and then interpret and use that data to plan meaningful instruction."
HMH Reading Inventory	"The Reading Inventory is a research-based, adaptive student assessment program that measures reading skills and longitudinal progress from Kindergarten through college readiness."
Interim Assessment Benchmarks (IAB)	"Optional interim assessments allow teachers to check student progress throughout the year, giving them information they can use to improve their instruction and help students meet the challenge of college- and career-ready standards."
District Developed Performance Tasks	Locally developed assessments: Performance Tasks are provided at each grade level or grade level span. Some performance tasks are associated with a particular unit, some are provided in a separate section of a binder and are more general in nature. Teachers are asked to decide which performance tasks they will use and in what order they will use them.
Sources: DIBELS website: https://dibels.uoregon.edu/assessment/dibels, F and P website: https://www.fountasandpinnell.com/bas/, *HMH website:* https://www.hmhco.com/products/assessment-solutions/literacy/sri-index.htm, *SBA website: http://www.smarterbalanced.org/assessments/interim-assessments/*	

As presented in Exhibit 2.4.2, there are five different assessments that are currently being used to measure ELA performance in the New Haven Public schools. Each of these instruments is included in the assessment analysis conducted by the auditors. The DIBELS and Fountas and Pinnell assessments are primarily administered in grades K-3 and are therefore only included in the grade 3 alignment analysis. One HMH Reading Inventory question is used as a representative item and is also included in the grade 3 exhibit. IAB items were taken from the specific IAB assessments that are currently in use by the district and are included in each of the three selected grade levels. District performance tasks were selected from each of the identified grade levels. An effort was made to select performance tasks that were aligned with the same content as the selected SBA item.

As described in Exhibit 2.4.2, teachers are asked to determine which district performance tasks they will use in any given unit and at any given time during the school year. Often the performance tasks vary in complexity. Frequently the performance task does not identify which CCSS is being addressed. While this approach provides for maximum flexibility and accommodates a number of different lessons and student needs, it goes against the audit premise of tightly held, loosely held. This type of menu approach works well for strategies and resources, but as previously discussed in Finding 2.1, assessments are one of the components that should be tightly held by the district. Assessments provide district personnel with information about individual student performance as well as how well the district curriculum is preparing students for performance on high stakes assessments. When assessments are loosely held, district personnel do not have a way to assess if the curriculum management system is effective.

In the first analysis, the auditors selected district-adopted or -developed ELA assessment items from grades 3, 5, and 8. For each commercially adopted or district-developed assessment item the auditors determined the alignment in the dimensions of content, context and cognition with the CCSS. Next the auditors examined the same assessment item for alignment in content, context and cognition with the SBA. Exhibits 2.4.3 through Exhibit 2.4.8 display a separate analysis for each grade level or course. Exhibit 2.4.3 displays the analysis of grade 3 ELA district assessment items followed by a summary table in Exhibit 2.4.4.

Exhibit 2.4.3

Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
RF.3.4: Read with sufficient accuracy and fluency to support comprehension.	**N/A** This standard is not assessed on the SBA.	**DIBELS: Oral Reading Fluency**[1] 1. Oral reading fluency component, students are given an unfamiliar, grade-level passage of text and asked to read for 1 minute. Errors such as substitutions, omissions, and hesitations for more than 3 seconds are marked while listening to the student read aloud. Words per minute are compared to normative averages.	**Content: Not Met** The DIBELS ORF is designed to assess students' ability to decode grade level passages quickly and accurately. The assessment does not include a component to determine if students are reading with proper expression, which is the third component of fluency. The second part of the standard requires students to read fluently in order to support comprehension. The ORF component of DIBELS does not measure comprehension. Not a match for content; no further analysis conducted.	**N/A** This standard is not assessed on the SBA.
RF.3.4: Read with sufficient accuracy and fluency to support comprehension.	**N/A** This standard is not assessed on the SBA.	**Fountas & Pinnell Benchmark Assessment Systems (BAS)**[2] 1. Students read aloud and talk about the leveled fiction or nonfiction books included with the assessment, the teacher observes and notes the reader's behaviors 2. The teacher conducts a "revealing" Comprehension Conversation.	**Content: Met** The assessment and the standard both require students to read quickly, accurately, and with proper expression. Teachers use an assessment form to record these components. Comprehension is measured through a series of questions and evaluated by the teacher on a scoring rubric. **Context: Met** The district assessment and the standard both require students to read. **Cognition: Met** Both the assessment item and the standard require students to operate at the application level of cognition. Students apply reading skills to an unfamiliar text.	**N/A** This standard is not assessed on the SBA.

Exhibit 2.4.3 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
RL.3.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	**SBA Grade 3 Item 2886** Treasure in the Field by Marilyn Bolchunos Passage provided What can the reader infer about the secret the father tells his sons? Include information from the passage in your answer.	**Reading Inventory Sample Question**	**Content: Met** Both the sample RI question and the standard require students to demonstrate understanding of the text. **Context: N/A** The standard does not describe how students are expected to perform the task. No analysis conducted. **Cognition: Met** Both the standard and the RI assessment item require students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA item and the sample RI question address the same content, "demonstrate understanding of a text, referring explicitly to the text as the basis for the answers." **Context: Misaligned** Mode: The SBA question requires students to write in an open-ended format, the RI question asks students to choose from a list of responses. Task: The SBA question asks students to read a passage, identify relevant information in the reading to answer a question, and then write a response. The RI question asks students to read a passage and choose the best word to complete a sentence related to comprehension. The RI item does not require the same level of complexity as the SBA item. Environment: The SBA item and the RI item both ask students to answer the question using a computer. **Cognition: Misaligned** The SBA item requires students to operate at the analyzing level of cognition by inferring meaning, gathering evidence from the text and constructing an answer. The RI question asks students to understand the text in order to select the correct vocabulary word to complete the comprehension question.

Exhibit 2.4.3 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
RL.3.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	**SBA Grade 3 Item 3177** Sap's Running by Stephen R. Swinburne Passage provided What inference can be made about the temperature in Vermont? Use details from the passage in your answer.	**IAB Grade 3 RIT³** Question 11 Part A What can you infer about how people react to archaeology digs? A. Many people do not find archaeology important in studying history. B. Many people want to be a part of a dig but often just get in the way. C. Many people go out of their way to allow archaeologists to do their job. D. Many people think that land that they live on should be part of an archaeology dig.	**Content: Met** Both the sample IAB question and the standard require students to demonstrate understanding of the text. **Context: N/A** The standard does not describe how students are expected to perform the task. No analysis conducted. **Cognition: Met** Both the standard and the assessment item require students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA item and the sample IAB question address the same content, "demonstrate understanding of a text, referring explicitly to the text as the basis for the answers". **Context: Misaligned** Mode: The SBA question requires students to write in an open-ended format, the IAB question asks students to choose from a list of responses. Multiple-choice questions without additional demonstration of student work do not tell the teacher if the student understands the question that they are being asked or if they are good at guessing. Task: The SBA question asks students to read a passage, identify relevant information in the reading to answer a question and then write a response. The IAB question asks students to read a passage and choose an answer from a list of choices. The SBA item requires a more complicated response as compared to the IAB question. Environment: The SBA item and the IAB item both ask students to answer the question using a computer.

Exhibit 2.4.3 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
continued	continued	continued	continued	continued **Cognition: Misaligned** While both the SBA question and the IAB question ask students to infer, the SBA question asks students to operate at the analysis level of cognition by inferring meaning, gathering evidence from the text, and putting the evidence together to support an answer. The IAB question asks students to operate at the understanding level of cognition. Students are required to understand the text in order to determine which multiple-choice selection is the best.
RL.3.1: Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.	**SBA Grade 3 Item 3177** Question repeated to show alignment with a different IAB question. Sap's Running by Stephen R. Swinburne Passage provided What inference can be made about the temperature in Vermont? Use details from the passage in your answer.	**IAB Grade 3 RIT** Meet the Instruments Passage 7. What is the main idea of the passage? Use details from the passage to support your answer.	**Content: Met** Both the sample IAB question and the standard require students to demonstrate understanding of the text. **Context: N/A** The standard does not describe how students are expected to perform the task. No analysis conducted. **Cognition: Met** The IAB item asks students to operate at the synthesis level of cognition, which meets and exceeds the requirement of understanding described in the standard.	**Content: Topologically Aligned** Both the SBA item and the sample IAB question address the same content, "demonstrate understanding of a text, referring explicitly to the text as the basis for the answers". **Context: Topologically Aligned** Mode: The SBA item and the IAB item both require students to write in an open-ended format. Task: Both the SBA question and the IAB item ask students to read a passage and identify relevant information in the reading in order to write a response. Environment: The SBA item and the IAB item both ask students to answer the question using a computer.

Exhibit 2.4.3 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
continued	continued	continued	continued	continued
W.3.2: Write informative/ explanatory texts to examine a topic and convey ideas and information clearly. a. Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.	**SBA Grade 3 Item 2558** Astronauts Informational Performance Task Using more than one source, develop a main idea about being an astronaut. Choose the most important information from the sources to support your main idea. Then, write an informational article that is several paragraphs long.	**Unit 3 grade 3** **Performance Task** (one of three choices for this unit) Choice #1: A-Z Book Your assignment is to write an A-Z Book as a class or with your nonfiction book club. The topic of the A-Z Book can be related to a content area, magnet theme, or the nonfiction reading done in class or in nonfiction book clubs. Each page of the A-Z book should include a word related to the topic, 3-4 sentences that provide information about each word and use the chosen word in context. Each page should also include a visual component. (photograph or illustration)	**Content: Partially Met** The standard requires students to write informative/explanatory texts to examine a topic and convey ideas and information. The district performance task asks to students to identify vocabulary in a nonfiction book and display information; it does not ask students to share ideas about the nonfiction book. **Context: Met** The standard and the district performance assessment both ask students to respond in an open-ended format. **Cognition: Not Met** The standard expects students to operate at the synthesis level of cognition by developing an essay. The district performance assessment asks students to operate at the comprehension level of cognition. Students are asked to identify and define vocabulary.	**Cognition: Topologically Aligned** Both the SBA question and the IAB question ask students to operate at the synthesis level of cognition by gathering information from the text in order to compose a written answer to a prompt. The SBA item requires a higher level of complexity by asking students to go beyond the text to determine an answer. **Content: Partially Aligned** Both the SBA item and the district developed performance task ask students to write an informational or explanatory text to examine a topic and convey information. The SBA item also asks students to convey ideas. **Context: Misaligned** Mode: The SBA item and the district performance task both require students to write in an open-ended format, Task: The SBA item asks student to read two sources, identify relevant information from the two sources to develop a main idea, and write an informational article that is several paragraphs long. The district developed performance task asks students to identify a word(s) on a given topic, write 3 to 4 sentences to provide information about the word, and use it in the correct context. The district performance task does not meet or exceed the expectations of the SBA item.

Exhibit 2.4.3 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
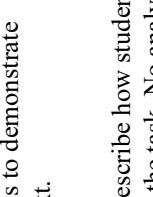**Grade 3 ELA**
New Haven Public Schools
April 2019

Common Core Standard	SBA Item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
continued	continued	continued	continued	continued
b. Develop the topic with facts, definitions, and details.	Clearly organize your article and support your main idea with details from the sources. Use your own words except when quoting directly from the sources. Be sure to give the source title or number when using details from the sources.			Environment: The SBA item requires students to perform the task using a computer. The district item asks students to perform a paper/pencil task.
c. Use linking words and phrases (e.g., also, another, and, more, but) to connect ideas within categories of information.				**Cognition: Misaligned** The SBA item asks students to operate at the synthesis level of cognition. Students are required to compose an essay using information from two different sources. The district assessment asks students to operate at the comprehension level of cognition. Students are asked to identify and define vocabulary.
d. Provide a concluding statement or section.				

¹ The DIBELS is a state-required assessment.
² The BAS is a reading assessment selected by the New Haven Public Schools
³ The RIT assessment is an assessment provided by the State Department of Education

Sources: DIBELS Next Assessment Manual: 2011, National Reading Panel: 2000, ELA/Literacy Summative Assessment Blueprint: 2018/19, Fountas and Pinnell Literacy BLOG, Common Core State Standards Website, Smarter Balanced Assessment , District provided assessment documents and web access.

Exhibit 2.4.4

Summary of Internal Consistency of sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 ELA
New Haven Public Schools
April 2019

Grade 3 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
DIBELS	Not Met	Not Analyzed	Not Analyzed	N/A	N/A	N/A
Fountas and Pinnell BAS	Met	Met	Met	N/A	N/A	N/A
Reading Inventory	Met	N/A	Met	Topologically	Misaligned	Misaligned
IAB RIT # 11	Met	N/A	Met	Topologically	Misaligned	Misaligned
IAB RIT # 7	Met	N/A	Met	Topologically	Topologically	Topologically
District Performance Task	Partial	Met	Not Met	Partially Aligned	Misaligned	Misaligned
It should be noted that the DIBELS assessment is required by the State Department of Education. The RIT assessment is an assessment provided by the State Department of Education.						

As noted in Exhibit 2.4.3 and summarized in Exhibit 2.4.4:

- Four of the six district-adopted or -developed assessment items were a match for content.

- Two of the six district-adopted or -developed assessment items partially matched or did not match the content described in the standard.

- The two district-adopted or -developed assessment items that were analyzed for context met the requirements described in the Common Core State Standards.

- Four of the five district-adopted or -developed assessment items that were analyzed for cognition met the requirements described in the Common Core State Standards for cognitive demand.

- Three out of four (75%) of the district-adopted or -developed assessment items were misaligned for context with the Smarter Balanced Assessment Item. These items did not meet the expectations of the SBA items. The final item was topologically aligned for context.

- Three out of four (75%) of the district-adopted or -developed assessment items were misaligned for cognition with the Smarter Balanced Assessment Item. The final item was topologically aligned for cognition.

Grade 3 ELA district assessment items primarily met the content requirements of the CCSS and were topologically aligned for content with the SBA. The majority of district assessment items met the expectations described in the standard for context and cognition. The majority of district assessment items were misaligned for context (75%) and cognition (75%) with the SBA. These items did not meet or exceed the expectations found on the high-stakes assessment.

Exhibit 2.4.5 displays the analysis of grade 5 ELA district assessment items followed by a summary table in Exhibit 2.4.6.

Exhibit 2.4.5

Internal Consistency of Sample District Assessment Items

To Common Core State Standards and Released SBA Items

Grade 5 ELA

New Haven Public Schools

April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
W.5.3: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.	**SBA Grade 5 Item 2940** Continue the narrative and include meaningful dialogue and description to tell what happens to Rachel's garden.	**Grade 5 Unit 1** **Performance Task** (one of three choices for this unit) Choice #1: Inside The Character's Mind Your assignment is to write 3 journal entries from the climax in the book. One journal entry should be told from the point of view of the main character. The second journal entry should be told from the point of view of a secondary character. The third journal entry should be told from the perspective of another secondary character that was a part of the scene. Each entry needs to integrate evidence from the text that supports the character's voice and perspective. After completing the 3 journal entries, students will compare and contrast the characters' perspectives on the chosen scene… Evaluating and Revising: Share and respond with other students in partnerships or small groups to begin effective peer response practice…	**Content: Met** Both the standard and the district-developed performance task ask students to write a narrative. **Context: Met** Both the standard and the district performance task ask students to write in an open-ended format. **Cognition: Met** Both the standard and the performance task require students to operate at the synthesizing level of cognition.	**Content: Topologically Aligned** Both the SBA and the IAB item address the topic of narrative writing. **Context: Deeply Aligned** Mode: The SBA item and the IAB item both ask students to write a narrative essay in an open-ended context. Task: The SBA item asks students to read a passage and continue the narrative beyond the story. The district performance assessment goes beyond the expectations described in the SBA item and asks students to read a story, write 3 different journal entries from three different points of view, compare and contrast the perspectives of the characters they wrote journals for and share and respond with a partner or small group. Environment: The SBA item requires students to perform the task using a computer. The district item asks students to work with paper/pencil. **Cognition: Topologically Aligned** Both the SBA item and the district performance task require students to operate at the synthesis level of cognition. Students are asked to pull together information from a story in order to create a narrative.

Exhibit 2.4.5 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
W.5.1¹: Write opinion pieces on topics or texts, supporting a point of view with reasons and information. a. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. b. Provide logically ordered reasons that are supported by facts and details. c. Link opinion and reasons using words, phrases, and clauses (e.g., *consequently, specifically*). d. Provide a concluding statement or section related to the opinion presented.	**SBA Grade 5 Item 2649** Student Directions Service Animals Opinion Performance Task Task: A person with a disability visited your class today to discuss how his trained service animal allows him to enjoy more independence and participate more fully in everyday activities.… Your Assignment: … In your paper, you will take a side as to whether you agree with the rule allowing only service dogs and miniature horses in public places, or whether you disagree with the rule.… Make sure you clearly state your opinion and write several paragraphs supporting your opinion with reasons and details from the sources.	**Grade 5 Unit 1** **Performance Task** (one of three choices for this unit) Choice #1: Inside The Character's Mind Your assignment is to write 3 journal entries from the climax in the book. One journal entry should be told from the point of view of the main character. The second journal entry should be told from the point of view of a secondary character. The third journal entry should be told from the perspective of another secondary character that was a part of the scene. Each entry needs to integrate evidence from the text that supports the character's voice and perspective. After completing the 3 journal entries, students will compare and contrast the characters' perspectives on the chosen scene.	**Content: Not Met** The standard requires students to write an opinion piece. The performance task asks students to write a narrative piece. Content is not aligned; no further analysis is conducted.	**Content: Misaligned** The SBA item asks students to write an opinion piece. None of the district performance tasks listed in the draft curriculum documents on the website asked students to write an opinion piece. There were several opinion pieces listed in the binder of performance tasks provided by the district to teachers. Because of the large number of performance tasks listed in the binder, it would be challenging for a teacher to determine if any one of these tasks was more desirable than others. Opinion in the lower grades and argument writing at the secondary level represents one of the major shifts in the CCSS.

Exhibit 2.4.5 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
RI.5.1: Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text	**SBA Grade 5 Item 2871** James Watt and the Teakettle by James Baldwin Paragraph 3: This was not the first time he had puzzled his grandmother with questions that she could not answer. So she went on with her preparations for supper and paid no heed to his query. What can you infer about the grandmother in paragraph three? Include information from the text in your answer.	**Grade 5 RIT IAB** Open Wide and Say "Roar!" by David Richardson 10. What inference can be made about Dr. Sullivan's willingness to work on animals? Support your answer with details from the text.	**Content: Met** Both the standard and the IAB item address the topic of quoting accurately from the text to explain what the text says. **Context: Met** The standard describes student responses that are best provided in an open-ended format. The IAB item provides students with a text box for an open-ended response. **Cognition: Met** Both the standard and the IAB ask students to operate at the analysis level of cognition.	**Content: Topologically Aligned** Both the SBA item and the IAB item address the topic of quoting accurately from the text to explain what the text says. **Context: Topologically Aligned** Mode: The SBA item and the district performance task both require students to write in an open-ended format. Task: Both the SBA item and the IAB item ask students to read a selection, make an inference about a character in the story, and write a response. Environment: Both the SBA item and the IAB item require students to perform the task using a computer. **Cognition: Topologically Aligned** Both the standard and the IAB ask students to operate at the analysis level of cognition. Students are required to go beyond the text in order to describe a character's thoughts or actions.

Exhibit 2.4.5 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
L.5.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.	**SBA Grade 5 Item 2915** Read the sentence from "Cuisine and Etiquette in Zambia." Belching after a meal used to be a <u>compliment</u>, but it is not nowadays. Based on the information in "Cuisine and Etiquette in Uganda," what does the author mean by the word <u>compliment</u>? Select two answers. The author is suggesting a social way of showing politeness. The author is telling the reader that the other is a good cook. The author is demonstrating that the family show the mother love. The author is making light of the women's efforts in meal preparation. The author is suggesting that the mother needs to be thanked for her hard work. The author is complaining that the mother doesn't do much work except prepare meals.	**Grade 5 RIT 1AB** 13.Read the text and the directions that follow. He walks on top of the water, looking <u>like a needle</u> on legs. What does the phrase "like a needle" suggest about the information in the text? Select two choices. It suggests where the needle-bug gets its name. It suggests that the needle-bug has a pointed tip. It suggests that the body of the needle-bug is silver. It suggests that the needle-bug is dangerous to catch. It suggests that the body of the needle-bug is long and thin.	**Content: Met** Both the standard and the IAB item address the topic of figurative language. **Context: N/A** The standard does not describe a context. **Cognition: Met** Both the standard and the IAB item ask students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA and the IAB item address the topic of figurative language. **Context: Topologically Aligned** Mode: The SBA item and the IAB item both ask students to choose two choices from a list of selections. Task: Both the SBA item and the IAB item ask students to read a passage, read a sentence from the passage, and select two meanings for a phrase from the sentence Environment: Both the SBA item and the IAB item require students to perform the task using a computer. **Cognition: Topologically Aligned** Both the SBA item and the IAB item ask students to operate at the comprehension level of cognition.

[1] This common core writing standard was not found in any of the four grade 5 draft units on the district website. The auditors did not find a performance task included in the 5th grade curriculum that addressed this same standard and tested similar content as the SBA.

Sources: National Reading Panel: 2000, ELA/Literacy Summative Assessment Blueprint: 2018/19, Common Core State Standards Website, Smarter Balanced Assessment Website, District provided assessment documents and web access.

Exhibit 2.4.6

Summary of Internal Consistency of sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 ELA
New Haven Public Schools
April 2019

Grade 5 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
Grade 5 Unit 1 Performance Task	Met	Met	Met	Topologically	Deeply	Topologically
Grade 5 Unit 1 Performance Task	Not Met	No further analysis conducted	No further analysis conducted	Misaligned	No further analysis conducted	No further analysis conducted
RIT IAB #10	Met	Met	Met	Topologically	Topologically	Topologically
RIT IAB #13	Met	N/A	Met	Topologically	Topologically	Topologically

As noted in Exhibit 2.4.5 and summarized in Exhibit 2.4.6:

- The majority of district items, three out of four, met the content expectations described in the CCSS. One item did not meet the expectations described in the standard.

- Seventy-five percent of district-adopted or -developed assessment items were topologically aligned with the SBA for content. One item (25%) was misaligned for content.

- All of the district-adopted or -developed assessment items that were analyzed for cognition were a match with the CCSS.

- All of the district-adopted or -developed assessment items that were analyzed for cognition were topologically aligned with the SBA. Two of these items asked students to engage with the content at the highest levels of Bloom's taxonomy. In cases where the high-stakes assessment requires higher levels of cognitive demand, it is only necessary for the district item to meet the expectations of the SBA. The final SBA and district item required students to engage at the comprehension level of cognition. In this case, where the expectation of the SBA is low, deep alignment is desirable.

- One of the district-adopted or -developed assessment items is deeply aligned for context with the SBA. This item goes beyond the context expectations of the SBA and more fully prepares students for this and future iterations of the high stakes assessment.

Three out of the four district items met the content expectations of the CCSS and were topologically aligned with the SBA for content in grade 5. All three of the items that were analyzed for cognition met the expectations described in the standard. One item was deeply aligned with the SBA for context.

Exhibit 2.4.7 displays the analysis of grade 8 ELA district assessment items followed by a summary table in Exhibit 2.4.8.

Exhibit 2.4.7

Internal Consistency of Sample District Assessment Items

To Common Core State Standards and Released SBA Items

Grade 8 ELA

New Haven Public Schools

April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
W.8.1.B: Write arguments to support claims with clear reasons and relevant evidence. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.	**SBA Grade 8 Item 2698** **Penny Argumentative Performance Task** Part 2 Your assignment is to use the research sources to write a multi-paragraph argumentative essay either for or against the continued production of the penny in the United States. Make sure you establish an argumentative claim, address potential counterarguments, and support your claim from the sources you have read… Argumentative Essay Scoring: Your argumentative essay will be scored using the following: 1. Organization… 2. Evidence… 3. Conventions…	**Grade 8** **Curriculum Embedded Performance Task Choice Pg. 22** …AND NOW YOU KNOW Write an informative/ explanatory text in the form of a script for a public service announcement about a debatable contemporary issue. Include the beliefs of the other side of the issue. Provide clear, factual evidence to argue any irrelevant evidence included in those claims. Perform the public service announcement. This task can be based on an issue faced by a character in a novel read.	**Content: Met** Both the standard and the district performance task address the topic of argument writing. The district item does not use the language of the standard "claim". **Context: Met** Both the standard and the district performance assessment require students to engage with the content in an open-ended format. **Cognition: Met** Both the standard and the performance task ask students to interact with the content at the synthesis level of cognition.	**Content: Topologically Aligned** Both the SBA item and the district performance task address the topic of argument writing. The district item does not use the same language as the SBA item "claim" and "counterargument". **Context: Topologically Aligned** Mode: The SBA item and the district assessment item both ask students to perform an extended writing task in an open-ended context. Task: The SBA item asks students to gather evidence and write an organized argument essay using evidence and standard English conventions. The district performance task asks students to write a public service announcement based on evidence, include the beliefs of the other side, and perform the announcement. Environment: The SBA item requires students to perform the task using a computer. The district item asks students to work with paper/pencil and to make a presentation. **Cognition: Topologically Aligned** The SBA item and the performance task both require students to operate at the synthesis level of cognition.

Exhibit 2.4.7 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 8 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
RL 8.1: Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.	**SBA Grade 8 Item 3183** Master of Beautiful Music by Ellen Seiden Passage Provided What inference can be made about the author's opinion on the likelihood of students returning for multiple years? Support your answer with evidence from the text.	**Grade 8 IAB RIT** 11. What conclusion can be drawn about the author's point of view of ancient Egyptians? Use evidence from the text to support your answer.	**Content: Partially Met** The standard requires students to cite the textual evidence that most strongly supports what the text says. The IAB item requires the use of evidence, but not necessarily the strongest piece of evidence. **Context: N/A** The standard does not indicate a context. **Cognition: Met** The standard and the IAB item both require students to operate at the analysis level of cognition.	**Content: Topologically Aligned** The SBA item and the IAB item both address the topic of citing evidence from the text to support a conclusion or analysis about the author's point of view. **Context: Topologically Aligned** Mode: The SBA item and the IAB item both ask students to write in an open-ended format. Task: The SBA item and the IAB item both ask students to read a passage and cite evidence from the text to support their conclusions about the author's point of view. Environment: The SBA item and the IAB item require students to perform the task using a computer. **Cognition: Topologically Aligned** The SBA item and the IAB item both require students to operate at the analysis level of cognition.

Exhibit 2.4.7 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 8 ELA
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District or Commercially Produced Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA item
RL 8.2: Determine a theme or central idea of a text and analyze its development over the course of the text, including its relationship to the characters, setting, and plot; provide an objective summary of the text.	**SBA Grade 8 Item 3157** Master of Beautiful Music by Ellen Seiden Passage Provided Summarize the author's message about the Perlmans' dedication to the camp. Use evidence from the text to support your summary.	**Grade 8 IAB RIT** 12. Summarize the central idea of "Marks the Spot!" Use evidence from the text to support your answer.	**Content: Partially Met** The standard requires students to determine the theme, analyze its development, and provide a summary. The IAB item addresses the topic of summarizing. **Context: Met** Both the standard and the IAB item ask students to respond in an open-ended format. **Cognition: Met** The standard and the IAB item both require students to operate at the analysis level of cognition.	**Content: Topologically Aligned** The SBA item and the IAB item both address the topic of analyzing the development of the central idea of the text. **Context: Topologically Aligned** Mode: The SBA item and the IAB item both ask students to write in an open-ended format. Task: The SBA item and the IAB item both ask students to read a passage and cite evidence from the text to support their analysis of the central idea. Environment: The SBA item and the IAB item require students to perform the task using a computer. **Cognition: Topologically Aligned** The SBA item and the IAB item both require students to operate at the analysis level of cognition.

Sources: National Reading Panel: 2000, ELA/Literacy Summative Assessment Blueprint: 2018/19, Common Core State Standards Website, Smarter Balanced Assessment Website, District provided assessment documents and web access.

Exhibit 2.4.8

Summary of Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 8 ELA
New Haven Public Schools
April 2019

Grade 8 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
Performance Task pg. 22	Met	Met	Met	Topologically	Topologically	Topologically
IAB RIT 11	Partial	N/A	Met	Topologically	Topologically	Topologically
IAB RIT 12	Partial	Met	Met	Topologically	Topologically	Topologically

As noted in Exhibit 2.4.7 and summarized in Exhibit 2.4.8:

- Two out of the four district items partially met the content expectations described in the standard.

- All of the items that were analyzed for context and cognition met the requirements described in the standard.

- All three district assessment items were topologically aligned with the SBA items for content, context and cognition. The cognitive demands of the SBA were high for these items and topological alignment is sufficient.

Grade 8 district-adopted or developed assessments were primarily a partial match with the standard for content and met the requirements of the standard for context and cognition. All three items were topologically aligned for content, context and cognition.

Exhibit 2.4.9 presents a summary of all ELA assessment alignment data:

Exhibit 2.4.9

Summary of Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
English Language Arts
New Haven Public Schools
April 2019

District items to CCSS				District items to SBA items			
Expectations	**Content**	**Context**	**Cognition**	**Alignment**	**Content**	**Context**	**Cognition**
Met	62%	100%	91%	**Deeply**		10%	
Partially Met	23%			**Topologically**	82%	60%	70%
				Partially	9%		
Not Met	15%		9%	**Misaligned**	9%	30%	30%

As displayed in Exhibit 2.4.9, 62% of district-adopted or developed ELA assessment items met the content expectations of the CCSS. Two of the items (15%) did not meet the content expectations described in the standard, and three items (23%) met part of the expectations of the standard. Of the seven items analyzed for context, 100% of them met the expectations described in the standard. Ninety-one percent of the district items met the expectations described in the standard for cognition.

Alignment of district assessment items with the SBA items varied with 30% of items showing misalignment for context and cognition. Misalignment means that the items did not match the expectations of the high-stakes assessment. One item was deeply aligned with the SBA for context. This item went beyond the expectations of

the SBA and more fully prepared students for different iterations of the state test. The majority of district items were topologically aligned for context (60%) and cognition (70%) with the SBA.

Math District-adopted and -developed Assessments Alignment Analyses with the CCCSS and the SBA

Math analysis was conducted using the same procedure described for ELA. The intent of the analysis is to determine how well the district-adopted and -developed math assessments in the New Haven Public School District align with the CCSS and the SBA in the dimensions of content, context, and cognition. There are a number of different assessments that are currently being used to measure math performance in the New Haven Public schools. Three of these assessments were selected for analysis in grades 3, 5, 7 and Algebra I: district-adopted IAB's, Smarter Balanced pre/post assessments, and district developed performance tasks. IAB items were taken from the specific IAB assessments that are currently in use by the district and are included as items for grade 7. Performance tasks were used where available.

For each of the selected district-adopted or -developed assessment items, the auditors determined the alignment in the dimensions of content, context and cognition with the CCSS. Next the auditors examined the same assessment item for alignment in content, context and cognition with the SBA in grades 3, 5, and 7. Exhibits 2.4.10 through Exhibit 2.4.16 display a separate analysis for each grade level or course.

Morning routine at Conte West Hills Elementary

Exhibit 2.4.10 displays the analysis of grade 3 math district assessment items followed by a summary table in Exhibit 2.4.11.

Exhibit 2.4.10
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	**Item 3379** Kaden has 7 bags of animal toys. Each bag has these animal toys in it. • 1 whale toy • 5 dolphin toys • 2 turtle toys • How many animal toys does Kaden have altogether? • Select **all** of the equations that show how to find the total number, t, of animal toys. ☐ $7 \times 8 = t$ ☐ $7 + 1 + 5 + 2 = t$ ☐ $7 \times (1 + 5 + 2) = t$ ☐ $7 + (1 \times 5 \times 2) = t$	**Grade 3 Window Washers Performance Task** Part 1 2. How many windows does Katie have to wash on the front of her building? Write an equation to show how you did this problem.	**Content: Met** Both the standard and the performance task ask students to solve two-step word problems using equations. **Context: N/A** The standard does not describe a context. **Cognition: Met** Both the standard and the district item ask students to operate at the application level of cognition.	**Content: Topologically Aligned** Both the SBA item and the performance task ask students to solve two-step word problems using equations **Context: Deeply Aligned** Mode: The SBA question asks students to fill in an answer and choose the appropriate equations. The district performance task asks students to generate an answer and an equation. Task: The SBA item asks students to read a question, calculate an answer, and select equations from a list. The district item asks students to read a question, calculate an answer and generate an equation. The district item goes beyond the context of the SBA item. Environment: The SBA item asks students to perform the task on a computer the district item asks students to perform the task using paper and pencil. **Cognition: Deeply Aligned** The SBA item asks students to operate at the comprehension level of cognition, the district performance task asks students to operate at the application level of cognition.

Exhibit 2.4.10 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
3.OA.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5×7.*	**Grade 3 Item 2797** Table 1 shows how many bottles and cans each grade collected on each day of the week. You are the contest judge. You need to figure out who won the contest. Did 3rd grade, 4th grade, or 5th grade win the "Go Green" contest? Table 1. Bottles and Cans Collected. Bottles and Cans Collected Each Day. Class / Monday / Tuesday / Wednesday / Thursday / Friday. 3rd Grade 50 60 90 120 90. 4th Grade 70 90 100 50 80. 5th Grade 80 80 80 80 80. Use words and numbers to clearly explain: which grade won the contest, and how you know they collected the most cans and bottles.	**Window Washers Performance Task** The Wild Window Washer Company has some big window washing jobs to get done this week and the head window washer, Gary, is out sick. He left the following work for his team: Building 1 – Katie 6-story building, 5 windows on each floor Building 2 – Julian 2-story building, 10 windows on each floor **Part 3** 7. When Gary came back, he wasn't sure what to pay each worker. Write an argument explaining which worker should get paid more money and why.	**Content: Met** Both the standard and the performance task address the topic of interpreting products of whole numbers. **Context: Met** The standard provides an example that uses an open-ended format to respond to a question. The district performance task requires students to respond in an open-ended format. **Cognition: Met** The standard asks students to operate at the comprehension level of cognition. The district item asks student to operate at the evaluation level of cognition. The district item exceeds the requirements of the standard.	**Content: Topologically Aligned** Both the SBA item and the performance task address the topic of interpreting products of whole numbers. **Context: Topologically Aligned** Mode: Both the SBA question and the district performance task require students to write in an open-ended format. Task: The SBA item and the district item ask students to read a scenario, interpret information provided in the problem, perform a series of calculations, and explain how and why they made their selection. Environment: The SBA item asks students to perform the task on a computer; the district item asks students to perform the task using paper and pencil. **Cognition: Topologically Aligned** Both the SBA item and the district item ask students to operate at the evaluation level of cognition.

Exhibit 2.4.10 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	**SBA Item 3222** There are 9 cherry trees • Kim picks 8 cherries from each tree. • Kim eats 14 of the cherries she picked. Enter the number of cherries Kim has left.	**Math District Smarter Balanced Pre/Post Assessment** 15. Lisa had 3 pizzas. Each pizza was cut into 8 pieces. Lisa ate 2 pieces. How many pieces of pizza were left? a. 13 b. 26 c. 22 d. 2	**Content: Partially Met** Both the standard and the performance task address the topic of solving two-step word problems. The standard also requires students to create an equation using a letter for the unknown quantity and assess the reasonableness of the answer. **Context: Not Met** The standard suggests the use of an open-ended format to create an equation. The district item asks students to choose from a selection of answers. **Cognition: Met** Both the standard and the district item ask students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA and the performance task address the topic of solving two-step word problems. **Context: Misaligned** Mode: The SBA question asks students to generate an answer. The district performance task asks students to choose an answer. Task: The SBA item asks students to read a scenario and calculate an answer based on the given information. The district item asks students to read a scenario and select the best answer. Environment: The SBA item asks students to perform the task on a computer; the district item asks students to perform the task using paper and pencil. **Cognition: Topologically Aligned** Both the SBA item and the district item ask students to operate at the comprehension level of cognition. Students are asked to understand the information in order to solve the problem.

New Haven Public Schools Audit Report Page 151

Exhibit 2.4.10 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
3.NF.A3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.	**Item 3481** Nicki is comparing fractions. She states, "2/3 is greater than 2/4 because each 1/3 piece is larger than each 1/4 piece." *Part A* Click on the fraction bars to show 2/3 and 2/4. $\frac{1}{3}$ $\frac{1}{3}$ $\frac{1}{3}$ / $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ *Part B* Is Nicki correct? Click Yes or No. Yes No Drag the correct symbol to compare the fractions. $\frac{2}{3}$ ☐ $\frac{2}{4}$	**Grade 3 Math District Smarter Balanced Pre/Post Assessment** 40. Choose the equivalent fraction. $\frac{1}{2} = \frac{\square}{8}$ a. 2 b. 3 c. 4 d. 5	**Content: Partially Met** The standard requires students to explain equivalence of fractions in special cases, and compare in special cases, and compare fractions. The district item addresses the topic of equivalent fractions but does not require students to explain or compare. **Context: Not Met** In the standard students are required to explain which answer is best in an open-ended format. The district item asks students to choose from a list of possible answers. **Cognition: Met** Both the standard and the district item ask students to operate at the comprehension level of cognition.	**Content: Partially Aligned** Both the SBA item and the district item address the topic of fractions. The SBA addresses the topic of comparing fractions. The district item addresses the topic of equivalent fractions. **Context: Misaligned** Mode: The SBA question asks students to click and drag to produce an answer. The district performance task asks students to choose an answer. Task: The SBA item asks students to read a scenario, click on a tape diagram to visually represent two fractions, interpret the conclusion of a fictional student, decide if their answer is correct, and decide which is the larger fraction. The district item asks students to read the question and choose which number makes a fraction equivalent. The SBA item requires a more complex response than the district item. Environment: The SBA item asks students to perform the task on a computer the district item asks students to perform the task using paper and pencil. **Cognition: Misaligned** The SBA asks students to engage with the content at the evaluating level of cognition. Students are asked to judge the thinking of a fictional student. The district item asks students to operate at the comprehension level of cognition.

Sources: Common Core State Standards Website, Smarter Balanced Assessment Website, District provided assessment documents.

Exhibit 2.4.11

Summary of Internal Consistency of sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 3 Math
New Haven Public Schools
April 2019

Grade 3 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
Window Washers Performance Task Part 1	Met	N/A	Met	Topologically	Deeply	Deeply
Window Washers Performance Task Part 3	Met	Met	Met	Topologically	Topologically	Topologically
District SBA pre/post #15	Partially Met	Not Met	Met	Topologically	Misaligned	Topologically
District SBA pre/post #30	Partially Met	Not Met	Met	Partially	Misaligned	Misaligned

As noted in Exhibit 2.4.10 and summarized in Exhibit 2.4.11:

- Half of the district assessment items met the expectations described in the standard for content and half of the items partially met the expectations.

- Two out of the three items that were analyzed for context did not meet the expectations described in the standard.

- All of the district items met the expectations described in the standard for cognition.

- Two out of the four (50%) district-developed items were topologically aligned with the SBA item for cognition. One item was topologically aligned with an SBA item at a low level of cognition; the other item was topologically aligned at a high level of cognition. Deep alignment is desirable, but was not achieved for the SBA item that was less cognitively demanding.

- One item was misaligned with the SBA for cognition and did not meet the expectations of the SBA item.

- One item was deeply aligned for cognition; this item went beyond the level of the SBA.

- Two out of four (50%) of the district-developed items were misaligned for context and did not align with the SBA.

- One of the district-developed items was deeply aligned for context with the SBA. This item goes beyond the context expectations of the SBA and more fully prepares students for this and future iterations of the high stakes assessment.

Grade 3 math, district-developed assessment items either met or partially met the content described in the standard. For half of the items (two out of four), the context requirements of the standard were not met, and these same items were not aligned with the context expectations of the SBA. In general, the items met the cognition requirements described in the standard, and 75% of the items were topologically aligned with the SBA for cognition. Only one item was deeply aligned for context and no items were deeply aligned for cognition.

Exhibit 2.4.12 displays the analysis of grade 5 math district assessment items followed by a summary table in Exhibit 2.4.13.

Exhibit 2.4.12

Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
**Grade 5 Math**
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
5.N.F.1 Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.	**Item 2808** Lizzie and Zela are interested in making pottery. The following chart shows how much clay is needed to make different projects. Small Plate $2\frac{1}{2}$ Small Bowl $1\frac{1}{2}$ Large Bowl $3\frac{1}{4}$ Dinner Plate $4\frac{1}{2}$ Mug $\frac{3}{4}$ Lizzie has 12 pounds of clay and wants to use all of it. She does not need to make all of the projects, and may make more than one of any project. Describe a plan for Lizzie to use 12 pounds of clay making projects from the chart. Show how you know she will use **exactly** 12 pounds of clay with this plan.	District Performance Task 1. Cady has 3 cats: Sammy, Tommy and Suzi. Cady feeds her cats Cat Crunchies. Each day Sammy eats ½ of the box, Tommy eats ⅛ of the box, and Suzi eats ¼ of the box. What fraction of a whole box do the cats eat, in all, each day? Show how you figured this out, include drawings or equations.	**Content: Met** Both the standard and the district performance task address the topic of adding fractions with unlike denominators. **Context: N/A** The standard does not indicate a context. **Cognition: Met** Both the standard and the district performance task ask students to operate at the comprehension level of cognition. Students need to understand how to add problems with unlike denominators.	**Content: Topologically Aligned** Both the SBA item and district performance task address the topic of adding fractions with unlike denominators. **Context: Misaligned** Mode: Both the SBA question and the district assessment item ask students to respond to a task in an open-ended format. Task: The SBA item asks students to read a scenario, build an answer from the given variables in order to arrive at the answer 12, describe a plan, and explain their reasoning. The district item asks students to read a scenario, pull out the fractions from the problem, perform the required addition, and show their work. The SBA item requires students to perform a more complex task. Environment: The SBA item asks students to perform the task on a computer the district item asks students to perform the task using paper and pencil. **Cognition: Misaligned** The SBA item requires students to operate at the applying level of cognition. Students have to apply previously learned skills to a new situation. The district performance task asks students to operate at the comprehension level of cognition. Students have to understand how to pull all of the fractions from the problem and add them together.

Exhibit 2.4.12 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
5.G4 Classify two-dimensional figures into categories based on their properties.	**Item 3613** A **regular polygon** is a polygon with: • all sides the same length, and all angles the same size. • Decide if each shape is always, sometimes, or never a regular polygon. Click in the table to respond.	**District Smarter Balanced pre/post Assessment** 40. Which of the following shapes is a polygon with more than 4 sides? a. square b. hexagon c. triangle d. rhombus	**Content: Partially Met** The standard and the district item both address the topic of two-dimensional figures. The standard includes classification based on properties. **Context: N/A** The standard does not include how the topic should be performed. **Cognition: Not Met** The standard requires students to operate at the comprehension level, the district item asks students to operate at the knowledge level of cognition.	**Content: Partially Aligned** Both the SBA item and district performance task address the topic of two-dimensional figures. The SBA item addresses the topic of classification. **Context: Misaligned** Mode: The SBA question asks students to check off boxes for each shape. The district item asks students to choose a response from a list. Task: The SBA item asks students to consider each shape and identify whether the item is always, sometimes, or never a regular polygon. The district item asks students to read a question and choose an answer from a multiple-choice list. Environment: The SBA item asks students to perform the task on a computer the district item asks students to perform the task using paper and pencil. **Cognition: Misaligned** The SBA item requires students to operate at the comprehension level of cognition. Students have to determine if the features of each two-dimensional shape will make it a regular polygon in any or all situations. The district item asks students to operate at the knowledge level of cognition. Students have to remember which objects have more than four sides.

Exhibit 2.4.12 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
5.NF.A2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.	**Item 3218** Chris and Ben walked home from school. The distance Chris walked, in miles, is represented by point C on the number line.

c

0 ————————— 1

Ben walked ¼ mile less than Chris walked. Enter the distance, in miles, Ben walked. | **District Smarter Balanced pre/post Assessment** 15. Select the word problem that best represents the problem $2/5 + 3/10$.

a. 2/5 of the eggs in a Robin's nest hatched on Monday. 3/10 of the eggs in a Blue Jay's nest hatched on Tuesday. How many eggs hatched in all.

b. John drank 2/5 of a small water bottle and Jim drank 3/10 of a large water bottle. How much did they drink all together?

c. Jim ran 2/5 of a mile on Monday. On Tuesday he ran 3/10 of a mile. How far did he run in total?

d. Sue finished 2/5 of her math homework. Ken finished 3/10 of this science homework. How much homework did they complete? | **Content: Partially Met** The standard and the district item both address the topic of word problems involving the addition of fractions. The standard requires students to solve.

Context: Not Met Examples described in the standard require an open-ended response format. The district item asks students to choose an answer.

Cognition: Met Both the standard and the district item require students to operate at the comprehension level of cognition. | **Content: Partially Aligned** Both the SBA item and district performance task address the topic of word problems with fractions.

Context: Misaligned Mode: The SBA question asks students to produce an answer. The district item asks students to choose a response from a list.

Task: The SBA item asks students to read a scenario and generate an answer. The district item asks students to read a problem, consider each scenario, and choose an answer.

Environment: The SBA item asks students to perform the task on a computer; the district item asks students to perform the task using paper and pencil.

Cognition: Topologically Aligned Both the SBA item and the district item ask students to operate at the comprehension level of cognition. In the SBA item, students are asked to understand the information in order to solve the problem. In the district item, students are asked to understand when they can add fractions to solve a problem. |

Exhibit 2.4.12 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/ or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	**Item 3284** Use this table to solve the problem. 	Item	Cost per Package
---	---
Napkins	$1.89
Forks	$1.79 | Allie buys 2 packages of napkins and 3 packages of forks for a class party. She gives the store clerk $10.00. What is the total amount of money that Allie should receive back from the clerk?	**District Smarter Balanced pre/post Assessment** 30. Which 2 decimals have a sum of 5.23? a. 7.23 +2.00 b. 4.2 + 1.3 c. 3.87 + 1.36 d. 2.21 +1.2	**Content: Partially Met** The standard and the district item address the topic of adding decimals. The standard requires the use of concrete models or drawings. **Context: Not Met** The standard requires students to use concrete models or drawings. The district item asks students to choose a selection from a list of possible answers. While students may use a drawing to solve the problem, there is no way to confirm that this is the case. **Cognition: Met** Both the standard and the district item require students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA item and district performance task address the topic of adding and subtracting decimals. **Context: Misaligned** Mode: The SBA question asks students to produce an answer. The district item asks students to choose a response from a list. Task: The SBA item asks students to read a scenario and generate an answer. The district item asks students to read a problem and choose an answer. Environment: The SBA item asks students to perform the task on a computer; the district item asks students to perform the task using paper and pencil. **Cognition: Topologically Aligned** Both the SBA item and the district item ask students to operate at the comprehension level of cognition.

Sources: Common Core State Standards Website, Smarter Balanced Assessment Website, District provided assessment documents.

Exhibit 2.4.13

**Summary of Internal Consistency of sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 5 Math
New Haven Public Schools
April 2019**

Grade 5 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
Performance Task #1	Met	N/A	Met	Topologically	Misaligned	Misaligned
District SBA pre/post #40	Met	N/A	Not Met	Partially	Misaligned	Misaligned
District SBA pre/post #15	Partially Met	Not Met	Met	Partially	Misaligned	Topologically
District SBA pre/post #30	Partially Met	Not Met	Met	Topologically	Misaligned	Topologically

As noted in Exhibit 2.4.12 and summarized in Exhibit 2.4.13:

- Half of the grade 5 district-developed assessment items met the full content expectations described in the standard. The remaining items partially met the CCSS.

- Three out of four (75%) of the district-developed items met the cognitive expectations described in the CCSS.

- The two items that were analyzed for context did not meet the context expectations of the standard.

- All four items were misaligned with the SBA items for context. These items were frequently multiple-choice and fail to prepare students for the context demands frequently found on the SBA.

- Half of the district assessment items were misaligned for cognition with the SBA. These items did not require students to interact with the content at the same cognitive level as the SBA.

Half of the grade 5 district developed assessment items met the content requirements of the standard, the remaining items partially met the content of the CCSS. The district developed assessment items were all misaligned for context and primarily misaligned for cognition (50%) with the SBA items.

Exhibit 2.4.14 displays the analysis of grade 7 math district assessment items followed by a summary table in Exhibit 2.4.15.

Exhibit 2.4.14

Internal Consistency of Sample District Assessment Items

To Common Core State Standards and Released SBA Items

Grade 7 Math

New Haven Public Schools

April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
7.RP.A.1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks 1/2 mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2 /1/4 miles per hour, equivalently 2 miles per hour. Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.	**Item 3286** Emily leaves her house at exactly 8:25 a.m. to bike to her school, which is 3.42 miles away. When she passes the post office, which is 3/4 mile away from her home, she looks at her watch and sees that it is 30 seconds past 8:29 a.m. If Emily's school starts at 8:50 a.m., can Emily make it to school on time without increasing her rate of speed? Show and/or explain the work necessary to support your answer.	**Performance Task Animals of Rhomaar** Part 3 The scientists have learned two important facts about the animals of Rhomaar. 1. The animals of Rhomaar have a constant growth rate. 2. The animals of Rhomaar die when they reach a height of 90cm. In addition, the scientists suspect that different animals on the planet Rhomaar are growing at the same rate. Select two other animals from the list to compare and contrast with your animal. Prepare a poster and give an oral presentation of your findings regarding this hypothesis: Some of the animals on Rhomaar are growing at the same rate.	**Content: Met** Both the standard and the district item address the topic of adding computing unit rates. **Context: Met** Both the standard and the district performance task require students to produce an answer in an open-ended format. **Cognition: Met** The standard requires students to operate at the comprehension level of cognition. The district item exceeds the expectation of the standard and requires students to operate at the analysis level of cognition.	**Content: Topologically Aligned** Both the SBA item and the district item address the topic of adding computing unit rates. **Context: Deeply Aligned** Mode: Both the SBA question and the district item ask students to produce an answer in an open-ended format. In addition, the district item asks students to make a presentation of their information. Task: The SBA item asks students to read a scenario, generate an answer, and explain and/or show their work. The district item asks students to read a scenario, create a poster to challenge or support a hypothesis and present their information to the class. This performance task goes beyond the expectations of the SBA item in order to achieve deep alignment. Environment: The SBA item asks students to perform the task on a computer the district item asks students to perform the task using paper, pencil, and presentation. **Cognition: Deeply Aligned** The SBA item asks students to operate at the comprehension level of cognition. The district item asks students to operate at the analysis level of cognition. The performance task exceeds the expectations of the SBA in order to achieve deep alignment.

New Haven Public Schools Audit Report Page 159

Exhibit 2.4.14 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 7 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
7.RP.A.2 Represent proportional relationships by equations. For example, if total cost t is proportional to the number n of items purchased at a constant price p, the relationship between the total cost and the number of items can be expressed as t = pn.	**Item 3487** This graph shows a proportional relationship between the number of gallons of gasoline used (*g*) and the total cost of gasoline (*c*). Cost of Gasoline Find the constant of proportionality (*r*). Using the value for *r*, enter an equation in the form of c=rg that represents the relationship between the number of gallons of gasoline used (*g*) and the total cost (*c*).	**Performance Task Photos** 4. You can draw rectangles on a coordinate plane to represent the size of possible photos. The width and height of the photo can be represented using ordered pairs (width, height such as (2,3) On a graph, plot the ordered pairs that represent each of the following three photo sizes. (Each size is given as width by height.) a. 2 inches by 3 inches b. 4 by 6 c. 8 by 12 d. Jan claims that point (5, 7) represents a photo with the same aspect ratio as those in part a. Explain whether she is correct or not. Show the work to support your explanation.	**Content: Met** Both the standard and the district item address the topic of representing proportional relationships. **Context: Met** Both the standard and the district performance task require students to produce an answer in an open-ended format. **Cognition: Met** The standard requires students to operate at the comprehension level of cognition. The district item exceeds the expectation of the standard and requires students to operate at the application level of cognition.	**Content: Topologically Aligned** Both the SBA item and the district item address the topic of adding computing unit rates. **Context: Deeply Aligned** Mode: Both the SBA question and the district item ask students to produce an answer in an open-ended format. Task: The SBA item asks students to read a question, look at a graph, and use an equation to produce an answer. The district item asks students to read a scenario, plot rectangles on a graph, determine if a third point has the same aspect ratio, explain their reasoning, and show their work. The district performance task goes beyond the expectations of the SBA item in order to achieve deep alignment. Environment: The SBA item asks students to perform the task on a computer; the district item asks students to perform the task using paper and pencil. **Cognition: Deeply Aligned** The SBA item asks students to operate at the comprehension level of cognition. The district item asks students to operate at the application level of cognition. The performance task exceeds the expectations of the SBA in order to achieve deep alignment.

Exhibit 2.4.14 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 7 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
7.EE.B.4.b Solve word problems leading to inequalities of the form $px + q >$ r or $px + q <$ r, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.	**Item 3461** David goes into a candy store with $5.00. He buys 9 peppermints for $0.15 each, and some sour candies. Each sour candy costs $0.25. Enter the maximum number of sour candies David can buy.	**Gr. 7 IAB "EXPRESSIONS AND EQUATIONS** 15. Which number line shows the solution to the inequality $4x - 3 > -7$? (A) $-4\ -2\ 0\ 2\ 4$ (B) $-4\ -2\ 0\ 2\ 4$ (C) $-4\ -2\ 0\ 2\ 4$ (D) $-4\ -2\ 0\ 2\ 4$	**Content: Partially Met** The standard and the district IAB item address the topic of inequalities. The standard requires students to work with word problems. **Context: Not Met** The standard requires students to generate an equation in an open-ended format. The district item asks students to choose a selection from a list of possible answers. **Cognition: Met** Both the standard and the district item require students to operate at the comprehension level of cognition.	**Content: Partially Aligned** Both the SBA item and district performance task address the topic of working with inequalities. **Context: Misaligned** Mode: The SBA question asks students to produce an answer. The district item asks students to choose a response from a list. Task: The SBA item asks students to read a scenario and generate an answer. The district item asks students to read a problem and choose an answer. Environment: Both the SBA item and the district item ask students to perform the task on a computer. **Cognition: Topologically Aligned** Both the SBA item and the district item ask students to operate at the comprehension level of cognition.

Exhibit 2.4.14 (continued)
Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Grade 7 Math
New Haven Public Schools
April 2019

Common Core Standard	SBA item	District Assessment	Alignment Analysis to Standard	Alignment Analysis to SBA Item
7.EE.A.1 Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	**Item 3609** Select all expressions that are equivalent to -3.75+2(-4x +6.1)-3.25x. a. 7x-2x+8.1 b. 8.45-8x-3.25x c. -1.75-7.25x+6.1 d. -11.25x+12.2-3.775	**Gr. 7 IAB "EXPRESSIONS AND EQUATIONS** Select all expressions that are equivalent to 2x + 3x +8 – 3x –2. ___ 2x + 6 ___ 2x + 10 ___ 5x- 3x + 6 ___ 5x – 3x + 10	**Content: Met** The standard and the district item address the topic of applying properties of operations. **Context: N/A** The standard does not indicate a context. **Cognition: Met** Both the standard and the district item require students to operate at the comprehension level of cognition.	**Content: Topologically Aligned** Both the SBA item and district performance task address the topic of applying properties of operations **Context: Topologically aligned** Mode: Both the SBA question and the district IAB item ask that students select answers from a list. Task: Both the SBA item and the district item ask students to determine equivalent expressions. Environment: Both the SBA item and the district item ask students to perform the task on a computer. **Cognition: Topologically Aligned** Both the SBA item and the district item ask students to operate at the comprehension level of cognition.

Sources: Common Core State Standards Website, Smarter Balanced Assessment Website, District provided assessment documents.

Exhibit 2.4.15

**Summary of Internal Consistency of sample District Assessment Items
To Common Core State Standards and Released SBA Items
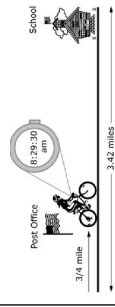Grade 7 Math
New Haven Public Schools
April 2019**

Grade 7 Alignment Summary Table						
Assessment Name	**District Item to Common Core Standard**			**District Item to SBA Item**		
	Content	**Context**	**Cognition**	**Content**	**Context**	**Cognition**
Performance Task Animals of Rhomaar	Met	Met	Met	Topologically	Deeply	Deeply
Performance Task Photos	Met	Met	Met	Topologically	Deeply	Deeply
Gr. 7 IAB "Expressions and Equations #15	Partially Met	Not Met	Met	Partially	Misaligned	Topologically
Gr. 7 IAB "Expression s and Equations	Met	N/A	Met	Topologically	Topologically	Topologically

As noted in Exhibit 2.4.14 and summarized in Exhibit 2.4.15:

- The grade 7 district-adopted and -developed assessment items met the CCSS expectation for content in three out of four items; the remaining item partially met the content of the standard.

- Two out of the four district items were deeply aligned for context and cognition with the corresponding SBA item. These items more fully prepare students for this and future iterations of the state test.

- Two of the four district items were topologically aligned for cognition with the SBA. These items did not go beyond the expectations of the SBA item to achieve deep alignment.

- All of the district items met the expectations for cognition described in the CCSS.
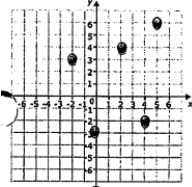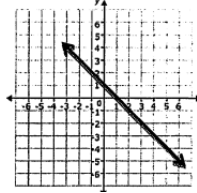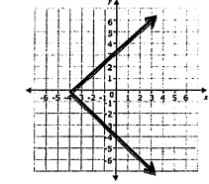
The majority of grade 7 district-adopted or developed assessment items met the expectations of the CCSS for content (75%) and cognition (100%). In general, the district items were topologically aligned for content with the SBA items. Two of the items (50%) were deeply aligned for context and cognition with the SBA items. These items went beyond the expectations of the high-stakes tests and more fully prepare students for future forms of the test. Exhibit 2.4.16 displays the analysis of Algebra I district assessment item alignment with the CCSS.

Exhibit 2.4.16

Internal Consistency of Sample District Assessment Items
To Common Core State Standards
Algebra I
New Haven Public Schools
April 2019

Standard	District Assessment Item	Alignment Analysis
HSA.CED.A.1 Create equations and inequalities in one variable and use them to solve problems. *Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*	**Algebra I Pre/Post** 6. Which of the equations below has a solution of -4. a. $2x - 4 = 16$ b. $1/4x + 4 = 3$ c. $2x + 6 = 3x$ d. $3(x + 6) = -6$	**Content: Partially Met** Both the standard and the district assessment item address the topic of solving linear equations. The standard asks students to create the equation. **Context: Not Met** The standard requires students to create an equation, which requires an open-ended context. The district assessment asks students to choose a response. Without additional work from students, teachers do not know if a student has guessed or solved in order to arrive at the answer. In the case of this district assessment item, students could solve each equation or simply fill in the number -4 to see which equation works with the given solution. **Cognition: Not Met** The standard requires students to operate at the application level of Bloom's or higher. The district item requires students to operate at the comprehension level of cognition.
HAS.REI.C.9 Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a curve (which could be a line).	**Algebra I Pre/Post** 39. Marina graphs a system of linear equations on her calculator. When she looks at the result, she sees only one line. Assuming she graphed the equations correctly, what could this mean? a. The system has infinitely many solutions. b. The system has no solution. c. The system has exactly one solution. d. Every possible ordered pair (x, y) is a solution.	**Content: Met** Both the standard and the district assessment item address the topic of graphs of equations with two variables. **Context: N/A** The context is not described in the standard. **Cognition: Not Met** The standard asks students to operate at the comprehension level of cognition. The sample district item asks students to recall information about when a system of linear equations results in a line, which is at the remembering level of cognition.

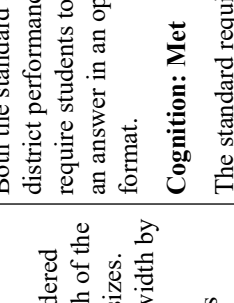|	Exhibit 2.4.16 (continued) Internal Consistency of Sample District Assessment Items To Common Core State Standards Algebra I New Haven Public Schools April 2019	
Standard	**District Assessment Item**	**Alignment Analysis**
HSF.IF.A.1 Understand that a function from one set (called the domain) to another set (called the range) assigns to each element of the domain exactly one element of the range. If f is a function and x is an element of its domain, then $f(x)$ denotes the output of f corresponding to the input x. The graph of f is the graph of the equation $y = f(x)$.	**Algebra I Pre/Post** 11. Identify the graph that is not a function, if possible. a) b) c) 	**Content: Met** Both the standard and the district item address the topic of functions. **Context: N/A** The standard does not provide a description of how the content should be performed. **Cognition: Not Met** The standard requires to operate at the comprehension level of cognition. Students are asked to understand the content. The district item asks students to operate at the knowledge level of cognition by identifying the correct graph of a function or not a function. Students have to remember what a function is.
HSF.LE.A.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table).	**Performance Task Applications of Exponential Functions.** 4. Scientists can determine the age of fossils they find by using a process called radio-carbon dating. An istope called Carbon-14 decays by .012% every year. Let's say we're doing an Archaeological dig in Egypt, and we find a mummified cat. It originally had 5 grams of carbon-14. We know the cat was buried 5000 years ago. a. What percent of the original value of carbon-14 will the cat have every year? b. Write an exponential function to model this scenario. What do x and y mean? c. Use your exponential function to find how much carbon-14 the cat would have now. d. Why is this useful?	**Content: Met** Both the district item and the standard address the topic of constructing exponential functions. **Context: Met** The standard asks students to construct, which requires an open ended context. The performance task requires students to work in an open ended context. **Cognition: Met** Both the standard and the district item ask students to operate at the comprehension level of cognition.

As noted in Exhibit 2.4.16:

- All of the district items either met (75%) or partially met (25%) the CCSS for content alignment.

- One of the two items analyzed for context met the requirements of the standard.

- Three out of the four district assessment items (75%) did not meet the requirements of the standard for cognitive demand.

Algebra I district-developed assessment items primarily met (75%) the requirements of the CCSS for content but did not meet (75%) the requirements described in the standard for cognition.

Exhibit 2.4.17 presents a summary of all mathematics assessment alignment data:

Exhibit 2.4.17

**Summary of Internal Consistency of Sample District Assessment Items
To Common Core State Standards and Released SBA Items
Mathematics
New Haven Public Schools
April 2019**

District items to CCSS				District items to SBA items			
Expectations	**Content**	**Context**	**Cognition**	**Alignment**	**Content**	**Context**	**Cognition**
Met	63%	40%	75%	**Deeply**		25%	25%
Partially Met	37%	10%		**Topologically**	67%	17%	50%
				Partially	33%		
Not Met		50%	25%	**Misaligned**		58%	25%

As displayed in Exhibit 2.4.17, 63% of district-adopted or -developed math assessment items met the content expectations of the CCSS. The remaining six items (37%) partially met the content expectations described in the standard. Fifty percent of the district items did not meet the context expectations described in the standard, 40% met the expectations and one item (10%) partially met the context requirements outlined in the standard. Seventy-five (75%) of the district items met the expectations described in the standard for cognition.

District assessment items were misaligned with the SBA items for context 58% of the time. They were misaligned for cognition 25% of the time. These district items assess students at a level that is lower than the SBA and does not prepare students to be successful on the state assessment. Three items (25%) were deeply aligned for cognition and three items (25%) were deeply aligned for context. These district items go beyond the expectations of the SBA and more fully prepare students for this and future iterations of the high stakes assessment. Fifty percent of items were topologically aligned with the SBA for cognition and 17% of items were topologically aligned for context.

Mathematics Primary Resource Analysis

In the next analysis, auditors examined the College Board: SpringBoard Mathematics Course 2, which is the primary resource used in grade 7 mathematics at New Haven Public Schools. New Haven district personnel indicated that the resource is heavily relied upon in the teaching of mathematics. This presents issues if the resource is not aligned with the standards in all three dimensions (content, context and cognition) and if the teacher has to make independent decisions about which sections to skip if they do not have enough time to complete the entire book. The combination of these two factors can leave students unprepared to face the challenges of the high stakes test.

The intent of this analysis is to examine the exercises in one activity section within the unit for alignment in content, context and cognition with the Common Core State Standards. In order to conduct this analysis, the auditors selected an activity section that contained priority standards for grade 7 mathematics. Representative examples in this section were selected for analysis; the results are displayed in Exhibit 2.4.18. Column one contains the Common Core State Standards that are identified by the resource authors for this section of the

book, column two provides a representative problem for that standard, and column three shows the alignment analysis between the sample problem and the CCSS.

Overall, the auditors found that more than half of textbook problem examples were not a match with the standard for cognition. This means that the standard required higher cognitive demands than the resource. All of the textbook items were a match for context and asked students to perform the task in a similar way as the standard. Some of the items were a match for content with the CCSS and some partially matched the standard.

Exhibit 2.4.18

Grade 7 Resource Analyses
New Haven Public Schools
April 2019

Identified Standard	Sample Problem Spring Board Course 2	Alignment Analysis
7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	**Pg. 63** 8. Solve each equation below algebraically or using a flowchart. a. $6x - 11 = 19$	**Content: Partially Met** Application of operations involving addition and subtraction are addressed in this section. Factoring and expanding are addressed in Activity 5. There are no problem sets that require students to use all of the skills described in the standard. There were no suggestions for differentiation for this standard. There were teacher notes describing how to teach students how to avoid working with negative integers. **Context: Met** The sample problem and the standard both require students to solve a problem in an open-ended format. **Cognition: Not Met** The sample problem requires students to practice a strategy that is presented throughout Activity 6. Students are asked to understand how to solve the problem. The main cognitive demand is comprehension. The standard asks students to operate at the application level of cognition. In order to operate at the application level of cognition, students must use known strategies in a novel situation.
7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*		**Content: Not Met** Although the standard is indirectly addressed in the problems in this section, direct instruction of this standard is not provided. No further analysis was conducted.

Exhibit 2.4.18 (continued) **Grade 7 Resource Analyses** **New Haven Public Schools** **April 2019**		
Identified Standard	**Sample Problem Spring Board Course 2**	**Alignment Analysis**
7.EE.B.3B: Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	**Pg. 63** 10. The German Club is planning a ski trip. The club will pay $500 toward the trip, and each member going on the trip will pay $115. If the trip costs $2,685, write and solve an equation to find the number of club members going on the trip.	**Content: Met** Part of this standard is addressed in this section as well as Activity 7, 11, 12 and 13. Without direction from the district curriculum documents, a teacher might have difficulty determining which activity to use in order to directly addresses this standard. There were no suggestions for differentiation for this standard. There is a reference to a teacher link for additional practice problems if needed. **Context: Met** The sample problem and the standard both require students to solve in an open-ended format. **Cognition: Not Met** The standard requires students to operate at the application level of cognition. The sample problems ask students to operate at the comprehension level of cognition. The sample problem does not meet the cognition level expected by the standard.
7.EE.B.4: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.	**Pg. 60** 7. A photography studio charges a sitting fee of $50 and $10 per enlargement ordered. Write an equation to represent the number of enlargements ordered, n, if the total cost was $180. 8. Does it seem reasonable that 18 enlargements were ordered in item 7? Explain.	**Content: Met** Both the standard and the sample item ask students to use variables to represent quantities. **Context: Met** The standard asks students to construct which implies an open-ended context. The sample item asks students to construct in an open-ended context. **Cognition: Not Met** The standard asks students to operate at the application level of cognition. The sample problem asks students to operate at the comprehension level of cognition. Students are asked to practice with several problems that require them to understand how to set up a problem. The problems are similar in nature and do not require the application of their knowledge with a new set of criteria.

Identified Standard	Sample Problem Spring Board Course 2	Alignment Analysis
7.EE.B.4.A: Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*	**Pg. 65** Embedded Assessment 1 1. Seir, Sarah, and SungSo decided to raise money for a local homeless shelter by working in a local deli. The deli agreed to donate to the shelter a portion of the profits from each meal the three sold. Semir sold 3 times as many meals as Sarah. SunSo sold 2 more meals than Sarah. A. Write an expression for the number of meals that each sold. Pg. 62 Teacher to teacher "Students may notice that this undoing of operations and working backwards is similar to the process of solving an equation algebraically."	**Content: Partially Met** This activity is the only section in the text where this standard is addressed. The first part of the standard, "solve word problems leading to equations of the form px + q = r", is addressed in problems in the text. The second part of the standard, "Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach", is partially addressed in sample item two but is not fully explored or addressed in any assessment items. **Context: Met** Both the standard and the sample problem ask students to respond in an open-ended format. **Cognition: Met** The standard asks students to operate at the application level of cognition. The sample problem from Embedded Assessment 1 asks students to use skills that they learned in the unit to create an equation with a type of problem that they have not previously encountered. This exercise meets the cognitive demands described in the standard.

As noted in <u>Exhibit 2.4.18</u>:

- Two of the five problem sets identified in <u>Exhibit 2.4.18</u> met the expectations of the CCSS for content. Two of the five sample exercises partially met the expectations for content, and one set of exercises did not meet the CCSS expectations for content. A teacher relying on this resource to completely address the five standards identified in this activity section would completely address two of the standards, partially address two standards, and not address the final standard.

- All four sample exercises met the expectations described in the standard for context. The majority of examples asked students to complete problems in an open-ended format. This type of problem allows teachers to see student errors and assess their understanding of the content.

- Three out of the four sample exercises (75%) that were analyzed for cognition did not allow students to interact with the content at the same level described in the standard. The problems were presented at a lower level than the standard.

- One of the sample exercises met the CCSS expectations for cognition.

- Teacher notes provided information about how to access additional practice problems if needed. There were examples of how to teach students more than one strategy to solve a problem. Besides reviewing

the same content again, there were no specific examples of how to differentiate instruction for students who struggled with the material or students who would benefit from extension exercises.

The auditors found that 75% of the textbook examples did not meet the expectations for cognition described in the standard. Most of the textbook examples required students to work in an open-ended format, which generally matched the expectations described in the standard. There were five standards that the publisher of the resource identified for this section. Math problems met the content expectations for two of those standards. There was no direct instruction for one standard. Two standards were partially addressed in this section. In one of these cases, this is the only section where that standard is listed as being addressed. Teachers who are using this resource as the sole tool for instruction will only be addressing part of this standard.

Alignment Summary

Misalignment was frequently found with the SBA for context in math (58%) and ELA (30%). Cognition misalignment with the SBA was also common in ELA (30%) and math (25%). As previously discussed, items that are misaligned for context and cognition with the high stakes assessment do not adequately prepare students for this and future forms of the test. Topological alignment with the SBA was most common for ELA in content (82%), context (60%), cognition (70%), and for math in content (67%) and cognition (50%). In several cases math district items were deeply aligned with the SBA for context (25%) and cognition (25%). In ELA, deep alignment was found in one example for context. These types of problems increase the likelihood that students will be prepared for the high stakes assessment by giving them opportunities to interact with the content in different contexts and at more demanding cognitive levels.

Generally, the district-adopted or -developed ELA (62%) and math (63%) assessment items met the content expectations of the CCSS. In ELA, the context expectations of the standards were met in all of the selected examples, but less than half of the math district assessments met the context expectations described in the standard. The grade 7 resource frequently did not meet the expectations described in the standard for cognition and only fully met two out of the five identified standards for content.

STANDARD 3: The School District Demonstrates Internal Consistency and Rational Equity in Its Program Development and Implementation.

A school system meeting this Curriculum Audit™ standard is able to show how its program has been created as the result of a systematic identification of deficiencies in the achievement and growth of its students compared to measurable standards of pupil learning.

In addition, a school system meeting this standard is able to demonstrate that it possesses a focused and coherent approach toward defining curriculum and that, as a whole, it is more effective than the sum of its parts, i.e., any arbitrary combinations of programs or schools do not equate to the larger school system entity.

The purpose of having a school system is to obtain the educational and economic benefits of a coordinated and focused program for students, both to enhance learning, which is complex and multi-year in its dimensions, and to employ economies of scale where applicable.

What the Auditors Expected to Find in the New Haven Public Schools:

The CMSi auditors expected to find a highly-developed, articulated, and coordinated curriculum in the school system that was effectively monitored by the administrative and supervisory staffs at the central and site levels. Common indicators are:

- Documents/sources that reveal internal connections at different levels in the system;
- Predictable consistency through a coherent rationale for content delineation within the curriculum;
- Equality of curriculum/course access and opportunity;
- Allocation of resource flow to areas of greatest need (Equity);
- A curriculum that is clearly explained to members of the teaching staff and building-level administrators and other supervisory personnel;
- Specific professional development programs to enhance curricular design and delivery;
- A curriculum that is monitored by central office and site supervisory personnel; and
- Teacher and administrator responsiveness to school board policies, currently and over time.

Overview of What the Auditors Found in the New Haven Public Schools:

This section is an overview of the findings that follow in the area of Standard Three. Details follow within separate findings.

Finding 3.1: Systems to monitor equity and assure equal access are not sufficient. There is disproportionate representation of certain subgroups in special education, talented and gifted programming, and in numbers of those students being retained or disciplined. The magnet system, while offering innovation and choice, has not been equally accessible to all students, especially English learners.

Equity is the state or condition of treating others in accordance with identified and documented needs. Since no two persons are exactly alike, their needs and preferences are many times different, as well. Making decisions and instituting practices or services based on need is one form of equity. In some cases, however, equality is warranted, such as in providing access to programs or curriculum. Districts that serve students most effectively balance equity with equality, depending on the demonstrated needs of their students. In these effective school districts, leaders examine data from a variety of sources, such as achievement data, enrollment data, and disciplinary data, to determine whether equity and equality exist in the district. Such data assist leaders in determining if subgroups of the population are perhaps accessing services or benefits at a rate below that of other subgroups, or if a certain group is persistently lagging behind its peers on assessments. Such information allows leaders to examine areas of weakness and determine solutions, so these subgroups can experience success.

Monitoring equity in districts is only part of the challenge; the greater challenge is in determining causes for inequities and inequalities and successfully intervening on behalf of those students who are affected. In New Haven Public Schools, the audit team found a district with a majority-minority population that is also economically disadvantaged at a rate well above the state average. Over 55% of the district's students are economically disadvantaged, and over 17% require English learner (EL) programming. Magnet programs are established throughout the district and serve to offer a variety of innovative and cutting edge programming, which can draw students from outlying districts. Magnet programs that are most effective aim to serve underperforming populations, and districts that effectively provide such programming assure that all students are provided equal access and that the programming is congruent with required district and state curriculum targets.

The auditors examined enrollment data, disciplinary statistics, absenteeism, and retention data to see if any subgroups are disproportionately represented. They also looked at the ethnic composition of personnel as well as resource allocation, staffing practices, and magnet programming to further determine if equity issues were present. Finally, they examined assessment data for achievement gaps among student subgroups.

Overall, the auditors found that certain subgroups were under- or over-represented in the Talented and Gifted (TAG), Advanced Placement (AP®), and Special Education programs; and African Americans and males were more likely to experience disciplinary measures and be absent or retained. Resources are not allocated to campuses based on data or need, and the auditors found no systems in place to monitor resource allocation to ensure equity. Some staffing practices were equal but not equitable; staffing for some positions was not determined by the size or need of campuses, but rather allocated per building, despite differences in the size and needs of schools.

The magnet programming, designed to improve choice and racial desegregation on school campuses, is not monitored for district-wide coordination or to assure equity and equal access, and has resulted in funding inequities. The school lottery, ostensibly blind, has historically not assured all students equal access to the programs. Select subgroups are not performing at the rate of their peers, and the gaps are not narrowing (see Findings 3.3 and 4.3).

The auditors found a tradition in New Haven of non-discrimination and a community that prides itself on historically providing a haven for refugees and immigrants and for serving the needs of underprivileged students. The auditors found a commitment among board members and the administration to support and assure equity and a desire to improve access to programs and services across the district. The auditors found some direction in policy for non-discrimination and equal access. These are summarized below:

Policy 6000: Statement of Philosophy states that:

> The New Haven Public Schools will provide all students with learning opportunities designed to meet their academic and social needs. …such education must occur within a milieu of social harmony and mutual respect based upon an understanding and appreciation of oneself and others from diverse ethnic, cultural, and religious backgrounds.

The policy also requires students to have access to all the services and programming of the district, stating, "The challenge…is to create a positive, tolerant environment within a broad range of educational services that are available to all students…."

Policy 6121: Nondiscrimination: Instructional Program states:

The school system pledges to avoid discriminatory actions, and seeks to…help to attain:

- Equal rights and opportunities for students….

- Equal opportunity for students to participate in the total program of the schools.

- Opportunities in educational programs which are broadly available to students with access not solely based upon race, color, religious creed, age, marital status, national origin, sex, sexual orientation or physical disability.

The policy further states that each student will be advised of his/her right to an equal opportunity to participate in school programs. The auditors did not find direction in policy governing school choice and the magnet programs of the district, but the Connecticut State Department of Education provides information and guidelines concerning state inter- and intra-district magnets, and the U.S. Department of Education provides guidelines concerning federal magnet programs. These specific guidelines will be presented and discussed where relevant throughout the finding.

Access to Programs

The auditors first sought to determine if access to certain programs is equal across student subgroups. The auditors used comparison practices to determine if members of groups are enrolled in certain programs at a rate commensurate with their overall representation in the district. To perform such comparisons, data concerning the district's enrollment are required.

Exhibit 3.1.1 presents information concerning the district's enrollment by ethnicity, gender, and socioeconomic status (the percentage of students eligible for free or reduced-price lunch).

<div align="center">

Exhibit 3.1.1

District Enrollment Data
New Haven Public Schools
2017-18

</div>

Student Subgroup	Percentage of District Enrollment
Ethnicity:	
Asian	2.1%
African American or Black	38.1%
Hispanic or Latino	45%
White	13.3%
Two or More Races, Pacific Islander, Native American	1.5%
Gender:	
Male	50.7%
Female	49.3%
Other Subgroups:	
English Language Learners	15.9%
Students with Disabilities	14.3%
Economically Disadvantaged	55.4%
Source: CT State Department of Education, 2017-18	

The auditors used the enrollment data listed above from the 2017-18 school year as a basis for comparison to the data provided to determine proportionality of program enrollments. The auditors first sought to determine if Talented and Gifted and Advanced Placement (AP) enrollment was proportional for ethnic subgroups and by gender. Exhibits 3.1.2 and 3.1.3 present this information. Current data for TAG and AP enrollment was not available; the auditors were provided with Office of Civil Rights data from the 2015-16 school year only.

Exhibit 3.1.2

TAG/AP Enrollment by Ethnicity
New Haven Public Schools
2015-16
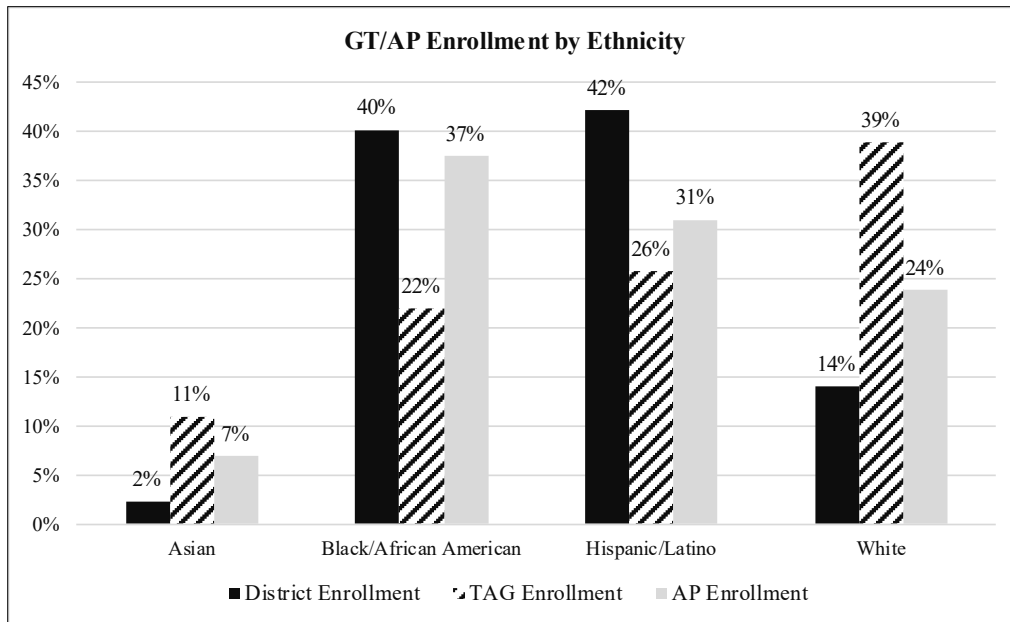
The following can be seen in Exhibit 3.1.2:

- Asian students comprise 2% of the overall district population, but they comprise almost 11% of the gifted student population. Their representation in the TAG program is over five times that of their district representation. They represent almost 7% of the AP population; this is also more than three times their district representation. Asian students are over-identified for TAG programming.

- Black or African American students represented 40% of the total district enrollment, but only 22% of the TAG population. Black or African American students are under-identified for TAG programming and services. These students also represent 37% of all the students taking AP classes, a slight under-representation within that program.

- Hispanic or Latino students represented just over 42% of the total district population, but only a little over one-fourth (26%) of the TAG population. Hispanic or Latino students are under-identified for TAG programming and services. These students represent just 31% of AP students. Hispanic or Latino students are not enrolling in AP courses at a rate proportional with their overall district representation.

- White students represented approximately 14% of the total district population, but they represent 39% of the TAG population. White students are identified at a rate of almost three times their district representation, a high over-identification. White students also represented 24% of the students taking AP courses, a rate almost twice that of their overall district enrollment percentage.

Exhibit 3.1.3 presents similar information regarding TAG enrollment, but by gender and ethnicity.

Exhibit 3.1.3

TAG Enrollment by Gender and Ethnicity
New Haven Public Schools
2015-16
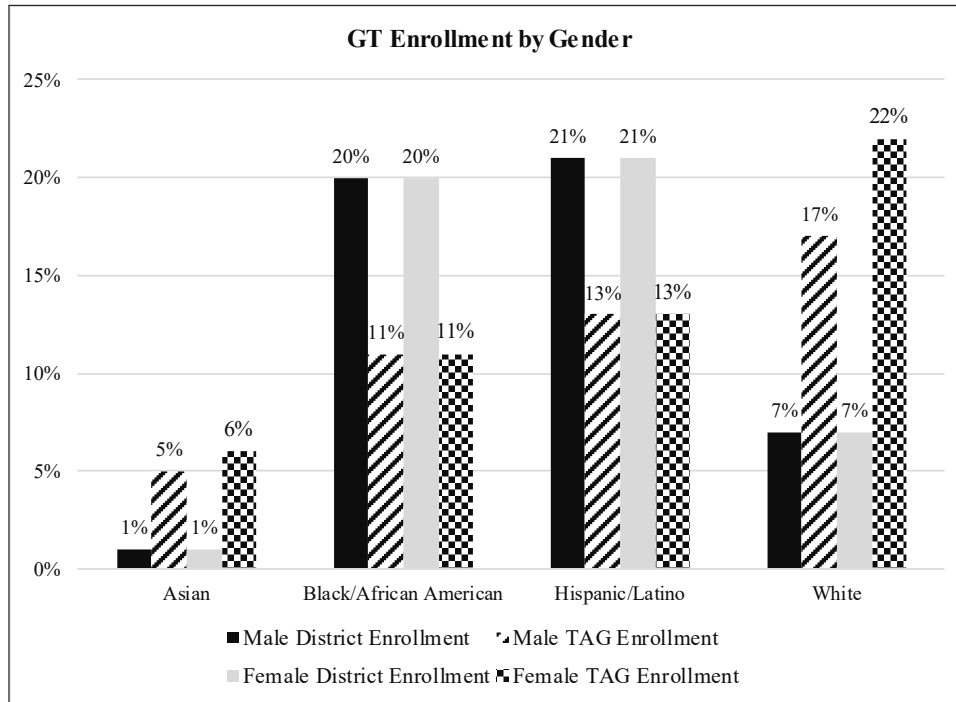
Source: 2015-16 OCR data

As can be seen in Exhibit 3.1.3:

- For Hispanic/Latino and Black/African American students, there was no difference in enrollment by gender.

- For Asian and White students, however, both over-identified populations for TAG, females are identified at a rate greater than males. For Asian students, females represent 6% of the Asian TAG population, and males represent 5%. For White students, females represent 22% of the White TAG population, and males represent just 17% of the White TAG population.

The auditors then examined TAG identification by school compared with that school's percentage of economically disadvantaged students. Exhibit 3.1.4 presents these data.

Exhibit 3.1.4

% TAG Population by School Compared with % Economically Disadvantaged
New Haven Public Schools
2018
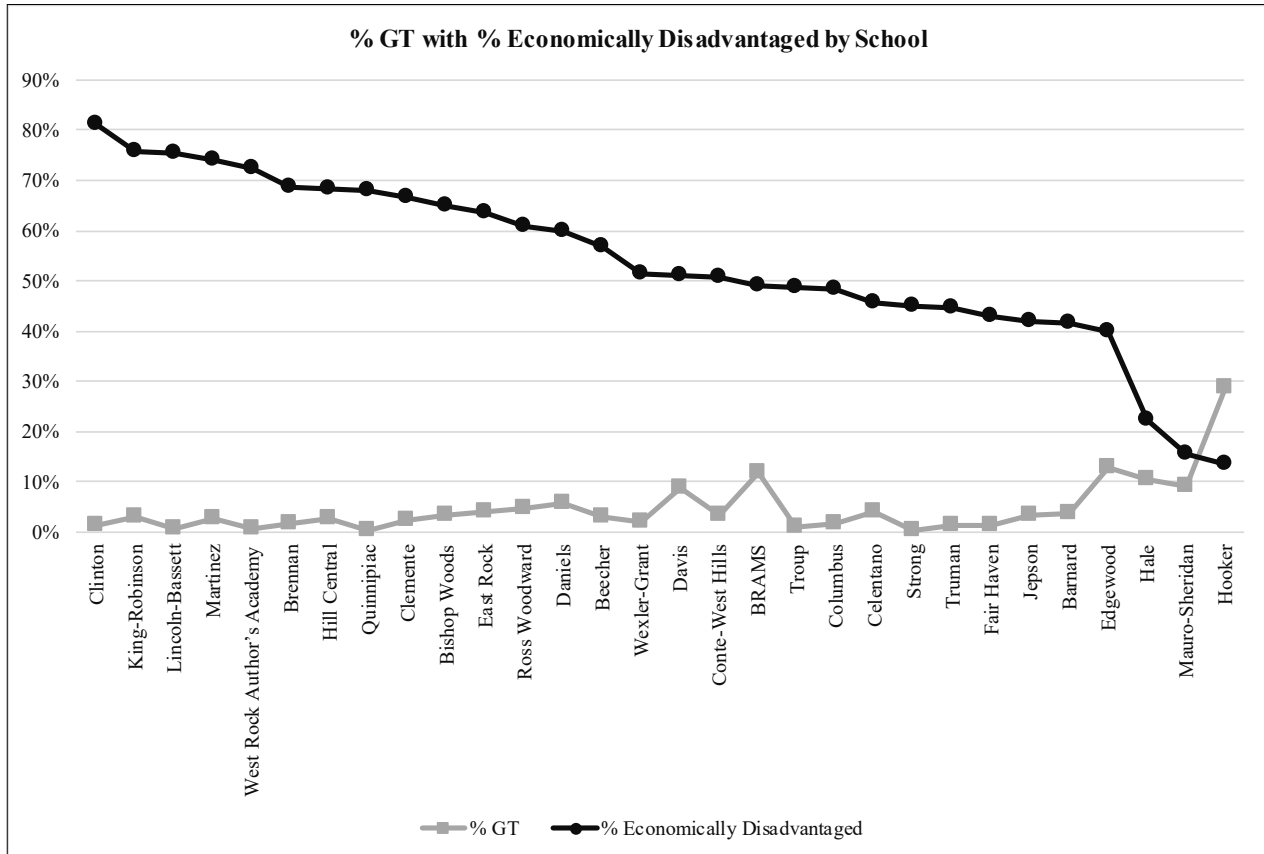
The following can be seen in Exhibit 3.1.4:

With some exceptions, the schools with the highest percentage of economically disadvantaged students tend to have the lowest percentage of TAG students. Hooker Elementary has the lowest percentage of economically disadvantaged students in the district and has the highest percentage of identified TAG students.

Overall, the auditors concluded that students of poverty in New Haven are less likely to be identified for TAG programming and services. Hispanic/Latino and Black/African American students are far less likely to be identified for TAG programming than Asian and White students. Access to TAG programming and services is not equal for all subgroups, and AP enrollment is also not proportional.

The auditors heard many comments regarding the unequal access to AP programming at the high schools. Students themselves commented on the lack of access to these courses or to college preparatory courses, depending on the school. Comments included:

- "AP culture at Wilbur Cross was for the White kids. That was known and tolerated for many years. Honors program no longer exists at Hillhouse. Known as the 'booby prize' because they could've get into one of the magnet schools." (Central Office Administrator)

- "High schools have different credit requirements." (Central Office Administrator)

- "There is a lot of division in classes; the White kids take most of the AP classes. My math class only has like 25% White." (Student)

- "They don't encourage non-White students to go the higher-level classes." (Student)

- "Cross has a college readiness program; here at Hillhouse we don't." (Student)

- "We don't have anyone to run our National Honor Society since they cut counselors. So we have less access to scholarships." (Student)

- "We do not have many honors classes here; I wish we had more options available." (Student)

- "We need more higher-level classes so we can be seen as viable candidates for competitive colleges." (Student)

- "Cross has 20 AP classes, and we have 3. (Student)

- "Cross has one floor that is about all White kids because it is all AP courses." (Central Office Administrator)

Not all high schools offer the same number or scope of AP courses (see also Finding 2.2). Within these schools, students of color are not enrolling in college preparatory courses at rates equal with their overall district representation. As one school administrator mentioned, "Look at my classroom ratios, and you will see the inequities."

The auditors then examined special education identification rates by ethnicity and gender. Exhibits 3.1.5 and 3.1.6 present 2015-16 OCR data provided by the district.

Exhibit 3.1.5

Special Education Enrollment by Ethnicity
New Haven Public Schools
2015-16
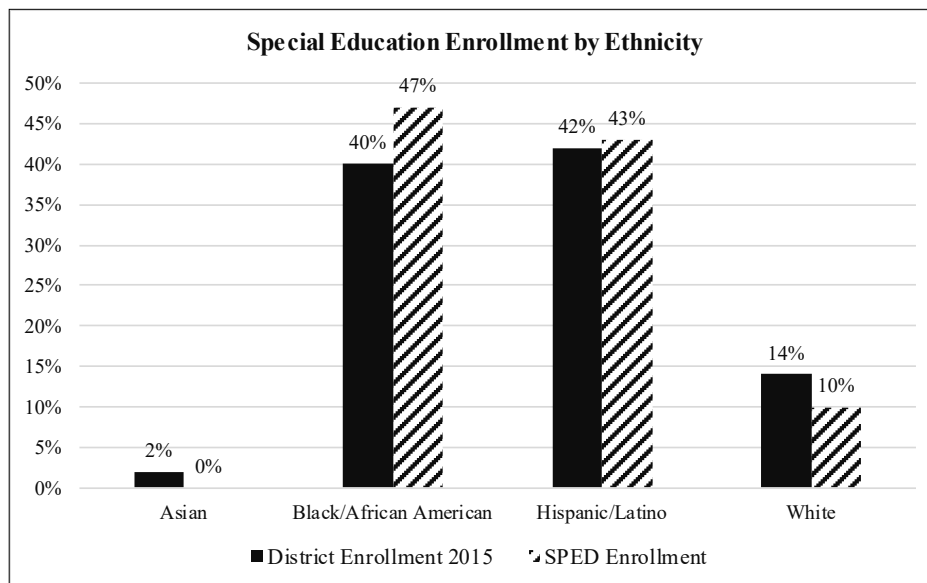
The following can be seen in Exhibit 3.1.5:

- Asian students represented 2% of the overall district population, but 0% of the special education population.

- Black or African American students represented 40% of the district population, but they represented 47% of the students identified as needing special education services. Black/African American students are over-identified for special education.

- Hispanic or Latino students represented 42% of the overall district population and represented 43% of the students identified as needing special education services. These students were just slightly over-identified.

- White students represented 14% of the district population, but only 10% of the students identified as needing special education services.

Exhibit 3.1.6 presents special education enrollment percentages by gender.

Exhibit 3.1.6

Special Education Enrollment by Gender
New Haven Public Schools
2015-16
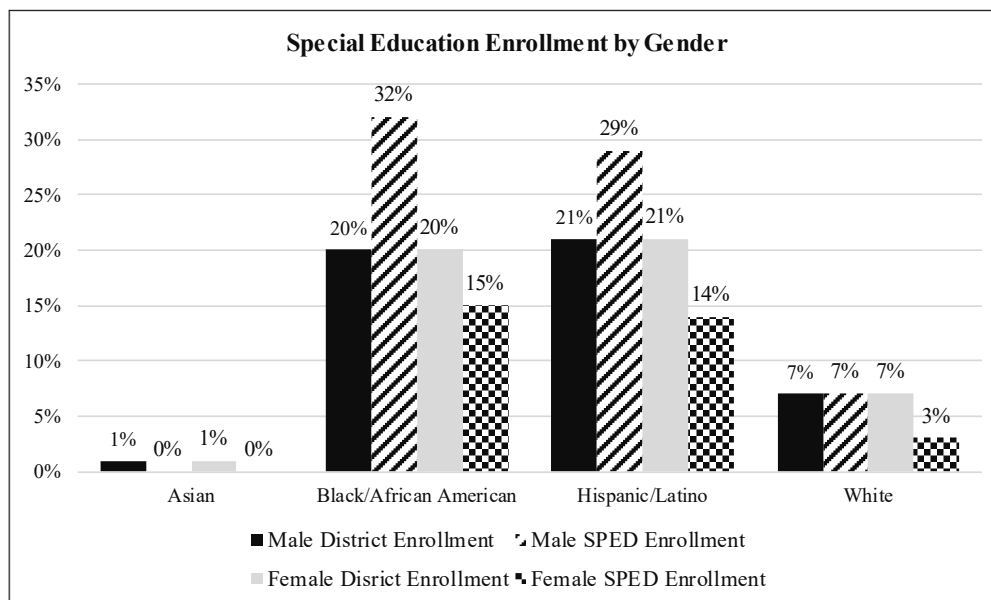
The following can be seen in Exhibit 3.1.6:

- Of the 47% of students receiving special education services who are also Black or African American, 32% are males and just 15% are females. Black/African American males are the most over-identified subgroup for special education in New Haven Public Schools. Black/African American females are slightly under-represented.

- Hispanic/Latino males represent 21% of the total district population, but 29% of the total Special Education population. Hispanic/Latino females are under-represented among students receiving special education services.

- White males are identified for special education services at the same rate as their overall district representation. White females are under-identified for special education services.

- Overall, males are identified for special education services at a rate over twice that of females; males represent 68% of all students identified for special education, and females represent only 32%, district-wide.

The auditors found that males are twice as likely to be identified as needing special education services as females, and African American males are more likely to be identified than any other subgroup. This issue was mentioned by central office administrators during interviews: "We have a disproportionate amount of Black males in special ed."

The auditors then examined the Schools of Choice/Magnet programming issue and resource allocation across the system.

Access to Magnet Programming and Resource Allocation

The New Haven Public Schools offers an array of special state- and federal-funded magnet programs that are intended to draw students from different areas within the district (intra-district magnets) as well as from areas outside the district (inter-district magnets). While having innovation in programming is a real strength, and many of these programs provide exciting and cutting edge opportunities to students who share these interests, such programs can, when not closely monitored and supervised, become impediments to assuring equity and equal access for all children, regardless of gender, ethnicity, language of the home, and income level.

The auditors were told that access to schools with magnet programs is based on a blind lottery process. This process is intended to assure all students equal opportunity for enrollment into these programs. The only criteria that can be used to circumvent the lottery are certain extreme disabilities and if a child has a sibling already enrolled in a magnet program. Current district leadership communicated to the auditors the intent to adhere strictly to the lottery process as it is described by state and federal law. However, the legislated lottery process was reportedly not adhered to in the past. This was also the general consensus of district stakeholders when asked about enrollment in magnet schools and how some students get in and others don't. The auditors also had difficulty identifying which schools were magnet schools and which weren't. Seventeen schools are listed in NCES data as magnet schools. However, the district lists 26 buildings with a magnet resource teacher, which would suggest a magnet program is present. However, the auditors also learned that magnet designation has expired at some schools and these schools no longer receive funding, although the "magnet" appellation is still applied.

The auditors examined school enrollment by different factors to determine if all students have had equal access to magnet programs.

Student working on engineering project at ESUMS

Exhibit 3.1.7 presents the data regarding ELL[1] populations by schools, with magnet schools identified through NCES marked with an asterisk (*).

Exhibit 3.1.7

ELL Enrollment Data by School
New Haven Public Schools
April 2019
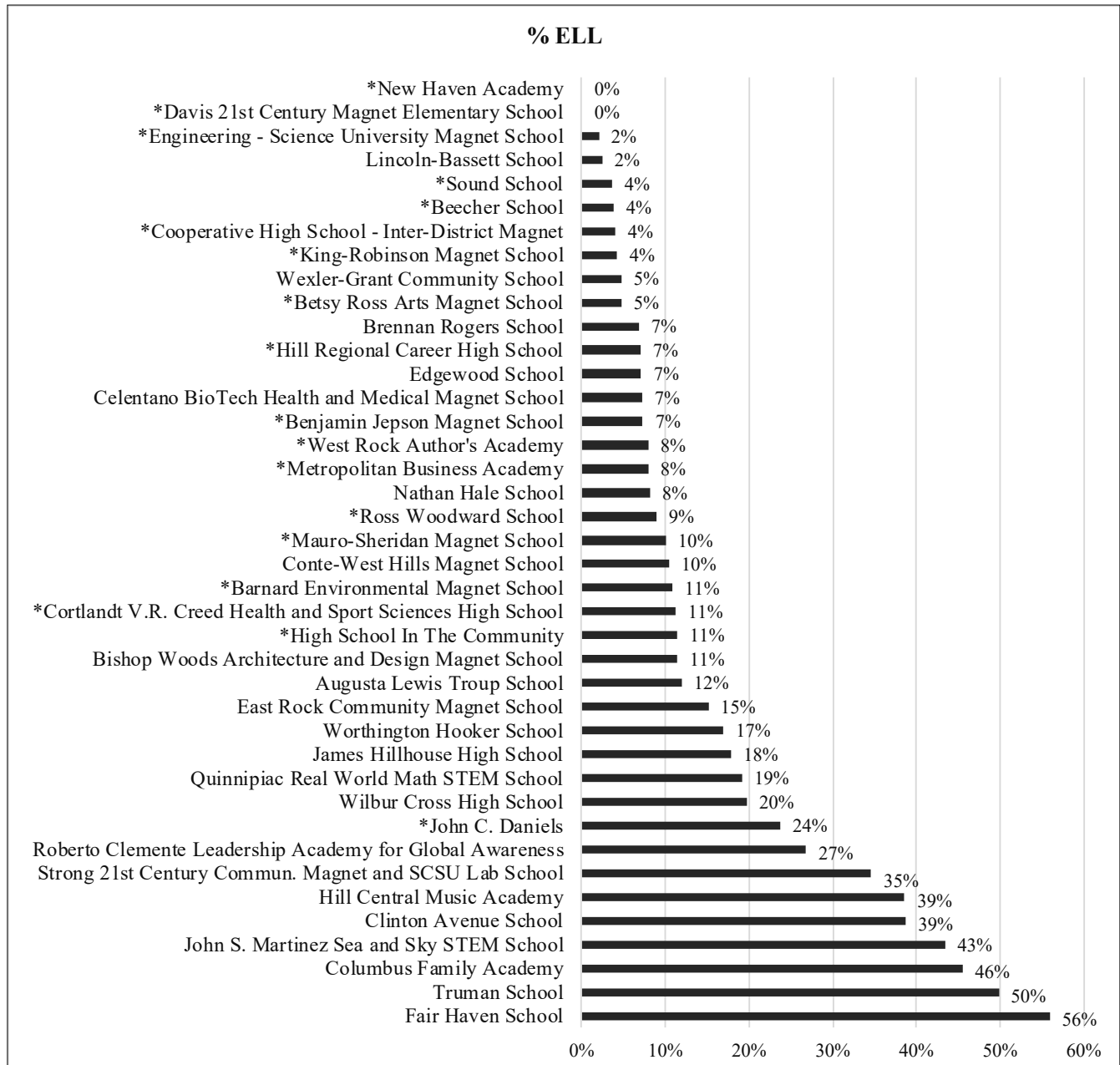
The following is evident in Exhibit 3.1.7:

- The schools with the highest percentages of ELs, over one-third of the entire student population, are not classified as magnet schools through NCES. Two of these schools, John Martinez and Strong, each have a magnet resource teacher.

- Of the 20 schools that have the lowest percentages of EL enrollment, all with 10% or less of their population requiring EL services and 2 with no EL students, 14 are magnets and only 4 are non-magnet schools.

_____

[1] Note: The New Haven Public Schools use the term "EL" for English Learners. "ELL" is used for reporting purposes. Therefore, both terms are used to refer to students who are learning English.

Overall, the auditors found that 16 of the 17 magnet schools identified through the National Center for Education Statistics have less than the district average percentage of ELs. Although home language is not to serve as a characteristic that factors into the school choice lottery, ELs are under-represented in magnet schools.

When asked about the school choice process and the lottery, the auditors heard the following responses concerning the weakness of the lottery system and a perception of mistrust of the process:

- "The lottery is not as pure as it needs to be. I don't know if the lottery is happening in that manner." (Teacher)

- "There is a lottery to get into this school, but if I get a call telling me to place the kid in my school, I have to take him." (School Administrator)

- "There is a large distrust of our [school choice] process across New Haven. The process is rigged, the process is flawed, people are circumventing the process." Has that happened before? "Absolutely." (Central Office Administrator)

- "There are times that principals are telling the parents that they can transfer [out of one school into a different one, midyear]." (Central Office Administrator)

- "The only factors we can select for [in the lottery] are sibling preference; some schools have neighborhood preference." (Central Office Administrator)

- "There is no rhyme or reason for students being assigned to this school when there are vacancies in other schools." (School Administrator)

- "Until you get rid of all of the priorities, then you do not have equal access to schools." (Central Office Administrator)

- "People call schools directly and get placed. That has been past practice, and that stops this year." (Central Office Administrator)

Others commented on the lack of access to magnet programs, particularly for ELs.

- "Some people live across the street from a magnet, but they can't go there because they don't have a bilingual program. So they have to be transported to another school." (Central Office Administrator)

- "Students who are in the bilingual program, receiving bilingual services, they don't have equal access to magnet schools as in the general population." (Central Office Administrator)

- "We have families that have to go to four different schools because bilingual isn't offered K-8 [at some schools]. If you have kids in different grades, they would be in four different schools." (Central Office Administrator)

- "We have…kids now who go to Sound school. They are from Puerto Rico. They are almost failing because they don't have bilingual [programming]. It is absurd." (Central Office Administrator)

- "If you are a student in one neighborhood in New Haven, and you want to attend a theme school and you are an EL, you don't have equal accessibility. They 'can' but they have to exempt themselves from the EL program. That's not fair." (Central Office Administrator)

Although the law requires EL services to follow students wherever they may be enrolled, the auditors asked central office administration how ELs have not been included in the lottery for magnet schools at the same rate as other subgroups. They were told that if EL students visit certain magnet schools that don't have EL services, they are told that they won't receive EL services if they attend there. This is reportedly historical practice; current leaders for the district are committed to ensuring a fair and blind lottery process, but access has been unequal for EL students, based on past enrollment patterns. Once students are in a certain building, their siblings then have precedence, and for a few schools, that is all that's needed to keep the building almost full. One administrator commented, "because there is this discrepancy in offering bilingual services, students automatically write themselves off or select themselves to not go to that school." Rather than bilingual programming following the EL students, students were told to follow the programming and seek schools that have EL and bilingual programs.

Small class sizes for student discussions at Betsy Ross Magnet

The auditors also found a number of individuals expressing the opinion that magnet schools have more resources than other schools across the district. There is a perception that magnets are "favored" over neighborhood schools, and certain schools have a history of strong popularity throughout the community. The auditors sought to determine funding for the schools and how funds are allocated. No current budget information was provided to show allocations to specific schools, but a budget document from SY 2014-15 noted budget amounts to each school for all personnel and materials. These figures were used to calculate per-pupil expenditures for the number of students enrolled at each building for that school year. Exhibits 3.1.8 and 3.1.9 present the data.

Exhibit 3.1.8

Per-Pupil Expenditures and Percent Economically Disadvantaged
New Haven Public Schools
2014-15
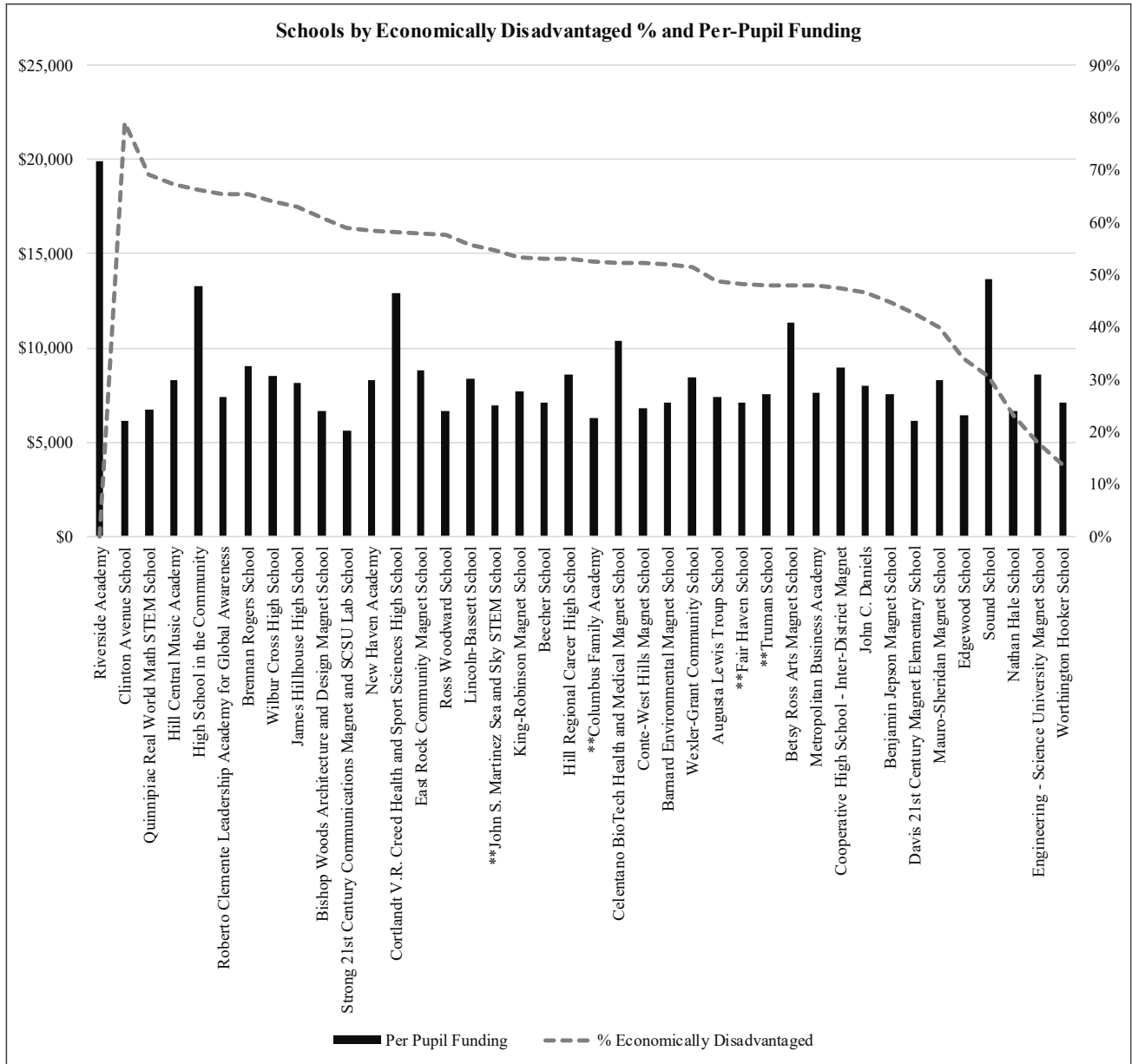
The following can be seen in Exhibit 3.1.8:

Riverside Academy, an alternative campus, had the highest per-pupil expenditure at around $19,000 per student. This building was not included in economically disadvantaged data reports, so could not be tabulated, although the auditors know the building served these students, as well. Clear trends between the percentage of economically disadvantaged students and the per-pupil expenditures were not clear, although a few of the highest-budgeted schools, Sound school and ESUMS, have the lowest percentages of economically disadvantaged students.

Clinton Avenue school, with the highest percentage of economically disadvantaged students in the district (79%), has one of the lowest levels of per-pupil funding at around $6,000 per student. Likewise, High School in the Community also has one of the highest economically disadvantaged-eligible populations (66%) but had one of the highest per-pupil funding levels, in excess of $12,000 per student. Overall, the auditors did not find evidence that funding is following areas of greatest need, based on economic need of students.

Exhibit 3.1.9 displays similar per-pupil funding levels with EL enrollment information by school.

Exhibit 3.1.9

Per-pupil Expenditures and Percent EL Enrollment
New Haven Public Schools
2014-15
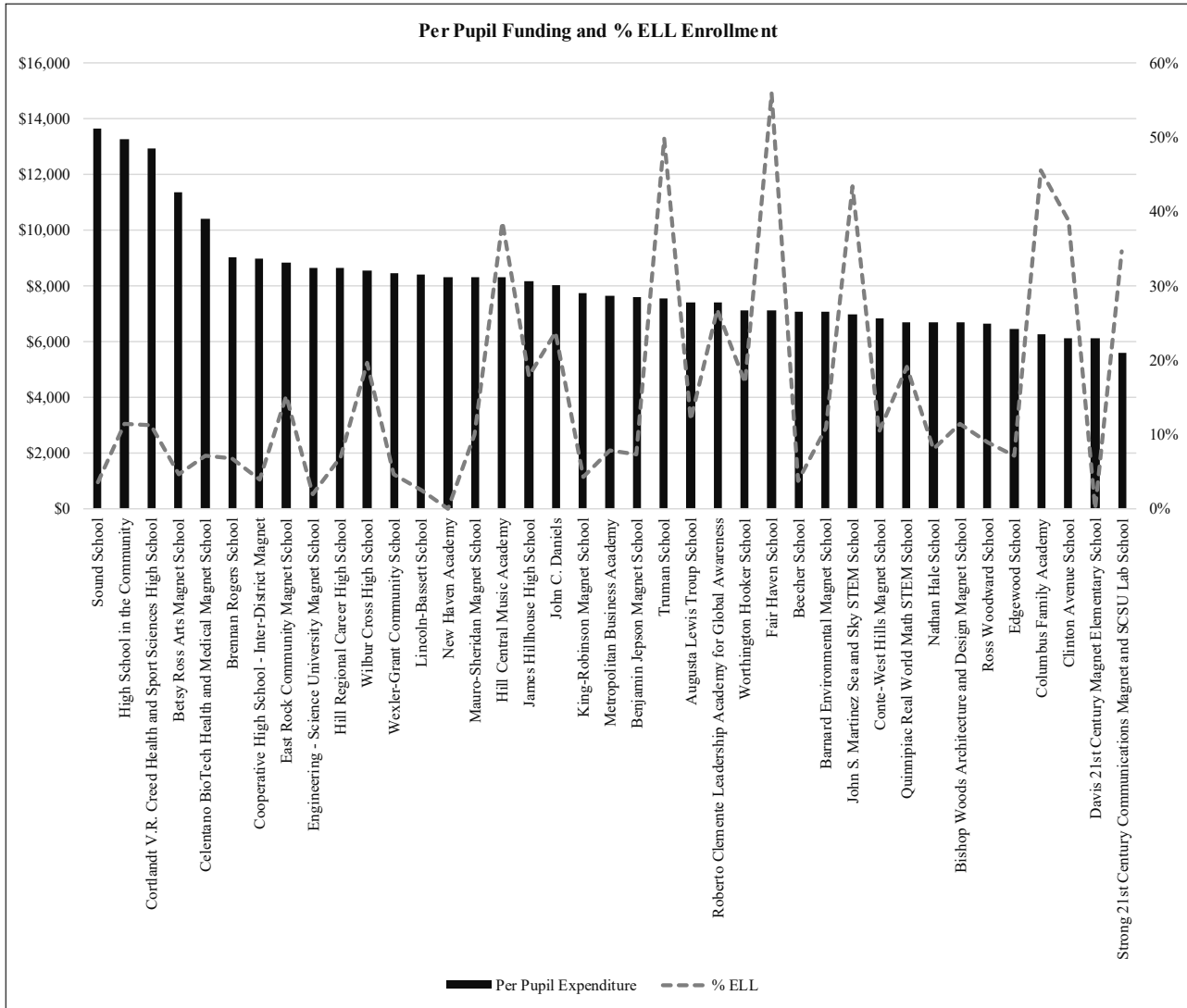
As can be seen in Exhibit 3.1.9, on average, schools with the highest percentage of EL students on their campus were at the lower levels of funding. Those schools with the highest per-pupil funding have the lowest percentages of EL students, less than 15%. Sound School, with the highest per-pupil funding (Riverside being excluded), has less than 5% of its students identified as English learners. The noted funding trend for the 2014-15 SY data, is not consistent in all cases.

Many comments were made during interviews and on the online surveys concerning the allocation of funds to schools, particularly the lack of equity in resource allocation and a perception that magnet schools get more. These comments included:

- "Neighborhood schools have less funding. We don't have a band; we are not a music academy—only by name." (School Administrator)

- "I'm one of the lowest funded school in New Haven, so we have to fight for many things." (School Administrator)

- "Intra-district magnet schools have money to get technology and all sorts of resources. But other schools don't have as much. There is discrepancy, but there is access." (Teacher)

- "There is more money routed to our magnets. They have the same students as New Haven—there are definitely more resources at the magnets." (Central Office Administrator)

- "Magnet schools have a lot of money to spend." (School Administrator)

- "Magnet schools have access to some funding sources other schools may not have." (School Administrator)

- "When you are out of the magnet funds, you don't get the same level of support." (Teacher)

- "Obviously, there really isn't equity. We have some schools that are magnet schools, and they get extra funding, some kids from neighborhood schools, and their parents are professors at Yale, and even without the [district] resources they get more opportunities." (Board Member)

- "This isn't fair. [Magnet schools] have all this special funding. Can we have their general fund dollars? And that just never happened. When you go into our magnet schools vs. our neighborhood schools, it's not even close." (Central Office Administrator)

- "Absolutely a difference between the magnet school and the neighborhood school." (Central Office Administrator)

- "Magnet schools have more money and smaller class sizes and more staff." (School Administrator)

There were also comments concerning inequities and inconsistencies in funding. The auditors did not find clear policies regarding funding allocations to schools (see also <u>Finding 5.2</u>) These comments included:

- "Some schools have grants, not my school. We were told we were not doing poorly enough. We don't have the funding to be creative." (School Administrator)

- "Neighborhood schools have less funding. We don't have a band; we are not a music academy—only by name." (School Administrator)

- Weakness? "Inequity. I had this grant and no sustainability, so I lost nine people." (School Administrator)

- "[There is] no per pupil expense [policy] being enforced." (Central Office Administrator)

- "I would want to see an equitable budget (I mean per pupil)." (Central Office Administrator)

- "I'm one of the lowest funded schools in New Haven, so we have to fight for many things." (School Administrator)

Others commented on unequal funding streams and unequal access to resources due to differences in allocations and communities:

- "PTA does bring a lot of resources to the school. Our school has all of the richest homes in the district. The PTA is much better funded. The PTA runs the after-school program; this is something that I feel all schools should have." (Parent)

- "Cross has funding for after school programs like Pathways to College. We didn't get it funded." (Student)

- "[Other schools] have more funding for a nice library; we are not even allowed in ours. It is always empty unless they are testing in it." (Student)

- "I've tapped into resources of people I've known over the years. I'll do whatever it takes to get the resources for the kids." (School Administrator)

- "I would be hesitant to say that the same thing is happening in every school, because it is not. There is definitely a discrepancy among the resources provided to each campus." (Coach)

- "Cross and Hill are totally different. At Cross, they get more funding, and they have a better library." (Student)

The auditors also received many comments related to the unequal distribution of other resources district-wide, such as staff and technology. The auditors found no written direction for how resources are to be allocated and for how programs or materials are funded. When asked, most principals stated they appeal to their assistant superintendent or someone they know at central office. Policies concerning resource flow and allocation were not found (see Finding 1.1), and the issue is even more critical given the budget shortfall. As one board member commented, "You have financial issues and at other [schools] you have cultural issues. At some schools you have ELs, and others have a concentration of economic lack. And we don't have the resources to make up for that."

The auditors did find direction concerning staffing allocations. The document, NHPS Staffing Guidelines FY2020, outlines how personnel are assigned to buildings. In most cases, a student-to-teacher ratio determines how teachers, paraprofessionals, and other professionals are assigned. For example, at elementary, classroom teachers are assigned 1 for every 20 students at PreK, 1 to every 26 students at K-2, and 1 to every 27 students at grades 3-8. At high school, teachers are assigned 1 for every 125 students. Many personnel are assigned per building, regardless of the size or need. These personnel include:

- Math Coach (elementary) 1 Full Time Employee (FTE) per building

- Literacy Coach (elementary) 1 FTE per building

- Social Worker/Behavior Support: 1 FTE per school

- Counselors: 1 for every 250 students at high school, 1 for schools with 250-500 students at grades 5-8, and .5 for schools with less than 250 students at grades 5-8

- Psychologists: 1 FTE for every 45 students; one psychologist is assigned to two or sometimes three schools

The auditors found no guidelines in the staffing guidelines directing additional personnel be allocated if there is a higher-needs population, such as schools with more than half the students receiving free or reduced price meals, or having a majority English learner population or a refugee population with trauma issues. All school-based personnel are to be assigned based on size and number of students alone, which does not meet the terms or definition for equity.

The auditors then sought to determine how staff are currently allocated. The auditors used data reported to the Connecticut Department of Education to determine the staffing allocations for SY 2017-18. Each school reported the total FTE for support personnel: counselors, psychologists, and social workers. This number was divided into the total enrollment for the school for that year to determine the ratio for the number of students for every FTE of a support position at the school. The data were then compared to each school's percentage of economically disadvantaged students and their percentage of English learners. The data are presented in Exhibit 3.1.10.

Exhibit 3.1.10

School-based Staffing Allocations for Support Personnel
New Haven Public Schools
April 2019

Support Personnel by Campus

X-axis labels (schools):

Clinton Avenue School; West Rock Authors Academy*; Quinnipiac Real World Math STEM School; Hill Central Music Academy; High School in the Community*; Roberto Clemente Leadership Academy for Global Awareness; Brennan Rogers School; Cooperative High School - Inter-District Magnet*; Wilbur Cross High School; James Hillhouse High School; Bishop Woods Architecture and Design Magnet School; Strong 21st Century Communications Magnet and SCSU Lab Scho; New Haven Academy*; Cortlandt V.R. Creed Health and Sport Sciences High School*; East Rock Community Magnet School; Ross Woodward School*; Lincoln-Bassett School; John S. Martinez Sea and Sky STEM School; King-Robinson Magnet School; Beecher School*; Hill Regional Career High School*; Columbus Family Academy; Celentano BioTech Health and Medical Magnet School; Barnard Environmental Magnet School*; Wexler-Grant Community School; Conte-West Hills Magnet School; Augusta Lewis Troup School; Fair Haven School; Truman School; Betsy Ross Arts Magnet School*; Metropolitan Business Academy*; John C. Daniels*; Benjamin Jepson Magnet School*; Davis 21st Century Magnet Elementary School*; Mauro-Sheridan Magnet School*; Edgewood School; Sound School; Nathan Hale School; Engineering - Science University Magnet School*; Worthington Hooker School

Legend: ■ Ratio Support Personnel:Students · · · · % Economically Disadvantaged —— % ELL

The following information is presented in Exhibit 3.1.10:

- The bars represent the number of students that are served for every single full-time support position in the school. These support positions include social worker, counselor, and psychologist as reported by the schools to the Connecticut State Department of Education.

- The ratios ranged from one support person for every 59 students at High School in the Community to 1 for more than 800 students at Conte-West Hills Magnet School.

- The number of support personnel at each building did not follow any clear pattern; the percentage of economically disadvantaged students did not seem to be a factor, nor was the percentage of English learners at each campus.

Overall, the auditors found no adherence to the new staffing guidelines. Comments made during interviews confirmed erratic patterns for allocating personnel. These comments included:

- "We have some high schools that don't have any arts teachers; [they are] mostly in the magnet schools." (Central Office Administrator)

- "There are equity issues related to arts supplies and staffing." (Teacher)

- "This school has no security guard. All the buildings do except two." (School Administrator)

- "We do not have enough social service support. Our social workers and school psychologists are bogged down in paperwork; I need them with my students." (School Administrator)

- "[We need to] hire more school psychologists. Each psychologist does an average of 50 evaluations a year. One did 80."[2] (Central Office Administrator)

- "We have a lot of kids taught by subs for a long time. This would be allowed at Hillhouse but would never be allowed at Cross. Not even for a week, and that impacts what kids learn. This is an equity issue. As long as the parents don't scream about it, it's left alone." (Central Office Administrator)

- "Our high school went from four assistant principals to two." (School Administrator)

Staffing does not historically appear to follow any pattern. Staffing guidelines for the future would ensure equality, but are not designed to assure that greater resources are diverted to areas of greater need, as equity demands.

Many comments were made regarding inequities in the allocation of other resources, such as technology and other instructional materials:

- "There is a huge inequity in technology available to students. [Tech availability] is very different in the schools." (Teacher)

- "[There is] a lack of books and computers. [Resources are] not equal." (Teacher)

- "We have plenty of technology—all teachers have smart boards, each classroom has a Chromebook cart." (School Administrator)

- "[There are] not enough Chromebooks for students. I cannot get access to the computer lab [for students]." (Teacher)

- "We are one of the lower funded schools, a neighborhood school. There are technology inequities." (School Administrator)

- Weakness: Equity. "Resources and material are not allocated by need but by numbers of students in the building. [Resources should be allocated by] more than a ratio." (School Administrator)

- "We have no smart boards, no Chromebook for every child. Some schools have received grants, so I asked the former superintendent, 'Why can't I be included in the grants?' 'You're not doing poorly enough. You're doing too well,' he said. 'You're not qualified.'" (School Administrator)

- "I don't think each school [has] the same resources, which isn't fair for the staff or students." (Teacher, online survey)

- "Students need a lot of extra resources they're not getting, and teachers need a lot of training they're not getting." (Coach)

- "Then you have a big group of kids, a chunk that have no access to technology." (Central Office Administrator)

- "Sometimes there isn't enough Internet [bandwidth] for the state testing." (Teacher)

- "Technology is a mixed bag. A huge equity issue." (Central Office Administrator)

---

[2] It was reported to the auditors that psychologists at times are doing more than 100 evaluations in a year.

- "Thirty percent of students do not have tech access at home." (School Administrator)
- "[There are] after-school programs to use technology." (School Administrator)

The auditors found that resources such as technology have not been allocated according to need, and students have very unequal access to these resources (see Finding 5.3).

The auditors also heard concerns about the diversity of programming creating confusion for parents, as well as a lack of clarity for what types of quality instruction the district offers. Reputation has interfered with reality concerning the quality of student performance and achievement at certain schools, and the unique programs have likewise created perceptions of unequal quality. Without clear and definite improvement in student performance on state and local assessment measures, and without clarity concerning those academic expectations that are to be tightly held and those that are to be loosely held, these perceptions persist. Comments included:

- "If a student moves from one school to another in the district, there is no guarantee they get the same curriculum. Magnet schools add to the differences. Some schools do mastery learning. There is some differentiation in some schools. Lots of whole group instruction." (Central Office Administrator)
- "The schools are very different. [It] can be frustrating for families. All schools need to send the same message." (Central Office Administrator)
- "[The popularity of schools] has nothing to do with instruction—it's perception." (Central Office Administrator)
- "We get parents that come in daily that they want out of their child's school; there is a bullying concern, a safety concern, they just want their child out of the school. In some of our schools we are just busting at the seams. The parents [are] complaining, and…there's no place I can transfer their child." (Central Office Administrator)
- "I feel like we need to fill up our magnet schools and make our neighborhood and zone schools of the same quality as the magnet schools." (Central Office Administrator)
- "[We need to] change the perception [of schools]—It takes great leadership, great instruction, and great publicity." (Central Office Administrator)

Others expressed concern over losing the integrity of the themes and focus areas of the magnets. These concerns included:

- "The students that are coming in, they have less and less interest in the theme, less and less buy-in to the theme." (Teacher)
- "We are not paying attention to the quality of programming." (Teacher)
- "There's no plan for onboarding, getting you acquainted (if you are not a federal magnet)." (Teacher)
- "[The] lottery system for magnet schools is detrimental. Many students at [this school] are sent by parents because of the small class sizes, but they don't care anything about engineering." (Teacher)
- "Most of the magnet schools are magnet in name only, they are superficial so they can get the money and resources. The district should provide at least a minimum so there is some level of equity." (School Administrator)

The diversity and unique nature of the schools and programs in New Haven is a definite strength and an asset to be promoted. However, the auditors found a lack of oversight and coordination of school programming and support to assure equity and consistency in serving students and meeting their unique needs. The demands and differences of student populations across campuses have not led to weighted staffing allocations or financial resource allocations. Per-pupil budgets vary widely from school to school, and money does not follow need.

Discipline, Attendance, and Racial Equity

The auditors then examined data related to attendance and disciplinary actions. All data are from the Connecticut State Department of Education School Profile and Performance Reports, provided for individual schools as well as for the district as a whole. The data pertain to the 2017-18 school year. Chronic absenteeism is defined as the percentage of students who miss at least 10% of the total number of days for the school year. These exhibits pertain to student absenteeism; the auditors examined absence rates for teachers and found that New Haven teachers are absent on average 1.5 more FTE days a year than the state average: 12 days per year compared to the state's average of 10.5 days per year.

Exhibit 3.1.11 presents the data regarding absenteeism in the district, compared to state averages, by ethnicity.

Exhibit 3.1.11

District Chronic Absenteeism by Ethnicity
New Haven Public Schools
SY 2017-18
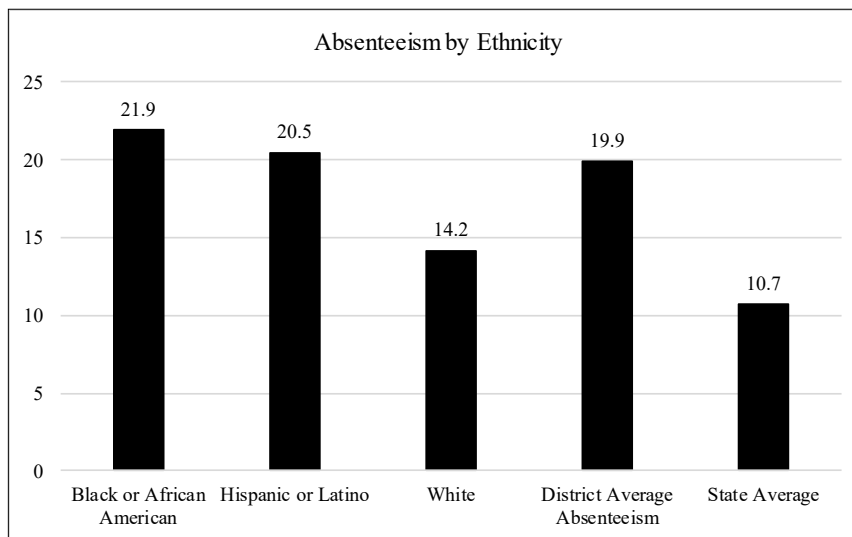
As can be seen in Exhibit 3.1.11:

- Black or African American students have the highest percentage of students with chronic absenteesim, at almost 22%. This exceeds the district average by 2% and is almost double the state average absentee rate.

- Over one-fifth (20.5%) of Hispanic or Latino students have chronic absenteeism.

- White students have the lowest absenteeism rate; just over 14% of White students miss 10% of the year's school days. This percentage still exceeds that of the state, however.

Exhibit 3.1.12 presents the chronic absenteeism data by student subgroup.

Exhibit 3.1.12

District Absenteeism by Subgroup
New Haven Public Schools
SY 2017-18
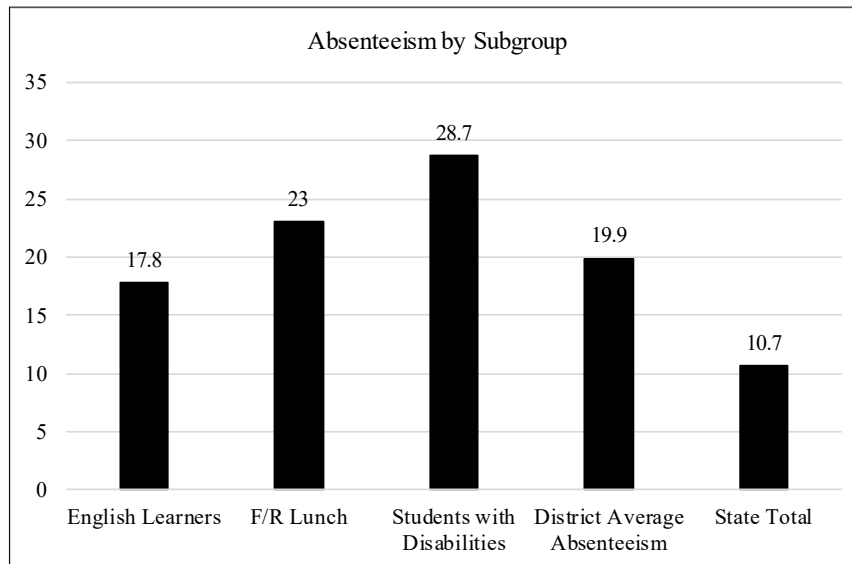
The following can be seen in Exhibit 3.1.12:

- English learners have a relatively low rate of chronic absenteeism; less than 18% of this group miss more than 10% of the year's school days.

- Students eligible to receive free or reduced-price lunch have a higher-than-average rate of absenteeism at 23%.

- Students with disabilities have the highest rate of absenteeism out of all the subgroups; 28.7% of this group miss at least 10% of the year's school days.

Stakeholders noted issues with attendance and absences. One student stated, "Our attendance policy is very bad. If we miss five classes we lose the entire credit, and field trips count against you. I could get all A's but have my credit withdrawn." Another student mentioned, "Some of the things they do don't make sense, like if you are late to school, they put you in ISS, so you are missing class anyway."

However, such policies are not consistent, and auditors found no clear direction at the district level for improving attendance for both students and teachers, although it is a district goal to focus on these and other critical areas. Two priority areas within the School Goals are Culture and Climate, and Youth, Family, and Community Engagement Empowerment. These two areas have goals related to establishing behavioral expectations and improving the culture and climate of school buildings, engaging parents and families more effectively.

The auditors found a climate that others perceive as culturally disconnected, particularly in the areas of race relations. The district is a majority-minority school district, but the teaching staff is primarily White. These data are presented in Exhibit 3.1.13.

Exhibit 3.1.13

Ethnicity of Teaching Staff Compared to Student Ethnicity
New Haven Public Schools
April 2019
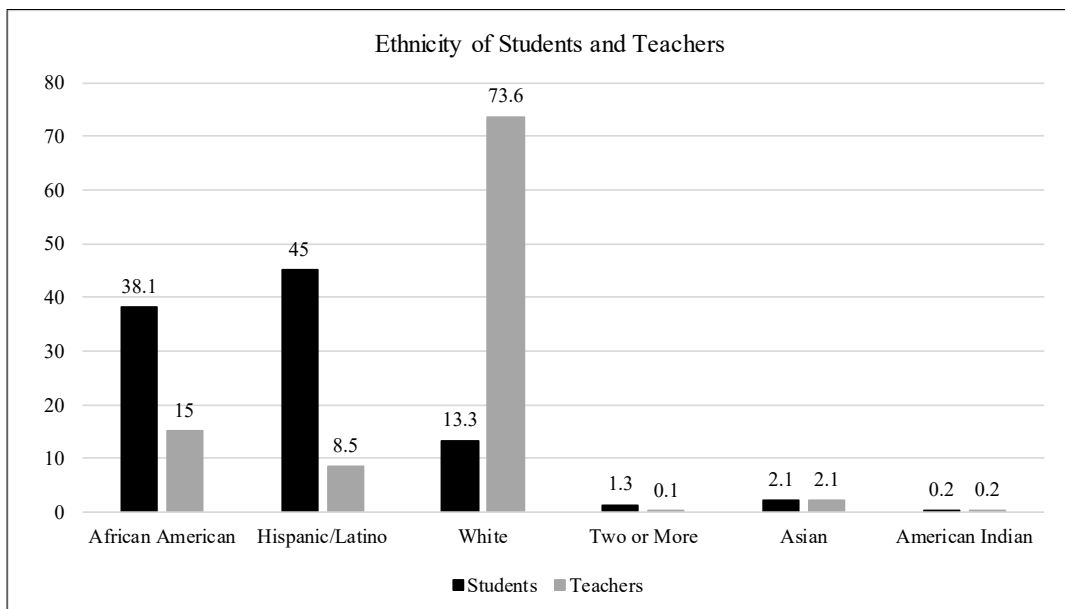
As can be seen in Exhibit 3.1.13:

- White teachers comprise almost three-fourths (73.6%) of the entire teaching staff, although White students make up just over 13% of the student population.

- Hispanic/Latinos are the least represented group among teachers; just over 8.5% of the teachers are Hispanic or Latino although this is the largest ethnic group in the district at 45%.

- African Americans represent 15% of the teaching cadre, but over 38% of the student population.

Overall, the auditors found that ethnic representation among the teachers is very low. This was a concern frequently expressed during interviews, along with the need for greater training in cultural sensitivity. These comments included:

- "We don't have any African American science or math teachers." (Student)

- "We have to do our work as adults, and we need to be trained better and get better resources." (Central Office Administrator)

- "One of the biggest things that is needed is more diversity in the teaching staff." (Community Member)

- "We are a multicultural district; we are not all Black, we are multicultural." (School Administrator)

- "Demographics of teachers doesn't match at all with the students—it's nowhere near the demographics of our student population. You are teaching, you should know the population." (Central Office Administrator)

- "Overwhelmingly, maybe 60%-70% who need [cultural sensitivity] training." (Central Office Administrator)

- "Teachers are primarily White. We definitely need to put in place some minority teacher recruitment practices." (Central Office Administrator)

- "We need more teachers who are culturally sensitive to the needs of the students." (Central Office Administrator)

- "We are losing White teachers because they don't feel welcome." (Central Office Administrator)

The auditors found that despite the district-level priority areas and goals, there is no coordinated system to train teachers in cultural sensitivity (see Finding 3.4) or to hire more teachers of color. Concerns were also raised about support personnel and their role in climate issues. As one central office administrator stated, "The biggest complaint that we have from parents is about staff. About personnel, about the principals and the classified staff." Another commented on the responses from schools to various concerns, stating, "They don't respond to the calls—the principals, the teachers. Nobody responds to anybody."

The auditors heard of plans by current leadership to establish a parent welcome center in an effort to centralize all services for families with entering students and to improve parent and community relations. For English learners, this is a definite improvement, given the concerns over the registration process auditors heard from staff. One support person commented about new students' parents, "The parents can't read/write. Everything is on the computer, but they can't do it because they are so timid." Staff commented on the situation with EL parents needing to go to a different floor and department to register their child: "There are concerns with registration, etc., when a parent comes in, and they come in and they're an EL, and they have to come up to [a different] floor." The planned welcome center is seen as the solution. As one administrator stated, "We are merging our offices to create a welcome center. They want to have a one-stop shop where parents can feel welcome, register their kid, uplift the aesthetic of the office, [and] have a parent satisfaction survey." This is viewed as a positive intent to improve district and community relations and increase parent satisfaction.

However, attempts to coordinate services and better meet parent and student needs are in only the earliest stages. Concerns over equity issues are prevalent. One administrator was asked if parents trust the system responded, "No, they don't. That was a big push for me, transparency, and parent education for next year."

There were specific concerns over racial issues and persistently low expectations in some schools:

- "There is a lack of communication between students, teachers, and staff." (Student)

- "There are racial issues—African-American and Puerto Ricans vs. White and Hispanics." (Central Office Administrator)

- "Black and Hispanic males are not doing well in this district and we as a district are not willing to deal with that. The data is there. It's super clear, but we're not willing to do anything different to address it." (Central Office Administrator)

- "Teachers and principals don't think about [racism]. 'We don't have that problem here. We don't have racism issues.' I think it is the responsibility of them for children to learn, not a requirement in the law." (Parent)

- "It should be required that teachers have PD (professional development) in implicit biases. The system is not doing enough on racism." (Parent)

- "[Before], we had tons of Hispanics [in leadership positions]. Now we are going backwards." (Central Office Administrator)

- "The community in New Haven is extremely frustrated. They are very frustrated with the Afro-centrism that exists." (Central Office Administrator)

- "There is a growing Arabic community in the district. Are teachers prepared? Culturally relevant pedagogy has not been done across the board. It's an area of concern." (District Administrator)

- The district is divided into half, White families and middle class did what they did to get to go to Cross. (Central Office Administrator)

- "It's the inability to accept change, in the school district and in the city as a whole. There is this resistance to change. Four years ago, the Hispanic population became the majority in the district. To

this day, it is still not showing [on the website and in the central office personnel].” (Central Office Administrator)

- “Neighborhood schools are referred to as having students that can’t do.” (Coach)

- “The morale at Cross is much better than the magnet school, but teachers are leaving Cross because of the class sizes and students with high needs and no support.” (Teacher, online survey)

Schools, teachers, and parents all report concerns over perceived equity and race issues, and many mention the social and emotional needs of students that are increasing and not sufficiently attended to. These were seen as increasingly frequent issues with poor student behavior and performance, as well as with disciplinary actions. Principals especially attested to an increase in trauma and other concerns that require additional resources they don’t feel are consistent. Comments regarding trauma and social emotional needs included:

- “I have about 40 homeless families and a very rough population, and I have one social worker and a part-time counselor.” (School Administrator)

- “Weakness in the district is the challenge of SEL; we do not have resources.” (School Administrator)

- “Teachers are always overwhelmed by the social and emotional needs of the students, and this need is growing.” (Coach)

- “Social Emotional learning support absolutely has to be above all of the other stuff. You can’t make up for it, and you can’t cut it.” (School Administrator)

- “Having the social worker and psychologist on campus is absolutely essential.” (Teacher)

- “We don’t have social workers or anyone like that on campus anymore. Who are the students supposed to talk to?” (Student)

- “We need additional resources for students with trauma so that school is a stable environment for them.” (School Administrator)

- “This building has emotionally disturbed students. We are calling 911 a few times a month. There are not enough resources.” (Building Administrator)

- “The biggest issue is behaviors disrupting learning. Kids with non-educational issues, PTSD, interrupt planning, learning, and instruction every day. We need more behavioral support. We have a PK teacher who is physically abused by a student every day. Those kids aren’t available for learning. Mental health issues are on the rise.” (Teacher)

- “Mental health and social/emotional issues are on the rise. I have a half-time guidance person. It is inequitable.” (School Administrator)

- “We don’t have enough staff [in my neighborhood school]. Less critical support staff. The needs of the kids have grown, but we have less people.” (School Administrator)

- “The principal and assistant principal spend a lot of time dealing with social/emotional issues. [It is] hard to assist traumatized kids.” (Teacher, online survey)

- “Students have trauma.” (School Administrator)

- “I am lacking the staff. ED and ID in particular, the real problems are around these students.” (School Administrator)

- “[In] preschool we are in a cycle of change; right now we are seeing a socio-emotional concern with our youngest children.” (School Administrator)

- “We have a lot of trauma in this district. A good portion of the principals’ days are spent on those behaviors.” We don’t have a coordinated plan to address SEL. We need to teach the kids to deal with their anger.” (Central Office Administrator)

- “We need many social/emotional resources.” (School Administrator)

- "A weakness - the amount of support for our struggling students. There are a lot of anger management or emotional concerns." (Parent)

- "Most of our work becomes that of social work, mental health, and social health." (School Administrator)

- "We struggle to meet the needs of kids experiencing trauma." (School Administrator)

- "We have serious undiagnosed mental health issues." (School Administrator)

- "More time and resources should be devoted to the social emotional piece." (School Administrator)

- "We need ample funding for more mental health staff in all buildings so teachers can teach the curriculum and so kids can learn." (Coach)

The auditors heard many comments from students and parents that additional support is needed for students who are struggling, including counseling and non-instructional support:

- "Struggling students are not supported. Kids are doing bad stuff. I wish I could help them. Some kids don't have a lot of help." (Student)

- "Some kids need hands-on help, but when they come in late they are put in ISS, and then they miss more class." (Student)

- "If the school came together more, we would have better relationships with upper classmen. I like the idea of bringing everyone together." (Student)

- "I can talk to some of my teachers about problems and issues, but I could never see myself talking to our counselor about anything like that." (Student)

- "The school nurse is not a nurse; she doesn't even have ice packs or crackers, she just hands out condoms." (Student)

- "Counselors aren't really here for us. Their doors are often locked. Our teachers are more of a support than counselors." (Student)

Despite the number of negative perceptions expressed, there were also positive comments made by parents, students, and teachers concerning the support and relationships available to students:

- "I find that my kids are both able to find someone at school who they can trust. Their teachers show interest and care." (Parent)

- "We know kids on a more personal level and have better communication with parents." (Teacher)

- "Before freshman year I visited ESUMS, and I didn't see anyone smiling at dismissal. Here everyone is smiling; we work together as a team." (Student)

- "Counselors do a lot of good jobs, like all the Spanish kids get good help." (Student)

Overall, the auditors found issues related to many needs prevalent among the student population and the perception that these needs are increasing. Such needs impact discipline, as well. The auditors did not find clear direction for behavioral expectations at the district level. Male students of color are more likely to be disciplined with suspension and expulsions than any other group, especially African American males. Suspension and expulsion data are presented in Exhibits 3.1.14-3.1.16. Exhibit 3.1.14 presents suspension and expulsion data by ethnic subgroup.

Exhibit 3.1.14

Suspensions and Expulsion Data by Ethnicity
New Haven Public Schools
2017-18

Suspensions/Expulsions by Ethnicity
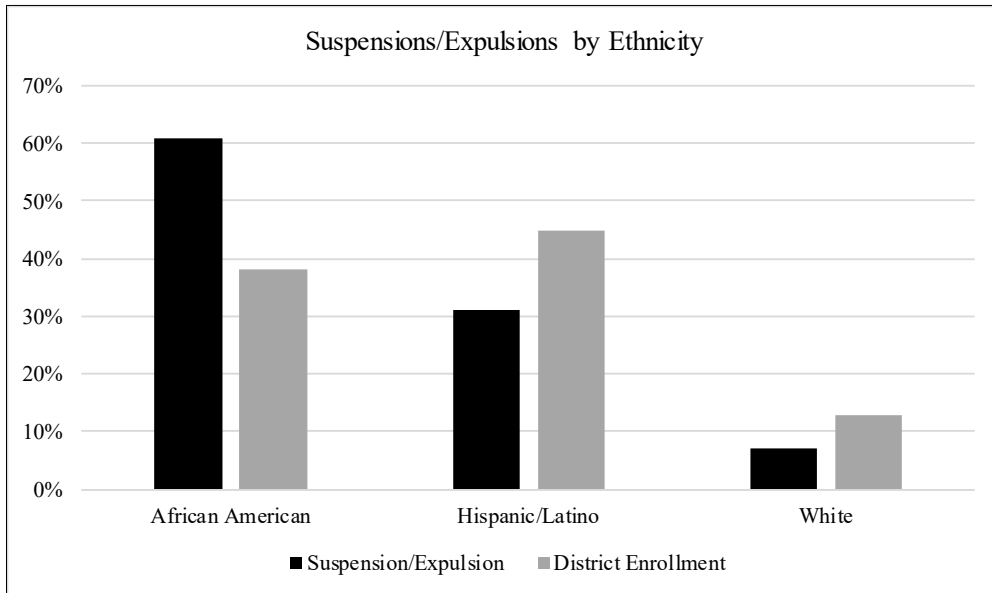
Source: School Profile and Performance Report, 2017-18

As can be seen in Exhibit 3.1.14:

- African American students are suspended or expelled at a rate far greater than their representation in the student population would suggest. Over 60% of all suspensions and expulsions are for African American students, although they represent only 38% of the total district enrollment.

- Hispanic/Latino students represent over 42% of the district enrollment, but less than one-third of the suspensions and expulsions.

- White students, likewise, represent over 12% of the district enrollment, but only 7% of all suspensions and expulsions.

The auditors sought to determine if suspensions and expulsions for ethnic subgroups also showed disproportionality by gender. They had to use older OCR data to perform these analyses, since gender information is not provided on the School Profile and Performance Reports. The information is presented in Exhibit 3.1.15:

Exhibit 3.1.15

Suspension and Expulsion Data by Gender and Ethnicity
New Haven Public Schools
2015
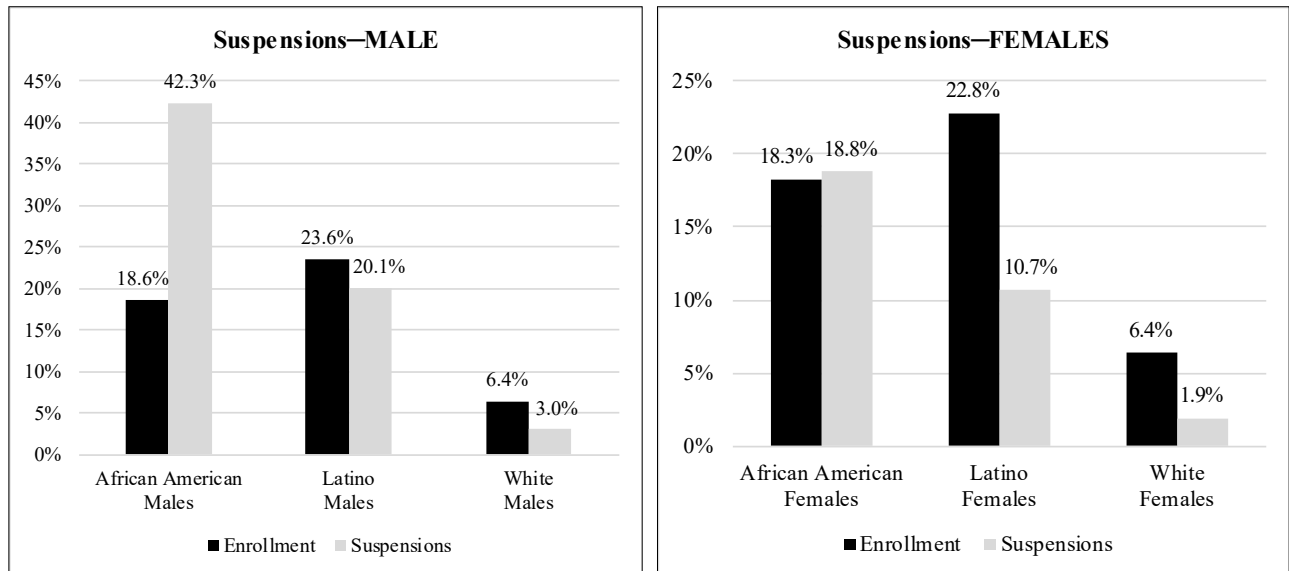
Source: NCES Data, OCR reports 2015

As seen in Exhibit 3.1.15:

- Males are over-represented in all suspensions and expulsions for African American students. African American males represent less than 19% of the total district enrollment but over 42% of all suspensions and expulsions—a rate more than twice their enrollment.

- Female African American students are slightly over-represented in suspensions and expulsions, as well. They represent over 18% of the total district enrollment but just a little less than 19% of the total suspensions and expulsions.

- All other groups are under-represented for both genders, which means they are neither suspended nor expelled at a rate commensurate with their enrollment.

Exhibit 3.1.16 presents data for suspensions and expulsions by specific student subgroups, presented by high school. The percentages represent the percentage of all the school's students who have received at least one suspension or expulsion.

Exhibit 3.1.16

Suspension and Expulsion Data by High School
New Haven Public Schools
2017-18
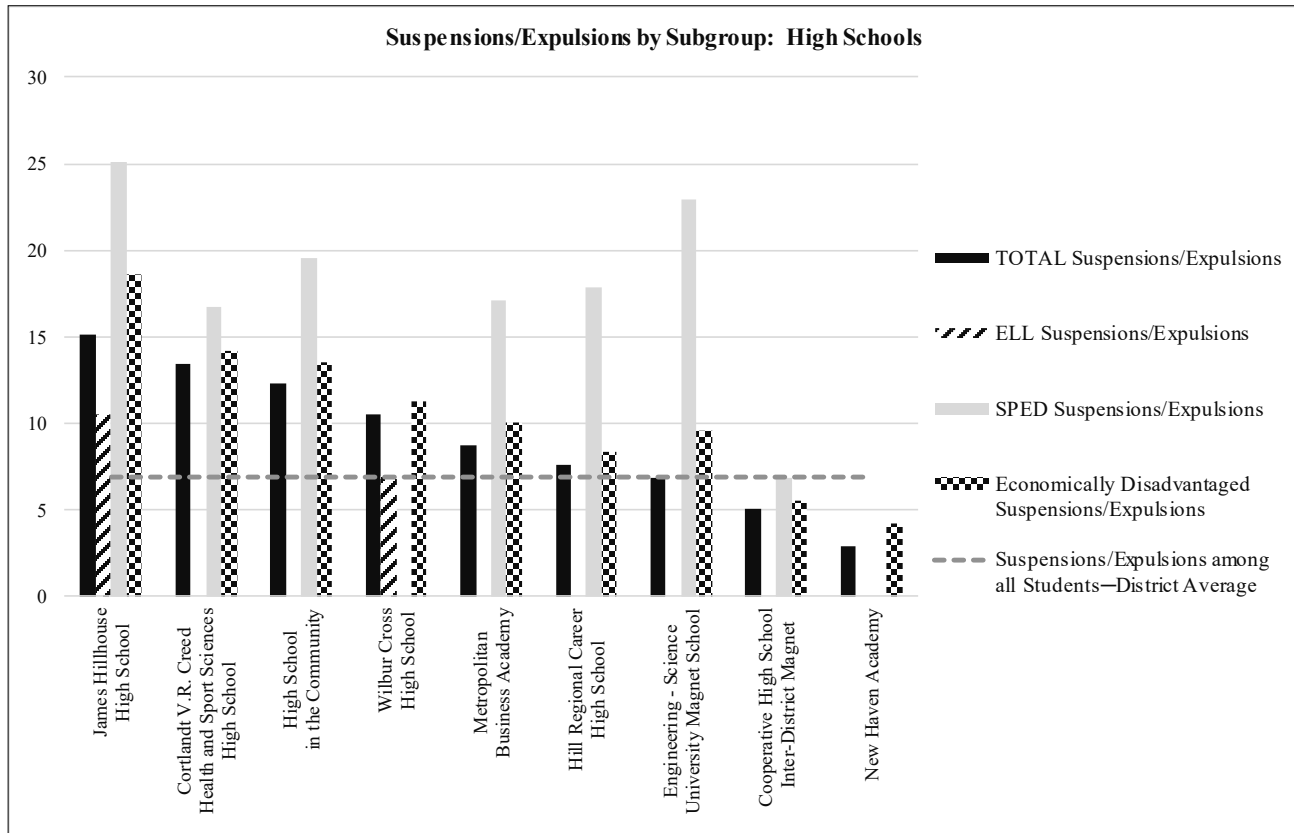
Source: School Profile and Performance Report, 2017-18

The following can be seen in Exhibit 3.1.16:

- Hillhouse High School has the highest rate of suspensions and expulsions. The subgroup at that school with the highest rate of suspensions and expulsions is students with disabilities.

- ESUMS has the second-highest rate of suspensions and expulsions for students with disabilities; almost 23% of these students receive at least one day of suspension (in-school or out-of-school) or are expelled.

- Creed has the second-highest rate of suspensions/expulsions overall; no ELL students were recorded as having been suspended or expelled at this school.

- All high schools except for the Cooperative High School and New Haven Academy suspend or expel students at a rate that exceeds the district average of 7%.

- All high schools except Cross suspend or expel students with disabilities at a rate far higher than their representation in the student population and at a rate that greatly exceeds the district average of 7%.

- Students from economically disadvantaged backgrounds are also suspended or expelled at higher rates than the district average of 7%; this trend was evident at every high school except for the Cooperative High School and the New Haven Academy.

During interviews, the auditors heard comments regarding the disproportionality of disciplinary actions. These comments included:

- "African American males suspended at a higher rate than anyone else." (Central Office Administrator)

- "Our Black and Hispanic boys are not doing well. We are not doing anything about it. We have super clear data on that, but [we are] not willing to do anything different to address it. (Central Office Administrator)

- "African American males are suspended at a higher rate than everyone else. The disproportionality with regard to discipline practices has narrowed." (Central Office Administrator)

Others commented on the serious needs with respect to discipline and behavior management in the schools. These comments were made by every stakeholder group:

- "There are going to be problems everywhere, discipline issues, etc. In the neighborhood schools [the problems] are magnified." (Central Office Administrator)

- "Schools don't have the resources to support those kids or the kids that witness inappropriate behavior. What do we do for the kids that see all of those kids?" (Parent)

- "Lack of consistency is a problem." (Teacher, online survey)

- "When it comes to consequences, [building administrators] aren't very firm." (Teacher)

- "We can say that we will do something, but we can't really do it. If a teacher tries to impose their own rules, they get a message, 'no, you need to let up.'" (Teacher)

- "One school has parents that have more social capital - involved parents, so you don't see the behavior issues that you might see at other schools." (Central Office Administrator)

- "There are challenges with getting students to behave." (Central Office Administrator)

- "Most K-8 schools are less than 800; our gym classes have 100 students." (School Administrator)

- "Students don't see clear cut policies, so they think they can do anything." (Teacher)

- "It feels like from the top down, certain behaviors are not properly addressed when it comes to students. When it comes to truancy, consequences, behavior management, and just policy." (Teacher)

- "There should be different consequences for different situations. Repercussions aren't helpful. The administrators don't address issues well enough." (Student)

The auditors then looked at retention data by subgroups to see if students are experiencing the same levels of academic success in moving to the next grade level. These data are presented in Exhibits 3.1.17 and 3.1.18.

Exhibit 3.1.17 presents the data by ethnic subgroup.

Exhibit 3.1.17

Retention Data by Ethnic Subgroup
New Haven Public Schools
2017-18
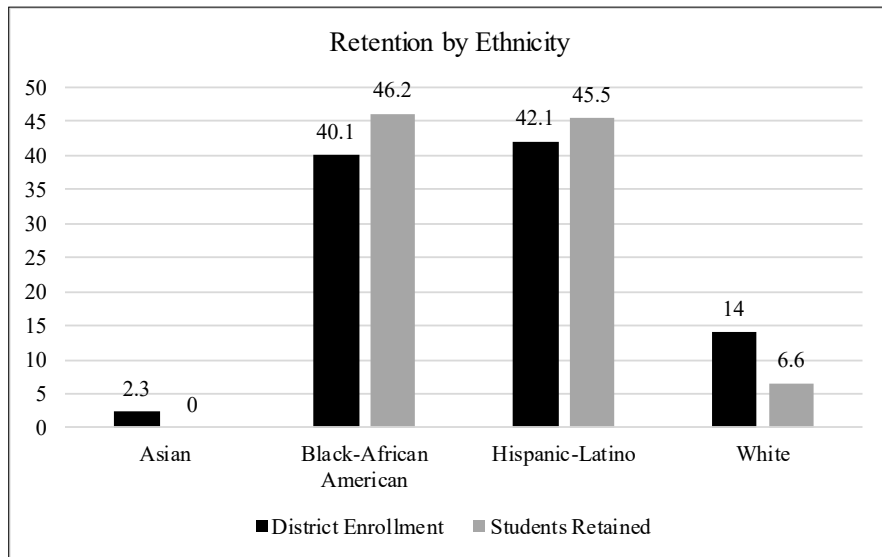
Source: School Profile and Performance Report, 2017-18

The following can be seen in Exhibit 3.1.17:

- African American and Hispanic students are retained at higher rates than White or Asian students.

- White students are retained at less than half the rate of their enrollment.

Exhibit 3.1.18 presents the data by gender and ethnicity. These NCES data are from the 2015-16 school year.

Exhibit 3.1.18

Retention Data by Gender
New Haven Public Schools
2015
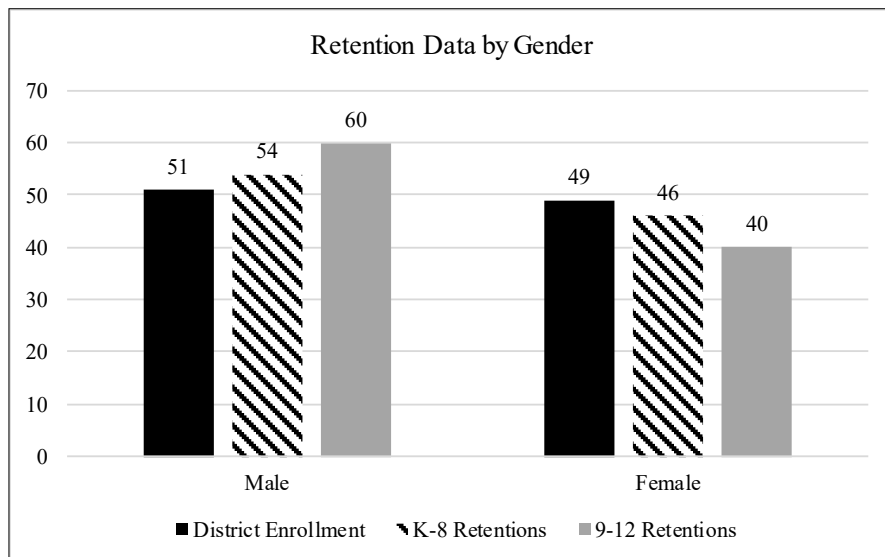
Source: NCES Data, OCR reports 2015

As can be seen in <u>Exhibit 3.1.18</u>:

- Males represent the highest percentage of retentions—60% in high school and 54% at K-8.

- Gender disproportionality of retention increases at high school, which translates as successful course completion for males decreases at high school.

The auditors found that males, specifically African American males, were more likely to be retained and be suspended or expelled. There have been attempts to mitigate the retention reaction at the K-8 school level with the intervention process implemented for reading. As one central office administrator described, "At the end of the year…we get the list of kids that they want to retain, and I can see if they've had meetings on that student. I can see if parents were notified and if there were interventions for that child." If such meetings have not happened, district office personnel can intervene and halt an inappropriate retention. The auditors were told retention practices at the K-8 level have subsequently improved but did not have the data to see to what extent.

Regarding equity, the auditors received more comments related to equity and social emotional/behavioral issues on the school administrator and teacher surveys than regarding any other issue. Additional comments regarding equity in general, included:

- "We don't have a system where we are providing those extra supports [to schools in need]." (Central Office Administrator)

- "Equity is an issue. They [central office administrators] try to define equity in various ways. Due to funding sources, they will never get to equity. If people are able to get a grant, implement it and maintain it, they shouldn't be punished for that." (School Administrator)

- "[We are] trying to get everybody on the same page regarding equity." (Central Office Administrator)

- "We see the opportunity gaps despite the fact that students and families of color make up the majority of populations served. Our ability to impact that continues to be a struggle for us. People throw around the word equity a lot, but it seems to be this intangible thing that we can impact. I believe that we do not all view equity the same way. Things that people say across the table from me contradicts what we know about equity." (Central Office Administrator)

- "[A] weakness is equity. Some don't have access to what other schools have." (Teacher, online survey)

- "Today is my last day at ESUMS and in the district. I decided to leave because of the inequity and I am outspoken, so instead of being fired I decided I had to leave." (Teacher, online survey)

- "There is a lack of equity across the district. Some schools have three tutors, and other schools have none." (School Administrator)

- "There is a great deal of inequity here, especially with the comprehensive high schools." (District Administrator)

- "I think there is inequity across the district. The population we serve is treated very unfair. They are not looked at the same level as the students who are able to hit the benchmarks." (School Administrator)

- "We need to be more consistent among schools and provide fairness and equity and meet the needs of all schools. Magnet schools are allotted more money." (School Administrator)

- "The inequities…you could be blind and see them." (Central Office Administrator)

Others commented on disparities in the programs and instruction students receive. These comments included:

- "We have a lot of kids who are taught by subs for a long time. Warm body, not certified. This is allowed to happen at Hillhouse, but parents at Cross don't tolerate it, so it doesn't happen as often there." (Central Office Administrator)

- "We are not doing a good job giving students equitable access to a challenging curriculum." (Central Office Administrator)

- "The ethnic racial diversity is a strength. I don't know if we capitalize on that strength or utilize that strength throughout the curriculum. It's not reflected in the curriculum." (Central Office Administrator)

- "I wouldn't be comfortable saying that we are doing a good job at giving kids an equitable access to a challenging curriculum." (Central Office Administrator)

Others commented on persistent achievement gaps that the district has been unsuccessful in ameliorating (see also Finding 4.3):

- "There is a racial achievement gap." (School Administrator)

- "Even I see an achievement gap in our quarterly assessments." (Central Office Administrator)

- "The achievement gap in science is the greatest." (Central Office Administrator)

- "There is a persistent achievement gap when you look at the scores. We also see opportunity gaps. That [achievement and opportunity gaps] is because of the challenge of getting everyone on the same page." (Central Office Administrator)

- When asked about the achievement gap: "On a district and school basis, I think that we are making strides in the right direction. I would rather characterize it as an opportunity gap." (Teacher)

- "When we wrote new units—the 3rd grade teachers kept saying, the kids can't do this." (Central Office Administrator)

Equity Summary

The auditors found that equity is not consistently monitored, nor are systems in place to coordinate services and support consistency across campuses to improve access to programs and equity in opportunity. Not all subgroups have equal access to programs and services, and the different needs and characteristics of different subgroups are not supported with varying levels of resource allocations to level the playing field. African American males and students with disabilities are more likely to be retained and to receive disciplinary measures than any other group. English learners are not enrolled in magnet programs at expected rates, and the auditors could find no clear patterns in resource allocations to schools and in staffing allocations for support services. Magnet schools do have more resources than other schools, although the trend is not consistent.

Equity is a serious concern for all stakeholder groups. It is the intent of current administration and the board to address equity, but systems and processes intended to assure equity and equal access are not yet in place.

Finding 3.2: Classroom instruction is not reflective of district expectations.

Effective instruction is defined as instruction that has a positive impact on student learning and achievement. The most effective instruction focuses on the concepts, skills, and knowledge that students require to be successful, using strategies and approaches that engage students cognitively and keep them motivated in the classroom. The most effective school districts are those that work to support teachers in delivering instruction by providing both high-quality curriculum and support in the form of professional development, coaching, and monitoring. Additional support is provided through a clear district definition of what effective instruction looks like and how assessment data should be used to plan and deliver instruction in response to individual student needs. Such targeted instruction is more effective in improving student achievement.

The auditors visited classrooms in all schools in the New Haven Public Schools and collected information and anecdotal observations during classroom walk-throughs. The intent of these observations was to determine what instruction looks like and how students are engaged in their learning in classrooms throughout the district on a given day. These observations are then compiled and reported back to the district, to allow district leaders to decide if the instructional practices observed by auditors are reflective of the district mission, vision, and expectations. This finding deals only with classroom observation data; information related to monitoring and professional development is presented in Finding 3.4.

The auditors found that classroom instruction did not consistently meet district expectations, particularly in the type of cognition observed in classrooms. Both policy and the current teacher evaluation instrument (TEVAL)

specify clear expectations concerning what effective instruction should look like. Key expectations found in district documents specific to teaching and learning behaviors are summarized in Exhibit 3.2.1.

Exhibit 3.2.1

Instructional Expectations Found in District Documents
New Haven Public Schools
April 2019

Document	Instructional expectation (excerpts)
Policy 6000: Instruction	The New Haven Public Schools will provide all students with learning opportunities designed to meet their academic and social needs. Curriculum content, technological assistance, and instructional strategies will be integrated to raise student expectations, to ensure student performance mastery, and to maximize student motivation.
6142.2 a-c 4/24/2006	Requires that writing is taught and practiced in Kindergarten - 12th grade daily and directs use of the writer's workshop and writing process across the curriculum.
6152b 4/24/2006	Requires principals to have a plan or procedure to ensure that grouping is flexible and monitored.
TEVAL: Content-Specific Goal Setting Guidelines	These are guidelines for establishing TEVAL goals for student learning and development with teachers in each subject area in relation to the teacher evaluation system. Goals are to be SMART goals as well as measurable and rigorous. Students must be challenged to exceed instructional goals.
Teacher Contract Appendix I July 1, 2018 - June 30, 2021	This document outlines district beliefs, vision, and strategies. It defines responsibilities related to academic learning, including the implementation and monitoring of a rigorous, relevant, high quality, standards-based curriculum to promote college and career readiness with student growth and development at the center of all decisions.
Teacher - Instructional Practice Framework and Performance Continuum	Dated 2014-15, this document defines the components of instruction around three areas: purpose, support, and meaning. The document also defines the continuum of teacher development along the frames of needing improvement, being effective, or being exemplary for the following domains: 1 - Planning and Preparation; 2 - Classroom Practice; and 3 - Reflection.
NHPS District Strategic Objectives	Defines six strategic objectives as follows: 1. Shaping the Whole Child through *Personalized Learning Experiences* [italics added] 2. Student Growth and Achievement 3. Engagement through Collaboration, Communication, and Transparency 4. Strong and Coherent Systems and Structures 5. Effective Teaching, Leading and Learning 6. Resource Alignment

As documented in Exhibit 3.2.1, several expectations in writing communicate the district's priorities for instruction. These priorities specify that instruction should:

- challenge students cognitively to exceed instructional goals;

- engage them with authentic and relevant experiences;

- make learning personal and relevant; and

- assure college and career readiness.

These expectations also communicate that student growth and development should be central to all instructional and program-based decisions, and suggest an expectation for student-centered instruction that differentiates content, process, and product to suit student needs.

The auditors visited approximately 448 classrooms across 47 schools in the district. Auditors recorded observations in each school concerning the dominant student activity, dominant student grouping(s), dominant teacher activity, and any evidence of differentiation in content, product, or process. Auditors also recorded what

the students were actually doing during the observation and noted the cognitive demand of the activity. The auditors then noted examples of effective strategies for all students. Classrooms where the regular education teacher was absent were not observed except when the class was covered by an established long-term substitute. Over 85% of the observations were conducted in regular classrooms.
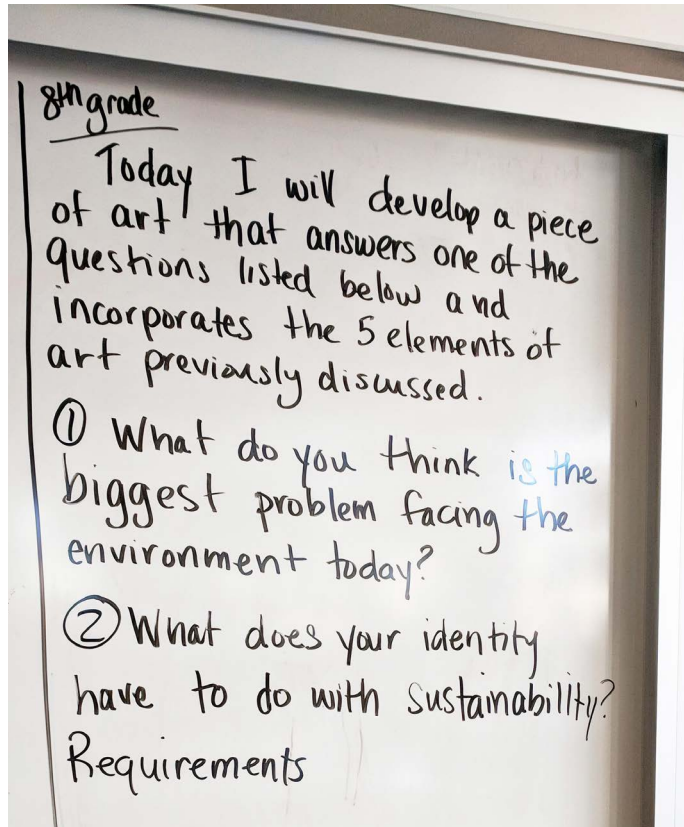
Objectives posted in magnet high school classroom

Exhibit 3.2.2 presents an overview of the information collected during classroom visits, which lasted from 1 to 10 minutes.

Exhibit 3.2.2

Classroom Observation Data Collected
New Haven Public Schools
April 2019

General Information		
Grade level/Class type	Content Area/Discipline	Type of classroom visited (intervention, regular, pull-out)
Number of students engaged	All/most, three-fourths, one-half, one-fourth, few/none	
Objective information	Content (written observed and stated objective)	• Observed • Stated (written on board) • Congruence of observed with stated
Cognitive type observed	• Knowledge • Comprehension • Application	• Analysis • Synthesis • Evaluation
Student grouping (how students are grouped for the dominant activity/lesson)	• Large group work, teacher-centered (lecturing) • Whole group work, student-centered (class discussion, problem solving, etc.) • Centers, workstations	• Small group work • Pair work • Individual work, meaningful (meaningful writing, projects) • Seatwork, low-level (worksheets, copying) • Other
Dominant student activity	• Student presentations • Taking assessment • Transitioning • Interacting with other students • Modeling, simulation • Warm-up, review • Practice activities • Worksheets, answering questions (from textbook)	• Word work, phonics/phonemic awareness • Watching video • Computer activity • Taking assessment • Writing: meaningful • Speaking • Reading (note specific purpose, type, material) • Other
Dominant teacher activity	• Large group instruction, teacher-centered • Large group instruction, student-centered • Small group instruction • Individual work • Monitoring student work • Other	
Reading analysis	• Types of text being read	• Levels of Inquiry
Cognitive type and type of knowledge	• Knowledge dimension	• Cognitive processing dimension
Differentiation	• Content	• Process, Product
Powerful instructional practices	• Varies; includes SIOP	

The fields presented in Exhibit 3.2.2 represent the information the auditors recorded when visiting classrooms. The summative data for these observations are presented in the following exhibits.

<u>Exhibit 3.2.3</u> presents data concerning the dominant activity students were engaged in during auditors' classroom visits. The dominant activity was observable in 443 classrooms.

Exhibit 3.2.3

Dominant Student Activity Observed
New Haven Public Schools
April 2019

Dominant Student Activity Observed

Activity	Percentage
Reading* (see questions on reading analysis)	8.4%
Listening	18.5%
Writing	7.7%
Speaking	3.8%
Lab/Hands-on Activity	6.1%
Word Work/Phonological Awareness	1.4%
Worksheet/Answering Questions	19.0%
Computer Work	5.4%
Practice Activity (problems, algorithms)	9.0%
Warm-up/Review	1.6%
Modeling/Simulation	1.1%
Interacting with Other Students	5.9%
Transitioning	0.7%
Taking Assessment	0.2%
Student Presentations	0.7%
Other (please specify)	10.6%

The following is evident in <u>Exhibit 3.2.3</u>:

- Students were most frequently observed completing worksheets or answering questions; these each accounted for almost one-fifth of all classrooms observed (19%).

- The second most frequently observed student activity was listening (18.5%), followed by activities labeled as other (10.6%) and practice activities such as problems and algorithms (9%).

- Students were engaged in reading in less than 10% (8.4%) of the classrooms observed.

- Students were also engaged in other activities: writing (7.7%), lab/hands-on activity (6.1%), interacting with other students (5.9%), computer work (5.4%), and speaking (3.8%).

- In less than 2% of the observations, students were engaged in the following activities: warm-up/ review (1.6%), word work/phonological awareness (1.4%), modeling/simulation (1.1%), transitioning and student presentations (.7%), and taking assessments (.2%).

Exhibit 3.2.4 presents the dominant teacher activity observed in New Haven classrooms.

Exhibit 3.2.4

Dominant Teacher Activity Observed
New Haven Public Schools
April 2019
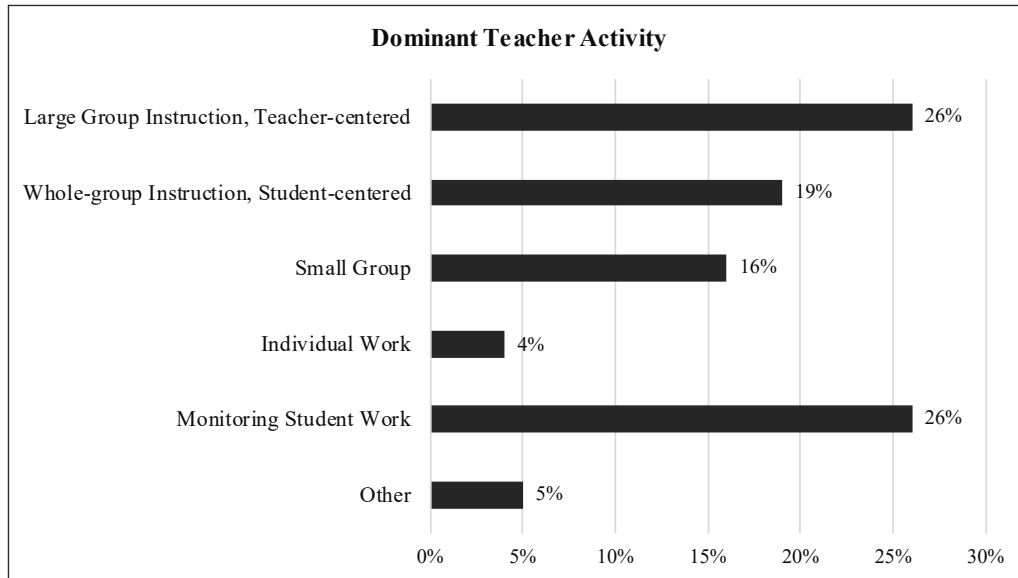
The following can be seen in Exhibit 3.2.4:

- Teachers were observed in 26% of classrooms delivering instruction to the whole group of students in a teacher-centered format, with minimum student engagement.

- In 26% of classrooms teachers were monitoring student work. In these classrooms, the teachers were watching students complete their assignments without direct interaction or assistance.

- A whole-group student-centered approach was observed in 19% of the classrooms observed. Student-centered whole-group instruction engages students' participation, asking them for response or discussion during the lesson.

- The teacher was observed working with a small group of students in 16% of the classrooms observed.

- Other activities, including but not limited to facilitation of student presentations, correcting student behaviors, and assisting students each comprised approximately 5% of the dominant teacher activities observed.

- Teachers were observed working with individual students in 4% of the observations.

<u>Exhibit 3.2.5</u> presents the data concerning the type of student learning arrangements observed.

Exhibit 3.2.5

Student Learning Arrangements Observed
New Haven Public Schools
April 2019

Dominant Student Activity Grouping

Activity	Percentage
Large Group/Whole group—Student-centered	19.5%
Large Group/Whole group—Teacher-centered	24.0%
Seatwork (low-level, worksheets, copying, tracing letters)	12.2%
Individual Work (project, writing, reading, meaningful work on their own)	19.0%
Small Group (if truly cooperative, check below)	10.8%
Centers	4.5%
Pair Work	6.1%
Other (please specify)	4.5%
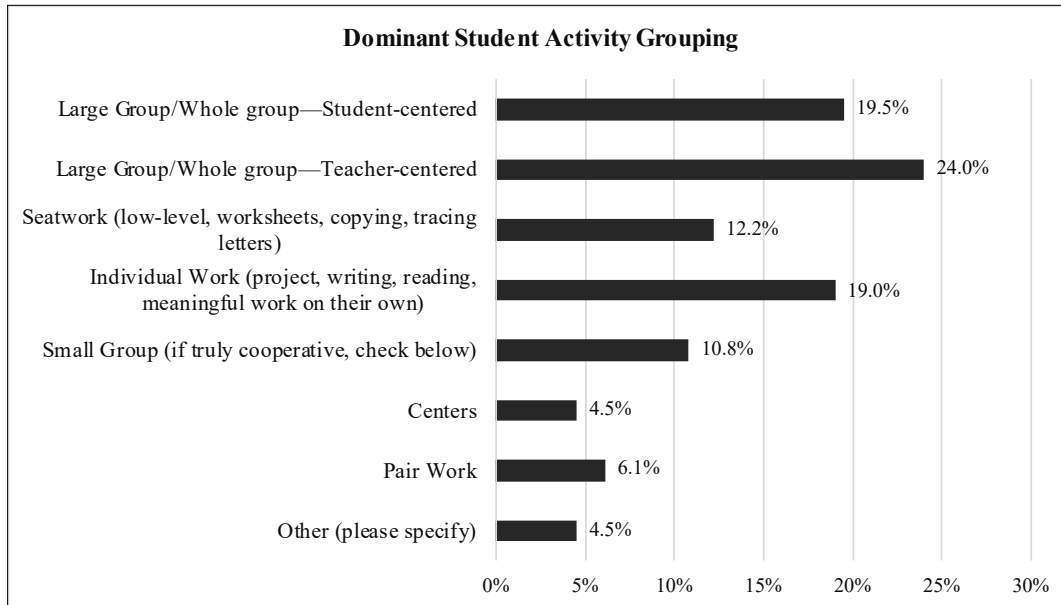
As can be seen in <u>Exhibit 3.2.5</u>:

- The most common student learning arrangement observed was large group or whole group instruction that was teacher-centered. This is consistent with the dominant teacher activity and was observed to have occurred in one-fourth (24%) of the classrooms observed.

- Large group or whole group, student-centered, instruction was observed in approximately 20% (19.5%) of the classrooms observed.

- Students were completing individual work, which includes projects, writing, reading, or other meaningful work, on their own in almost one-fifth (19%) of the classrooms.

- Students were working individually on worksheets or low-level practices activities in 12.2% of the classrooms.

- Students were observed working in small groups in almost 11% (10.8%) of the classrooms.

- Pair work was observed in 6.1% of the classrooms.

- In less than 5% of the classrooms, observations grouped students in either centers or other activities, which included watching a video or movie clip, sitting and listening, and other activities.

When principals were asked what auditors should see in classrooms, building leaders responded with a variety of differing expectations. There was some consistency, especially with regard to literacy instruction and an expectation for small groups.

- "[You will see] a mix. We've been working on student-to-student talk, small group instruction." (School Administrator)

- "Objectives on the boards, visual anchors, small group work, workshop model, student conferencing, and Do Nows." (School Administrator)

- "Phonics, workshop model, start with a Do Now, half of the period student does independent work, and [then] see student discourse." (School Administrator)

- "Vocabulary, small group instruction and student interaction and hear that you understood what the concept was." (School Administrator)

- "Small group instruction, learning centers, adults interacting with students, but there is some type of learning." (School Administrator)

- "I require that teachers plan for two small groups per day. We use a focus sheet. I identify a mentor in the building for teachers that need it." (School Administrator)

- "When I walk in I shouldn't have to figure out what they are doing. I should see small group intentional instruction, objective posted and followed through, higher order thinking, gradual release, and hear student discourse." (School Administrator)

- *"You are going to see the gamut. Kids aren't engaged. And then we have the other; folks that have just exceeded expectations." (Central Office Administrator)

Although small groups and the workshop model (a form of small grouping) are highlighted as areas of focus during administrator observations, in a majority of the classrooms students were grouped in large group formats or were doing independent work. Students were not consistently seen working on cognitively challenging content.

In 65 classrooms auditors observed students reading. The levels of inquiry for reading were categorized in three major areas: Initial/Basic, Interpretation, and Analysis. The auditors' finding concerning the levels of reading inquiry are presented in Exhibit 3.2.6.

Exhibit 3.2.6

Reading Analysis
New Haven Public Schools
April 2019

Reading Strategies Employed (65 total classrooms)

Category	Percentage
Analysis: Strategies	19%
Analysis: Critical analysis	14%
Interpretation: Extended meaning	15%
Interpretation: Inference	23%
Initial/Basic: Action, reason, sequence	17%
Initial/Basic: Special detail	72%
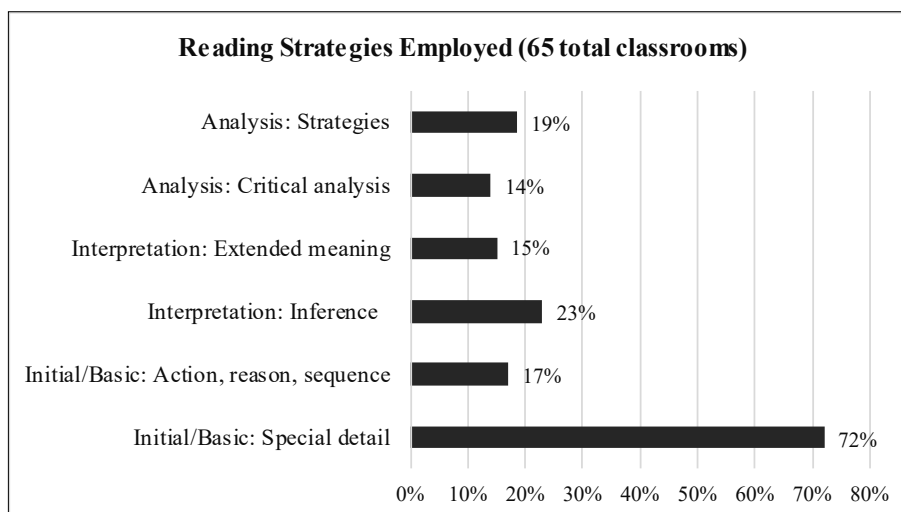
As seen in Exhibit 3.2.6, when students participated in inquiry-based activities in response to reading, almost three-fourths of the classrooms observed had students reading for basic recall only, the lowest type of comprehension. In 17% of the classrooms, students were required to determine the action, reason, or sequence of events, also a low-level recall skill. In almost one-fourth (23%) of classrooms, students were inferring meaning from what they read, and students were expected to determine extending meaning of the text in 15% of the classrooms observed. Students were engaged in critical analysis of the text in the lowest percentage of classrooms, 14%. In just under one-fifth (19%) of the classrooms where students were reading and responding in some way to the text, students were analyzing the text strategically. When students were reading, the most commonly observed comprehension strategies employed were the least cognitively complex, although more demanding critical analyses and inferencing were observed in a number of classrooms. Overall, during auditors' classroom visits, students were not often observed reading (65 of 442 total classrooms observed).

Auditors observed the type of texts predominantly being used in classrooms where reading was observed. Exhibit 3.2.7 shares this information.

Exhibit 3.2.7

**Type of Reading Text
New Haven Public Schools
April 2019**
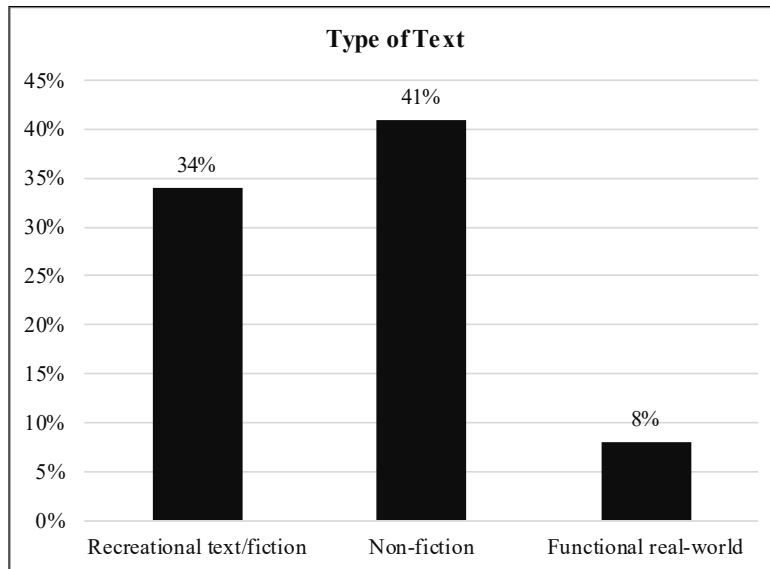
As seen in Exhibit 3.2.7, the majority of texts, 41% were non-fiction. Almost 35% were recreational text or fiction, and almost 10% were categorized as functional, real-world text.

Exhibit 3.2.8 presents the data collected by auditors concerning the cognitive engagement observed in the classroom.

Exhibit 3.2.8

Cognitive Engagement Observed
New Haven Public Schools
April 2019
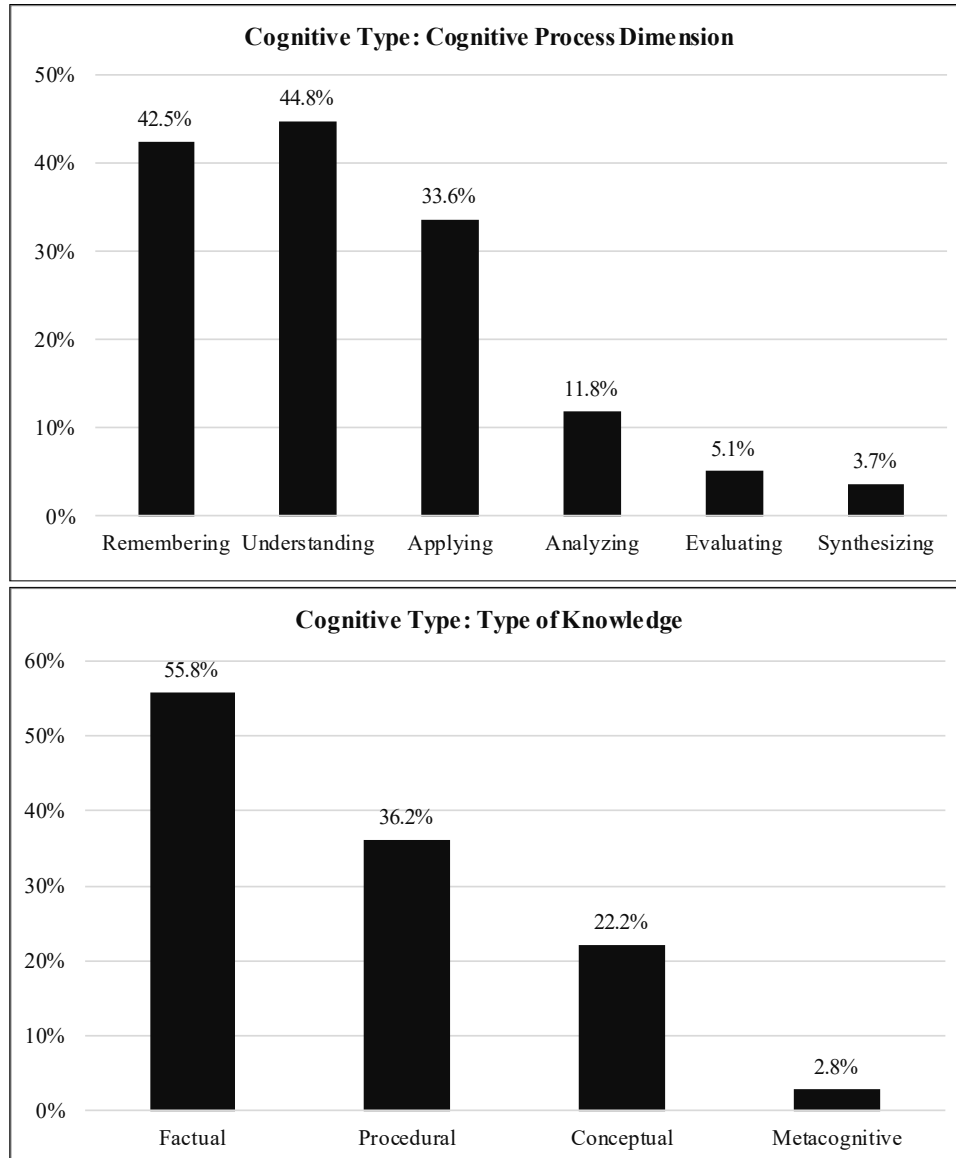
The data presented in Exhibit 3.2.8 reflect that a majority, almost 45% (44.8%), of classrooms engaged students in activities that required students to demonstrate their understanding of material in familiar contexts. Almost 43% (42.5%) of observed occasions provided opportunities for students to recall basic information. Students were observed applying their learning in new situations in just over one-third of the classrooms (33.6%). Students working with content at more demanding types of cognition was observed in a very small percentage of classrooms, with 11.8% of student engagement at the analysis level and less than 10% of classrooms requiring evaluation or synthesis/creating (5% and 3.7%, respectively). In addition to the cognitive process dimension, the auditors noted the different types of knowledge students were using to complete their activities. Approximately 56% (55.8%) required factual type of knowledge, and over 36% (36.2%) required procedural knowledge, followed by 22.2% at the conceptual level. Very few examples (2.8%) of metacognition were evident.

The auditors also recorded information on the types of differentiation observed in classrooms, when discernible. These data are presented in Exhibit 3.2.9.

Exhibit 3.2.9

**Types of Differentiation Observed
New Haven Public Schools
April 2019**

Evidence of Differentiation in Content?
Are there different content objectives for different students/student groups?

Yes 13.4%

No 86.6%

n = 60

Evidence of Differentiation in Product/Process

Yes 19.8%

No 80.2%

n = 82
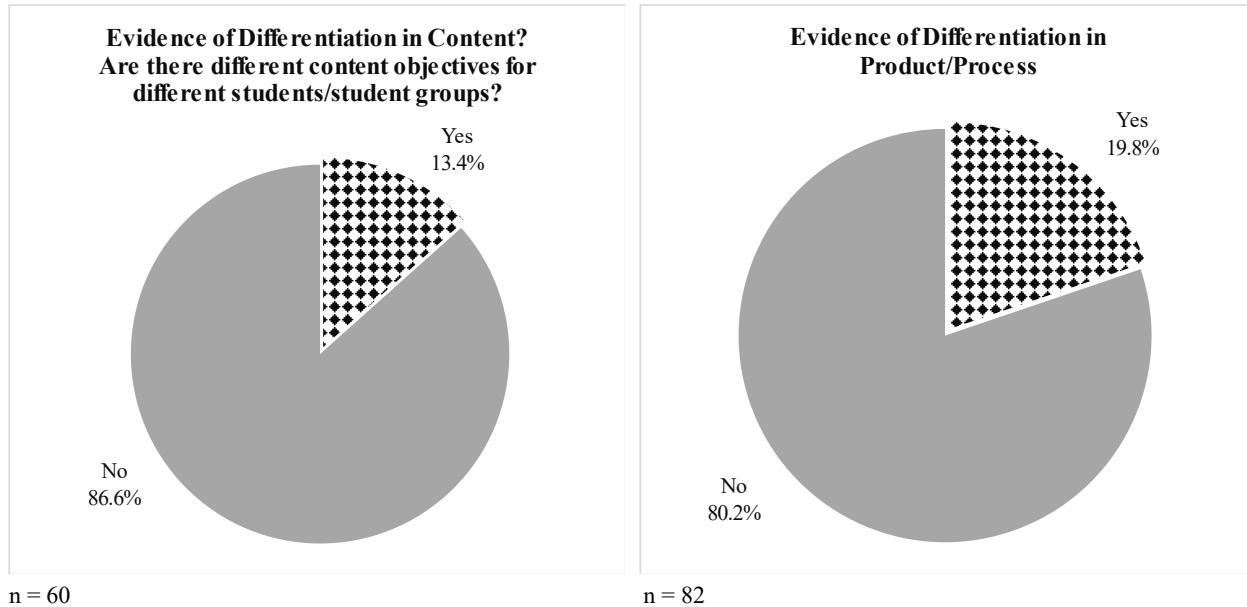
The following is evident in Exhibit 3.2.9:

- In the 60 classrooms where differentiation was discernible, 13.4% of the classrooms had students working on content at different levels or on different objectives as suited to their needs.

- Differentiation in process or product was more evident when such differentiation was discernible; it was noted in 19.8% of the 82 classrooms where it could be discerned by auditors. Differentiation in process refers to students participating or demonstrating their learning in different ways, while product differentiation refers to students demonstrating their learning with different products or evidence.

A few district stakeholders commented on the importance of differentiation to ensuring effective instruction, and the need to improve differentiation of instruction in classrooms:

- "An area to improve is differentiation with all learners. It is a process, and it takes about two years to understand." (School Administrator)

- "Differentiation is huge. Yes, there are pacing guides; however, there are different modalities and different students. We use the gradual release model." (School Administrator)

- "Differentiation usually takes place during small group instruction. During reading workshop, there might be some teachers who are differentiating." (School Administrator)

- "At my school, we have taken focused steps to supporting teachers around curriculum implementation and providing feedback and coaching support around rigorous instruction. We are currently working to guide and support staff at the school level around differentiation." (School Administrator, survey)

Exhibit 3.2.10 presents data regarding principals' level of agreement with the statement that teachers have received adequate training in how to differentiate instruction.

Exhibit 3.2.10

Principal Survey: Teacher's Training on Differentiation
New Haven Public Schools
April 2019

Teachers have received adequate training in how to successfully differentiate instruction.
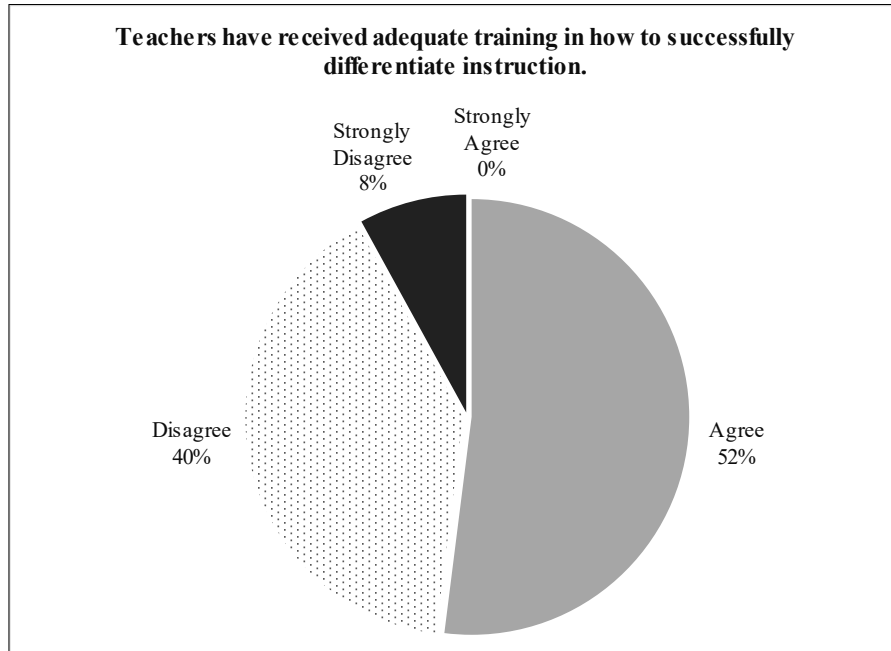
n = 25

Exhibit 3.2.10 shows that of the 25 principals who responded to this survey question, just over half, 13 of 25 (52%) agreed that teachers received adequate training in how to successfully differentiate instruction. Almost half (12 of 25) of the principals who responded disagreed (40%) or strongly disagreed (8%) with the statement that teachers have received adequate training. Twenty-five of the 44 survey participants responded to this question.

The auditors also recorded any effective strategies they observed in classrooms during the walk-throughs. These strategies are derived from research on best practices. Exhibit 3.2.11 presents these data.

Exhibit 3.2.11

Effective Strategies Observed
New Haven Public Schools
April 2019

Effective Strategies Observed

Strategy	Percentage
+Specific learning goals/objectives	27.7%
+Corrective feedback w/ support*	46.5%
Reinforcement of effort; recognition*	45.7%
+Well-constructed cooperative learning*	6.3%
+Non-linguistic representations	4.4%
Cues and prompts	15.8%
+Advance organizers, charts, concept maps	4.1%
+Summarizing	6.3%
+Kinesthetic activity to increase student und.	5.2%
+Mental pictures (by students)	1.1%
+Physical models of concepts (manipulatives)	5.7%
Generate and test hypotheses (students)	2.5%
Note-taking	13.3%
Time for practice, review, application	22.0%
Homework with a clear purpose	0.5%
Comparing, classifying, metaphors/analogies	1.1%
+Ample wait time	1.4%
Appropriate pacing of lesson	3.0%
Engaging students in reflection: thinking/feelings*	6.3%

Key: + these strategies are also effective with English Language Learners

Exhibit 3.2.11 reflects the over 800 observations of recorded instructional strategies in use. There were 368 classrooms out of the 448 visited in which some observations of effective strategies were noted. The overall percentage of classrooms in which the strategies were observed cannot be calculated, as multiple strategies were observed in a single classroom. However, these data do provide insight into the type of strategies that are more prevalent across the district.

- The most frequently observed strategy was corrective feedback with support. This was noted in 46.5% of the observations recorded.

- Teachers utilization of reinforcement of effort and/or recognition of students' work was the second most-often observed strategy, seen in 45.7% of the 368 classrooms.

- Specific learning goals or objectives were noted in 27.7% of the classrooms where effective strategies were observed, and teachers were noted providing time for practice, review, and application in 22% of these classrooms.

- Cues and prompts were observed in use by teachers in 15.8% of classrooms observed, followed by note-taking in 13.3% of the classrooms.

- The following strategies were observed in less than 10% of the classrooms where effective strategies were noted: summarizing (6.3%), well-constructed cooperative learning (6.3%), engaging students in reflection including but not limited to thinking or feelings (6.3%), using physical models of concepts (manipulatives) (5.7%), and kinesthetic activities to increase student understanding (5.2%).

- Observed at less than 5% were the use of non-linguistic representations (4.4%); advance organizers, charts, concept maps (4.1%); appropriate pacing of the lesson (3%); and students generating and testing hypothesis (2.5%). Several of these strategies overlap with effective strategies for English learners.

- Observed at less than 2% were ample wait time (1.4%), student use of mental pictures and comparing and/or classifying metaphors and/or analogies (1.1%), and homework with a clear purpose (.5%).

Exhibit 3.2.12 presents data from the principal's survey concerning instructional expectations, teacher support, differentiation, and meeting students' needs in the classroom. Seventeen of the 34 participants responded to this survey question.

Exhibit 3.2.12

Principals' Responses Concerning Instruction
New Haven Public Schools
April 2019
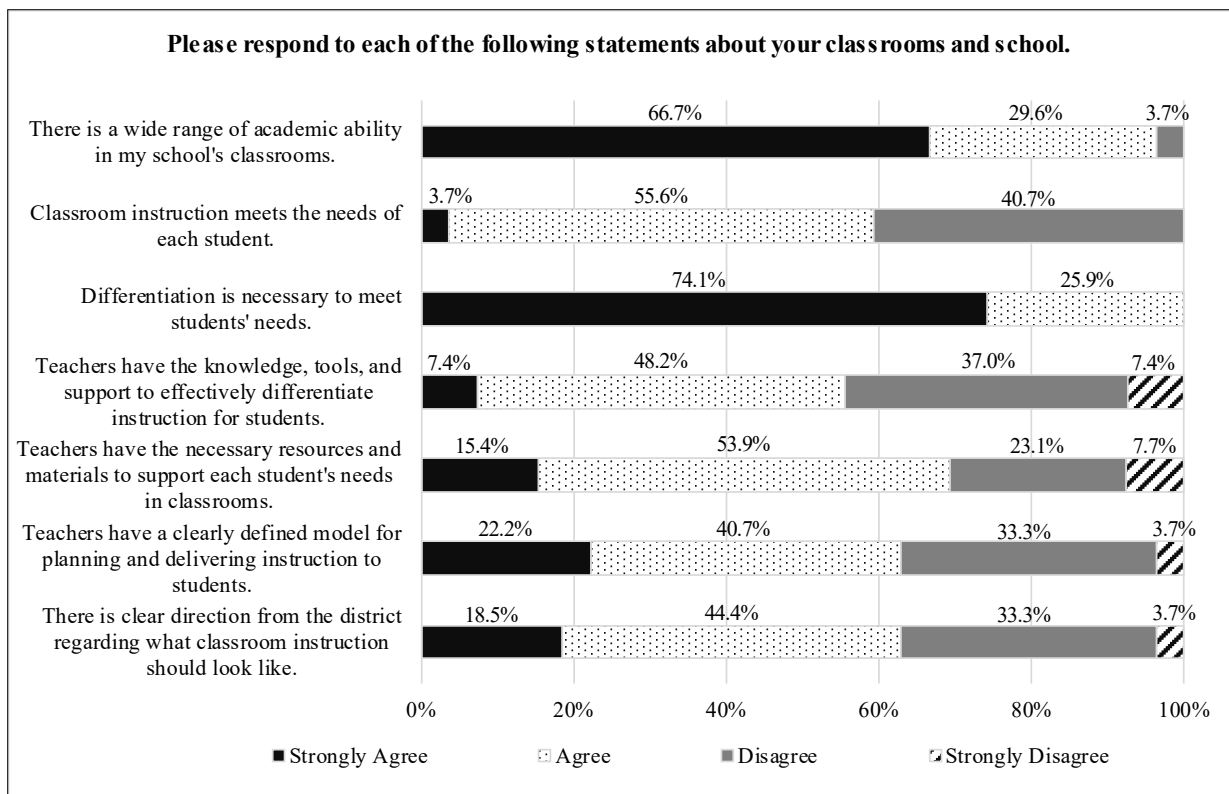
n = 27

The following can be seen in Exhibit 3.2.12:

- One hundred percent of principals agreed or strongly agreed that differentiation is necessary to meet the needs of students.

- Regarding academic ability, 96.3% of principals agreed or strongly agreed that there is a wide range of academic ability in district classrooms.

- Thirty-one percent of the principals disagreed or strongly disagreed that teachers have the necessary resources and materials to support each student's needs in classrooms.

- Principals disagreed or strongly disagreed in 37% of the responses that teachers have a clearly defined model for planning and delivering instruction to students, and a clear direction from the district regarding what classroom instruction should look like.

- Almost 41% of the principals disagreed or strongly disagreed that classroom instruction meets the needs of each student.

Teachers were asked questions similar to those in <u>Exhibit 3.2.12</u> regarding instruction. These data are presented in <u>Exhibit 3.2.13</u>. Of the 429 teachers who completed the survey, 296 responded to this question.

Exhibit 3.2.13

Teachers' Responses Concerning Instruction
New Haven Public Schools
April 2019
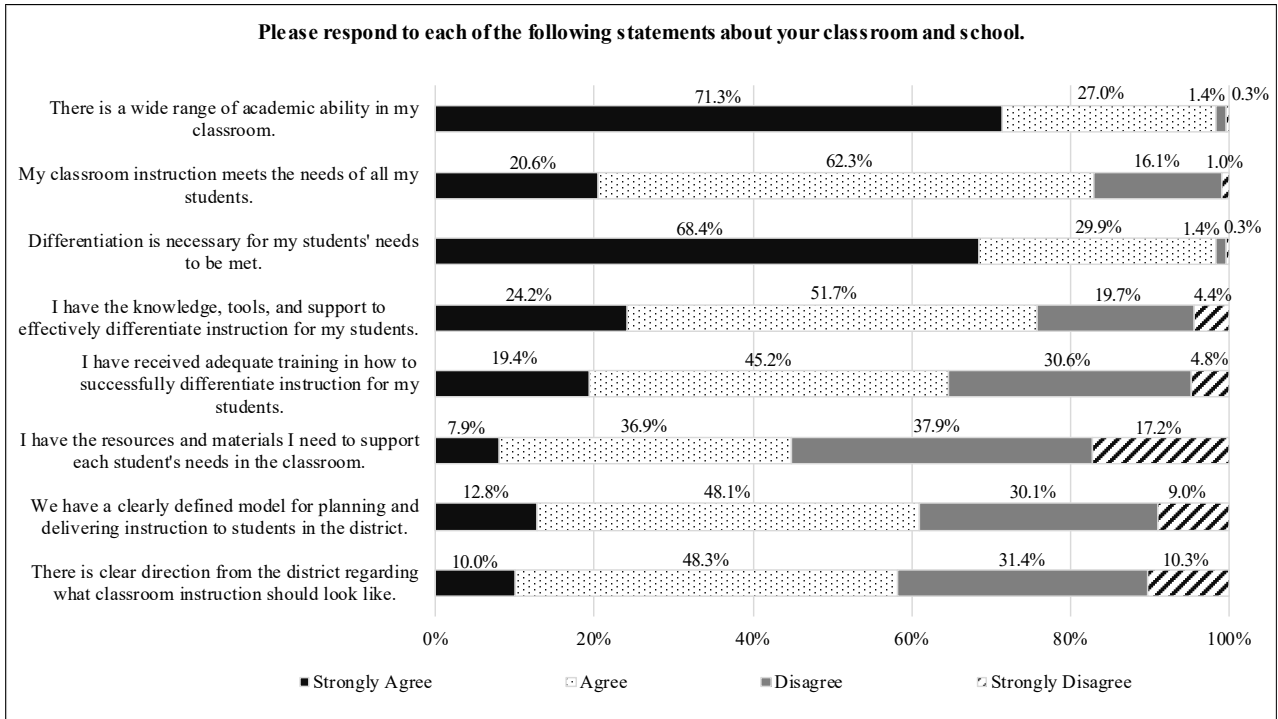
n = 296

As is evident in <u>Exhibit 3.2.13</u>:

- Ninety- eight percent of teachers agreed or strongly agreed that there is a wide range of academic ability in their classroom and that differentiation is necessary to meet students' needs. This closely mirrors the response provided by principals.

- The majority of teachers, 83%, agreed or strongly agreed that classroom instruction meets the needs of each student. Forty-one percent of the principals disagreed or strongly disagreed that classroom instruction meets the needs of each student.

- Teachers agreed or strongly agreed (75.9%) that they have the knowledge, tools, and support to effectively differentiate instruction for students in their classroom. However, almost one-fourth (24.1%) disagreed or strongly disagreed to having the knowledge, tools, and support for effective differentiation of instruction.

- Over 35% disagreed or strongly disagreed that they had received adequate training in how to successfully differentiate instruction for their students. Almost 65% of teachers agreed or strongly agreed with this statement.

- Over one-third (39.1%) of teachers disagreed or strongly disagreed that they have a clearly defined model of planning and delivering instruction to students in the district. Almost 61% agreed or strongly agreed with this statement.

- Almost 59% of teachers agreed or strongly agreed that there is clear direction from the district regarding what classroom instruction should look like; 41.7% disagreed or strongly disagreed with there being clear direction from the district regarding what classroom instruction should look like.

- Just over 55% of teachers disagreed or strongly disagreed with the statement that they have the necessary resources and materials they need to support each student's needs in the classroom.

The auditors asked school administrators about teachers' training on differentiating instruction on the online survey. Twenty-five individuals responded. <u>Exhibit 3.2.14</u> presents these data:

Exhibit 3.2.14

Principals' Responses Concerning Training for Differentiation
New Haven Public Schools
April 2019

Teachers have received adequate training in how to successfully differentiate instruction.
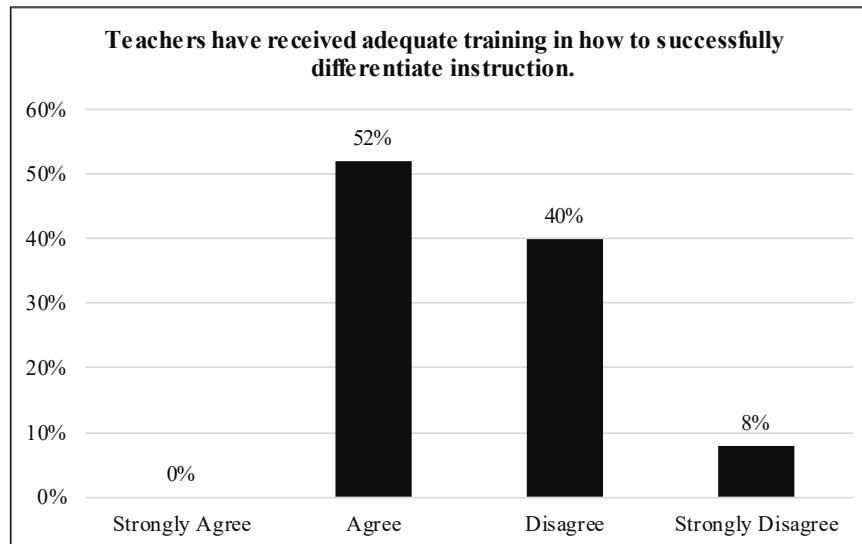
The following can be seen in <u>Exhibit 3.2.14</u>:

- Almost half of all respondents, 48%, disagreed that teachers have received adequate training in successfully differentiating instruction for the various needs of their students.
- Just over half agreed; no respondents strongly agreed with the statement.

Overall, there were mixed responses to the statement that teachers have had adequate training in how to differentiate instruction. The auditors did note that differentiation and small group instruction, via the workshop model, have been a major focus for elementary literacy in the last few years and a new area of focus for mathematics, as well. However, this has been limited to elementary, and implementation in reading is still not comprehensive. Comments about the quantity of training in this area included:

- "We've provided a lot of training for teachers, especially in literacy." (Central Office Administrator)
- "Tons of training for differentiation through Reader's Workshop. We have grade level meetings and choose leveled books for students." (School Administrator)

Others who see the need for more training in this area stated:

- "We have to start building capacity around developing teachers of reading instruction." (Central Office Administrator)
- "The SRBT is overwhelmed because of Tier 1 instruction issues. The process is good; training is lacking." (Central Office Administrator)

Improving instruction is seen as a definite need. Differentiation has been a major area of focus for elementary literacy, but the needs persist. As one administrator mentioned, "They [principals] see instruction that should not be occurring. Principals are struggling about what to do. There is not a systematic approach on how you identify teachers who need support and give it."

Exhibit 3.2.15 shares additional data from the principals' online survey regarding differentiation, teacher training, and teacher efficacy. Twenty-six of the 44 principal participants responded.

Exhibit 3.2.15

Principals' Responses Concerning Efficacy
New Haven Public Schools
April 2019
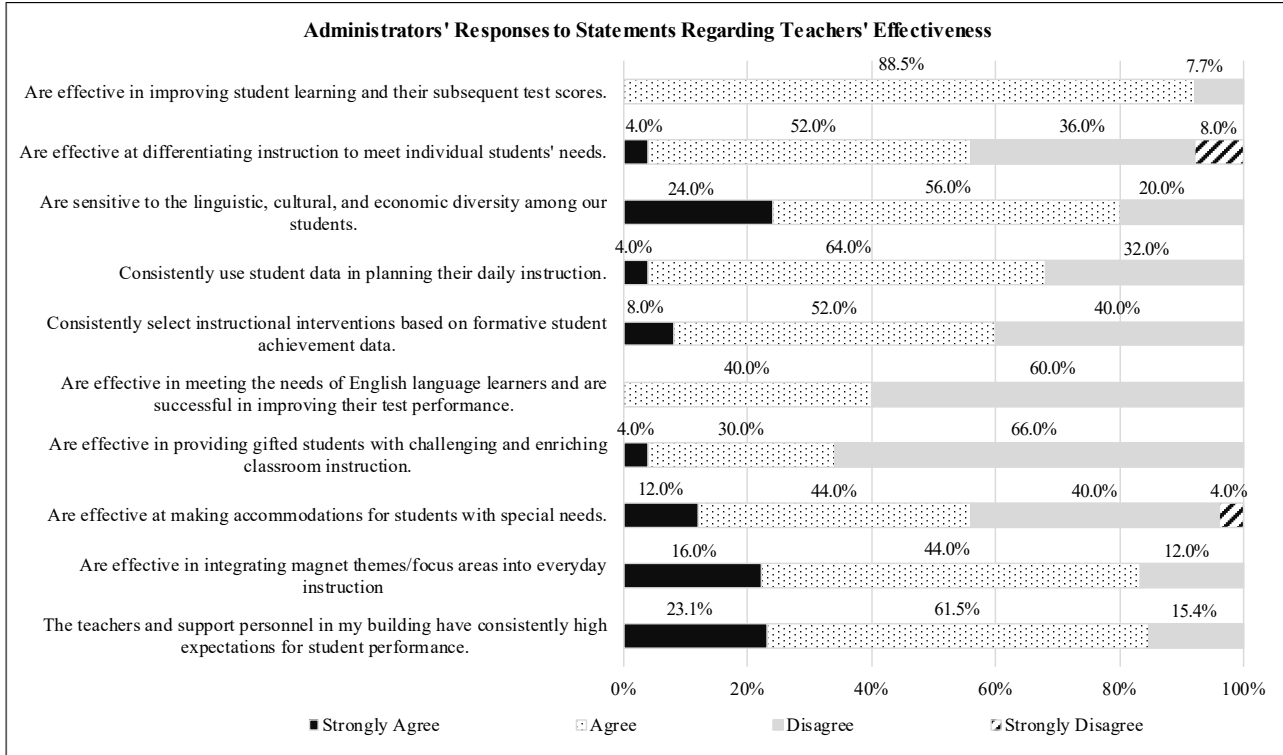
n = 26

This exhibit presents the following data:

- Just over 88% of principal respondents agreed or strongly agreed that their teachers were effective in improving student learning and their subsequent test scores.

- Almost 85% agreed or strongly agreed that teachers and support personnel in their building have consistently high expectations for student performance.

- Eighty percent of principals agreed or strongly agreed that their teachers are sensitive to the linguistic, cultural, and economic diversity of their students.

- Sixty-eight percent of principals agreed or strongly agreed that teachers consistently use student data in planning their daily instruction; 32% disagreed with this statement.

The auditors noted that the responses to the statements listed above were very positive. However, responses to the remaining statements regarding teachers' effectiveness with specific subgroups were much less so.

- Sixty percent agreed or strongly agreed that teachers consistently select instructional interventions based on formative student achievement data and are effective in integrating magnet themes or focus areas into everyday instruction. Forty percent disagreed.

- Forty-four percent of principals disagreed or strongly disagreed that teachers are effective at differentiating instruction to meet individual students' needs and at making accommodations for students with special needs; 56% agreed or strongly agreed. Principal perception regarding this area showed marked disagreement.

- Sixty percent of principals disagreed that teachers are effective in meeting the needs of English language learners and are successful in improving their test performance. This statement had the second-highest level of disagreement from school leaders.

- Regarding teachers' effectiveness with gifted students, principals' responses were the most negative. Two-thirds (66%) disagreed that teachers are effective in providing gifted students with challenging and enriching classroom instruction. Just one-third agreed or strongly agreed with this statement.

A notable percentage (44%) of principals didn't believe teachers were effective at differentiation; 60% did not agree that teachers were able to effectively meet needs of English learners and experience success in improving their test scores. Despite principals' reporting that their teachers have high expectations and are effective at improving student achievement, they were less positive regarding their effectiveness with student subgroups and about teachers' effectiveness at differentiating according to student need.

Principals were asked about the percentage of the teachers in their building that they consider marginal or ineffective at improving student learning. Again, responses to this question did not match responses to general questions regarding teachers' effectiveness noted in Exhibit 3.2.15. The responses to the question about marginal teachers are presented in Exhibit 3.2.16.

Exhibit 3.2.16

Principals' Responses Concerning Marginal Teachers
New Haven Public Schools
April 2019

The percentage of marginal teachers (ineffective at improving student learning) in my school is approximately:

Category	Percentage
0-5%	40.0%
6-10%	40.0%
11-20%	12.0%
21-30%	4.0%
More than 30%	4.0%
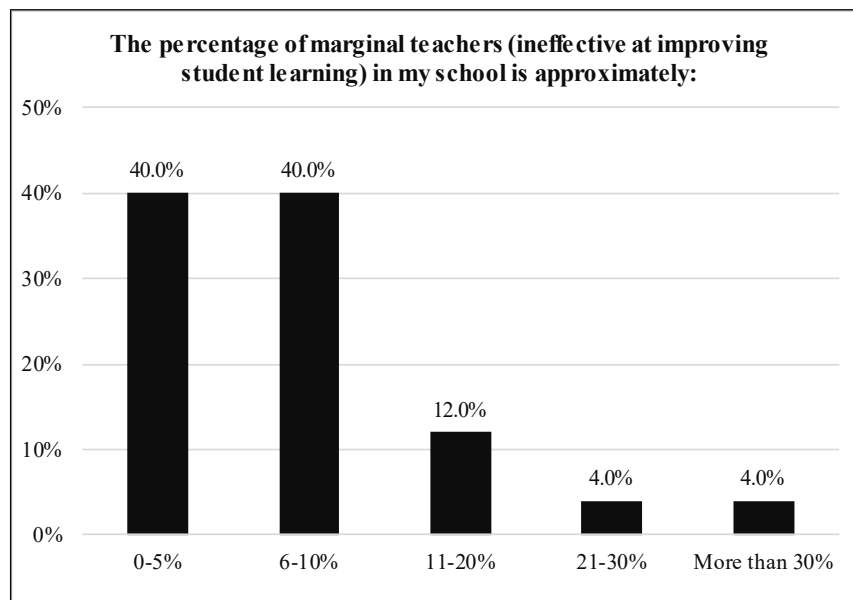
n= 25

Exhibit 3.2.16 shows the following:

- Forty percent of principals indicated that 0-5% of teachers in their building were marginal.

- Forty percent of principals indicated that 6-10% of teachers in their building were marginal.

- Twelve percent of the principals who responded to the survey reported that 11-20% of their teachers were marginal.

- About 4% of the principals who responded to this question reported that 21-30% or more than 30% of their teachers were marginal.

During interviews with the auditing team, stakeholders shared concerns regarding teacher effectiveness. Responses were varied, but every building principal had at least a few ineffective teachers at their school. Others noted more:

- "The evaluation tool ranks teachers from 1-5. Most teachers are a 3-4." (School Administrator)

- "Fifty percent of my teachers are marginal, less than effective; 50% are effective." (School Administrator)

- "Marginal Teachers, maybe 10 [on my campus]." (School Administrator)

- "We do have people who have a lot of knowledge gaps, probably about a third of teachers." (Central Office Administrator)

- "Six out of 32 [of my teachers are marginal]." (School Administrator)

- "Maybe 5 to 6 [teachers] out of 40 [are marginal]," (School Administrator)

- "One out of 14 [teachers are marginal]." (School Administrator)

Overwhelmingly, principals reported having marginal teachers that required additional coaching or resources to support their development. The TEVAL instrument points to areas where support is needed and also reflects the potential negative impact of ineffective teachers, specifically those who have students with identified needs that require differentiated and relevant instructional experiences. Despite principals' responses to interview questions and to the survey regarding the number of marginal or ineffective teachers, TEVAL ratings from the 2017-18 school year did not match these responses. The TEVAL ratings data are presented in Exhibit 3.2.17.

Exhibit 3.2.17

TEVAL Ratings Data
New Haven Public Schools
2017-18
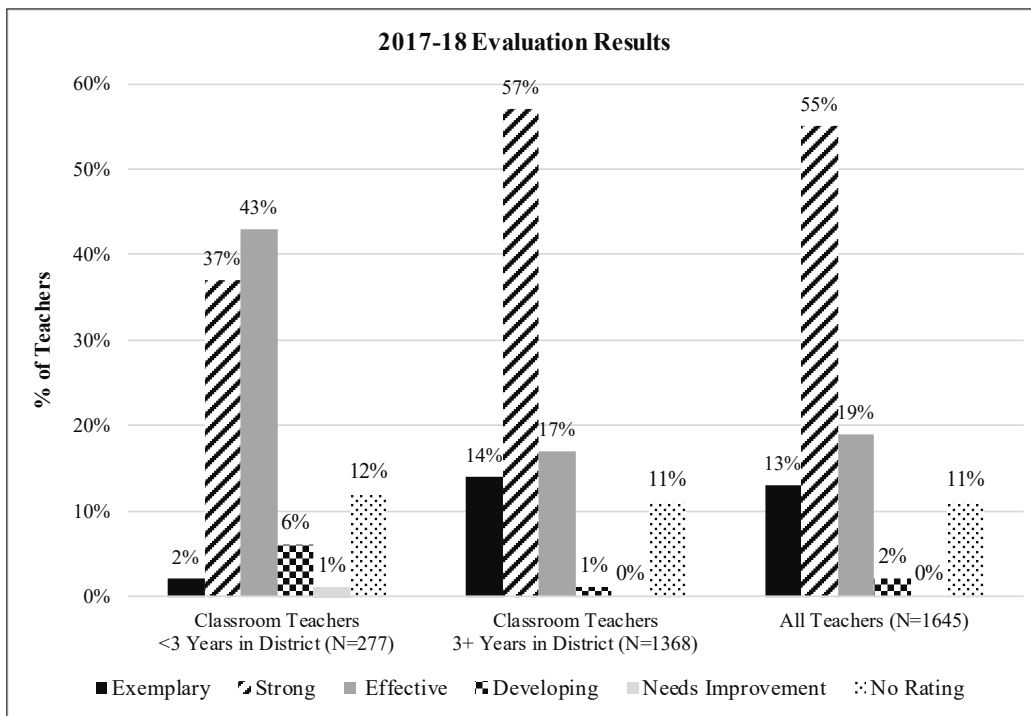
As can be seen in Exhibit 3.2.17, over two-thirds of all teachers were rated by their principal as either exemplary or strong. The remaining 19% were rated effective. Only 2% of all teachers were rated as developing, and none were rated as needs improvement. Eleven percent of the teachers were not rated for this data collection.

Instructional Practices Summary

The auditors found that dominant modes of teacher and student behaviors and student engagement did not consistently reflect district expectations and guidelines. There is insufficient direction and consistency across the system for what effective student learning looks like, particularly with high needs populations and subgroups. Differentiation, although an expectation at the district level, is not sufficiently evident in classroom activities, and cognitive engagement is low (see also Finding 3.5). Although auditors noted some examples of rigorous, high quality engagement at a number of campuses, this was not the dominant type of instruction observed across all campuses. Training and support for teachers are inconsistent, and their preparedness to work with different populations is likewise insufficient (see also Finding 3.4).

Finding 3.3: Programs serving special needs students, including special education, gifted and talented, and English language learners, demonstrate insufficient consistency, inadequate coordination, and overall program ineffectiveness.

Serving the needs of all students in any school system is a complex responsibility. Many factors contribute to each student's success and challenges, and all must be considered when designing and delivering effective programs to ensure all students' learning, particularly when the students require modifications for them to access content successfully. These students include those who are learning English as an additional language (English language learners, or ELL), those who have a disability or challenge (special education or students with Section 504 plans), or gifted and talented students. The most effective programs for these students are those that are based on a philosophy of student learning that is rooted in research, focused on ensuring equal access to programs and curriculum, and that have clear expectations and procedures for implementation. Successful programs have clearly defined goals for student progress in content mastery, cognitive challenge and development, language skills, and include an instructional model with expectations that lessons be planned in response to data and student need, and that instruction be modified or accommodated to ensure student success.

Effectively educating students with special needs, such as English language learners, talented and gifted students, and students who receive special education services, requires multiple factors, all dependent on each child's needs as well as their observed strengths. For example, many gifted students require additional cognitive challenges that are presented by the types of activities and cognitive engagement of the projects they are assigned, rather than the quantity of assignments they receive. For English learners (ELs), instruction must focus intensively on language structures, phrasing, mechanics, and vocabulary, simultaneously with content, to assure rapid English acquisition and content mastery. For all students, however, their successful education requires a strong written curriculum that clearly defines the student objectives and provides suggestions for the best approaches and accommodations as well as aligned resources and materials that support those objectives. Appropriate and authentic resources are a critical component for assuring students' academic success and supporting student learning in any content area that is differentiated according to their need. Without proper books and text materials, effective instruction is almost impossible. Strong written curriculum must also include a comprehensive battery of authentic, formative assessments that teachers rely on to yield information on individual students' strengths and gaps; to individualize instruction; and monitor student progress in their cognitive development, content mastery, and language proficiency.

In effective programs, research regarding how students' needs are best met in various contexts and which strategies and means are most effective for differentiating activities and integrating language development and cognitive complexity serves as the foundation for program models, philosophy, and implementation.

The auditors examined each of the three programs: special education (including Section 504 and the Response to Intervention (RtI) program), English learner, and talented and gifted programs, to determine the level of planning and coordination of these programs at the district level. The auditors sought to determine the extent of coordinated direction for teachers, the consistency of implementation of the programs across schools throughout the district, and the overall quality of each program. The auditors reviewed documentation related to each of the three programs, as well. Interviews were conducted with pertinent professional staff, students, and parents. Assessment results and anecdotal data were examined to determine the overall effectiveness of each program.

The auditors expected to find a clear, written, detailed plan for each program, directing teachers and administrators in all facets of program implementation, grounded in research, including: philosophy and rationale; unbiased, clear identification processes, compliant with regulations and statute; specific parameters for program models and suggested approaches; instructional material choices; and a clear, comprehensive plan for evaluating the program's effectiveness in improving student learning.

Each program is discussed in this section of the audit in further detail. Overall, the auditors found no evidence of detailed planning, inconsistency of implementation across schools, and ineffective programs for all three categories of students: special education, talented and gifted, and English language learners.

Special Education

Philosophy, Rationale, Planning, and Direction

The auditors examined all documents provided by the district for evidence of philosophy, rationale, planning, and direction for the special education program. Two policies and one regulation provided direction concerning the rights of students with special needs. *Regulation 6171a: Special Education* requires that "the Superintendent develop a comprehensive plan for compliance….This plan is contained in the Pupil Services Handbook." *Policy 6181: Evaluation of Special Education Program* requires an annual report to the board with recommendations for improvement. *Policy 6159: Individual Program/Special Education Program* requires a Pupil Personnel Handbook.

Although required by board of education policy, no comprehensive Pupil Services Handbook or Pupil Personnel Handbook was presented to the auditors. A document titled *New Haven Public School Manual* was provided, with some information regarding special education processes. The heading of this document is *Section 1: Understanding Special Education.*

This document is unfinished and undated. For example, the section of the document, "IEP Development 101," contains the phrase, "Info from [person's name]," but is not described in a formal way. Sections at the end of the 10-page document, "Resolving Student Issues or Concerns, Parent Rights and Responsibilities," and "Complaint Process" are blank. In this document, although some direction for special education is provided, the special education program leaders have not outlined for teachers and administrators the district's approved program models, nor have district leaders outlined a philosophy for special education services that is grounded in research (e.g., co-teaching, push-in, or pull-out). Documents provided to the auditors did not provide sufficient guidance on any facet of special education program design.

Without written, explicit direction regarding what special education procedures and models should look like, and instructional expectations across schools throughout the district, variance in program design and delivery can be expected. This variance may not assure quality, equitable programming for all students. Currently, special education enrollment is disproportional to the student population, indicating issues with identification and service delivery (see Finding 3.1).

Special Education Identification

New Haven Public Schools is an urban, high-needs school district. In districts such as these, nationally, the identification rates of special needs students tend to be higher than the state average identification rate. In New Haven, auditors found the identification rates to be lower than the state average and a comparable, high-needs, urban district.

In the exhibit below, a five-year comparison of special education student identification rates is provided. New Haven identification rates are compared to the State of Connecticut and Hartford Public Schools identification rates. Hartford was chosen for comparison with New Haven as it is a large, urban, high-needs district in Connecticut with similar demographics. Also, the Connecticut State Department of Education has identified both New Haven and Hartford as Alliance Districts, or 2 of the 30 lowest performing districts (see Connecticut Department of Education, https://portal.ct.gov/SDE/Lists/Alliance-District-Approved-Plans/2018-2019-Plans).

Exhibit 3.3.1

Special Education Identification Rates
New Haven Public Schools, Hartford Public Schools, and the State of Connecticut*
New Haven Public Schools
2013-14 to 2017-18

School Year	New Haven	Hartford	Connecticut
2013-14	11.6	15.8	12.8
2014-15	12.5	16.2	13.3
2015-16	13.0	17.0	13.7
2016-17	13.5	17.9	14.3
2017-18	14.3	18.1	14.8
District Profile and Performance Reports, 2014-2018			

In Exhibit 3.3.1, both Hartford and Connecticut rates of identification are higher than New Haven Public Schools special education identification rates over the last five school years for which state reporting is complete. The district has been commended for not over-identifying students for special education. Although numbers are appropriate, there remains concern regarding the qualifying of services. This demographic data from the Connecticut State Department of Education website appears to support the concerns shared by the personnel interviewed by the auditors.

In interviews, teachers, administrators, students, and parents stated the following regarding identifying special education students and intervention procedures:

- "[Special education] misidentifies due to Tier I issues." (Administrator)

- "Teachers think more students need special education identification. The political climate says we are over-identifying." (Principal)

- "The [identification process] is overwhelmed because of Tier 1 instruction issues. The process is good; training is lacking." (Administrator)

- Regarding special education identification: "[There is an] emphasis on number reduction." (Administrator)

- "Teachers and principals have been told students are too young to qualify [for special education services]." (Teacher)

- "Our process for classifying and declassifying students is haphazard, not race blind, and does not allow for my students who need support to access support." (Administrator)

- "We are doing a disservice to kids. Kids are not served." (Teacher)

In summary, auditors examined five years of data regarding identification rates in Connecticut, a similar school district, and in New Haven. Educators in the New Haven Public Schools generally state that the special identification rates are too low, and the auditors found that students from certain subgroups are either over-identified or under-identified (see Finding 3.1).

Section 504 and Interventions for Struggling Students

As part of the Individuals with Disabilities Act (IDEA), Response to Intervention (RtI) or Scientific Research-Based Intervention (SRBI) has been implemented nationwide. Presented with a student who is struggling in any area of the school day (academically, behaviorally, emotionally, etc.), a multidisciplinary team of professionals meets to discuss possible interventions to assist the child under the auspices of regular education. While special education personnel may be involved in the team and may be involved in assisting with interventions, RtI is a general education responsibility. In many districts, this process becomes the responsibility of special educators as they have the expertise and procedural structures in place to manage the program.

Section 504 is another program that often falls under the control of the special education department in the public schools, although it is not a program for students who need specialized instruction under IDEA. Section 504 is civil rights legislation that is part of the Americans with Disabilities Act (ADA), providing reasonable accommodations for those students who have a disabling condition interfering with a life function (walking, breathing, learning, etc.).

Whether New Haven Public Schools assigns responsibility to the special education department or other departments for monitoring and implementing the RtI process or Section 504 Program is not the essential question here. Auditors address RtI and Section 504 in this section as the programs are very closely related to special education, and both programs provide accommodations to assist students struggling with issues that interfere with learning.

As with any program, the auditors would expect to find a clear, written, detailed plan for Section 504 and RtI processes and programs, directing teachers and administrators in all facets of program implementation, philosophy and rationale, identification of students, program model and suggested approach, material choices, and program evaluation procedure and results - all clearly tied to pertinent research.

The auditors did not find a comprehensive plan for the Section 504 Program. The program is not mentioned in board policy. The program is mentioned in the *New Haven Public School Manual,* which is the beginning of a special education manual described above. In this document, a chart titled "The Difference Between Section 504 and an IEP" describes the difference between a Section 504 Plan and an Individualized Education Program or Plan (IEP). The auditors were not presented with any other documents regarding the 504 Program.

No documents provided to the auditors clearly described either the RtI or Section 504 processes and related procedures. Intervention programs and materials appear to vary between schools and grade levels. It was reported to the auditors that different schools and different grades within schools have different programs and materials to assist struggling learners. Without written, explicit direction regarding procedures, what Section 504 and RtI procedures and models should look like, and instructional expectations across schools throughout the district, variance in program design and delivery can be expected. This variance may not assure quality, equitable programming for all students.

When asked about the effectiveness of the RtI process, over half (54%) of the 280 district teachers who responded to the question stated that they disagreed, strongly disagreed, or didn't know if the RtI process is effective for learners who are struggling.

Teachers and administrators throughout the district were interviewed by auditors and provided with an online survey. When asked about interventions and assistance for struggling students, they relayed the following:

- "There is no real intervention plan for the high school." (Administrator)
- "A large percentage of students need interventions." (Administrator)
- "There are different interventions by…school." (Administrator)
- "There is an inconsistency in interventions." (Administrator)
- "There is no math intervention program in the district." (Teacher)
- "We have to create our own intervention model." (Teacher)

- "Struggling students are not supported. Some kids don't have a lot of help." (Student)

- "Many struggling students who have gone through intervention after intervention continue to suffer because no one can hire more sp ed teachers so they just don't' test them. Early intervention could also eliminate the need for this but we are just told to do interventions that are not always effective and just keep pushing students along who need more help." (Teacher, online survey)

- "Our RtI process is in place; however, closing out and documenting the intervention cycle results has fallen a bit short this year." (Teacher, online survey)

Others attested to the effectiveness of the interventions in the schools:

- "The RtI process is effective for learners who are struggling." (Administrator, online survey)

Regarding Section 504 and interventions for struggling students, the auditors were not provided with written plans or district-created documents to guide teachers and principals in the application of uniform, effective, research-based intervention services to struggling learners or the application of Section 504 statutes and regulations beyond the system for elementary English language arts. This plan comes from the ELA department within Curriculum and Instruction and not from Special Education leadership. Without direction from central office, each building principal and staff can decide what interventions to make available to students when the need differs from a reading or language arts need; auditors also found that implementation of interventions for ELA is not consistent. Teachers and principals report that some buildings do not have interventions to support struggling students in those buildings. This variance in approach may not provide adequate assistance to students who require additional support to remediate their learning issues. Section 504 program effectiveness is further addressed in the next section.

Special Education and Section 504 Program Effectiveness

Auditors next examined the evidence surrounding program effectiveness for the New Haven Public Schools Special Education Program. Program effectiveness was determined through student achievement data, interview data, and survey data. Achievement data were provided by the district and retrieved from the Connecticut State Department of Education website. Interviews were conducted with pertinent district personnel, parents, and students. Surveys were provided to teachers and principals. These data create the basis for the determination that the special education program in the New Haven Public Schools is ineffective.

Each year, the Connecticut Department of Education provides New Haven Public Schools with an annual report about special education performance and compliance titled *Annual Performance Report on Connecticut's State Performance Plan*. Reports for the school years 2010-11 through 2017-18 were provided to the auditors. Trend data were compiled by the auditors in Exhibits 3.3.2, 3.3.3, 3.3.4, and 3.3.5.

Exhibits 3.3.2 and 3.3.3 present the participation rates for the district's special education students from the years 2011-2015 and 2016-2018, respectively.

Exhibit 3.3.2

Special Education Student Participation Rates
New Haven Public Schools
2011-2015

Date	Indicator	District Data	Statewide Target	Met Target	Substantially Compliant	Making Progress	Not Met
5/2011	CT Mastery Test Participation Rate						
	Reading	99.5	95	X			
	Math	99.5	95	X			
	CT Academic Performance Test Participation Rate						
	Reading	92.5	95				X
	Math	91.8	95				X
7/2012	CT Mastery Test Participation Rate						
	Reading	98.4	95	X			
	Math	98.6	95	X			
	CT Academic Performance Test Participation Rate						
	Reading	87.6	95				X
	Math	88.1	95				X
3/2013	CT Mastery Test Participation Rate						
	Reading	98.9	95	X			
	Math	99.5	95	X			
	CT Academic Performance Test Participation Rate						
	Reading	89.1	95				X
	Math	87.4	95				X
6/2014	CT Mastery Test Participation Rate						
	Reading	98.8	95	X			
	Math	98.7	95	X			
	CT Academic Performance Test Participation Rate						
	Reading	89.4	95				X
	Math	91.3	95				X
6/2015	CT Mastery Test Participation Rate	NA	NA				
	CT Academic Performance Test Participation Rate	NA	NA				

New Haven Public Schools has consistently met state targets for participation in assessments on the CT Mastery Test; however, the district has been unable to meet participation targets on the CT Academic Performance Test. In 2015, data were not collected as these tests were replaced by a pilot version of the *Smarter Balance Assessments*. From 2016 through 2018, reporting on these measures changed. Grades 3-8 and grade 11 participation rates were reported on the *Smarter Balance Assessments*.

Exhibit 3.3.3

Special Education Student Participation Rates
New Haven Public Schools
2016-2018

Date	Indicator	District Data	Statewide Target	Met Target	Substantially Compliant	Making Progress	Not Met
6/2016	Participation Rate Grades 3-8						
	ELA	97.6	95	X			
	Math	97.9	95	X			
	Participation Rate Grade 11						
	ELA	71.4	95				X
	Math	73.7	95				X
6/2017	Participation Rate Grades 3-8						
	ELA	97.03	95	X			
	Math	96.25	95	X			
	Participation Rate Grade 11						
	ELA	76.63	95				X
	Math	76.63	95				X
6/2018	Participation Rate Grades 3-8						
	ELA	98.94	95	X			
	Math	97.97	95	X			
	Participation Rate Grade 11						
	ELA	82.81	95				X
	Math	82.81	95				X

While New Haven Public Schools has increased the participation rates on grade 11 assessments from 71.4% in ELA and 73.7% in math in 2016 to 82.81% in both ELA and math in 2018, the district has not met state participation targets at this grade level. In grades 3-8, the district has consistently met participation targets on statewide assessments.

Exhibits 3.3.4 and 3.3.5 present the proficiency rates attained by the district's special education students from the years 2011-2015 and 2016-2018, respectively.

Exhibit 3.3.4

Proficiency Rates of Special Education Students
New Haven Public Schools
2011-2015

Date	Indicator	District Data	Statewide Target	Met Target	Substantially Compliant	Making Progress	Not Met
5/2011	Proficiency Rate						
	CT Mastery Test						
	ELA	45.5	79				X
	Math	50.8	82				X
	CT Academic Performance Test						
	ELA	37.6	81				X
	Math	28	80				X
5/2012	Proficiency Rate						
	CT Mastery Test						
	ELA	51.1	89				X
	Math	51.2	91				X
	CT Academic Performance Test						
	ELA	45.9	91				X
	Math	30.5	90				X
5/2013	Proficiency Rate						
	CT Mastery Test						
	ELA	50.9	89				X
	Math	51	91				X
	CT Academic Performance Test						
	ELA	28.8	91				X
	Math	27.5	90				X
5/2014	District Performance Index						
	CT Mastery Test						
	ELA	37.7	38.2				X
	Math	36.6	41.8				X
	CT Academic Performance Test						
	ELA	38.6	34.1	X			
	Math	21.4	23.8				X
6/2015	District Performance Index						
	CT Mastery Test	NA	NA				
	CT Academic Performance Test	NA	NA				

In 2011 through 2013, the state reported progress using the special education students Proficiency Rate, or the percentage of students who scored in the Proficient Range on required statewide assessments. During this time, the New Haven Public Schools percentage of identified special education students who scored in the Proficient Range in both English language arts and mathematics was below the statewide targets.

In 2014, the state changed reporting methods from the percentage of special education students who scored proficient or above on the statewide tests to a District Performance Index (DPI), making direct comparison impossible. In 2014, NHPS did meet the statewide targets on the Connecticut Academic Performance Test.

In 2015, data were not collected as these tests were replaced by a pilot version of the *Smarter Balance Assessments*. Results were not reported. From 2016 through 2018, reporting refers to the Proficiency Rate on the *Smarter Balance* tests. Exhibit 3.3.5 presents the data for the years 2016-2018.

Exhibit 3.3.5

Proficiency Rate for Special Education Students
New Haven Public Schools
2016-2018

Date	Indicator	District Data	Statewide Data	Met Target	Substantially Compliant	Making Progress	Not Met
6/2016	Proficiency Rate Grade 3-8						
	ELA	10.6	16.98				X
	Math	9.6	11.88				X
	Proficiency Rate Grade 11						
	ELA	12	19.81				X
	Math	7.8	8.65				X
6/2017	Proficiency Rate Grade 3-8						
	ELA	11.45	17.5				X
	Math	9.45	12				X
	Proficiency Rate Grade 11						
	ELA	17.39	20				X
	Math	7.25	9				X
6/2018	Proficiency Rate Grade 3-8						
	ELA	11.39	18				X
	Math	10.86	12.5				X
	Proficiency Rate Grade 11						
	ELA	15.3	20.5				X
	Math	10.38	9.5	X			

During the school years of 2015-16, 2016-17, and 2017-18, New Haven Public Schools did not meet the statewide performance targets, except for math in grade 11 during the 2017-18 school year.

Connecticut State Department of Education provides a District Performance Index (DPI) on an annual *District Profile and Performance Report for School Year 2017-2018* for the New Haven School District. In this report, assessment data for students with disabilities and students without disabilities are compared. In English Language Arts, students without disabilities earned a DPI of 60.8, while students with disabilities earned a DPI of 42.6. In mathematics, students without disabilities earned a DPI of 52.9, while those students identified as having a learning issue earned a DPI of 36.3. More detailed analyses of achievement data are available in Finding 4.3.

Teachers and principals were asked to respond to statements regarding special education programming. Exhibit 3.3.6 presents data regarding teachers' perceptions of planning for special education and about their training and support for students with 504 plans or IEPs.

Exhibit 3.3.6

Teachers Responses Regarding Programming for Students with Special Needs
New Haven Public Schools
April 2019
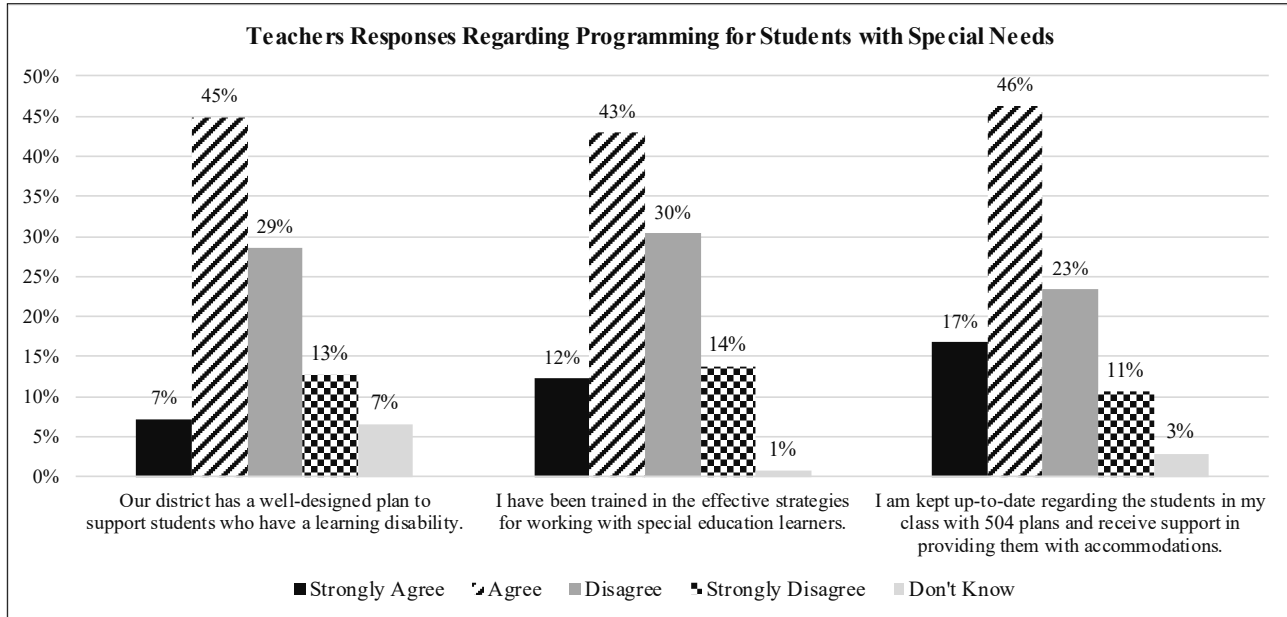
Teacher responses to the three prompts in Exhibit 3.3.6, regarding programming for students with special needs, show that there is high disagreement regarding support and clarity of programming. The following was noted:

- Regarding students on Section 504 Plans, 34% of teachers responded that the district does not keep them up-to-date or support their efforts to instruct these students.

- Over 60% agreed or strongly agreed that they are kept up to date and that they receive support.

In response to the prompt, "I have been trained in effective strategies for working with special education learners," the auditors noted the following:

- Forty-four percent of teachers disagreed or strongly disagreed that they are sufficiently trained to provide effective instruction to special education students.

- Just over half (55%) reported that they agreed or strongly agreed with this statement.

When asked whether the district has a well-designed plan to support students who have a learning disability, disagreement was highest. The following was noted:

- Approximately 49% of teachers disagreed, strongly disagreed, or did not know if the district has a well-designed plan to support these students.

- Just over half, 52%, agreed or strongly agreed that the district has such a plan.

The auditors posed another survey question regarding special education programming to teachers and principals. School personnel were asked to rate the overall quality of the special education programs on their campus. Exhibit 3.3.7 displays these teacher and principal responses.

Exhibit 3.3.7

Teacher and Principal Survey Response
Regarding Quality of 504 Plan and Special Education Programming
New Haven Public Schools
April 2019
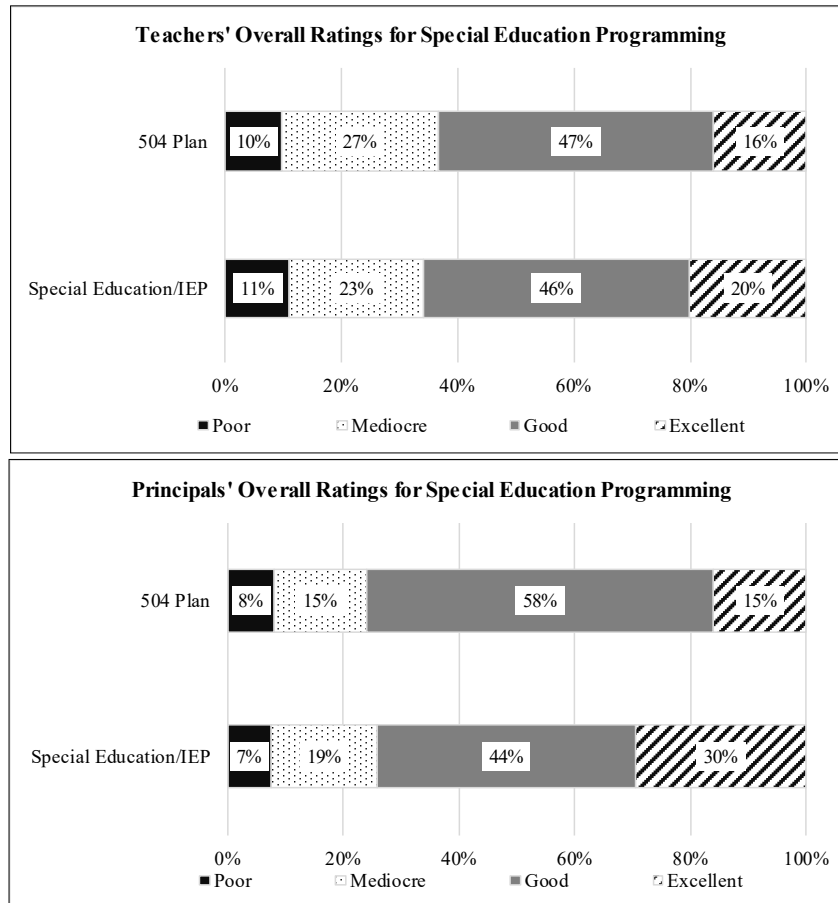
As shown in Exhibit 3.3.7:

- Thirty-four percent of teachers stated that special education programming was poor or mediocre.

- Sixty-six percent of teachers stated that special education programming was good or excellent.

- Twenty-six percent of principals rated the special education programming in New Haven as poor or mediocre.

- Seventy-four percent of principals rated special education programs as good or excellent.

There was disagreement among teachers and principals regarding their perception of the overall quality of special education programming. Regarding 504 services:

- Thirty-seven percent of teachers stated that the 504 program was poor or mediocre.

- Sixty-three percent of teachers agreed that 504 programming was good or excellent.

- Twenty-three percent of principals stated that 504 planning as poor or mediocre.

- Seventy-three percent of principals stated that 504 planning was good or excellent.

Overall, principals rated the special education and Section 504 programs as more effective than teachers. However, one-third of teachers and one-fourth of principals do not feel the programs are effective, which is a high level of disagreement across the district concerning the quality of these services..

While further investigating the effectiveness of special education programming, interviews were conducted with teachers and administrators. Online questionnaires were provided to professional staff as well. Responses related to the low quality or inadequate services for special education included the following:

- "I wish I knew more about supporting special education students and our special education teachers could push-in to support the students instead of pulling out and [they're] missing Tier 1 instruction. We don't have time to collaboratively plan so the students are missing that instruction and I am not sure what they do while out of the classroom. We need more collaborative time when planning for the whole student." (Teacher, online survey)

- "Our special education teacher has been out over 35 days this year and a similar amount last year. She seldom provides consistent services." (Teacher, online survey)

- "Our support services [SPED] is [sic] outstanding." (Teacher, online survey)

- "Students with 504s who are meant to be working with social workers and psychologists are most often NOT meeting their time." (Teacher, online survey)

- "I don't feel we do well meeting the needs of our special ed students unless they have a learning disability." (Principal)

- "We have kids in our building that we can't adequately service." (Principal)

There were also comments regarding the lack of support or training for teachers so they could better serve special education students:

- "We have a lack of support for special education needs for students." (Administrator)

- "Special education is mediocre only because they are never given the support they should receive in order to do their job with fidelity." (Teacher, online survey)

- "The lack of training in the areas of special education and ELL…hasn't supported all the diverse needs we face." (Administrator, online survey)

- "Have not experienced support [for meeting needs of special education students]." (Teacher, online survey)

There were also concerns over adequate staffing for the program, resulting in students not being served:

- "Due to staffing issues sped paraprofessionals are used as subs and students are not getting their accommodations." (Teacher, online survey)

- "[We have] great [special education] staff…not enough of them and/or enough time for them to meet the needs of all students." (Teacher, online survey)

- "[There is] not enough support for kids with special needs." (Teacher)

- "Like I indicated before, there is [sic] not enough teachers for the amount of special education kids we have to cover all their hours." (Teacher, online survey)

While a few teachers and administrators were positive in their remarks, the majority of respondents raised concerns. Interview and survey responses are divided but support auditors' findings that special education, RtI processes, and Section 504 programming in the New Haven Public Schools are inconsistently delivered and ineffective in meeting the needs of its students. Planning that outlines district expectations for programming and services was not found. Additional information regarding staffing is provided in Finding 3.1.

Special Education Summary

The Special Education program, the Response to Intervention Program, and the Section 504 Program do not have supporting documentation to provide guidance for schools and staff. Variance in intervention opportunities appear among schools and grade levels. The special education program has not been effective in closing the achievement gap between students with disabilities and students without disabilities.

Gifted and Talented Education

Philosophy, Rationale, Planning, and Direction

As with any program, the auditors expect to find a clear, written, detailed plan for the Talented and Gifted Program in the New Haven Public Schools directing teachers and administrators in all facets of program implementation, philosophy and rationale, identification of students, program model and suggested approach, material choices, and program evaluation procedure and results - all clearly tied to pertinent research.

The auditors did not find a comprehensive plan. The Talented and Gifted Program is not mentioned in board policy. One document titled "TAG Identification Process" was provided to the auditors. This document did not provide a comprehensive plan, but an identification procedure, which is discussed in the next section.

Identification of Talented and Gifted Students

New Haven Public Schools provided a document titled "TAG Identification Process." It states, "…every child in grades 3-7 is available for inclusion in the TAG program for the following fall when they are 4th -8th graders." The document continues, "Our identification is a multi-criteria process." Assessments used for identification were listed as follows:

- The Scholastic Reading Inventory.

- A list of students designated as advanced math students.

- Teacher recommendations.

Following this screening, the document then delineates testing by the Otis-Lennon School Ability Test between January and March, when the top scoring students are designated talented and gifted.

Connecticut law defines talented and gifted children.

> Sections 10-76a-1, 10-76a-2, 10-76b-1 to 10-76b-4, inclusive, and 10-76d-1 to 10-76d-19, inclusive, of the Regulations of Connecticut State Agencies. The following words shall have the following meanings:
>
> (1) "Extraordinary learning ability" means a child identified by the planning and placement team as gifted and talented on the basis of either performance on relevant standardized measuring instruments, or demonstrated or potential achievement or intellectual creativity, or both.
>
> (2) "Gifted and talented"' means a child identified by the planning and placement team as (A) possessing demonstrated or potential abilities that give evidence of very superior intellectual, creative or specific academic capability and (B) needing differentiated instruction or services beyond those being provided in the general education program in order to realize the child's intellectual, creative or specific academic potential. The term shall include children with extraordinary learning ability and children with outstanding talent in the creative arts.
>
> (3) "Outstanding talent in the creative arts" means a child identified by the planning and placement team as gifted and talented on the basis of demonstrated or potential achievement in music, the visual arts or the performing arts.
>
> (Effective April 24, 1991; Amended February 4, 2005; Amended July 1, 2013)

Identification calls for a Planning and Placement Team (PPT) meeting, as in special education. A parent is not a required member of this team. Up to 10% of the student body can be identified. All students in grades kindergarten through 12 are to be included in the identification process.

Considering this legislation, New Haven Public Schools is out of compliance with the mandated identification process outlined by the Connecticut Department of Education in the following areas:

- All grades are to be included in the identification process. New Haven includes only grades 3-7 in the identification process for placement in grades 4-8.

- A Planning and Placement Team is required to determine TAG status. New Haven has no mention of this in its protocol for identification.

- Students are to be considered for placement based on the need for differentiation, creative talent, and/or extraordinary learning ability. New Haven identifies only those who are capable of outstanding academic performance.

Up to 10% of students can be identified as talented and gifted in any public school district in Connecticut, according to the State Department of Education. For New Haven with some 22,000 students, that figure would be approximately 2,200. According to documents presented to the auditors, New Haven Public Schools currently identifies 1,055 students as talented and gifted (approximately 5% of the population in grades 4-12). In addition to the low number of students identified, the auditors found that ethnic representation in the talented and gifted program is not proportional with district enrollment (see Finding 3.1), nor is gender representation.

Teachers, administrators, and parents commented on the identification procedures and the need to improve identification for students of color and for serving students in more grade levels. These comments included:

- "The majority of students in TAG are [not] students of color." (Principal)

- "Parents of color have tried to get students identified." (Principal)

- "The TAG program does not affect Pre-K students." (Teacher, online survey)

- "There needs to be a better way to test for TAG." (Teacher, online survey)

- "TAG [identification] is political. Input counts." (Teacher)

- "TAG should be in all grades K-12." (Teacher, online survey)

- "Our gifted program does not service students in my grade." (Teacher, online survey)

- "I have students who most likely would qualify, but are not provided the opportunity." (Teacher, online survey)

The Talented and Gifted identification process in the New Haven Public Schools is not in compliance with state statute and is regarded as ineffective, inconsistent, and unfair by educational professionals and parents.

Talented and Gifted Program Effectiveness

While Connecticut has no mandate regarding services for TAG children, leaving service decisions to the local district, it strongly recommends classroom differentiation to meet the needs of these children. The auditors observed little to no differentiation during classroom visits. The majority of student groupings were whole group; less than 16% of classroom observations had students working in small groups in which gifted students might be served.

Principals and teachers were asked to rate the effectiveness of the talented and gifted programming in the New Haven School District via an online survey. Exhibit 3.3.8 displays teachers' and principals' perceptions regarding the overall quality of services for talented and gifted learners.

Exhibit 3.3.8

Teacher and Principal Survey Response Regarding Talented and Gifted Education
New Haven Public Schools
April 2019
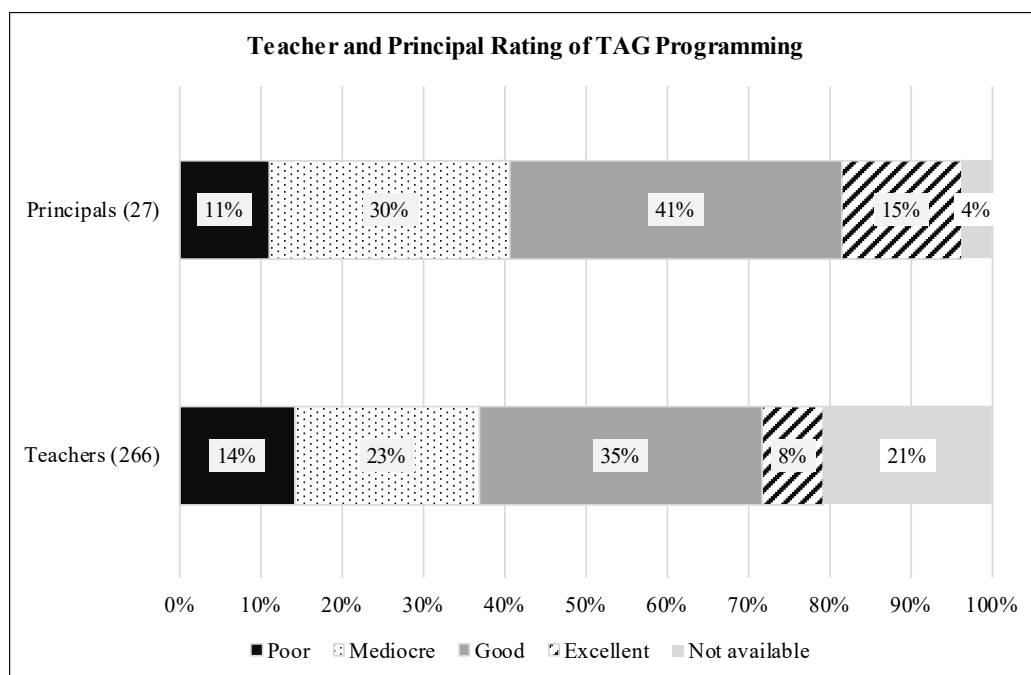
As seen in Exhibit 3.3.8:

- Less than half (43%) of teachers rated the TAG program good or excellent, while over half (56%) of school leaders reported the program to be good or excellent.

- Over one-fifth of teachers, 21%, reported the program is not available in their school, and 4% of principals reported the same.

- An almost equal percentage of each group, 37% of teachers and 41% of principals, reported the TAG program to be poor or mediocre.

Of all the programs serving special needs, the TAG program was rated the lowest in terms of overall quality and effectiveness.

Teachers were then asked about their preparedness to serve TAG students, training, and clarity of program guidelines.

Exhibit 3.3.9

Teacher Survey Response Regarding Teaching Talented and Gifted Students
New Haven Public Schools
April 2019
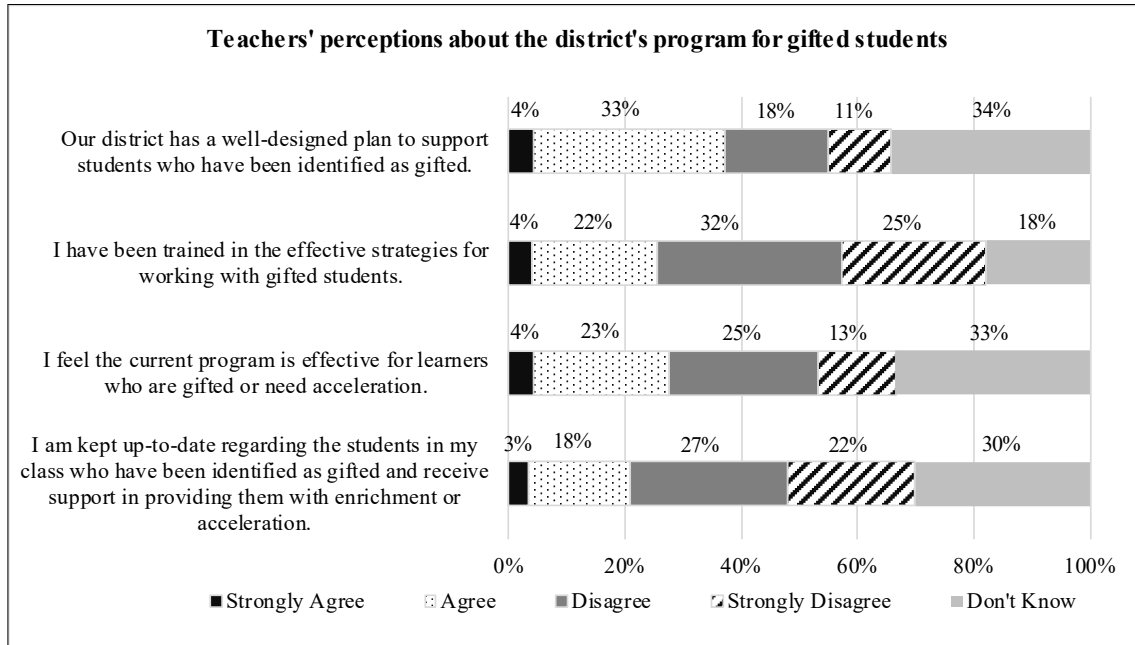
As can be seen in Exhibit 3.3.9:

- When provided the survey prompt, "I am kept up-to-date regarding the students in my class who have been identified as gifted and receive support in providing them with enrichment or acceleration," 79% of teachers responded that they disagreed, strongly disagreed, or didn't know.

- In response to the prompt, "I feel the current program is effective for learners who are gifted or need acceleration," 71% of teachers responded that they disagreed, strongly disagreed, or did not know.

- In response to the prompt, "I have been trained in the effective strategies for working with gifted students," teacher responses were equally negative—75% of teachers disagreed, strongly disagreed, or didn't know whether or not they had received training in strategies to support talented and gifted learners.

- And finally, in response to the prompt, "Our district has a well-designed plan to support students who have been identified as gifted," almost two-thirds, 63%, of teachers responded that they either disagreed, strongly disagreed, or didn't know about district-level planning for talented and gifted students.

Below, comments gathered during interviews of all stakeholder groups and through online surveys of teachers and school leaders attest to perceptions of inadequacy and ineffectiveness of the program. These comments included:

- "TAG (Talented and Gifted) could be strengthened." (Parent)

- "[The] TAG program is ineffective." (Administrator)

- "TAG makes students feel special but there is nothing extra special in what they are doing." (Administrator)

- "There is not enough staffing for adequate EL and Gifted programming." (Teacher, online survey)

- "Gifted is just another place for the smart kids to get more cool stuff." (Teacher, online survey)

- "There is not enough staffing for adequate…gifted programming." (Teacher, online survey)

- "TAG program is awful, kids aren't taken routinely and my student is only scheduled for 10 minutes because she has lunch and it was not accommodated in scheduling." (Teacher, online survey)

- "TAG does not seem to be happening effectively in a way that provides meaningful enrichment for students at our school." (Teacher, online survey)

- "I have no idea if there is a talented and gifted program in our district." (Teacher, online survey)

Gifted and Talented Summary

The Talented and Gifted Program does not meet Connecticut State statutes' requirements for identification, and the existing identification process, outside of the legislation compliance issue, is perceived as biased and ineffective. No written plan for implementation was provided to the auditors. Subgroups are not proportionally represented in the program; students of color are under-identified (see <u>Finding 3.1</u>). The Talented and Gifted Program service delivery is viewed as ineffective by most respondents.

English Language Learners

Philosophy, Rationale, Planning, and Direction

New Haven Public Schools has a large, growing population of students who are learning English as a Second Language. In a PowerPoint presentation prepared by the Bilingual Department of the New Haven Public Schools, dated November 2018, an overview of the status of ELL education in the district was provided. According to this presentation, 19% of students are English learners; 86% of those English learners are Spanish speaking. This presentation demonstrates the increase in the English language learner (ELL) population each year in New Haven from 2,686 in 2012-13 to 3,432 ELL students in 2017-18. ELL students are the largest growing population in the New Haven Public Schools (from ed.site.ct.gov). In the same report, the Bilingual Department lists the number of students receiving services as 3,590, or 16% of the student population.

Serving the needs of English learners (ELLs) in any school system is a complex responsibility. Many factors contribute to each student's success and challenges, and all must be considered when designing and delivering effective programs to ensure ELL students' learning. The most effective programs for ELL students are those that are based on a philosophy of student learning that is rooted in research and that has clear expectations and procedures for implementation. These programs have clearly defined goals for student progress in both English language learning and content mastery, include an instructional model that outlines for teachers the expectations that lessons be planned in response to data and student need, and that strategies be selected that are known to improve language use and development.

Educating ELLs effectively requires monitoring their English development as well as their content mastery, attending to each, making accommodations for students based on their proficiency levels, interests, and background. Teaching ELLs requires a strong written curriculum that clearly defines the student objectives and provides suggestions for the best approaches and accommodations as well as the resources and materials they require. Appropriate and authentic resources are a critical component to assuring academic success. Supporting student learning in their native language, particularly in literacy, is difficult, if not impossible, without the proper books and text materials. Strong written curriculum must also include a comprehensive battery of authentic, formative assessments that teachers can use to plan individualized instruction and monitor student progress in both English and content.

In effective programs, research regarding how students best develop academic English proficiency, which strategies are most likely to elicit language proficiencies, and the proper role of native language literacy and proficiency serves as the foundation for program models, philosophy, and implementation.

To determine the overall quality of ESL/bilingual programming and the effectiveness and consistency of its implementation, the auditors reviewed documentation related to English language learner programming;

interviewed personnel from the pertinent departments, principals, and teachers; and administered surveys to administrators and teachers.

The auditors found documentation related to the implementation of the ELL/bilingual program. *Policy 6141.31: Bilingual/Bicultural Education,* dated August 14, 1995, directs the superintendent to ascertain the number of students and report that number to the New Haven Board of Education, annually, by the dominant language; apply for grants funds; and report the necessary figures to the State Department of Education. This policy further directs the superintendent to create programs for bilingual students if there are at least 20 speakers in any one language category.

Contained in informational PowerPoint presentations, auditors found demographic and descriptive data regarding current programming. A Department Improvement Plan, containing three goal areas—Instructional Supports, Professional Development, and Monitoring and Assessment—was also provided to auditors; this documentation had been developed as part of the Title III grant application.

All pertinent documentation was reviewed against 11 criteria used to evaluate the design of a quality ELL/bilingual program. The criteria and auditors' ratings are presented in Exhibit 3.3.10, followed by the auditors' discussion of the ratings.

Exhibit 3.3.10

**Criteria for Design Quality of Programs and Services
For English Language Learners (ELLs) with Auditors' Rating
New Haven Public Schools
April 2019**

Characteristics of Quality of Design of District-level Plans for Programs and Services for English Language Learners (ELLs)	Auditors' Rating	
There is evidence of…	**Met**	**Not Met**
1. **Direction:** The governing board has placed into policy an expectation that programs and services for ELLs will be designed and delivered in ways that allow students to meet or exceed all standards for English language proficiency and content area mastery as quickly as possible while providing equal access to the core curriculum.		X
2. **Reasonableness and Clarity:** The district's plan/program design is reasonable and sufficient in that it has a feasible number of clear and specific goals and objectives for the resources (financial, time, people) available.		X
3. **Comprehensiveness and Equal Access:** The documentation is designed to meet the needs of ELLs throughout the system to acquire proficiency in academic English through focused English Language Development over a feasible time frame (5-7 years*). The plan provides for students to have full and comprehensible access to the core curriculum through sheltered instruction and/or primary language support. The plan includes an explicit description of the district's instructional models for ELD and sheltered instruction.		X
4. **Rationale:** The district has a rationale for the approach used that would be accepted by proponents in the field.		X
5. **Student Identification and Progress:** Systems are in place for the identification, placement, and monitoring of progress (in English Language Development [ELD] and content areas) of *each* English Language Learner.	X	
6. **Organizational Capacity:** The plan/program design is built on effective staff improvement strategies, particularly in building the capacity of staff to serve the specialized needs of ELLs.	Partial*	

Exhibit 3.3.10 (continued)
Criteria for Design Quality of Programs and Services
For English Language Learners (ELLs) with Auditors' Rating
New Haven Public Schools
April 2019

Characteristics of Quality of Design of District-level Plans for Programs and Services for English Language Learners (ELLs)	Auditors' Rating	
There is evidence of…	Met	Not Met
7. **Special Assistance for Newcomers:** The plan/program design includes provisions for specialized services and support for students entering the district with virtually no prior schooling in English nor any observable English language proficiency to assist with rapid acquisition of survival English and acculturation.	Partial*	
8. **Translation:** The plan/program design outlines a procedure for translating documents, forms, notices, etc., and providing translators as needed for both written and oral forms of communication with parents.	Partial*	
9. **Integration**: The programs and services included in the plan for ELL students are aligned to major district-wide goals and priorities as well as to expectations for all students.		X
10. **Budget:** Budget planning takes into account the needs of ELLs and assigns appropriate and adequate resources to support the programs and services implemented.	Partial*	
11. **Evaluation**: There is a written plan for evaluation of all programs and services for ELLs.	Partial*	
Total Meeting Audit Criteria	**1**	**10**
Percentage Meeting Audit Criteria	**9%**	
*Partial ratings are tallied as not met		
©2018 CMSi		

The following was noted in district documents and services:

Characteristic 1: Direction (Not Met)

The New Haven Board of Education has one policy addressing ELL students. Under the category of Instruction, *Policy 6141.31: Bilingual/Bicultural Education*, dated August 14, 1995, requires the superintendent to meet minimum legal requirements for the education of ELL students. No other components of this criterion are met.

Characteristic 2: Reasonableness and Clarity (Not Met)

Although several documents note program models by title, the auditors did not find clear and specific goals for each program tied to student objectives or outcomes, either in language or in content, beyond the generic goal of English language proficiency. The auditors found no single plan or overarching guide for what the goals of the program are, the expectations and guidelines for implementation, and how implementation would be monitored and evaluated. The only document that somewhat met this criterion was the Title III grant application.

Characteristic 3: Comprehensiveness and Equal Access (Not Met)

The absence of an overarching plan makes locating all components of this characteristic challenging. There are documents identifying the program models; however, these do not explicitly describe the instructional model(s) to be used. Documentation for this characteristic is fragmented and not cohesive. No written provisions to assure equal access to programming for students were found. Students are not matched to programs; the programming a student receives is dependent upon the building where the student attends school.

Characteristic 4: Rationale (Not Met)

The district rationale is not explicitly stated in documents provided to the auditors. Compliance with state and federal statute appears to be the driving force for providing ELL programming.

Characteristic 5: Student Identification and Progress (Met)

The district has a plan for monitoring student progress outlined in the Title III grant. The district evaluates students' progress in English annually, using the state required instrument. The auditors were not provided with any data disaggregated by subgroups and program with the larger ELL subgroup. Detailed disaggregation may provide the district guidance in program effectiveness and strengths and weaknesses within programs. This characteristic was met. Processes for identifying students, however, were not coordinated with student enrollment practices. There is currently no centralized intake center for all students; this is something the new superintendent intends to put in place. At the time of the site visit, any students who registered for school and appeared to need EL support were sent to a different department on a separate floor where there were Spanish bilingual personnel who could assist, but none who spoke other languages. The auditors found no clearly posted signs or documentation explaining EL services and identification practices.

Characteristic 6: Organizational Capacity (Partially Met)

The Bilingual Department provided a spreadsheet delineating multiple trainings for district staff and administrators. One goal of the Department Improvement Plan addresses professional development to improve the delivery of language- and culturally-sensitive instruction. A year-long schedule of professional development for the 2018-19 school year was provided to auditors.

The Bilingual Department can only offer staff development, not require teacher attendance or instructional implementation by all teachers. The Bilingual Department has no authority over the building-level personnel at campuses delivering services to students. It was reported to auditors that teachers are not required to attend training in ELL instruction at either the state or district level.

- "We could require it (EL training) in the district, but we don't." (Administrator)

- "All those things have been offered, but if you asked me if they were well attended, I would say no." (Administrator)

- "For in-service teachers, there's no requirement [for training to work with ELs]. That's a problem in the state that we need to address. The district hasn't made it a requirement. My guess is 25% of teachers have had training. If we offer a faculty training, a teacher may opt in or out." (Administrator)

Without documentation adopted by the board that outlines clear expectations for ongoing training and accountability for every teacher serving ELL students, services may or may not be implemented.

Characteristic 7: Special Assistance for Newcomers (Partially Met)

The district does have a Newcomer Program for recently arrived students. The auditors did not find written direction for this program and its goals, nor any procedures to direct its implementation at schools. It was reported to auditors by the administration that not all students have this program option.

- "If [the] Newcomers [program] is full, students are sent to places that can't support them." (Teacher)

- "If there is no room in the Newcomers Program, we place them in the school closest to home and do what we can." (Administrator)

Characteristic 8: Translation (Partially Met)

The auditors found evidence that there are translation services and translators available for Spanish; however, they found no documentation regarding translation on documents or how staff were to obtain translator services for parent meetings.

- "For the most part we do have contracted interpreters and translators. A lot of times schools translate themselves. I don't have a handle if a particular school is sending something in English only." (Administrator)

- "Sometimes we are using sign language. [The parents] are doing it with signs. They can do just such a tiny bit (of English). Because we can't understand. There is a huge language barrier." (Staff)

The auditors found that the criterion for translation was not fully met for under-represented languages; although district leaders reported having translation services available via phone services, the auditors found no written documentation to assure such support at all schools and levels of the system.

Characteristic 9: Integration (Not Met)

There is no direction in policy and auditors found no documentation that directs all EL/bilingual programs and services be aligned to major district-wide goals and priorities.

Characteristic 10: Budget (Partially Met)

Very recently, the Bilingual Department was created. The allocation of budget resources to create and staff that department is a hopeful sign that resources will be allocated by need in the future.

Characteristic 11: Evaluation (Partially Met)

This characteristic was partially met as the state requires monitoring of students through the statewide assessment, the *Connecticut English Language Proficiency* test (*CELP*), but no plans were found that address evaluating the program, services, or department. There was no disaggregation of data by subgroup or program to determine strengths, weaknesses, or effectiveness, nor any analysis of data aimed at determining the effectiveness of specific program models.

Identification and EL/Bilingual Program Implementation

Differentiation of programming in effective school districts is by design. Not all EL students require the same types and levels of services. Tailoring programs to fit students' needs across campuses is a strength when such programming is in response to demonstrated student need. However, when variation is due to school choice and preference rather than in response to student need, the result is inequity. Students do not then have equal access to programs and services, as the variation in programming is not in response to their need but in spite of it. The auditors found that the district does not have processes in place to assure equal-quality programming in all schools. Identification practices are also not clearly defined.

New Haven Public Schools provided the auditors with a copy of the district's application for the Title III, English Language Acquisition Grant for the 2017-18 school year. In the application, identification tools used in the district were reported as follows: Language Assessment System (LAS) Links, Formal Observation, and an English Language Interview. Principals, staff, and teachers reported that the identification process is not entirely accurate and fails to identify all students in need of assistance.

- "ELLs are not identified. We are trying to get a better identification." (Principal)

- "Bilingual students are under-identified through the central office." (Principal)

- "Not isolated cases; [there are] large numbers not being served [ELL]." (Teacher)

The auditors did not find other documentation that includes district-adopted processes and procedures for identifying students for EL services district-wide.

According to Bilingual Department documentation and interviews with teachers, administrators, and staff, programs and support vary throughout the district. This variance is due to school leader decisions and preference, rather than a response to determined student needs. Personnel reported to the auditors that student needs are not being met and that EL students are not able to fully participate in school choice, as appropriate EL services are not provided, by principal choice, in all schools. Although this practice was not found in documentation, the auditors did find that a number of schools have commensurately low EL enrollments, which would not be possible if school enrollment was truly random (see Finding 3.1). Currently, there are schools with only 2%

of their population identified as English learners, although the district percentage is almost 16%. New Haven Public Schools reports the following programs to serve ELL students by school, displayed in Exhibit 3.3.11:

Exhibit 3.3.11

ELL Programs by School
New Haven, CT Public Schools
April 2019

Transitional Bilingual Education (K-8)	Dual Language (Immersion) (PK-6)	ESOL Support (K-8)	ESOL (English as a Second Language) (K-12)
Self-contained Bilingual Instruction Clemente (7-8) Hill Central (K-3)	Columbus (PK-6) Spanish 7/8 Daniels (PK-6) Spanish and Social Studies 7/8	Barnard Beecher Bishop Woods Celentano	**Middle Schools (6-8)**
Bi-literacy Approach Fair Haven (3-8) Martinez (K-2) Strong (K-3) Truman (K-7)	Fairhaven (K-2) Clinton (K-3) One Way	Clarence Rogers Clemente Clinton Columbus Conte-West Hills Davis East Rock Edgewood Fair Haven Hill Central Jepson Daniels Martinez King-Robinson Lincoln Bassett Mauro-Sheridan Nathan Hale Quinnipiac Ross Woodward Strong Troup Truman West Rock Wexler-Grant Worthington Hooker	**Itinerant ESOL/ Bilingual** Betsy Ross ESUMS
			High School (9-12)
			Itinerant ESOL Career HSC Riverside NHA Sound Metropolitan
			ESOL, Sheltered Content, and WL Hillhouse Wilbur Cross

The district reports that native language support through the internet or a tutor is provided if there are more than 20 students of the same language group, in response to state legislation. However, tutor support is the least effective means of addressing EL needs, and legislation still requires these students to be under the supervision of an EL licensed teacher. However, the auditors were told that several teachers have a student load in excess of 200 students. The 2020 District Staffing Guidelines require one special education teacher for every 20 special education students not self-contained. The same guidelines require one TESOL teacher or tutor (tutors are not certified or licensed, and sometimes not even trained) for every 65 EL students, and one for every 85 EL students at high school (see Finding 3.1).

When asked how schools determine the types of programs that would be offered in their building, the auditors found no clear process. The EL/bilingual department reported that sometimes they provide guidance in developing and establishing programs, but that schools are given total autonomy over what they offer. As one administrator stated, "We had principals who eliminated the program [ELL services] in spite of the kids."

In interviews with auditors, administrators provided the following comments regarding the wide variation of services offered in different buildings:

- "We have families that have to go to four different schools because bilingual isn't offered K-8. If you have kids in different grades, they would be in four different schools." (Administrator)

- "Some people live across the street from a magnet, but they can't go there because they don't have a bilingual program. So they have to be transported to another school." (Administrator)

- "We do not have bilingual programming in every school that is identified as a bilingual school." (Administrator)

- "That has been an inequity since I have been here. I don't understand why [student] can't go to Career because he is ELL." (Administrator)

- "We do not have bilingual programming in every school that is identified as a bilingual school." (Administrator)

- "I have a school that's only dual language at [grades] kindergarten [through] 2. So what happens in third? They just go into third grade, cold. In the past, we've just put them into another school." (Administrator)

Exhibit 3.3.11 shows the wide variance in programs offered at different schools across the district. Again, variance can be a strength when such variance is in direct response to student need. However, the auditors found no linkage between the types of programs offered and the needs of the EL students in the buildings, and there were no written guidelines concerning program models and their intended populations in district documents. EL students have historically not had equal consideration in the School Choice process (see Finding 3.1). These students have limited options because they are identified as English language learners, and the nature of EL programming varies widely in quality and is overall low in effectiveness (see Finding 4.3) when student achievement is considered.

In addition, teachers responded negatively on a survey when asked whether all students have access to the core curriculum through sheltered English instruction or primary language support. Thirty-eight percent stated that they did not feel ELLs were supported sufficiently, and 28% reported they did not know; less than one-third of teachers who responded agreed with that statement.

EL/Bilingual Program Effectiveness

Program effectiveness can be measured by student achievement results on various assessments and perceptions of teachers, administrators, staff, students, and parents. On state assessments, ELL students lag behind their non-ELL peers. On the state-provided report, *District Profile and Performance Report for the 2017-2018 School Year*, academic performance, as measured by standardized assessments, is compared by subgroup using the District Performance Index (DPI) in English language arts and mathematics.

Exhibit 3.3.12

District Performance Index
New Haven Public Schools
2017-18 School Year
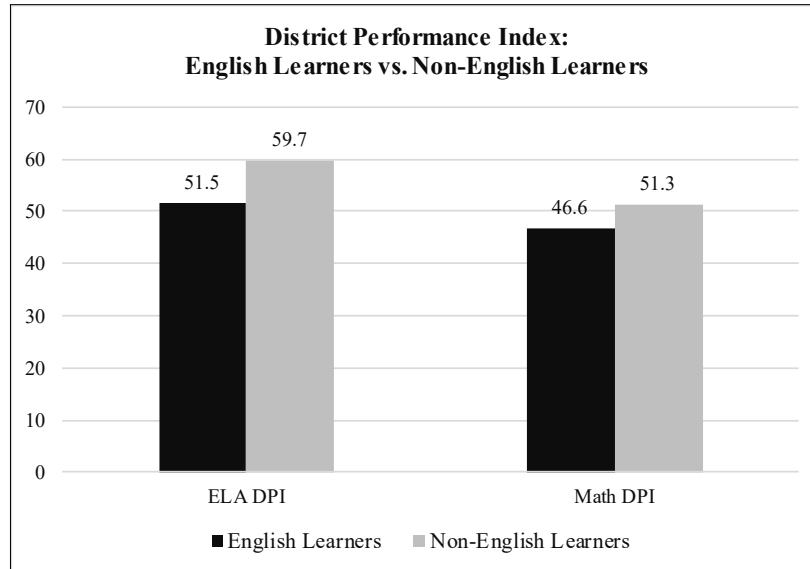
Source: Connecticut Department of Education

Exhibit 3.3.12 indicates the achievement gap between ELL students and native English speakers in the New Haven Public Schools. Other documents prepared by the district were examined by auditors. On a spreadsheet provided by the district titled "LAS Links Growth Report," the performance of New Haven students to all English language learner students in the State of Connecticut on the *Language Assessment System* (*LAS*) for the 2016-17 school year and the 2017-18 school year was compared. Exhibit 3.3.13 provides a summary of this report.

Exhibit 3.3.13

Language Assessment System Links Growth Report
New Haven, CT Public Schools
2016-17 and 2017-18

Year	Group	Test	Growth Rate (Percentage)
2016-17	Connecticut	Oral	47.9
		Literacy	33.3
2016-17	New Haven	Oral	47.4
		Literacy	25.8
2017-18	Connecticut	Oral	34.2
		Literacy	29.1
2017-18	New Haven	Oral	28.8
		Literacy	24.0

New Haven Public Schools' ELL students' language acquisition, as measured on the *LAS*, does not meet the statewide average growth rate. See Finding 4.3 for additional EL performance data.

Teachers and administrators were surveyed to ascertain their perceptions of several aspects of the district's programming. In Exhibit 3.314, teachers offered the following when provided the prompt, "Please respond to the following questions about the District's program for English language learners."

Exhibit 3.3.14

English Language Learner Program Design and Delivery Teacher Survey Response
New Haven Public Schools
April 2019

Please respond to the following questions about the district's program for English language learners.
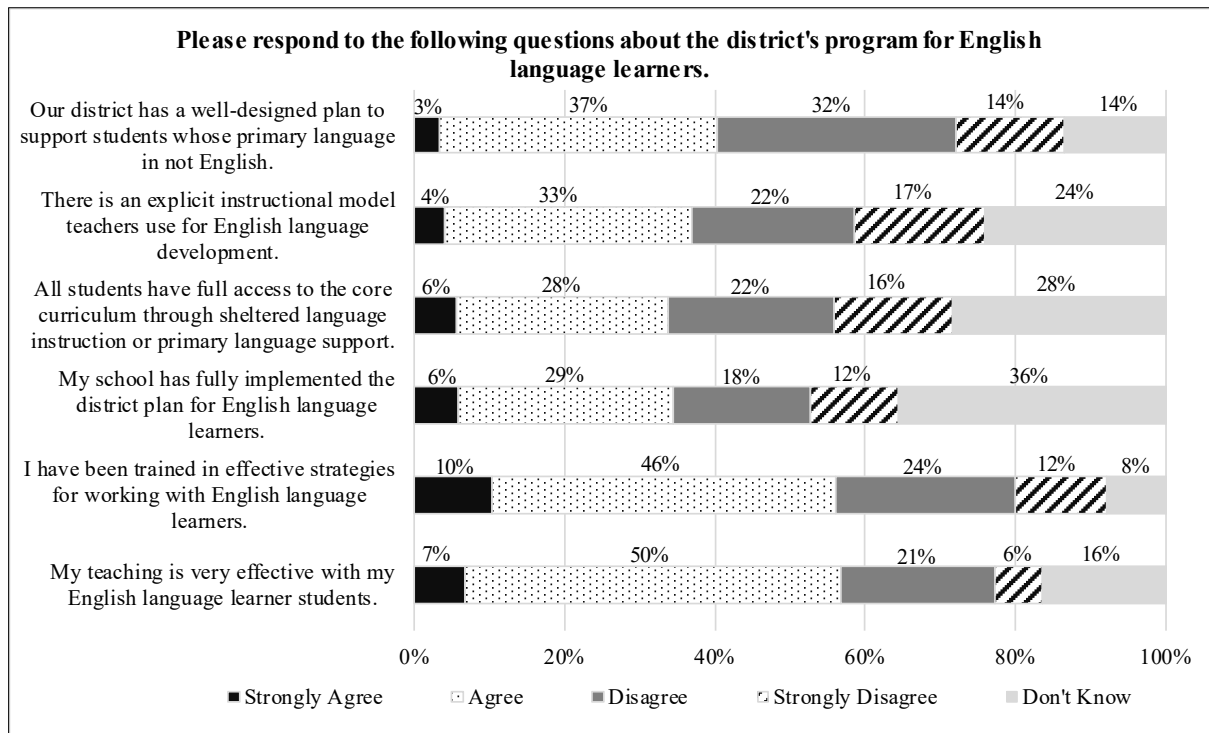
The following can be seen in Exhibit 3.3.14:

- Over half, 57%, of teachers stated that their teaching is very effective when working with English learners, while 43% replied that they disagreed, strongly disagreed, or didn't know.

- Fifty-six percent of teachers agreed that they had been trained in the use of effective strategies for teaching English language learners, while 44% strongly disagreed, disagreed, or didn't know.

- In response to a prompt regarding district planning and the full implementation of a district plan for ELs, 35% of teachers agreed or strongly agreed that their school had fully implemented the district plan for the instruction of ELLs, while about two-thirds, or 66%, disagreed, strongly disagreed, or didn't know.

- When asked if all students had full access to the core curriculum through sheltered English instruction or primary language instruction, the response was negative. Just over one-third of teachers, 34%, responded that they strongly agreed or agreed with that statement. Over two-thirds, 66%, disagreed that EL students have access to the core curriculum through sheltered English or primary language instruction.

- In response to the prompt, "There is an explicit instructional model teachers use for English language development," 37% of teachers strongly agreed or agreed with the statement, while almost two-thirds of teachers, 63%, said they disagreed, strongly disagreed, or didn't know.

- In response to the prompt regarding district planning, 40% of teachers strongly agreed or agreed that the district had a well-designed plan for the instruction of ELs, while 60% of teachers strongly disagreed, disagreed, or didn't know.

English Language Learners Summary

In summary, survey results indicate that the district has not communicated a well-designed plan for the instruction of English language learners or communicated a preferred Instructional Planning Model for these students, based on their characteristics and needs. Program leaders informed auditors that much of the programming that is offered is as much a function of what principals want to do as a function of best practice. The use of tutors as a method to provide EL support—a model not supported by research—is the current model most widely used throughout the district. Teacher-student ratios are excessive, and the program is not effective. Two-thirds of teachers were unaware or do not believe that EL students have access to the instructional core through sheltered English instruction or instruction in their primary language. More than 40% of teachers did not feel their instruction was effective or that they had been adequately trained in the teaching of English learners.

Teachers and administrators were also asked on an online survey to rate facets of program quality for English language learning students. Exhibit 3.3.15 displays the results.

Exhibit 3.3.15

Teacher and Administrator Rating of Program Quality for ELL Students
New Haven Public Schools
April 2019
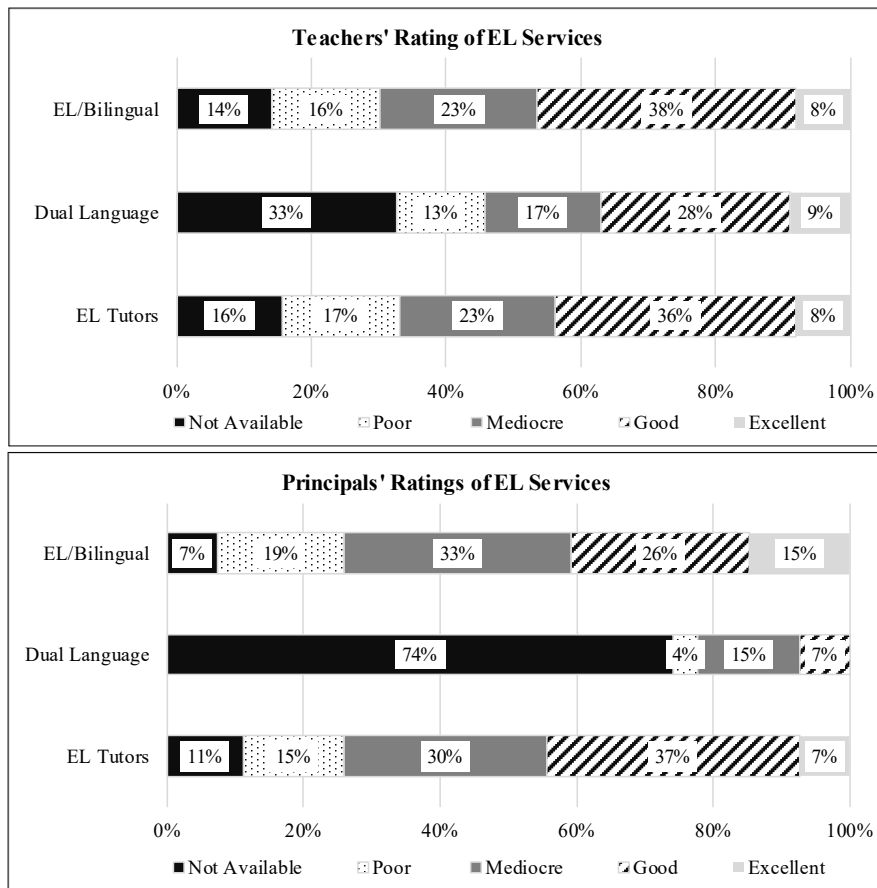
The following can be seen in Exhibit 3.3.15:

- Regarding programs using EL tutors, 40% of teachers rated EL tutors as poor or mediocre, while 45% of principals rated EL tutors as poor or mediocre. Correspondingly, 44% of both teachers and principals rated them good or excellent.

- Thirty percent of teachers rated the Dual Language Program as poor or mediocre. One-third (33%) of teachers were unfamiliar with the Dual Language Program, which is not surprising given the limited number of buildings that have the program. More than 70% of principals were not familiar with the

Dual Language Program. Less than one-fifth, 19%, of school administrators rated the Dual Language program as poor or mediocre.

- Thirty-nine percent of teachers rated the EL/Bilingual Program poor or mediocre, while 52% of principals rated the EL/Bilingual Program as poor or mediocre.

The majority of New Haven Public Schools' teachers and principals rate the quality of ELL programs as poor or mediocre. Perceptions of quality of this programming is divided. There were disparate views on the training of teachers for addressing EL student needs, as well; this information is provided in <u>Finding 3.4</u>.

Teachers, administrators, students, and parents were given the opportunity to comment about the English Language Learner Program in New Haven Public Schools. Quotes from interviews and surveys regarding the needs and inadequacies of the program are provided below:

- "[We are having] difficulty supporting ELL students" (Principal)

- "I think our bilingual program needs a lot of help." (Administrator)

- "The only people who benefit from the bilingual program are the people running it and teaching in it." (Administrator)

- "What the data are telling us is that [ELLs] need more supports." (Administrator)

- "We are clear that our *LAS* data has not shown that the program is strong enough. And part of it is that a lot of our ELLs are not taught by people who are trained. It's tutors." (Administrator)

- "I do not have extensive training in working with ELL students. I was given a single sheet with a list of ideas, but no real training. We have had some good language tutors in our school." (Teacher, online survey)

- "I wish I knew more about supporting ELL learners and our ELL teacher could provide push-in to support the students instead of pulling them out and missing Tier 1 instruction. We don't have time to collaboratively plan so the students are missing that instruction and I am not sure what they do with the ELL teacher." (Teacher, online survey)

- "My training has come from various districts and experiences; this year's ELL PD and CIA focus has been the most training I've received in New Haven." (Teacher, online survey)

- "Some EL students need intensive language acquisition before being placed in mainstream classrooms." (Teacher, online survey)

- "Every classroom should have a bilingual teacher/para/aide/support that is shared amongst grade levels." (Teacher, online survey)

- "I have a MS in ESOL, so I can help the students in my class, other than that there is no program in our school at this time." (Teacher, online survey)

- "English language learner services need a lot of help in terms of an articulation that makes sense. My English learner training comes from a previous district and experiences in that environment. I have been very disappointed in the department and their supports [here in New Haven]." (Teacher, online survey)

- "[We need] professional development, meeting ELLs needs since it's a rapidly growing population at NHPS." (Teacher, online survey)

- "We need paraprofessionals and an ELL teacher to help all our kids learn." (Teacher, online survey)

- "[We need] improved support for ELL students." (Teacher, online survey)

- "We need to do more to support ELL parents so that they can support their children." (Teacher, online survey)

Others commented on the lack of teachers and staffing to serve the students in their building:

- "We have no ELL teacher. She left for a better job, and the students are not being serviced at this time." (Teacher, online survey)

- "We have a high school ESL population and no ESL teacher/coach." (Teacher, online survey)

- "We currently have no ESL teacher or tutors." (Teacher, online survey)

- "The Arabic students get little or no help in ELL." (Teacher, online survey) "We had principals who eliminated the program [ELL services] in spite of the kids." (Administrator)

The programming for English language learners does not meet audit standard in the New Haven Public Schools. Planning and program design specifications are not in evidence; the identification process is not sufficient; programming is not equitable across the district; and English language learners are not making the language and academic gains necessary to close the achievement gap between native English speakers and non-English speakers.

Special Programs Summary

For all programs serving students with needs beyond the typical classroom instruction and average academic planning, more direction is needed to guide staff in program design and implementation. The identification processes are inaccurate and/or not clearly delineated for staff in all cases, and the programs themselves are not consistently designed in response to data and do not adequately support student learning. Without adequate planning, direction, resources, support, and consistent, research-based interventions, achievement gaps between subgroups seen in the assessment data will not close, and inequities will persist. None of the programs appear to meet the needs of enrollees.

Finding 3.4: Professional development is frequently provided in the district but is inadequately planned and fragmented in delivery. Monitoring is not sufficiently coordinated to support implementation of curriculum and application of professional expectations.

Professional development is a critical component in assuring that curriculum delivery, as it occurs in classrooms across the district, aligns with the curriculum and is effective in achieving learning for all students. Quality professional development supports teachers in managing different modalities of instruction and in selecting strategies and approaches that are effective with different students, based on their individual needs. In successful school districts, professional development is carefully planned and coordinated throughout the system to assure focus on the curriculum and its delivery and trainings that meet the needs of teachers and support staff. Trainings are also monitored at different levels so that district leaders know which teachers have been trained in which areas, and to ensure that all teachers receive training in areas of greatest need in response to student, program, and survey data.

Monitoring is critical to support not only effective instruction, but also the implementation of district curriculum and the training needed to support its delivery. In effective districts, monitoring is designed as the school-based system to coach, model, and support teachers in implementing district-level initiatives and curriculum. Such a system is critical to connecting design functions (curriculum and assessment design and development) with delivery, and to assuring that the district-level goals, priorities, and vision are met. Effective monitoring is about knowing what is happening in classrooms with regard to student learning and engagement.

To determine the quality and effectiveness of professional development and monitoring practices, expectations, and planning in the New Haven Public Schools, the auditors reviewed extensive documentation related to professional development and monitoring; interviewed and surveyed teachers, principals, and district administrators; and visited all schools in the school district. Overall, the auditors found that the district has a strong financial commitment to professional development, but that no single office coordinates all professional development offerings in the district nor tracks trainings and participants to maintain a centralized database. Different departments offer and keep track of their own trainings and attendees. Professional development is not coordinated centrally in response to data and with the aim to support curriculum delivery. Monitoring is inconsistent and dependent on individual building principals. How instructional leadership and the coaching

role intersect and support one another is not clearly defined, and district systems to define and clarify how instructional leadership is to take place are not adequate or missing entirely.

The auditors reviewed several documents related to professional development. Exhibit 3.4.1 presents the professional development related documents reviewed by the audit team:

Exhibit 3.4.1

Professional Development Documents Reviewed
New Haven Public Schools
April 2019

Documents Reviewed	Date
District Goals	December 2018
Board Policies	1999-present
Department Plans: ELA, Mathematics, Science, Social Studies, Fine Arts, World Languages, Bilingual/EL, Early Childhood, Academics Team	July 2014-June 2017
SOP systems and structures	2016
Job Descriptions, Postings: Teacher, Principal, Coach	Varied
Staff Handbooks	2016-2019
New Haven Cambridge Report	2009

The auditors found limited direction for professional development in board policy. *Policy 4206*, dated 1999, defines staff development as a "continuous, systematic effort to improve educational programs in this school district." This is accomplished through involvement in program planning, implementation, and evaluation as well as through activities to upgrade the knowledge and ability of the total school staff. The policy affirms a commitment to "support the principle of continuing training of teachers and the improvement of instruction." The policy also notes that "special effort shall be made to prepare teachers and other school personnel to meet the needs of students of diverse cultural and ethnic backgrounds." The planning and coordination of such training programs is assigned in the policy to administration, teachers, and even parent advisory groups.

The policy also requires staff development to be responsive to the needs of the student body and lists suggested topics. The superintendent is charged with offering staff development opportunities of various types. The policy generically mentions non-certified personnel but makes no provision for what staff development for non-certified staff involves. Moreover, although the policy defines staff development and is strong in linking its focus to student needs, the policy does not link the role of professional development to the delivery of the district written curriculum.

The auditors requested any planning documents for professional development offerings and initiatives. They were not presented with a single plan or document directing all professional development in the district; rather, the auditors were presented with a series of department improvement plans and school improvement plans. These plans all follow a similar format and structure, and professional development is addressed in Step 1 of Section 3: Plan, Do, Study, Act. This section is part of the prescribed format for the School and Department Improvement Plans, and it stipulates that part of the plan is to identify a gap and the approach that will be used to address it. School leaders should then identify what professional development, if any, will be offered to support the staff in implementing the approach. Each school's or department's plan addresses professional development in some capacity, depending on their planned approaches and areas of focus.

The auditors use 18 criteria to evaluate professional development programs and planning. These characteristics describe what auditors expect to find in both design and implementation of a professional development program. As the auditors found no professional development plan, per se, and since the direction for professional development they found in existing departmental and school improvement plans was only cursory in nature, they did not evaluate these documents against the criteria. Rather, they are presented here to show district leaders what the auditors expect to find with regard to professional development programming in school districts. The criteria are presented in Exhibit 3.4.2.

Exhibit 3.4.2

Curriculum Management Improvement Model Staff Development Criteria

Characteristics
Policy
1. Has policy that directs staff development efforts.
2. Fosters an expectation for professional growth.
3. Is for all employees.
Planning and Design
4. Is based on a careful analysis of data and is data-driven.
5. Provides for system-wide coordination and has a clearinghouse function in place.
6. Provides the necessary funding to carry out professional development goals.
7. Has a current plan that provides a framework for integrating innovations related to mission.
8. Has a professional development mission in place.
9. Is built using a long-range planning approach.
10. Provides for organizational, unit, and individual development in a systemic manner.
11. Focuses on organizational change—staff development efforts are aligned to district goals.
Delivery
12. Is based on proven research-based approaches that have been shown to increase productivity.
13. Provides for three phases of the change process: initiation, implementation, and institutionalization.
14. Is based on human learning and development and adult learning.
15. Uses a variety of professional development approaches.
16. Provides for follow-up and on-the-job application necessary to ensure improvement.
17. Expects each supervisor to be a staff developer of staff supervised.
Evaluation
18. Requires an evaluation of process that is ongoing, includes multiple sources of information, focuses on all levels of the organization, and is based on actual change in behavior.

Of the 18 criteria, only a few were found to have been met (criterion 3) or partially met (criteria 1 and 2) by existing policy and district documents. The existing policy is only general in nature and does not include sufficient information to serve as a guide for professional development programming, nor does it outline specific expectations concerning the role of professional development in supporting the delivery of curriculum to improve student learning and achievement. In fact, the policy does not mention any expectation of improved achievement as a result of professional development and trainings, and only focuses on prioritizing student needs in selecting and planning initiatives. No other documentation was provided to the auditors that outlined any planning or direction for professional development across the district, overall, although there was a quantity of documentation describing the trainings offered by the various content area departments.

The auditors learned that time is allocated every year for professional development: a few days at the beginning of the year and additional days marked for professional development in the fall and spring. Others mentioned time that is granted during the week from early-release days, when schools can do trainings in-house. However, no single department is charged with monitoring all professional development that takes place throughout the district, nor is any department tasked with keeping track of who has attended which trainings, or who needs which training based on evaluation and student achievement data. The lack of such a department, as well as the lack of any plan for professional development, was mentioned during interviews:

- "[There is] no real plan for professional development." (School Administrator)

- "We don't have a different PD arm. We need dedicated people to do professional learning. This [PD] is a budget item for next year." (Central Office Administrator)

- "We have a very loose system with fidelity. We've tried our best to do training for staff members in schools; you don't expect everybody to be an expert in every area. But there are problems with everyone being accountable to attend those." (Central Office Administrator)

- "We do not have a Professional Learning Department anymore. Each school has a continuous improvement plan that would have professional learning in that." (District Administrator)

- "Teachers are responsible for tracking their professional development." (Central Office Administrator)

- "I could use three people who would be devoted to professional development." (Central Office Administrator)

Others commented on the need for professional development, but also the lack of time for it:

- "[We need] more time for professional development." (Central Office Administrator)

- "Not all schools get the PD they need at the schools." (School Administrator)

- "There isn't a whole lot of time for training. Literacy gets time for training with the teachers first. As a district, we don't have time for training. I have not done training for math and literacy coaches." (Central Office Administrator)

- "There is no time for the PD. The time to collaborate is limited." (School Administrator)

- "Our training needs are high." (Central Office Administrator)

- "Professional development is needed." (School Administrator)

- "We haven't been intentional about how to teach differently." (Central Office Administrator)

The auditors asked principals, building leaders, and teachers about the quality and effectiveness of professional development via an online survey. Exhibit 3.4.3 presents the data from the teacher survey regarding teachers' perceptions of the quality of the professional development they receive from various sources.

Exhibit 3.4.3

Teacher Perception: Quality and Relevance of Professional Development
New Haven Public Schools
April 2019
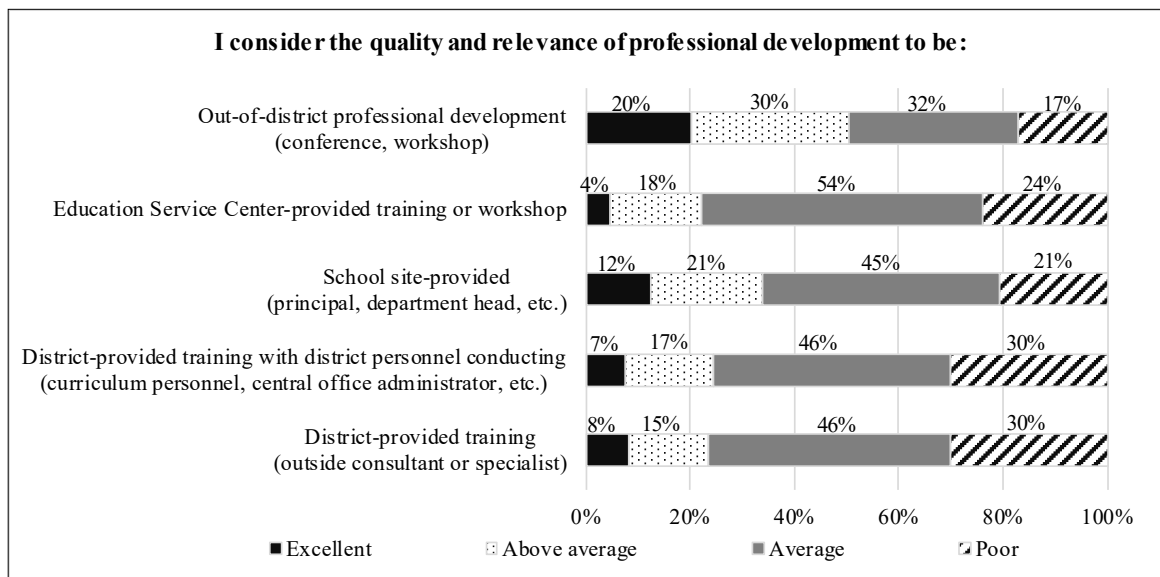
The following can be seen in Exhibit 3.4.3:

- Teachers rated out-of-district professional development (workshops, conferences) most positively; half (50%) rated these trainings as above average or excellent.

- Educational or regional service center trainings received the least positive ratings; 22% rated them above average or excellent, and over half (54%) rated them average. Almost one-fourth of teachers (24%) rated these trainings poor.

- Teachers rated district-provided trainings with mixed results. In both cases, when the professional development is offered by the district, either with an outside consultant or conducted by district personnel, almost one-fourth of teachers (23% and 24%, respectively) rated each as excellent or above average.

- However, 46% of teachers rated these two types of district-provided training as average, and another 30% rated them each as poor.

- School site-provided professional development was rated excellent or above average by one-third of teachers and average by 45% of the teachers. Just over one-fifth (21%) rated these trainings as poor.

There were mixed perceptions concerning the quality of the trainings provided to teachers when they are in-district. The following comments regarded opportunities to attend out-of-district training:

- "What out-of-district professional development??" (Teacher, online survey)

- "The majority of the out-of-district professional development has been at the expense of either myself, awarded through grants, or from our principal's school-based funds." (Teacher, online survey).

- "I have received no training outside of district-provided training." (Teacher, online survey)

- "I have not gone to an out-of-district conference or workshop for a long time due to lack of funds." (Teacher, online survey)

- "As the budget has been cut, our opportunities for out of district PD has been extremely limited." (Teacher, online survey)

- "PD—[there is] not as much training as there used to be. Process to request PD is longer and harder. The process is cumbersome. PD was clear and opportunities were plentiful, but not anymore. There is a cumbersome, lengthy process to attend PD outside the district now." (School Administrator)

- "We don't get the PD we used to get. The last couple of years, because of money, we don't get outside trainings, and teachers don't get outside trainings." (Coach)

- "We rarely go out-of-district because of funding cuts." (Teacher, online survey)

- "All PD is in-house. We have to become experts and then impart that expertise, but their expertise is limited. I don't have funding to send my teachers out for training." (School Administrator)

- "[We teachers] need to be able to attend state/national workshops." (Teacher, online survey)

Despite budget cuts and restrictions on out-of-district training, the district has allocated funds for professional development within the district. However, the perceptions of the quality of this training were varied. School-based professional development is rated both extremely high and low, depending on the school. Negative comments included the following:

- "Professional development is almost non-existent in my building…and when it is provided, there is no follow-up or follow through." (Teacher, online survey)

- "The school-site provided training from the literacy coach is excellent; trainings from math coach and principal are poor." (Teacher, online survey)

However, several teachers were positive about school-based training:

- "Literacy coaches are the best." (Teacher, online survey)

- "My principal provides excellent professional development. The professional development prepared by my literacy coach tends to be SBA-scores-driven and is therefore not very effective." (Teacher, online survey)

- "I receive training and support from my department head and lead coaches to support my coaching." (Teacher, online survey)

- "The training within my building is targeted to what we need as a staff and aligns to our SIP. The district PD isn't as targeted because you are trying to cover over 30 schools with different needs." (Teacher, online survey)

- "My school itself offers good training and support. The district does not." (Teacher, online survey)

As with school-based trainings, there were mixed reviews of district-level trainings offered by the central office departments. Comments regarding the quality of these trainings included:

- "The district-provided training is excellent. Coaches are given the opportunity to present to teachers across the district on specific topics." (Teacher, online survey)

- "Professional development is second to none in this district. We do a lot of PD in math." (Central Office Administrator)

District trainings led by teachers for teachers were mentioned most favorably. These comments included:

- "Teacher-led PD is the most effective." (Teacher, online survey)

- "Teacher-led workshops have been the most helpful!" (Teacher, online survey)

- "We use staff meetings and PD days to have staff led PD or PLCs. We have teachers visit other teachers' classrooms, and we are coming up with a rubric, but that is a comfort level that we are getting to. The staff developed the rubric." (School Administrator)

- "A group of teachers who have social influence and who are really good teachers do PD." (School Administrator)

- "Most of our PD comes from teachers for teachers." (Central Office Administrator)

Others commented on the weakness or redundancy of district-led professional development. These comments included:

- "The PD at the beginning of the year are often thrown together last minute and not useful to teachers who need time to set up their classrooms and prepare for the students. I know this because I have received emails a few days before the PD asking for presenters. The 4 CIA meetings each year are often redundant." (Teacher, online survey)

- "Professional development in NHPS is a joke along with CIA meetings! We receive nothing new in national, state, or regional trends in learning. If I did not subscribe [to] several national magazines regarding Education, I would still be in the 19th century." (Teacher, online survey)

- "PD centers around [the] least common denominator and offers little-to-nothing for seasoned teachers aiming to enhance their craft; rather, we are expected to model for and teach those who don't possess our skill-set, which is why PD is mostly poor, from my perspective. It's often an insulting waste of time." (Teacher, online survey)

- "In-district workshops like math and ELA are extremely repetitive. Election Day PD is almost the same offerings every year. If there is nothing new to go over give teachers time in room to plan small groups and work through curriculum independently. The repetitiveness or last minute thrown togetherness is a waste of time in a profession where our time is crucial." (Teacher, online survey)

The auditors then asked building leaders about professional development support from central office. These responses are presented in Exhibit 3.4.4.

Exhibit 3.4.4

Building Leader Perception: Support for and Adequacy of Professional Development
New Haven Public Schools
April 2019
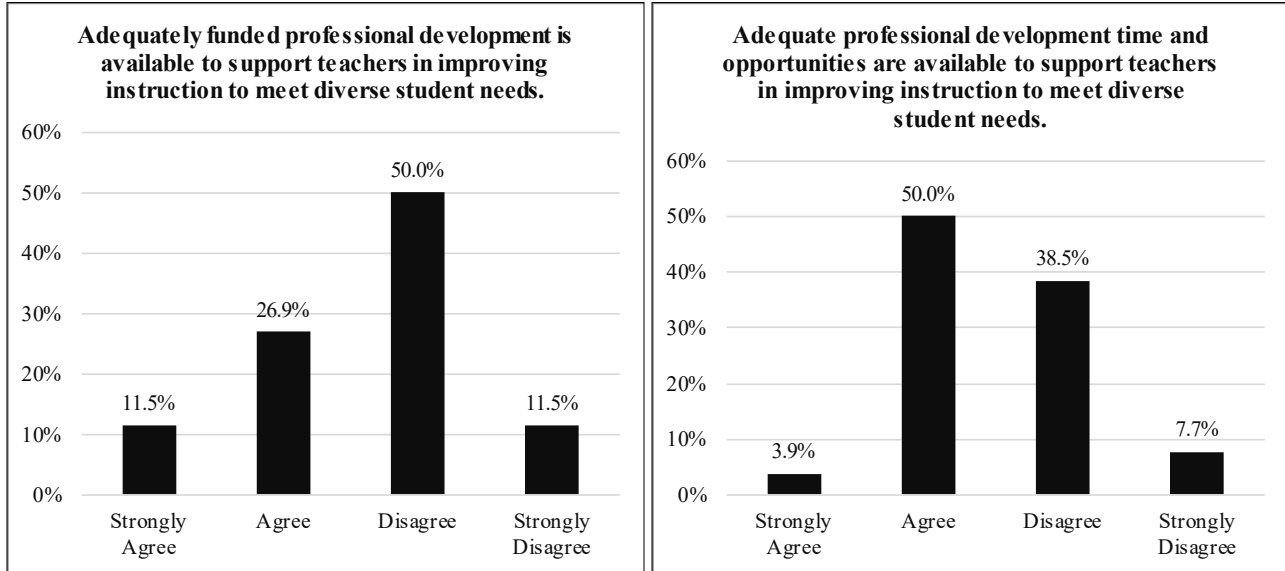
The following can be seen in Exhibit 3.4.4:

- Regarding the funding support for professional development, there was high disagreement from the 25 building leaders who responded to this question on the survey. Almost 62% (61.5%) of the building leaders disagreed or strongly disagreed that there is adequate professional development funding to support teachers in meeting their students' needs.

- Just under 40% agreed or strongly agreed that adequately funded professional development is available.

- Regarding whether there is enough time and opportunity for professional development, there was higher agreement. Almost 54% (53.9%) agreed or strongly agreed that there is enough time and opportunity.

- Over 46% (46.2%) disagreed or strongly disagreed that there is enough time and opportunity for training for teachers.

Teachers were asked if they believe they receive the trainings and support they need most to improve their teaching. Their responses to this statement are presented in Exhibit 3.4.5.

Exhibit 3.4.5

Do Teachers Receive the Trainings and Support Needed to Improve Teaching
New Haven Public Schools
April 2019
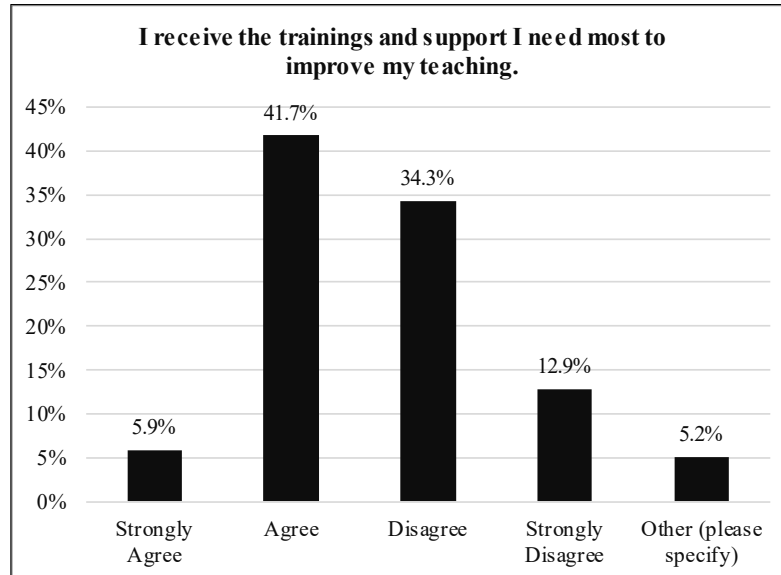
Exhibit 3.4.5 shows that teachers were split in their response to the statement that they receive the trainings and support needed to improve their teaching. Less than half agreed or strongly agreed (47.6%), while a similar percentage (47.2%) disagreed or strongly disagreed.

Teachers had written responses to this survey question, as well, representing mixed perceptions:

- "I am never consulted as to what would provide the best support."

- "I personally seek out trainings and support because I care about teaching and improving. This is not systematically provided and most teachers do not receive it."

- "Any training or support is self provided/motivated."

- "In certain content areas, yes, in others no."

- "From within my building, yes, outside personnel no."

- "I seek support and receive it whenever needed."

Principals were asked if the implementation of professional development is evident during instruction. The responses are presented in Exhibit 3.4.6.

Exhibit 3.4.6

Building Leader Perception: Effective Implementation of Professional Development
New Haven Public Schools
April 2019
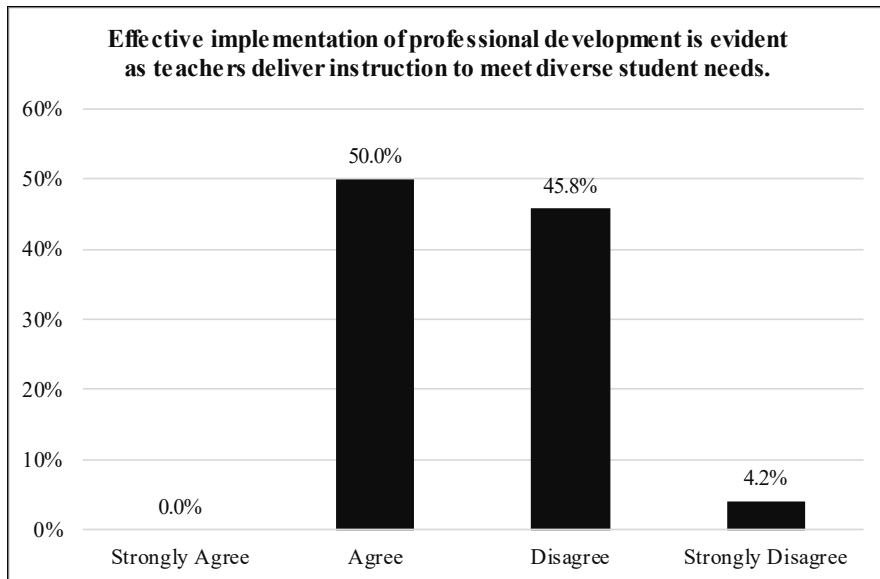
The following can be seen in Exhibit 3.4.6:

- Exactly half of building leaders who responded to the survey question reported agreeing with the statement that teachers effectively implement the professional development they receive.

- Exactly half of the building leaders disagreed or strongly disagreed with this statement.

One teacher commented on the survey, "Generally, it seems that the PD provided isn't used effectively, or that the need for it is well thought-[out]."

The auditors also asked if the teachers had been adequately trained to deal with the cultural, linguistic, and economic diversity in their classrooms. Teachers' responses to this question are presented in Exhibit 3.4.7.

Exhibit 3.4.7

Teachers' Response: Adequately Trained in Strategies
To Understand and Address Cultural Needs of Students
New Haven Public Schools
April 2019

I have been trained in strategies for understanding and addressing the various cultural needs of my students.

The following can be seen in Exhibit 3.4.7:

- Nearly 12% of the teachers who responded reported strongly agreeing that they have been trained in strategies for understanding and addressing their students' diverse needs, and over 46% agreed.

- Over 27% disagreed, and 11% strongly disagreed.

Building leaders' response to this statement are presented in Exhibit 3.4.8.

Exhibit 3.4.8

**Building Leader Perception: Teacher Training in Strategies
To Understand and Address Students' Needs
New Haven Public Schools
April 2019**
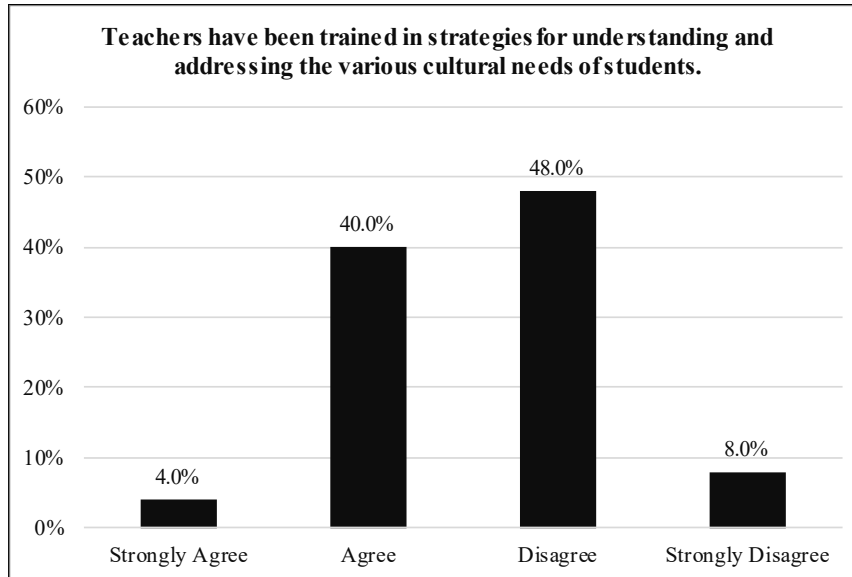
The following can be seen in Exhibit 3.4.8:

- Building leaders disagreed more than agreed that teachers have been trained in strategies for understanding and addressing students' needs. Almost half (48%) disagreed, and 8% strongly disagreed.

- Forty percent of building leaders agreed with this statement, and 4% strongly agreed.

Overall, there were mixed reactions to this statement. During interviews, stakeholders commented on a need for more training in cultural sensitivity. This was also mentioned on the survey instrument. Comments were made that the training has been done in the district, sometimes at individual schools:

- "Some of our [staff development] topics are social-emotional learning and restorative practice." (School Administrator).

- "People do a lot of training in supporting teachers with strategies. There has been training in culture and climate. There is not much coaching, but training yes." (Central Office Administrator)

Others commented on the need for this kind of training:

- "Professional development is necessary to meet trauma needs for students." (Parent)

- "It would require a lot more training to implement Restorative Practices in order to get the results the district wants." (Teacher)

If teachers had had this type of training, most commented that it was from a source outside the district or from their school, individually. Comments included:

- "My school has worked on this. I have not received this sort of training from the district." (Teacher, online survey)

- "I took a course in that subject (cultural sensitivity)." (Teacher, online survey)

- "I got this training from other districts. I am a teacher of color and I am appalled at the racism of my colleagues. But when I advocate for students and people of color, I am branded as hostile, negative, oppositional, and impossible to work with." (Teacher, online survey)

- "Not through New Haven but in my Cross-Cultural Teaching Master's Program." (Teacher, online survey)

- "This training was done through my own Masters, not NHPS." (Teacher, online survey)

Others commented that they haven't been trained, per se, but have sought out this information on their own:

- "I have not been trained, I have personally sought out this information to improve my craft." (Teacher, online survey)

- "All of my training in this area comes from my own effort. Seeking out books or learning materials as well as talking with other teachers and my students for what they need." (Teacher, online survey)

- "I train on my own—it is sad the things I hear my colleagues say about students of color on a daily basis and I ask myself why are they here? For insurance benefits or because the suburbs would not hire them! It's very sad!" (Teacher, online survey)

A teacher who had attended a district-provided training on restorative practices commented on the high quality of that training, stating, "Restorative practices training is the best district-provided training I have been to. It is the only district-provided training that I would rate above average." However, there were comments that there is currently no coordinated approach to assuring that all teachers have training in culturally sensitive teaching and in restorative practices. As one central office administrator commented, "Culturally relevant pedagogy and competency has not been done systematically across the board."

When building leaders were asked if teachers have received adequate training in how to shelter instruction for English learners, the responses were again mostly negative. These data are presented in Exhibit 3.4.9.

Exhibit 3.4.9

Building Leader Perception: Training in Sheltered Instruction
New Haven Public Schools
April 2019
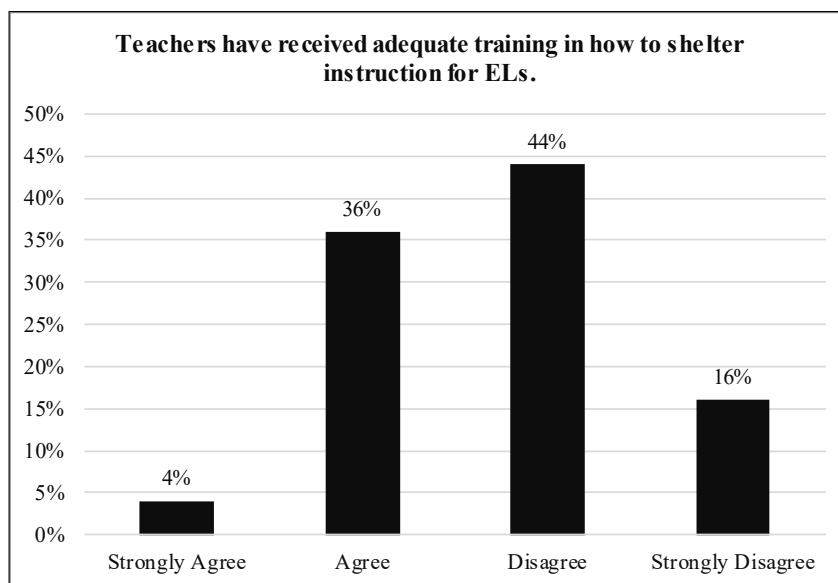
The following can be seen in Exhibit 3.4.9:

- Forty percent of the building leaders who responded agreed or strongly agreed that teachers had received adequate training in sheltered instruction for English learners.

- Forty-four percent of building leaders disagreed with this statement.

- Sixteen percent strongly disagreed—the highest level of disagreement of all statements regarding professional development.

Overall, the auditors found that the majority of building leaders disagreed that teachers had received adequate training in sheltered instruction for English learners, and the majority of building leaders disagreed that teachers had been trained in culturally sensitive practices. Teachers themselves were mixed in their response to this statement, a few even citing their concerns over the lack of cultural sensitivity among their colleagues. These concerns were echoed in statements concerning equity, access to programs, and achievement gaps (see Finding 3.1). New Haven teachers are primarily White although the student population is majority Hispanic and African American.

The auditors did find that despite the lack of centralized coordination of professional development across the system, nevertheless quite a bit of training is being offered. Principals attested to the many initiatives they have at their buildings, in connection with their School Improvement Plans and goals. They commented:

- "We plan professional development based on school needs. We have district professional development days and also meet after school. We use surveys and exit slips to determine the effectiveness of the professional development along with teacher feedback to see what we need to revisit." (School Administrator)

- "PD is online and provided throughout the year for teachers." (School Administrator)

- "We have in-school and district professional development, which is based on the school improvement plan. This year, we are focused on student engagement and discourse. We check during walk-throughs for implementation." (School Administrator)

- "At the beginning of year, according to area that they teach, they meet with the supervisors, and that's how they obtain the new training for the area that they teach." (School Administrator)

- "This year our PD has primarily not been done because the Student Improvement Grant (SIG) funding didn't go through until late. We are starting within the next couple of weeks with reading and writing workshop training." (School Administrator)

Despite the quantity of training, others commented on the fragmented nature of professional development. These comments included:

- "We've had a lot of PD, but it is very siloed, depending on the funding sources." (Central Office Administrator)

- "Professional development is presented as the answer to everything, but there is very little link to what is going on at the school. They sent a teacher to the training, but there isn't follow up." (Parent)

- "There is no systematic approach to developing teachers." (Central Office Administrator)

- "We are in a reactive mode. I don't know when it was the last time teachers were provided PD." (School Administrator)

Concerns were also expressed regarding the insufficient approach to mentoring and equipping new teachers:

- "We don't have a new teacher induction program that's robust—they go for three days. And that's it. If you are a new teacher, that's all you get." (Central Office Administrator)

- "There's no plan for onboarding, getting you acquainted [if you are not a federal magnet]." (Teacher)

- "My second year I clung to one or two teachers, but for the most part I was on my own." (Teacher)

- "I feel like they have the system complete [for new teachers], but there are a lot of ways you can fall through the cracks." (Teacher)

Others expressed concerns that even when the district-level professional development offered is of high quality, it isn't reaching enough teachers:

- "Only 30 teachers [who actually attended this training] are being affected out of 1,500. This is the district-wide information that needs to be given to you." (Central Office Administrator)

- "All those things have been offered [for EL training], but if you asked me if they were well attended, I would say no." (Central Office Administrator)

Professional Development Summary

The auditors found that there is a high volume of professional development offered throughout the district, and all of varying quality. The content of this training is often aligned to the needs of the content area, but a coordinated system to connect the needs of the schools with the supports needed to teach the district curriculum is not in place. Much of the decisions regarding training are made at school sites, which can be a strength in meeting specific teacher needs but a weakness in assuring consistent quality and appropriateness. Training in cultural sensitivity and restorative practices is a need but is not a consistent focus across the system.

Monitoring

The auditors also sought to determine what processes and systems are in place regarding the monitoring of curriculum delivery. Monitoring is a critical function in effective school systems, as it focuses not only on the strategies and approaches teachers are using to engage students, but also on the content and curriculum being delivered. Effective monitoring is not about inspection, but about evaluating the alignment of instruction with the curriculum to assure that students are not only learning in productive and effective ways, but also are learning the right content.

The auditors found little direction for monitoring in district documents. Job descriptions for principals were not provided beyond a job posting document, and this document did not mention monitoring curriculum delivery or alignment of the taught curriculum with standards. Coaches play a critical role in supporting instruction. The job description for this position notes supporting teachers in instruction and with approaches but does not indicate any responsibilities related to monitoring for alignment and supporting delivery of the curriculum, specifically. The auditors also found no documents outlining how the coaching role supports and augments the position of the principal as the instructional leader of the building. The coach job description notes two direct reports: "the principal and/or content area supervisor." No document mentions monitoring for curriculum alignment, specifically, beyond teacher appraisal (see Finding 1.3).

When asked about monitoring, principals almost unanimously reported visiting classrooms and looking for instructional effectiveness. Both principals and coaches cited looking for student engagement, discourse, higher cognitive engagement, differentiation, and eight leaders mentioned looking at the objective. One commented about looking for a match between instruction and objective, and only one building leader mentioned that he or she looks for alignment to the standards. Principals and building leaders almost all noted the importance of differentiation, and many commented on that focus in their professional development and instructional support (see also Finding 3.2). However, there was no clear district-level direction, in writing, for the purposes and processes to be used for monitoring and supporting curriculum delivery. When such direction is not clear, principals may be focused more on approaches than on what students are actually learning, hindering alignment.

The auditors asked principals, assistant principals, and coaches about the frequency of classroom visits. Their responses are presented in Exhibit 3.4.10.

Exhibit 3.4.10

**Principals' Responses Concerning Classroom Visits
New Haven Public Schools
April 2019**
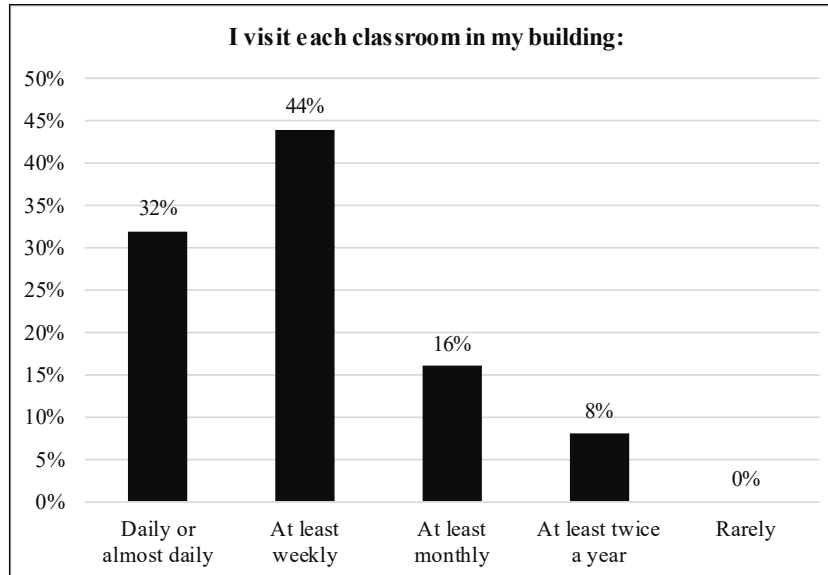
n=25

The data in Exhibit 3.4.10 show the following:

- Approximately 76% of the principals who responded reported that they are in classrooms at least weekly, with 32% reporting daily or almost daily and 44% reporting at least weekly.

- Sixteen percent reported visiting classrooms at least monthly, and 8% reported visiting classrooms just twice a year.

Teachers were asked how frequently they see building and district leaders visit their classroom. These data are presented in Exhibit 3.4.11:

Exhibit 3.4.11

Teachers' Responses Concerning Classroom Visits by Building Leaders
New Haven Public Schools
April 2019
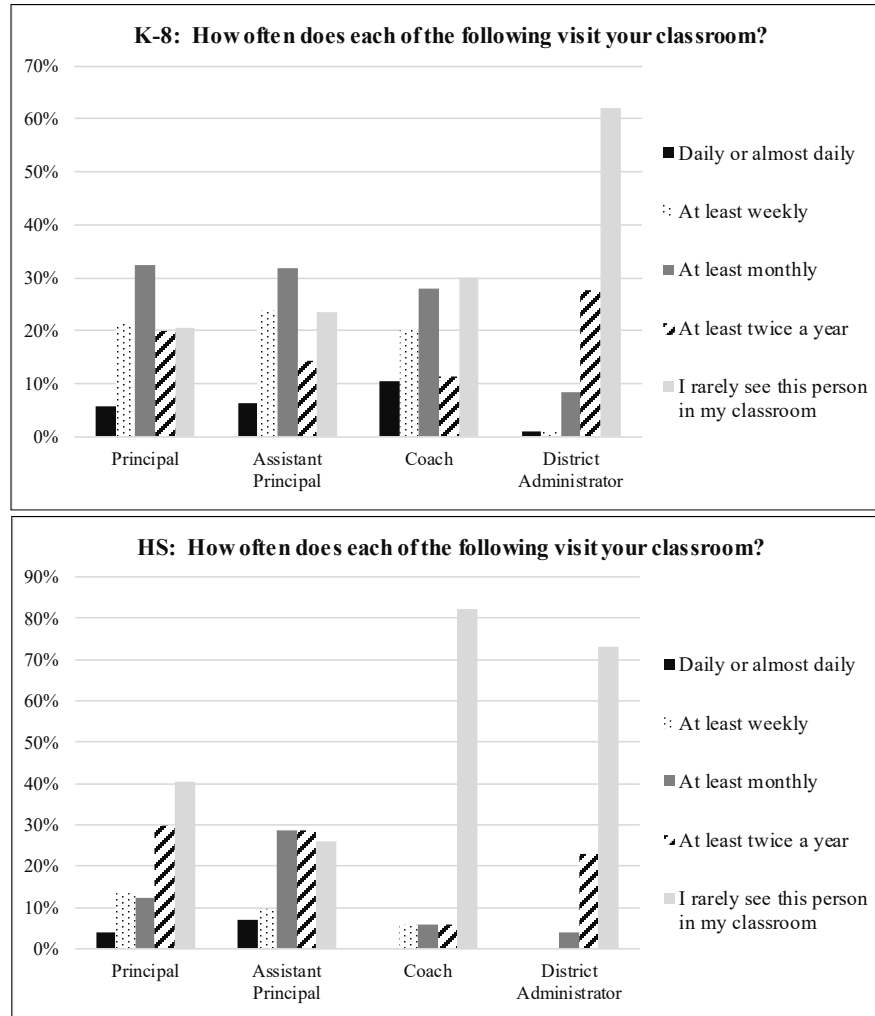
n=270

The following can be seen in Exhibit 3.4.11:

- Responses from K-8 teachers differed from those of high school teachers, since high schools typically don't have coaches.

- Around 6% of K-8 teachers reported seeing their principal or their assistant principal daily. Over 10% reported seeing their coach daily, and just 1% reported seeing a district administrator daily.

- Around 22% of K-8 teachers reported seeing their principal or assistant principal at least weekly: 21.5% for principals and 24% for assistant principals. Over 20% reported seeing their coach at least weekly, and about 1% reported seeing their district administrator weekly.

- The highest percentage of K-8 teachers reported seeing their building leader monthly: principals, 32.3%; assistant principals, 32%; and coaches, 28%. Just over 8% reported seeing their district administrator monthly.

- About 20% of K-8 teachers reported either seeing their principal at least twice a year or only rarely. Fourteen percent reported seeing their assistant principal at least twice a year, and 23.4% reported seeing then only rarely.

- Eleven percent of K-8 teachers reported seeing their coach at least twice a year and 30% reported seeing then only rarely. This was the highest percentage of teachers who reported seeing any building leader rarely.

- At the high school level, principals were seen by only 4% of teachers daily and by 13.5% weekly. Assistant principals were seen by 7% daily and almost 10% weekly. Coaches were not seen frequently; less than 6% of teachers reported seeing coaches weekly, monthly, or even twice a year. The majority of teachers (82%) reported seeing them only rarely.

- Almost 30% of high school teachers reported seeing their principal at least twice a year and 40% only rarely. Almost 55% of teachers report seeing their assistant principal at least twice a year or only rarely.

Overall, the auditors found that K-8 teachers report seeing their building leaders more frequently, most commonly at least monthly. Coaches may be seen more frequently or less frequently than principals and assistant principals, depending on the building. The frequency of classroom visits reported by building leaders did not match the frequency reported by teachers. Comments heard during interviews and made on the online survey supported the auditors' finding that monitoring is inconsistent across district schools and is a responsibility shared by principals and coaches. School-level personnel shared the inconsistencies regarding expectations for monitoring and monitoring practices:

- "Our literacy coach is amazing; we just don't have enough of her." (School Administrator)

- "Teachers are not afraid to ask for the coaches' help when they don't know how to teach something." (Coach)

- "The Reading intervention Coach has not visited my classroom, or interacted with me, at all this school year or last year." (Teacher, online survey)

- "I have never been observed by my principal. Now I have assistant principals, my instructional manager. I teach all freshman. I have been observed by the other two principals and the freshman coordinator. I have even been observed by [my supervisor] but never by my principal." (Teacher)

- "Building to building, instruction is different, based on your building leader." (Coach)

- "Teachers complain because nobody has been in their classroom all year, and then they are getting evaluated." (Coach)

When asked what they expected to see in a classroom, principals were clear on instructional practices and classroom behaviors they were looking for. Representative comments included:

- "When I walk in I shouldn't have to figure out what they are doing. I should see, small group intentional instruction, objective posted and followed through, higher order thinking, gradual release, and hear student discourse." (School Administrator)

- "[That the] environment is structured, routines/procedures are established, students are actively working and know what the objective is." (Building leader, online survey)

- "[That there are] clear learning objectives that are discussed with students and revisited throughout lesson; monitoring and assessing that students are mastering the objectives, [that] standards of conduct are clear; [that] students are engaged." (Building leader, online survey)

When asked about frequency of and responsibilities for monitoring, principals reported their own practices as well as their coaches':

- "Lesson plans are a way of monitoring where they [teachers] are in the curriculum." (School Administrator)

- "The coaches help with monitoring the progress of the curriculum." (School Administrator)

- "I look at student work checking folders and workbooks." (School Administrator)

- "This year I made it a point to do a walk-through for a grade level and give them feedback." (School Administrator)

- "I conduct walk-throughs. Coaches go in monitor and support. I meet every Monday with teachers." (School Administrator)

- "We make rounds everyday. The assistant principal and I split the walks. We do three informal observations per year." (School Administrator)

- "[I'm] not in class nearly enough to observe teaching and learning. Making sure that students are supported and that teachers are the best version of themselves." (School Administrator)

The auditors also interviewed central office administrators about monitoring curriculum delivery and supporting alignment at the schools. Their comments included:

- "[There is] a cohort of principals that go in and do instructional rounds. We can see when the quality of instruction changes from school to school…. We went into several third grade classrooms across the district, and you can see in the level of questioning and in the activities the differences from one school to the next." (Central Office administrator)

- "We have had an issue with monitoring of instruction." (Central Office Administrator)

- "We have provided principals PD on the expectations we have for teachers in the classroom. We provide a Look For document for each content area identifying areas aligned to competencies." (Central Office Administrator)

- "[We] have not built capacity of our staff, and we need to emphasize best practices." (Central Office Administrator)

- "It is not so much about curriculum as about implementation and monitoring of the curriculum." (Central Office Administrator)

The auditors found that although almost all administrators were unanimous concerning the importance of supporting instruction and curriculum delivery, there is insufficient clarity regarding how that responsibility is best carried out and how the principal role intersects with that of the coach.

The auditors asked teachers to report from whom they receive the most instructional support or coaching in their building. Their responses are presented in Exhibit 3.4.12.

Exhibit 3.4.12

Teachers' Responses Concerning from Whom They Seek Support
New Haven Public Schools
April 2019
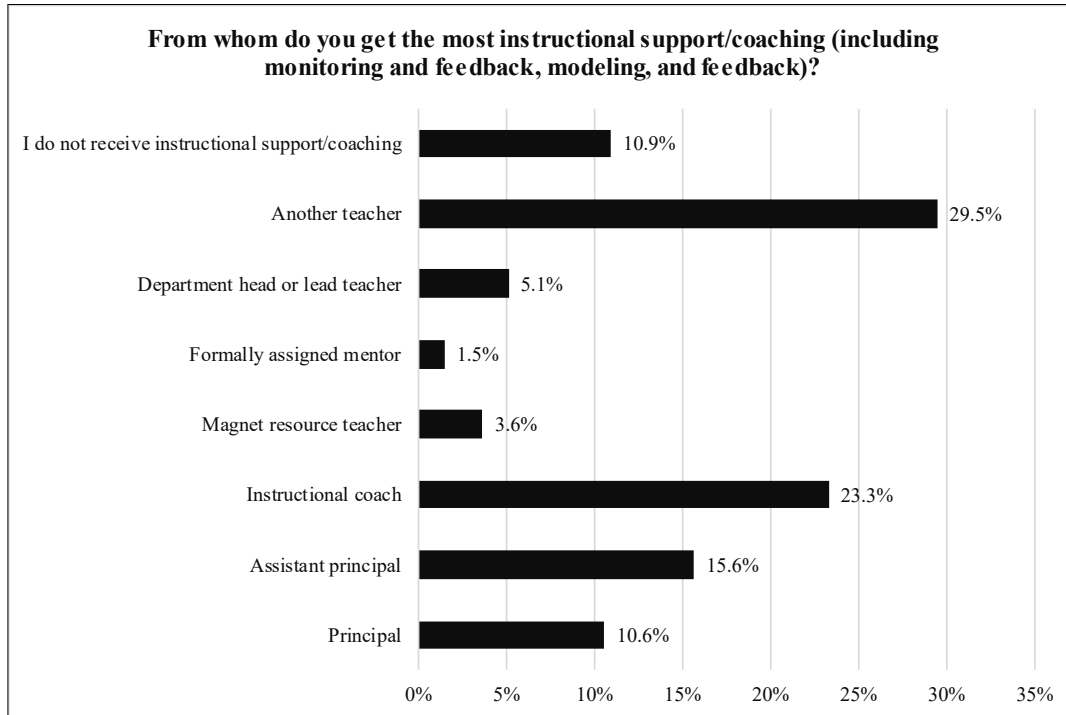
The following can be seen in Exhibit 3.4.12:

- Teachers most frequently cited another teacher as providing the most helpful feedback for their instruction, with almost 30% of teachers selecting this response.

- Instructional coaches were mentioned by over 23% of teachers as providing the most support; this was the second-most frequent response.

- Assistant principals were named as providing the most useful feedback by almost 16% of teachers, followed by the principal at 10.6%.

- Magnet resource teachers, a formal mentor, and department head or lead teacher were each mentioned by 5% or less of respondents.

Despite the inconsistency in classroom visits reported by teachers compared to that reported by principals, the majority of teachers report that the feedback they receive from their principal, assistant principals, and coaches is always useful by high percentages. These data are presented in Exhibit 3.4.13.

Exhibit 3.4.13

Teachers' Responses Concerning the Usefulness of Feedback
New Haven Public Schools
April 2019

Please indicate the usefulness of the feedback that your principal, assistant principal, skills specialist, coach, or other visitor provides you after informally observed lessons.

	Principal	Assistant Principal	Coach	District Administrator
No feedback given	22%	18%	33%	61%
Feedback is always useful	47%	55%	47%	19%
Feedback is somewhat useful	20%	17%	16%	9%
Feedback is not useful	10%	9%	4%	10%
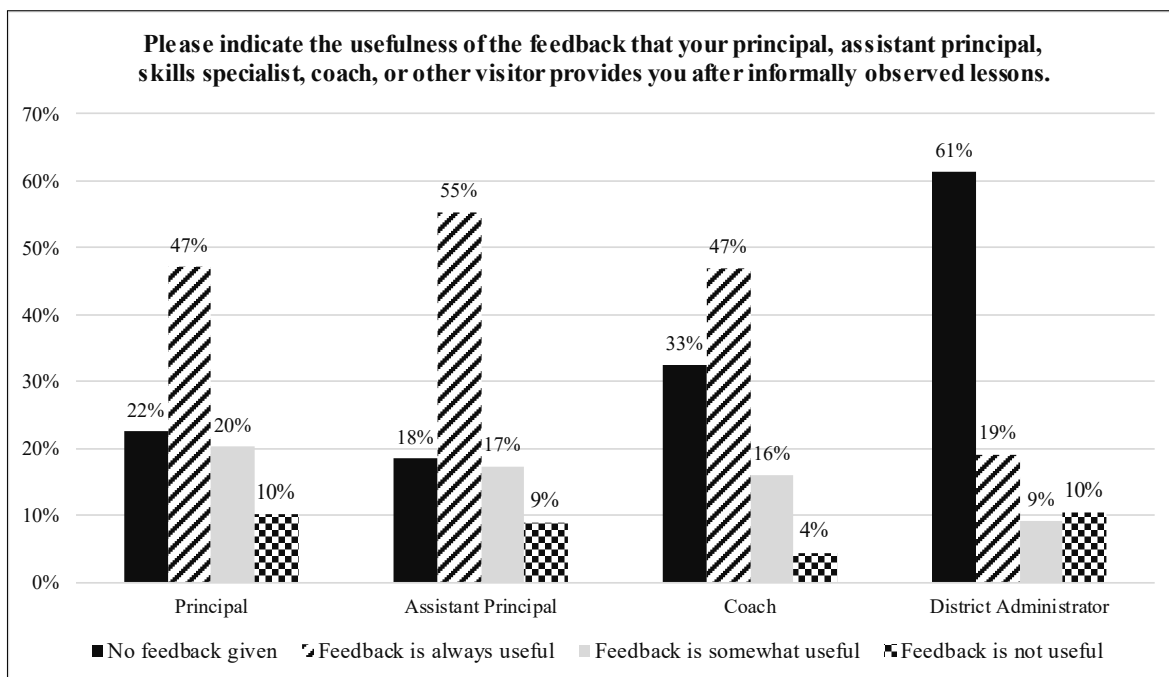
n = 271

As can be seen in Exhibit 3.4.13, if feedback from principals, assistant principals, or coaches is provided, the majority of teachers see this feedback as always useful.

- Feedback from coaches is seen as not useful by only 4% of all teachers, indicating the importance of this role.

- Forty-seven percent of teachers report that feedback from their building principal is always useful. This percentage is rated at 55% regarding feedback received from assistant principals and 47% for feedback received from instructional coaches.

The auditors concluded that when feedback and coaching are provided, teachers tend to view this feedback as helpful to them in improving instruction.

Professional Development and Monitoring Summary

Professional development and monitoring are seen as important functions in supporting effective instruction in the district, but neither is coordinated and directed by specific written guidelines or expectations. Policy is weak regarding these two critical functions, and job descriptions also do not have clearly delineated responsibilities for supporting instructional delivery with training, monitoring, and support. Classroom visitation frequency was commonly different between principals and teachers, with principals overstating the number of their classroom visits when compared to teachers' ratings of visits. The frequency of classroom visits varied across campuses and grade levels, with principals' perceptions of the frequency being greater than that of teachers. Professional development and monitoring instruction are critical in assuring effective delivery of the curriculum and in supporting the board's vision that student learning is realized in every classroom. Clear direction for each is needed, as well as a department solely dedicated to equipping teachers and monitoring their attendance and implementation of initiatives. Attention to these areas will result in increased student engagement and, ultimately, achievement.

Finding 3.5: Most student work artifacts across all grade levels and subject areas were found to require lower-order cognitive skills. Contexts of the artifacts are most frequently of the least engaging type in the core content areas. Grades K-8 English language arts and mathematics and K-5 science and social studies artifacts are not consistently on grade level. Grades 6-8 science and social studies and high school artifacts do not always measure mastery of the identified standard.

Classrooms represent a critical juncture for school districts; it is in the classroom that the written curriculum is executed, and it is the work of the classroom that is ultimately assessed to determine student achievement. What goes on in the classroom has repercussions for the entire system. If a district has high expectations for student learning but the classroom student work artifacts do not reflect these expectations, it is unlikely the district will achieve its goals. It is therefore critical that the content of student artifacts be aligned to the written and assessed curriculum, and that the rigor of the artifacts embodies the high expectations of the district and the demands of the high-stakes tests in use.

In order to determine the degree to which classroom resources and materials were aligned to the written curriculum, auditors reviewed student artifacts selected and provided by schools in the New Haven Public Schools. Auditors requested the collection of at least one completed student work sample/project from each core subject area teacher. Artifacts were analyzed for three components: Content—are students working to master grade level standards? Context—how are students working with the content? Cognition—at what Revised Bloom's Taxonomy types of cognition are students asked to work with the content? This collection of artifacts is not intended to represent every event that takes place during a school year. However, the analysis can provide insight into possible areas of weakness in the three areas of analysis and can highlight gaps in regard to expectations.

The auditors found that, overall, less than two-thirds (63%) of the New Haven Public Schools K-8 English language arts and mathematics and K-5 science and social studies artifacts analyzed were calibrated at grade level. More than one-third calibrated to lower levels or were found to be a content mismatch. Most grade 6-8 science artifacts, 50% of 6-8 social studies artifacts, and 69% of high school artifacts analyzed did properly ask students to demonstrate mastery of the identified standard. The majority of the artifacts for all core content areas and grade levels analyzed required less challenging cognitive demand from students. Auditors found that slightly more non-magnet school K-8 English language arts and science artifacts generated higher order thinking skills than artifacts from the magnet schools. Finally, most K-12 artifact contexts were of the least engaging and authentic types.

Word wall used to good effect at Daniels School

Objective Content Calibration

Objective content refers to the knowledge, skills, processes, and attitudes to be taught as expressed by a student learning objective, in this case the state standards. In this analysis auditors examined each artifact to determine if the content skill area or concept to be mastered matched the district's stated content objectives or standards as described by the Connecticut standards. For example, an artifact may be intended to measure mastery of a grade 4 standard, but because the artifact lacks the intended complexity of the grade 4 standard, it actually measures mastery of a grade 3 standard. Once all of the artifacts have been calibrated for a content area at a specific grade level, an average of all of the grade levels is calculated. For example, if there are six total artifacts intended to measure the mastery of grade 4 and three were determined to be at grade level, 50% would be determined to be at grade level; the remaining three artifacts would be determined to be at one grade level below, so 50% would be at the grade 3 level.

This information is then placed in a table showing the distribution of the actual grade level of the artifacts, as determined by the analysis. Then the calibrated grade levels are multiplied by the number of artifacts to determine the average level of difficulty for all artifacts in that grade level. For example, if grade 4 has 6 artifacts total and 3 are on grade level and 3 are at 3rd grade level, 3 is multiplied by 3 for a score of 9 and 3 by 4 for a score of 12. These numbers are added together for a score of 21, then divided by the total number of artifacts for 4th grade: 21 divided by 6, for an average grade level score of 3.5. It is important to note that this is not a grade equivalent score; it merely reflects the average grade level that the artifacts represent. Additionally, it should be noted that it is the activity of the artifact that is evaluated, not a student's actual work. The student's actual work may represent an even lower or higher grade level than what the artifact itself expects.

Grade level standard calibration of artifacts collected from both magnet schools and non-magnet schools was conducted for the following content areas and grade levels: K-8 English language arts, K-8 mathematics, K-5 science, and K-5 social studies. A slightly different calibration was conducted for grades 6-8 science and social studies and all high school core content areas and will be described further later in this finding. For purposes of these calibration analyses the following standards documents were used:

- Connecticut Common Core Standards English Language Arts
- Common Core State Standards for Mathematics
- Next Generation Science Standards
- Connecticut Elementary and Secondary Social Studies Framework

Connecticut Standard Redundancy and Lack of Specificity

In many districts, the standards and benchmarks under which the district operates must be adapted from documents provided by the state or some other external agency. In such cases, it becomes important for districts to assess the adopted material for redundancy, adequate specificity, logical sequencing of skills, and gaps so that they may ensure appropriate spiraling of learnings through the grade levels and maximize student achievement. Adopting state standards without vetting them first can perpetuate inadequacies in the curriculum and leave the door open to multiple interpretations of the curriculum as teachers try to decide what mastery of any given standard might look like.

Exhibits 3.5.1 and 3.5.2 are intended to provide examples of appropriate spiraling of the curriculum as well as redundancy of the standards within the Connecticut Common Core Standards for English language arts.

Exhibit 3.5.1

Appropriate Spiraling of Connecticut Standards – Language Arts

Grade Level	Standard	Description
K	RL.K.3	With prompting and support, identify characters, settings, and major events in a story.
1	RL.1.3	Describe characters, settings, and major events in a story, using key details.
2	RL.2.3	Describe how characters in a story respond to major events and challenges.
3	RL.3.3	Describe characters in a story (e.g. their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.

As noted in Exhibit 3.5.1:

- The learning here is clearly spiraled from one grade to the next. The kindergarten standard employs the injunction to "identify characters, settings, and major events," which marks it explicitly as an introductory standard, as does the qualifying statement that they do these things "with prompting and support."

- First, second, and third grade all build upon the introduction in kindergarten: they must describe what they've learned to identify, then they must extend that to describe how those elements interact with each other. Finally, they must describe how the characters and their actions drive the story.

- Standards written with this level of specificity make it easy for teachers to decide what to teach and how to teach and to determine what mastery of the standard looks like.

Exhibit 3.5.2 displays an example where the Connecticut Standards are redundant across grade levels and lack specificity.

Exhibit 3.5.2

Standard Redundancy and Lack of Specificity Connecticut Standards – Language Arts

Grade Level	Standard	Description
3	W.3.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order. d. Provide a sense of closure.
4	W.4.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use a variety of transitional words and phrases to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.

Exhibit 3.5.2 (continued) Standard Redundancy and Lack of Specificity Connecticut Standards – Language Arts		
Grade Level	**Standard**	**Description**
5	W.5.3	Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques such as dialogue, description, and pacing to develop experiences and events or show the responses of characters to situations. c. Use a variety of transitional words, phrases, and clauses to manage the sequence of events. d. Use concrete words and phrases and sensory details to convey experiences and events precisely. e. Provide a conclusion that follows from the narrated experiences or events.
6	W.6.3	Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured events sequences. a. Engage and orient the reader by establishing a context and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically. b. Use narrative techniques such as dialogue, pacing, and description to develop experiences, events and/or characters. c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another. d. Use precise words and phrases, relevant descriptive details, and sensory language to convey experiences and events. e. Provide a conclusion that follows from the narrated experiences or events.

As noted in Exhibit 3.5.2:

- The basic objective of the standard is identical from grade level to grade level. The only difference between grades 3, 4, and 5 and grade 6 is the small change in the wording from "clear event sequences" to "well-structured event sequences." From a teaching standpoint, this distinction would be hard to quantify or to assess. Without clear examples, a teacher would have to navigate this standard by "feel"; this leaves the door open for multiple interpretations, some of which may not conform to district expectations or align to district assessments.

- Subpoint (a) does not differ materially from grade level to grade level. From a functional standpoint, there is no difference between "establish a situation" and "orient the reader by establishing a situation." The intent and outcome of both are identical. Sixth grade requires the student to "engage" the reader, which could represent an extension or refinement of skill, but it is not specific enough to clarify how the student is to accomplish this engagement, nor how it will be assessed to determine mastery.

- Subpoint (b) is virtually identical from grade level to grade level. The only difference in the upper grades is the addition of the word "pacing," but how pacing is to manifest itself in the writing is not specifically addressed. In the absence of specific guidelines, a teacher may guess wrongly, or teachers across schools may interpret differently, what mastery of this should look like.

- Subpoint (c) shows some specificity from grade 3 to grade 4, where students move from "temporal words and phrases" to "a variety of transitional words," but after that, the learning is functionally identical from grade level to grade level. Transitions are one of the most complex writing skills for students to master, so additional specificity here would be highly desirable. When are transitions used? What should they accomplish? How should the mandate of the writing assignment change so that greater complexity requiring the use of transitions is evident? What, in the end, will mastery of this look like?

- Subpoint (d) [not included in grade 3] is also functionally the same from grade level to grade level. In every case it requires sensory detail and concrete words to convey events. Only in grade 6 does the student also have to make sure s/he uses "relevant descriptive detail"; however, sensory details and concrete words are also forms of descriptive detail, so the material distinction here is lost.

The standards for all grade levels in the exhibit above require the student to provide a conclusion. In grade 3 students must merely "provide a sense of closure," while in grades 4, 5, and 6 they must "provide a conclusion that follows from the narrated experiences or events." The standard is identical in grades 4-6. Conclusion, like transitions, is a more complex writing skill, which often takes years to learn well, so greater specificity here to indicate the increasing complexity of this demand as students move up the grades would be of great assistance to teachers. Otherwise, they will have to guess what mastery of this part of the standard looks like.

This sort of redundancy, where a standard is repeated from grade level to grade level without enough detail to distinguish between grades, makes it challenging for teachers to determine what specific skills they need to teach, how students need to demonstrate those specific skills to ensure their success on current and future tests, and how the learning is going to be mastered. It also creates a problem when calibrating student work artifacts. Because of the repetitive nature of the standard, a work artifact from grade 6 could easily calibrate to grade 4 or lower. Auditors found that the Connecticut Standards often do not provide enough specificity with regard to discrete grade level objectives to ensure that mastery of the standards is clearly understood.

The redundancy and lack of specificity described in the Connecticut Common Core Standards for English Language Arts often impacted the calibration of the artifacts that were submitted for analysis. Another issue that impacted calibration analysis was the number of standards associated with a given artifact. Many teachers identified more than one standard for a single artifact. In some cases up to 12 standards were identified. While many ELA artifacts may demonstrate mastery of more than a single standard, it is the rare artifact that can meet the mastery expectations of such a large number of standards. This over-identification of standards can indicate a lack of understanding of each standard, highlighting the need for districts to clearly define and spiral the meaning of the given standards. For calibration purposes in cases where more than one standard was identified, the auditors examined each standard to determine whether the artifact measured mastery. If the artifact measured mastery of the standard, a calibration was conducted to determine the grade level. The grade level that was most frequently identified during the calibration was used to determine the grade level of the artifact. This included situations where many of the standards were not met and were identified as a content mismatch. For example, if a grade 4 teacher identified five standards and the first three standards were a content mismatch and the second two were calibrated at grade 4, then a content mismatch was recorded in the table.

While on-site, auditors became aware of possible disparities in the quality of education obtainable within the district depending on whether the student attended a magnet or a non-magnet school. Exhibit 3.5.3 displays teacher responses to a question on a district survey regarding resource availability. It is the expectation of the audit that all students in the district have access to the same curricular opportunities, no matter what type of school or who the students are. If it can be demonstrated that the curricular opportunities are different, depending on whether a school is magnet or non-magnet, then that would constitute an equity issue.

Exhibit 3.5.3

Teacher Responses to Survey Question about Availability of Resources
New Haven Public Schools
April 2019

My school has the resources necessary to meet the needs of all students.

Strongly Agree: 6%
Agree: 34%
Disagree: 39%
Strongly Disagree: 21%
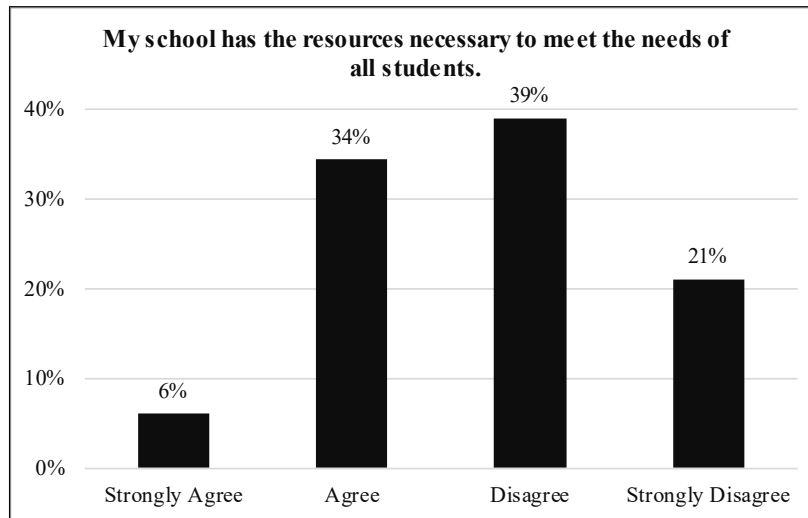
Exhibit 3.5.3 shows the following:

- Sixty percent of teachers who responded to this survey question either disagreed or strongly disagreed that their school has the resources necessary to meet the needs of all students.

- Forty percent of teachers either agreed or strongly agreed that their school has the resources necessary to meet the needs of all students.

Survey and interview comments made by teachers, administrators, and board members are a further illustration of the perception that resources are inequitably distributed from one school to another in the district. A sample of these comments follows:

- "I don't think each school has the same resources which isn't fair for the staff or the students." (Teacher survey)

- "[The district has] equity issues, in terms of schools having access to appropriate levels of technology, curriculum support and funding." (Teacher survey)

- "[An area that needs improvement is] equity of resources." (Teacher survey)

- "[There is] no equity or distribution of resources for schools with greater needs." (Administrator survey)

- "[There is] a lack of equity across schools." (Administrator survey)

- "[Resources should be allocated by] more than a ratio." (Teacher survey)

- "Here we are saying, 'have fidelity in curriculum,' but we can't purchase the resources [for the schools]." (Central Office Administrator)

- "There is more money routed to our magnets. They have the same students as New Haven—there are definitely more resources at the magnets." (Central Office Administrator)

- "Obviously, there really isn't equity. We have some schools that are magnet schools, and they get extra funding..." (Board Member)

- "Intra-district magnet schools have money to get technology and all sorts of resources. But other schools don't have as much. There is discrepancy, but there is access." (Teacher)

Given these concerns about possible resource inequities across schools, auditors investigated whether the student work artifacts collected from magnet schools would be more engaging and cognitively rigorous than those from non-magnet schools. Auditors decided to analyze magnet school artifacts separately from those of non-magnet schools to ascertain whether the quality of student work artifacts was different, depending on the school. The results of English language arts, mathematics, science, and social studies non-magnet school artifact calibration with the standards are displayed first in Exhibits 3.5.4 through 3.5.7, followed by the analysis of results of artifacts collected from magnet schools. Auditors provide examples after each exhibit of artifacts that were calibrated as a content mismatch or were below grade level.

Non-Magnet School Artifact Calibration

Exhibit 3.5.4 displays the calibration analysis for K-8 English language arts artifacts collected from non-magnet schools.

Exhibit 3.5.4

English Language Arts K-8 Grade Level Calibration
Non-Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	100%										K
1	43%	57%									.6
2		71%	14%							14%	1.2
3				86%						14%	3.0
4				33%	56%					11%	3.6
5				17%	33%	33%				17%	4.2
6			14%	29%	14%		43%				4.3
7						25%		75%			6.5
8							25%		75%		7.5
*Items considered a content mismatch (CM) are not included in the grade level average.											

As noted in Exhibit 3.5.4:

- With the exception of grades K and 3, average grade levels of non-magnet school English language arts artifacts not considered a content mismatch were below the identified grade level. As district administrators commented, teachers may be selecting content below grade level because of persistent low expectations.

- In grade 1, 57% of artifacts calibrated to grade 1 standards. The remaining artifacts calibrated one grade lower.

- Fourteen percent of grade 2 artifacts calibrated to grade 2 standards. Seventy-one percent of grade 2 artifacts were calibrated at the grade 1 level, and 14% were content mismatches.

- Fourteen percent of grade 3 artifacts were a content mismatch.

- Fifty-six percent of grade 4 artifacts reviewed were calibrated at grade level. Thirty-three percent of grade 4 artifacts were calibrated at grade 3. Eleven percent of calibrated artifacts were content mismatches. These artifacts did not correspond with the intent of the objective cited, or no other standard at any grade level was a match. For example, one artifact required students to practice cursive writing. Auditors could find no standard that addressed cursive writing.

- In grade 5, 50% of artifacts were calibrated below grade level with 17% content mismatches.

- In grade 6, 43% of artifacts calibrated to grade 6 standards. Fourteen percent were calibrated at grade 4, 29% at grade 3, and 14% at grade 2. There were no content mismatches. The average grade level of grade 6 artifacts analyzed was 4.3.

- Seventy-five percent of grade 7 artifacts reviewed were calibrated at grade level with 25% at grade 5 level. Some artifacts did not meet the specific expectations of the grade level standard that was identified primarily, because of standard redundancy. For example, the standard given (W.7.3.) for one grade 7 artifact states, "Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences." The standard (W.5.3) for grade 5 states, "Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences." The standard for grade 5 was basically the same content as the grade 7 standard with some minor wording changes, making it difficult for a teacher to quantify or assess what the standard should look like for a particular grade level. As a result, this particular grade 7 artifact calibrated to grade 5.

- Seventy-five percent of grade 8 artifacts were calibrated on grade level, with 25% below grade level.

- Of English language arts artifacts collected from non-magnet schools, 6.2% were content mismatches, meaning these artifacts did not correspond with the intent of the objective cited, or no other standard at any grade level was a match.

Exhibit 3.5.5 displays the calibration analysis for K-8 mathematics artifacts collected from non-magnet schools.

Exhibit 3.5.5

Grade Level Calibration for Mathematics K-8
Non-Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	100%										K
1		75%								25%	1.0
2		11%	89%								1.9
3				100%							3.0
4					78%					22%	4.0
5				11%	11%	56%				22%	4.6
6							86%			14%	6.0
7								86%		14%	7.0
8									100%		8.0

* Items considered a content mismatch (CM) are not included in the grade level average.

As noted in Exhibit 3.5.5:

- For all but two grade levels, 100% of non-magnet school mathematics artifacts not considered content mismatches calibrated to the standards. However, some artifacts did not address the standard in its entirety. For example, the artifact linked with standard 5.NBT.B.7 included practice in adding decimals and writing and solving equations. Missing was the requirement to illustrate and explain the calculations. The lack of this component lowers the cognitive demands of the task.

- Eighty-nine percent of grade 2 artifacts were calibrated at grade level, with 11% one grade level below.

- Fifty-six percent of grade 5 artifacts calibrated to grade 5 standards. Eleven percent of the artifacts calibrated to grade 4 and 11% to grade 3. One grade 5 artifact labeled as 5.NF.3 matched in content grade 3 standard NF.3.d, which states, "Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model."

- Twenty-five percent of grade 1 artifacts covered so little of the standard that they were calibrated as a content mismatch. Such was also the case for grade 4 and grade 5 artifacts of which 22% were a content mismatch.

- Altogether, 11% of mathematics artifacts collected from non-magnet schools were content mismatches.

Exhibit 3.5.6 displays the calibration analysis for K-5 science artifacts collected from non-magnet schools.

Exhibit 3.5.6

Grade Level Calibration for Science K-5
Non-Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	25%									75%	K
1	25%	75%									.8
2	33%									67%	K
3				40%						60%	3.0
4					67%					33%	4.0
5						100%					5.0

* Items considered a content mismatch (CM) are not included in the grade level average.

As noted in Exhibit 3.5.6:

- For all but two grade levels, 100% of K-5 non-magnet school science artifacts not considered content mismatches calibrated to the standards.

- Thirty-nine percent of K-5 science artifacts analyzed were content mismatches. These artifacts were either not a match to any standard at any grade level or were missing substantial elements of the labeled standard.

- Twenty-five percent of K artifacts were calibrated at grade level, while 75% were a content mismatch. One example of a content mismatch was found with an artifact labeled as K-LSI-1, which stated, "Use observations to describe patterns of what plants and animals (including humans) need to survive." The artifact required the student to label the parts of a penguin's body (e.g., wing, beak, eyes), list three fun facts about penguins, and draw pictures of where the penguin lives. The artifact did not have the student describe or illustrate what the penguin needs to survive.

- Seventy-five percent of grade 1 artifacts were calibrated at grade level, with 25% one grade level below. The Next Generation Science Standards (NGSS) include some standards that are designated with grade level spans. One such standard labeled for a grade 1 artifact is K-2-ETS1-1. Because differences in expectations between grades K, 1, and 2 are not given, the teacher has no way of assessing or quantifying what the standard should look like for a particular grade level. Therefore, auditors calibrate these artifacts at the lower grade of the grade level span.

- None of the grade 2 artifacts analyzed were calibrated at grade level. Sixty-seven percent were a content mismatch. One grade 2 content mismatch was labeled as 2-PS1-1. This standard requires the student to describe and classify different kinds of materials by their observable properties. The artifact has the student observe one kind of material (ice cube) as it melts. The student is not asked to classify different kinds of materials by their properties.

- Forty percent of grade 3 artifacts calibrated to grade 3 standards. Sixty percent of grade 3 artifacts were a content mismatch. One artifact was labeled with four different standards, none of which matched the artifact. The artifact was a science experiment where the student tested whether warm vinegar will cause the clay volcano to erupt faster. The student also was to define a list of science vocabulary. One standard (4-ESSS1-1) calls for identifying rock formations and fossil rock layers to support changes in landscape over time. The artifact did not address this at all. Another standard requires the student to observe the effects of weathering. The artifact did not have the student do that. Another standard (4-ESSS2-2) states, "Analyze and interpret data from maps to describe patterns of Earth's features." The artifact did not require the student to do this element of the standard.

- Sixty-seven percent of grade 4 artifacts calibrated to the grade level, while 33% were a content mismatch. One artifact labeled with standard 4-PS3-4 stated, "Apply scientific ideas to design, test, and refine a device that converts energy from one form to another." The artifact was a series of illustrations of electricity elements. For one illustration, the student was to draw arrows to show the path of electricity. For another, the student was to color the resistors in the circuit illustrated. The student was not required to design, test, and refine a device that converts energy.

- All grade 5 science artifacts calibrated to grade level. None of the artifacts were a content mismatch.

The next exhibit shows K-5 social studies calibration. Auditors noted that in many cases, social studies artifacts were labeled with English language arts standards or a different numbering system from the Connecticut Elementary and Secondary Social Studies Frameworks numbering system. Auditors made every attempt in these cases to identify the social studies standard. If the standard could not be determined, the artifact was not calibrated.

Exhibit 3.5.7 displays the calibration analysis for K-5 social studies artifacts collected from non-magnet schools.

Exhibit 3.5.7

Grade Level Calibration for Social Studies K-5
Non-Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	40%									60%	K
1		80%								20%	1.0
2	40%		40%							20%	1.3
3				67%						33%	3.0
4				33%	17%					50%	3.3
5				15%		60%				25%	5.0
* Items considered a content mismatch (CM) are not included in the grade level average.											

As noted in Exhibit 3.5.7:

- For all but two grade levels, social studies artifacts not considered content mismatches calibrated to the standards.

- Thirty-five percent of K-5 social studies artifacts analyzed were content mismatches. These artifacts were either not a match to any standard at any grade level or were missing substantial elements of the labeled standard.

- Forty percent of K artifacts were calibrated at grade level, while 60% were a content mismatch. One example of a content mismatch was found with an artifact labeled as standard CIV K.6, which required students to explain the need and purposes of rules in various settings. The artifact had the student make a handprint and dictate what hands are for. Rules were not addressed.

- Eighty percent of grade 1 artifacts were calibrated at grade level, with 20% a content mismatch. Standard GEO 1.3 is about using maps/globes and other geographic models to identify cultural and environmental characteristics of places. The activity labeled with this standard had the student draw a geographic terrain and describe it. This was a content mismatch.

- Forty percent of the grade 2 artifacts analyzed were calibrated at grade level. Some of the grade 2 artifacts matched kindergarten standards, while 20% were a content mismatch. Auditors could not find social studies standards at any grade level that specifically matched a grade 2 artifact that had the student draw a dessert scene with plants and animals.

- Sixty-seven percent of grade 3 artifacts calibrated to grade 3 standards. Thirty-three percent of grade 3 artifacts were a content mismatch. One artifact was labeled with three different standards, none of which matched the artifact. The artifact had the student create a pamphlet describing the country of Uruguay. Standard GEO 3.2 requires the use of maps and other representations to explain relationships between places and environmental characteristics. The artifact had the student draw an outline map of Uruguay and then write facts about the country such as the name of the leader of the country, how large it is, and what the official language is. There was no requirement to explain relationships between the country and the environmental characteristics. Another listed standard for this artifact was GEO 3.4. This standard had the student explain how culture influences the way people adapt to their environment. Nothing in the artifact addressed this standard, nor the third listed standard, GEO 3.6, which addresses population distribution.

- Seventeen percent of grade 4 artifacts were calibrated at grade level, while 33% were calibrated at grade 3. One artifact was labeled with social studies standard INQ 3-5.1 spanning grades 3-5, stating, "Explain why compelling questions are important to others (e.g., peers, adults)." Because differences in expectations between grades 3, 4, and 5 are not given, the teacher has no way of assessing or quantifying what the standard should look like for a particular grade level. Therefore, auditors calibrated this artifact as grade 3, the lowest grade of the grade level span. Another artifact labeled as GEO 4.2 was calibrated at a lower grade because the standard is identical to grade 3 GEO 3.2. Fifty percent of the grade 4 social studies artifacts were content mismatches. One grade 4 artifact required the student to list facts about the country of Peru. This artifact was calibrated as a content mismatch because auditors could not find a standard at any grade that simply requires the student to describe facts about a foreign country.

- Sixty percent of the grade 5 social studies artifacts calibrated to grade level, and 25% were a content mismatch. One artifact labeled as grade 5 social studies (U.S. History) has the student summarize text about Anne Frank and compare the text with *Hannah's Book.* This artifact is a content mismatch because it is about something that happened in Europe and not about U.S. History. The student is not asked to explain the significance of these texts to U.S. history, government, geography, or ecology. Fifteen percent of the grade 5 artifacts calibrated at grade 3, primarily because the standards listed spanned grades 3-5. Again, because differences in standard expectations between grades 3, 4, and 5 are not given, auditors calibrated these artifacts as grade 3, the lowest grade of the grade level span.

Overall auditors found that 60% of English language arts artifacts collected from non-magnet schools were calibrated at level and 34% below grade level across grades K-8. Six percent of ELA artifacts were a mismatch for content. Eighty-five percent of math artifacts were calibrated at level with just 4% below level, and 11% were a content mismatch across grades K-8. Fifty-one percent of K-5 science artifacts were calibrated at level, 10% below level, and 39% a content mismatch. Fifty percent of K-5 social studies artifacts were calibrated at

grade level, 15% below grade level, and 35% a content mismatch. When the results of analyses of non-magnet school K-8 ELA and Math and K-5 science and social studies artifacts are taken together, 62% were calibrated as on grade level, 16% below grade level, and 23% a content mismatch. None of the non-magnet school artifacts calibrated above grade level.

Magnet School Artifact Calibration

Exhibits 3.5.8 – 3.5.11 display the calibration analysis for K-8 artifacts collected from schools designated as magnets. As indicated earlier, auditors provide examples after each exhibit of artifacts that are calibrated as a content mismatch or below grade level.

Exhibit 3.5.8 displays calibration analysis for K-8 English language arts artifacts collected from magnet schools.

Exhibit 3.5.8

English Language Arts K-8 Grade Level Calibration
Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	***CM**	
K	75%									25%	K
1	57%	43%									.4
2	12.5%	62.5%	12.5%							12.5%	1.0
3		11%	11%	78%							2.7
4			12%	38%	25%					25%	3.2
5				22%	22%	56%					4.3
6				14%		14%	72%				5.4
7							71%	29%			6.3
8					12.5%		24.5%	38%	12.5%	12.5%	6.4
*Items considered a content mismatch (CM) are not included in the grade level average.											

As noted in Exhibit 3.5.8:

- Average grade levels of ELA artifacts not considered a content mismatch collected from magnet schools were below the identified grade level for all grades except grade K.

- In grade 1, 43% of artifacts calibrated to grade 1 standards. The remaining artifacts (57%) calibrated to grade K.

- Over 12% (12.5%) of grade 2 artifacts calibrated to grade 2 standards. Over 62% of grade 2 artifacts were calibrated at the grade 1 level and 12.5% at grade K. Over 12% (12.5%) were content mismatches. The standard for one grade 2 artifact (RI.2.5) states, "Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently." The artifact itself better matches the standard for grade 1 (RI.1.5) that states, "Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text" in that the artifact has students define most of those elements listed in RI.1.5 and none of those listed in RI.2.5.

- Seventy-eight percent of grade 3 artifacts reviewed were calibrated at grade level, and 22% were calibrated below grade level.

- In grade 4, 25% of artifacts were calibrated at grade level, 50% below grade level, with 25% content mismatches.

- In grade 5, 56% of artifacts calibrated to grade 5 standards. Forty-four percent were calibrated below grade level. In most cases, redundancy of the standard was the reason for calibration to a lower grade level. An example was an artifact labeled with W.5.3, "Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences." Grade 3 standard W.3.3 is the exact same standard. Therefore, auditors calibrated this grade 5 artifact to grade 3. There were no content mismatches. The average grade level of grade 5 artifacts analyzed was 4.3.

- Seventy-two percent of grade 6 artifacts reviewed were calibrated at grade level with 28% below grade level. Some artifacts did not meet the specific expectations of the grade level standard identified, primarily because of standard redundancy.

- Twenty-nine percent of grade 7 artifacts were calibrated at grade level with 71% calibrated at grade 6. Again, standard redundancy was often the reason for the below level calibration. For example, the standard given (W.7.3.) for one grade 7 artifact states, "Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences." The standard (W.6.3) for grade 6 is exactly the same. As a result, this particular grade 7 artifact calibrated to a grade 6.

- Just 12.5% of grade 8 artifacts were calibrated as on grade level, with 75% below grade level and 12.5% a content mismatch. One artifact content mismatch labeled standard W.8.2.c, which states, "Determine a theme or central idea of a text and analyze its development over the course of the text." The artifact had the student read the given text and then answer T/F questions about text details. The questions did not address theme or central idea.

- Eight percent of English language arts artifacts collected from magnet schools were content mismatches, meaning these artifacts did not correspond with the intent of the objective cited, or no other standard at any grade level was a match.

Exhibit 3.5.9 displays the calibration analysis for K-8 mathematics artifacts collected from magnet schools.

Exhibit 3.5.9

Grade Level Calibration for Mathematics K-8
Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	86%									14%	K
1	43%	57%									.6
2		12%	44%							44%	1.8
3				86%						14%	3.0
4					78%					22%	4.0
5				17%		66%				17%	4.6
6				14%			86%				5.6
7								100%			7.0
8								14%	86%		7.9
* Items considered a content mismatch (CM) are not included in the grade level average.											

As noted in Exhibit 3.5.9:

- Average grade levels for grades 1, 2, 5, 6, and 8 math artifacts collected from magnet schools were below the identified grade level.

- Fifty-seven percent of grade 1 artifacts were calibrated at grade level, while 43% were below grade level. Sometimes redundancy of the standards played a part. An artifact labeled with 1.MD.4, "Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another," was calibrated to grade K because of the grade K standard K.MD.3, "Classify objects or people into given categories; count the numbers in each category and sort the categories by count." (Note: In kindergarten, the standard has the note that categories should be limited to a maximum of 10 objects/members. The first grade standard does not have this restriction; however, the artifact only used 10 items or less for any category.)

- Forty-four percent of grade 2 artifacts were calibrated at grade level, with 12% one grade level below. Forty-four percent of grade 2 artifacts were a content mismatch. Some of the artifacts did not address the standard in its entirety. An example is an artifact labeled with 2.NBT.7, which states, "Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds." The artifact activity is 20 three-digit by three-digit addition problems involving regrouping without concrete models and strategies based on place value.

- Eighty-six percent of grade 3 artifacts calibrated to grade 3 standards. Fourteen percent of artifacts were a content mismatch.

- Seventy-eight percent of grade 4 artifacts calibrated to grade 4 standards. Twenty-two percent of the artifacts were a content mismatch. One example is Standard 4.NBT.5, which states, "Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models." The artifact only partially aligned with this standard. It did not have students illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

- Sixty-six percent of grade 5 artifacts calibrated to the grade level, with 17% below grade level and 17% a content mismatch. One grade 5 artifact aligned closer to 3.NF.1, which states, "Understand a fraction 1/*b* as the quantity formed by 1 part when a whole is partitioned into *b* equal parts; understand a fraction *a*/*b* as the quantity formed by *a* parts of size 1/*b*," than to grade 5 standard 5.NF.1, "Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators." The artifact had the student answer a word problem by partitioning the contents of a box of candy bars into 1/3s.

- Eighty-six percent of grade 6 artifacts and 86% of grade 8 artifacts were calibrated at grade level.

- All grade 7 artifacts calibrated to the grade 7 standards.

- Twelve percent of K-8 mathematics artifacts collected from magnet schools were content mismatches.

Exhibit 3.5.10 displays the calibration analysis for K-5 science artifacts collected from magnet schools.

Exhibit 3.5.10

Grade Level Calibration for Science K-5
Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	1	2	3	4	5	6	7	8	*CM	
K	71%									29%	K
1		67%								33%	1.0
2			67%							33%	2.0
3				100%							3.0
4				14%	43%					43%	3.8
5						86%				14%	5.0

* Items considered a content mismatch (CM) are not included in the grade level average.

As noted in Exhibit 3.5.10:

- With the exception of grade 4, all K-5 science artifacts collected from magnet schools not considered a content mismatch were calibrated on grade level.

- Twenty-nine percent of the grade K artifacts from magnet schools were a content mismatch. One such artifact labeled with science standard ESS3.5 had the student label the parts of a flower (petals, leaves, stem), which was not what the standard required. The standard states, "Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live."

- Thirty-three percent of grade 1 and grade 2 artifacts were a content mismatch. The grade 2 standard 2-LS2-2 states, "Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants." The artifact for this standard did not have the student develop a simple model.

- All grade 3 artifacts collected from magnet schools were calibrated to the grade 3 standards for science.

- Forty-three percent of grade 4 science artifacts were calibrated to the standards, and 43% were a content mismatch. The standard 4-PS3-2 states, "Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents." The artifact linked to this standard is an example of a content mismatch in that it has the student cut and paste illustrations of a light bulb and a battery onto a piece of paper. Then the student pastes a piece of yarn to connect the light bulb to the battery. This standard requires students to actually make observations as evidence of the transfer of electric currents.

- Eighty-six percent of grade 5 artifacts were calibrated to the standards with 14% a content mismatch.

- Twenty-five percent of the K-5 science artifacts collected from magnet schools were a content mismatch.

Exhibit 3.5.11 displays the calibration analysis for K-5 social studies artifacts collected from magnet schools.

Exhibit 3.5.11

Grade Level Calibration for Social Studies K-5
Magnet Schools
New Haven Public Schools
April 2019

Grade Level from which Artifact Was Collected	Percent of Student Artifacts Compared with Grade Level Standards Distributed by Grade										Average Grade Level of Student Work
	K	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	***CM**	
K	83%									17%	K
1	33%									67%	K
2	29%		42%							29%	1.2
3		13%		74%						13%	2.7
4					50%					50%	4.0
5						33%				67%	4.0

* Items considered a content mismatch (CM) are not included in the grade level average.

As noted in Exhibit 3.5.11:

- Average grade levels of social studies artifacts collected from magnet schools were below the identified grade level for grades 1, 2, 3, and 5.

- Forty-one percent of K-5 social studies artifacts analyzed were content mismatches.

- Eighty-three percent of K artifacts were calibrated at grade level, while 17% were a content mismatch.

- Thirty-three percent of grade 1 artifacts were calibrated below grade level, with 67% a content mismatch. One example of content mismatch was an artifact labeled with standard CIV1.6, which states, "Explain the need for and the purposes of rules in various settings inside and outside of school." The artifact linked to this standard had the student complete a graphic organizer about "My community is Urban." The student was to write about what is in an urban community such as libraries, apartments, etc. The artifact did not address the need for and purposes of rules.

- Forty-two percent of the grade 2 artifacts analyzed were calibrated at grade level, 29% below grade level, and 29% a content mismatch. One example of a grade 2 artifact calibrated to grade K was linked to standard GEO 2.1, which states, "Construct geographic representations of familiar places." The grade K standard GEO K.1 states, "Construct maps, graphs and other representations of familiar places." The two standards have some wording differences, but the content is essentially the same, leaving the teacher without a specific way to assess or quantify what the standard should look like for a particular grade level. Because the two standards are so similar, auditors calibrated the artifact to grade K.

- Seventy-four percent of grade 3 artifacts calibrated to grade 3 standards. Thirteen percent of grade 3 artifacts were calibrated below grade level, and 13% a content mismatch. One content mismatch example was found for the artifact linked to the social studies standard CIV 3.5, which states, "Distinguish the responsibilities and powers of government officials at various levels and branches of government." The artifact instructed the student to describe the responsibilities of Congress only.

- Fifty percent of grade 4 artifacts were calibrated at grade level, while the other 50% were found to be content mismatches. One grade 4 artifact required the student to list facts about the country of China such as population, square miles, traditional costumes, and Chinese food recipes. There were no instructions to tie the facts to cultural or environmental relationships, or to geographic boundaries

with other countries. This artifact was calibrated as a content mismatch because auditors could not find a standard at any grade that simply requires the student to describe basic facts about a foreign country.

- Thirty-three percent of the grade five social studies artifacts calibrated to grade level, and 67% were a content mismatch. One example of a content mismatch was a grade 5 artifact linked to social studies standard HIST 5.1. This standard states, "Create and use a chronological sequence of related events to compare developments that happened at the same time." The artifact requires the student to write two descriptive details the author uses to help the reader feel as if they were in the "Triangle Factory Fire." This is a content mismatch to the standard because the artifact does not instruct the student use a chronological sequence of related events to compare developments that happened at the same time.

Overall, auditors found that 45% of English language arts artifacts collected from magnet schools were calibrated at level and 47% below grade level across grades K-8. Eight percent of ELA artifacts were a mismatch for content. Seventy-seven percent of math artifacts were calibrated at level with 11% below level, and 12% a content mismatch across grades K-8. Seventy-three percent of K-5 science artifacts were calibrated at level, 2% below level, and 25% a content mismatch. Forty-seven percent of K-5 social studies artifacts were calibrated at grade level, 12.5% below grade level, and 40.5% a content mismatch. When the results of analyses of magnet school K-8 ELA and math and K-5 science and social studies artifacts are taken together, 61% were calibrated as on grade level, 18% below grade level, and 21% a content mismatch. None of the magnet school artifacts calibrated above grade level.

Exhibit 3.5.12 displays a comparison between magnet and non-magnet school artifact calibration for K-8 ELA.

Exhibit 3.5.12

Comparison Between Magnet and Non-Magnet School Artifact Calibration
K-8 English Language Arts
New Haven Public Schools
April 2019
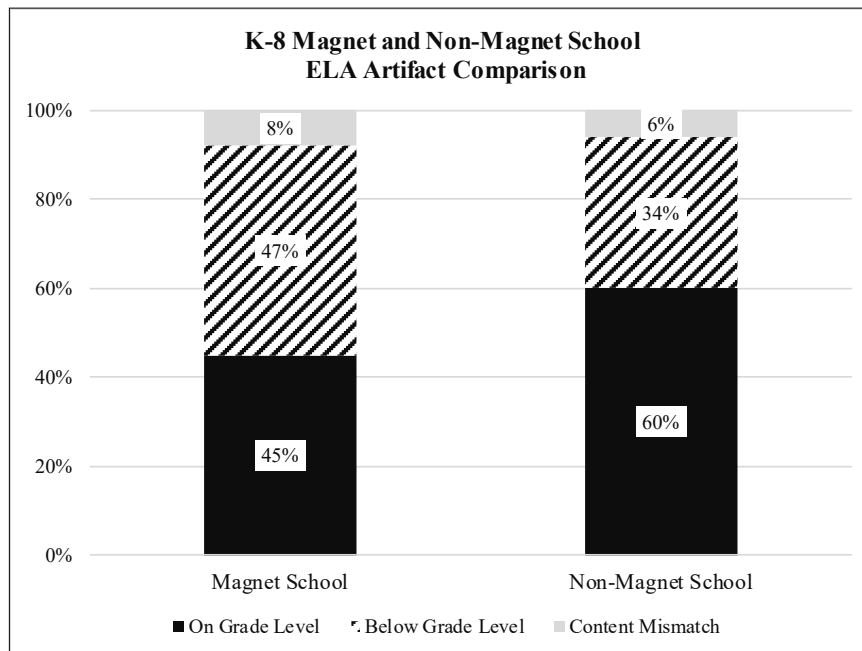
As indicated in Exhibit 3.5.12:

- Sixty percent of non-magnet school English language arts artifacts were calibrated to the assigned grade level, while 45% of magnet school artifacts were calibrated on grade level.

- Thirty-four percent of non-magnet school artifacts were calibrated below the assigned grade level, while 47% of magnet school artifacts were calibrated below grade level.

- Six percent of non-magnet school artifacts and 8% of magnet school artifacts were a content mismatch. As stated earlier, many of the content mismatches were due to redundancy of the English language arts standards across grade levels.

Exhibit 3.5.13 displays a comparison between magnet and non-magnet school artifact calibration for K-8 math.

Exhibit 3.5.13

Comparison Between Magnet and Non-Magnet School Artifact Calibration
K-8 Mathematics
New Haven Public Schools
April 2019

K-8 Magnet and Non-Magnet School Math Artifact Comparison
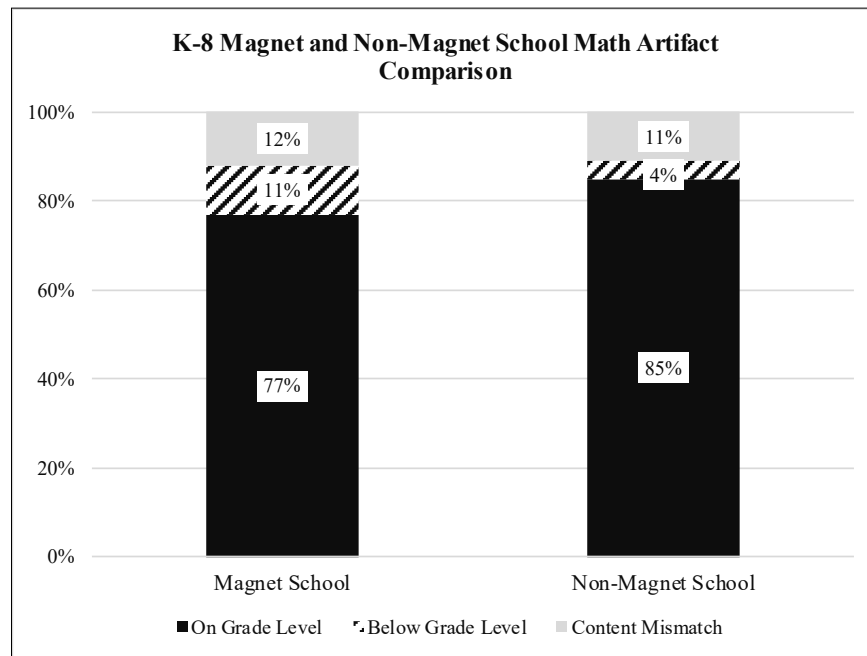
Exhibit 3.5.13 shows the following:

- Eighty-five percent of non-magnet school math artifacts were calibrated to the assigned grade level, while 77% of magnet school artifacts were calibrated on grade level.

- Just 4% percent of non-magnet school artifacts were calibrated below the assigned grade level, while 11% of magnet school artifacts were calibrated below grade level.

- Eleven percent of non-magnet school artifacts and 12% of magnet school artifacts were a content mismatch. In some cases a content mismatch was determined when a math worksheet focused on some but not all elements of the labeled math standard.

Exhibit 3.5.14 displays a comparison between magnet and non-magnet school artifact calibration for K-5 science.

Exhibit 3.5.14

Comparison Between Magnet and Non-Magnet School Artifact Calibration
K-5 Science
New Haven Public Schools
April 2019
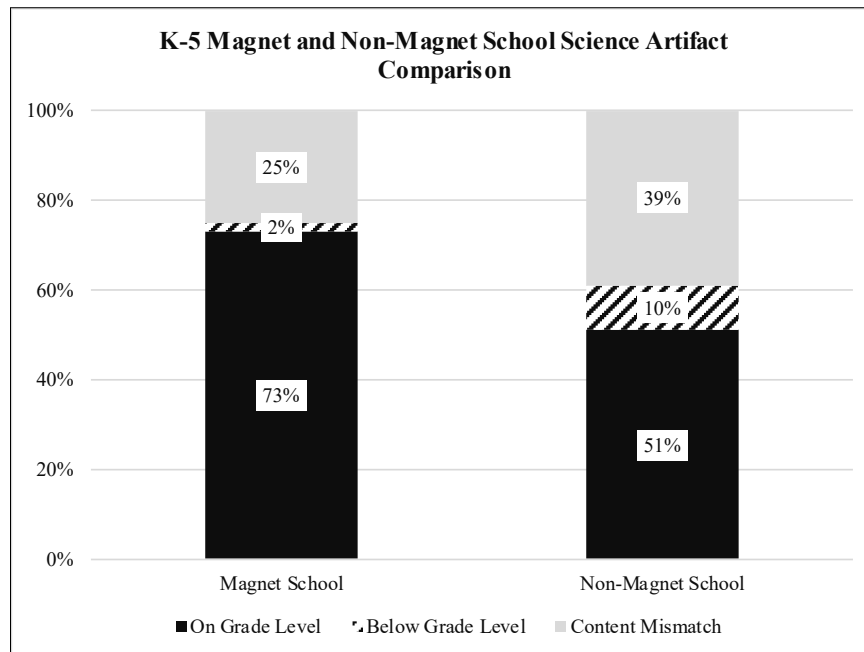
Exhibit 3.5.14 shows that magnet schools science artifacts calibrated slightly better than non-magnet schools:

- Seventy-three percent of magnet school math artifacts were calibrated to the assigned grade level, while 51% of non-magnet school artifacts were calibrated on grade level.

- Just 2% percent of magnet school artifacts were calibrated below the assigned grade level, while 10% of non-magnet school artifacts were calibrated below grade level.

- Twenty-five percent of magnet school artifacts and 39% of non-magnet school artifacts were a content mismatch. As was the case for math artifacts, a content mismatch was determined often when a science activity focused on some but not all elements of the labeled science standard.

Exhibit 3.5.15 displays a comparison between magnet and non-magnet school artifact calibration for K-5 social studies.

Exhibit 3.5.15

Comparison Between Magnet and Non-Magnet School Artifact Calibration
K-5 Social Studies
New Haven Public Schools
April 2019
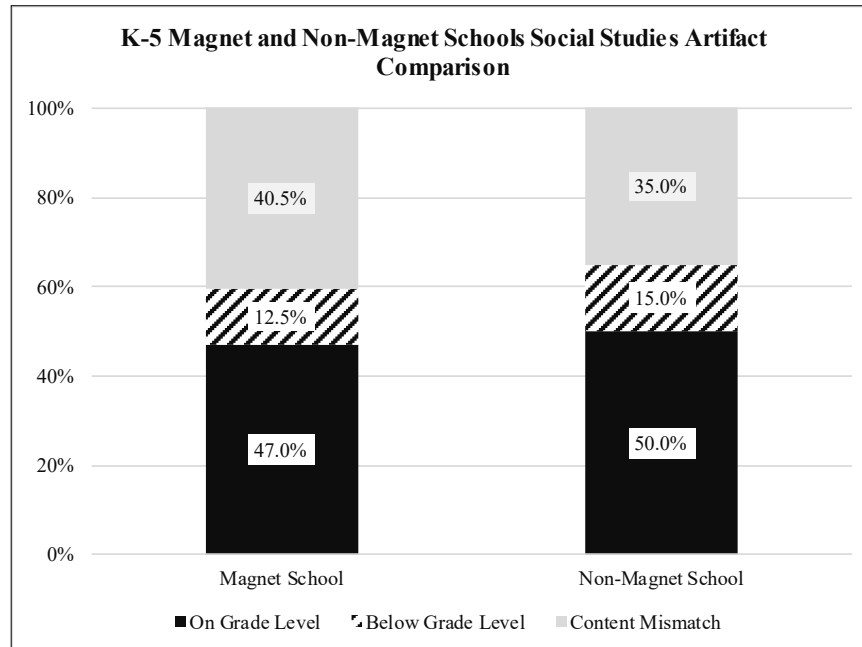
Exhibit 3.5.15 indicates the following:

- Fifty percent of non-magnet school social studies artifacts and 47% of magnet school artifacts were calibrated to the assigned grade level.

- Fifteen percent of non-magnet school artifacts and 12.5% of magnet school artifacts were calibrated below the assigned grade level.

- Thirty-five percent of non-magnet school artifacts and just over 40% of magnet school artifacts were a content mismatch. Auditors found that many of these artifacts were social studies topics selected to measure student mastery of labeled English language arts standards. One such artifact was labeled as W.5.4 (Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience) and HIST 5.2 (Compare life in specific historical periods to today). A rubric for W.5.4 was attached. The artifact instructed the student to describe the historical period in which Harriet Tubman lived. The artifact did not have the student address one element of the social studies standard, to compare that historical period to today.

Exhibit 3.5.16 displays results of calibration of K-8 English language arts and mathematics and K-5 science and social studies magnet and non-magnet school artifacts combined.

Exhibit 3.5.16

Magnet and Non-Magnet School Student Artifact Calibration Combined
K-8 English Language Arts and Mathematics, K-5 Science and Social Studies
New Haven Public Schools
April 2019
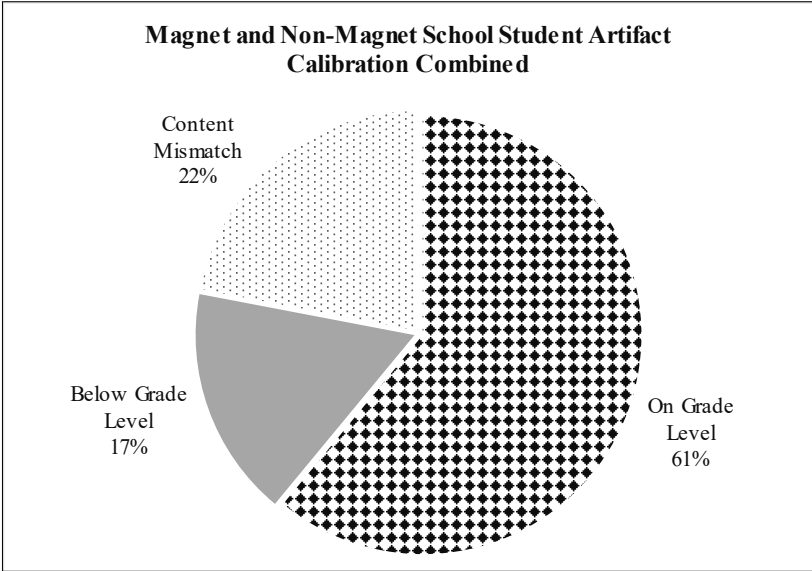
As noted in Exhibit 3.5.16, auditors found that 61% of artifacts were calibrated as measuring mastery of the grade level standard across grades K-8 ELA and math and ELA and grades K-5 science and social studies. Seventeen percent of all magnet and non-magnet artifacts calibrated below grade level while 22% were a mismatch for content.

The calibration of K-8 ELA and mathematics artifacts and K-5 science and social studies artifacts uncovered some differences between non-magnet and magnet school artifacts. Auditors found that non-magnet school mathematics and social studies artifacts calibrated on grade level more often than magnet school artifacts for the same core areas. English language arts and science artifacts calibrated to grade level at about the same rate for those collected from magnet and non-magnet schools. None of the artifacts analyzed calibrated above grade level. NHPS teachers wishing to ensure meeting the needs of each student, thus maximizing student performance, must actively seek to provide their students with activities at the correct level of difficulty, and sometimes that means activities above grade level.

Artifact Alignment Analysis for Multi-Grade Standards

As noted earlier, the New Generation Science standards and the Connecticut Secondary Social Studies Framework for grades 6-8 and high school science and social studies are not grade level specific but rather cover a span of grade levels. In addition, at the high school level, students from a variety of grade levels may take a given English language arts or mathematics course, and performance expectations do not necessarily build upon one another. For example, Algebra I skills are critical for Algebra II but may not impact performance in Geometry.

Analyses for artifacts presented in these content areas and grade levels were conducted using the standard as a basis to gauge how well the artifact was measuring student mastery. Artifacts were calibrated to the standards and described as measuring mastery of the standard, partially measuring mastery of the standard, or not measuring mastery of the standard. In order to meet the requirements for alignment to the standard, an artifact needed to measure the content described in the standard. Artifacts that partially measured mastery of the standard were

missing at least one of the standard components. Artifacts that were calibrated as not measuring mastery of the standard were missing all or most of the standard components.

Grades 6-8 Science and Social Science

Exhibit 3.5.17 displays the standard alignment results for grades 6-8 magnet and non-magnet school science artifacts.

Exhibit 3.5.17

6-8 Science Artifact Standard Alignment
New Haven Public Schools
April 2019
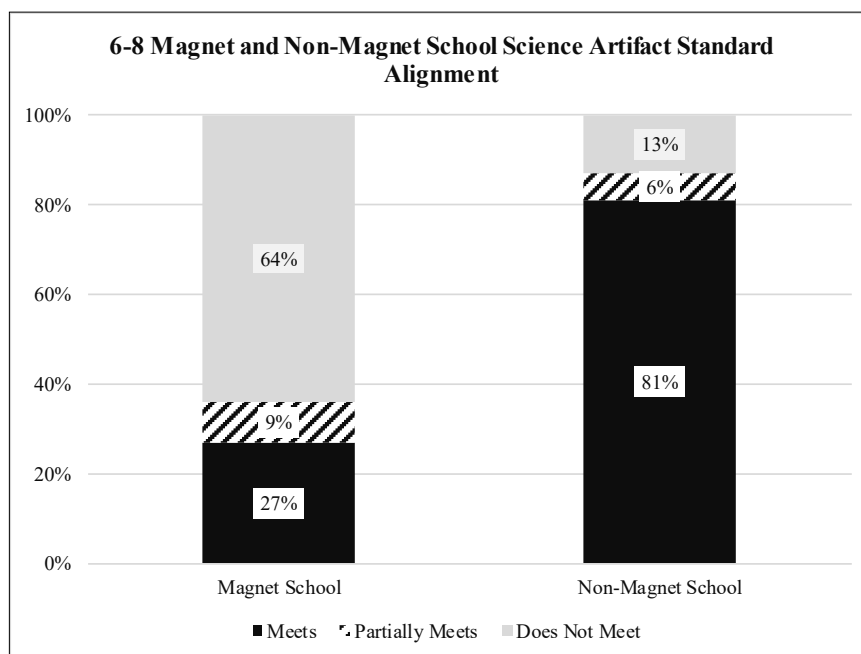
As noted in Exhibit 3.5.17:

- Eighty-one percent of 6-8 non-magnet school science artifacts and 27% of magnet school science artifacts measured mastery of standard(s) that were identified.

- Nine percent of magnet school science artifacts and 6% of non-magnet school artifacts partially met the requirements for measuring mastery of the standard. One artifact intended to demonstrate mastery of standard ESS1-5, "Evaluate evidence of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the ages of crustal rocks," was considered partially met. The artifact had students look at evidence of past and current movements of continental and oceanic crust and the theory of plate tectonics, but did not require students to explain the ages of crustal rocks as a result of the evidence.

- Sixty-four percent of magnet school science artifacts and 13% of non-magnet school science artifacts did not meet the requirements of measuring mastery of the identified standard. For example, one artifact labeled with standard MS-ESS1.1, "Develop and use a model of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons," asked students to define, illustrate, and write in a sentence vocabulary related to the Earth, sun, and stars. The focus of this artifact was not the intent of the identified standard.

Exhibit 3.5.18 describes the standards calibration results for grades 6-8 magnet and non-magnet school social studies.

Exhibit 3.5.18

6-8 Social Studies Artifact Standard Alignment
New Haven Public Schools
April 2019
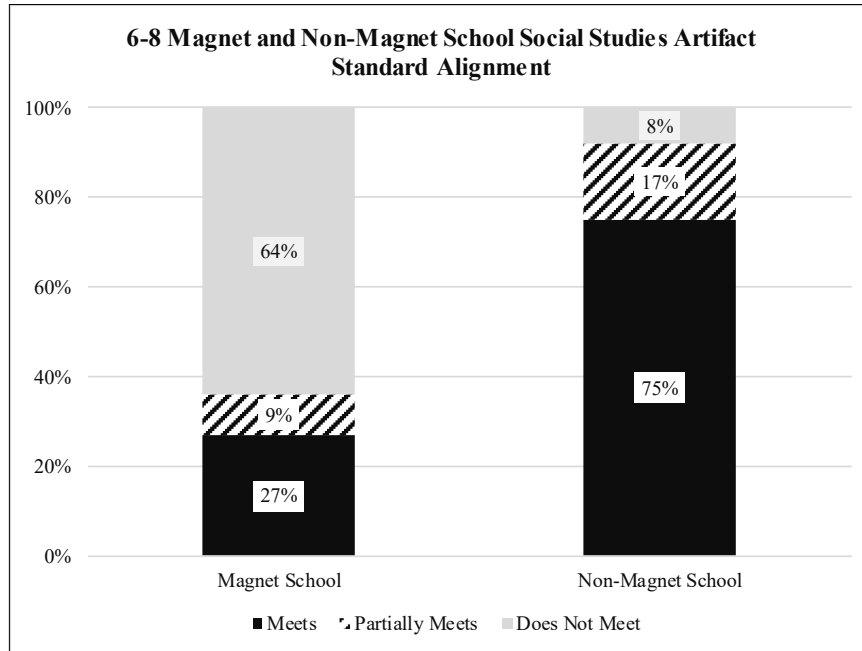
As noted in Exhibit 3.5.18:

- Sixty-four percent of magnet school artifacts and 8% of non-magnet school artifacts did not meet the requirements for measuring mastery of the standard. In some cases the content of the artifact was not aligned with the standard. One artifact had the student research important demographics of a country in Africa. There are no social studies standards requiring students to solely describe the demographics of a country. The standard identified for this artifact was GEO – 8.3: "Explain how changes in transportation and communication technology influence the spatial connections among human settlements and affect the diffusion of ideas and cultural practices." Transportation and communication technology were not addressed by this activity in any way. Misalignment can also occur if teachers are using resources that are not deeply aligned with the standard (see Finding 2.4).

- Seventeen percent of non-magnet school artifacts and 9% of magnet school artifacts partially met the requirements of the identified standards. One artifact labeled as measuring GEO 6—7.5, "Explain the connections between the physical and human characteristics of a region and the identity of individuals and cultures living there," was an example of a partially met artifact. The artifact had the student describe physical and human characteristics of Germany but did not have them explain connections to the identity of individuals and cultures living there.

Overall, 53% of grades 6-8 science and social studies artifacts were aligned and measured mastery of the identified standard(s). Ten percent of artifacts were partially aligned with the standard and 37% did not meet the expectations described in the standard. More non-magnet school science artifacts were aligned with and measured mastery of the standards than magnet artifacts. More non-magnet school social studies artifacts were aligned with the standards than magnet artifacts. The highest percentage (64%) of artifacts considered content mismatches were from magnet school social studies and science. In comparison, just 8% of non-magnet school social studies artifacts and 13% of science artifacts were content mismatches.

<u>High School Standards Alignment</u>

Auditors requested artifacts for English language arts, mathematics, science, and social studies from magnet and non-magnet high schools. So few non-magnet high school artifacts were received that auditors were only able to examine magnet high school artifacts. No comparison between magnet and non-magnet high school artifacts could be completed.

<u>Exhibit 3.5.19</u> displays the standard calibration results for grades 9-12 magnet schools English language arts artifacts.

Exhibit 3.5.19

9-12 Magnet Schools English Language Arts Artifact Standard Alignment
New Haven Public Schools
April 2019
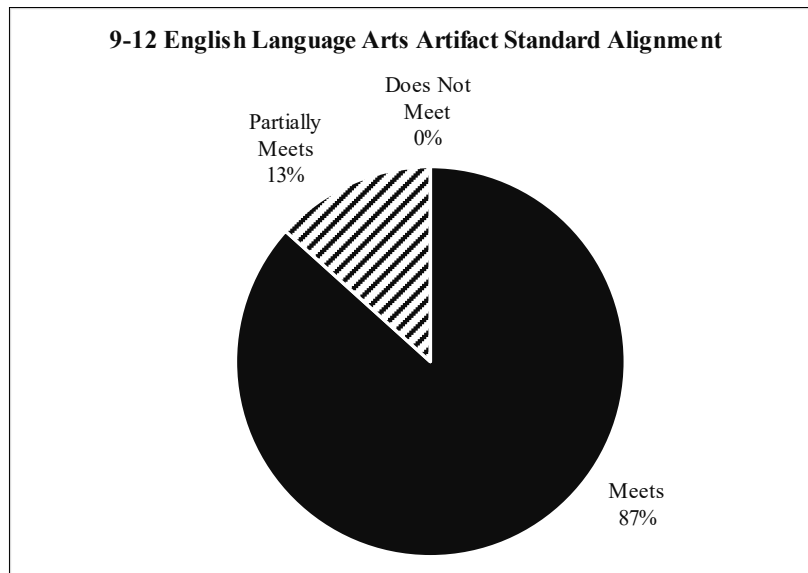
<u>Exhibit 3.5.19</u> shows the following:

- Eighty-seven percent of magnet high school English language arts artifacts aligned with and measured mastery of the identified standards.

- Thirteen percent of the artifacts partially measured mastery of the designated standards. An artifact indicated as measuring standard RI.9-10.1, "Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text," partially meets the standard in that the artifact has the student describe evidence but does not require the student to state what conclusions are drawn from the text.

Exhibit 3.5.20 displays the standard calibration results for grades 9-12 magnet schools mathematics artifacts.

Exhibit 3.5.20

9-12 Magnet Schools Mathematics Artifact Standard Alignment
New Haven Public Schools
April 2019
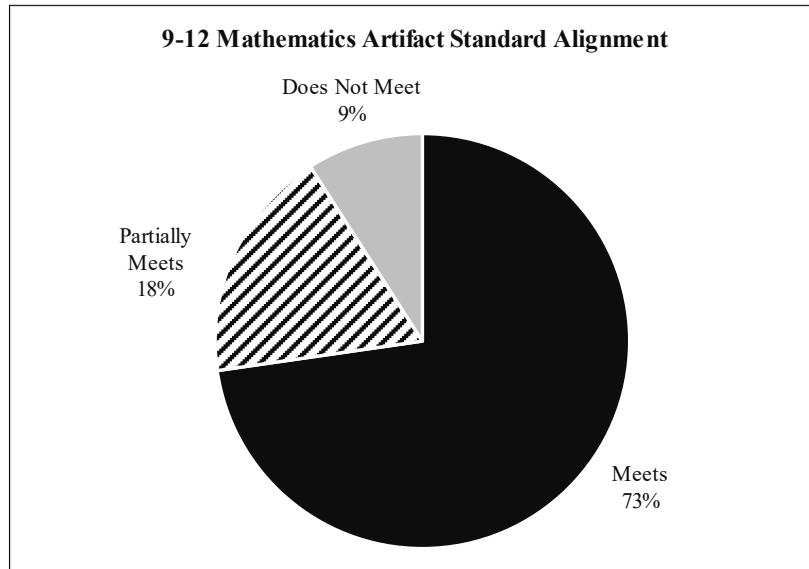
Exhibit 3.5.20 indicates the following:

- Seventy-three percent of high school math artifacts aligned to and measured mastery of the identified standards.

- Eighteen percent of the math artifacts partially met the designated standards. One math artifact partially met was labeled as measuring IF.B.4, "For a function that models a relationship between two quantities, interpret key features of graph and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship." The artifact measured the first part of this standard but did not have the students sketch graphs showing key features given a verbal description of the relationship.

- Nine percent of the magnet high school math artifacts analyzed did not meet the standard.

Exhibit 3.5.21 displays the standard calibration results for grades 9-12 magnet schools science artifacts.

Exhibit 3.5.21

9-12 Magnet Schools Science Artifact Standard Alignment
New Haven Public Schools
April 2021

9-12 Science Artifact Standard Alignment

Meets 33%

Partially Meets 11%

Does Not Meet 56%
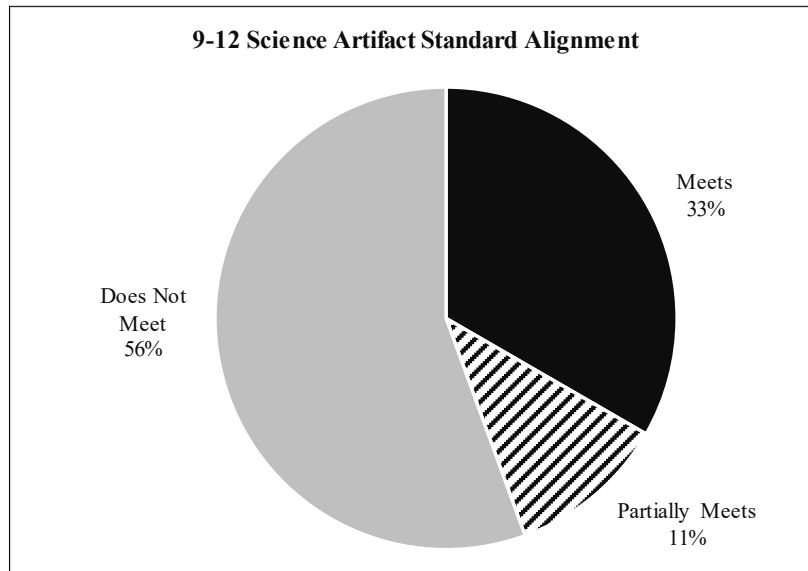
Exhibit 3.5.21 indicates the following:

- Thirty-three percent of magnet high school science artifacts were found to measure mastery of the identified standards.

- Eleven percent of science artifacts partially met the standard. One example was an artifact labeled as measuring mastery of standard HS-ESS3-5, which states, "Analyze geoscience data and the results from global climate models to make an evidence-based forecast of the current rate of global or regional climate change and associated future impacts to Earth's systems." The artifact does have student analyze geoscience data and the results from global climate models but does not instruct the student to make an evidence-based forecast as stated in the standard.

- Fifty-six percent of high school science artifacts did not meet the identified standards. One artifact that did not measure mastery of the designated standard had the student complete a periodic table "crossword puzzle." The student uses clues such as "I have 26 protons," and "My atom mass is 35,453." The labeled standard was HS PSI.1: "Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms." Another artifact was labeled as measuring science standard HS LS4.5. This standard has students look at the influence of humans on genetic outcomes in artificial selection. The artifact does not measure mastery of this standard as it focuses mainly on the time frame in history of five mass extinctions that have occurred and their biological significance.

Exhibit 3.5.22 displays the standard alignment results for grades 9-12 magnet schools social studies artifacts.

Exhibit 3.5.22

9-12 Magnet Schools Social Studies Artifact Standard Alignment
New Haven Public Schools
April 2019

9-12 Social Studies Artifact Standard Alignment

Does Not Meet 29%

Partially Meets 0%

Meets 71%
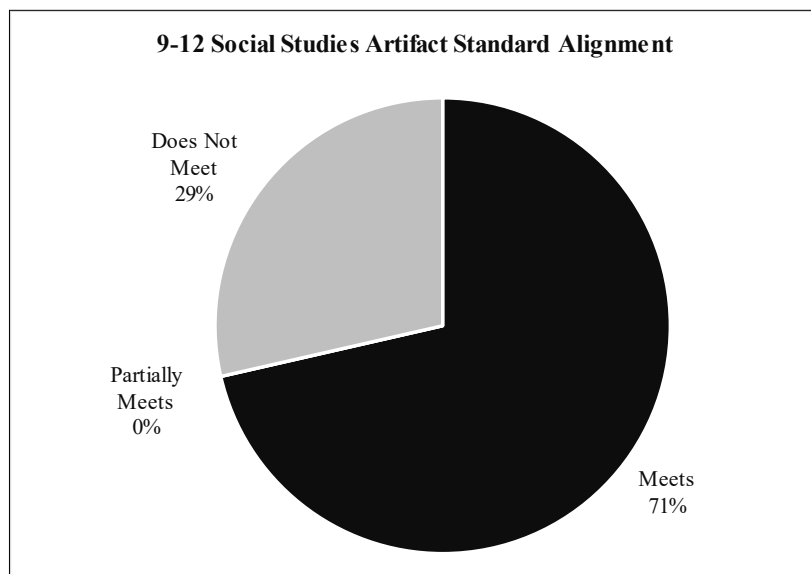
Exhibit 3.5.22 indicates the following:

- Seventy-one percent of magnet high school social studies artifacts met the requirements of the identified standards.

- Twenty-nine percent of social studies artifacts analyzed did not measure mastery of the identified standards. One example is an artifact that was identified as aligned with standard GEO.7.9-12: "Evaluate how changes in environment and cultural characteristics of a place or region influence special patterns of trade and land use." The artifact was designed to address map skill deficiencies. Students fill in the blanks with factual information from their reading and maps provided. Another artifact that did not meet the standard was one that was identified by the teacher as aligning with HIST 9-12.9: "Analyze the relationship between historical sources and the secondary interpretations made from them." The artifact instructs the student to define WWII terms and summarize information about historical figures.

Overall, 66% of all magnet high school artifacts analyzed measured the identified standards. Eleven percent of high school artifacts partially met the standards and 24% did not meet the identified standards. Auditors found more high school science artifacts (56%) that were not aligned with the standards than other core content area artifacts. In contrast, just 9% of magnet high school mathematics artifacts were content mismatches.

Cognitive Type Analysis

Cognitive Type is an indicator of the level of thinking required to carry out a given task. Auditors expect the cognitive demand of the written, taught, and tested curriculum to be congruent so that students are not surprised by any of the cognitive demands placed on them in high stakes testing situations. The various assignments and activities collected in classrooms across the district should reveal a range of cognitive demands, so that students have ample opportunity to practice the cognitive skills they will need to be successful on national, state, and local assessments. A strong body of research shows that students who are the lowest performing improve dramatically when they are engaged in problem solving, critical thinking, and decision-making activities. In the simplest terms, the more students are asked to do cognitively, the more they achieve; they quite literally rise to the challenge. Districts wishing to maximize student performance actively seek to provide their students with cognitively rigorous instruction.

Auditors reviewed K-12 English language arts, mathematics, science, and social studies for cognitive demand.

To perform an analysis of cognitive type, auditors used the framework based on Bloom's Revised Taxonomy of cognitive domains, as presented in Exhibit 3.5.23.

Exhibit 3.5.23

Description of Cognitive Types in Bloom's Revised Taxonomy

Cognitive Process Dimension	Definition of Type	Additional Clarification Comments
Remembering	Finding or remembering information.	Answers questions that stem from prompts such as *list, find, name, identify, locate, describe, memorize, or define.*
Understanding	Understanding and making sense out of information.	Answers questions that stem from prompts such as *interpret, summarize, explain, infer, paraphrase, or discuss.*
Applying	Using information in a new (but similar) situation.	Answers questions that stem from prompts such as *use, diagram, make a chart, draw, apply, solve,* or *calculate.*
Analyzing	Taking information apart and exploring relationships.	Answers questions that stem from prompts such as *categorize, examine, compare and contrast, or organize.*
Evaluating	Critically examining information and making judgments.	Answers questions that stem from prompts such as *judge, critique, defend, or criticize.*
Creating	Using information to create something new.	Answers questions that stem from prompts such as *design, build, construct, plan, produce, devise, or invent.*

To analyze the cognitive types of the various artifacts collected, a procedure similar to that used for Objective Contexts was utilized to construct a simple percentage chart. The auditors compared the activity of each artifact to Bloom's Revised Taxonomy, recorded the cognitive type of each artifact, and used those totals, divided by the total number of artifacts, to determine the percentage of each type. Data were organized by content area and then analyzed by grade level spans K-8 and 9-12. Only actual student samples were included in the analysis. Artifacts that were, in fact, the assignment or standard to be learned description, were not analyzed. Student artifacts that could not be deciphered by the auditors and had no accompanying information, such as standards aligned with the task, were not included in the final results. When a student artifact was assigned more than one cognitive type, the highest cognitive demand was recorded. Again, for comparison purposes auditors analyzed artifacts from magnet schools separately from those from non-magnet schools.

Exhibit 3.5.24 shows the cognitive demand results for K-8 English language arts artifacts collected from magnet and non-magnet schools, again for comparison purposes.

Exhibit 3.5.24

K-8 English Language Arts Artifacts Cognitive Demand Analysis
New Haven Public Schools
April 2019
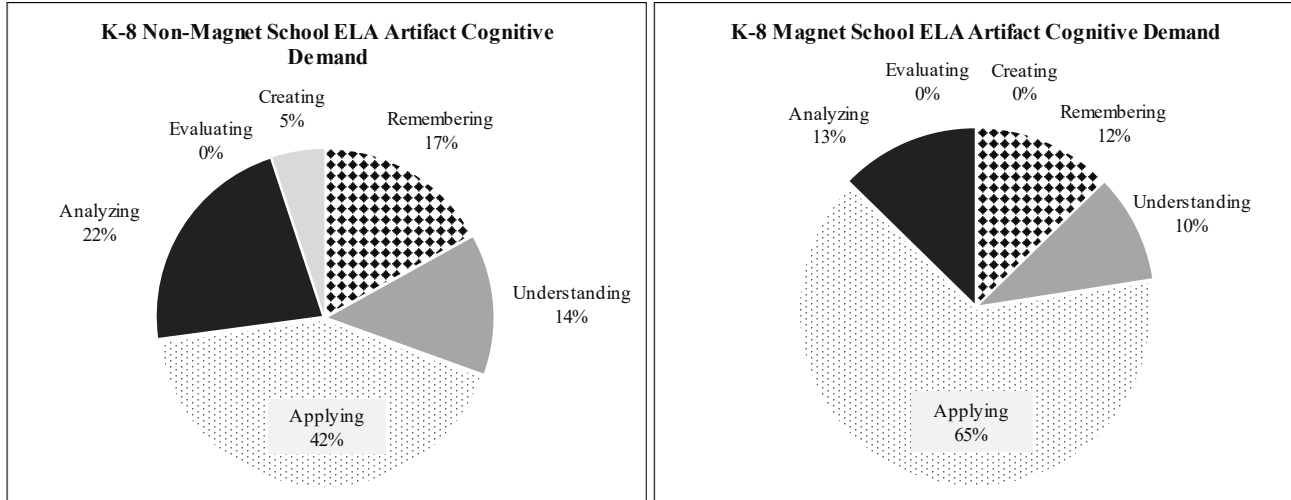
As noted in Exhibit 3.5.24:

- Sixty-five percent of K-8 magnet school artifacts and 42% of non-magnet school artifacts asked students to operate at the applying level of cognition.

- Twenty-two percent of magnet school ELA artifacts and 31% of non-magnet school artifacts were at the remembering or understanding level of cognition. These types of activities ask students to find or remember information or understand and make sense out of information.

- Twenty-two percent of non-magnet school artifacts and 13% of magnet school artifacts were at the analyzing level of cognitive demand. Some of these artifacts presented students with such opportunities as writing opinions, persuasive essays, and comparing and contrasting characters in one text or in multiple texts in an open-ended format. These types of assignments present students with an opportunity to operate at higher levels of cognition.

- Five percent of non-magnet school artifacts were at the highest cognitive level, generating creating in student thinking. As an example, one artifact asked a student to write a eulogy for a character in a story.

Exhibit 3.5.25 shows the cognitive demand results for K-8 mathematics artifacts collected from magnet and non-magnet schools.

Exhibit 3.5.25

K-8 Mathematics Artifacts Cognitive Demand Analysis
New Haven Public Schools
April 2019
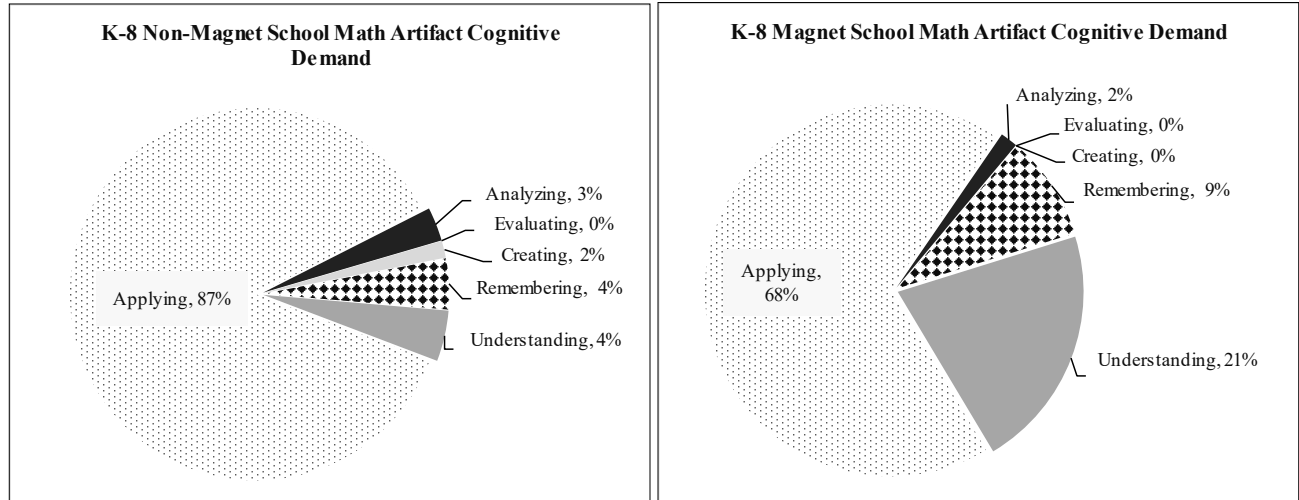
As noted in Exhibit 3.5.25:

- Most of the K-8 math artifacts analyzed were of the applying level of cognition. Auditors analyzed math worksheets where students applied their knowledge to solve word problems, as an example. Eighty-seven percent of non-magnet school artifacts and 68% of magnet school artifacts generated applying in student thinking.

- Thirty percent of K-8 math artifacts collected from magnet schools and 8% of non-magnet schools artifacts asked students to operate at the two lowest levels of cognition, remembering or understanding. One artifact required the student to identify a square, triangle, and circle, generating remembering in student thinking.

- Seven percent of all K-8 mathematics artifacts collected asked students to operate at the analyzing or creating level of cognition. One artifact had the student write down first and second choices for a field trip and then asked the student to determine where the class should go on the field trip based on survey results and cost per student.

Exhibit 3.5.26 displays the cognitive demand results for K-8 science artifacts collected from magnet and non-magnet schools.

Exhibit 3.5.26

K-8 Science Artifacts
Cognitive Demand Analysis
New Haven Public Schools
April 2019
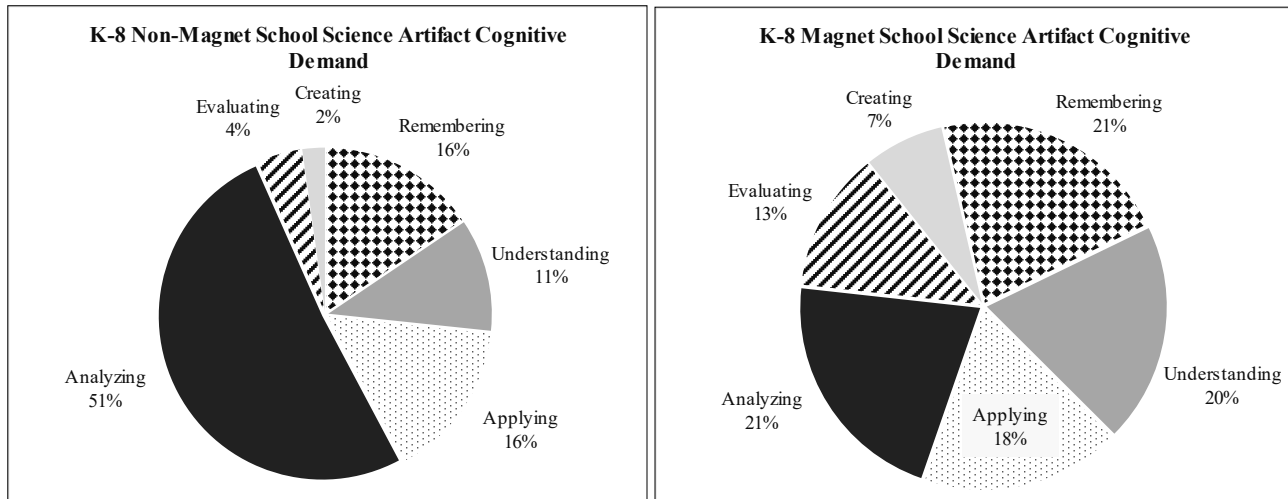
As noted in Exhibit 3.5.26:

- Forty-one percent of magnet school artifacts and 27% of non-magnet school artifacts asked students to operate at the lowest levels of cognition, remembering or understanding.

- Eighteen percent of K-8 magnet school science artifacts and 16% of non-magnet school artifacts asked students to apply their content knowledge to a new or unfamiliar situation.

- Fifty-seven percent of non-magnet school artifacts and 41% of magnet school artifacts asked students to operate at the evaluating, analyzing, or creating level of cognition. Science artifacts at the higher levels of cognition were often science experiment activities. One artifact considered to generate analysis in thinking had the student compare and contrast two possibilities for a science experiment to determine which one would work better. Another artifact, also considered analysis, had the student determine whether the amount of folds in a paper airplane affect the distance it will travel.

Exhibit 3.5.27 displays the cognitive demand results for K-8 social studies artifacts collected from magnet and non-magnet schools.

Exhibit 3.5.27

K-8 Social Studies Artifacts
Cognitive Demand Analysis
New Haven Public Schools
April 2019
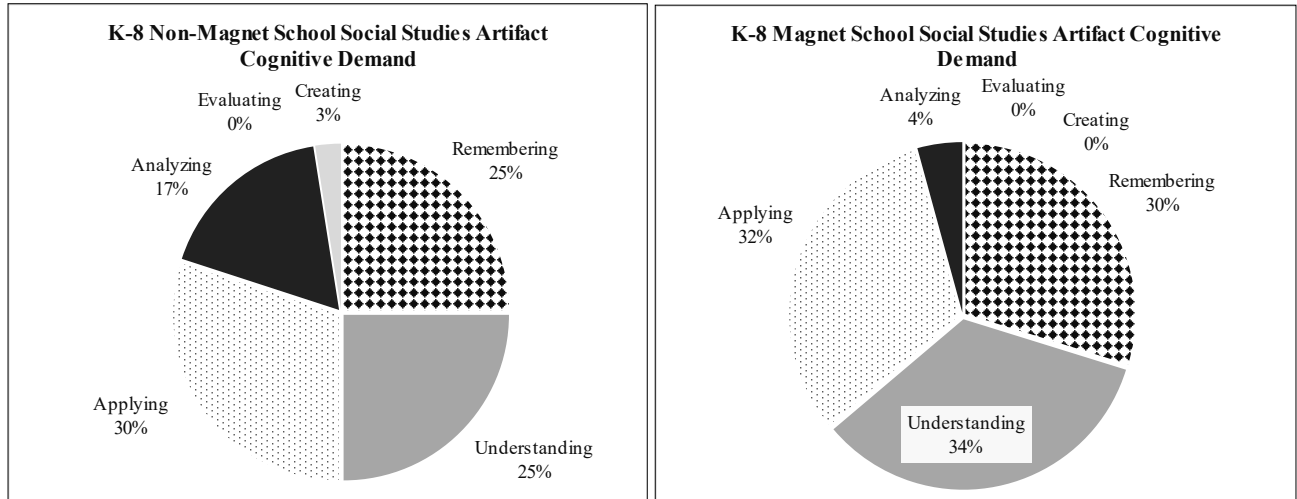
Exhibit 3.5.27 shows the following:

- Sixty-four percent of magnet school social studies artifacts and 50% of non-magnet school artifacts generated the lowest levels of cognition, remembering or understanding.

- Thirty-two percent of magnet school artifacts and 30% of non-magnet school artifacts were at the applying level of cognitive demand.

- Four percent of magnet school artifacts and 20% of non-magnet school artifacts asked students to operate at two of the highest levels of cognition, analyzing and creating.

All thinking skill types are needed within the context of the classroom. While there is no specific recommendation for the proportion of higher-order (Analyzing, Evaluating, Creating) to lower-order (Remembering, Understanding, Applying) thinking skills, the lower-order skills are intrinsic to the higher-order, meaning that districts that work to promote greater cognitive complexity are simultaneously building memory, understanding, and application while extending student thinking beyond those levels.

Exhibit 3.5.28 displays the higher- and lower-order thinking status of K-8 artifacts from all subjects and grade levels collected from district schools. Grades 6, 7, and 8 data are combined as 6-8.

Exhibit 3.5.28

Higher Order Thinking Skills by Grade Level, K-8
New Haven Public Schools
April 2019
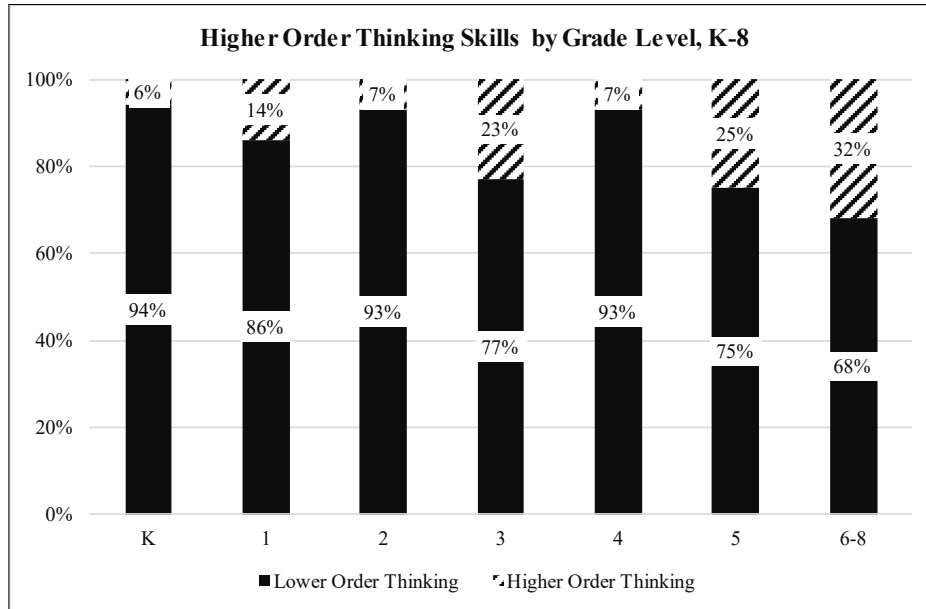
As indicated by Exhibit 3.5.28:

Across all K-8 grade levels, the proportion of higher to lower-order thinking skills fluctuated. Again, there is no specific recommendation for this proportion, but the general trend is for higher order thinking skills to increase as students move up the grades and are more capable of handling tasks such as extended writing or engaging in formalized reasoning. To some extent, lower-order skills are more necessary at the lower grades, but the ability to reason, to evaluate and support evaluation with evidence, and to synthesize information into new forms should be present at all grade levels. The majority of K-5 artifacts generated lower order thinking skills. Grade K had the lowest percent of higher order thinking skills (6%), while grades 6-8 had the highest percent of higher order thinking skills (32%).

Auditors compared artifacts collected from magnet schools with those collected from non-magnet schools because, as noted earlier, they became aware of possible disparities in the resources available to magnet versus non-magnet schools. It was suggested that teachers in magnet schools had richer and more plentiful resources to use in planning and delivering their lessons. Exhibit 3.5.29 displays a comparison of higher order thinking skills between classroom core content artifacts collected from K-8 magnet schools and non-magnet schools.

Exhibit 3.5.29

K-8 Magnet and Non-Magnet School Artifacts
Higher Order Thinking Skills Comparison
New Haven Public Schools
April 2019
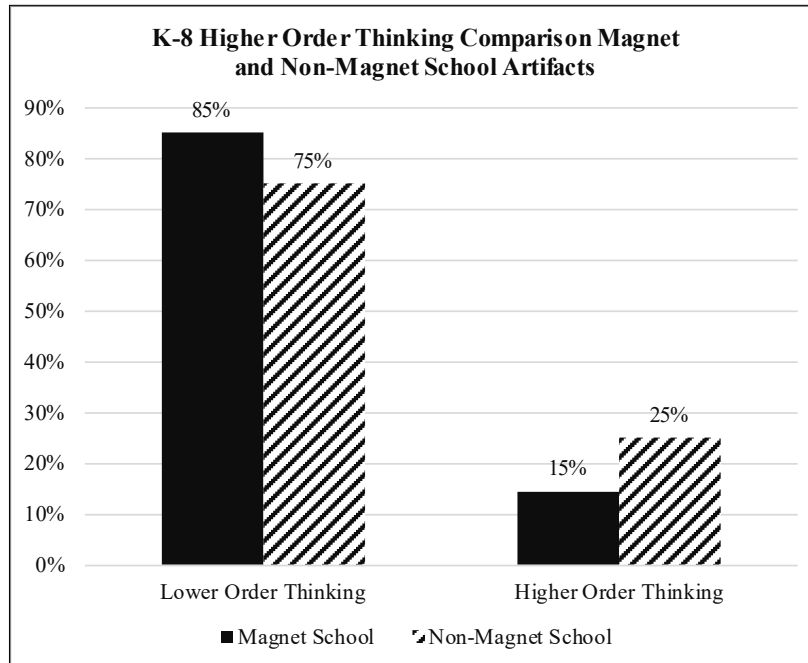
As noted in Exhibit 3.5.29:

- Twenty-five percent of non-magnet school artifacts and 15% of magnet school artifacts required students to operate at a higher order of cognitive skill.

- Eighty-five percent of all K-8 artifacts collected from the district's magnet schools and 75% of artifacts from non-magnet schools generated lower order thinking skills.

When all artifacts analyzed were considered, auditors found that a larger percentage of the artifacts collected from non-magnet schools generated higher order thinking skills than those from the district's magnet schools. Overall, few disparities were determined when examining the cognitive demand required of students in magnet and non-magnet school artifacts.

As noted earlier, so few non-magnet high school artifacts were received that auditors were unable to compare magnet high school artifacts with non-magnet high school artifacts. Exhibit 3.5.30 displays the cognitive demand results for magnet high school English language arts artifacts.

Exhibit 3.5.30

Magnet High School English Language Arts Artifacts
Cognitive Demand Analysis
New Haven Public Schools
April 2019

9-12 Magnet School ELA Artifact Cognitive Analysis

Evaluating, 13%
Creating, 0%
Remembering, 0%
Understanding, 0%
Analyzing, 60%
Applying, 27%
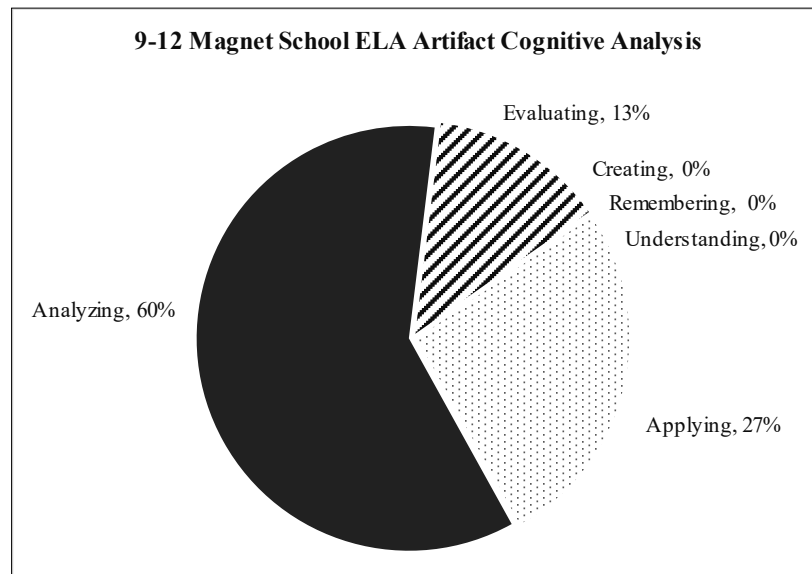
Exhibit 3.5.30 shows the following:

- Sixty percent of magnet high school English language arts artifacts were at the analyzing level of cognitive demand. Many of these artifacts were writing assignments that engaged students in literary analysis. One such artifact had students compare and contrast significant characters from two different texts.

- Twenty-seven percent of high school ELA artifacts generated applying in student thinking. In many of these artifacts the student was tasked with finding details to support a theme given in the assignment.

- Thirteen percent of ELA artifacts analyzed generated evaluating cognitive demand in students. For one such artifact students were asked to argue their reasoning as to why people continue to allow social injustice to occur. Students were to use details from multiple texts to support their claim.

Exhibit 3.5.31 displays the cognitive demand results for magnet high school mathematics artifacts.

Exhibit 3.5.31

Magnet High School Mathematics Artifacts Cognitive Demand Analysis
New Haven Public Schools
April 2019

9-12 Magnet School Math Artifact Cognitive Analysis

Remembering 0%
Understanding 0%
Creating 27%
Evaluating 0%
Analyzing 0%
Applying 73%
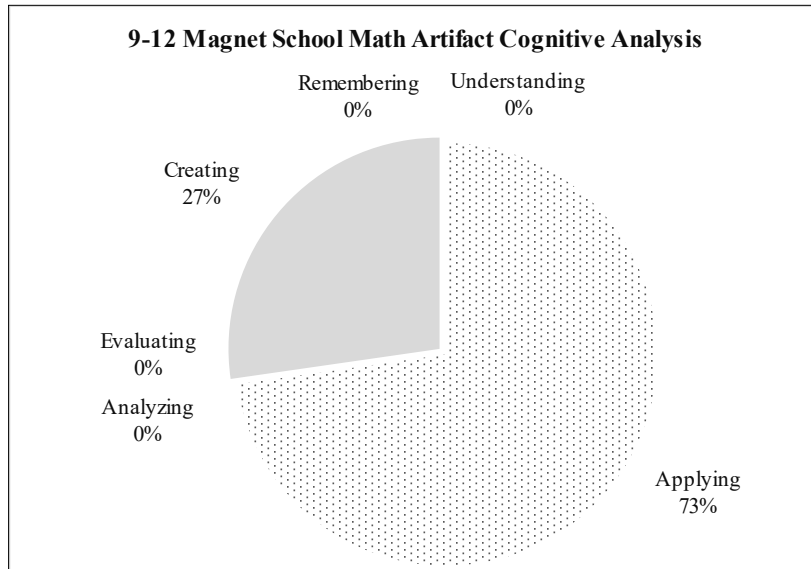
As noted in Exhibit 3.5.31:

- Seventy-three percent of high school mathematics artifacts required students to operate at the applying level of cognition. Students solved routine multi-step problems using information in a new (but similar) situation. An example of one problem was "Given $f(x) = 2x^2$ *and* $g(x) = 3x - 8$, find f(g(3)). The student was to select the answer from four possible responses.

- Twenty-seven percent of artifacts asked students to operate at the creating level of cognitive demand. For one such assignment the student created a map as a model to represent and predict interactions between natural and designed systems. For another artifact the student designed a logo from an equation created by the student.

Exhibit 3.5.32 displays the cognitive demand results for magnet high school science artifacts.

Exhibit 3.5.32

Magnet High School Science Artifacts Cognitive Demand Analysis
New Haven Public Schools
April 2019
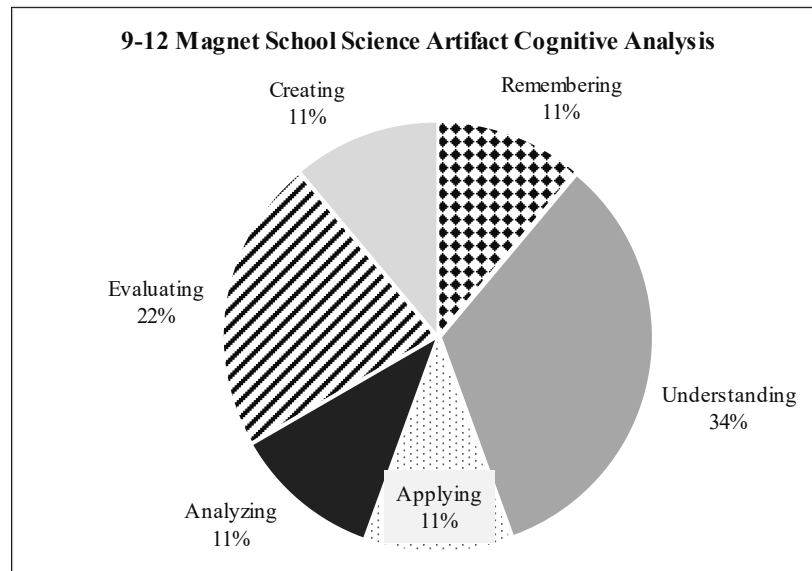
As noted in Exhibit 3.5.32:

- Thirty-four percent of high school science artifacts required students to operate at the understanding level of thinking. For one artifact students underlined key words in a scientific definition, illustrated the definition, and wrote a sentence using one of the underlined key words.

- Twenty-two percent of artifacts were of the evaluating level of thinking. For one such artifact the student analyzed data collected about different bird beaks and how well the beaks do when eating different kinds of food. The student evaluated the data to determine which beak performed the best overall.

- Eleven percent of high school science artifacts generated applying in student thinking. For one artifact the student applied knowledge of mass extinctions to list factors that might cause a large number of species to become extinct.

- Eleven percent of artifacts were of the analyzing level of cognitive demand. In one artifact the student conducted an experiment, collected the data, developed a graph from the data, and then analyzed the graph for proportionality

- Eleven percent of artifacts generated creating in student thinking. For one assignment students created a working model of the digestive system from "junk."

- Eleven percent of artifacts generated remembering in student thinking. One artifact had the student complete a crossword puzzle of the periodic table.

Exhibit 3.5.33 displays the cognitive demand results for magnet high school social studies artifacts. As noted earlier, many of the social studies artifacts collected from the magnet schools were mislabeled with a different numbering system or mislabeled with English language arts standards when a writing assignment. Only those artifacts that could be matched with social studies standards were included in this exhibit.

Exhibit 3.5.33

Magnet High School Social Studies Artifacts Cognitive Demand Analysis
New Haven Public Schools
April 2019

9-12 Magnet School Social Studies Artifact Cognitive Analysis

- Remembering 0%
- Evaluating 0%
- Creating 0%
- Analyzing 43%
- Understanding 57%
- Applying 0%
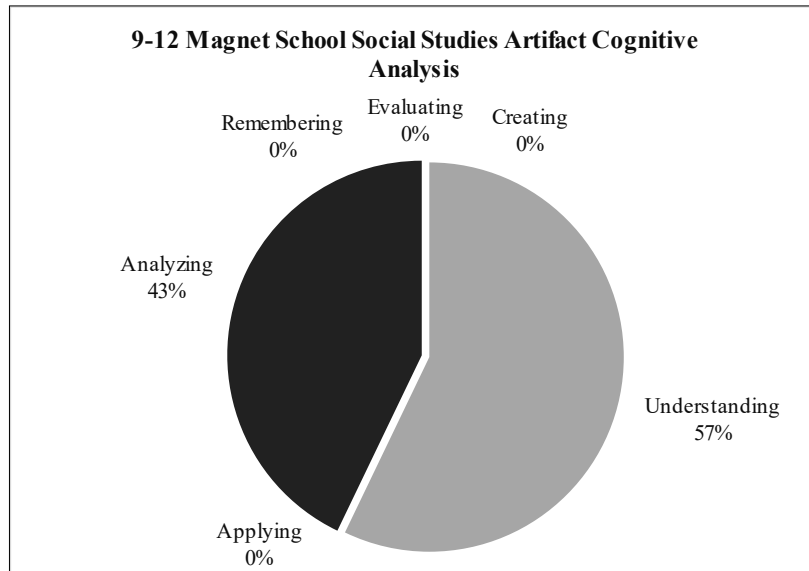
Exhibit 3.5.33 indicates the following:

- Fifty-seven percent of magnet high school social studies artifacts required students to operate at the understanding level of thinking. For example, one artifact had students summarize information about World War II.

- Forty-three percent of artifacts generated the analyzing level of cognitive demand. One such artifact had the student analyze how cultural conflicts profoundly affected the historical developments of the 1920s.

Exhibit 3.5.34 displays the cognitive demand of all magnet high school artifacts analyzed combined.

Exhibit 3.5.34

Magnet High School Artifact Cognitive Demand Analysis
New Haven Public Schools
April 2019

Magnet High School Artifact Cognitive Analysis
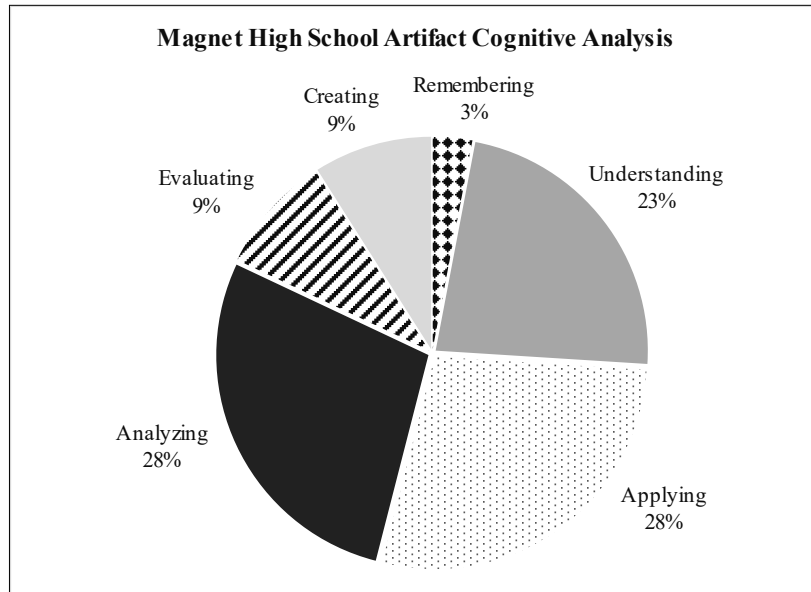
As shown in Exhibit 3.5.34, 28% of all magnet high school artifacts reviewed had students operating at the analyzing level of cognition; 28% of artifacts were also at the applying level of cognitive demand. Twenty-three percent of the high school artifacts were at the understanding level of thinking, and 18% were at the highest levels of cognition, evaluating or creating. Three percent of artifacts were at the lowest level of cognition, remembering.

Exhibit 3.5.35 displays a higher order thinking comparison between K-8 and 9-12 student artifacts. Magnet and non-magnet school artifacts are combined in this exhibit.

Exhibit 3.5.35

Higher Order Thinking Skills Comparison
Between K-8 and 9-12 Artifacts
New Haven Public Schools
April 2019

Higher Order Thinking Skills
Artifact Comparison K-12
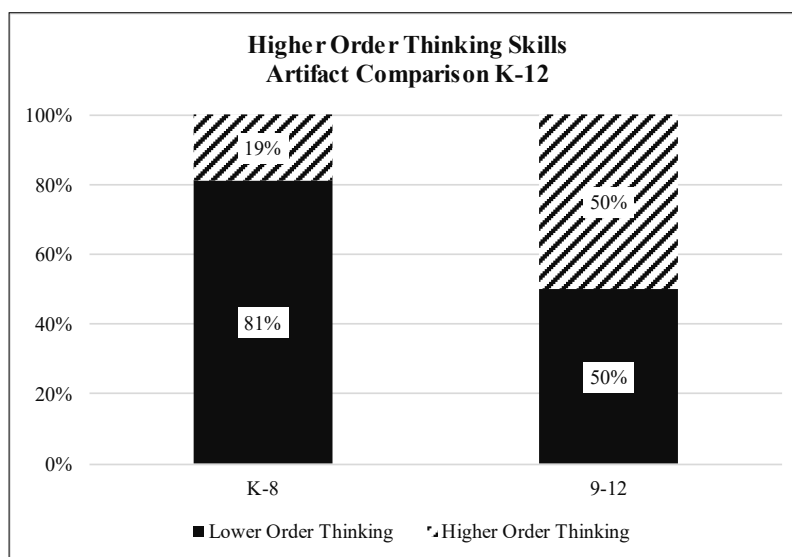
As indicated in Exhibit 3.5.35:

Artifacts generating higher order thinking skills were found more often in the artifacts collected from magnet high schools (50%) than artifacts from magnet and non-magnet K-8 schools (19%).

Overall, higher order thinking skills (Analyzing, Evaluating, and Creating) were found most often in high school English language arts (73%) artifacts. Artifacts for K-8 science (49%), high school science (44%), and social studies (43%) had the next higher percentages requiring higher order thinking. Twenty-seven percent of high school mathematics and 20% of K-8 English language arts artifacts required higher order thinking skills. Only 4% of K-8 mathematics and 12% of K-8 social studies artifacts required higher order thinking skills.

Context Type Analysis

Context is the third area of analysis that was conducted for the classroom student artifacts submitted by the New Haven Public Schools. Context refers to how students are assessed. Context is an important consideration for districts because it can dramatically affect a student's ability to succeed. A multiple-choice question differs greatly from an essay question; assessments taken online are different than those requiring bubble sheets and pencils. A problem requiring a single operation to reach the answer is different than a problem requiring multiple steps. The doctrine of "No Surprises" dictates that students be prepared ahead of time for the contexts they will likely encounter on state and national assessments, and that the students actually be taken even farther in their understanding to ensure success on high stakes tests. Practicing the ways in which a student might be assessed is one way that a district can make success more likely. In order to know what those contexts will be, districts must access released items from the assessments given in their state. It should be noted, however, that at times state tests such as the Connecticut *Smarter Balanced Assessment* do not use engaging contexts or items that are cognitively demanding, and in those cases, it is incumbent on the district to ensure that students go beyond the low expectations of the test.

Contexts also determine the level of cognitive engagement students will likely experience during a lesson. Cognitive engagement is the level at which students are intellectually interested and participating in the activity. Certain types of contexts—ways in which students are called upon to demonstrate their learning—are inherently less engaging than others and, therefore, less likely to promote retention of the material. Students identifying soil attributes using fill-in-the-blank worksheets and a textbook chapter will be less engaged than those who pour water on soil samples at their workstations and observe and record what happens. For most students, particularly those who don't learn as readily, the second method is more likely to "stick" because they will be more cognitively engaged. Exhibit 3.5.36 shows the types of contexts auditors consider in analyzing artifacts.

Exhibit 3.5.36

Context Types

Context	Real World/ Simulated Real World	Test-like	Classroom Activity	Meaningful Writing
Explanation	This type of context replicates activities found in the real world. It is often a hands-on activity.	This context replicates activities and tasks from released test items or from other exit exams in use by the district, such as AP exams. It allows students to practice skills prior to the test. It is important to note that quizzes and tests from a classroom setting do not necessarily fall into this category.	This context is comprised of activities unlikely to be found outside a classroom.	This context requires students to use higher-order thinking skills to complete the writing. The writing is usually of an extended nature.
Examples	Writing a business letter; building a ramp to measure acceleration and velocity; researching a historical period and designing costumes for a play set in that period; planning a travel itinerary; creating a budget using salary and expense information; learning songs in a target language; creating a lunch menu for a special event.	Marking a bubble sheet; selecting from multiple choice items; constructing a short answer; writing an extended response; writing an essay for test purposes; responding to fill-in-the-blank questions.	Vocabulary worksheets; answering questions at the end of a chapter; solving math problems; marking geographical features on a map; labeling parts of a cell; locating examples of figurative language in a poem; fill-in-the-blank worksheets; creating a bar graph using data given; identifying details to support the main idea of a text.	Researching, formulating, and defending a position; analyzing and critiquing a piece of literature; hypothesizing, testing, and evaluating a theory or premise; writing a personal narrative utilizing techniques learned in class; writing a fictional story or poem.

Using the descriptions provided in Exhibit 3.5.36 auditors analyzed each artifact for context.

Exhibit 3.5.37 displays the context analysis for K-8 English language arts artifacts. Again, magnet and non-magnet school artifacts are treated separately for comparison.

Exhibit 3.5.37

K-8 English Language Arts Artifact Context Analysis
New Haven Public Schools School District
April 2019
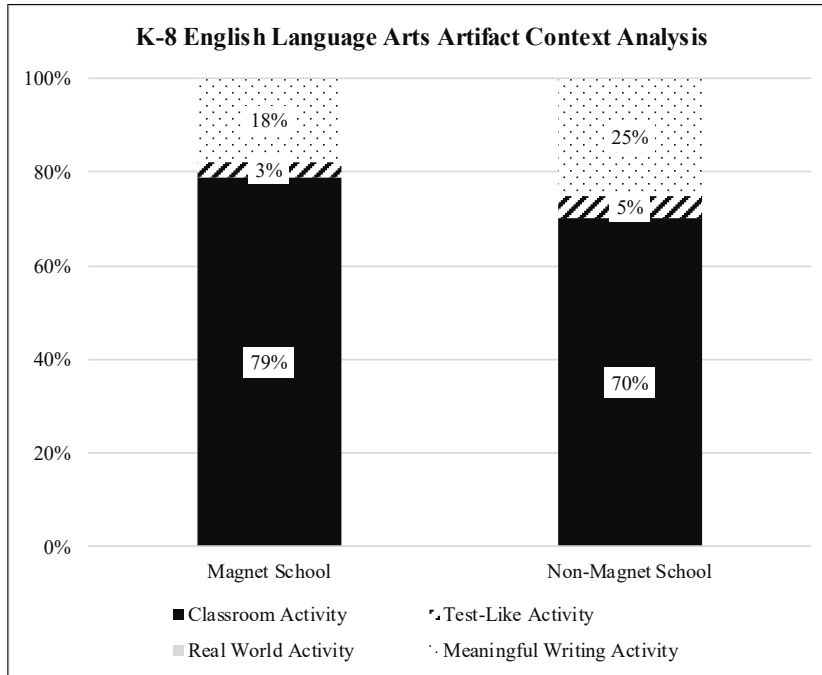
As noted in Exhibit 3.5.37:

- Seventy-nine percent of magnet school artifacts and 70% of non-magnet school artifacts were Classroom Activities. This context is comprised of activities unlikely to be found outside a classroom.

- Twenty-five percent of non-magnet school artifacts and 18% of magnet school artifacts were Meaningful Writing. The writing is usually of an extended nature. Some of the Meaningful Writing artifacts examined instructed the student to write a fictional story or poem. At least one artifact reviewed had the student defend a position about the causes of climate change.

- Five percent of non-magnet school artifacts and 3% of magnet school artifacts were Test-Like activities.

- Auditors did not review any K-5 ELA artifacts that were Real World in context. English language arts exercises that engage students in situations that are relevant to their lives are more likely to increase their motivation and interest.

Exhibit 3.5.38 displays the context analysis for K-8 mathematics artifacts from magnet and non-magnet schools.

Exhibit 3.5.38

K-8 Mathematics Artifact Context Analysis
New Haven Public Schools School District
April 2019
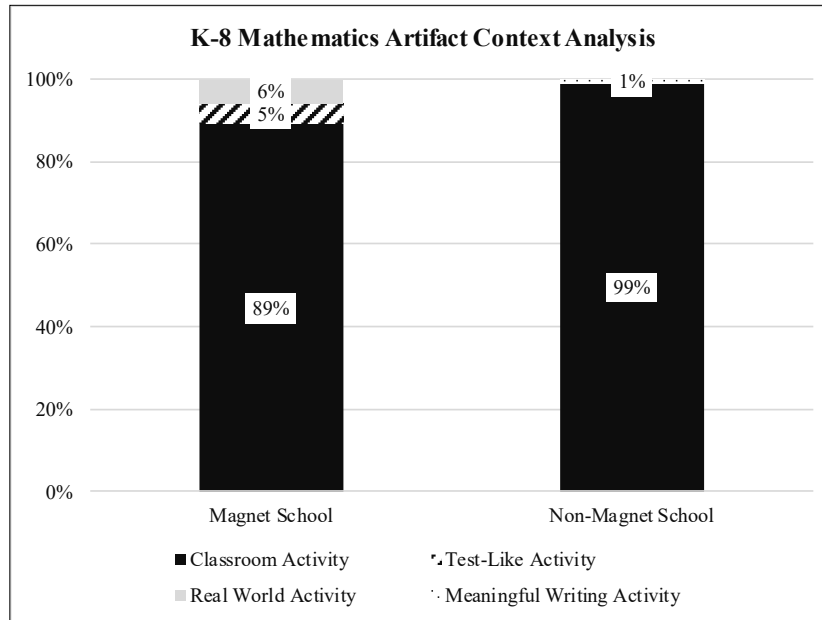
As noted in Exhibit 3.5.38:

- Ninety-nine percent of non-magnet school mathematics artifacts and 89% of magnet school artifacts required students to engage in a Classroom Activity, an activity unlikely to occur outside the classroom. Most of these artifacts were worksheets where students had to solve problems, including word problems.

- Six percent of magnet school artifacts were Real World activities. One artifact instructed students to go to the online eBay site and pretend to purchase an item. The student was to learn what the sales tax rate would be and then figure the final selling price of the item to be purchased. No Real World activities were found among artifacts collected from non-magnet schools.

- Five percent of K-8 mathematics artifacts collected from magnet schools reviewed were Test-Like.

- One percent of non-magnet school artifacts were Meaningful Writing. No magnet school math artifacts were of this context.

Exhibit 3.5.39 presents the context analysis for K-8 science artifacts from magnet and non-magnet schools.

Exhibit 3.5.39

K-8 Science Artifact Context Analysis
New Haven Public Schools School District
April 2019
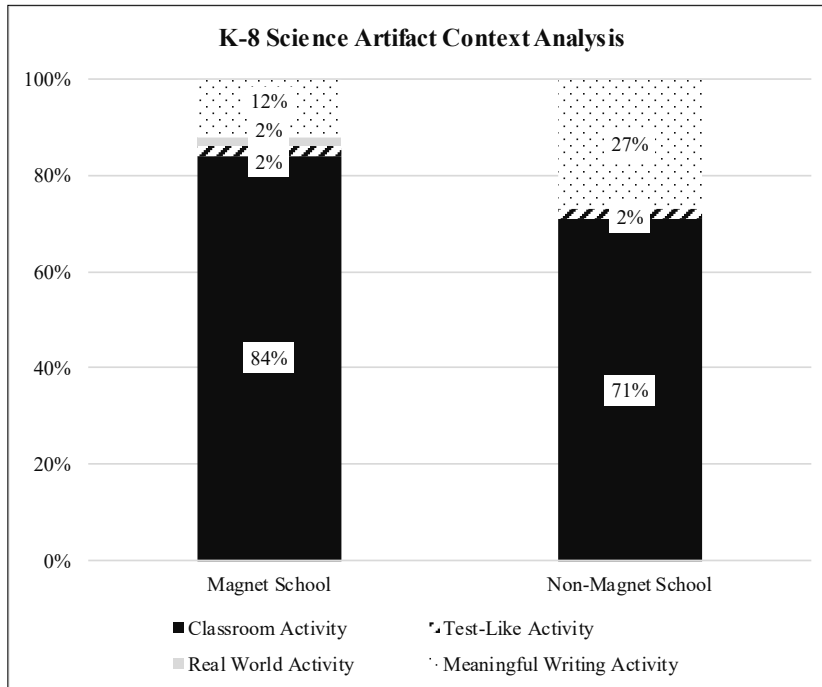
As noted in Exhibit 3.5.39:

- Eight-six percent of K-8 magnet school science artifacts were of the two least engaging types, Classroom Activity and Test-Like. Seventy-three percent of non-magnet school artifacts were Classroom Activity or Test-Like.

- Twenty-seven percent of non-magnet school science artifacts and 12% of magnet school artifacts provided students with opportunities to engage in Meaningful Writing. One kindergarten artifact had students design and create a bridge using various materials such as Legos and parts of a toy train track. Another artifact had the student build a model or draw and label a picture of a survival suit to wear if they were to live in a biome for at least a month. The student was also to present their creation.

- Two percent of the magnet school science artifacts reviewed used Real World context.

Exhibit 3.5.40 presents the context analysis for K-8 social studies artifacts from magnet and non-magnet schools.

Exhibit 3.5.40

K-8 Social Studies Artifact Context Analysis
New Haven Public Schools School District
April 2019
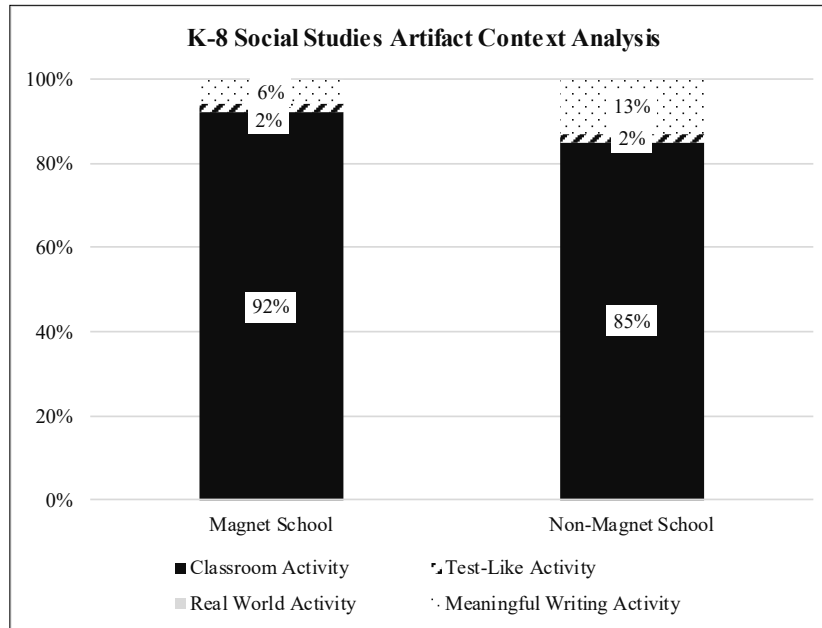
As noted in Exhibit 3.5.40:

- Ninety-four percent of K-8 magnet school social studies artifacts were of the two least engaging types, Classroom Activity and Test-Like. Eighty-seven percent of non-magnet school artifacts were Classroom Activity or Test-Like. Test-like contexts such as multiple-choice and fill-in-the-blank questions were noted.

- Meaningful Writing contexts were identified in 13% of non-magnet school social studies artifacts and 6% of magnet school artifacts. One artifact examined by the auditors had the student analyzing and critiquing a piece of historical literature; another artifact had the student conducting extensive research about a terrible fire in London in 1666 and centered around the theme "Triumph and Tragedy," using multiple sources. The student was to analyze and interpret the findings, drawing conclusions as to how a small fire could turn into a huge fire and identifying which research material was best suited to the project.

Exhibit 3.5.41 presents the context analysis for magnet high school English language arts artifacts.

Exhibit 3.5.41

Magnet High School English Language Arts Artifact Context Analysis
New Haven Public Schools School District
April 2019

9-12 ELA Artifact Context Analysis

Classroom Activity 33%

Test-Like Activity 0%

Real World Activity 0%

Meaningful Writing Activity 67%
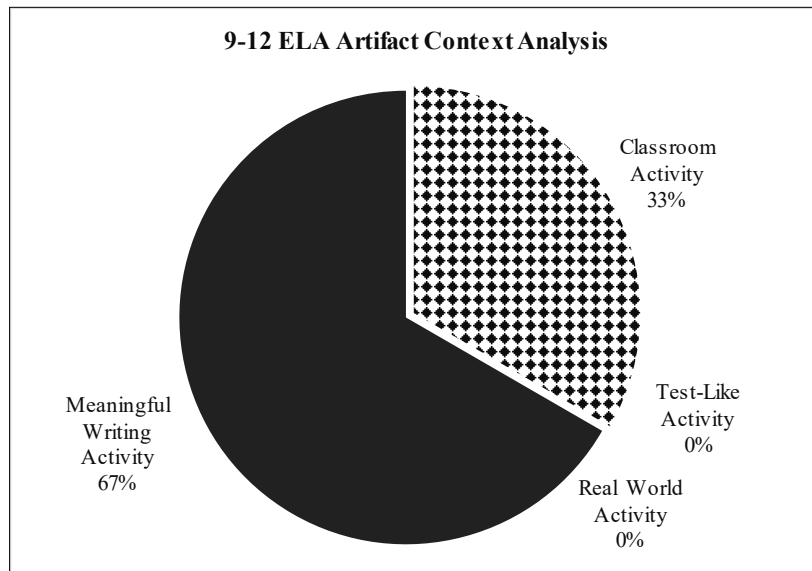
As noted in Exhibit 3.5.41:

- Meaningful Writing, in which students write in an extended format, occurred in 67% of high school ELA artifacts. These experiences allow students to interact with the content deeply and are more cognitively demanding than other types of experiences such as multiple-choice questions or fill-in-the-blank items. Examples of such artifacts included one where students were to read a passage about television in the 1980s and then write an essay in which they support, refute, or qualify assertions made by the author of the passage about television. Another artifact had the student write an argument to support the claim that Macbeth was responsible for his own downfall.

- Classroom Activity occurred in 33% of artifacts. Most of these were set up as open response for the student to answer questions about the text.

- Real World contexts were not found in any of the 9-12 ELA artifacts.

Exhibit 3.5.42 presents the context analysis for magnet high school mathematics artifacts.

Exhibit 3.5.42

Magnet High School Mathematics Artifact Context Analysis
New Haven Public Schools School District
April 2019

9-12 Mathematics Artifact Context Analysis

Meaningful Writing
Activity
0%

Real World
Activity
27%

Test-Like
Activity
0%

Classroom
Activity
73%
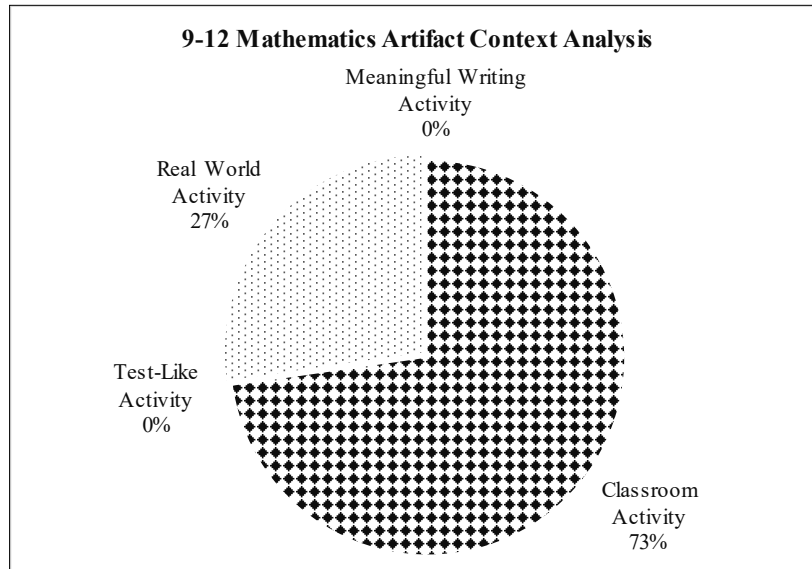
As indicated in Exhibit 3.5.42:

- The context of 73% of magnet high school math artifacts examined was Classroom Activity. Most were worksheets of problems to be solved.

- Real World contexts were noted in 27% of the math artifacts. One of these artifacts instructed the student to design a business. The student was expected to explain the connection between the real world context and the numbers, variables, and operations of the function.

Exhibit 3.5.43 displays the context analysis for magnet high school science artifacts.

Exhibit 3.5.43

Magnet High School Science Artifact Context Analysis
New Haven Public Schools School District
April 2019
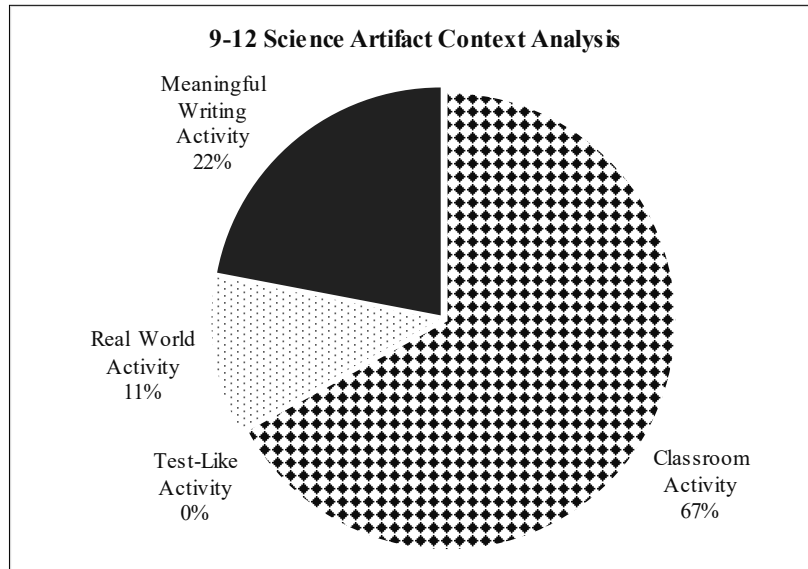
As noted in Exhibit 3.5.43:

- Sixty-seven percent of magnet high school science artifacts were Classroom Activity contexts, meaning they would unlikely occur outside a classroom setting.

- Thirty-three percent of science artifacts were of the two most engaging context types, Real World and Meaningful Writing. Auditors examined science artifacts with a Meaningful Writing context that involved hypothesizing, testing, and evaluating a theory or premise. Science artifacts with Real World context asked the student to design or build a model to test or measure something.

Exhibit 3.5.44 displays the context analysis for magnet high school social studies artifacts.

Exhibit 3.5.44

Magnet High School Social Studies Artifact Context Analysis
New Haven Public Schools School District
April 2019

9-12 Social Studies Artifact Context Analysis

Meaningful Writing Activity 29%
Real World Activity 0%
Test-Like Activity 0%
Classroom Activity 71%
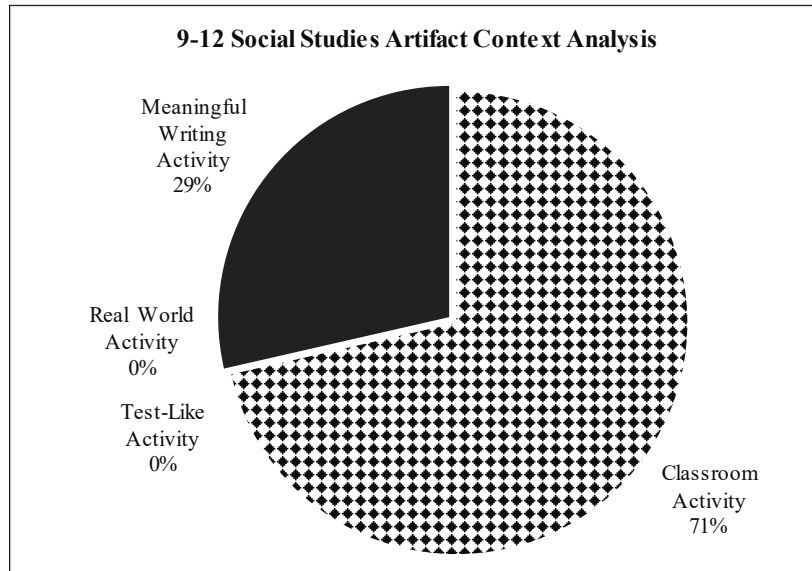
Exhibit 3.5.44 indicates the following:

- The majority (71%) of magnet high school social studies artifact contexts were Classroom Activity. These artifacts most often consisted of fill-in-the-blank to complete sentences, define terms, or respond open-endedly to short answer questions.

- Meaningful Writing contexts occurred in 29% of high school social studies artifacts. One such activity involved writing a personal narrative about what it means to have personal freedom of religion.

- Although social studies high school artifacts had less engaging contexts, the cognitive demand of those artifacts was correspondingly higher than other context areas.

Exhibits 3.5.45 through 3.5.48 provide comparative tables that display across K-8 and 9-12 the percentage of artifacts that provided students contexts that were most engaging (Real World and Meaningful Writing Activities) or least engaging (Classroom and Test-Like Activities). For this analysis magnet and non-magnet K-8 artifacts were combined.

Exhibit 3.5.45 displays a comparison between K-8 and 9-12 English language arts artifacts that were most engaging and least engaging.

Exhibit 3.5.45

English Language Arts Artifact Context Comparison
K-8 and 9-12
New Haven Public Schools
April 2019
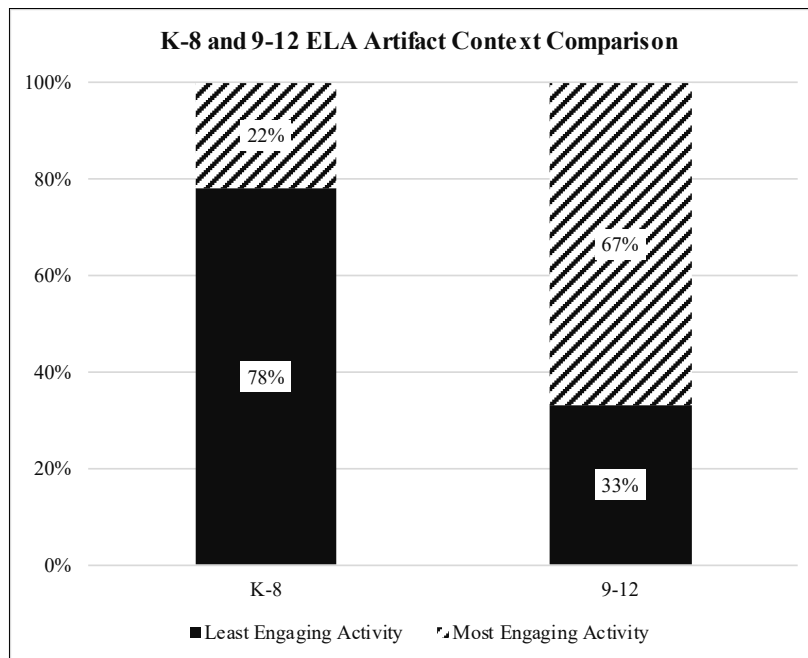
As noted in Exhibit 3.5.45:

- Magnet high school English language arts artifacts had the highest percentage (67%) of most engaging contexts (Real World and Meaningful Writing). Twenty-two percent of K-8 artifacts had most engaging contexts. Students who are involved in more engaging learning activities are more cognitively engaged and learn more.

Exhibit 3.5.46 displays a comparison between K-8 and 9-12 mathematics artifacts that were most engaging and least engaging.

Exhibit 3.5.46

Mathematics Artifact Context Comparison
K-8 and 9-12
New Haven Public Schools
April 2019

K-8 and 9-12 Math Artifact Context Comparison
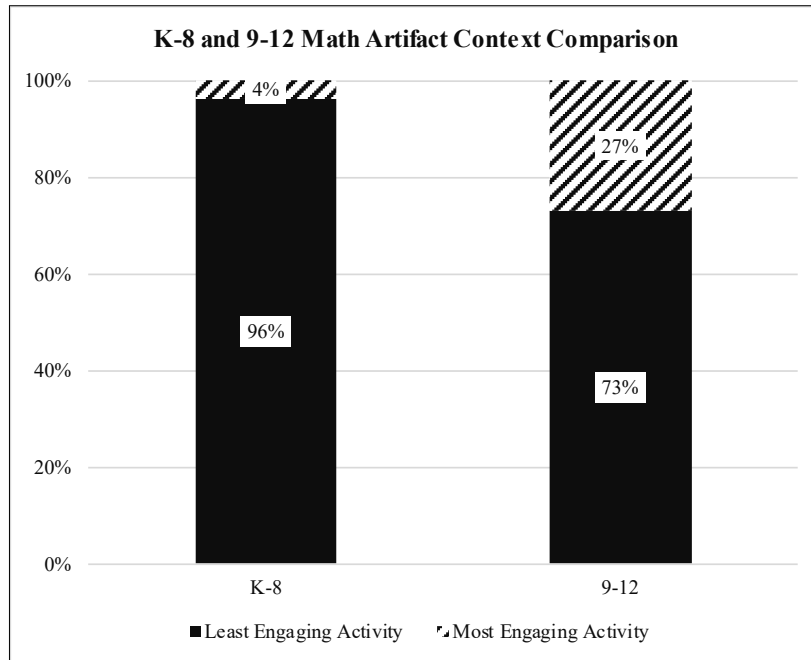
As noted in Exhibit 3.5.46:

- Math artifacts were found to be the least engaging in context when compared with artifacts for other content areas. Ninety-six percent of K-8 and 73% of high school math artifacts were either Classroom Activity or Test-Like.

- Twenty-seven percent of high school math artifacts were most engaging contexts (Real World and Meaningful Writing), while just 4% of K-8 math artifacts were most engaging contexts.

Exhibit 3.5.47 displays a comparison between K-8 and 9-12 science artifacts that were most engaging and least engaging.

Exhibit 3.5.47

Science Artifact Context Comparison
K-8 and 9-12
New Haven Public Schools
April 2019
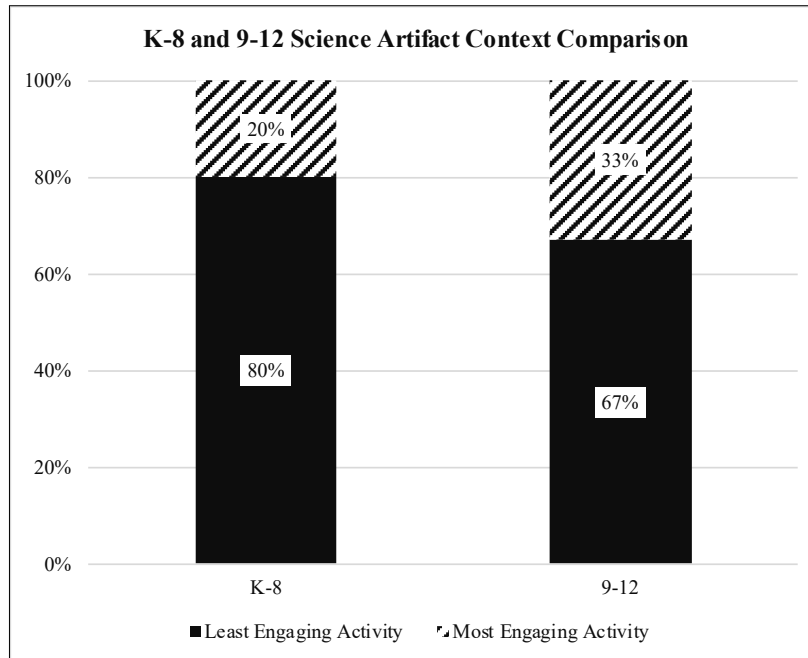
As noted in Exhibit 3.5.47:

- Eighty percent of K-8 and 67% of magnet high school science artifacts were of the least engaging type (Classroom and Test-Like Activities).

- Thirty-three percent of high school and 20% of K-8 science artifacts were of the most engaging type (Real World and Meaningful Writing Activities).

Exhibit 3.5.48 displays a comparison between K-8 and 9-12 social studies artifacts that are most engaging and artifacts that are least engaging.

Exhibit 3.5.48

Social Studies Artifact Context Comparison
K-8 and 9-12
New Haven Public Schools
April 2019
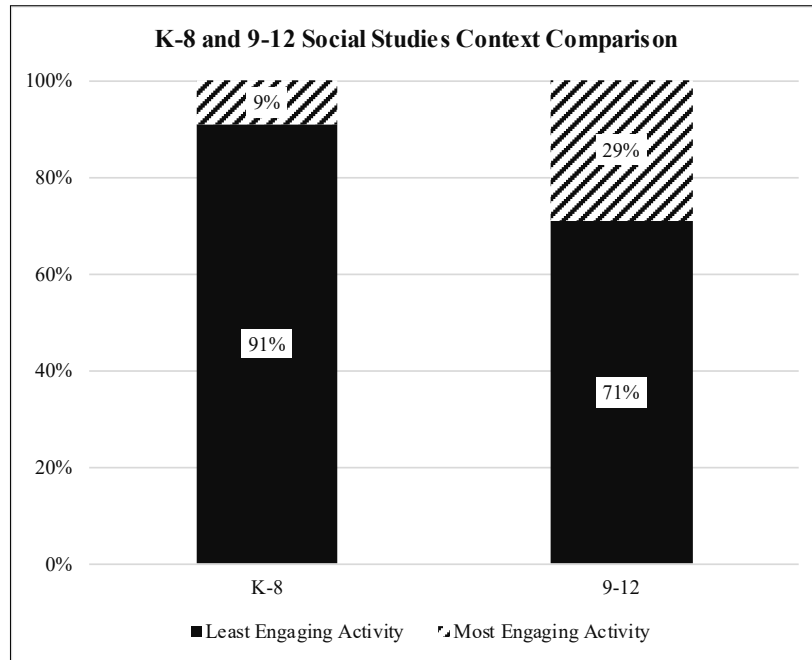
As noted in Exhibit 3.5.48:

- Ninety-one percent of K-8 and 71% of high school social studies artifacts were of the least engaging context type.

- Twenty-nine percent of high school and 9% of K-8 social studies artifacts were of the most engaging context type.

Overall, 74% percent of all K-12 artifacts analyzed for context were of the least engaging types of Classroom and Test-Like Activities. Twenty-six percent of all artifacts were of the most engaging types (Real World and Meaningful Writing Activities). Some artifacts in mathematics and science presented opportunities at K-8 and 9-12 for activities that mimicked the real world. English language arts, science, and a few social studies artifacts were presented that allowed for meaningful writing experiences. The math artifacts showed little or no evidence of Real World contexts.

Artifact Analysis Summary

When auditors calibrated K-8 English language arts and mathematics and K-5 science and social studies artifacts to the standards, they did not find differences that significantly support the perception that magnet school instruction is inherently better than non-magnet schools. For example, 62% of K-8 non-magnet school and 60% of magnet school artifacts calibrated to the grade level standard. Fifty-three percent of all K-8 English language arts artifacts calibrated to the grade level standard. Some artifacts did not meet the specific expectations of the grade level standard that were identified because of standard redundancy. Most K-8 mathematics artifacts calibrated to the identified grade level standard. Thirty-eight percent of all K-5 social studies and 32% of all K-5 science artifacts were a content mismatch.

Most non-magnet school science and social studies artifacts for grades 6-8 measured mastery of the identified standard. Only 27% of grades 6-8 magnet school science and social studies artifacts met the standard. Most of the grades 9-12 English language arts, mathematics, and social studies artifacts met expectations for measuring mastery of the identified standards. Sixty-seven percent of grades 9-12 science artifacts partially met or did not meet expectations of the identified standards.

Higher order thinking skills (Analyzing, Evaluating, Creating) identified by the auditors using the lens of the Revised Bloom's Taxonomy framework were most often found at the high school. Fifty percent of all high school artifacts and 19% of all K-8 artifacts analyzed generated higher order thinking skills. Most of these were English language arts and science artifacts. Sixty-six percent of all artifacts analyzed generated lower order thinking skills (Remembering, Understanding, Applying).

The majority of K-12 artifact contexts were Classroom Activities, the least engaging type of activity. Few artifacts were Real World activities. Seven percent of artifacts were Meaningful Writing activities. Most of these were English language arts and science artifacts. One percent of mathematics artifacts included Meaningful Writing activities.

The artifact calibration and alignment to the standards findings suggest a problem with both standard specificity and horizontal coordination. Research has also determined that cognitive complexity is inherently more engaging to students, meaning that it will sustain their interest better than lower-level remembering and understanding can. Low cognitive demand and least engaging contexts do not adequately prepare students for high stakes assessments and college career readiness.

STANDARD 4: The School District Uses the Results from System-Designed and/or -Adopted Assessments to Adjust, Improve, or Terminate Ineffective Practices or Programs.

A school system meeting this audit standard has designed a comprehensive system of assessment/testing and uses valid measurement tools that indicate how well its students are achieving designated priority learning goals and objectives. Common indicators are:

- A formative and summative assessment system linked to a clear rationale in board policy;

- Knowledge, local validation, and use of current curricular and program assessment best practices;

- Use of a student and program assessment plan that provides for diverse assessment strategies for varied purposes at all levels—district, school, and classroom;

- A way to provide feedback to the teaching and administrative staffs regarding the effectiveness of classroom instruction, how it is evaluated and subsequently improved;

- A timely and relevant database upon which to analyze important trends in student achievement;

- The degree to which specific programs have clear vision and direction and are actually producing desired learner outcomes or results;

- A database to compare the strengths and weaknesses of various programs and program alternatives, as well as to engage in equity analysis;

- A database to modify or terminate ineffective educational programs;

- A method/means to relate to a programmatic budget and enable the school system to engage in cost-benefit analysis; and

- Organizational data gathered and used to continually improve system functions.

A school district meeting this audit standard has a full range of formal and informal assessment tools that provide program information relevant to decision making at classroom, building (principals and school-site councils), system, and board levels.

A school system meeting this audit standard has taken steps to ensure that the full range of its programs is systematically and regularly examined. Assessment data have been matched to program objectives and are used in decision making.

What the Auditors Expected to Find in the New Haven Public Schools:

The auditors expected to find a comprehensive assessment program for all aspects of the curriculum, pre-K through grade 12, which:

- Was keyed to a valid, officially adopted, and comprehensive set of goals/objectives of the school district;

- Was used extensively at the site level to engage in program review, analysis, evaluation, and improvement;

- Was used by the policy-making groups in the system and the community to engage in specific policy review for validity and accuracy;

- Was the foci and basis of formulating short- and long-range plans for continual improvement;

- Was used to establish costs and select needed curriculum alternatives; and

- Was publicly reported on a regular basis in terms that were understood by key stakeholders in the community.

Overview of What the Auditors Found in the New Haven Public Schools:

This section is an overview of the findings that follow in the area of Standard Four. Details follow within separate findings.

Standard Four focuses on assessment: planning for assessment, scope of the curriculum covered by assessments, assessment trends, and the use of assessment and program evaluation data. Auditors found that the New Haven Public Schools lacks a singular and focused comprehensive assessment plan that specifically defines the critical characteristics essential for directing the district's efforts in assessment and student achievement.

The auditors found that the scope of formal assessment in New Haven Public Schools did not meet audit standard to guide decision making about the written and taught curriculum in all core and non-core courses. In order for a district to achieve adequacy for scope, 100% of core courses and at least 70% of non-core courses must have an assessment instrument. Overall, 17% of New Haven Public School courses had a formative assessment and 9% had a summative assessment, which failed to meet the requirement for adequacy.

New Haven Public Schools score lower than both state and national averages on assessments in all student groups. Data indicate widening achievement gaps between special education and general education, English Learner (EL) students and general education, and between Black/African American and White students. There are disparities in achievement between these student groups with no indication that this situation will change unless current conditions in the district are changed.

The auditors found that the district does not have a program evaluation plan to guide decision makers in using data regarding the selection, implementation, monitoring, or termination of instructional programs. The auditors also determined that the use of data to inform decision making is inconsistent throughout all schools and at all levels of the system. There is no systematic process to train educators in the use of data and no assurance that data are being used effectively in the classroom to influence teaching and student achievement. The auditors did note that the district has begun a data improvement process initiative to guide the use of data for improved student achievement.

Finding 4.1: The district lacks a comprehensive student assessment plan to guide curricular and instructional decisions and to ensure that assessment data are used for improving student achievement.

Assessments can provide a wealth of information to a school system. The information can guide individual teachers, help individual students learn, while also providing valuable data that district officials can utilize to make decisions that impact all students in the district. However, to effectively utilize this information, clear planning and procedures are necessary.

A comprehensive, coherent student assessment plan provides the primary basis for making sound decisions regarding the effectiveness of curriculum design and delivery. An effective assessment planning system enhances the probability that students are being assessed appropriately, includes both formative and summative measures, and ensures that data from those assessments are utilized to make sound decisions that positively impact student learning.

Informed, systematic curriculum decisions become possible when data from student assessment can be reviewed and considered in identifying areas of strengths and weaknesses in the curriculum. Without consistent district-wide utilization and review of assessment information, curriculum decisions are left to past practices, opinions, or speculations by district, school, and classroom personnel. A well-designed assessment system/plan gathers a variety of data enabling school leaders to evaluate the instructional program and related efforts and judge how well the organizational assessment goals are being achieved. Clear assessment and evaluation processes guide what gets monitored, measured, and managed to influence teaching, school improvement and district focus. Without a consistent systematic approach, it is difficult to determine what areas need to be improved, what progress is being made, and what methods are contributing to upward trends. Data from student assessment measures can also be used to guide decisions related to professional development training for the administrative and instructional staff.

Overall, student assessment planning was fragmented, and the auditors found that the district does not have a single, comprehensive document or plan that directs student assessment and program evaluation across all schools and departments. Without a student assessment plan, district personnel lack a solid foundation for making decisions regarding the effectiveness of the curriculum design, delivery, and assessment process (see also Findings 2.1 and 2.4).

Board policies are a primary source where direction can be clarified. Auditors found no single policy or group of policies that addressed all components of assessment planning. However, the following board policies were found to have some connection to planning for student assessment:

Board Policy 6180: Evaluation of the Instructional Program (1995) requires that appropriate means shall be established and maintained for continuing evaluation of the entire education program. Elements of this evaluation include:

- Defining each objective in terms that can be measured/observed.

- Planning and carrying out experiences for students that are designed to bring about the desired outcomes.

- Employing pertinent tests, measurements, observations during and following learning experiences.

- Comparing outcomes with objectives.

- Continuing, revising, or expanding learning experiences, which seem to result in the desired objectives.

Board Policy 2250: Monitoring of Product and Process Goals (1999) specifies that the board of education direct that the superintendent of schools, in cooperation with the school staff, parents, and other interested persons or groups, establish and maintain a comprehensive plan for monitoring the progress of the schools in achieving stated goals in regard to curriculum, school environment, and school operations.

As indicated above, board policies were adopted in 1995 and 1999 and have not been updated to represent current changes in state-mandated assessment. Furthermore, these policies do not reflect current best practices regarding assessment planning and the use of assessment data, but policies do require planning to address schools' assessment of student progress in meeting educational goals. No mention of program evaluation was found in the policies.

To assess the presence and quality of a planned approach to student assessment, the auditors interviewed board members, district and campus administrative staff, teachers, and community members, and gathered data from online surveys of teachers and principals.

The following documents related to assessment and assessment procedures reviewed by auditors were either provided by the district or secured from the websites of the Connecticut Department of Education, the New Haven School District, and Smarter Balanced Assessment Consortium:

- District Continuous Improvement Plan, Priority I: Academic Achievement.

- Key Indicators of Success, 2016-2017.

- New Haven Public Schools Assessment Calendar, 2018-2019.

- Math Assessment Calendar, 2018-2019.

- New Haven Public School (SRBI): Literacy Strategies and Interventions Handbook, 2014.

- NHPS Board of Education Academic Presentation, January, 2016.
    - Aligned to Standards.
    - How We Know Our Students Are Learning.
    - Purpose of Assessment.

Overall, the auditors found no single document that could constitute a system-wide comprehensive student assessment plan. Therefore, the auditors looked for evidence of various elements of a comprehensive student

assessment plan within the documents noted above, applying the 15 characteristics of a comprehensive student assessment plan as shown in Exhibit 4.1.1 to determine adequacy. In order to be considered adequate, 12 of the 15 characteristics (80%) need to be met.

Exhibit 4.1.1

Characteristics of a Comprehensive Student Assessment Plan
And Auditors' Evaluation of the District's Approach
New Haven Public Schools
April 2019

Characteristic (The plan…)	Auditors' Rating	
	Met	**Not Met**
1. Describes the philosophical framework for the design of the student assessment plan and directs both formative and summative assessment of the curriculum by course and grade in congruence with board policy. Expects ongoing formative and summative evaluation; directs use of data to analyze group, school, and system student trends.		X
2. Includes an explicit set of formative and summative assessment procedures to carry out the expectations outlined in the plan and in board policy. Provides for regular formative and summative assessment at all levels of the system (organization, student).		X
3. Requires that formative, diagnostic assessment instruments that align to the district curriculum be administered to students frequently to give teachers information for instructional decision making. This includes information regarding which students need which learner objectives to be at the appropriate level of difficulty (e.g., provides data for differentiated instruction).	Partial*	
4. Provides a list of student assessment evaluation tools, purposes, subjects, type of student tested, timelines, etc.	Partial*	
5. Identifies and provides direction on the use of diverse assessment strategies for multiple purposes at all levels—district, school, and classroom—that are both formative and summative.		X
6. Specifies the roles and responsibilities of the central office staff and school-based staff for assessing all students using designated assessment measures, and for analyzing test data.	Partial*	
7. Directs the feedback process; assures the proper use of assessment data at all levels.		X
8. Specifies the connection(s) among district, state, and national assessments.		X
9. Specifies the overall assessment and analysis procedures used to determine curriculum effectiveness.		X
10. Requires aligned student assessment examples and tools to be placed in curriculum and assessment documents.		X
11. Specifies how equity issues will be identified and addressed using data sources; controls for possible bias.		X
12. Provides for appropriate trainings for various audiences on assessment and the instructional use of assessment results.		X
13. Delineates responsibilities and procedures for monitoring the administration of the comprehensive student assessment plan and/or procedures.		X
14. Establishes a process for communicating and training staff in the interpretation of results, changes in state and local student achievement tests, and new trends in the student assessment field.		X
15. Describes an informational management system that permits all key stakeholders access to assessment data results in a timely fashion.	X	
Total	**1**	**14**
Percentage met	**7%**	
*Partial ratings are tallied as not met.		
©2019 CMSi		

The percentage row spans both Met/Not Met columns.

The auditors found limited evidence that the characteristics of a comprehensive student assessment were in place in the New Haven Public Schools. As shown in <u>Exhibit 4.1.1</u>, only 1 of the 15 characteristics of a comprehensive assessment plan was met. In order for a comprehensive student assessment plan to be considered adequate, 12 of the 15 characteristics (80%) must to be met. Details regarding auditors' assessment of the characteristics follow:

Characteristic 1: Describes the philosophical framework for assessment plan (Not Met)

No board policy explicitly directs formative and summative assessment of the curriculum for every course and grade level. Additionally, the district does not have a cohesive philosophical framework that creates a context for developing a system-wide plan for assessment evaluation. Furthermore, the auditors did not find direction in district documents for the use of data to analyze group, school, and student trends.

Characteristic 2: Includes an explicit set of assessment procedures (Not Met)

Auditors noted through review of student documents and interviews with district administrators an expectation for both formative and summative assessments to be administered. However, there is no set of interim formative assessments mandated for ELA, math, science, and social studies in grades 1 through 12. No board policies or administrative regulations direct the development and implementation of formative and summative assessment procedures.

Characteristic 3: Required assessments aligned to the district's curriculum (Partially Met)

The district uses the *Smarter Balanced Interim Assessment Blocks* as well as the *Interim Comprehensive Assessments* to provide information about a student's strengths or needs aligned to the Common Core State Standards. There is no mandate or explicit monitoring that these assessments be conducted by teachers. There is no system-wide direction regarding how specific data from formative assessments are to be used to provide instruction at the appropriate level of difficulty.

Characteristic 4: Provides a list of student assessment tools (Partially Met)

The auditors were provided district math and ELA assessment calendars that listed test dates, assessments, grade levels, and subjects to be assessed. The list included state-mandated assessments, as well as assessments used at various grade levels across the district. There was no reference to the type of data yielded and no clear delineation of the purpose for the assessments. Auditors examined responses recorded in online surveys to assess teacher perception regarding availability of assessment tools. In this survey, teachers responded to the following statement: "We have adequate instruments for assessing each student's progress in mastering the curriculum." Results indicated that 12% strongly agreed, 48% agreed, 32% disagreed, and 8% strongly disagreed with the statement.

Characteristic 5: Identifies and provides direction for diverse assessment strategies (Not Met)

Auditors found no written expectation or direction for the use of diverse formative or summative strategies for multiple purposes at various levels within the organization.

Characteristic 6: Specifies roles and responsibilities (Partially Met)

The following district personnel job descriptions contained references to such responsibilities:

- Deputy Superintendent coordinates the work of the offices of Curriculum and Instructional Programs, Curriculum Instruction and Assessment, Early Childhood Education, Data Management, Student Support Services, and Alternative Programs and Athletics. Ensures that the six offices work collaboratively to implement strategic initiatives, to eliminate the achievement gap, and to improve the academic achievement for all students.

- Assistant Superintendent for Instructional Leadership provides differentiated guidance, support, and supervision to principals by leveraging Central Office and financial resources to improve student achievement. Also, has the responsibility for an aligned PK-12 instructional program that addresses state, local, and federal requirements to ensure academic achievement.

- Instructional Coach collaborates with staff to collect and analyze data for professional development needs in the school. Assists teachers in the process of administering and interpreting assessment data to improve student achievement in a timely manner. Creates opportunities for individual and group learning by expanding the ability of teachers to achieve stated goals for student achievement.

- Supervisor for Student Assessment and Learning Measures establishes vision, structure, and systems within NHPS to support high quality assessments and learning measures for students that provide effective monitoring and useful feedback systems to students, teachers, schools, and district staff. Collaborates with other academic and student learning leaders to ensure high quality and effective assessment tools are available to teachers and schools, with high quality content, effective administration, and useful reporting. Leads and manages administration of the District's assessment program, including administration of mandated and optional national, state, and district assessments. Acts as a primary substantive user of Student Information Systems, including Power Schools and School Net currently, to ensure that data systems capture and display useful information on student academic and educational progress.

As noted, there are job descriptions designating responsibilities for student assessment and data analysis, although the references vary in scope and specificity. In order for a fully met rating, all relevant job descriptions would need to contain explicit connections to responsibilities for the assessment of student learning and for the analysis and use of student outcome data for improving instruction at all levels. These directives were missing in the most critical job descriptions of teacher and building principal, as well as job descriptions of other key personnel in the system.

Characteristic 7: Directs the feedback process; proper use of assessment data (Not Met)

This characteristic was rated not met, but in the developing phase. Auditors noted that there is no board or district policy describing or directing the feedback process both from an organizational and a student perspective. Through interviews, document analysis, observations, and general conversations, auditors identified that the district has a wealth of data as evidenced by the School Improvement Plans, 2018-19. However, while there are pockets of data utilization in the district and a district-defined framework referred to as PDSA (Plan Do Study Act) cycle for continuous improvement, there is at present little evidence that data inform classroom instruction system-wide. Also, there is a district expectation that through the School Improvement and focused data-driven conversations that the classroom/instructional level will be impacted to improve student achievement. As one administrator remarked, "We are data rich and information poor."

Characteristic 8: Specifies the connection(s) among district, state, and national assessments (Not Met)

No board policy or district document identifies links among district, state, and national assessments. In addition, the cross-matching of standards being assessed and the number and types of items designed to assess each standard are not documented for national tests such as *SAT* and *AP* examinations.

Characteristic 9: Specifies assessment and analysis procedures (Not Met)

Auditors found no written set of analysis procedures for using assessment feedback to measure the effectiveness of the curriculum.

Characteristic 10: Requires aligned assessment examples (Not Met)

Auditors found no specific direction or system-wide requirement for aligned assessment examples and tools to be included in all curriculum guides and assessment documents.

Characteristic 11: Specifies how equity issues will be addressed (Not Met)

Auditors found no evidence of a systemic plan or approach for identifying and addressing equity issues using various sources of data and controlling for possible bias, even though disparities exist in academic performance among subgroups of student populations.

Characteristic 12: Provides appropriate training (Not Met)

Auditors received anecdotal evidence that some training occurred sporadically, depending on the wishes of district administrators or building level principals. However, evidence of a cohesive, consistent district plan to provide appropriate trainings for all staff members at all levels of the school district on assessment and the instructional use of assessment results was not present. Also, it was unclear whether the training would focus on how to use assessment results to improve student achievement or instructional outcomes. The following comment by an administrator was reflective of the ideas associated with training in the district: "Teachers are saying, 'I monitored the progress, but I'm not seeing any progress. Now what do I do to impact student achievement?' That's the gap."

Characteristic 13: Delineates responsibilities for monitoring the assessment program (Not Met)

None of the documents provided to the auditors specified procedures or assigned responsibilities for monitoring the administration of a comprehensive student assessment plan. Also, auditors were not given documents describing how progress was specifically to be measured and monitored.

Characteristic 14: Establishes a communications process (Not Met)

Auditors found no system-wide process for communicating the district assessment plan and training staff regarding the interpretation of assessment results, changes in state and local assessment, or trends within the assessment field. Based on interviews, auditors noted that some assessment training was conducted, but the implementation was left to individual school administrators or instructional coaches and, at best, was inconsistent and sporadic.

Characteristic 15: Describes an informational management system (Met)

The district is operating the following Student Informational Systems: SchoolNet (2006) and PowerSchool (2012). The district recently added PowerTeacher Pro Gradebook (2017). Auditors noted through interviews, general conversations, and documents that district personnel are generally positive regarding the availability and accessibility of the current student data systems.

Through the interview process, document review, campus observations, and written responses from an online survey, the following comments were shared regarding the school district's assessment policies and planning:

- "We spend a lot of time assessing our students. I don't think the assessments are aligned with the standards that we're teaching at this point in time." (Teacher)

- "Sometimes the teachers feel that the assessments given (math inventories and IAB's) don't match what they are teaching or just taught, but they have to give it at a certain time." (Building Coach)

- "Out kids scores are abysmal in math, and we are still using the same assessment. The principals and teachers are saying the test isn't aligned to the curriculum; it's not working." (Central Office Administrator)

- "Assessment literacy is a huge need." (Central Office Administrator)

- "Everyone is supposed to take the quarterly test, but they do not. It varies from school to school. It has to do with what value the building leader places on the test." (Central Office Administrator)

- "There is a lack of good assessment to guide instruction." (Supervisor)

- "We do not have an assessment plan…just a district calendar for assessments." (Central Office Administrator)

- "Teachers know about formative and summative assessment because math and literacy provide some information, but there is no comprehensive, clear cut assessment plan." (Central Office Administrator)

- "Principals feel that the assessments do not give them the necessary data, thus they opt out of it. No follow through or accountability." (Central Office Administrator)

- "We need to build a culture around assessment." (Central Office Administrator)
- "Current impression of assessment is that we need a defined plan that is actionable and coherent." (Central Office Administrator)

As is evident from comments, coordinated direction concerning the collection and use of assessment data related to student progress and program effectiveness is not fully in place.

Assessment Planning Summary

Board policies, job descriptions, and other documents provided to the auditors for review, combined with interviews and campus observations, do not provide sufficient evidence of a coordinated, district-wide approach to selecting assessment tools, implementing them, and using their results to inform instruction, evaluate programs, and improve effectiveness of services across the system. One of the characteristics associated with a comprehensive student assessment plan was fully in place in the New Haven Public Schools, and another three were partially met with the documented direction found in policy and other sources. Consequently, the auditors concluded that planning for student assessment to effectively generate and use achievement data, inform instruction, and facilitate student mastery of the curriculum is not fully established nor adequate.

Finding 4.2: The scope of student assessment does not meet audit standard to monitor student learning and provide valid feedback to inform curriculum evaluation.

The scope of assessment in a system provides a measurement of the evaluation of the taught curriculum in all grade levels and courses toward attaining desired levels of achievement. This additionally generates insight into making meaningful decisions about district curriculum and instructional processes to further assist student learning. When assessments are administered in each course and grade, they generate data that inform stakeholders of the extent to which students have mastered the entire curriculum. If the scope of assessment does not cover all grade levels and courses, educators cannot effectively evaluate curriculum and instruction. A comprehensive assessment system provides both formative and summative assessments for student achievement to contribute to control of the overall educational program. The audit standard is that 100% of core course offerings (English language arts/reading, mathematics, science, and social studies) and 70% of all other courses are formally assessed.

To determine the scope of formative and summative assessments in New Haven Public Schools, auditors reviewed board policies, curriculum documents, and job descriptions provided by district officials, and other documents available on the district and state websites. Interviews with school district personnel also provided information regarding the current state of the district assessment system. Overall, auditors determined that the scope of student assessment did not meet audit standard, although formative assessments were present for all core areas in grades K-8. In total, 17% of all courses have formative assessments and 9% have summative assessments. In addition, auditors found no board policies that provided direction on assessment, and no comprehensive district assessment plan (see Finding 4.1). Current assessments do not provide adequate feedback to support sound curricular decisions and inform district stakeholders regarding student learning and mastery (see also Finding 2.4).

In order to determine the scope of district assessment, the auditors examined information provided by district officials to compile a list of formative and summative assessments administered to students. That list is displayed in Exhibit 4.2.1.

Exhibit 4.2.1

Summary of Formative and Summative Assessments Administered
New Haven Public Schools
April 2019

Student Assessment	Administered in Grade(s)	Description/Subject(s)	Type
DIBELS	K-3	ELA	Formative
Benchmark Assessment System (BAS)	K-3	ELA	Formative
Reading Inventory	3-10	ELA	Formative, norm-referenced
SAT Reading Quarterly Tests	11-12	ELA	Formative
Writing Performance Tasks	K-8	ELA	Formative
Common Core State Standards (CCSS) Pretest and Posttest	K-2	Mathematics	Formative
K-2 Math Skills Assessment	K-2	Mathematics	Formative
Fact Fluency Assessment	1-7	Mathematics	Formative
Math Inventory	2-12	Mathematics	Formative, norm-referenced
Smarter Balanced Assessment Interim Assessment Block (SBA IAB)	3-8	Mathematics	Formative
Pre-Algebra Performance Task	8	Mathematics	Formative
Algebra I Placement Exam	8	Mathematics	Formative
Math Quarterly Tests	9-12	Mathematics	Formative
PSAT 8/9	8-9	SAT Reasoning Test predictor for ELA and mathematics	Formative
PSAT/NMSQT	10-11	SAT Reasoning Test predictor for ELA and mathematics	Formative
Science Kit Formative Assessments	K-6	Science	Formative
Core Content Quarterly Tests	7-12	Science, Social Studies	Formative
Suggested Assessments	K-6	Social Studies	Formative
Evidence Based Writing	7-12	Social Studies	Formative
Quarterly Performance Tasks and Assessments	7-12	World Languages	Formative
Unit Assessments and Rubrics	2-8	Art	Formative
Assessment Rubric	K-6	General Music	Formative
Assessment Template	6-8	Band	Formative
Performance Tasks	K-8	Physical Education	Formative
Benchmarks	9-12	Physical Education	Formative
Smarter Balanced Assessment	3-8	ELA and Mathematics	Summative, criterion-referenced
Next Generation Science Standards (NGSS) Assessment	5, 8, 11	Science	Summative
National Assessment of Educational Progress (NAEP)	4, 8, 12	Mathematics, ELA, Science	Summative
SAT Reasoning Test	11	ELA and Mathematics	Summative

<table>
<tr><td colspan="4">Exhibit 4.2.1 (continued)
Summary of Formative and Summative Assessments Administered
New Haven Public Schools
April 2019</td></tr>
<tr><th>Student Assessment</th><th>Administered in Grade(s)</th><th>Description/Subject(s)</th><th>Type</th></tr>
<tr><td>Advanced Placement (AP) Exams: English Literature & Composition, English Language & Composition</td><td>9-12</td><td>ELA</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: Calculus AB, Statistics</td><td>9-12</td><td>Mathematics</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: Biology, Chemistry, Environmental Science, Physics</td><td>9-12</td><td>Science</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: Government & Politics, Macroeconomics, Microeconomics, Psychology, U.S. History, World History, Human Geography</td><td>9-12</td><td>Social Studies</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: Spanish Literature, Spanish Language</td><td>9-12</td><td>World Languages</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: 2-D Design, 3-D Design, Drawing Portfolio, Music Theory</td><td>9-12</td><td>Art</td><td>Summative</td></tr>
<tr><td>Advanced Placement (AP) Exams: Comparative Government & Politics, Computer Science, Computer Science Principles</td><td>9-12</td><td>Non-Core: Other Electives</td><td>Summative</td></tr>
<tr><td>Connecticut Alternative Assessment (CTAA)</td><td>3-8, 11</td><td>ELA and Mathematics</td><td>Summative</td></tr>
<tr><td>Connecticut Alternate Science Assessment (CTAS)</td><td>5, 8, 11</td><td>Science</td><td>Summative</td></tr>
<tr><td>LAS Links</td><td>K-12</td><td>English Language Learner Progress Monitoring</td><td>Summative</td></tr>
<tr><td>Connecticut (CT) Physical Fitness Assessment</td><td>4, 6, 8, Given once in 9-12</td><td>Physical Education</td><td>Summative</td></tr>
<tr><td colspan="4">Sources: District Assessment Calendar 2018-19, interviews, and district documents provided to auditors.</td></tr>
</table>

The auditors noted the following about <u>Exhibit 4.2.1:</u>

- The district has 25 formative assessments and nine summative assessments, as *Advanced Placement* exams are viewed as one type of summative assessment.

- Both criterion- and norm-referenced assessments are utilized in the district.

- The district uses both *DIBELS* and the *Benchmark Assessment System* (*BAS*) in grades K-3 ELA.

- Ten formative assessments are listed for mathematics.

- Six summative assessments are listed for ELA and mathematics.

In order to determine the scope of the assessment program, the audit team compared both core (English language arts/reading, mathematics, science, and social studies) and non-core courses offered at each grade level to the formative and summative assessments administered at those grade levels. To reach adequate threshold, assessment must be administered to 100% of the core academic subjects and at least 70% of non-core academic subjects taught in the school district. The results are displayed in <u>Exhibits 4.2.2</u>, <u>4.2.3</u>, and <u>4.2.4</u>.

Exhibit 4.2.2 summarizes the scope of formative and summative assessments for core and non-core courses in grades K-8.

Exhibit 4.2.2

Scope of Formative and Summative Assessment by Discipline Area in Grades K-8
New Haven Public Schools
April 2019

Subject Area	Grade Level									Number of Courses	Number of Courses with Formative Assessments	Number of Courses with Summative Assessments
	K	1	2	3	4	5	6	7	8			
CORE COURSES												
ELA												
Reading/Language Arts	F	F	F	F, S	F, S	F, S	F, S	F, S	F, S	9	9	6
Writing	F	F	F	F	F	F	F	F	F	9	9	0
Mathematics												
Mathematics	F	F	F	F, S	F, S	F, S	F, S	F, S	F, S	9	9	6
Pre-Algebra									F	1	1	0
Science	F	F	F	F	F, S	F, S	F	F	F, S	9	9	3
Social Studies	F	F	F	F	F	F	F	F	F	9	9	0
Total Core Courses Requiring Assessments										46		
Total Core Courses with Assessments											46	15
Percent of Total Scope of Core Assessments											100%	33%
NON-CORE COURSES												
Music												
General Music	F	F	F	F	F	F	F	O	O	9	7	0
Band							F	F	F	3	3	0
Other Disciplines												
Art	O	O	F	F	F	F	F	F	F	9	7	0
Health	O	O	O	O	O	O	O	O	O	9	0	0
Physical Education	F	F	F	F	F, S	F	F, S	F	F, S	9	9	3
Total Non-Core Courses Requiring Assessments										39		
Total Non-Core Courses with Assessments											26	3
Percent of Total Scope of Non-Core Assessments											67%	8%

Key: Spaces Blacked Out = Subject not taught at this grade level
   O = Course taught but no assessment available   F = Formative assessment available   S = Summative assessment available

Sources: District Assessment Calendar 2018-19 and district documents provided to auditors.

Exhibit 4.2.2 shows the scope of assessed curriculum for grades K-8 according to the assessment information provided to auditors. The auditors noted the following from information in Exhibit 4.2.2:

- Forty-six core courses and 39 non-core courses in grades K-8 require assessments.

- All core areas have formative assessments in grades K-8.

- Approximately one-third of core areas have summative assessments in grades K-8.

- Two-thirds of non-core areas have formative assessments in grades K-8.

- Three of 39 non-core courses, or 8%, have summative assessments in grades K-8.

- Physical education has the most assessments of the non-core areas with nine formative assessments and three summative assessments in grades K-8.

- Health does not have any formative or summative assessments in grades K-8.

- The overall rate of core and non-core assessment in grades K-8 is 85% for formative assessments and 21% for summative assessments.

The scope of formative assessment for core courses in grades K-8 is 100%, which meets the audit standard for scope. However, the overall scope of summative assessment for non-core courses in grades K-8 does not meet the audit standard of 70%. Likewise, the overall scope for non-core courses for both formative and summative assessment is below the audit standard of 70%. Therefore, the scope does not meet audit standard to provide student progress information and data for curriculum and instructional decision making.

Auditors reviewed the 546 core and non-core high school courses in New Haven Public Schools (see Exhibit 2.2.3). Exhibit 4.2.3 compares the number of formative and summative assessments for each of the core and non-core high school courses.

Exhibit 4.2.3

Scope of Formal Assessment by Discipline Area in Grades 9-12
New Haven Public Schools
April 2019

Content Area	Number of Courses	Number of Formative Assessments	Number of Summative Assessments
Core Content Areas			
ELA	35	7	8
Mathematics	43	11	8
Science	61	4	7
Social Studies	48	4	7
Totals	**187**	**26**	**30**
Percentage of Core Courses Assessed		**14%**	**16%**
Non-Core Content Areas			
World Language	62	6	2
Arts	67	0	4
Physical Education	2	2	1
Other Electives	228	0	3
Subtotal Non-Core Content Areas	**359**	**8**	**10**
Percentage of Non-Core Courses Assessed		**2%**	**3%**
Total	**546**	**34**	**40**
Percentage of Core and Non-Core Courses Assessed		**6%**	**7%**

Sources: District Assessment Calendar 2018-19 and district documents provided to auditors.

Exhibit 4.2.3 shows the following:

- A total of 546 courses, including 187 core and 359 non-core, in grades K-8 require assessments.

- Fourteen percent of high school core courses have formative assessments, and 16% have summative assessments.

- Two percent of high school non-core courses have formative assessments, and 3% have summative assessments.

- In all, 6% of high school courses have formative assessments, and 7% have summative assessments.

- All high school courses have more summative assessment than formative assessments.

- Mathematics has the most assessments in the core areas with 11 formative assessments and 8 summative assessments.

- The arts and other electives do not have any formative assessments.

- Physical education has the least number of summative assessments (1) in the non-core high school courses.

To be considered adequate, the scope of assessment must be 100% for the four core areas and at least 70% for non-core areas. The scope of high school courses did not meet audit standard.

Exhibit 4.2.4 summarizes the formative and summative assessments administered for all grade levels and courses.

Exhibit 4.2.4

Scope of Formative and Summative Assessment by Core and Non-Core Area in Grades K-12
New Haven Public Schools
April 2019

Grade Levels	Core Areas		Non-Core Areas		Total Areas	
	Total Core Offerings	Core Areas with Formative Assessments	Total Non-Core Offerings	Non-Core Areas with Formative Assessments	Total Course Offerings	Total Areas with Formative Assessments
K-8	46	46	39	26	85	72
9-12	187	26	359	8	546	34
Totals	233	72	398	34	631	106
Percentage of District Curriculum with Formative Assessments	31%		9%		17%	
Grade Levels	Core Areas		Non-Core Areas		Total Areas	
	Total Core Offerings	Core Areas with Summative Assessments	Total Non-Core Offerings	Non-Core Areas with Summative Assessments	Total Course Offerings	Total Areas with Summative Assessments
K-8	46	15	39	3	85	18
9-12	187	30	359	10	546	40
Totals	233	45	398	13	631	58
Percentage of District Curriculum with Summative Assessments	19%		3%		9%	
Total Number of Formative and Summative Assessments	117		47		164	
Percentage of District Curriculum with Either Formative or Summative Assessment	50%		12%		26%	
Sources: District Assessment Calendar 2018-19 and district documents provided to auditors.						

<u>Exhibit 4.2.4</u> shows:

- A total of 631 courses, including 233 core and 398 non-core, in grades K-12 require assessments.

- Thirty-one percent of all core courses have formative assessments, and 19% have summative assessments.

- Nine percent of all non-core courses have formative assessments, and 3% have summative assessments.

- Seventeen percent of all district courses have formative assessments, and 9% have summative assessments.

- There are 38 more formative assessments in core courses than non-core courses in grades K-12.

- There are 32 more summative assessments in core courses than non-core courses in grades K-12.

- There are 48 more formative assessments than summative assessments for grades K-12.

- A total of 117 formative and summative assessments represent 50% of the 233 core courses.

- A total of 47 formative and summative assessments represent 12% of the 398 non-core courses.

- A total of 164 formative and summative assessments represent 26% of the 631 core and non-core courses.

The overall scope of assessment in grades K-12 does not meet the audit standard of 100% for core courses or 70% for non-core courses.

The auditors interviewed district and school administrators, teachers, parents, and students concerning the existing assessments in New Haven Public Schools. District staff members spoke about testing and assessment in general:

- "We need to streamline the assessments. If it is not being used, why do we use it?" (District Administrator)

- "Assessment is not aligned with instruction. Test before it is taught. Giving the district a false report." (School Administrator)

- "We spend a lot of time assessing our students. I don't think the assessments are aligned with the standards that we're teaching at that point and time." (Teacher)

- "There is a lack of assessment to guide instruction." (District Administrator)

- "Teachers in the high schools seem to be independent in what they do as far as assessment is concerned." (District Administrator)

- "Common formative assessment is not a thread throughout the district, not systematic. Too many pockets, piecemeal approaches." (District Administrator)

- "There is a persistent gap in our scores. Our ability to address and impact this continues to be a struggle for us." (District Administrator)

Comments indicated that although many assessments are available district-wide, their implementation and usefulness in the feedback process are not consistent.

Assessment Scope Summary

The scope of formative and summative assessment of the written curriculum in New Haven Public Schools does not meet audit standard to evaluate student achievement or guide instructional effectiveness. As previously mentioned, in order to meet audit criteria, 100% of the core areas of English language arts/reading, mathematics, science, and social studies and at least 70% of the remaining courses must have assessments. Overall, the scope of assessment for both core and non-core courses in New Haven Public Schools is 17% for formative assessment and 9% for summative assessment.

Finding 4.3: Student performance on state and national assessments consistently trails state and national averages, and current improvement trends are insufficient to close existing gaps.

Assessment data provide important information for district leadership in their determination of whether established curriculum and instructional practices are producing desired results. Assessment data complete the feedback loop on student learning from the written curriculum to the taught curriculum. Data analyses can reveal any individual student performance gaps, grade level deficiencies, and campus level progress toward attainment of the district's overall curricular goals and objectives. An effective district assessment program's measures serve as bases for comprehensive planning, program evaluation, professional development, and budget prioritization.

Comparison of student achievement to a set of standards or to other students at the local, state, and national levels helps administrators, teachers, and board members determine the effectiveness of district instructional programs. Analyses of achievement trends provide information on how assessment results change over time. Data analyses beyond that of a cohort can help determine if all student populations are achieving at the same level, and if not, which groups may need additional resources and interventions to be successful. In a system with effective quality control, performance for all students should improve over time, and performance gaps among student groups should reduce in size.

The auditors analyzed assessment data that were provided in order to offer district leaders a snapshot of the current performance on a variety of assessments, including *Smarter Balanced Assessments* in grades 3-8 in English language arts/reading (ELA) and mathematics and the *SAT* in grade 11 for ELA and mathematics. The auditors found the percentage of students in New Haven Public Schools scoring proficient or better on the *Smarter Balanced Assessments* was consistently below the state average. Likewise, auditors found the percentage of students in New Haven Public Schools scoring proficient or better on the *SAT* exam was consistently below the national average. During their examination of student achievement data, auditors noted disparities between general education and special education students, general education and English Learner (EL) students, White and Black/African American, and White and Hispanic/Latino students. In a years to parity analysis, unless learning conditions are changed, gaps in student achievement related to student groups will essentially remain unchanged.

Auditors additionally examined assessment data from a cohort of students who took the grade 3 *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics in the 2014-15 school year, grade 4 *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics in the 2015-16 school year, grade 5 *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics in the 2016-17 school year, and grade 6 *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics in the 2017-18 school year. Data from these assessments can be found in Exhibits 4.3.1, 4.3.2, 4.3.3, 4.3.4, 4.3.5, and 4.3.6. Furthermore, auditors reviewed longitudinal *SAT* exam data over the most recent consecutive three-year period ending with 2018. Data from these assessments can be found in Exhibits 4.3.7, 4.3.8, 4.3.9, 4.3.10, 4.3.11, 4.3.12, 4.3.13, 4.3.14, and 4.3.15. Lastly, auditors conducted years to parity analyses for *Smarter Balanced Assessment* student groups, which can be found in Exhibits 4.3.16, 4.3.17, 4.3.18, and 4.3.19.

Exhibit 4.3.1 displays a comparison of student achievement from 2017-18 between the state of Connecticut and New Haven Public Schools on the *Smarter Balanced Assessment* in grades 3-8 in English language arts/reading (ELA).

Exhibit 4.3.1

Comparison of Student Achievement
Between the State of Connecticut and New Haven Public Schools
On the Smarter Balanced Assessment in Grades 3-8 English Language Arts/Reading (ELA)
New Haven Public Schools
2017-18
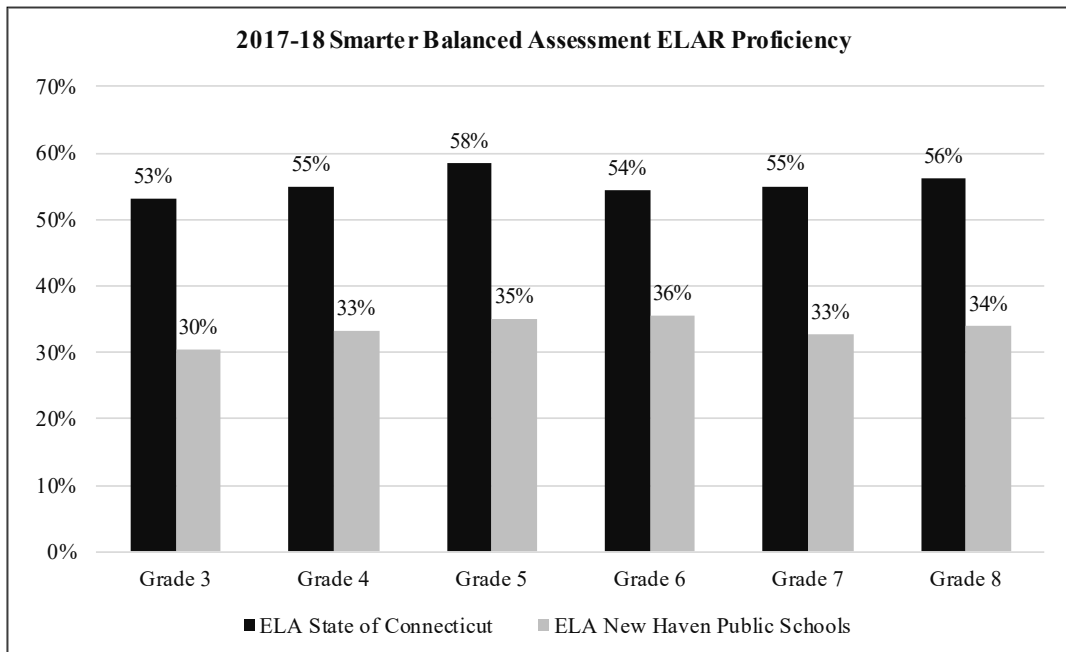
Source: Data and documents presented to auditors and http://edsight.ct.gov/SASPortal/main.do

The auditors noted the following from Exhibit 4.3.1:

- The state of Connecticut outperforms New Haven Public Schools on the *Smarter Balanced Assessment* in ELA by 18 to 23% in all grade levels.

- Performance for the state of Connecticut in all grade levels ranges between 53 and 58%.

- Performance for New Haven Public Schools in all grade levels ranges between 30 and 36%.

- The largest difference between the state of Connecticut and New Haven Public Schools occurs in both grades 3 and 5 at 23%.

- The smallest difference between the state of Connecticut and New Haven Public Schools occurs in grade 6 at 18%.

- More than one-half of students in the state of Connecticut met proficiency on the *Smarter Balanced Assessment* in ELA in all grade levels.

- Approximately one-third of students in New Haven Public Schools met proficiency on the *Smarter Balanced Assessment* in ELA in all grade levels.

Exhibit 4.3.2 displays a comparison of student achievement from 2017-18 between the state of Connecticut and New Haven Public Schools on the *Smarter Balanced Assessment* in grades 3-8 in mathematics.

Exhibit 4.3.2

Comparison of Student Achievement
Between the State of Connecticut and New Haven Public Schools
On the Smarter Balanced Assessment in Grades 3-8 Mathematics
New Haven Public Schools
2017-18

Source: Data and documents presented to auditors and http://edsight.ct.gov/SASPortal/main.do

The auditors noted the following from Exhibit 4.3.2:

- The state of Connecticut outperforms New Haven Public Schools on the *Smarter Balanced Assessment* in mathematics by 21 to 29% in all grade levels.

- Performance for the state of Connecticut in all grade levels ranges between 43 and 54%.

- Performance for New Haven Public Schools in all grade levels ranges between 18 and 29%.

- The largest difference between the state of Connecticut and New Haven Public Schools occurs in grade 4 at 29%.

- The smallest difference between the state of Connecticut and New Haven Public Schools occurs in grade 6 at 21%.

- Approximately one-half of students in the state of Connecticut met proficiency on the *Smarter Balanced Assessment* in mathematics in all grade levels.

- Less than one-third of students in New Haven Public Schools met proficiency on the *Smarter Balanced Assessment* in mathematics in all grade levels.

- Less than one-fifth of students in New Haven Public Schools met proficiency on the *Smarter Balanced Assessment* in mathematics in grades 5, 7, and 8.

Exhibit 4.3.3 displays the four-year cohort comparison of student achievement between general education, special education, and English Learner (EL) in New Haven Public Schools on the *Smarter Balanced Assessment* in English language arts/reading (ELA).

Exhibit 4.3.3

Four-Year Cohort Comparison of Student Achievement
Between General Education, Special Education, and English Learner (EL)
On the Smarter Balanced Assessment in English Language Arts/Reading (ELA)
New Haven Public Schools
2014-15 to 2017-18
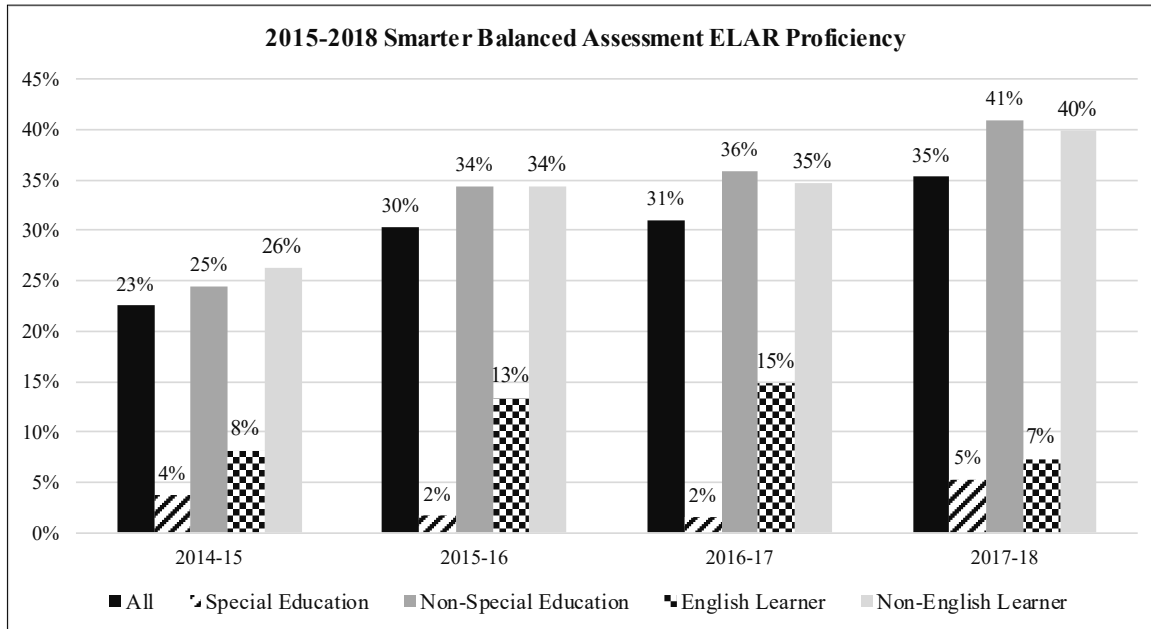
Source: Data and documents presented to auditors

The auditors noted the following from Exhibit 4.3.3:

- All students in the cohort increased from 23 to 35%.

- Special education cohort students never achieved higher than 5%.

- Non-special education cohort students increased from 25 to 41%.

- English Learner cohort students decreased from 8 to 7%.

- Non-English Learner cohort students increased from 26 to 40%.

- Less than one-third of all cohort students met proficiency over the four years, except in 2017-18, when 35% met proficiency.

Exhibit 4.3.4 displays the four-year cohort comparison of student achievement between general education, special education, and English Learner (EL) in New Haven Public Schools on the *Smarter Balanced Assessment* in mathematics.

Exhibit 4.3.4

Four-Year Cohort Comparison of Student Achievement
Between General Education, Special Education, and English Learner (EL)
On the Smarter Balanced Assessment in Mathematics
New Haven Public Schools
2014-15 to 2017-18
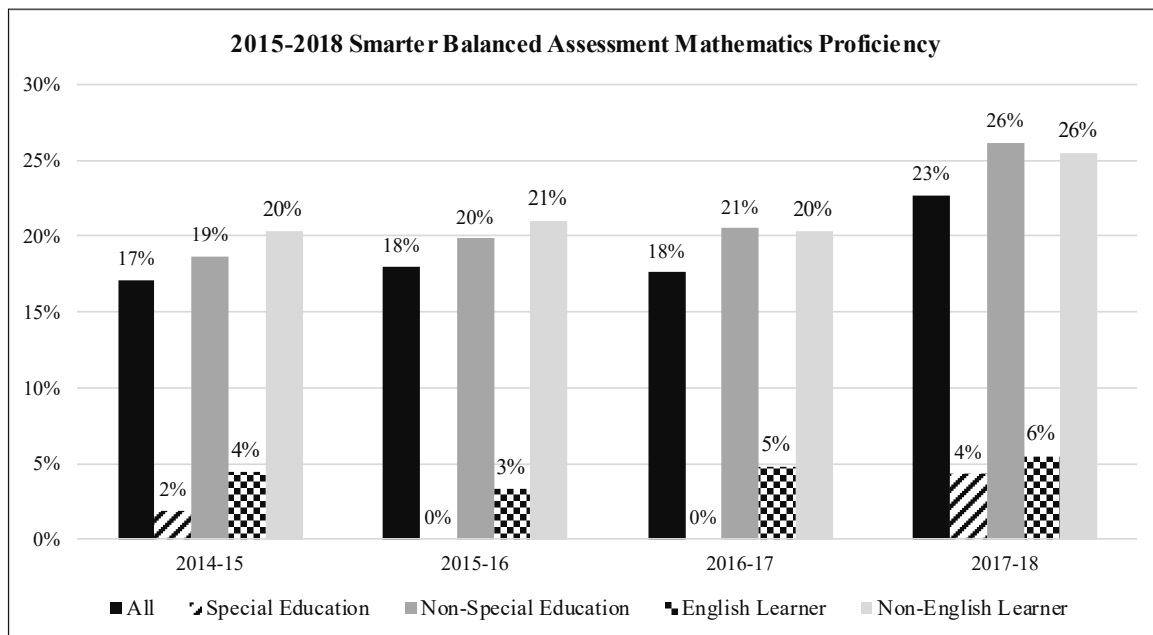
Source: Data and documents presented to auditors

The auditors noted the following from Exhibit 4.3.4:

- All students in the cohort increased from 17 to 23%.

- Special education cohort students never achieved higher than 4%, including 0% in the 2015-16 and 2016-17 school years.

- Non-special education cohort students increased from 19 to 26%.

- English Learner cohort students increase from 4 to 6%.

- Non-English Learner cohort students increased from 20 to 26%.

- Less than one-fifth of all cohort students met proficiency over the four years, except in 2017-18 when 23% met proficiency.

Exhibit 4.3.5 displays the four-year cohort comparison of student achievement between student groups in New Haven Public Schools on the *Smarter Balanced Assessment* in English language arts/reading.

Exhibit 4.3.5

Four-Year Cohort Comparison of Student Achievement
Between Student Groups on the Smarter Balanced Assessment
In English Language Arts/Reading (ELA)
New Haven Public Schools
2014-15 to 2017-18
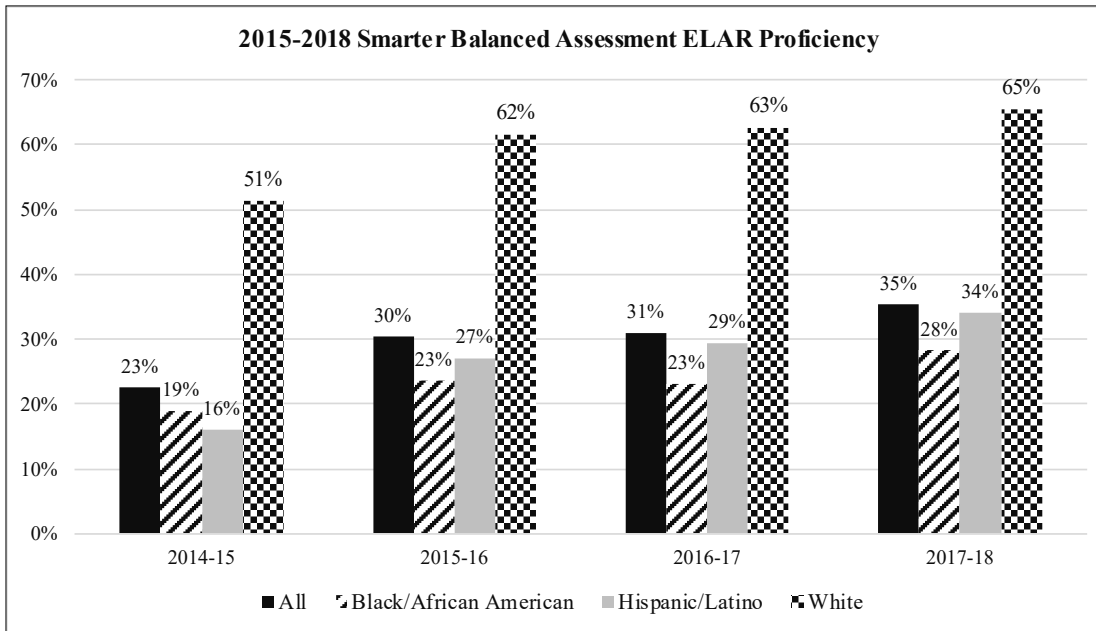
Source: Data and documents presented to auditors

The auditors noted the following from Exhibit 4.3.5:

- All students in the cohort increased from 23 to 35%.

- Black/African American students in the cohort increased from 19 to 28%.

- Hispanic/Latino students in the cohort increased from 16 to 34%.

- White students in the cohort increased from 51 to 65%.

- Less than one-third of all cohort students met proficiency over the four years, except in 2017-18 when 35% met proficiency.

- Hispanic/Latino students in the cohort increased the most out of all student groups at 18%.

Exhibit 4.3.6 displays the four-year cohort comparison of student achievement between student groups in New Haven Public Schools on the *Smarter Balanced Assessment* in mathematics.

Exhibit 4.3.6

**Four-Year Cohort Comparison of Student Achievement
Between Student Groups on the Smarter Balanced Assessment in Mathematics
New Haven Public Schools
April 2019**

Source: Data and documents presented to auditors

The auditors noted the following from Exhibit 4.3.6:

- All students in the cohort increased from 17 to 23%.

- Black/African American students in the cohort increased from 12 to 16%.

- Hispanic/Latino students in the cohort increased from 12 to 22%.

- White students in the cohort increased from 43 to 48%.

- Less than one-fifth of all cohort students met proficiency over the four years, except in 2017-18 when 23% met proficiency.

- Hispanic/Latino students in the cohort increased the most out of all student groups at 10%.

Exhibit 4.3.7 displays a comparison of student achievement from 2017-18 between the national average and New Haven Public Schools on the *SAT* exam in grades 11 in English language arts/reading (ELA) and mathematics.

Exhibit 4.3.7

Comparison of Student Achievement
Between the National Average and New Haven Public Schools
On the SAT Exam in Grade 11 English Language Arts/Reading (ELA) and Mathematics
New Haven Public Schools
2017-18

Source: Data and documents provided to auditors and
https://reports.collegeboard.org/sat-suite-program-results/class-2018-results
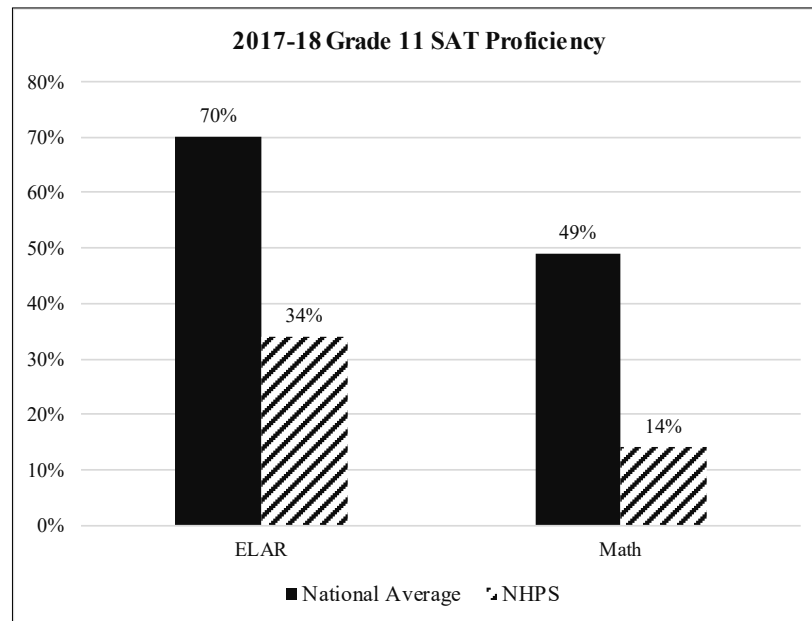
The auditors noted the following from Exhibit 4.3.7:

- The national average for ELA is 36% higher than New Haven Public Schools.

- The national average for mathematics is 35% higher than New Haven Public Schools.

- More than two-thirds of students nationally meet proficiency on the ELA portion of the *SAT* exam.

- Approximately one-third of students in New Haven Public Schools meet proficiency on the ELA portion of the *SAT* exam.

- Approximately one-half of students nationally meet proficiency on the mathematics portion of the *SAT* exam.

- Approximately one-seventh of students in New Haven Public Schools meet proficiency on the mathematics portion of the *SAT* exam.

Exhibit 4.3.8 displays a student group comparison of achievement from 2017-18 between the national average and New Haven Public Schools on the *SAT* exam in grade 11 in English language arts/reading (ELA).

Exhibit 4.3.8

Student Group Comparison of Achievement
Between the National Average and New Haven Public Schools
On the SAT Exam in Grade 11 English Language Arts/Reading (ELA)
New Haven Public Schools
2017-18
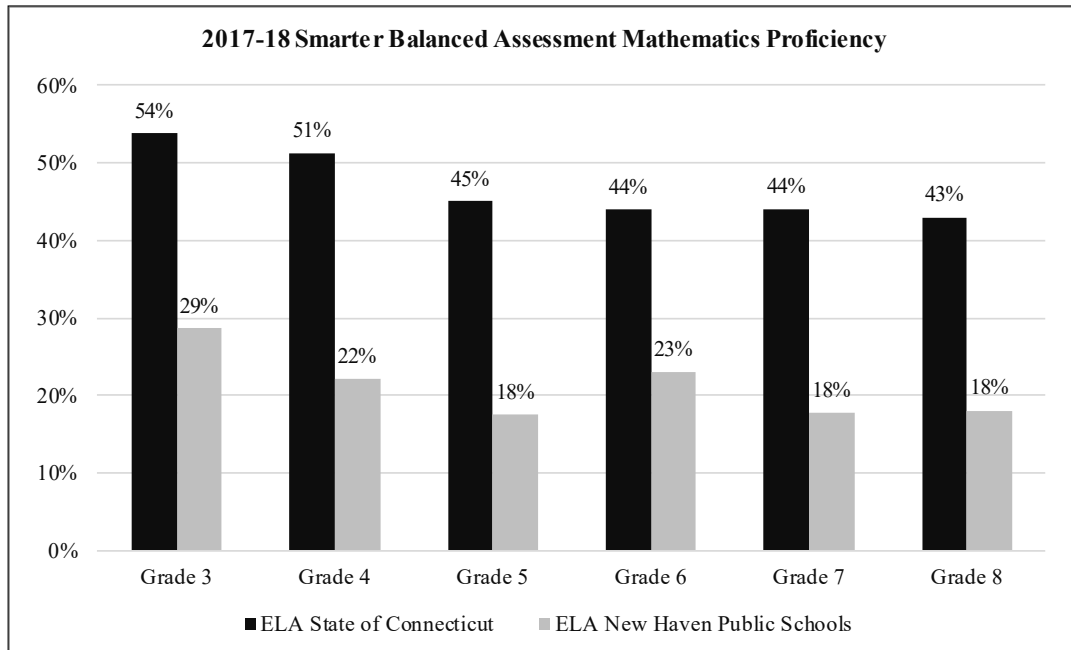

Source: Data and documents provided to auditors and
https://reports.collegeboard.org/sat-suite-program-results/class-2018-results
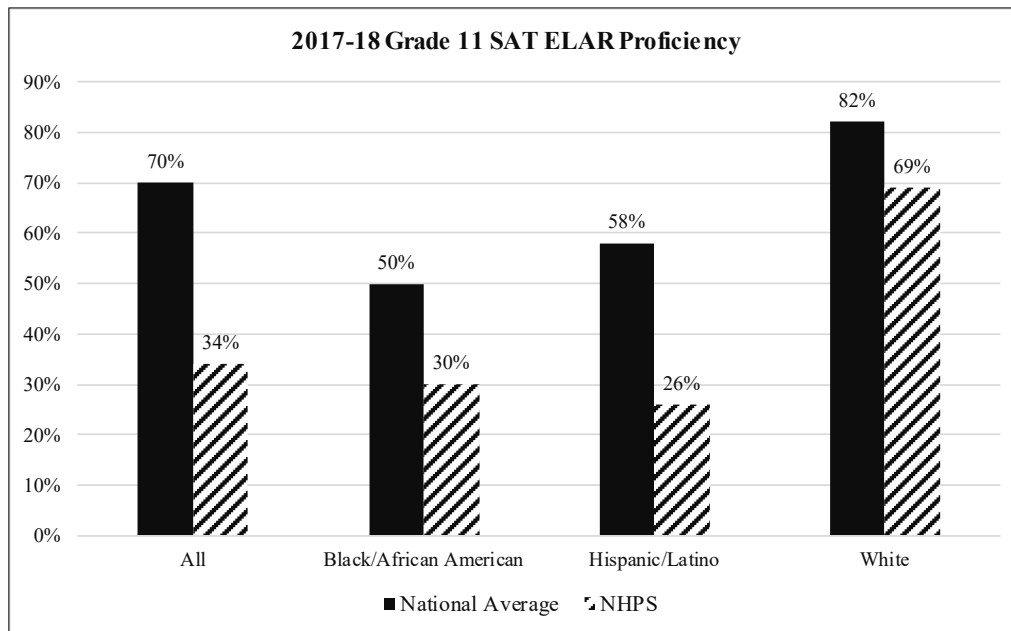
The auditors noted the following from Exhibit 4.3.8:

- The national average outperforms New Haven Public Schools in all student groups by 13 to 36%.

- The largest difference between student groups is for all students with 36%.

- The smallest difference between student groups is for White students with 13%.

- More than two-thirds of students nationally meet proficiency.

- Approximately one-third of New Haven Public Schools Black/African American students meet proficiency.

- Approximately one-fourth of New Haven Public Schools Hispanic/Latino students meet proficiency.

- Approximately two-thirds of New Haven Public Schools White students meet proficiency.

Exhibit 4.3.9 displays a student group comparison of achievement from 2017-18 between the national average and New Haven Public Schools on the *SAT* exam in grade 11 in mathematics.

Exhibit 4.3.9

**Student Group Comparison of Achievement
Between the National Average and New Haven Public Schools
On the SAT Exam in Grade 11 Mathematics
New Haven Public Schools
2017-18**

2017-18 Grade 11 SAT Mathematics Proficiency

*Source: Data and documents provided to auditors and
https://reports.collegeboard.org/sat-suite-program-results/class-2018-results*
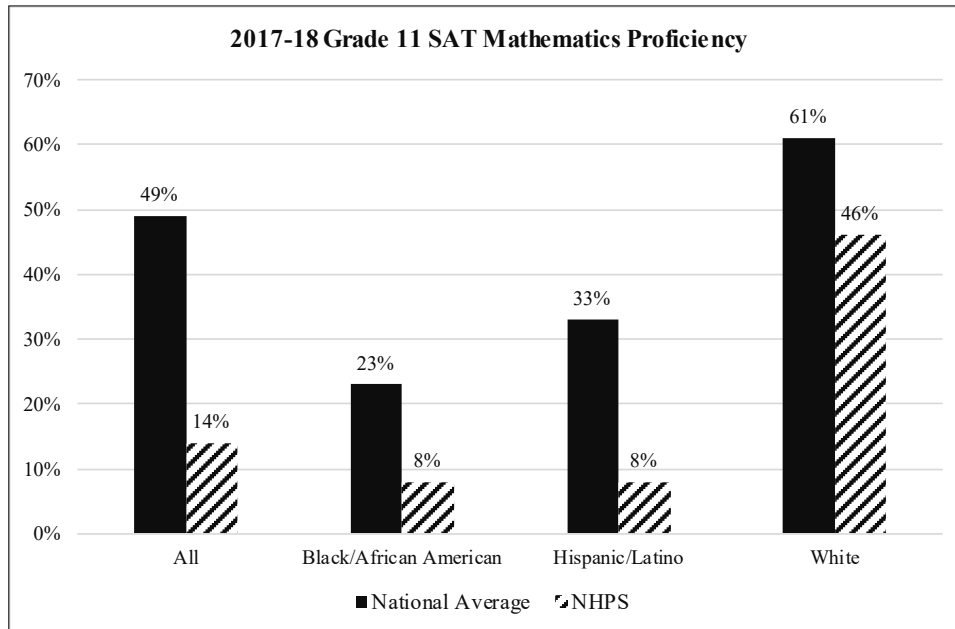
The auditors noted the following from Exhibit 4.3.9:

- The national average outperforms New Haven Public Schools in all student groups by 15 to 35%.

- The largest difference between student groups is for all students with 35%.

- The smallest difference between student groups is for both Black/African American and White students with 15%.

- Approximately one-half of students nationally meet proficiency.

- Approximately one-seventh of all New Haven Public Schools students meet proficiency.

- Eight percent of both New Haven Public Schools Black/African American and Hispanic/Latino students meet proficiency.

- Approximately one-half of New Haven Public Schools White students meet proficiency.

Exhibit 4.3.10 displays a three-year student group comparison of achievement from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in English language arts/reading (ELA).

Exhibit 4.3.10

**Three-Year Student Group Comparison of Achievement
On the SAT Exam in Grade 11 English Language Arts/Reading (ELA)
New Haven Public Schools
2015-16 to 2017-18**
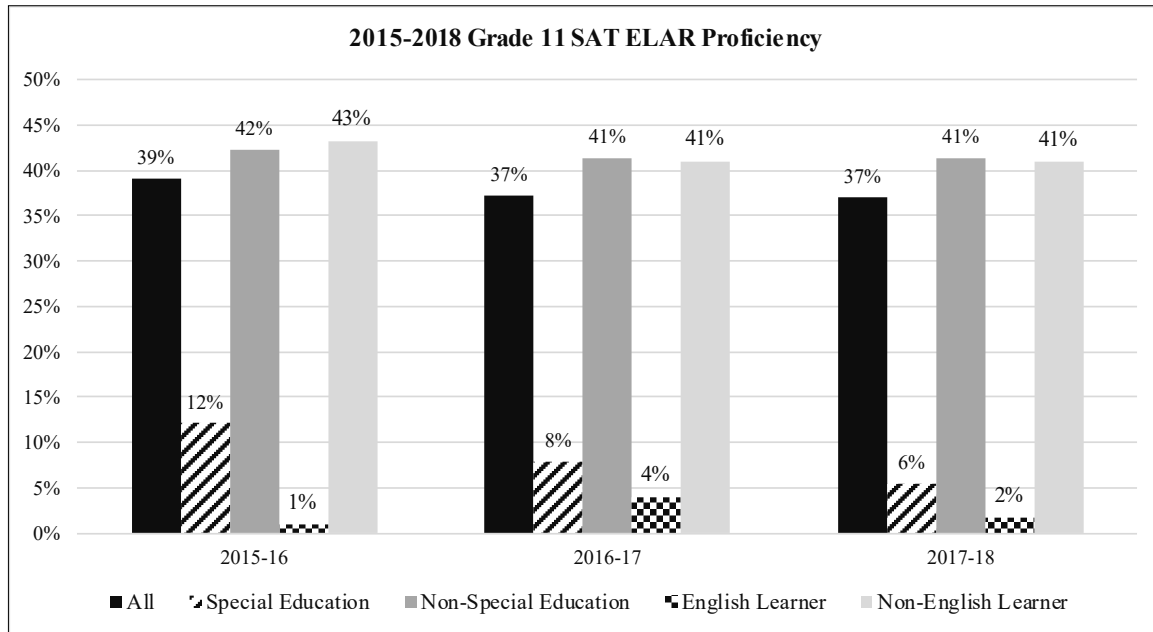
Source: Data and documents provided to auditors

The auditors noted the following from Exhibit 4.3.10:

- Achievement for all students decreased from 39 to 37%.

- Achievement for special education students decreased from 12 to 6%.

- Achievement for non-special education students decreased from 42 to 41%.

- English Learner students increased from 1 to 2%.

- Achievement for non-English Learner students decreased from 43 to 41%.

- Less than two-fifths of all students met proficiency over the three years.

Exhibit 4.3.11 displays a three-year student group comparison of achievement from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in mathematics.

Exhibit 4.3.11

Three-Year Student Group Comparison of Achievement
On the SAT Exam in Grade 11 Mathematics
New Haven Public Schools
2015-17 to 2017-18
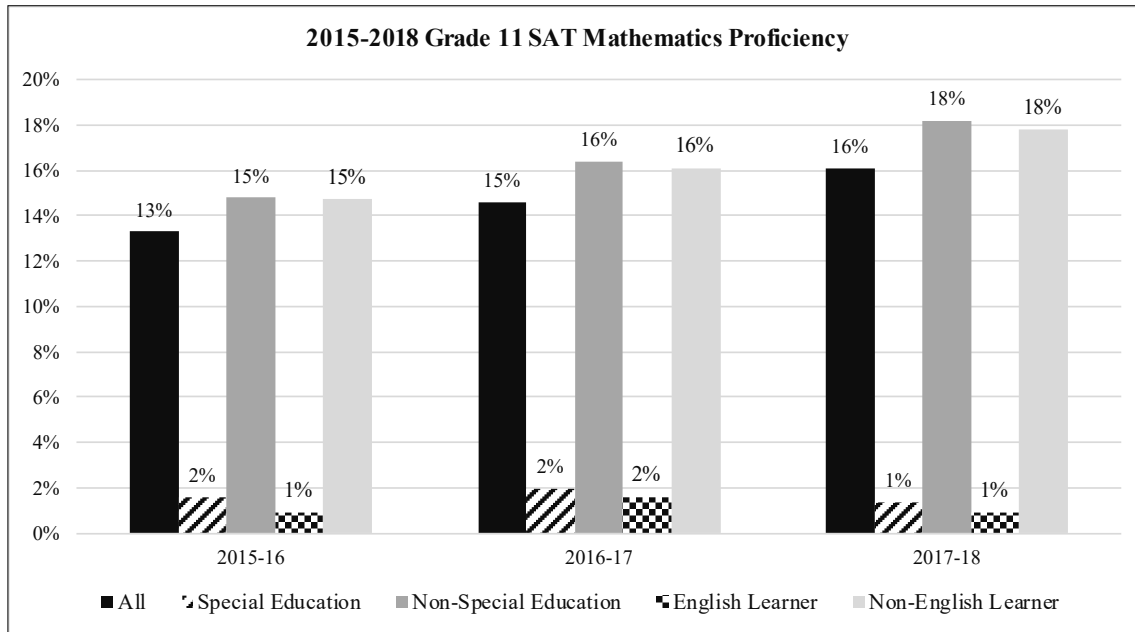
Source: Data and documents provided to auditors

The auditors noted the following from Exhibit 4.3.11:

- Achievement for all students increased from 13 to 16%.

- Achievement for special education students decreased from 2 to 1%.

- Achievement for non-special education students increased from 15 to 18%.

- Achievement for English Learner students remained the same at 1%.

- Achievement for non-English Learner students increased from 15 to 18%.

- Less than one-sixth of all students met proficiency over the three years.

Exhibit 4.3.12 displays a three-year achievement comparison between economically disadvantaged and non-economically disadvantaged students from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in English language arts/reading (ELA).

Exhibit 4.3.12

Three-Year Achievement Comparison
Between Economically Disadvantaged and Non-Economically Disadvantaged Students
On the SAT Exam in Grade 11 English Language Arts/Reading (ELA)
New Haven Public Schools
2015-16 to 2017-18
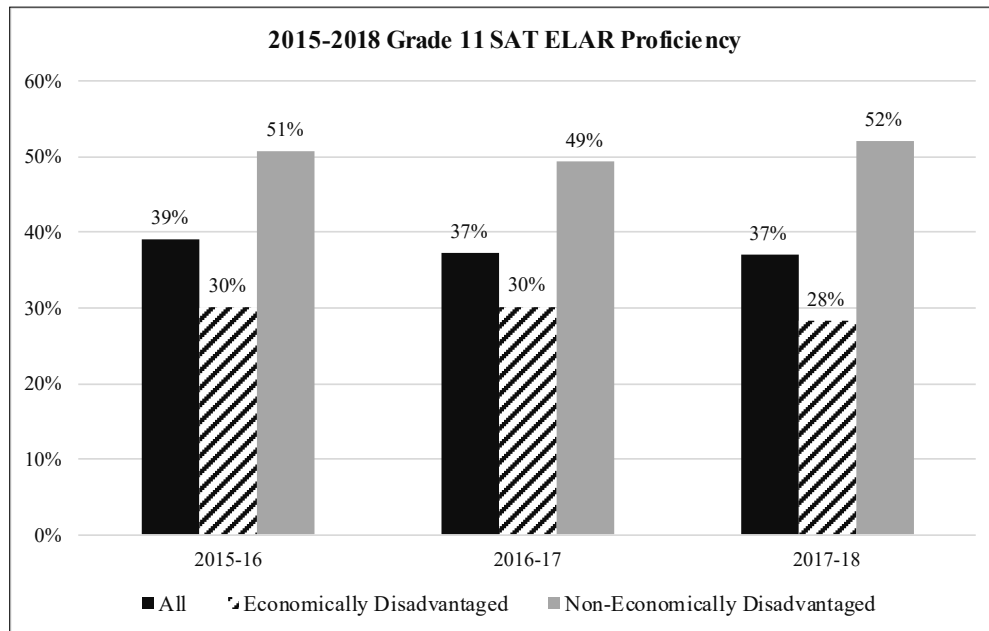
Source: Data and documents provided to auditors

The auditors noted the following from Exhibit 4.3.12:

- Achievement for all students decreased from 39 to 37%.

- Achievement for economically disadvantaged students decreased from 30 to 28%.

- Achievement for non-economically disadvantaged students increased from 51 to 52%.

- Less than one-third of economically disadvantaged students met proficiency over the three years.

- Over one-half of non-economically disadvantaged students met proficiency for two of the three years.

Exhibit 4.3.13 displays a three-year achievement comparison between economically disadvantaged and non-economically disadvantaged students from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in mathematics.

Exhibit 4.3.13

**Three-Year Achievement Comparison
Between Economically Disadvantaged and Non-Economically Disadvantaged Students
On the SAT Exam in Grade 11 Mathematics
New Haven Public Schools
2015-16 to 2017-18**
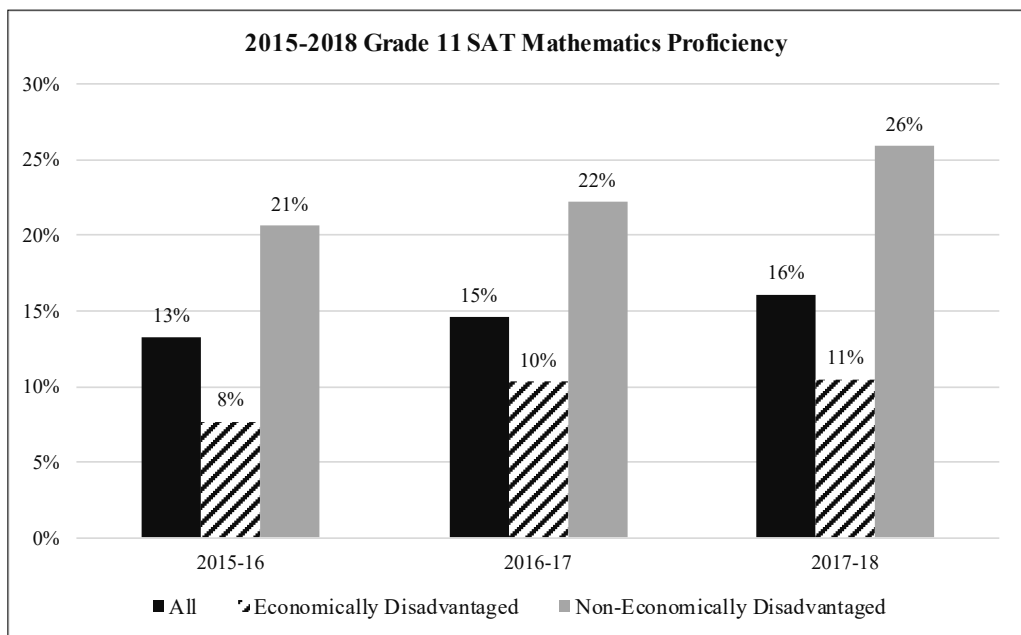
The auditors noted the following from Exhibit 4.3.13:

- Achievement for all students increased from 13 to 16%.

- Achievement for economically disadvantaged students increased from 8 to 11%.

- Achievement for non-economically disadvantaged students increased from 21 to 26%.

- About one-tenth of economically disadvantaged students met proficiency over the three years.

- About one-quarter of non-economically disadvantaged students met proficiency over the three years.

Exhibit 4.3.14 displays a three-year student group achievement comparison from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in English language arts/reading (ELA).

Exhibit 4.3.14

**Three-Year Student Group Achievement Comparison
On the SAT Exam in Grade 11 English Language Arts/Reading (ELA)
New Haven Public Schools
2015-16 to 2017-18**
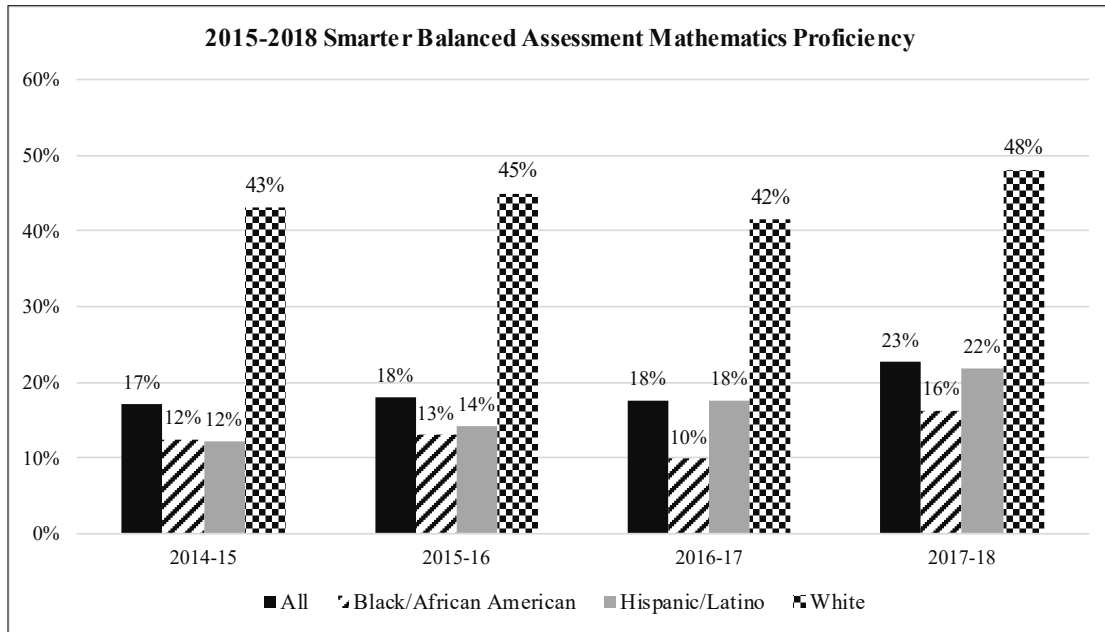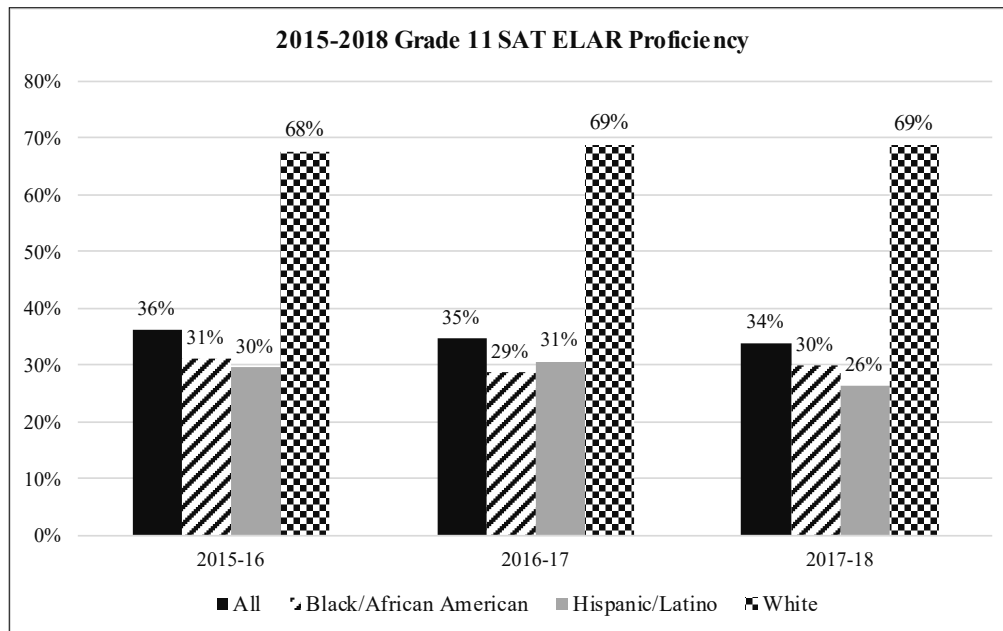

Source: Data and documents provided to auditors

The auditors noted the following from Exhibit 4.3.14:

- Achievement for all students decreased from 36 to 34%.

- Achievement for Black/African American students decreased from 31 to 30%.

- Achievement for Hispanic/Latino students decreased from 30 to 26%.

- Achievement for White students increased from 68 to 69%.

- Approximately one-third of all students met proficiency.

- Less than one-third of Black/African American and Hispanic/Latino students met proficiency.

- More than two-thirds of White students met proficiency.

Exhibit 4.3.15 displays a three-year student group achievement comparison from 2015 to 2018 in New Haven Public Schools on the *SAT* exam in grade 11 in mathematics.

Exhibit 4.3.15

**Three-Year Student Group Achievement Comparison
On the SAT Exam in Grade 11 Mathematics
New Haven Public Schools
2015-16 to 2017-18**
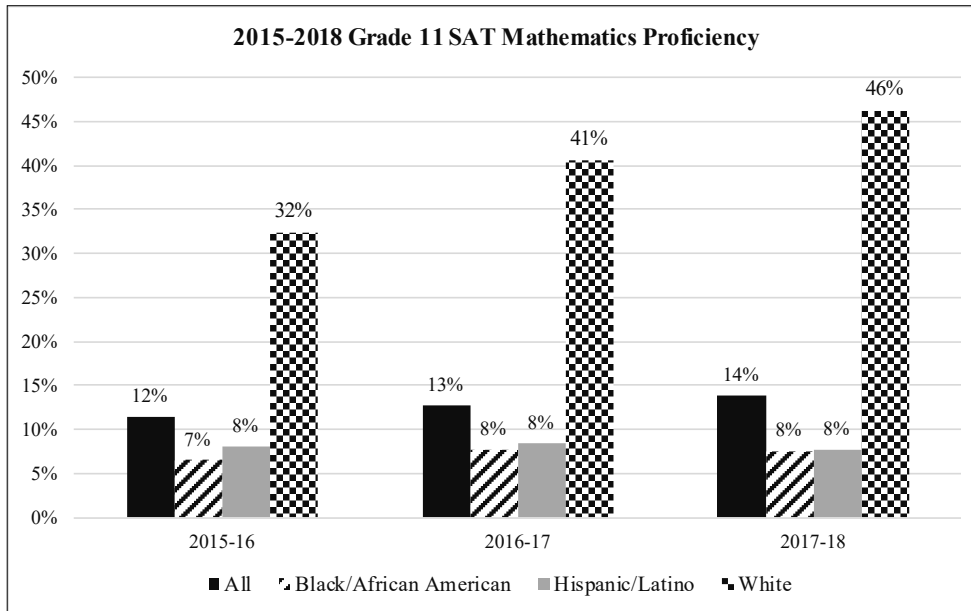
Source: Data and documents provided to auditors

The auditors noted the following from Exhibit 4.3.15:

- Achievement for all students increased from 12 to 14%.

- Achievement for Black/African American students increased from 7 to 8%.

- Achievement for Hispanic/Latino students remained the same at 8%.

- Achievement for White students increased from 32 to 46%.

- Approximately one-seventh of all students met proficiency.

- Less than one-eleventh of Black/African American and Hispanic/Latino students met proficiency.

- Approximately two-fifths of White students met proficiency over the three years.

Overall, analysis of student performance in New Haven Public Schools shows district achievement below state and national averages with English language arts/reading (ELA) scoring higher than mathematics. Students identified as special education, English Learner (EL), or economically disadvantaged performed consistently lower than general education students on both state and national exams. Black/African American and Hispanic/ Latino students performed consistently lower than White students on both state and national exams, although an analysis of a cohort of students shows an increase of achievement overall on the *Smarter Balanced Assessment* in grades 3-6. Lastly, a longitudinal analysis of the *SAT* exam additionally shows that achievement for some student groups has decreased in English language arts/reading (ELA) and increased in mathematics.

Assessments and other performance measures provide district leaders with information about the effectiveness of curriculum and instructional methods. Predictive techniques, such as the computation of "years to parity," estimate performance gaps among student groups and predict the rate and direction of progress over time. By making connections across time and among different student groups, district stakeholders can identify trends in demographics and student achievement that will help them focus their efforts and resources on the areas

of greatest need. There is an audit expectation that poverty, race, gender, or other ethnic or demographic differences should not predict achievement levels. Furthermore, all student groups should achieve at comparable levels, demonstrating parity (or equivalency in achievement), if not at the time of measurement, then at some reasonable future point in time, as a result of educational intervention.

Auditors sought to identify the existence and magnitude of achievement gaps among student groups in New Haven Public Schools. In this analysis, auditors provide estimates of the length of time required for a low performing student group to achieve at the same level as a comparison group ("Years to Parity"). To arrive at estimated Years to Parity, reviewers calculated the difference in percentage of students in both the student and comparison groups demonstrating proficiency for each year ("Difference"). Next, auditors calculated the positive or negative change from one year to the next ("Change in Difference"). This figure was divided by the number of intervals (total number of years minus one) to yield "Gain by Year." A positive number means the achievement gap is closing, and the final year difference between the student and comparison group was divided by the Gain by Year to arrive at an estimate of Years to Parity. A negative Gain by Year means that the achievement gap is widening, and, therefore, one can assume achievement of the student group would never reach parity with the comparison group without intervention.

Auditors performed Years to Parity analyses for grades 3 to 6 in English language arts/reading (ELA) and mathematics, the most frequently assessed subject areas, and of special education, English Learners (EL), and ethnic student groups. The use of data within a Years to Parity analysis must be used with caution. There is no way to know whether the rates of change that have existed in the past will remain stable. Also, populations of student groups change over years. Regardless of the changing population of cohorts, the trends of assessment results approximate similar effects over time, so the limitation may not change the net result of the calculations. Despite these limitations, it is still useful to keep district administrators and staff focused on the ideal, and the Years to Parity analysis is one indicator of whether or not progress needs to be accelerated and what interventions are needed.

Exhibit 4.3.16 displays the years to parity analysis between general and special education students for grades 3-6 on the *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics.

Exhibit 4.3.16

**Years to Parity Analysis Between General and Special Education Students for Grades 3-6
On the Smarter Balanced Assessment in English Language Arts/Reading (ELA) and Mathematics
New Haven Public Schools
April 2019**

Student Group	Grades/Subject	Percent Proficient and Above			
		2014-15	2015-16	2016-17	2017-18
General Education	3-6/ELA	24.5	34.4	35.9	40.9
Special Education	3-6/ELA	3.8	1.7	1.6	5.3
Difference		20.7	32.7	34.3	35.6
Change in difference:	*(1st year difference-Final year difference)*				-14.9
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-5.0
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
General Education	3-6/Mathematics	18.7	19.9	20.5	26.2
Special Education	3-6/Mathematics	1.9	0.0	0.0	4.3
Difference		16.8	19.9	20.5	21.9
Change in difference:	*(1st year difference-Final year difference)*				-5.1
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-1.7
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
Source: Data and documents provided to auditors					

The auditors noted the following from Exhibit 4.3.16:

- Based on the current rate of change, the achievement gap between special education and general education students in English language arts/reading (ELA) and mathematics in grades 3-6 is projected to never close.

- Although both general education and special education achievement increased over the four-year period in both English language arts/reading (ELA) and mathematics, the achievement gap per year widened by 5% in ELA and approximately 2% in mathematics.

Exhibit 4.3.17 displays the years to parity analysis between general and English Learner students for grades 3-6 on the *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics.

Exhibit 4.3.17

**Years to Parity Analysis Between General Education and English Learner Students for Grades 3-6
On the Smarter Balanced Assessment in English Language Arts/Reading (ELA) and Mathematics
New Haven Public Schools
April 2019**

Student Group	Grades/Subject	Percent Proficient and Above			
		2014-15	**2015-16**	**2016-17**	**2017-18**
General Education	3-6/ELA	26.2	34.3	34.6	39.8
English Learner	3-6/ELA	8.1	13.4	14.8	7.3
Difference		18.1	20.9	19.8	32.5
Change in difference:	*(1st year difference-Final year difference)*				-14.4
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-4.8
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
General Education	3-6/Mathematics	20.3	21.0	20.3	25.5
English Learner	3-6/Mathematics	4.4	3.3	4.8	5.5
Difference		15.9	17.7	15.5	20.0
Change in difference:	*(1st year difference-Final year difference)*				-4.1
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-1.4
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
Source: Data and documents provided to auditors					

The auditors noted the following from Exhibit 4.3.17:

- Based on the current rate of change, the achievement gap between English Learner (EL) and general education students in English language arts/reading (ELA) and mathematics in grades 3-6 is projected to never close.

- Although both general education and English Learner (EL) achievement increased over the four-year period in English language arts/reading (ELA), English Learner (EL) achievement decreased, which resulted in the achievement gap per year widening by approximately 5%.

- Although both general education and English Learner (EL) achievement increased over the four-year period in mathematics, the achievement gap per year widened by approximately 1% in mathematics.

Exhibit 4.3.18 displays the years to parity analysis between White and Black/African American students for grades 3-6 on the *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics.

Exhibit 4.3.18

Years to Parity Analysis Between White and Black/African American Students for Grades 3-6
On the Smarter Balanced Assessment in English Language Arts/Reading (ELA) and Mathematics
New Haven Public Schools
April 2019

Student Group	Grades/Subject	Percent Proficient and Above			
		2014-15	**2015-16**	**2016-17**	**2017-18**
White	3-6/ELA	51.2	61.5	62.6	65.4
Black/African American	3-6/ELA	18.9	23.5	23.1	28.2
Difference		32.3	38.0	39.5	37.2
Change in difference:	*(1st year difference-Final year difference)*				-4.9
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-1.6
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
White	3-6/Mathematics	43.0	45.0	41.5	48.0
Black/African American	3-6/Mathematics	12.5	13.1	9.9	16.3
Difference		30.5	31.9	31.6	31.7
Change in difference:	*(1st year difference-Final year difference)*				-1.2
Gain by Year:	*(Change in difference)/(Number of Years-1)*				-0.4
Years to Parity:	*(Final year gap/Gain by year)*				**Never**
Source: Data and documents provided to auditors					

The auditors noted the following from Exhibit 4.3.18:

- Based on the current rate of change, the achievement gap between Black/African American and White students in English language arts/reading (ELA) and mathematics in grades 3-6 is projected to never close.

- Although both Black/African American and White student achievement increased over the four year period in both English language arts/reading (ELA) and mathematics, the achievement gap per year widened by approximately 1% in ELA and mathematics.

<u>Exhibit 4.3.19</u> displays the years to parity analysis between White and Hispanic/Latino students for grades 3-6 on the *Smarter Balanced Assessment* in English language arts/reading (ELA) and mathematics.

Exhibit 4.3.19

**Years to Parity Analysis Between White and Hispanic/Latino Students for Grades 3-6
On the Smarter Balanced Assessment in English Language Arts/Reading (ELA) and Mathematics
New Haven Public Schools
April 2019**

Student Group	Grades/Subject	Percent Proficient and Above			
		2014-15	**2015-16**	**2016-17**	**2017-18**
White	3-6/ELA	51.2	61.5	62.6	65.4
Hispanic/Latino	3-6/ELA	16.0	27.1	29.4	34.0
Difference		35.2	34.4	33.2	31.4
Change in difference:	*(1st year difference-Final year difference)*				3.8
Gain by Year:	*(Change in difference)/(Number of Years-1)*				1.3
Years to Parity:	*(Final year gap/Gain by year)*				**24.2**
White	3-6/Mathematics	43.0	45.0	41.5	48.0
Hispanic/Latino	3-6/Mathematics	12.3	14.2	17.6	21.9
Difference		30.7	30.8	23.9	26.1
Change in difference:	*(1st year difference-Final year difference)*				4.6
Gain by Year:	*(Change in difference)/(Number of Years-1)*				1.5
Years to Parity:	*(Final year gap/Gain by year)*				**17.4**
Source: Data and documents provided to auditors					

The auditors noted the following from <u>Exhibit 4.3.19</u>:

- Based on the current rate of change, the achievement gap between Hispanic/Latino and White students in English language arts/reading (ELA) in grades 3-6 is projected to close in about 24 years.

- Based on the current rate of change, the achievement gap between Hispanic/Latino and White students in mathematics in grades 3-6 is projected to close in about 17 years.

- Both general education and special education achievement increased over the four-year period in both English language arts/reading (ELA) and mathematics. Hispanic/Latino students increased achievement more than White students over the four years.

Overall, estimates of years to parity show that achievement gaps among special education students, English Language (EL) students, and Black/African American students are not decreasing at a rate that would put these students on a path to proficiency. When gaps continue to move in a negative direction, it indicates that parity is not reachable unless current conditions change to intervene and rectify the existing rate of performance. An estimate of years to parity shows that achievement gaps in English language arts/reading (ELA) and mathematics among Hispanic/Latino students would close in approximately 17 to 24 years.

Student Performance Summary

Auditors sought to examine data on the *Smarter Balanced Assessment* in grades 3-8 in English language arts/ reading (ELA) and mathematics and the *SAT* exam in grade 11 to provide a comparison for district leaders and determine the existence and magnitude of student achievement gaps in New Haven Public Schools. Analysis of student performance in New Haven Public Schools shows achievement levels below state and national averages, although a cohort analysis shows an overall increase. In addition, most student groups performed lower on assessments than comparison groups, which results in not being able to achieve future parity without intervention.

Finding 4.4: The need for a comprehensive program evaluation plan impedes the district's ability to make rational decisions regarding the effectiveness of curriculum and instruction and decisions whether programs should be continued, modified, or eliminated based on accurate data. The use of data to improve student achievement outcomes is uncoordinated.

Districts typically invest substantial dollars and human resources in supporting programs to maintain, augment, or enhance the instructional program. Programmatic efforts have the potential to address diverse needs and provide unique opportunities for students to access learning. When programs are adopted to fulfill identified needs, designed to accomplish specific goals and objectives, implemented with fidelity to program design, monitored consistently during implementation, and evaluated annually, they can become a dynamic part of the educational design and delivery. However, when organizational procedures are not in place to assess the need and quality of programs before they are adopted, and when strategies for monitoring and evaluation are not used consistently, programs can consume district resources that could be allocated elsewhere to positively impact student achievement. Such lost opportunities for system improvement exist when program evaluation is infrequent, inadequate, or inappropriate.

In effective schools, program evaluation provides information that permits the staff to analyze and identify strengths and weaknesses at the district, school, and individual student levels. Administrators and teachers utilize evaluation data to assure quality educational programs that meet individual needs are in place. Program evaluation data inform decision makers in the identification of effective and ineffective programs and those instructional strategies (e.g., differentiation) that prove useful in promoting student success. Effective programs can be maintained or expanded, and ineffective programs can be terminated, based on performance results.

Without a carefully planned and implemented program evaluation, the board and district leaders have only anecdotal and random evidence concerning the effectiveness of programs and interventions. Additionally, the lack of timely and objective program evaluation increases the risk that vital program decisions will based on opinions, flawed assumptions, or personal preferences, rather than being based on program effectiveness data.

To ascertain the status of program evaluation in the New Haven Public Schools, auditors examined board policies, job descriptions, and other relevant documents provided for the review; and interviewed administrators, teachers, parents, and community members.

Auditors found no evidence of a systematic approach for the use of data in decision making regarding the selection, implementation, monitoring, or termination of district programs. The district does not have a comprehensive program evaluation plan, and board policies and job descriptions do not have sufficient content to provide direction regarding evaluations.

The auditors examined board policies to determine the expectations for program implementation, monitoring, and evaluation in the district. Two board policies were found that make a generalized statement regarding program evaluation:

- *Board Policy 6141: Curriculum Development* states that there should be a process whereby each discipline will be reviewed at least every five years.

- *Board Policy 6180: Evaluation of the Instructional Program* states, "appropriate means for continuing evaluation of the entire education program shall be established and maintained."

Board policies do not have sufficient content to clearly establish the scope of program evaluation in the New Haven Public Schools. No policy expectation was found that required instructional programs to be modified, expanded, or terminated in response to analysis of program results in terms of improved student achievement.

In addition to examining board policies, auditors also analyzed district job descriptions to determine roles and responsibilities related to program evaluation. Auditors found no job descriptions that explicitly assigned roles and responsibilities for development of a comprehensive program evaluation system. No job descriptions include responsibility for program design, program delivery, or evaluation of program effectiveness with respect to practices and procedures.

As noted, the district does not have in place a comprehensive program evaluation plan to guide staff in generating high quality program evaluation data to support planning.

The use of program evaluation data is critical in helping district and school leaders craft a sound framework with measurable results for continuously improving schools so decisions are not based on incomplete or biased information. New Haven Public Schools district leaders expressed an interest in developing a program evaluation plan to guide local efforts. Auditors present <u>Exhibit 4.4.1</u> listing the characteristics of a quality evaluation plan or process. District officials can use this list of characteristics as a reference in the design of their future approach to program evaluation. To meet audit standards, at least 9 of the 12 characteristics (75%) listed below must be in place.

Exhibit 4.4.1

Characteristics of a Quality Program Evaluation Plan or Process

1. Describes board or administrative directives to have program evaluation procedures in place.
2. Specifies procedures for program evaluation, including needs assessment and methods for formative and summative evaluation.
3. Specifies the proficiencies of persons responsible for conducting the evaluation, enhancing the likelihood that findings achieve maximum credibility and acceptance.
4. Expects multiple measures designed to obtain quality data about the goals and objectives of the program and that such measures be accurate and reliable.
5. Provides for multiple measures of data collection to be used, including both quantitative and qualitative data.
6. Directs ongoing formative assessments for the first two years for any new program implementation and summative evaluation at the end of the third year.
7. Directs that all existing programs undergo a program evaluation at least every three years.
8. Expects procedures used in the evaluation process to be clearly described.
9. Specifies that program evaluation reports clearly describe the program, including its context, purpose, and procedures.
10. Expects program evaluation reports to be utilized to support timely decisions regarding program effectiveness, identify both strengths and weaknesses of the program, and include findings and recommendations for continuation, modification, or termination of the program.
11. Directs program evaluation designs to be practical, ethical, and cost effective, and to adequately address relevant political issues.
12. Expects all proposals for the initiation of new programs to include needs assessment data, a description of formative and summative evaluations, and data collection procedures.
13. Specifies creation of a data system that allows for the attribution of cost by program, permitting program evaluation programs to support program-based benefit analysis.
14. Expects the critical elements of the program's implementation to be specified and monitored, and expects outcome data to be correlated with measures of the fidelity of the program's implementation.

Below is a representative sampling of comments received by auditors regarding program evaluation in the New Haven Public Schools:

- "No program evaluation plan in the district. It would be helpful to have one." (Central Office Administrator)

- "There is no system-wide program evaluation mechanisms in place." (Central Office Administrator)

- "No formal evaluation plan exists. Just keep piling on." (Central Office Administrator)

- "We haven't done any program evaluation at all." (Central Office Administrator)

- "We don't have a system to use the data for program evaluations." (Supervisor)

- "We have a plethora of programs, but no one knows what impact the program has. No fidelity of implementation." (Central Office Administrator)

- "We add programs, but I don't think we look at what's really working." (Board Member)

- "We do not have a process in place for program evaluation. There is no written down protocol for evaluating programs." (Central Office Administrator)

- "We need stability. When something is working, it doesn't seem to stay." (Instructional Coaches)

Use of Data in the District

Administrators, board members, community members, and teachers in effective school systems frequently ask:

- Is what we are doing working? – How do we know that?

- What's not working? – How do we know that?

- How can we do it better?

- Should we be doing something else?

These questions can only be answered accurately by collecting data and using it as feedback to inform program improvement and impact student achievement. This process is referred to as "data-driven decision making."

The use of data from a variety of sources is essential for sound curriculum management. Effective assessment resources include achievement test data, formative assessments, summative assessments, program evaluations, teacher evaluations, surveys, and follow-up studies. The resulting data need to be made available at all levels of the school system in formats that can be understood and effectively utilized in decision-making functions such as:

- District long-range planning;

- School improvement planning;

- Curriculum review, modification, or adoption;

- Classroom teaching decisions;

- Instructional materials selection;

- Formative, summative, and benchmark assessment development;

- District and school-based program selection and evaluation;

- Human and financial resource allocation and budget development.

To ensure efficient "feedup," "feedback," and "feed forward" processes that can inform efforts to improve student performance, school systems must create and utilize viable system performance data from a variety of sources. Effective use of data includes disaggregating data consistently and in meaningful ways for district leaders to determine that all ethnic and non-ethnic populations are attaining the instructional goals and objectives district-wide and within each school. Systems that fail to consistently create and utilize these data sources lack the basis for sound decisions involving curriculum, instruction, assessment, and other supporting operations. The importance of data is that it can highlight existing areas of strengths and weaknesses and guide direct improvement in a systematic and strategic manner.

To gauge where the district is in terms of data use, auditors examined board policies, job descriptions, assessment data, and other relevant documents provided by district administrators. The auditors also visited classrooms in each district school and conducted interviews. While the district gathers a variety of data from different sources, data are not used effectively for school improvement planning or program evaluation. Absent are clear and specific expectations for the use of data in decision making for all district operations.

The auditors found no board policies that specifically addressed the collection and use of data to improve the design and delivery of curriculum or to enhance student achievement. The only references made were related

to "planning and carrying out experiences for students which are designed to bring about desired outcomes;" "continuing, revising, or expanding learning experiences which seem to result in the desired objectives;" and "each student in the fourth, sixth, eighth, and tenth grade shall take a statewide mastery examination measuring whether or not a student has mastered essential grade level skills in reading, language arts, and mathematics."

Next the auditors examined various job descriptions to determine roles and responsibilities for data use. The following job descriptions referenced responsibilities for using data to impact student learning:

- Instructional Coach: "Collaborates with staff to collect and analyze data for professional development needs in the school;" and "Assists teachers in the process of administering and interpreting assessment data to improve student achievement in a timely manner."

- Supervisor for Student Assessment and Learning Measures: "Establishes systems that provide effective monitoring and useful feedback to students, teachers, schools, and district staff;" and "Acts as a primary substantive user of Student Information Systems to ensure that data systems capture and display useful information on academic and educational progress."

Next, the auditors examined documents, conducted interviews, and analyzed online surveys to determine the status of data use and the direction of the district in implementing a comprehensive and systematic data-driven program evaluation system.

Overall, auditors found a fragmented, randomized use of data throughout the district. The following concerns and issues led district leaders to focus on the data process:

- No system or structure is in place for using data.

- An action piece for analyzing data is missing.

- A focus on data literacy needs to occur.

- The process is not systematic at the classroom level, school level, or district level.

- No explicit expectation exists for how to use data or even for need to use data.

- No specific district vision exists for how to use data district-wide.

- There is no consistent cycle of data use.

The following are representative comments supported by school personnel regarding these concerns:

- "The data situation in the district is a disaster. A huge weakness. We have three databases, and we can't get the actual disaggregated data we truly need." (Central Office Administrator)

- "We collect a lot of data, but it isn't being used. There is a lack of understanding about the use of data at all levels." (Central Office Administrator)

- "We have not been a district that really has looked at data." (Principal)

- "Data decisions are school dependent. It is more of a compliance issue-collecting the data, but not using it. School staffs are using the data in some schools, but not in enough schools…." (Central Office Administrator)

- "We don't have a data system or structure." (Central Office Administrator)

In order to address the above concerns, the district initiated the following strategies related to data:

- Continuous School Improvement Plans

- Data Wise Improvement Process

For the school year 2018-19, each school was to develop a Continuous School Improvement Plan incorporating the PDSA framework. This model for improvement consists of four cyclical stages:

Plan = Define purpose, goals, and objectives; collect data.

Do = Carry out plan; and begin data analysis.

Study = Monitor, evaluate, and analyze change; compare old and new data; summarize what has been learned.

Act = Adjust strategies for improvement; then refine and reinstitute.

The key questions for the model are:

- What are we trying to accomplish?

- How will we know that a change is an improvement?

- What change can we make that will result in improvement?

The district goal for this strategy is that the school improvement plan is a vital part of an ongoing process of reflection and refinement of educational practices that will lead to substantial and ongoing student learning gains. The phases include:

- Needs assessment—Some questions associated with this phase are:

    ○ What specific data trends have been identified?

    ○ Is the needs assessment based on an analysis of data of subgroups?

    ○ Does the data analysis provide a clear direction for the selection of the goals, strategies, and actions?

- Theories of action—Some questions associated with this phase are:

    ○ Where do we want to be and how can we get there?

    ○ How will our school achieve its mission (using an If…Then statement)?

- Strategic objectives and initiatives—Some questions associated with this phase are:

    ○ What are the 2-3 overarching strategic objectives that our school will focus on for the next two years to drive improvement?

    ○ Each strategy comprises what 1-2 key initiative?

- Evidence of Impact—Some questions associated with this phase are:

    ○ What evidence (early evidence of impact, short term impacts, and longer term outcomes) will we use to monitor progress and adjust strategies?

    ○ Is what we are doing making a positive difference?

- Action Plans and Steps—Some questions associated with this phase are:

    ○ How will we implement?

    ○ What actions need to be implemented in order for each initiative to be successful?

    ○ What needs to happen in the next week, month, six months, to make this initiative successful?

The auditors next examined the second strategy involving the Data Wise Improvement Process. In January, four district personnel attended a week-long Data Wise Leadership Institute at Harvard University. This process consists of steps designed to enhance the ability of school personnel to collaboratively analyze data in order to achieve improved classroom instruction and student learning.

The steps are organized in three phases: Prepare, Inquire, and Act. Each phase plays an important role in building a schools' capacity to use data to improve instruction. The following is an overview of the phases and steps associated with each phase:

Prepare

- Organize for collaborative work

- Build assessment literacy

Inquire

- Create data overview

- Dig into data

- Examine instruction

Act

- Develop action plan

- Plan to assess progress

A contract proposal to include outside trainers to be part of this process was rejected by the committee of the board. However, the district personnel are currently carrying out the plan internally. They have developed a Scope of Work action plan for the Data Wise Process, which includes a pilot project this year. Auditors requested information on three different occasions from one pilot school but never received any materials. This plan for district-wide engagement in the Data Wise Improvement Process is for school years 2018-19 and 2019-20.

Some highlights for the School Year 2018-19 are:

- Dedicate time for intentional planning, needs assessment, coordination, communication, and goal-setting with a district steering team.

- Coach a district executive team to engage in a full improvement cycle, from a district-level lens, focused on scaling and sustaining Data Wise and bringing coherence to the work across NHPS.

- Coach a curriculum team to begin a Data Wise Improvement Journey.

A highlight for 2019-20 as part of the Action Plan is:

- Across the district and 48 schools, New Haven Public Schools will build a shared culture, practice, and capacity for continuous improvement and collaborative data inquiry.

The ultimate result from these action plans is that New Haven Public Schools will see shifts in culture at the district and school levels that support learning and improvement for adults and students.

However, despite the current awareness of the need to have a more coordinated and consistent approach to both analyzing data and using it for decision making at all levels, the auditors found that the assessments that are currently in use have not led to systematic improvements in student achievement (see Finding 4.3). The use of data in decision making has not resulted in improved student achievement on the external assessments and is not functioning effectively.

Auditors used an anonymous online survey to solicit responses from teachers and principals about teachers' use of assessment data to plan instruction. Exhibit 4.2.2 displays a comparison of teachers' reported frequency of use of assessment data to plan instruction and the perception of building principals regarding how frequently they believe their teachers are using assessment data to plan instruction.

Exhibit 4.4.2

Frequency of Teachers' Use of Assessment Results to Plan Instruction
Comparison of Teacher and Principal Survey Responses
New Haven Public Schools
April 2019
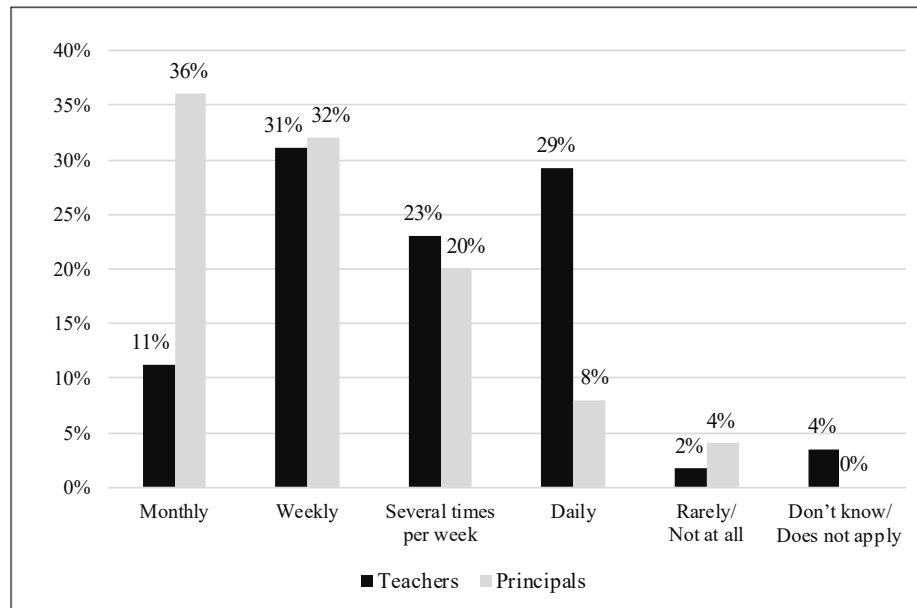
Teachers N = 286; Principals N = 25

As can be noted from Exhibit 4.4.2:

- Thirty-one percent of teachers and 32% of principals responded that teachers are using the results of assessments to plan instruction on a weekly basis.

- Twenty-nine percent of teachers who responded to the survey question indicated they use assessment results daily to plan instruction, while 8% of principals indicated teachers are using assessment results on a daily basis to plan instruction.

- Twenty-three percent of teachers reported using assessment results to plan instruction several times per week, while 20% of principals indicated teachers used assessment results several times a week to plan instruction.

Overall, teachers are reporting frequent use of assessment data to plan instruction, while principals indicated that teachers' use of assessment results to plan instruction was less frequent.

Auditors also used an anonymous online survey to solicit responses from teachers and principals regarding how student assessment data are being used. Exhibit 4.4.3 displays a comparison of teachers' reported use of student assessment data by frequency and the perception of principals regarding how they believe their teachers are using assessment data by frequency of responses.

Exhibit 4.4.3

Reported Use of Student Assessment Data
Comparison of Teacher and Principal Survey Responses
New Haven Public Schools
April 2019
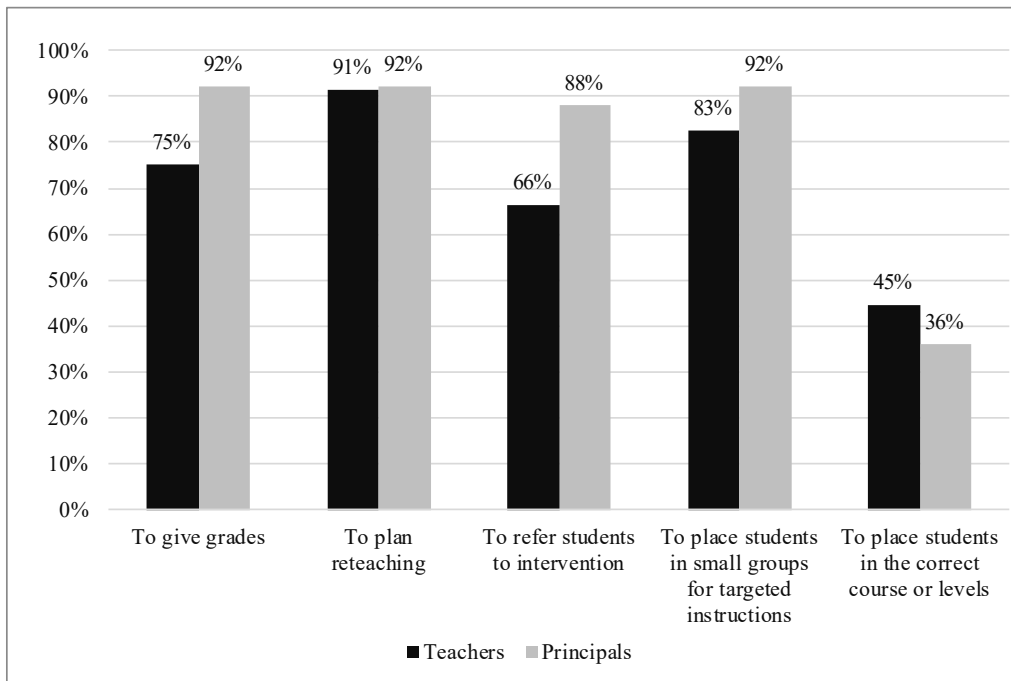
Teachers N = 282; Principals N = 25
Note: Teachers and principals could select as many of the response choices deemed applicable to practice.

As shown in Exhibit 4.4.3:

- Ninety-one percent of teachers indicted student assessment data are most frequently utilized to plan reteaching, while 92% of principals indicated that student assessment data are used to plan for reteaching.

- Seventy-five percent of responding teachers reported using assessment data to give grades, while 92% of principals reported that teachers used assessment data to give grades.

- Sixty-six percent of teachers reported using assessment data to refer students to interventions, while 88% of principals reported that teachers used assessment data to refer students for intervention.

- Eighty-three percent of teachers reported using assessment data to place students in small groups for targeted instruction, while 92% of principals reported that teachers used assessment data to place students in small groups for targeted instruction.

- The lowest response from the teachers (45%) and principals' perception (36%) was using data to place students in the correct course or level.

Additionally, auditors also surveyed principals and teachers regarding assessment practices. The survey included four statements addressing the following key elements of an assessment system: adequacy; quality; clear linkage to objectives/standards, and timeliness of results. The survey of principals included the following responses:

- Twenty of 24 Principals (83%) strongly agree or agree to the statement: "We have adequate instruments for assessing each student's progress in mastering the curriculum."

- Seventeen of 24 Principals (71%) strongly agree or agree to the statement: "The quality and alignment to the assessments available for use is high."

- Twenty of 24 Principals (83%) strongly agree or agree to the statement: "The assessments are clearly linked to specific, discrete standards/objectives."

- Twenty-two of 24 Principals (92%) strongly agree or agree to the statement: "Teachers are able to see the results from the assessment immediately or almost immediately."

The survey of teachers reported the following:

- Of 281 teachers, 168 (60%) strongly agree or agree to the statement: "We have adequate instruments for assessments for assessing each student's progress in mastering the curriculum."

- Of 281 teachers, 139 (49%) strongly agree or agree to the statement: "The quality of the assessments available for use is very high."

- Of 280 teachers,191 (68%) strongly agree or agree to the statement: "The assessments are clearly linked to specific, discrete standards/objectives."

- Of 279 teachers, 192 (69%) strongly agree or agree to the statement: "I am able to see results from the assessments immediately or almost immediately."

The following representative comments by teachers reflect their views regarding the four statements about the assessment practices within the district:

- "Some assessments measure things that are not required to be taught in grade level curriculum, so teachers have to teach the curriculum and additional skills and strategies to best prepare students for testing."

- "The assessments that come to us are not aligning with the content that we teach. This results in confused, frustrated students, and assessments that we cannot ethically enter into our grade book. The information that we ascertain is therefore skewed to the point of ineffectiveness."

- "The multiple choice questions on quarterly assessments are not connected to content we taught and were not given the assessment prior to teaching the unit, therefore assessing students on information they have not been taught."

- "The district does not provide adequate assessment that is supported by the curriculum they provide."

- "The assessments used (IAB) are not aligned with what we are supposed to be teaching."

- "A lot of teaching time is simply spent testing the students over and over again."

The survey results indicate that significant differences in perceptions exist between principals and teachers regarding several critical attributes of an effective assessment system. Theses differences are noted below:

- While 60% of teachers responded that they had adequate instruments for assessing student progress, 83% of principals believe that adequate instruments are present.

- While 71% of principals noted that assessment quality was high, only 49% of teachers agreed that the quality was high.

- Eighty-three percent of the principals agreed that assessments are clearly linked to standards/objectives, whereas only 68% of teachers agreed to the statement.

- In response that assessment results are immediate or almost immediate, 91% of principals agreed, while only 69% of teachers agreed that results are timely.

Finally, the following statement appeared only on the principal's survey: "The results we get from the assessments are useful for classroom and building decision making." Nineteen of 24 principals (79%) strongly agree or agree to this survey statement.

Principals generally perceive assessment results as useful for classroom and building decision making. In a viable assessment system, effective decision making based on quality data and credible data analysis results in a narrowing of the gap between desired student results and actual student performance. However, in the New Haven Public Schools, these decisions are not impacting classroom instructional practices as substantiated by achievement results for all students that are below state and national levels. No evidence indicates that the gap between desired performance expectations and current student achievement has been reduced.

The following are representative comments made by school personnel regarding the data process:

- "Data culture is very school dependent and not at the district level." (Central Office Administrator)

- "An area of need is how to use data to make decisions. I'm unsure how teachers use data and how schools use data." (Supervisor)

- "Schools use data to present what they want to present, not necessarily an accurate representation of what is true." (Teacher)

- "There is sporadic implementation of data throughout the district. Some do it well, while others need help." (Central Office Administrator)

- "Every school makes their own improvement plan, which is based off of the district plan. We submit the plans but never receive any feedback, so we do not know if we are moving in the right direction." (Building Level Administrator)

- "I wonder whether teachers are using the data to inform instruction or just collecting the data." (Central Office Administrator)

- "A target for growth is how we use data to make decisions at all levels. Everyone is at different levels. We need coherency." (Supervisor)

- "We are a data rich district, but not in terms of the implementation pieces of that." (Building Level Administrator)

- "Teachers do need to become more data literate." (Building Level Administrator)

- "The analysis of data is often inconsistent or skewed." (Teacher)

Program Direction Summary

The auditors found that the district needs a comprehensive program evaluation plan. No documents were provided to the auditors that outline guidelines for evaluating programs. School district leaders indicated that there is a need for program evaluation in the school district. Auditors did not find any board policies or administrative regulations that specifically addressed the collection and use of data to improve the design and delivery of curriculum or to enhance student achievement. The audit program evaluation criteria were provided as an example to be used by school district administrators when they design a district model.

Ironically, despite the paucity of student performance data, teachers and principals expressed satisfaction with the data available for monitoring student progress. The district is currently focused on two major endeavors related to data: implementing a school-wide continuous improvement plan and instituting the Data Wise Improvement Process. Presently, these initiatives are either in the emerging or developing phase.

STANDARD 5: The School District Has Improved Productivity.

Productivity refers to the relationship between system input and output. A school system meeting this standard of the CMSi Curriculum Audit™ is able to demonstrate consistently improved pupil outcomes, even in the face of diminishing resources. Improved productivity results when a school system is able to create a consistent level of congruence between major variables in achieving enhanced results and in controlling costs.

What the Auditors Expected to Find in the New Haven Public Schools:

While the attainment of improved productivity in a school system is a complex process, caused in part by the lack of a tight organizational structure (referred to as "loosely coupled"), common indicators of a school system meeting this audit standard are:

- Planned and actual congruence among curricular objectives, results, and financial allocations;

- A financial database and network that can track costs to results, provide sufficient fiduciary control, and be used as a viable database in making policy and operational decisions;

- Specific means that have been selected or modified and implemented to attain better results in the schools over a specified time period;

- A planned series of interventions that have raised pupil performance levels over time and maintained those levels within the same cost parameters as in the past;

- School facilities that are well-kept, sufficient, safe, orderly, and conducive to effective delivery of the instructional program; and

- Support systems that function in systemic ways.

Overview of What the Auditors Found in the New Haven Public Schools:

This section is an overview of the findings that follow in the area of <u>Standard Five</u>. Details follow within separate findings.

The auditors found that budgeting in New Haven Public Schools did not have the benefit of formal assessment to verify program efficacy or results, and there is no systematic linkage between funding and board-adopted priorities. Without connections to the system's mission and focus and cost-effectiveness data on allocations for programs and service, the system could end up apportioning fiscal resources indiscriminately and serving the students and community ineffectively, inequitably, or inconsistently. Current budget development and decision-making processes of New Haven Public Schools are not yet fully adequate in assuring system-wide cohesion and productivity.

Overall, auditors found school facilities in New Haven Public Schools to be adequate, but there is no comprehensive, systemic, long-range plan to maintain, upgrade, and update the varied systems in the renovated and newly constructed buildings based on prioritized needs of individual school sites. Facilities improvements are being funded and implemented without benefit of multi-year comprehensive planning and long-range projections to ensure program consistency and quality across the district. The auditors were provided the Five Year Capital Plan and budget narratives. The district is using this documentation as a facilities plan; however, it does not meet the audit criteria for a comprehensive facilities plan, nor does it follow *Board Policy 7100*, which requires development of a master facilities plan. Analysis of the district Work Order System shows inconsistent handling of maintenance issues across buildings in the district. Interviews and survey responses also indicate that some facilities are not well maintained.

Although the district has collaborated with the city of New Haven and other local and state partners to garner grants and special programs to leverage funds and discounts to obtain technology resources, the auditors found technology planning to be inadequate to guide the integration of technology in the teaching and learning environment. The auditors also found that the district lacks a comprehensive plan for instructional technology programming, and technology resources are unevenly distributed throughout the district.

Finally, auditors determined that while intervention programs are being utilized by staff across the district, New Haven Public Schools lacks policy direction and a systematic process for evaluating interventions to determine program effectiveness. The district has a process in place to assist schools in identifying students for targeted instruction to improve achievement and provide general guidance regarding effective literacy strategies, recommended scientifically research-based intervention programs, and assessments to use to continuously monitor student progress, adjust teaching as needed, and to determine suitability of the selected intervention. However, there are no specific, defined procedures for monitoring process implementation at the various school campuses or determining the effectiveness of the interventions currently being used in the district.

Finding 5.1: The district's budget development and financial decision-making process is not effectively driven by clientele needs, curricular goals, strategic priorities, or assessment data; budget documents impede determinations of cost-effectiveness and equity in program activities and services.

The budget is the major financial planning document for expressing in dollars the goals and priorities of the district and for keeping the organization focused on productivity. As such, it needs to reflect a direct connection between the resources provided and the significance of the goals toward which those resources are directed. System-wide productivity is enhanced by budgetary decisions that assure adequate resources to specific program activities and needs that are congruent with district goals and priorities and that can demonstrate success in meeting them.

Without this systematic linkage, officials can easily allow themselves to spread district fiscal resources too unevenly or reasonably, drift from the system's mission and focus, and end up serving the students and community ineffectively, inequitably, or inconsistently.

Budgeting Process and Policies

The auditors learned that the New Haven Public Schools is a subdivision of the city of New Haven, Connecticut, with an appointed board of education, led by a superintendent. The governance system requires a 30-member Board of Alders, under state law, to provide for an independent, certified public accounting firm to audit the system annually and to hold public hearings on the city's proposed budget. The Board of Alders may increase or decrease individual appropriations and revenue estimates, and the board may also increase the tax rate above levels proposed by the Mayor. The Mayor is responsible for developing the General Fund budget for the city.

The nine-member board of education in New Haven is part of the New Haven town government, and the New Haven Public Schools is coterminous with city boundaries. The board of eEducation consists of seven members including the Mayor, four members appointed by the Mayor, subject to approval by the Board of Alders; and two elected by districts as defined in the City Charter. The Department of Education is administered by a Superintendent of Schools who is appointed by the Board of Education.

The Department of Education is financed through the General Fund of the City and the State principally through the Education Cost Sharing Grant. The budget for the Department of Education is prepared in the same manner as that of other City departments. Expenditures of the Department are audited by the City's auditor. Financial transactions vary from those of other City departments in that subsequent to adoption of the General Fund budget, the Board of Education has control over its budget.

The City issues debt on behalf of the Department of Education, and with the exception of certain categorical State and Federal grants, all revenues and reimbursements are accounted for in the General Fund. The State reimburses the City for certain debt service costs associated with debt for eligible Board of Education projects. According to financial documents, the City has continued to meet the Minimum Expenditure Requirement of Section 10-262(j) of the Connecticut General Statutes.

The auditors reviewed the relationships between revenue and expenditures as well as the connections to student enrollment. The findings are shown in Exhibit 5.1.1 below:

Exhibit 5.1.1

General Fund Revenue vs Expenditures and Enrollment
New Haven Public Schools
2013-14 to 2017-18

General Fund Revenue vs Expenditures & Enrollment 2013-2018
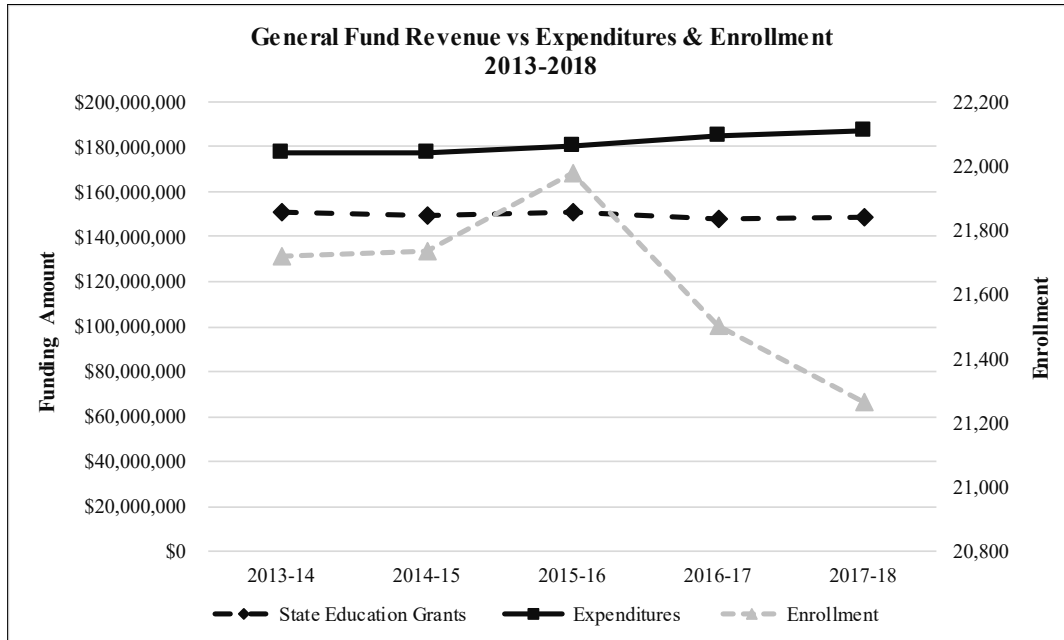
Generally, the state general fund revenues need augmentation by city resources. Enrollment declination did not seem to attenuate the amount of funding from state and city.

Documents Reviewed by the Auditors

The auditors reviewed a number of New Haven Public Schools board policies and documents, including:

Policy	Content/Title
1110.1(a)	Community Relations
1120	Board of Education Meetings
7554	School Construction Transfer Funds
9010	Board Authority Limitations
9270(b)	Conflict of Interest (Ethics)
Document	**Content/Title**
5.01FY1920	Budget Presentation
5.01FY1920	Mayor's Budget Final
5.03	2014 Single Audit
5.03	2015 Single Audit
5.03	2016 Single Audit
5.03	2017 Single Audit
5.03	2018 Single Audit
FY 2014	CAFR (Certified Annual Financial Report)
FY 2015	CAFR
FY 2016	CAFR
FY 2017	CAFR
FY 2018	CAFR
Booklet	New Haven School Change (City of Great Schools)

Budgeting Practices: Board Responsibilities

The general role of a school board in the budget process should be to adopt policies that guide the district operations and budget activities at the program level. Boards have the responsibility to provide adequate oversight to assure that priorities and goals are clearly identified, based on data, and communicated system-wide prior to budget planning. A board must then assure the public that financial resources are placed so as to support the mission and declared priorities, educational goals, and identified needs. The auditors found that the New Haven Public Schools board was not adequately able to exercise these functions in accordance with their mission and oversight responsibilities due to factors delineated below.

In effect, the governing body needs to be able to determine the cost of various programs and services provided, and also to measure the value, results, and effects of school system activities in order to derive a cost-benefit relationship between allocations and consequences.

Financial Standing of the New Haven Public Schools

In examining the financial history of the New Haven Public Schools, the auditors found that the district's general fund contains the state aid provided by the State of Connecticut from the Education Cost Sharing Program. Since 1989 that program has provided funds determined by a formula that considers a student poverty measure to determine student need and a state aid percentage based on the city's wealth. In effect, the New Haven Public Schools has demonstrated adequate solvency with expenditures less than revenues for three of the past five years. Exhibit 5.1.2 below explicates the system's financial solvency in the general fund in recent years.

Exhibit 5.1.2

Educational Cost Sharing
New Haven Public Schools
FY 2014-FY 2018
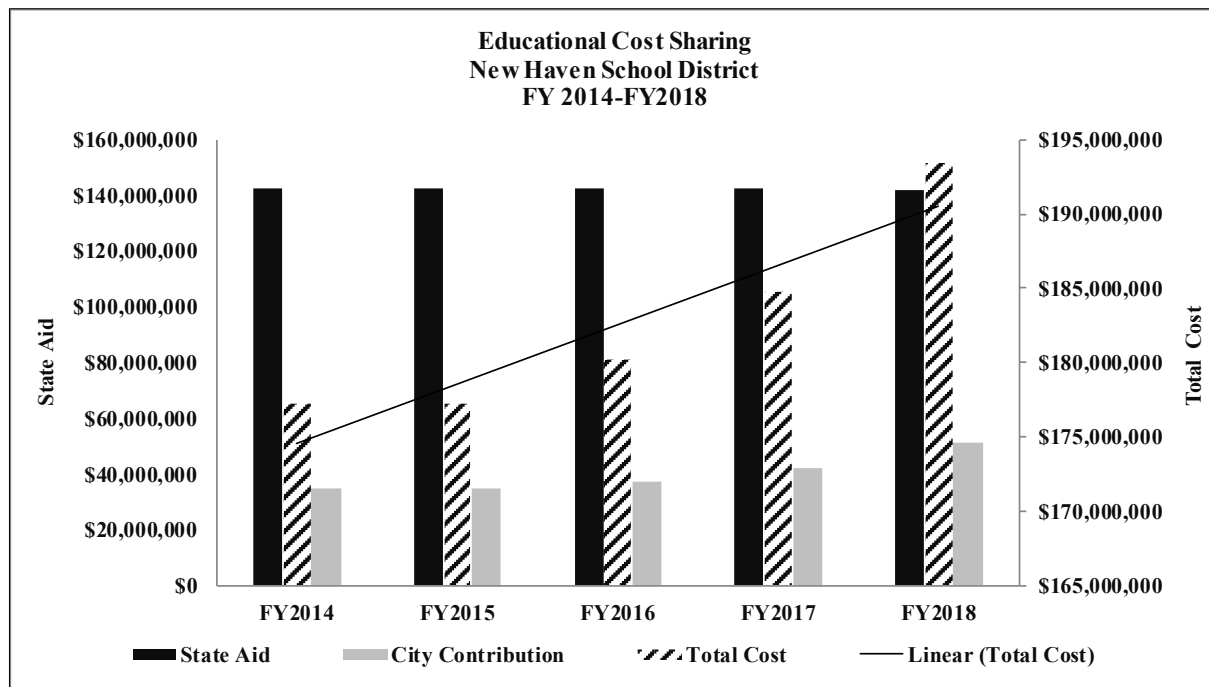
As shown above, the New Haven Public Schools' general fund expenditures are well within the revenues available for three of five years, indicating adequate solvency a majority of the time.

Relationship of Budgeting and New Haven Public Schools Aims and Purposes

In terms of instructional programs, budgeting and fiscal practices directly impact the resources available to support the tangible needs of programs. The board and district leadership are responsible for seeing that

the budget for the New Haven Public Schools is faithful to its mission, supports its goals, and incorporates evaluation of the results of student assessment and program evaluation efforts to help assure program efficacy.

One of the board of education's responsibilities was to monitor contracts and agreements via the Finance & Operations Committee with a focus on the review of contracts, agreements and capital projects as well as the comprehensive financial picture of the district and its various departments. The committee was to review areas of operations and policy in an effort to ensure fiscally prudent, sustainable, and efficient high-quality support to student learning and district responsibilities.

The auditors found that district leadership is responsible for tempering budget decisions with the principles of equity and ensuring a data-based focus of resources to enhance student learning and system productivity. The ongoing management of resources is expected to be consistent with budget decisions, state and federal laws, and generally-accepted principles of accounting.

In the New Haven Public Schools, the auditors found that the system had established goals for students in its schools as indicated below.

New Haven Public Schools Goals for Budgeting

The auditors found three stated goals in a undated document labeled "900 Board of Education."

- Eliminate the achievement gap by raising test scores to at least the state average.

- Improve the four-year graduation rate and cut the dropout rate in half.

- Make sure every student is academically prepared and financially able to go to college.

The auditors found the goals to be ambitious and grounded in public data about the academic success of New Haven Public Schools students. The following was noted:

- The achievement gap improvement goal is appropriate as measured by the students' test scores in relationship to the State of Connecticut.

- The goal for improvement of graduation rates and reduction of dropout rates is well grounded in data, which show progress supported by graduation rates ranging from 75.5% in 2013-14, to 80.2% in 2016-17.

- Making sure that every student is academically prepared and financially able to go to college is a questionable aspiration due to the large-scale costs of post-secondary education for New Haven Public Schools graduates. Moreover, no strategies or measures were delineated to monitor progress of this goal.

Goals are supplemented with areas for change, including providing high quality learning, support for personal growth and character development, individual school improvement plans, and strong parent and community partnerships.

Given the ambitious goals and aspirations, the auditors found no comprehensive program evaluation process, which impedes the district's ability to determine if programs should be sustained, revised, or abolished. Usage of data to improve student achievement is ineffective in the New Haven Public Schools (see Finding 4.4).

Comments in support of this finding included the following:

- "I don't think we look at what's really working." (Board Member)

- "We do not have a process in place for program evaluation." (Central Office Administrator)

Without clear cut, measurable goals it is impracticable to expect substantive progress for improvement. School system aspirations need to be monitored and progress measured by valid and appropriate assessment with evaluation followed by interventions and changes to overcome deficits and shortcomings of programs and services.

The auditors documented the following quotations from various members of the staff and community with respect to budgeting:

- "Need someone battle-tested, politically savvy, and thick-skinned to serve as Chief Financial Officer." (School Administrator)

- "The CFO position is vacant and has been vacant for 20 years." (Central Office Administrator)

- "Board thinks some things unnecessary, so they will stop whatever it is, and then the district just loses the money (by micromanagement)." (School Administrator)

- "Alders signed off on (the teachers') contract but did not provide the funds in the budget to pay for the increase." (Central Administrator)

- "Budget/fiscal responsibility has been mismanaged. We cannot effectively staff our schools to serve children. Teacher turnover is high." (School Administrator)

- **"**Sometimes there are too many changing initiatives; not only is it wasting money, but burns out teachers." (School Administrator)

- "The things going on with the budget—it's hard to move on, even as a board and a superintendent when you are facing such a budget crisis." (Board Member)

- "A lot of difficulty and a lot of moving parts and not enough money to go around." (Teacher)

- "Per pupil revenue? We don't look at that, we look at per pupil expenditure, and we look good. And that's where we run into problems." (Board Member)

- "Our biggest issue with the superintendent is that we haven't had a CFO. And so, as a result, it's really hard to see where we are fiscally." (Board Member)

From interview comments, it was clear to the auditors that participation in the budgeting process is not well communicated, nor did respondents express support for the closely held nature of the budgeting process.

What the Auditors Found: Budgeting Practices

The auditors found that the expenditure budget documents present little information for program activities, and little information was found with interpretive guidance for the lay public and school personnel in understanding the budget. The budget is clear on how much money there is and where it is to go, but says very little about what the money is intended to do or to accomplish.

The auditors also found that the New Haven Public Schools' position for a chief financial officer (CFO) was vacant and had been vacant for several years. Leadership responsibilities for financial planning, organization, validation, operations, and oversight are impeded in district functioning. Moreover, credibility and accountability are seriously hampered when a highly important position is vacant for an extended period of time. Valid justification for maintaining this neglectful situation was not provided to the auditors.

In examining the budgeting and financial documents cited earlier, the auditors found that configuration of the budget process inhibits the board and superintendent from fulfilling their required duties and responsibilities—largely due to the lack of cost-benefit information about program activities and the lack of connectivity with program and services performance and assessment information. Decision making in budgeting is seriously missing key information for valid, creative, and profound accountability and oversight.

The auditors found that programs, mission, goals, and operations were not separately delineated in the district budget documents, which effectuates the following consequences:

- The board may not be equipped to do the following:

  ○ Identify the relationships between priorities, current spending, and outcomes for individual program activities and interventions;

  ○ Clarify both relative spending on discrete services and the organizational practices that influence how resources are deployed; and

  ○ Establish the current cost of individual program activities as a necessary precursor to identifying if there are better ways to provide some services.

- The New Haven Public Schools budget is not organized with spending-on-activities' approaches to cost analysis, which informs strategic resource decision making by zeroing in on what is provided compared to what is needed. This approach needs to break out per-pupil expenditures and performance results by the discrete programs and services that students receive. This programmatic-costing method is most appropriately categorized as a management tool to be used on a periodic basis, rather than a new accounting system requiring continuous and extensive record keeping.

- Service costing,[3] which would enable the board, leadership, and community to determine per-pupil expenditures for various courses of study with connections between costs, benefits, results, and program performance, was not found. The line-item approach to budgeting presented to the auditors is common in many states, but local determinations of how much "bang is obtained from the buck" are not feasible without sorting out programmatic components with goals, objectives, assessment of outcomes and performance, and incumbent costs.

- The district's budgeting process is closely-held, using financial data for determining allocations by departments or schools. The current system fails to account for factors that contribute to differential costs for different schools, diverse student clientele, various programs, subject areas, and course levels. Moreover, it is silent on what and how tangible performance outcomes impact allocations, depriving district and school leaders of information to manage resources efficiently and cost-effectively.

In effect, school leaders are not currently able to look at outcomes, what expenditures are for high-priority services, or the acceptability or unsuitability of program results and outcomes. Without the cost-of-services programmatic approach, it is difficult to uncover relatively high spending in areas of low priority or performance. Making changes in program design and delivery to reduce costs in one place frees up funds for redirection to a high-priority area.

A centrally planned, revenue-based process that allocates to all schools and district departments was determined to be present by auditors. School allocations varied, which causes disparities in programs and services across schools (see Finding 3.3). The auditors found the budgeting process and documents were inadequate to connect effectiveness of results to expenditures for various activities.

---

[3] Service costing is a type of operation costing, which is used in organizations that provide services instead of producing goods – like school districts. In this method of cost accounting, all the costs incurred in the production of a service are added together.

The audit team assessed the procedures and documents used in the New Haven Public Schools budget development and management processes against the six audit components of a curriculum-driven or performance-based budget. Exhibit 5.1.3, below lists the components expected in the budget development process and the auditors' ratings of the presence or absence of these in the district's budgeting approach.

Exhibit 5.1.3

Components of a Performance-based Budget
And Adequacy of Use in the Budget Development Process
New Haven Public Schools
April 2019

Performance-based Budget Criteria	Auditors' Rating	
	Met	**Not Met**
1. Tangible, demonstrable connections are evident between assessment of operational curriculum effectiveness and allocations of resources.		X
2. Rank ordering of program components is provided to permit flexibility in budget expansion, reduction, or stabilization based on changing needs or priorities.		X
3. Each budget request or submittal shall be described so as to permit evaluation of consequences of funding or non-funding in terms of performance or results.		X
4. Cost benefits of components in curriculum programming are delineated in budget decision making.		X
5. Budget requests compete for funding based upon evaluation of criticality of need and relationship to achievement of curriculum effectiveness.	Partial*	
6. Priorities in the budget are set by participation of key educational staff in the allocation and decision-making process. Teacher and principal suggestions and ideas for budget priorities are reflected and incorporated in budgeting decisions.		X
Total	**0**	**6**
Percentage Met	**0%**	
*Partial ratings are tallied as not met.		
©2018 CMSi		

As can be gathered from the information in Exhibit 5.1.3, auditors found only one of the six relevant criteria to be partially present in the approach to budgeting. Further comments are provided on each criterion below.

Criterion 1: Connections (Not Met)

To meet this criterion, plans and previous performance results must be figured into decisions about budget requests, and conscious connections with budget planning and assessment must be consistently or systematically occurring. Budget instructions or request forms need to require information that demonstrates this linkage. In the following New Haven Public Schools chart, budget line items are delineated as cost items (using budget function coding) without connections to what the allocations provide in the system.

Exhibit 5.1.4

Site Based Budget by Function
New Haven Public Schools
April 2019

GENERAL FUNDS		2017-2018	2018-2019
FUNCTION / NAME		Budget Request	Final Request
405	Field House Security	1,000	1,000
412	Bilingual	8,000	8,000
413	Reading/Language	5,400	5,400
414	Science Resource Center	30,000	30,000
417	Foreign Language 50148	64,100	64,100
421	Art	225,000	225,000
422	Music	150,000	150,000
428/429	Aquaculture · 50135/60136	27,000	27,000
430	Finance Office	15,600	15,600
431	Contract Reserve	25,000	25,000
433	All · Schools	920,764	920,764
440	Drama/Band	115,600	115,600
442	Early Childhood	24,408	24,408
444	Extended Day	60,000	60,000
451	Human Resources	20,000	20,000
462	TAG	25,600	25,600
464	Transition Schools	12,979	12,979
480	Family & Community	110,000	110,000
470	Operations Office	60,612	60,612
471	Transportation	25,000	25,000
472	Data Processing	5,000	5,000
478	Print Shop	90,000	90,000
490	*Sped · PT Teacher*	90,000	90,000
494	Sp Ed Transportation Aides	340,000	340,000
496	Homebound	200,000	200,000
50140	Longevity	360,000	360,000
401/406-50141	Summer School	353,000	353,000
478/490-50141	Sped Summer School	230,000	230,000
433-50141	Schools · Summer	39,647	39,647
50190	Retirement	1,700,000	1,700,000
	SUB-TOTAL	**8,703,004**	**8,783,710**

In effect, these are simple items that show <u>what the money purchases,</u> but not <u>what the money provides in terms of programs, services, or operational activities</u>. This type of budgeting is commonly referred to as Level 1 – Line item budgeting.[4] Cost benefit determinations are not feasible with such budgeting procedures.

Criterion 2: Rank Ordering (Not Met)

Rank ordering of programmatic requests needs to be evident across program components, options, and operations, as well as other key programs provided by the system. No forms for developing differential funding levels for individual programs, rank ordering, or incremental presentation of requests at the system level were presented to auditors.

Criterion 3: Descriptions for Evaluation of Funding Consequences (Not Met)

Descriptions of funding/non-funding consequences must be submitted to decision makers (board, administration, staff, etc.) with brief informational memoranda provided upon request. No standardized forms were presented as customary elements of the budgeting process for specific programs.

Criterion 4: Cost Benefits Analysis (Not Met)

Cost-to-benefit information must be presented with proposals for new programs or intervention efforts, and cost/benefit analysis is also a systematic ingredient of budget requests for continuation programmatic items or proposals for deletion of budget components. Cost-benefit information was not found.

Criterion 5: Competition on Basis of Needs and Effectiveness (Partially Met)

Any competition among proposals that is based on needs analysis or effectiveness of the services represented in the proposal occurs informally either within the staff that originated the proposal or within the decision-making discussions at the superintendent's level. Such considerations are not formalized in an outlined procedure, and forms to present competing proposals were not available. The board does not characteristically engage in discussion of programs on a needs/criticality basis when the budget is presented to them.

---

[4] For more information, refer to *School Budgeting in Hard Times: Confronting Cutbacks and Critics*. (2011) Corwin Press.

Criteria 6: Decision Making Process Participation (Not Met)

The budget process was found to limit participation of key district staff and stakeholders, which should typically (but not always) not only occur at the leadership level (school, department, or program), but also at the budget management level, when principals, teachers, parents, and others evaluate information about the planned budget and make recommendations to the superintendent for subsequent recommendations to the board. Principals, teachers, parents, and community representatives were not found to be participants in setting priorities at the allocation level, which delimits their suggestions in setting those priorities.

Performance Budget Summary

The auditors found that budgeting in the New Haven Public Schools did not have the benefit of formal assessment to verify program efficacy or results, and there is no systematic linkage between funding and board-adopted priorities. Consequently, decision makers can easily apportion fiscal resource allocations indiscriminately without connections to the system's mission and focus. Without cost-effectiveness data on allocations for programs and service, the system could end up serving the students and community ineffectively, inequitably, or inconsistently.

Current budget development and decision-making processes of the New Haven Public Schools are not yet fully adequate in assuring system-wide cohesion and productivity.

Finding 5.2: The district's long-range facilities' planning does not meet the audit characteristics of a quality, comprehensive plan to support quality curriculum delivery and desired instructional strategies. The need for facility improvements is a priority in spite of recent progress implementing a school construction program. Maintenance requests are inconsistently addressed.

Effective school districts develop a strong support foundation of facilities and operations that enhance their ability to attain district and school goals and ensure quality teaching and learning as well as efficient management functions. The physical environment of a school is an important indicator of the educational staff's ability to deliver the curriculum effectively. Facilities that are well maintained, well equipped, and clean create a learning environment that is pleasant and supports the delivery of the instructional program. Further, the availability of adequate space to deliver instructional programs is an important determinant of the effectiveness of curriculum delivery. Long-range planning is imperative for effective and efficient use of district resources to meet both current and future student needs. It ensures that a school system is prepared financially for the task of maintaining the quality of existing facilities and the task of future renovation or construction. Planning should be based on careful analysis of all factors that impact the learning environment, such as enrollment trends, curriculum needs, demographic changes, instructional practices, special education requirements, technological advancements, and the support services needed to maintain the system. A comprehensive facilities plan also includes a cost analysis of potential capital needs and a prioritization of those projects. Each district facility is assessed as part of the plan, and information provided allows the district to determine future direction for operation and maintenance. The community and other stakeholders are included in the development and evaluation of the plan. The absence of a plan may lead to maintenance, renovation, and/or recommendations for facilities that are inadequate to support quality curriculum delivery and current instructional strategies. The lack of a facilities plan may also cause inefficiencies in the use of resources and inequities in instructional programs (see Findings 1.2; and 3.1).

New Haven Public Schools is in the final phase of a school construction program. The construction program page of the district website provides an historical perspective and states, "In 1996, The New Haven Public Schools Board of Education in partnership with the City of New Haven established the school construction trust fund with 15 million dollars secured through delinquent tax liens to be used as the city's matching share in connection with new construction and substantial renovation projects funded under the state school construction grant program. A Citywide School Building Planning Committee was created representing all stakeholders to plan for new construction and major renovations to school district facilities to enhance the learning environment for students and staff alike and provide facilities that can be used year-round by the school and community. From 1995 - 2018, 41 schools have been rebuilt (many with additions) or built brand new. As of 2017, four more projects were slated for applications and funding in future years to complete the School Construction

Program. Approximately 4 million square feet of school buildings will have been impacted by the program by its end. The final project is scheduled for completion in 2019."

Overall, school facilities in New Haven Public Schools were found to be adequate, but there is no comprehensive, systemic, long-range plan to maintain, upgrade, and update the varied systems in the renovated and newly constructed buildings based on prioritized needs of individual school sites. Improvements are being funded and implemented without benefit of multi-year comprehensive planning and long-range projections to ensure program consistency and quality across the district. As the School Construction Program nears completion, all facilities, whether renovated or built new, need to be maintained over time in order to ensure ongoing appropriate learning environments for students.

The auditors examined all district documents provided as evidence of facility planning. The documents included board policies, reports commissioned by the district, enrollment 5-year trend and current capacity, annual budgets, audit reports, contracts, and internal communication. District and building administrators were interviewed, as were board members, teachers, parents, and students, about the conditions of current facilities. District school campuses were visited as well, and particular conditions that might impact the quality of the teaching and learning environment were noted.

The audit team first reviewed board policies for direction in the areas of facilities. Board policies that provide direction for the planning and management of facilities in New Haven Public Schools are limited in number and do not address all aspects of planning and management. There is policy that directs development of a facilities master plan to reflect current and projected programming. The policies that include some planning direction in the area of facility management follow:

- *Board Policy 7100: New Construction - Planning* states that "A facilities master plan for the school district will be developed and kept up to date. The facilities master plan will reflect the needs of current instructional procedures and projected educational programming." The policy also specifies that the master facilities plan will incorporate population and enrollment projection, site acquisition needs, school plant placement, and determination of financial needs for providing the necessary school facilities.

- *Board Policy 7113.1: Retirement of Building* states*,* "The master facility plan should be the basis for considering closing a facility."

- *Board Policy 7555: New Construction- Citywide Building Committee* stipulates responsibilities of the Citywide School Building Committee. "The Citywide School Building Committee selects and recommends for hiring to the Board, planning, engineering, architectural, education, financial, etc. necessary for the development of a facilities master plan for New Haven Public Schools."

Several board policies connect maintenance of the facility to the health and safety of students and staff and with effective educational programming, while others address roles and responsibilities for school facilities.

- *Board Policy 3000*: *Business and Non-Instructional Operations* requires*,* "School plant and equipment shall be properly maintained…to promote health of students and staff…and support the efforts of the staff to provide quality educational opportunities."

- *Board Policy 3510: Operation and Maintenance of Plant* states, "An effective educational program requires clean, healthy, safe and attractive physical facilities. The supervisor of buildings and grounds shall supervise the efficient maintenance of the physical plant and facilities in accordance with applicable public health statutes and regulations."

- *Board Policy 2133: Administration - Principals* directs, "Principals shall be responsible for their own school buildings and grounds and shall notify the superintendent or his/her designee of any repairs or conditions that may affect the health and safety of the school community."

- *By-Laws of the Board - 9040(a): Board Related Responsibilities* states, "The Board of Education is responsible for the control and management of all the public schools in the city and for expenditures of all funds appropriated for schools, and for the construction, repair and maintenance of all school

buildings." It further states a major responsibility of the board, "To provide an appropriate learning environment for its students which includes (1) adequate instructional books, supplies, materials, equipment, staffing, facilities and technology; (2) equitable allocation of resources among its schools; and (3) a safe school setting."

The Quality Review Report by Cambridge Education LLC known as "The Cambridge Report," states, "The district has a large building maintenance team, including custodians, which is additional to the capital development team." Auditors were provided a facilities management department organizational chart showing various staff and their positions. However, few job descriptions were found that provide information related to expected duties and functions for positions with responsibility linked to facilities for the district schools. They include:

- Deputy Superintendent - "Duties include facilities negotiations with collective bargaining unions."

- Building Manager - NHBOE Maintenance - "Performs, supervises and coordinates all custodial and maintenance service and repairs pertaining to the building(s) and grounds. Generates all work orders and oversees that such repairs are accomplished in a safe and timely manner. Implements preventative maintenance for utility systems, custodial equipment and building and maintains accurate records with regard to annual reports and inspection. Responsible for the efficient operation of the school and provides for the safety of building users and staff."

- Assistant Building Manager (ABM) NHBOE Maintenance - "Responsible for implementing and coordinating the daily cleaning activities with the Building Manager and other facilities staff, in consultation and support of building principals and education staff, giving technical guidance to subordinates and semi-skilled workers and in coordination with any contractors and vendors within the building. This position is responsible for cleanliness and maintenance of school and grounds assuring the safe and efficient operation. The ABM will be required to make daily inspections of the building(s) and grounds. This position will be responsible to take charge or make appropriate assignments for corrective action and response in all immediate emergencies requiring skilled maintenance repairs."

- Floater NHBOE Maintenance - "Performs, supervises and coordinates all custodial services. Assist with coordinating maintenance service and repairs pertaining to the building(s). The ability to generate work orders as requested. Provide for the safety of the building, its users and the staff and assisting faculty to meet their needs. Responsible for the efficient operation of the school. Performs all custodial cleaning functions. Responsible for custodial functions including but not limited to daily routine floor cleaning and care, trash removal, bathroom cleaning, cafeteria cleaning, pool maintenance, change light bulbs, change HVAC filters, provide grounds and courtyard policing and maintenance, snow removal, grass cutting, and graffiti removal as needed."

- Truck Driver Food Service - "Sets in place any mobile equipment necessary for food operation; maintains cleanliness of storerooms. Responsible for daily cleaning of truck van and care of truck."
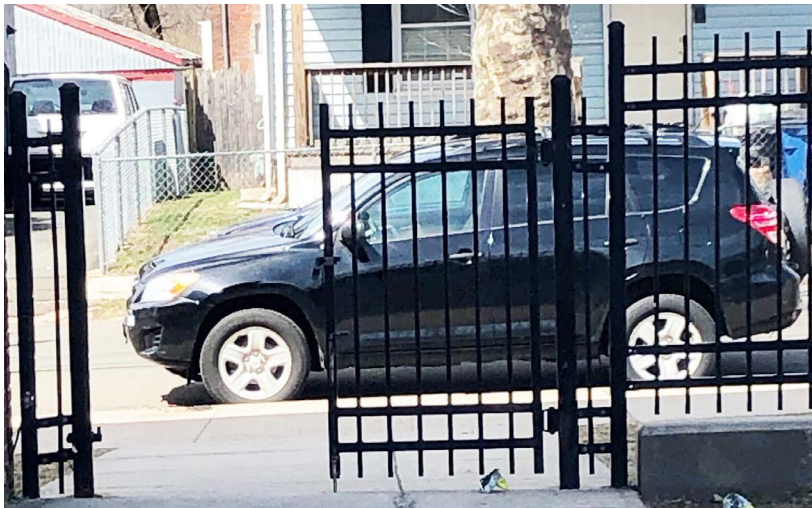
Gate left open during recess at Truman Elementary

The auditors examined all documents presented to them by district staff associated with facilities planning. Exhibit 5.2.1 provides a listing of the documents reviewed by auditors and key points of each document.

Exhibit 5.2.1

District Facility Planning Documents Reviewed by Auditors
New Haven Public Schools
April 2019

Document	Key Points
New Haven School Construction Program History 1995-2018 New Haven Public Schools Website	Provides an historical overview of the school construction program, including the purpose, major objectives, the timeline of project completion, impact on the educational program in the school community, and the benefit to all community stakeholders.
CTDOE Quality Review District Final Report New Haven Public Schools Quality Review by Cambridge Education LLC - 2008 Referenced by district administrators as "The Cambridge Report"	A report in PowerPoint format provided to the district from the Connecticut Department of Education CTDOE. Data were collected and the report prepared by Cambridge Education LLC and presented to the New Haven Board of Education. The sections of the report include background of the district, what the district does well, and what the district needs to improve. • There has been substantial commitment to rebuilding all of the district schools over a 10-year period. • With financial support from the state and city, the standard of the new buildings is outstanding. • Expanded program and services associated with the new construction will cause increases in operation and maintenance costs. • The district needs to ensure enrollment capacity in buildings to ensure teaching and learning budget is not reduced to cover plant, operations, and administrative costs.
New Haven Public School System Facilities Analysis - December 2009 by Sightlines	The study is an examination of the district's facilities status determining the impact of renovation and building program on costs and energy consumption. It further analyzed a sampling of schools using the age of the buildings to provide a basis of estimating total backlog of needs throughout the district using the work order system. Life cycle analyses were also conducted on a sampling of schools to estimate the cost of the annual investment in order to assure buildings operate properly and reach their useful life. The analysis also shared results of principal, teacher, student, and administrator responses when surveyed about their learning environment.

Document	Key Points
School Facilities Survey Barnard Magnet School 2011 by CT Department of Education	A facilities review of Barnard School using a checklist provided by the Connecticut Department of Education to determine compliance with required mandates and codes.
City of New Haven Adopted Budget Section IV - Capital Projects and Five Year Capital Plan FY 18-19 FY 17-18 FY 16-17 FY 15-16 FY 14-15	These are budget documents for the City of New Haven for the years listed. Each annual budget document includes a Capital Projects section and a Five Year Capital Plan. The plan provides for the needs not only of the city government departments, but also the New Haven Public Schools (Education Department) and addresses such issues as infrastructure, major equipment replacement, educational facilities, public safety, and economic development initiatives. Each department provides narratives that support the plan by identifying the projects on which the allocated funds will be spent for the current calendar year. The Five Year Capital Plan itself lists the title and code for each line item along with the dollar allocation for each budget year.
New Haven Public Schools Work Order Reports Selected Schools - 2017-18	These reports from the New Haven Public Schools' Work Order System detail each individual maintenance request made through the system in 2017-18 for randomly selected schools. The reports provide the date of the original request, the priority rating (high, emergency, safety, and medium), how the request was handled, and when it was completed, closed, or resolved.
New Haven Board of Education Finance and Operations Committee Meeting Agendas and Minutes - various dates	The agendas list topics being presented and/or discussed at the meeting. The minutes provide a list of purchase orders, partnerships, contracts, and vendor services reviewed, discussed, and recommended to the board for approval.
New Haven Public Schools Transition Report 2018-19	District document that is a product of a process that engaged numerous New Haven stakeholders, including both internal and external experts, in order to build a collective vision focused on five areas: Learning and Teaching, Talent Management and Development, Family and Community Engagement, Organizational Efficiencies and Effectiveness, and Equity and Access. District and community experts conducted interviews, analyzed data, and drafted a report, considered a beginning of the strategic planning process.
Citywide School Building Committee Meeting Agendas and Monthly Reports 2015-2019	Meeting agendas of the committee include planned topics of discussion and presentations. Monthly reports include action items, approved expenditures, and project status and progress for the School Construction Program.
New Haven Public Schools District's Goals Presentation 2018-2020	PowerPoint presentation of district goals based on the five identified areas of Academic Achievement, Talent Management and Development, Organizational Efficiencies and Effectiveness, Culture and Climate, and Youth, Family, and Community Engagement Empowerment. It lists the goals under each priority area and includes seven key indicators of success.
City of New Haven - Comprehensive Annual Financial Report (CAFR) Fiscal Years 2018, 2017, 2016	A report prepared and published at the end of the fiscal year after review of the city's financial records by an independent auditor in accordance with state law. State law requires that all capital expenditures (for the city as well as the Board of Education) must be appropriated in their use as stated in the capital funds narrative.
Agreement between the New Haven Board of Education and New Haven Employees Local 287 Council 44 AFSCME AFL-CIO July 1, 2015 - June 30, 2018	Contract agreement between the New Haven Board of Education and the custodians union. The document includes several facilities management job descriptions in the appendix.

<table>
<tr><td colspan="2" align="center">Exhibit 5.2.1 (continued)
District Facility Planning Documents Reviewed by Auditors
New Haven Public Schools
April 2019</td></tr>
<tr><td>Document</td><td>Key Points</td></tr>
<tr><td>New Haven Public Schools

Continuous District Improvement Plan 2018-2021</td><td>A document developed through collective efforts of staff, families, and community partners focused on improving the instructional core. It established action steps and effective strategies to achieve identified targets under five priority areas. It also includes key indicators of success to measure goal attainment.</td></tr>
<tr><td>NHPS Total Enrollment Trend by School and Year 2013-14, 2014-15, 2015-16, 2016-17, 2017-18, and 2018-19</td><td>Number of students enrolled in each grade level at each school. Data are included for the 2013-14 school year through the 2018-19 school year in Excel format.</td></tr>
<tr><td>NHPS Capacity Chart 2018-2019

Choice and Enrollment

Excel format</td><td>A list of choice schools with the number of seats and the number of rooms provided. It shows classroom organization PreK-8 in schools as of 9/2018.</td></tr>
<tr><td>New Haven Public Schools Organizational Chart-Facilities Dept. 2018-19</td><td>Proposed management team for Goto Cleaning Services, LLC, with whom the district contracts for facilities management. The organizational chart provides the chain of command structure and identifies New Haven Board of Education, staff, and contracted employees in the display.</td></tr>
</table>

Auditors requested a copy of the district's master facilities plan as required in *Board Policy 7100* and were directed to the Five Year Capital Plan. As a part of the annual budget process, the Mayor of the City of New Haven prepares and presents a five-year capital plan. This plan identifies costs and financing methods for those capital projects that the City anticipates funding over the next five years. The current five-year capital plan details projects through fiscal year 2022-23. The plan provides for the needs not only of the city government but also the Board of Education and addresses such issues as infrastructure, major equipment replacement, educational facilities, public safety, and economic development initiatives. The financial impact of these initiatives is reviewed and approved by the Capital Projects Committee and then by the Board of Alders.

New Haven Public Schools is represented in the City of New Haven budget under the Board of Education department and receives funds yearly according to a Five Year Capital Plan. The district submits a narrative for each line item appropriation describing how the funds will be used during the calendar year. The plan consists of a list of line items with an accompanying total dollar allocation. New Haven Public Schools provides narratives in the development of the City of New Haven annual budget and Five Year Capital Plan for the following nine areas related to facilities.

- General Improvements/Repairs
- Life Safety/Risk Improvements
- HVAC Repair, Replacement
- Energy Performance Enhancement
- Custodial Equipment
- Interior and Exterior Painting
- Asbestos Environmental Management
- Floor Tile and Accessories
- Paving, Fencing, and Site Improvement

Stage lighting at Hooker Elementary that has never functioned

Exhibit 5.2.2 shows the narratives provided by the district for the City of New Haven adopted budgets for the three-year period Fiscal Years (2016-17, 2017-18, and 2018-19) in the nine areas related to facilities management.

Exhibit 5.2.2

Education Narratives for City of New Haven
Adopted Budget and Capital Five Year Plan
Facilities Management
New Haven Public Schools
Fiscal Years: 2016-17, 2017-18, and 2018-19

Line Item	2016-17	2017-18	2018-19
General Improvements/ Repairs	These funds will be used for all repairs/renovation upgrades district-wide as part of the 10-year deferred maintenance plan which includes: • Roof repairs – List of 5 schools needing complete replacements and 7 needing masonry, metal edge, skylight and window repairs • Renovations/ Replacement – gymnasium equipment. Wilbur Cross gym floor to be replaced this year	These funds will be used for all repairs/renovation upgrades district-wide as part of the 10-year deferred maintenance plan, which includes: • Roof repairs…Lists 4 of the 5 schools from previous year needing replacements and the same 7 schools from 2016-17 needing extensive repairs • Major renovations/replacements-gymnasium equipment district-wide • Funds used to reconfigure interior spaces to provide more efficient learning spaces.	These funds will be used for all repairs/renovation upgrades district-wide as part of the 10-year deferred maintenance plan, which includes: • Roof repairs…Lists 4 of 5 schools from previous year needing replacements and same 7 schools from 2016-17 needing extensive repairs • Major renovations/ replacements – gymnasium equipment district-wide • Funds used to reconfigure interior spaces as to provide more efficient learning spaces.

Line Item	2016-17	2017-18	2018-19
Exhibit 5.2.2 (continued) **Education Narratives for City of New Haven** **Adopted Budget and Capital Five Year Plan** **Facilities Management** **New Haven Public Schools** **Fiscal Years: 2016-17, 2017-18, and 2018-19**			
Life Safety/ Risk Improvements	Funds will be used to address all life safety issues district-wide, including: • Automatic External Defibrillators – replacement and upgrade • Fire Protection and Detection Systems – Upgrade and replacement • Emergency Lighting Systems Upgrade • Building Intrusion and Surveillance Systems Upgrade • Card Access Control – 10-year plan to convert from keys to card access	Funds used to address all life safety issues district-wide, including but not limited to: • Completed Phases I and II of a 3.9 million security grant. 12 schools need upgrade • Automatic External Defibrillators – replacement and upgrade • Fire Protection and Detection Systems – Upgrade and replacement • Emergency Lighting Systems Upgrade • Building Intrusion/Surveillance Systems • Card Access Control – 10-year plan to convert from keys to card access • Long-term- use ID cards (students & staff)	Funds used to address all life safety issues district-wide, including but not limited to: • Completed Phases I and II of 3.9 million security grant. 12 schools need upgrade • Automatic External Defibrillators – replacement and upgrade • Fire Protection and Detection Systems – Upgrade and replacement • Emergency Lighting Systems Upgrade • Building Intrusion/ Surveillance Systems • Card Access Control – 10-year plan to convert from keys to card access • Long-term – use ID cards (students & staff) • Radon testing required annually
HVAC Repair, Replacement & PM	These funds will be used for all HVAC issues district-wide, including the repair/ replacement of any HVAC related systems components and controls.	These funds will be used for all HVAC issues district-wide, including the repair/replacement of any HVAC related systems components and controls.	These funds will be used for all HVAC issues district-wide, including the repair/replacement of any HVAC related systems components and controls. The district has approximately 80 boilers, hundreds of roof top units, and aging chillers
Interior and Exterior Painting Physical Improvements	Funds will be used to sustain the best possible learning environments utilizing facilities ongoing 10-year program of interior and exterior painting and physical improvements throughout the district. The main thoroughfares and high traffic areas are painted at 5 schools per year, resulting in all schools being painted every 10 years.	Funds will be used to sustain the best possible learning environments utilizing facilities ongoing 10-year program of interior and exterior painting and physical improvements throughout the district. The main thoroughfares and high traffic areas are painted at 5 schools per year, resulting in all schools being painted every 10 years.	Funds will be used to sustain the best possible learning environments utilizing facilities ongoing 10-year program of interior and exterior painting and physical improvements throughout the district. The main thoroughfares and high traffic areas are painted at 5 schools per year, resulting in all schools being painted every 10 years.

	Exhibit 5.2.2 (continued) **Education Narratives for City of New Haven** **Adopted Budget and Capital Five Year Plan** **Facilities Management** **New Haven Public Schools** **Fiscal Years: 2016-17, 2017-18, and 2018-19**		
Line Item	**2016-17**	**2017-18**	**2018-19**
Custodial Equipment	Funds will be used to upgrade and replace custodial equipment throughout the district. Upgrading antiquated equipment with new energy-efficient low water use equipment. Equipment needs include: • Square Cleaning Machines • Auto scrubbers, burnishes swing machines, wet and dry vacuums, power washers, back pack vacuums, upright vacuums, floor machines, floor machines, man lifts, snow blowers, snow plows, backpack blowers	Funds will be used to upgrade and replace custodial equipment throughout the district. Upgrading antiquated equipment with new energy-efficient low water use equipment. Equipment needs include: • Square Cleaning Machines • Auto scrubbers, burnishes swing machines, wet and dry vacuums, power washers, back-pack vacuums, upright vacuums, floor machines, floor machines, man lifts, snow blowers, snow plows, backpack blowers	These funds will be used to upgrade and replace custodial equipment throughout the district as part of our ongoing 10-year stewardship preventive maintenance program. Upgrading antiquated equipment with new energy efficient low water use equipment provides our custodial staff with the tools necessary to be able to perform their duties more effectively, resulting in more square footage cleaned while being environmentally friendly.
Asbestos/ Environmental Management	Funds will be used for but not limited to the ongoing plan of asbestos abatement and air quality management. Funds also used for all environmental conditions including; • AHERA program- state 3-yr mandate • PCB caulk removal issues • Lead Paint Issues • Mold remediation Pipe and roof insulation, mercury cleanup, hazardous chemical cleanup, boiler re-insulating, tile abatement, PCB's and any environmental impact issue.	Funds will be used for but not limited to the ongoing plan of asbestos abatement and air quality management. Funds also used for all environmental conditions including; • AHERA program- state 3-yr mandate • PCB caulk removal issues • Lead Paint Issues • Mold remediation Pipe and roof insulation, mercury cleanup, hazardous chemical cleanup, boiler re-insulating, tile abatement, PCB's and any environmental impact issue.	Funds will be used for but not limited to • Ongoing stewardship plan of asbestos abatement and air quality management; • Environmental conditions including the following: • AHERA program 3-year State mandate • PCB Caulk removal issues • Lead Paint issues • Mold remediation Pipe and roof insulation, mercury cleanup, hazardous chemical cleanup, boiler re-insulating, tile abatement, PCB's and any environmental impact issue.

Exhibit 5.2.2 (continued)
Education Narratives for City of New Haven
Adopted Budget and Capital Five Year Plan
Facilities Management
New Haven Public Schools
Fiscal Years: 2016-17, 2017-18, and 2018-19

Line Item	2016-17	2017-18	2018-19
Energy Performance Enhancement	Funds will be used to upgrade and enhance current controls and operating systems that will result in more efficient use of utilities thereby creating additional energy cost avoidance. Energy reducing initiatives include but are not limited to: • Recommission existing equipment at Martinez, Lincoln Bassett and Metropolitan Bus. Academy • LED parking light replacement district-wide – Wilbur Cross, Hill Career, and Hillhouse. • LED 5-yr replacement plan of emergency and classroom lighting • Device upgrades including frigate freezer and refrigerator power reduction motors, classroom light sensors, etc.… • Energy star compliance and recognition metrics to verify efficiencies	Funds will be used to upgrade and enhance current controls and operating systems that will result in more efficient use of utilities thereby creating additional energy cost avoidance. Energy reducing initiatives include but are not limited to: • Recommission equipment at Martinez, Lincoln Bassett and Metropolitan Business Academy • LED parking light replacement district-wide – Ross Woodward, Sound, Barnard, Jepson, Wilbur Cross, John Daniels, Conte, Clemente, Hill Career, Hill Central, Co-op, and Hillhouse. • LED 5-yr replacement plan of emergency and classroom lighting • Device upgrades including frigate freezer, refrigerator power reduction motors, classroom light sensors, etc.… • Energy star compliance and recognition metrics 5 schools done – 3 schools in process	Funds will be used to upgrade and enhance current controls and operating systems that will result in more efficient use of utilities thereby creating additional energy cost avoidance. These improvements will help offset the rising cost of energy and keep the systems operating efficiently, including improving reliability for the educational program.
Paving, Fencing, and Site Improvement	Funds will be used to enhance the surrounding school property as it relates to walkways, sidewalks, roadways, curbing, fences, lawns, playground areas and parking lots.	Funds will be used to enhance the surrounding school property as it relates to walkways, sidewalks, roadways, curbing, fences, lawns, playground areas, and parking lots.	Funds will be used to enhance surrounding school property as it relates to walkways, sidewalks, roadways, curbing, fences, lawns, playground areas, and parking lots.
Floor Tile and Accessories	Funds will be used to replace worn or damaged ceramic floor tiles, base molding, stair treads, carpets and hardwood and refinishing and replacement of gym floors throughout the district.	Funds will be used to replace worn or damaged flooring and ceramic floor tiles, base molding, stair treads, carpets and hardwood, and refinishing and replacement of gym floors throughout the district.	Funds will be used to replace worn and damaged vct and ceramic floor tiles, base molding, stair treads, carpets and hardwood, and refinishing and replacement of gym floors throughout district. Our stewardship ongoing plans require refinishing 5 floors per year to complete all schools on our 10-year stewardship program.

As noted in Exhibit 5.2.2: The budget narratives for all nine areas provide general statements regarding how the allocated funds in the Five Year Capital Plan will be spent. The narratives list primarily the same information or intent each of the three school years with little variation. While schools in need of new roofs and/or major repairs are identified, the narrative does not prioritize the specific needs of each school site over the three-year period.

Additional documents provided to auditors and listed in Exhibit 5.2.1 are supporting documents many of which are prepared PowerPoint presentations. The documents do not provide adequate support for planning the long-range operational needs of the school district, and they do not provide for short-term facility maintenance and utilization.

Absent a master facilities plan, the auditors used the Five Year Capital Plan and the narratives in the adopted budget as the basis for determining whether the audit components of a comprehensive long-range facilities plan were met. The results of the analysis are provided in Exhibit 5.2.3. Exhibit 5.2.3 shows a listing of the components auditors consider essential for an effective facilities master plan and the ratings for each of the components.

Exhibit 5.2.3

Comparison of Facility Planning Efforts
To Audit Components of a Comprehensive Long-Range Facilities Plan
New Haven Public Schools
April 2019

Components of a Comprehensive Long-Range Facilities Plan	Auditors' Rating	
	Met	Not Met
1. Philosophical statements that reflect community aspirations and the educational mission of the district and their relationship to short- and long-range facilities goals	Partial*	
2. Enrollment projections that take into account any known circumstances that may change the pupil population		X
3. The current organizational patterns of the district and identification of possible organizational changes necessary to support the educational program	X	
4. Identification of educational programs considered by designers of capital projects for renovation or addition of school facilities	X	
5. A detailed evaluation of each facility, including assessment of structural integrity, mechanical integrity and efficiency, energy efficiency, operations and maintenance, and health and safety requirements		X
6. Prioritization of needs for renovation of existing facilities and the provision of additional facilities		X
7. Cost analysis of potential capital projects to meet the educational needs of the district, including identification of revenues associated with capital construction	X	
8. Procedures for the involvement of all stakeholders of the school community in the development and evaluation of the long-range facilities plan	Partial*	
Total	3	5
Percentage Met	38%	
*Partial ratings are tallied as not met.		
©2018 CMSi		

There are eight components auditors consider as requirements for a comprehensive long-range facilities plan. Exhibit 5.2.3 shows that in New Haven Public Schools, three of the eight components were met, and five were not met. The auditors considered both the education narratives and five-year capital plan. Taking both items together, the plan does not meet audit criteria to direct facilities needs for the district. The percentage of adequacy for comprehensive facilities planning in New Haven Public Schools is 38%. Other documents, listed in Exhibit

5.2.1 were also considered; however, none met audit standard for planning comprehensive long-range facility needs.

In 2008, The Cambridge Report recommended, "The district needs to ensure enrollment capacity in buildings to ensure teaching and learning budget is not reduced to cover plant, operations, and administrative costs." (See Exhibit 5.2.1.) To determine current capacity and enrollment, auditors reviewed enrollment 5-year trend data for the 2013-14 through 2018-19 school years and a school capacity chart for 2018-19 provided by the district. No enrollment projections beyond the 2018-19 school year were made available. Exhibit 5.2.4 shows the comparison of school capacity and student enrollment in New Haven Public Schools for 2018-19 based on the data provided by the district.

Exhibit 5.2.4

Comparison of Capacity and Student Enrollment
New Haven Public Schools
2018-19

School	Capacity	Enrollment	Number of Students Exceeding Capacity	Number of Students Under Capacity
High Schools				
Coop Arts & Humanities	680	609		71
James Hillhouse	1,000	952		48
Hill Regional Career	706	688		18
High School In The Community	256	233		23
Metropolitan Business Academy	425	404		21
New Haven Academy	322	290		32
Wilbur Cross	1,520	1,669	149	
High School Total	**4,909**	**4,845**	**149**	**213**
Middle Schools				
Betsy Ross Arts Magnet (BRAMS)	475	444		31
Engineering & Science University Magnet (ESUMS)	642	584		58
Middle School Total	**1,117**	**1,028**		**89**
Elementary and K-8 Schools				
Barnard	649	526		123
Beecher	560	483		77
Bishop Woods	480	442		38
Brennan Rogers	652	491		161
Celetano	436	409		27
Clemente	535	467		68
Clinton	505	488		17
Columbus	478	503	25	
Conte-West Hills	754	669		85
Davis	540	510		30
East Rock Magnet	480	527	47	
Edgewood Magnet	480	441		39
Elm City Montessori	120	113		7
Fair Haven	1,075	834		241
Hill Central Music Academy	480	489	9	
Worthington Hooker	480	453		27
Jepson Magnet	572	539		33

<table>
<tr><td colspan="5">Exhibit 5.2.4 (continued)
Comparison of Capacity and Student Enrollment
New Haven Public Schools
2018-19</td></tr>
<tr><td>School</td><td>Capacity</td><td>Enrollment</td><td>Number of Students Exceeding Capacity</td><td>Number of Students Under Capacity</td></tr>
<tr><td colspan="5">Elementary and K-8 Schools (continued)</td></tr>
<tr><td>John C. Daniels Magnet</td><td>580</td><td>533</td><td></td><td>47</td></tr>
<tr><td>John S. Martinez Magnet</td><td>507</td><td>553</td><td>46</td><td></td></tr>
<tr><td>King-Robinson Magnet</td><td>569</td><td>505</td><td></td><td>64</td></tr>
<tr><td>Lincoln-Bassett</td><td>438</td><td>403</td><td></td><td>35</td></tr>
<tr><td>Mauro-Sheridan Magnet</td><td>594</td><td>557</td><td></td><td>37</td></tr>
<tr><td>Nathan Hale</td><td>508</td><td>509</td><td>1</td><td></td></tr>
<tr><td>Quinnipiac Magnet</td><td>318</td><td>277</td><td></td><td>41</td></tr>
<tr><td>Ross Woodward Magnet</td><td>780</td><td>659</td><td></td><td>121</td></tr>
<tr><td>Strong Magnet</td><td>396</td><td>289</td><td></td><td>107</td></tr>
<tr><td>Troup</td><td>507</td><td>455</td><td></td><td>52</td></tr>
<tr><td>Truman</td><td>574</td><td>571</td><td></td><td>3</td></tr>
<tr><td>West Rock STREAM Academy</td><td>286</td><td>199</td><td></td><td>87</td></tr>
<tr><td>Wexler-Grant</td><td>402</td><td>370</td><td></td><td>32</td></tr>
<tr><td align="right">Elementary and K-8 Total</td><td>15,735</td><td>14,264</td><td>128</td><td>1,599</td></tr>
</table>

Source: New Haven Public Schools 2018-2019 Capacity Chart and New Haven Public Schools 2018-2019 School Year listing of schools with contact information and student enrollment data provided to auditors.

Exhibit 5.2.4 shows:

- Six high schools are under capacity, ranging from 18 to 71 students.

- Wilbur Cross High School is over capacity by 149 students.

- Both middle schools, Betsy Ross Arts Magnet School and Engineering & Science University Magnet School are under capacity 31 and 58 students, respectively.

- Of the 30 elementary and K-8 schools listed, 25 are under capacity, ranging from 3 to 241 students.

- Five elementary and K-8 schools are over capacity, ranging from a low of 1 student to a high of 47 students.

- The largest disparity between enrollment and capacity is at the elementary and K-8 level.

Current facility planning in New Haven Public Schools does not show evidence of involvement of stakeholders in the evaluation of long-range facility needs or the use of future student enrollment projections. Documentation was not provided showing a detailed evaluation of each facility or a list of prioritized needs for all school buildings. Additionally, the documents provided do not include a philosophy statement or clear vision for facility management reflecting the educational mission of the district.

The auditors interviewed and surveyed district and building administrators. Also interviewed were board members, teachers, parents, and students. The following are representative comments regarding facility planning:

- "We do not have a long-range facility plan. We have a five-year capital plan which includes specific line items showing how we plan to spend the money." (Central Office Administrator)

- "If the truth be told, we really need a new assessment and someone to come in and tell us what needs to happen with each of the schools." (Central Office Staff)

- "That [a facility assessment] was done previously for the district with a company called Sightlines. That report is old. They assessed a set of schools and then used it to plan for the entire district." (Central Administrator)

The auditors asked principals whether facilities were adequate. Overall, 75% said facilities were adequate, and 25% disagreed or strongly disagreed. Principals were also asked, "If there were ONE thing about this school district that you believed needs to be changed or improved, what would it be?" One respondent stated, "Come and fix and maintain the beautiful buildings that our district was so lucky to get. And ask the teachers (who really are the only ones who know what works and doesn't and what needs to be fixed) what they need. Come fix my deteriorating school!!" Auditors also asked principals if they were satisfied with response time with maintenance requests. Exhibit 5.2.5 shows their responses.

Exhibit 5.2.5

Principal Survey Responses - Question # 52
I am satisfied with the response time to maintenance requests for my building.
New Haven Public Schools
April 2019

Q52: I am satisfied with the response time to maintenance issues in my building.

Strongly Agree	Agree	Disagree	Strongly Disagree	N/A (have not had opportunity to know)
4%	38%	46%	8%	4%
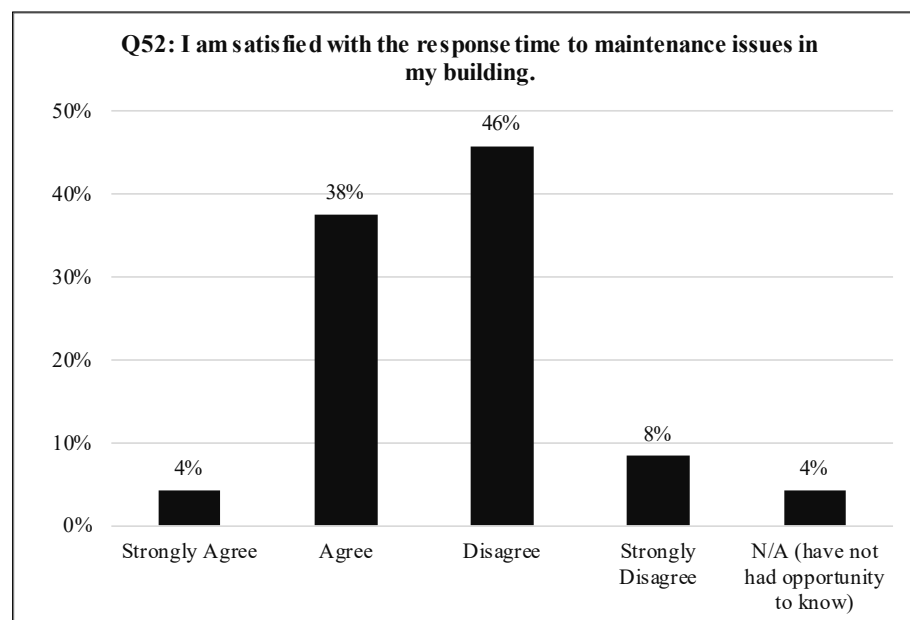
Exhibit 5.2.5 shows that less than 50% of principals are satisfied with the response time to maintenance requests for their buildings with 42% agreeing or strongly agreeing. Over 50% of the principals responding are not satisfied with the response time to maintenance requests with 54% disagreeing and strongly disagreeing with the statement. Comments from principals included the following:

- "The school buildings are in good shape."

- "Buildings need to be kept up."

- "Improvement is desperately needed in building maintenance and upgrades to the structure, i.e., faucets, mold in ceilings, broken or dilapidated piping."

- "I was here as we all began moving into the beautiful new schools that we were so lucky to get. And now 12 years later things are beginning to fall apart."

- "Facilities are in poor condition leading to poor air quality from mold and dust, and consequences are poor health outcomes."

- "Our school has leaking ceilings, broken windows (going on two years), leaks in the bathroom floor that have been repaired many times, and still there is a lake in the girls' bathroom floor every day, blinds that don't work, and a rat infestation under our stage. No one will come and fix anything."

Teachers were surveyed regarding facilities and indicated similar responses. Teachers were asked to respond to the following statement: "Please rate your campus facilities in providing a quality teaching and learning environment." Exhibit 5.2.6 shows the ratings of teachers regarding their campus facilities as related to providing a quality teaching and learning environment. Of 428 teachers who responded to the survey, 163 skipped Question 40, and 265 teachers responded to the survey question regarding campus facilities.

Exhibit 5.2.6

Teachers Survey – Question #40
Rating of Campus Facilities
New Haven Public Schools
April 2019
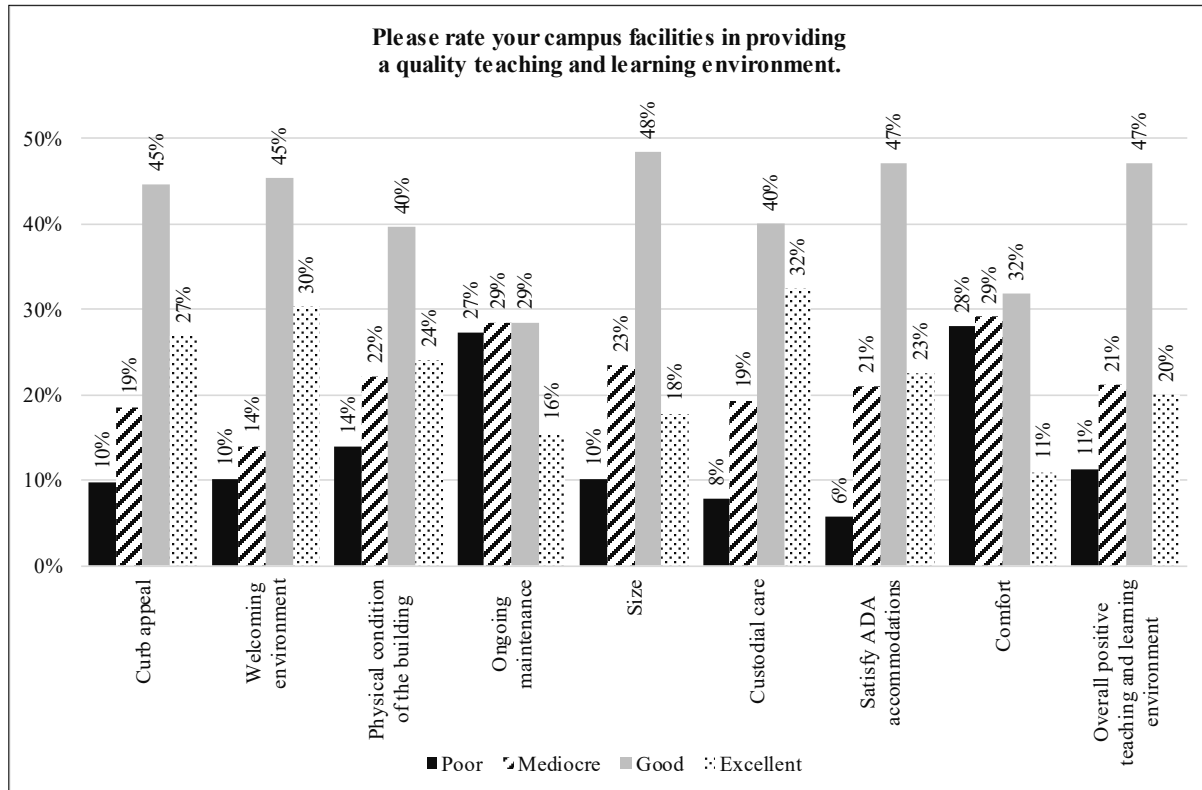
As shown in Exhibit 5.2.6, the majority of teachers responding to the survey indicated that a welcoming environment affects their quality teaching and learning environment the most with an excellent or good rating (75%). Welcoming environment included welcoming and respectful front office, and parent and family outreach. Custodial care (72%) and curb appeal (72%) were the next highest factors affecting the quality of teaching and learning. The percentages of teachers who responded "Poor" to the survey items are listed below.

- Curb appeal (i.e., external appearance – especially building entrance)…………   10%

- Welcoming environment (e.g., welcoming and respectful front office)……….   10%

- Physical condition of the building ………………………………………………   14%

- Ongoing maintenance (e.g., timeliness and quality of needed repairs)…………   27%

- Size (i.e., adequate accommodation of student enrollment and activities)…….   10%

- Custodial care (e.g., cleaning)……………………………………………..   8%

- Safety/ADA accommodations……………………………………………….   6%

- Comfort (e.g., comfortable air temperature, good acoustics, sufficient lighting)..   28%

- Overall positive teaching and learning environment…………………………   11%

Comments from teachers included the following:

- "The building gets a lot of use, gets damage, and it is not kept up with by the district."

- "Heating system has not worked equally in areas throughout the building. Some areas and classrooms throughout the building are extremely warm, while others are extremely cold."

- "Years of problems with heating and cooling system, as well as lights, no shades, no water due to leaking pipes."

- "Interior is long overdue for a paint job."

- "The exterior is ugly, lacks landscaping, parking areas need paving, and I spend personal money and time cleaning the campus and beautifying it with plants."

- "Much could be done to improve the overall look and feel of the school. Generally, it is not a very warm and inviting place."
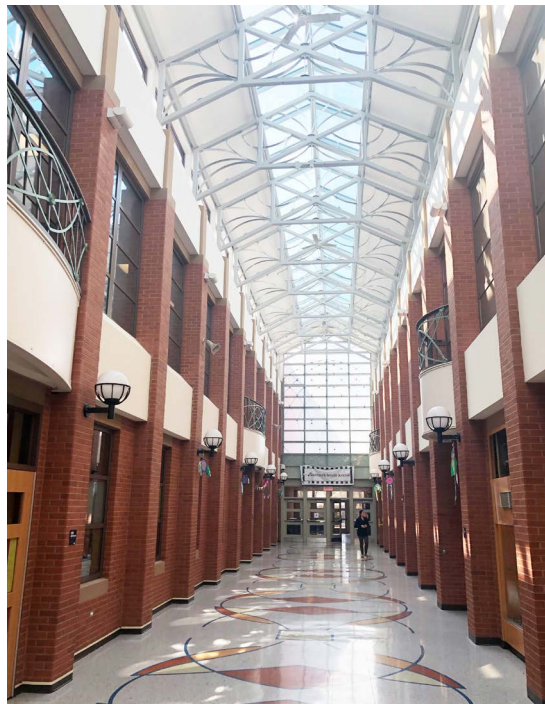
"Beautiful hallway at Clemente Elementary"

Based on principal comments and survey responses from both teachers and principals, as well as information from other documents, the auditors examined reports from the Work Order System for the 2017-18 school year to determine the status of the handling of maintenance requests in the district. Ten schools were randomly selected for this analysis. The schools were grouped into three categories based on their renovation or construction age. Four schools (Hill Career, Edgewood, Conte-West Hills, and Brennan) were in the 18-21 year category. Four schools (Hillhouse, Ross Woodward, Celentano, and John C. Daniels) were in the 13-17 year category. Two schools (Mauro-Sheridan and Davis Street) were in the 8-12 year category. Exhibit 5.2.7 shows the total work order requests for the 2017-18 school year by school site and group renovation or construction age.

Exhibit 5.2.7

Total Work Order Requests for Randomly Selected Schools
By Building Renovation or Construction Age Grouping
New Haven Public Schools
2017-18
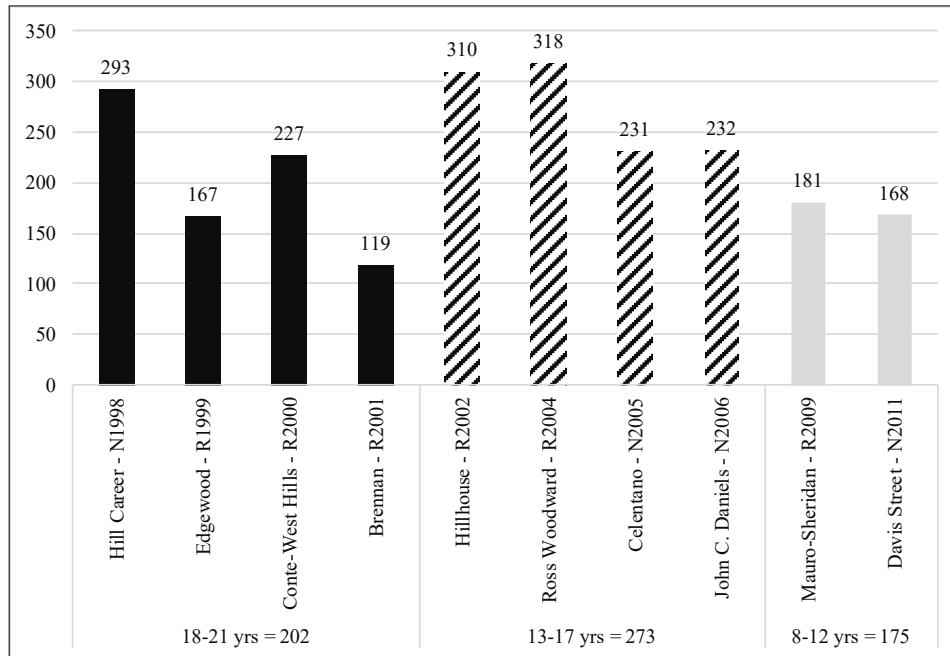
As noted in Exhibit 5.2.7:

- Of the randomly selected schools, Ross Woodward had the highest total work order requests at 318, followed by Hillhouse (310) and Hill Career (293).

- John C. Daniels, Celentano and Conte-West Hills had 232, 231, and 227 total work order requests, respectively.

- Mauro-Sheridan, Davis Street, and Edgewood had 181, 168, and 167 requests, respectively.

- Brennan had the fewest work order requests in 2017-18 at 119.

- Schools with a construction or renovation date 18-21 years prior had an average 202 work order requests; those with 13-17 years had an average 273 work order requests; and schools that had been renovated or constructed 8-12 years prior had the lowest work order requests at an average of 175.

Additionally, auditors reviewed the work order records to determine request completion rates and follow-up within the system. Exhibit 5.2.8 displays the number of work order requests for randomly selected schools for 2017-18 and the percentage completed by school location.

Exhibit 5.2.8

Total Work Order Requests and Percent Completed for Randomly Selected Schools
New Haven Public Schools
2017-18
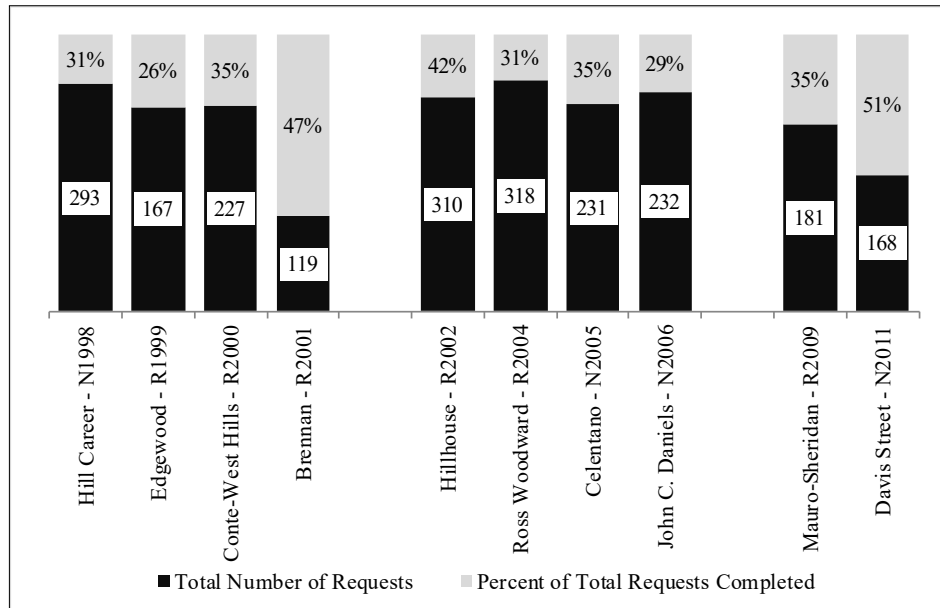
Exhibit 5.2.8 indicates:

- All schools had less than 50% completion rate of their total work order requests for 2017-18 with the exception of Davis Street.

- Davis Street had the highest completion rate of the selected schools at 51%, followed by Brennan at 47% and Hillhouse at 42%.

- Celentano, Conte-West Hills and Mauro-Sheridan had 35% of work order requests completed.

- Hill Career and Ross Woodward had 31% completion rate.

- John C. Daniels and Edgewood had work completion rates below 30% at 29% and 26%, respectively.

The New Haven Public Schools Work Order System prioritizes requests as they are inputted, labeling them as High Priority, Emergency, Safety, and Medium. Auditors examined the high priority requests in the Work Order System. The issues covered most of the subsystems, including HVAC, plumbing, carpentry, electrical, elevators, fire alarm, security, and safety and health. Further analysis of the work order requests was conducted to determine rate of completion for high priority issues. For the purposes of this analysis, emergency and safety items are included in the high priority category. Exhibit 5.2.9 displays the total work order requests labeled high priority by school and the number and percentage completed.

Exhibit 5.2.9

**Total High Priority Work Order Requests and Number and Percent Completed by School
New Haven Public Schools
April 2019**

School	Number of High Priority Requests	Number High Priority Requests Completed	Percent of High Priority Requests Completed
Hill Career - N1998	45	21	47%
Edgewood - R1999	44	12	27%
Conte-West Hills - R2000	79	36	46%
Brennan - R2001	10	7	70%
Hillhouse - R2002	46	28	61%
Ross Woodward-R2004	45	14	31%
Celentano - N2005	19	11	58%
John C. Daniels - N2006	11	3	27%
Mauro-Sheridan - R2009	17	8	47%
Davis Street - N2011	14	12	86%
New Haven Public Schools Facility Management Department Work Order System 2017-2018			

As noted in Exhibit 5.2.9:

- None of the schools had 100% of their high priority work order requests completed.

- Four of the selected schools had more than 50% completion rate of their high priority work order requests.

- Davis Street had the highest rate of completion of high priority work order requests at 86%, followed by Brennan (70%), Hillhouse (61%), and Celentano at 58%.

- Hill Career, Mauro/Sheridan and Conte-West Hills had completion rates of 47%, 47%, and 46%, respectively.

- Edgewood and John C. Daniels had the lowest completion rate of high priority work order requests each at 27%, followed by Ross Woodward at 31%.

Additional review of the work order report shows that each request is date stamped and can be tracked in the system from the time it is initiated until it has been completed or resolved. In order to conduct this analysis, auditors determined date ranges and charted the results as follows: 0-3 days; 4-7 days; 8-14 days; 15 days to 1 month; more than 1 month, but less than 3 months; more than 3 months, but less than 6 months; and over 6 months. Exhibit 5.2.10 displays the percentage completion of high priority work order requests by school and date range.

Exhibit 5.2.10

Number and Percent Completion of High Priority Work Order Requests
By School and Date Range
New Haven Public Schools
April 2019

School	Total High Priority Requests and Number Completed	Percent Completion Rate of High Priority Requests						
		0 - 3 days	4 - 7 days	8 - 14 days	15 days to one month	More than one month-less than 3 months	Three to six months	More than 6 months
Hill Career N1998	45/21	47.6% (10)	9.5% (2)	9.5% (2)	14.3% (3)	9.5% (2)	4.8% (1)	4.8% (1)
Edgewood R1999	44/12	25% (3)	16.7% (2)	8.3% (1)	25% (3)	25% (3)	0	0
Conte-West Hills R2000	79/36	33.3% (12)	22.2% (8)	13.9% (5)	13.9% (5)	16.7% (6)	0	0
Brennan R2001	10/7	0	57.1% (4)	0	42.9% (3)	0	0	0
Hillhouse R2002	46/28	39.3% (11)	17.9% (5)	3.6% (1)	21.4% (6)	14.3% (4)	3.6% (1)	0
Ross Woodward R2004	45/14	50% (7)	21.4% (3)	7.1% (1)	21.4% (3)	0	0	0
Celentano N2005	19/11	27.3% (3)	0	54.5% (6)	9.1% (1)	0	9.1% (1)	0
John C. Daniels N2006	11/3	0	33.3% (1)	33.3% (1)	33.3% (1)	0	0	0
Mauro-Sheridan R2009	17/8	25% (2)	37.5% (3)	25% (2)	12.5% (1)	0	0	0
Davis Street N2011	14/12	33.3% (4)	25% (3)	8.3% (1)	25% (3)	8.3% (1)	0	0

New Haven Public Schools Facility Management Department Work Order System 2017-2018

As indicated in Exhibit 5.2.10:

- Overall, the range of completion of high priority work order requests varied between the schools. Completion time ranged from 0-3 days to more than 6 months. One high priority request for Hill Career was completed over six months after the initial request.

- Of the 45 high priority requests for Ross Woodward, 7 (50%) of the 14 completed were resolved within 3 days. Hill Career had 21 high priority work order requests completed out of the initial 45 with 47.6% (10) being completed within 3 days. Of the 46 initial high priority requests for Hillhouse, 11 (39.3%) were completed within 3 days.

- Brennan had none of the high priority requests completed within the first three days after the request was made; however four (57.1%) of the seven completed requests occurred within seven days.

- Ross Woodward had 71.4% (10) of their 14 high priority work orders completed within seven days of the initial request.

- Of the 44 initial requests, Edgewood had 75% (9) of the 12 high priority work orders completed within one month.

Students in grades 6-12 completed a district-administered survey in 2017-18 and were asked to respond to the statement, "My school is kept clean." Exhibit 5.2.11 shows the student responses.

Exhibit 5.2.11

Student Responses to Question #2 - My School Is Kept Clean
Student Survey (Grades 6-12) - School Environment
New Haven Public Schools
2017-18
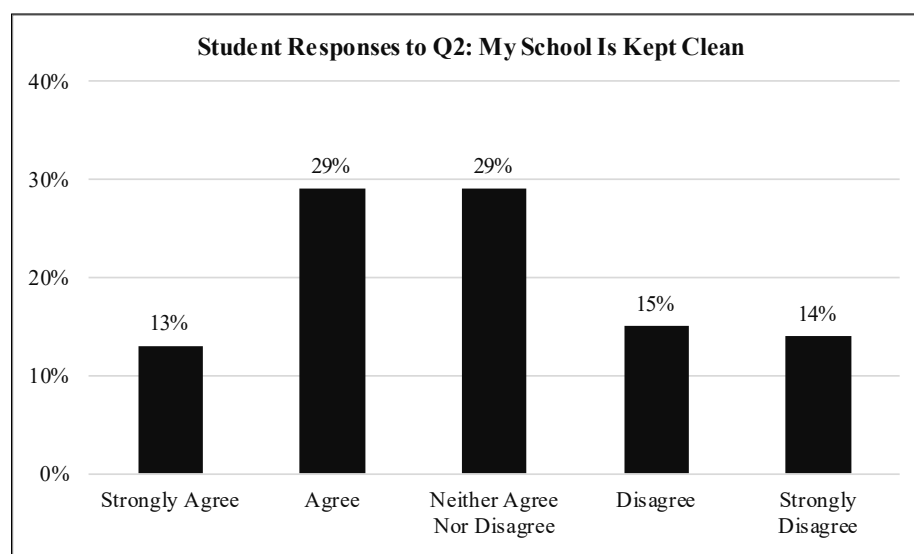
N = 2,249

Exhibit 5.2.11 indicates that 42% of students agree or strongly agree that their school is kept clean. Twenty-nine percent (29%) disagree or strongly disagree, and 29% neither agree nor disagree.

Auditors heard comments during interviews similar to the survey responses.

Several comments identified both strengths and weaknesses with district facilities:

- "There are as many as eight different heating systems that require maintenance. Once the warranty runs out, I need to maintain them on a budget that has remained flat." (Central Office Administrator)

- "The physical buildings are not in bad shape. It is not the facilities, but the lack of resources inside." (Central Office Administrator)

- "I think it [school facilities] is one of the gems not spoken about in the city." (Central Office Administrator)

Comments regarding maintenance response time and the Work Order System included:

- "Some work orders were not addressed for three years." (School Administrator).

- "We do a good job with that [Work Order System]. We will have some backlog, but there are some things that we might need to use capital funds for." (Central Office Staff)

- "It was cold in our building for a long time. We put in work orders and then start calling people in order to get things done." (School Administrator)

- "They [maintenance] don't respond fast enough, I have work orders from years before. If it's something really serious, they do come out immediately. But if the sensors in the bathroom sinks don't work, they don't get fixed." (School Administrator)

- "Maintenance has a very slow turnaround." (School Administrator)
- "My main issue with the work order system is that people find out that they can circumvent the system." (Central Office Administrator)

The following comments were shared regarding facilities, cleanliness, and health:

- "Sometimes the bathrooms are really dirty. They often don't have soap. It's hard to find a door that locks. Water to wash our hands doesn't come out." (Student)
- "Drinking fountains are old; we don't drink from them." (Student)
- "We have a toilet paper shortage." (School Administrator).
- "I have turned in the fact that the library has mold in it. I have cleaned it and it comes back. No one has done anything about it." (Teacher)
- "The building manager addresses things during the day. The night time staff does not clean the building." (School Administrator)

Portables for classrooms at West Rock Elementary

Environment Summary

Quality curriculum delivery is critical to teaching and learning. Adequate facilities support quality curriculum delivery. Both are dependent on a comprehensive facilities plan that takes into account the ongoing maintenance, renovation, and replacement need of facilities. In the absence of quality planning for facilities, classroom instruction may be impacted and learning interrupted. There may also be a compounded effect on resources as attention to maintenance and repairs becomes sporadic and intermittent rather than the result of planned maintenance. This may lead to inefficiencies and resources eroded by emergencies. The auditors were provided with the Five Year Capital Plan and budget narratives. The district is using this documentation as a facilities plan; however, it does not meet the audit criteria for a comprehensive facilities plan, nor does it follow *Board Policy 7100*, which requires development of a master facilities plan. Only 38% of the components for a comprehensive facilities plan were met, and 62% of the components for a comprehensive facilities plan are not present in the New Haven Public Schools facilities planning. The facilities plan that was provided to auditors does not have a philosophy statement, did not include the educational mission of the district, nor did it project future enrollment or prioritized needs of individual school sites. Analysis of the district Work Order System shows inconsistent handling of maintenance issues across buildings in the district. Interviews and survey responses also indicated that some facilities are not well maintained. A comprehensive facilities plan would assist the district in preparing for the facilities needs of the district and ensure facilities are able to support quality curriculum delivery and current instructional strategies.

Finding 5.3: The district does not have a comprehensive plan for instructional technology programming that presents a clear program philosophy and vision. Technology is unevenly distributed across the district.

Use of technology is integral to virtually every aspect of daily life. Students live in a world where they are immersed with technology, including iPhones, androids, iPads, tablets, and other equipment that have become essential to their being. It is the school system's responsibility to prepare students for the future. The classroom is the primary place where this preparation will occur; therefore, every classroom must be equipped with technology to support teaching and learning. When integrated into instruction, technology will support new strategies for teaching and learning by addressing diverse learning styles, accommodating individual learning rates, encouraging cooperative learning, helping students accept responsibility for their learning, providing the means to communicate globally, and improving academic achievement in all areas. Effective technology must be integrated across the curriculum in research-proven ways that deepen and enhance the teaching and learning process. That intent is achieved when the use of technology is routine and transparent and when technology supports curriculum goals. To adequately prepare students for the technology world they are in currently and will face in their future, districts must comprehensively plan for instructional technology programming that includes a clearly stated vision. Planning for the use of technology is key to providing direction for the selection, adoption, implementation, and evaluation of technology for management support and as an instructional tool. Access to technology must be distributed throughout the district, and there must be an infrastructure to support technology hardware.

To assess the status of technology planning in New Haven Public Schools, auditors reviewed district documents, interviewed members of the board and district and building administrators, and surveyed principals and teachers. Auditors also visited school campuses and recorded technology being used in the classrooms. The auditors used the information gathered to determine the extent of technology planning occurring in the district.

Although the district has collaborated with the City of New Haven and other local and state partners to garner grants and special programs to leverage funds and discounts to obtain technology resources, the auditors found technology planning did not meet audit criteria to guide the integration of technology in the teaching and learning environment. The auditors found that the district lacks a comprehensive plan for instructional technology programming with no clearly stated program philosophy or vision, and technology is unevenly distributed throughout the district. Exhibit 5.3.1 shows technology planning documents reviewed by auditors.

Exhibit 5.3.1

Technology Planning Documents and Other Sources Reviewed by Auditors
New Haven Public Schools
April 2019

Document Title	Date
New Haven Public Schools District Goals Presentation 2018-2020	Nov. 2018
New Haven Public Schools Transition Report	2018-19
New Haven Public Schools Information Technology Department Overview	2018-19
New Haven Public Schools Information Technology Department Overview	2017-18
New Haven Public Schools - District Technology Plan	2009-2012
New Haven Public Schools Budget Documents	Varied
New Haven Public Schools Budget Update and Projection	February 2018
City of New Haven Adopted Budget - Fiscal Years Five Year Capital Plan and accompanying narratives	2014-15, 2015-16, 2016-17, 2017-18, 2018-19, 2019-20
State of Connecticut Educational Technology Goals and Plan - CTEDTECH	2017- 2022
New Haven Public Schools Information Technology (IT) Department Technology Inventory by Building	April 2019
Information Technology (IT) Department Technology Device Inventory District Summary	July 2018
Literacy and Media Technology Curriculum Documents	No date given
Finance and Operations Committee Meeting Minutes	5/1/17
School Improvement Plans (SIPs) - Various schools	July 2017-June 2018
Department Improvement Plans (DIPs)	2018-2020
Online Surveys - Administrators, Teachers	April 2019
School Environment Survey - Students	2017-18
New Haven Public Schools Job Descriptions	Varied
New Haven Public Schools District Continuous Improvement Plan 2018-2021	December 2018

Among the documents provided to auditors were two titled "New Haven Public Schools Information Technology (IT) Department 2018-2019 Overview" and "New Haven Public Schools Information Technology (IT) Department 2017-2018 Overview." Another document submitted to the Connecticut Department of Education titled "New Haven Public Schools Educational Technology Plan 2009-2012" was also provided, but at the time of the audit, was over six-years-old. The agenda of the Finance and Operations Committee of the board dated May 1, 2017, stated that the District Tech Plan was presented and discussed, but the plan was not included in the minutes. The IT Department 2018-19 Overview referenced a 2018-2023 Five-Year Technology plan, but no such document was provided to auditors.

The IT Department 2018-19 Overview, coupled with board policies and other relevant district documents, was used to review the district's instructional technology program, using the quality criteria auditors would expect to find in an instructional technology plan. Exhibit 5.3.2 presents auditors' ratings based on the quality criteria.

Exhibit 5.3.2

CMSi Criteria for Instructional Technology Programs
New Haven Public Schools
April 2019

Criteria	Auditors' Rating	
	Met	**Not Met**
1. Board policy or administrative regulation for instructional technology exists.	Partial*	
2. There is a clear statement of program philosophy/vision.		X
3. A comprehensive view of technology exists.		X
4. A needs assessment has been completed and evaluated.		X
5. Measurable student goals and objectives exist.		X
6. An ongoing student assessment component exists.		X
7. An ongoing program assessment component exists.		X
8. There are comprehensive staff trainings related to existing standards and objectives.		X
9. Standards for hardware exist.		X
10. Standards and guidelines for software/applications exist.	X	
11. Internet access standards exist.	X	
12. The role of the school library/media center is stated.	X	
13. A budget for program implementation/roll-out has been identified.	Partial*	
14. A budget for program maintenance has been identified.		X
15. Technology site plans are aligned with district plans.		X
Total	**3**	**12**
Percentage Met	**20%**	
*Partial ratings are tallied as not met.		
©2018 CMSi		

As indicated in Exhibit 5.3.2, the IT Department 2018-19 Overview met 20% (3) of the 15 quality criteria and is, therefore, deemed inadequate to provide direction for the district's instructional technology planning. A rating of at least 70% is required for adequacy. The following explains the auditors' ratings.

Criterion 1: Board Policy (Partially Met)

Much of the policy direction related to technology systems is focused on security, acceptable use by staff and students, and acquiring and updating technology with some general statements of expectation about the role of technology in instruction. Policy offers no specific, clear direction for development and implementation of technology services to support teaching and learning. The following policies provide some indication of district expectation but are dated.

- *Board Policy 6156: Use of Computers for Instruction* indicates the board's goal to implement computer resources in each school facility. It states, "Because of the many types of application and the potential cost, the board establishes the following policy to plan for and guide this growth both for instructional and administrative use." It further identifies the primary uses of microcomputers for instruction and notes that the school principal or their designee is responsible for coordinating the use of microcomputers within his or her building.

- *Board Policy 6141.32: Computer Literacy* states, "It is the goal of the school system to teach all students to be computer literate. The goal is expected to be accomplished over a number of years in a planned

and systematic program with ongoing evaluation of progress by the superintendent and district staff." It further stipulates that the program of instruction should address curriculum, hardware, software, staff development, and resources and funding.

- *Board Policy No. 3523.1(a): Acquisition and Updating of Technology* states, "The Board encourages application of technology to any district function where efficiency, reliability or student learning will be improved." It also indicates that the board recognizes the need for continuous upgrading of District technological resources and directs the superintendent or his/her designee to present a plan annually as part of the budgeting process that ensures the regular replacement of equipment and software on a cycle no longer than five years. The policy further states, "The plan shall include recommendations for expansion of resources where appropriate, based on pilot programs and shall include provisions for staff training and curriculum/materials development."

- *Board Policy No. 3523.1(b): Acquisition and Updating of Technology* provides additional guidelines for selecting, purchasing, and discontinuing use of technology hardware and software.

- *Board Policy No. 6162.7(a-c): Educational Software* states, "The Board recognizes that technology is an integral part of everyday living affecting every aspect of our society and, therefore, is committed to providing educational technology for all students." This policy and the accompanying regulations also provide guidelines and procedures to follow in the review and acquisition of educational software.

- *Board Policy No. 4218.5: Personnel: Rights, Responsibilities and Duties: Acceptable Computer Network Use* indicates NHPS intention to monitor to ensure "appropriate and lawful" use of the network. It states, "While access to other materials is possible, it is our sole intent to further educational goals and objectives in making Internet access available."

- *Board Policy No. 4218.4: Personnel: Rights, Responsibilities and Duties: Electronic Monitoring* states, "NHPS may review e-mails, faxes, modem and LAN/WAN communications, including Internet use, and voice-mail messages sent or received by employees."

- *Board Policy No. 3523.3(a-i): Computer Security* identifies the role and responsibilities of the Technology Coordinator, Business Manager, Administrators, and all Users in maintaining computer security throughout the organization. It also includes guidelines for computer and network use.

- *Board Policy No. 3523.3: Computer Security* states, "The superintendent is directed to establish guidelines and procedures to protect and ensure the security of all District computers, telecommunication equipment, and information handled by such equipment."

Criterion 2: Program Philosophy (Not Met)

The New Haven Public Schools Information Technology Department 2018-19 Overview uses the term "student-centered technology plan" and identifies challenges, but does not present a clear vision statement regarding instructional technology.

Criterion 3: Comprehensive View (Not Met)

No statement or provision for the use of instructional technology was found in the IT Department 2018-19 Overview. It states as a goal, "to collaborate with Curriculum in the planning for technology infused education." It also identifies challenges with regard to students: "learning 21st Century Skills and pivoting the Learning Environment to the Digital Learner." It does not reference how technology can inform teaching and learning during instructional delivery.

Criterion 4: Needs Assessment (Not Met)

The IT Department 2018-19 Overview references a 2017-18 technology audit of equipment and systems across the district. It indicates that the audit revealed challenges with core systems, staffing, training and communication, protocols and best practices, and fidelity of core systems and funding. The IT Department Overview does not describe the audit process, nor does it describe the specific issues related to each of the identified areas of need.

Criterion 5: Measurable Goals (Not Met)

The IT Department 2018-19 Overview identifies information and technology reboot goals related to staffing, training, collaboration, online SharePoint and network applications, and the goal of including technology plans in all School Improvement Plans. The list of strategies for technology integration includes restructuring and refocusing the IT Department, expanding training for staff, improving collaboration and communication, refocusing on core IT systems, aggressively pursuing and leveraging grant funds, and improving reliability and availability of core technology. There is no direct reference to how the goals will be accomplished through the teaching and learning process and no indication of how goals will be measured.

Criterion 6: Student Assessment (Not Met)

Auditors found no mention in the IT Department Overview of a student assessment that measured expected outcomes. It referenced the schools reviewing academic data regarding technology implementation after a period of time and stated, "Collaboratively expand technology in sustainable, cost effective and efficient ways that are driven by student outcomes." There was no mention of instruments to be used to specifically measure the effectiveness of instructional technology.

Criterion 7: Program Assessment (Not Met)

Auditors could find no reference to program assessment in the IT Department Overview provided to them as the technology plan. The IT Overview shows the intent to assess the plan and states, "Reassess Plan—After review, modifications may be necessary, which may bring the plan back to the 1st step—Collaboration." Under the heading Accountability, the plan identifies core system usage reports, quarterly tech meetings, and weekly staff meetings, but does not state how they will be used.

Criterion 8: Staff Training (Not Met)

The IT Department 2018-19 Overview indicates that all staff will be provided training in expanded core application, integration with educational technology, and integration of the use of technology within the content areas, using online video conferencing, train the trainer model identifying best practices, and use of on-site tech facilitators to deepen and extend training on core systems. Under recommendations, the plan lists consistent training and support and increased knowledge of procedures. There is no provision for comprehensive training for instructional technology and tiered professional development with measurable standards for application of technology.

Criterion 9: Hardware Standards (Not Met)

No hardware standards were provided to auditors. The auditors received documents listed in Exhibit 5.3.1, but none of the documents had equipment standards. Under the heading "District-wide Project" related to deploying new computers, the IT Department Overview states, "Due to the implementation of the Inventory Tracking System, we are able to identify the exact location of obsolete computers. The 18-19 deployment plan is to replace approximately 2,500 obsolete computers, while funding lasts."

Criterion 10: Standards and guidelines for software/applications (Met)

There were no standards or guidelines provided to auditors for software/application in the IT Department 2018-19 Overview, but there are procedures and a coordinated process in board policy for acquiring educational software for district use. The New Haven Public Schools Transition Report 2018-19 recommendation under Information Technology states, "While schools should be given some flexibility for purchasing hardware and software according to the needs of their instruction program, efficiencies in purchasing and repairs can be made with centralized processes."

Criterion 11: Internet Access Standards (Met)

Standards for internet access were not provided in the IT Department Overview, but board policies and regulations address internet use. The auditors determined the Internet Access Standards are adequate.

Criterion 12: Role of School Library (Met)

The role of the school library is not addressed in the IT Department Overview. The role of the library media specialist in technology integration and implementation is described in Library and Media Technology curriculum documents that are accessed by teachers.

Criterion 13: Implementation Budget (Partially Met)

The IT Department 2018-19 Overview has a proposed budget. The budget includes one year funding for increased staffing and an annual life cycle replacement program for computers. It does not show how proposed expenditures address each of the goals and strategies to be implemented.

Criterion 14: Maintenance Budget (Not Met)

The IT Department Overview does not include a maintenance budget. There are references to continuing programs and budget funds for replacement of equipment, but no mention of a budget to maintain existing equipment and technology resources. A narrative in Section IV (Capital Projects) of the City of New Haven Approved Budget for fiscal year 2018-19 identifies general technology expenditures for the district. The expenditures are not matched with personnel goals identified in the IT Department Overview.

Criterion 15: Site Plan Alignment (Not Met)

There is no alignment to site plans. While building site plans exist for 2018-19, the plans do not specify instructional technology use. The IT Department 2018-2019 Overview identifies linking the SIPs (School Improvement Plans) and DIPs (Department Improvement Plans) with IT and Curriculum in planning and stewardship as one of the gaps.

The IT Department Overview presented to auditors as the technology plan met audit criteria for 3 areas and did not meet criteria in 12 areas. The two areas listed as partially met are considered inadequate by audit standards. The total percentage met was 20%.

The following job descriptions also provide information related to expected duties and functions for a variety of positions with responsibility linked to technology systems as operational support for the district and schools:

- Webmaster (Part Time) is responsible for developing and maintaining school websites and manages web-based data driven applications.

- Technology Facilitator - Adult Education is charged with maintaining the CT Adult Education Reporting System and training staff on data entry regarding student requirements. The person must install and maintain computer enrollment software.

- Magnet School Resource Teacher is minimally required to have experience in the use of learning technology in the classroom for the position.

- IT Support (Part-Time) ensures that all technology is functioning properly. Additionally the person must maintain and support the use of technology within schools or departments. He or she tests new technology as needed applicable to the site and monitors software package on the computer.

- School Counselor (Hill Career) is required to use current district technology and tools to drive the tracking of student success and outcomes.

- Special Ed Teacher is to have familiarity with assistive technology as it relates to IEP development.

- Library Media Specialist encourages the use of instructional technology to engage students and to improve learning. Provides expertise in the selection, acquisition, evaluation, and organization of information resources and technologies in all formats, as well as expertise in the ethical use of information. Additionally evaluates, promotes and uses existing and emerging technologies to support teaching and learning, supplement school resources, and connect the school with the global learning community.

- Assistant Superintendent for Curriculum Instruction and Assessment plans, directs, develops, coordinates and executes district-wide implementation and training of curriculum and related instructional services; oversees services for all academic areas…career and technology education and media programs. Plans, coordinates and supports all instructional uses of technology by students, teachers and administrators.

Board policy identifies the roles and responsibilities of the Technology Coordinator and Business Manager related to technology, but no job descriptions were provided for the positions.

The auditors received information from surveying teachers and students. When teachers were asked about the strengths of the school district, a few mentioned technology:

- "We have a lot of technology."

- "Technology is available to all students."

- "The technology is very useful."

Conversely, when teachers were asked about the weaknesses of the district, technology was also mentioned as an area of weakness. The following are representative comments:

- "We need appropriate teaching of technology. Not simply using Chromebooks and Google."

- "When visiting other schools, all classrooms have computers for all their students."

- "Our school has four or five sets [computers] and at least two of them are old and break down to the point of wasting time trying to get them to work."

- "Some schools have state of the art technology and some schools have nothing."

- "Get the infrastructure fixed."

- "Students need consistent access to technology."

- "We need better and more updated technology."

New Haven Public Schools students in grades 6-12 completed a School Environment Survey during the 2017-18 school year. Of the 2,246 students who responded, 64% agreed or strongly agreed that computer technology and lab equipment are up to date, functioning, and are in good condition.

Auditors surveyed teachers and administrators to determine their responses to statements related to technology, regarding its availability, use, and alignment to curriculum.

Responses to these statements are reported in the following exhibits and narrative. Exhibit 5.3.3 shows teacher responses to survey questions regarding the availability of technology to support student learning.

Exhibit 5.3.3

Teacher Survey Data Regarding the Availability of Technology
To Support Students and Instruction
New Haven Public Schools
April 2019

In my school, technology is available to support student learning.

Strongly Disagree 5%
Disagree 14%
Strongly Agree 30%
Agree 51%

N = 282

In my school, technology is available to support teacher instruction.

Strongly Disagree 4%
Disagree 18%
Strongly Agree 30%
Agree 48%

N = 282
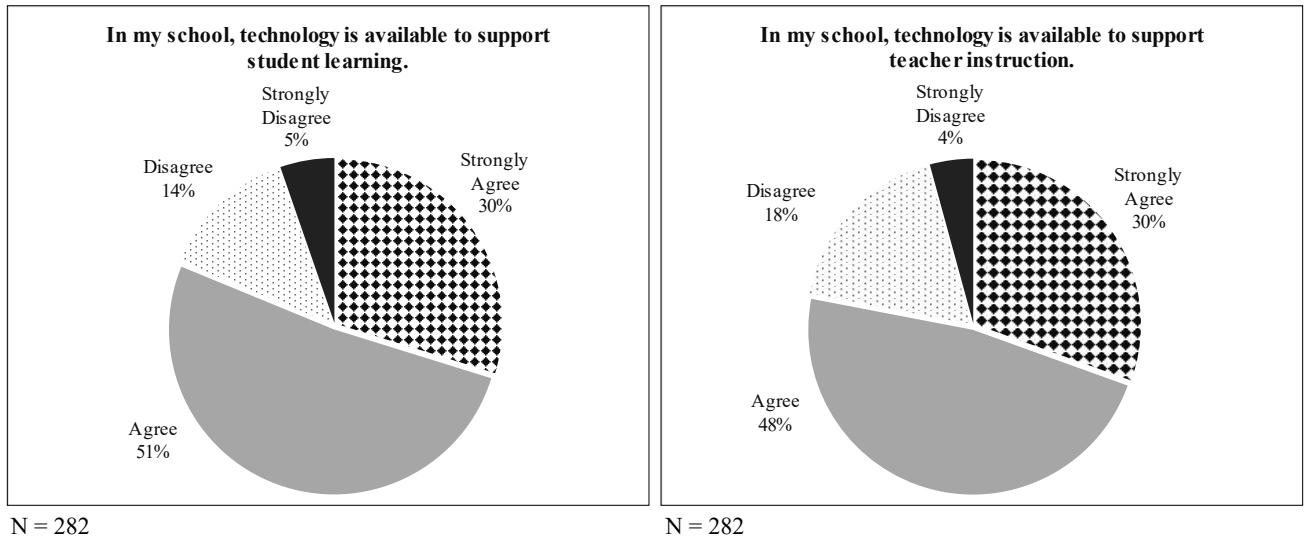
As can be seen in Exhibit 5.3.3, of 282 teachers who responded to the survey question, the majority (81%) agreed that technology is available in their school to support student learning. Nineteen percent disagreed.

Teachers responded to statements that technology is available to support teacher instruction. Of the 282 teachers who responded to a different survey question, "In my school, technology is available to support teacher instruction," 78% indicated technology is available, while 22% disagreed or strongly disagreed.

Teacher responses to the survey statement that technology software and programs are selected based on strong alignment to district curriculum objectives and state assessments are presented in Exhibit 5.3.4.

Exhibit 5.3.4

Teacher Survey Data Regarding the Alignment of Technology
New Haven Public Schools
April 2019
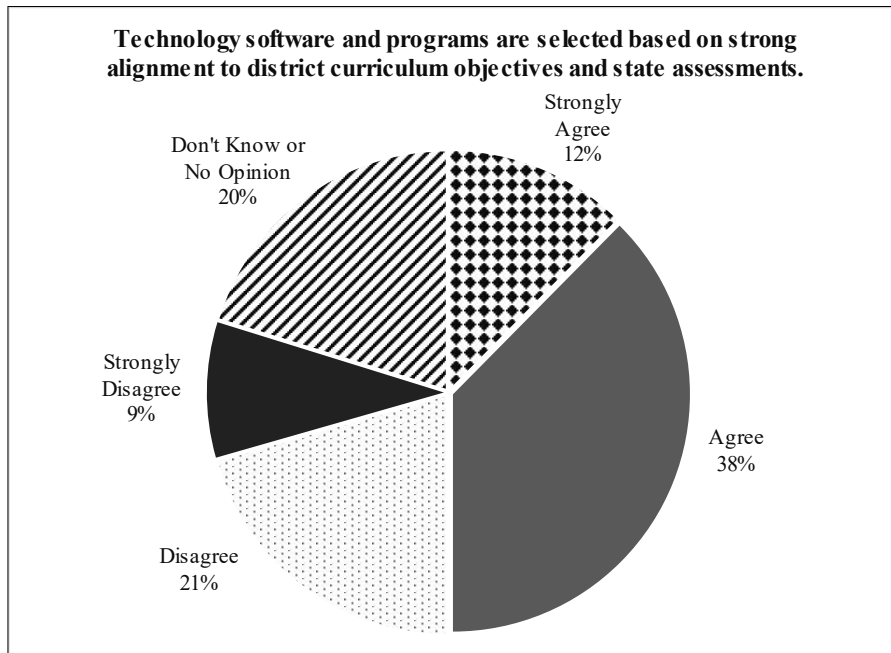
N = 282

As can be seen in Exhibit 5.3.4, 50% of the 282 teachers who responded indicated they strongly agreed or agreed with the statement while 30% disagreed or strongly disagreed and 20% didn't know or had no opinion. Teacher agreement with the statement regarding alignment was much lower than their agreement with the statements regarding availability.

Exhibit 5.3.5 shows the teachers' responses to the survey statement that technology software and programs are clearly referenced in the curriculum.

Exhibit 5.3.5

New Haven Teacher Survey Question #21
New Haven Public Schools
April 2019

Q21: Technology software and programs are clearly referenced in the curriculum documents for my grade/course.

- Strongly Agree 7%
- Agree 25%
- Disagree 34%
- Strongly Disagree 14%
- Don't Know or No Opinion 20%
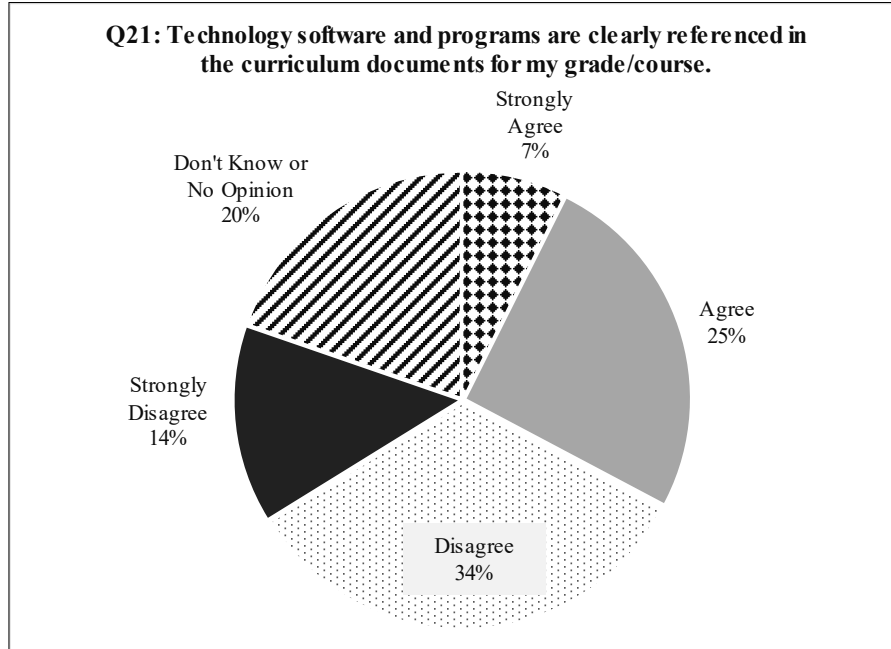
As can be seen in Exhibit 5.3.5, less that one-third (32%) of teachers indicated that they strongly agreed or agreed with this statement. However, almost half (48%) disagreed or strongly disagreed. Another 20% indicated that they didn't know or had no opinion. Most teachers either disagree or don't know if the technology software and programs are clearly referenced in the curriculum documents for their course or grade, despite teachers' attesting to its availability. This suggests to auditors that curriculum support for technology use in district classrooms is inadequate.

Teachers were also asked to respond to a statement regarding the frequency with which they use various learning technology tools in the classroom. These data are presented in Exhibit 5.3.6.

Exhibit 5.3.6

New Haven Teacher Survey Question #22
New Haven Public Schools
April 2019
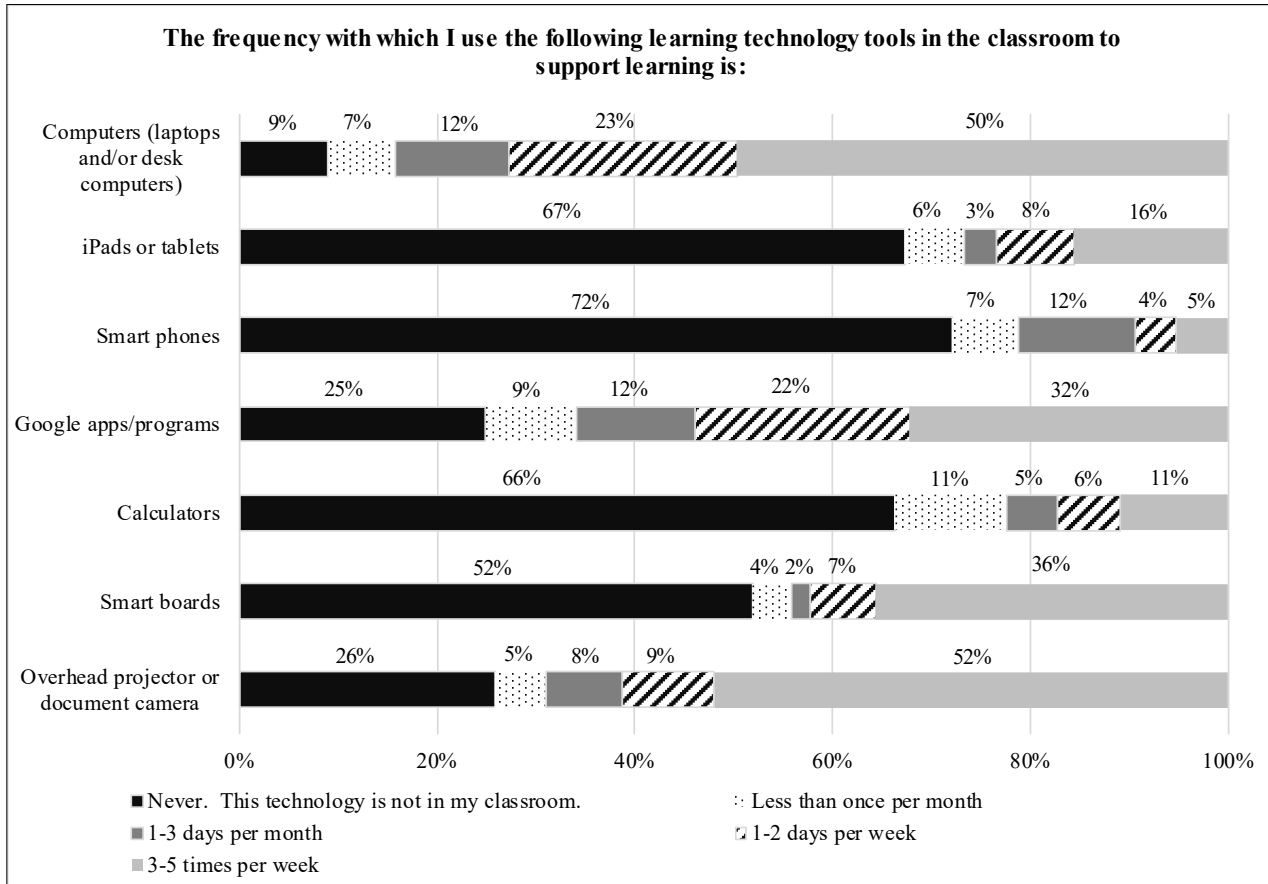
As can be seen in Exhibit 5.3.6, the item used most frequently, reported by teachers, was overhead projectors or document cameras. Fifty-two percent of teachers responding to the survey indicated that they use overhead projectors or document cameras three to five times per week. The next most frequently used technology tool, used three to five times a week, was laptops or desk computers at 50%. Slightly more than one-third of the teachers responding (36%) indicated they use smart boards three to five times per week, and about one-third of the teachers responding (32%) indicated they use Google apps/programs three to five times per week.

Additionally, teachers responded that they never use certain learning technology tools in their classrooms. Auditors noted the following learning technology tools were reportedly not available in the classroom, according to 50% or more of the teachers who responded to the survey:

- Smart phones (72%)
- iPads or tablets (67%)
- Calculators (66%)
- Smart boards (52%)

Exhibit 5.3.6 shows the uneven distribution and use of technology tools in New Haven Public Schools. Based on teacher responses, iPads, tablets, calculators, and smart boards are not available in over half of the classrooms at 67%, 66% and 52%, respectively. The technology tools most frequently used in classrooms in New Haven Public Schools are overhead projectors/document cameras and computers.

The auditors also received many comments from teachers who responded to Question #22: The frequency with which I use the following learning technology tools in the classroom to support learning. The comments, which are listed in Appendix D, highlighted non-working equipment and uneven access to technology tools to support student learning. A few sample comments are listed below:

- "I only have five computers in my classroom. They are used by the special education kids the most. The other students only go on the computer when they actually have technology class in the tech room twice a week."

- "My Smart Board is not working."

- "My projector has been broken since December."

- "[There is an] extreme lack of support when there are IT issues for students and teachers."

- "I have to use a portable projector when available."

The auditors were provided a summary of technology devices in district schools (as of July 2018). Exhibit 5.3.7 shows the total inventory of technology devices including computers in classrooms across the district.

Exhibit 5.3.7

Summary of Total Number of Technology Devices in Classrooms
New Haven Public Schools
April 2019

Inventory - Classroom	
Classroom Records - 1,250	
Technology Devices	**Sum of Count**
Computer Type Count	7,025
Printer	305
Projector	1,074
Interactive Board	774
Doc Cameras	354
New Haven Public Schools IT Inventory as of July 2018.	

As shown in Exhibit 5.3.7:

- There are 7,025 computers spread over 1,250 classrooms in the district or 5.6 per classroom.

- Projectors (1,074) comprise the second highest number of technology devices in classrooms across the district.

- A total of 774 interactive boards are in classrooms throughout the district.

- There are slightly more doc cameras (354) than printers (305) in district classrooms.

The number of computers listed in Exhibit 5.3.7 varies by school. Some schools have fewer computers than others. Appendix C provides the number of computers by individual school and district location.

Exhibit 5.3.8 displays the inventory of technology devices in schools across the district not assigned to individual classrooms such as carts and computer labs.

Exhibit 5.3.8

District Summary of Number of Technology Devices - Carts and Labs
New Haven Public Schools
April 2019

Inventory - Carts/Labs	
Device Types	**Sum of Count**
Chromebook	7,674
Computer - Mac Desktop	296
Computer - Mac Laptop	285
Computer - PC Desktop	1,969
Computer - PC Laptop	3,127
iPad	1,852
Mini iPad	100
Grand Total	**15,303**
New Haven Public Schools IT Inventory as of July 2018.	

As noted in Exhibit 5.3.8:

- Carts and Labs are inventoried separately and are not included in the classroom records.

- Of the 15,303 devices in the inventory of carts/labs, approximately 50% are Chromebooks.

- Laptops total 3,412 and are the second largest quantity of devices in the district.

- There are 2,265 desktops and a total of 1,952 iPads and Mini iPads in the district.

Three questions were asked of building administrators relative to technology. The questions and response percentages from those who strongly agreed or agreed are provided below:

1. In my building, sufficient technology is available to support student learning.	83%
2. In my building, technology is available to support teachers' instructional delivery.	87.5%
3. Teachers in my building integrate the use of technology into their instruction.	87.5%

The responses from building administrators regarding technology indicate that most teachers integrate technology into their instruction and technology is available in their buildings to support teachers' instructional delivery. Teachers also responded in the survey that technology is available in their school to support student learning (see Exhibit 5.3.3).

The auditors held interviews with board members, district and building administrators, teachers, parents, and students.

Comments regarding technology planning, access, availability and use follow:

- "The only tech plan we have is around infrastructure and not technology education." (Central Office Administrator)

- "Other than a system where we can get usage reports, we can't really know if teachers are using the technology." (Central Office Administrator)

- "The schools that have the technology in the classrooms are using it." (Central Office Administrator)

- "It's not like somebody tells you to use technology daily. It is expected that because we have purchased the gizmos, teachers are expected to use them." (Teacher)

- "Yes, there is an expectation to integrate it [technology] into instruction, but no one has come out and said it." (Central Office Administrator)

- "We don't believe in separating technology in a lab. It is the norm in this building. Time is given to teachers to come up with lessons to teach technology." (School Administrator)

- "Infrastructure-wise we are really good; positioned well. At the school level devices are pretty much available. We are 1.1 to 1.8 student to computer ratio." (Central Office Administrator)

- "They [Chromebooks] must be shared with those departments that are being tested. I can't get access to the computer lab." (Teacher)

- "We have technology, but it is starting to need replacement, and our bandwidth is a major problem." (School Administrator)

Auditors heard the following comments regarding technology challenges:

- "Technology is a huge issue. When we update our technology, we are doing it for today's needs, not the needs three years from now." (Central Office Administrator)

- "Our school has been pretty favorable in terms of technology. The challenge is when they [technology devices] break to repair and replace." (School Administrator)

- "I cannot replace broken or outdated technology, we don't have the funding." (School Administrator)

- "We have a computer lab. We have three sets of Chromebooks. But not too many are working." (School Administrator)

- "There have been some grants in recent years, but most schools have technology. There might be Wi-Fi issues." (Central Office Administrator)

Technology Summary

Technology planning in New Haven Public Schools does not meet audit criteria. The district does not have a comprehensive plan for instructional technology programming that presents a clearly stated vision. Technology planning is critical to equipping students for the 21st century and for their future. The IT Department 2018-19 Overview was presented as the current technology plan for the district, but that plan and other documents only met 20% of the audit quality criteria. Planning gives direction for how technology tools should be selected, adopted, implemented, and evaluated. It also addresses the instructional use of technology. Planning, connected to the district mission, provides a philosophical approach to technology use and purchase. Lack of a district technology plan that is current and inclusive of the quality criteria listed in the audit prohibits the district from using resources adequately and effectively. Inadequate technology planning leads to individuals haphazardly selecting technology tools and instructional programs with no coherent and cohesive direction for their use.

Finding 5.4: School campuses use a variety of academic interventions to improve student achievement; however, programs lack policy direction and are not systemically evaluated to determine program or intervention effectiveness.

Interventions are formalized steps taken by school district staff to achieve a desired outcome. In order to provide learning environments to meet the needs of all students, school districts often use program interventions to improve specific aspects of operations within their system. An intervention may be a change in a specific program, practice, process, or strategy that is based upon needs identified through data collection and analysis. New interventions are selected when current practices are not attaining desired results or to prevent an undesirable outcome if no action is taken. Interventions can be valuable tools in responding to changing circumstances, deficiencies, or less than optimal performance. Auditors expect to find a district that is able to improve performance by selecting, planning, implementing, monitoring, and evaluating effective interventions.

Several essential characteristics are necessary for effective interventions to contribute to improved student achievement. Standardized, systemic procedures should guide the design, delivery, monitoring, and evaluation

of all interventions. When essential qualities are absent from program management, the likelihood increases that interventions will not achieve their intended goals and that decision makers will not have the necessary data to make sound decisions about whether programs should be continued, modified, or terminated.

Effective intervention includes the following steps:

- Assess the current situation.

- Diagnose and analyze data collected.

- Identify the problem.

- Propose and examine alternatives.

- Select one of the better alternatives to address the problem.

- Develop a formal plan for the design, deployment, and implementation of the alternative that includes goals and measurable objectives to address the problem.

- Identify the staff proficiencies needed to implement the interventions, appropriate staff development around the proficiencies, and a clear communication plan.

- Provide the fiscal and human resources needed to sustain the intervention.

- Establish a formative and summative feedback evaluation and a plan for monitoring the ongoing deployment and ongoing implementation of the intervention.

- Implement the plans with well-defined mechanisms for monitoring progress.

- Evaluate the program with sound and appropriate techniques.

- Modify or adjust the program as needed, based on data gathered during the evaluation process.

- Implement, based on adjustment needed.

- Reassess and continue monitoring performance results.

The auditors reviewed available district documents, including board policies, New Haven Public Schools' District Continuous Improvement Plan, Department and School Improvement Plans, school schedules, and other district documents. Interviews were conducted with board members, district and school administrators, teachers, students, and parents. Principals and teachers were also surveyed. In addition, the auditors conducted site visits at each campus and then used the information from all sources to compare the district's intervention planning and implementation against the quality criteria of the curriculum audit. Data collected were used to assess the adequacy of program interventions developed to improve student productivity.

Auditors determined that while intervention programs are being utilized by district staff, the district lacks policy direction and a systematic process for evaluating interventions to determine program effectiveness in New Haven Public Schools. Multiple literacy intervention programs existed in school buildings without any formal plan for evaluation to determine if programs should be continued, modified, or eliminated.

In order to gain information about how district policies support interventions in New Haven Public Schools, the auditors examined board policies and found the following relevant to programs and interventions:

- *Board Policy 2000: Administration - Concepts and Roles in Administration* states, "The primary responsibility of the administrative staff is to help create and foster an environment of educational equity and excellence, in which all students can learn most effectively."

- *Board Policy 2133*: *Administration (Principals)* states, "Principals shall be responsible for creating an environment that is conducive to learning, and for assisting teachers in the implementation of an instructional program that is suitable for all students."

- *Board Policy 6000: Instruction - Statement of Philosophy - Mission Statement* states*, "*The District will provide all students with learning opportunities designed to meet their academic and social needs.

Curriculum content, technological assistance and instructional strategies will be integrated to raise student expectations to ensure student performance mastery, and to maximize student motivation."

- *Board Policy 6141: Instruction - Curriculum Development* stipulates, "The Board recognizes that in order to foster the role of education in a democratic society and to ensure equal educational opportunity to all students, it must not permit the curriculum to remain static."

Although the policies listed above provide some expectation for the development and implementation of overall academic programming to meet the needs of all students in New Haven Public Schools, they do not address evaluation of the programming or provide adequate direction for district administrators to ensure the effective use of district resources for interventions to increase student achievement (see Finding 1.2).

The auditors next reviewed job descriptions to determine the scope of responsibility for the development, implementation, and evaluation of intervention programs. The following job descriptions contained relevant references to intervention responsibilities:

- Deputy Superintendent "uses data-driven decision-making to determine effectiveness of programs and initiatives."

- Assistant Superintendent for Curriculum, Instruction, and Assessment "develops procedures and techniques to identify potentially gifted students among culturally and socio-economically diverse populations as well as for other special populations requiring differentiated instruction."

- Assistant Superintendent for Instructional Leadership "builds instructional leadership of principals with particular focus on instruction, data analysis, intervention and developing capacity. Collaborates with departments to provide the appropriate system resources that address the needs of schools."

- Academic Tutor (PT) is "responsible for planning, developing, and implementing Tier II and Tier III academic supports, instruction and interventions for students (small group or individually) that is aligned with the prescribed curriculum. Responsible for learning about relevant curriculum used at school sites and to tailor instruction and supports so that students will be able to participate in the curriculum when not working with the tutor."

- Certified Teacher (PT) duties include to "Provide extra support, enrichment, or variation of work when necessary."

- Literacy Specialist - Troup School has primary responsibility of "leading the school's literacy program to ensure all students have access to high quality reading instruction." Also, "administers assessments to diagnose student areas of need and may pull student from classroom for small group or one-on-one reading activities and may serve as co-teacher in classrooms."

- Literacy Specialist/Mentor "provides assistance to teachers and staff developer in applying developmentally appropriate instructional practices and materials for literacy skill development. Model effective reading instructional and assessment strategies and provide support and coaching to teachers as they learn effective reading instructional methods."

- Instructional Coach "assists teachers in the planning and delivering of appropriate instruction. Provides direct instruction for individual students and students in small and large groups."

- Instructional Coach - High School is "responsible for bringing evidence-based practices into classrooms working with and supporting teachers and administration with the goal of increasing student engagement, improving student achievement, and building teacher capacity."

- Language Arts /Literacy Head Teacher - Sound School "observes and provides feedback to teachers on instruction related to literacy development. Participates in review of at-risk students, providing insight and aid in creating and following-up on a plan of action."

- Teacher Assistant (Part-time) "works with students both individually and in small groups to reinforce basic skills and learning and/or supports implementation of IEP."

- Principal "directs the overall management of the school including academics, co-curricular and support programs through coordination of the administrative staff, instructional leadership and with accountability to central office administration particularly the superintendent of schools."

- Director of English Language Learners "provides coordination of support and communication with administrators and teachers in developing, implementing, monitoring, and evaluating programs."

The job descriptions detailed above provide some guidance into the various roles of district and campus staff in the service delivery for interventions and programs that support teaching and learning; however, no position is assigned ultimate responsibility for the overall implementation and oversight of the intervention program. Notably absent were intervention responsibilities for the Supervisor of Mathematics and the Supervisor of Language Arts/Reading. The Supervisor of Language Arts/Reading is identified in the NHPS Scientifically Researched Based Intervention (SRBI) Literacy Strategies and Interventions Handbook as the SRBI coordinator.

The SRBI Handbook of Literacy Strategies and Interventions describes the SRBI delivery system developed by a district level committee for use in NHPS to improve literacy development and performance. SRBI is a process and systematic approach for addressing the needs of low-performing learners who have not been identified as needing special education with the goal of helping all students achieve grade level proficiency. The SRBI Handbook states, "Schools create and implement general education strategies and interventions and various layers, or 'tiers' of student support in an attempt to help students achieve standards. These interventions use assessment data to identify important learning needs. Then, educators develop related intervention plans. Teachers and support personnel use these intervention plans in the general education classroom with individual students, with flexible small groups, and in support programs." The SRBI Handbook further describes the three-tiered model being implemented in NHPS that includes the general classroom setting as Tier I instruction with research-based best practices and accommodations for all students. Tier II interventions provide supplemental, focused teaching for students not making progress with Tier I practices, and Tier III was designed to provide greater intensity of support for students who have not made sufficient progress with Tier II interventions.

In order to determine the degree to which the school district has designed and implemented a formalized process for selecting, coordinating, implementing, monitoring, and evaluating intervention programs, the auditors reviewed the district improvement plan, all school improvement plans, the academics department improvement plan 2018-2020, the NHPS Transition Report 2018-19, NHPS District Goals Presentation, 2018-2020, school schedules, a list of programs district administrators and teachers say they use based on survey responses, and the NHPS ELA Tier Programming Menu, which contains a list of literacy focused, tiered intervention programs.

The auditors noted that the list of programs provided based on the survey completed by teachers was inconsistent with the principal survey responses and the NHPS ELA Tier Programming Menu. The survey noted 65 intervention programs teachers say they use to support student learning. In some instances, the name of the program varied across the lists. In other circumstances, items identified as programs were actually a strategy or instructional technique. These items were not included in the display.

Exhibit 5.4.1 contains a list of the instructional programs/interventions utilized throughout the district obtained from several documents and the level /tier of the intervention as identified on the ELA Tier Programming Menu.

Exhibit 5.4.1

Intervention Programs Based on Survey Data and ELA Tier Programming Menu
New Haven Public Schools
April 2019

Intervention Program	Description	ELA Tier Programming Menu
A to Z for ESL students	Provides reading, listening, speaking, and writing resources organized in content area topics at varying grade ranges with integrated grammar and vocabulary support for English Language Learners (ELLs).	
Achieve 3000	Computer intervention program focused on developing and strengthening reading comprehension using informational text. (Used in 5 schools)	II and III
Being a Reader Small Group	A beginning reading curriculum designed to help all students learn the foundational skills and strategies required for reading success. It integrates reading instruction with the social skills needed to build a caring classroom community.	
Being a Writer	Resource to support Reader's and Writer's Workshop. (School specific)	I
Big English	Supplemental Leveled Big Books that complement Guided Reading and early intervention programs such as Reading Recovery. Accompanying teacher cards for each title provide comprehension support.	
Building Language Proficiency	An English language development program that builds students' background knowledge around relevant content-area topics and themes with program lessons structured to differentiate for students' language proficiency levels.	
Dolch Sight Words Assessment	The Dolch Sight Words list is the most commonly used set of sight words and comprise 80% of the words you would find in a typical children's book and 50% of the words found in writing for adults. The assessment includes games that serve as Benchmark activities.	
Edmark	The program focuses on vocabulary, comprehension, and fluency, using techniques that are supported by scientifically based reading research. It teaches frequently used words using a highly structured word recognition method and is available in print and online.	
Epic (for kids)	Digital library of books and videos with quizzes and other resources.	
Fundations	Provides students in K-2 classrooms with a systematic program in the foundational skills for reading and spelling, emphasizing phonemic awareness, phonics-word study, high frequency word study, fluency, vocabulary, handwriting, and spelling. (Used in 21 schools; 2 schools use Intervention kit only)	I
Hooked on Phonics	Hooked on Phonics program uses systematic instruction and multisensory materials to help children learn to read building from letters and sounds, then to words and sentences, and ultimately to reading fluency.	
Info Pair Cards	Non-fiction articles designed for explicit, small group guided reading in Grades 1-5. Using short, paired, leveled text, students analyze and synthesize information from two related sources to arrive at a deeper level of comprehension.	
I-Ready	An adaptive diagnostic and instruction program that includes both student online and teacher-led instruction and mobile applications.	
IXL	Online program that allows teachers and learners to create and share customized study materials. The system generates reports that provide data to monitor student progress so teachers can tailor instruction.	
Lexia	Intervention program targeting phonemic awareness and phonics through adaptive software and small group instruction.	II and III
LLI (Leveled Literacy Intervention)	Intensive reading intervention program using small group instruction to target phonics, reading comprehension, vocabulary, and fluency. (Used in most schools)	II and III

Exhibit 5.4.1 (continued)
Intervention Programs Based on Survey Data and ELA Tier Programming Menu
New Haven Public Schools
April 2019

Intervention Program	Description	ELA Tier Programming Menu
Making Meaning	Resources to support Reading and Writing Workshop. (School specific)	I
MobyMax	Online K-8 learning system covering 27 subjects.	
Mondo	Leveled classroom collections of books to support reading instruction.	
MoRRI	Intervention program targeting phonics, letter identification, letter sounds, reading comprehension, fluency, and vocabulary through small group instruction.	II and III
NHPS Units of Study	Resource to support Reader's and Writer's Workshop. (School specific)	I
On our Way to English	An English language development program with a focus on academic language and vocabulary and a daily instructional routine in oral language, reading, and writing.	
Pebble Go	PreK-3 database for reading and research.	
Phast	Research-based remedial program that attempts to capitalize upon current research on reading disabilities and their remediation. The focus is on the primary obstacles to word identification learning and independent decoding that most disabled readers face and the steps necessary to help these children achieve independent reading skills. A framework of phonologically based remediation is used as a foundation upon which a set of flexible and effective word identification strategies is scaffolded in an integrated developmental sequence. (Used in 4 schools)	II and III
Plugged Into Reading	Resource to support reader's workshop (core books, literature circle titles, nonfiction book club titles, and independent reading titles). (All schools)	I
Raz Kids	Online K-5 reading resource to practice reading and improve fluency and literacy skills.	
Read 180	Comprehensive reading intervention program focused on reading comprehension, fluency, vocabulary, and word study through whole and small group instruction as well as adaptive software and independent reading using a combination of literature and informational texts. (Used in 27 Schools)	II and III
Reading A-Z	Reading instruction resource with a collection of leveled reading materials	
Reading Milestones	The program addresses the needs of beginning readers whose reading levels range from kindergarten through fourth grade and contains an interest level appropriate for elementary students. The materials include four-color readers, a teacher's manual, workbooks, spelling books, and a placement test.	
Reading Recovery	Short-term program for 1st graders targeting phonemic awareness, phonics, reading, comprehension, vocabulary, and fluency using 1:1 instruction. (Used in 4 schools)	II and III
Read Theory	Online library of reading comprehension content.	
Reader's Workshop	Workshop model teaching reading strategies with differentiation and guided practice.	I
Readworks	Web-based reading instruction resource library of K-12 leveled articles with curriculum support to improve literacy skills and comprehension.	
Reflex Math	Individualized online game-based math fact fluency practice.	
Rewards Reading Intervention	A short-term and specialized program for adolescent students in grades 4–12 who struggle reading long multisyllabic words and comprehending content area text.	
Scholastic Short Read Cards	The program supports guided reading instruction and provides students with authentic, appropriately leveled short fiction texts in a variety of genres.	

Intervention Program	Description	ELA Tier Programming Menu
Exhibit 5.4.1 (continued) **Intervention Programs Based on Survey Data and ELA Tier Programming Menu** **New Haven Public Schools** **April 2019**		
SLI (Spanish Literacy Intervention)	Intervention program targeting foundational reading skills through small group instruction provided in Spanish.	II and III
Systems 44	Intervention program focused on strengthening phonemic awareness and phonics through whole and small group instruction as well as adaptive computer software. (Used in 8 schools)	II and III
Time for Kids	A current events magazine and digital platform that goes to classrooms all across the United States.	
Wilson Reading Program	Intensive Tier III intervention program addressing word level deficits using a multi-sensory approach for decoding and encoding (spelling) skill development.	II and III
Wordly Wise	Vocabulary resource that provides direct academic vocabulary instruction to develop the critical link between vocabulary and reading comprehension.	
Words Their Way	A developmental spelling, phonics, and vocabulary program. Words Their Way is intended to be a part of a balanced literacy plan that includes fluency, comprehension and writing. Word study is implemented as a small component of the literacy plan but it is also interwoven in actual reading and writing texts. (Used in 7 schools)	I
Wowzers	Online math lessons, games, and assessments grades K-8.	
Writer's Workshop	Workshop model teaching writing strategies with differentiation and guided practice.	I
Other	Small group or one-to-one instruction utilizing scientifically research-based strategies targeting areas based on student data.	II and III
45	**TOTAL COUNT**	**19**

Sources: Intervention programs taken from principal and teacher survey responses, ELA Tier Programming Menu of recommended literacy interventions, District and School Improvement Plans (DIPs and SIPs), SRBI Literacy Strategies and Interventions Handbook, and other documents provided by district administrators.

Based on data from district documents Exhibit 5.4.1 indicates that 45 intervention programs are being implemented in the district to support student achievement. Nineteen of the literacy focused interventions have been reviewed by the ELA department and placed on a menu of scientifically research-based programs from which schools can select an appropriate resource to provide tiered instruction to meet the needs of their students.

Additional observations regarding the data in Exhibit 5.4.1 include:

- Most programs/interventions identified did not provide a description, the programming tier, or the number of schools in the district that are currently implementing it.

- Auditors included program descriptions found on the ELA Tier Programming Menu and from vendor websites.

- Approximately 15 of the programs are web-based, online, or technology programs.

- Some of the programs have embedded assessments and record-keeping components to assist in monitoring student progress.

- Of the 19 programs on the ELA Programming menu, 8 or 42% were identified for Tier I instruction.

- Eleven or 58% of the ELA Programming menu interventions were identified as Tier II and Tier III instruction.

Additionally, teachers were surveyed and asked to respond to the statement, "Individual learning plans and/or intervention plans are developed for underachieving students at this school, as indicated by student assessment data." Of the 431 teachers surveyed, 285 responded with 78% agreeing or strongly agreeing. Twenty-two percent disagreed or strongly disagreed.

The effectiveness of an academic intervention is based on how well the intervention is tailored to individual student learning needs, how quickly the intervention is provided, and how effective the intervention is in meeting students' immediate needs. Academic intervention is a well-designed, deliberate approach focused on helping students develop new skills and knowledge or build fluency in acquired skills.

To determine the adequacy of intervention design in New Haven Public Schools, reviewers selected LLI (Leveled Literacy Intervention) for review to determine if the intervention design was sufficient for improving student performance. Leveled Literacy Intervention was selected because it was noted as an intervention program being used in most schools. Leveled Literacy Intervention (LLI) is an intensive reading intervention program using small group instruction to target phonics, reading comprehension, vocabulary, and fluency. It is designed to supplement, not substitute, Tier I small-group classroom instruction. Lessons are provided daily for 30 minutes with instruction in reading, writing, and phonics/word study. It provides a framework for lessons within which teachers make decisions based on observations of students' needs. It is a short-term intervention of 12 to 20 weeks. The program includes initial and ongoing assessments, progress monitoring, and record-keeping instruments.

Auditors learned from New Haven Public Schools' personnel that although LLI is one of the scientifically research-based intervention programs on the ELA Tier Programming Menu identified by the district, it is selected and purchased by each individual school site if they have the necessary resources. The district has three trained teachers in-house certified by the vendor to provide training to school staff throughout the district implementing the program. Once a school has made provisions to purchase LLI, district certified trainers provide the necessary professional development to the school staff. Instructional coaches provide ongoing support as LLI is implemented at individual school sites. Information was not provided to the auditors on the process used by district staff to select LLI for use in district schools or the initial funding source.

Auditors use seven criteria to determine whether an intervention is designed in such a way that it has a likelihood of successful implementation. For an intervention to receive an adequate design rating, at least five of the seven criteria (more than 70%) must be met fully. Exhibit 5.4.2 lists the criteria and the auditors' rating of the district's intervention approach.

Exhibit 5.4.2

Comparison of LLI (Leveled Literacy Intervention) to Audit Intervention Design Criteria
New Haven Public Schools
April 2019

Intervention Design Audit Criteria	Auditors' Rating	
	Evident	Not Evident
1. The intervention relates to a documented district need—current situation had been assessed, diagnosed, and analysis data collected and considered in the selection of the intervention.		X
2. There is evidence that a problem has been identified from data analyses, several alternatives proposed and examined, and one of the better alternatives to address the problem selected.		X
3. A formal plan with goals and measurable objectives is in place to address the identified problem. Documentation exists to define the purpose of the intervention, why it addresses the system need/problem, and how it will impact student achievement. A plan for design, deployment, and implementation of the intervention is in place.	X	

Exhibit 5.4.2 (continued) Comparison of LLI (Leveled Literacy Intervention) to Audit Intervention Design Criteria New Haven Public Schools April 2019		
Intervention Design Audit Criteria	**Auditors' Rating**	
	Evident	**Not Evident**
4. Evidence exists that a strong deployment approach was designed, including identification of staff proficiencies needed to implement the intervention, appropriate staff development around the proficiencies, and a clear communication plan for appropriate audiences.	X	
5. Human, material, and fiscal resources needed to initiate the intervention (short-term) and to sustain the intervention (long-term) are identified and in place.	Partial*	
6. Formative feedback and summative evaluation criteria are identified and are tied to intervention goals, objectives, and expectations.	Partial*	
7. A plan for monitoring the ongoing deployment and implementation of the intervention is in place and involves appropriate individuals to carry out this plan.	Partial*	
Total	**2**	**5**
Percentage Evident	**29%**	
*Partial ratings are tallied as not evident.		
©2018 CMSi		

Exhibit 5.4.2 shows that the district's design of the Leveled Literacy Intervention as a district intervention did not meet the audit criteria for sound intervention design. The district fully met two of seven criteria for a rating of 29%.

The following was noted regarding the criteria:

Criterion 1: Establishment of need: (Not Evident)

New Haven Public Schools conducted a review of performance data to determine the root cause of low performance in ELA and literacy needs for district students. New Haven Public Schools elected to utilize LLI as an intervention program for Tier II and III instruction, and LLI is listed on the ELA Tier Programming Menu of scientifically research-based programs identified for use in district schools to improve literacy achievement. No evidence was provided to auditors, however, to support the selection of LLI based on data collected, demonstrating the program's ability to address the identified need.

Criterion 2: Selection of alternatives: (Not Evident)

The literacy department has developed a tier programming menu of scientifically research-based intervention programs from which schools in the district can select an appropriate intervention to meet the needs of their students. LLI is one of the Tier II and III interventions on the Tier Programming menu and is reportedly used by most schools. Auditors were not provided evidence documenting the data collection and analysis process used in the selection of LLI or consideration of alternative programs to address the identified need.

Criterion 3: Formal plan for design, deployment, and implementation: (Evident)

The Scientifically Research-Based Intervention (SRBI) Literacy Strategies and Interventions Handbook is a formal guide with detailed procedures for using research-based interventions such as LLI to address student learning needs. It provides a set of steps to follow to diagnose need based on data review, select an appropriate program of intervention which would address each learner's need and identify assessment strategies to use to monitor student progress and adapt instruction as needed. A SRBI plan is developed for each student identified for Tier II instruction with established goals and planned strategies and activities during the intervention period matching student needs with the resource. As described in the SRBI handbook, trained teachers work with students in small groups using the LLI program resources as a supplement to classroom instruction and meets

regularly with and coordinates with the classroom teacher regarding student's progress on targeted goals so there is a seamless transition between classroom (Tier I) instruction and the intervention.

Criterion 4: Staff development and communication: (Evident)

The district has three certified trainers who provide in-house training and professional development to school staff implementing the LLI program. The literacy coach at each school provides ongoing on-site support to staff and assists in monitoring student progress. Additionally, tutorial DVDs and FAQs on the vendor's website are available to support teachers implementing the program.

Criterion 5: Appropriate resources: (Partially Evident)

Although LLI is one of the scientifically research-based interventions recommended to district staff to address student needs and provide supplemental literacy instruction, it is funded by each school based on their available resources. Schools intending to purchase LLI must identify funding to cover the cost within their building budget. The district supports the purchase with training, coaching, ongoing assessment, and data review, but do not supply funding for LLI.

Criterion 6: Feedback and evaluation: (Partially Evident)

Students are administered frequent running records and assessments, which are reviewed weekly to determine progress and adapt instruction as needed. Additionally, SRBI program students also take the same benchmark assessments as all students. Benchmark assessments are administered, analyzed, and reviewed at determined intervals. This formative feedback shows student progress, but does not determine the success of the program. District personnel indicate that summative reports are available at the end of the year and are aligned with student identified goals and Common Core standards. There was no evidence provided of the use of summative data to determine program effectiveness.

Criterion 7: Monitoring: (Partially Evident)

The district reviews assessment reports for each building and classroom to monitor program use. Student data are used by teachers to monitor student progress. The instructional coach provides ongoing support on-site as the program is implemented. While the SRBI Handbook provides general statements regarding roles and responsibility for ongoing monitoring, there is no specific direction or evidence indicating how the monitoring process is implemented across the schools and no evidence of how effective use of LLI is determined.

The approach to intervention design in New Haven Public Schools did not meet audit review criteria. No documentation was provided that identified the use of data to select LLI based on the program's ability to address identified student need. Schools are able to implement LLI if they have the available funding, and no evidence was provided that summative data would determine effectiveness of the LLI program. Based on the current intervention design, the effectiveness of LLI cannot be determined.

School administrators were surveyed and asked to complete the statement, "The overall quality of programs at my campus designed to support students with special learning needs is …." Over 50% (61.54%) rated interventions as good or excellent. Just over 30% (34.62%) of the administrators rated interventions implemented at their school as mediocre. Less than 5% (3.85%) gave the quality of the interventions at their school a rating of "poor."

Auditors then examined the delivery of interventions. Auditors selected the Leveled Literacy Intervention to examine in terms of six specific deployment and implementation criteria. For an intervention to receive an adequate delivery rating, at least five of the six criteria must be met with full evidence. Exhibit 5.4.3 lists the criteria and auditors' rating of the district's approach. A detailed discussion of the ratings follows the exhibit.

Exhibit 5.4.3

Comparison of LLI (Leveled Literacy Intervention) to Intervention Implementation Criteria
New Haven Public Schools
April 2019

Audit Criteria for Intervention Implementation	Auditors' Rating	
	Evident	**Not Evident**
1. A formal plan with goals, measurable objectives, and processes is in place and is being implemented.	X	
2. Implementation of the intervention is both strategic and purposeful. The staff proficiencies needed to implement the intervention are clearly defined. Appropriate staff development based on these proficiencies takes place every year as new personnel are hired and as additional needs are identified. Continued goals for implementing the intervention and frequent progress reports are clearly communicated to all appropriate personnel.	X	
3. The human, material, and fiscal resources needed to initiate and sustain the intervention are identified and allocated.	Partial*	
4. Feedback from formative and summative evaluations that are tied to intervention goals, objectives, and expectations are systematically administered.	Partial*	
5. Monitoring implementation of the intervention is taking place; responsibilities and procedures for monitoring are clearly defined and assigned to the appropriate individuals to carry out this plan.	Partial*	
6. The intervention is being modified and adjusted as needed, based upon monitoring of formative and summative evaluation data, to ensure continued quality control.	Partial*	
Total	**2**	**4**
Percentage Evident	**33%**	
*Partial ratings are tallied as not evident.		
©2018 CMSi		

As can be noted in Exhibit 5.4.3, implementation of LLI as an intervention program met two or 33% of the six criteria for implementation. Therefore, the intervention delivery does not meet audit standard.

Following is a discussion of what the auditors found regarding each of the delivery criteria as it relates to the LLI program:

Criterion 1: Plan implementation (Evident)

The SRBI committee has developed a literacy strategies intervention handbook detailing the process of identification and data review. Once identified, a SRBI plan is prepared for each student with established goals based on his/her areas of need. An intervention program is selected from the ELA Tier Programming Menu list that will address the needs and prescribed goals. Additionally, the SRBI handbook provides recommended strategies, assessments, and procedures detailing how to use the assessment results to adapt instruction as needed.

Criterion 2: Staff development and communication (Evident)

LLI is one of the scientifically research-based intervention programs on the district's ELA Tier Programming Menu provided to school campus staff. The district has three certified in-house trainers who provide professional development to school staff implementing LLI. The literacy coach at the school site provides continued support and follow-up in the implementation of LLI as a Tier II and III intervention.

Criterion 3: Resource adequacy (Partially Evident)

The district literacy department has developed and distributed to school sites a menu of recommended scientifically research-based intervention programs to support literacy instruction. Schools that elect to implement LLI must purchase the program materials if they have the resources. Teachers were surveyed regarding what interventions they use, and LLI was often named.

The Academics Department 2018-2020 improvement plan indicated one of the root causes for low performance in literacy and states," Interventions are not funded by the district for all schools; some schools provide them if they have the resources. Not all high schools provide necessary interventions."

Comments related to resource adequacy included:

- "We need more tutors, and we need more interventions for both reading and math." (School Administrator)

- "Tutors were hired through the magnet grant to support small groups. Leveled Literacy Intervention is used." (School Administrator)

- "There is a need for intervention blocks to accommodate the needs of all students and to give students the opportunity to work with teachers rather than tutors." (Central Office Administrator)

- "School staff identified and trained to implement SRBI at the school site are certified teachers currently on staff, or retired teachers who have been hired to deliver interventions. Volunteer tutors do not do any remediation of students." (Central Office Administrator)

Criterion 4: Assessment data availability (Partially Evident)

LLI is capable of providing district and school administrators and teachers with a significant amount of student performance data aligned with Common Core standards. A *Benchmark Assessment System* (*BAS*) component accompanies LLI and if purchased by the school site can provide data on students' progress and reading level. The LLI instructor uses running records to capture student performance on the goals in their SRBI plan, which is reviewed weekly. Students receiving LLI instruction also take CCSS aligned district benchmark assessments with the rest of their peers and fully participate in Tier I classroom instruction.

Criteria 5: Monitoring (Partially Evident)

In reviewing job descriptions, auditors found no district position clearly assigned the responsibility for monitoring the implementation of LLI. Direct day-to-day supervision is the province of the principal. Campus implementation is supported by the instructional coach, along with classroom teachers. Procedures for monitoring LLI are not clearly defined, other than a brief list of guidelines that do not address specific goals, objectives, or assessment.

The SRBI Literacy Strategies and Intervention Handbook lists the Supervisor of Language Arts/Reading as the SRBI coordinator.

Auditors learned the following in interviews:

- "At the district level, every 6-8 weeks, we monitor student status with interventions looking at overall movement." (Central Office Administrator)

- "As a district we have less ability to monitor the structure of the implementation of interventions in schools due to budget constraints." (Central Office Administrator)

- "Principals work closely with coaches in each of their buildings. Every school has a coach." (Central Office Administrator)

- "Central office staff participate in monthly leadership meetings at school sites with the school leadership team." (Central Office Administrator)

Criteria 6: Program modifications based on data (Partially Evident)

District administrators reported that modifications or changes are permitted in the LLI program based on the needs of the students. Instructors are able to select program components based on student needs and goals. Implementation and modifications to the program are determined by the instructor while engaged with students. Those modifications do not translate into an evaluation of the program to determine effectiveness and what additional if any program accessories are needed to enhance delivery and implementation.

Overall, the deployment and implementation of the LLI program does not meet audit criteria in design and implementation. The New Haven Public Schools Transition Report 2018-19 states, "It is unclear the degree to

which the district has adopted and is consistently implementing an integrated, multi-tiered system of academic and social-emotional supports and interventions to effectively meet the diverse needs of every student."

Teachers were surveyed and asked to complete the statement, "The overall quality of programs (interventions) at my campus designed to support students with special learning needs is… More than 50% responded that the quality of interventions at their school was "good" (39.68%) or "excellent" (12.70%). Almost 26% (25.79%) identified their school's intervention programs as "mediocre," and 17.06% indicated they were "poor." Under 5% (4.76%) indicated intervention programs were not available at their campus. Representative comments from teachers regarding interventions included:

- "Programs purchased by my school like Lexia and I-Ready are used and implemented with fidelity on a daily basis."

- "Interventions are poor because we do not hire actual interventionists."

- "Interventions are rated mediocre because the interventionists are often pulled to cover classes and students miss group time."

Interviews with key stakeholders confirmed the lack of established district processes to determine effective implementation and regular evaluation of selected intervention programs. When asked about the effectiveness of intervention programs and the implementation process, auditors heard the following comments:

- "In all my years in the district, I can remember only discontinuing one program about five years ago." (Central Office Administrator)

- "We conduct utilization reviews mid-year using our computer database to note who is receiving supplemental instruction on top of core." (Central Office Administrator)

- "The SRBI process is overwhelmed with a Tier I instruction issue. We have too many students identified at Tier I intervention." (Central Office Administrator)

- "In the schools where they are moving kids, they have an intervention block." (Central Office Administrator)

- "There is a SRBI District plan with progress monitoring. We need to make decisions about which interventions need to be discontinued." (Central Office Administrator)

- "Math interventions are more consistent than ELA. There is a standard protocol for leveled literacy Instruction." (Central Office Administrator)

- "The place where we struggle is with interventions. Because the district did not purchase Math 180 for everyone, some schools do not have it and have not decided to purchase it." (Teacher)

- "Scheduling tiered interventions is not happening everywhere so that differentiated instruction is happening at every tier in every building." (Central Office Administrator)

Interventions Summary

New Haven Public Schools has a process in place to assist schools in identifying students for targeted instruction to improve student achievement and has also provided general guidance regarding effective literacy strategies, recommended scientifically research-based intervention programs, and assessments to use to continuously monitor student progress during the levels of instruction, to adjust teaching as needed, and to determine suitability of the selected intervention. However, there is no specific, defined, process for monitoring the implementation process at the various school campuses or the effectiveness of the interventions currently being used in the district.

V. RECOMMENDATIONS OF THE CMSI CURRICULUM AUDIT™ TEAM FOR THE IMPROVEMENT OF THE NEW HAVEN PUBLIC SCHOOL

Based on the three streams of data derived from interviews, documents, and site visits, the CMSi Curriculum Audit™ Team has developed a set of recommendations to address its findings shown under each of the standards of the audit.

In the case of the findings, they have been <u>triangulated</u>, i.e., corroborated with one another. In the case of the recommendations, those put forth in this section are representative of the auditors' best professional judgments regarding how to address the problems that surfaced in the audit.

The recommendations are presented in the order of their <u>criticality</u> for initiating system-wide improvements. The recommendations also recognize and differentiate between the policy and monitoring responsibilities of the board of education, and the operational and administrative duties of the superintendent of schools.

Where the CMSi audit team views a problem as wholly or partly a policy and monitoring matter, the recommendations are formulated for the board of education. Where the problem is distinctly an operational or administrative matter, the recommendations are directed to the superintendent of schools as the chief executive officer of the school system. In many cases, the CMSi audit team directs recommendations to <u>both</u> the board and the superintendent, because it is clear that policy and operations are related, and both entities are involved in a proposed change. In some cases, there are no recommendations to the superintendent when only policy is involved or none to the board when the recommendations deal only with administration.

Audit recommendations are presented as follows: The overarching goals for the board and/or the superintendent, followed by the specific objectives to carry out the overarching goals. The latter are designated "Governance Functions" and "Administrative Functions."

Recommendation 1: Establish a clear district vision for effective student learning and engagement and make this vision the focus for all planning and decision making district-wide. Modify planning processes to have specific, focused action steps and clear linkages to budget/resources and aligned professional development to support the realization of the district's instructional vision. Improve processes for evaluation, monitoring, and support for effective implementation of school continuous improvement plans. Develop clear and integrated written plans that meet audit criteria and are communicated to all stakeholders. Establish an organizational structure to inform and direct responsibilities and focus efforts and work across the system; improve communication and clarity of roles and responsibilities through specific, high quality job descriptions and consistent communication protocols.

Effective planning is essential for focusing and organizing district resources to meet changing student needs. Long-range planning provides a systematic means to sustain constancy of purpose as the district works toward achieving its goals. Comprehensive planning increases the probability that effective programs, practices, and facilities will be available to students regardless of demographic, economic, personnel, and other inevitable changes.

The auditors found that New Haven Public Schools demonstrated evidence of planning and plans. At the time of the audit, district leaders had in place a district continuous improvement plan, a variety of department plans, and school plans. However, despite the many planning processes, the auditors found that most plans lacked components to be considered fully adequate and implementation of the plans was ineffective and fragmented. The design of plans would be improved if they had more specific, focused action steps, clear linkages to budget/ resources, more specific procedures for monitoring their implementation, and a clear process for evaluating them. Overall, the district plan did not have specific action steps that were measurable and assigned to specific individuals. School improvement plans did not have systems for their evaluation, nor processes for monitoring their implementation across the schools. Auditors were not presented with comprehensive plans for assessment and program evaluation, professional development, curriculum management, or technology (see <u>Finding 1.3</u>).

The auditors also found that the successful implementation of planning is hindered by a need for clear long-range focus and vision for the system, as well as a functional organizational structure. Strategic planning has

not yet begun and is a needed function to unify the disparate workings of district departments and positions. Roles and responsibilities at the central office are not clear, and communication within and across departments, as well as across the district, is not effective (see Finding 1.4). Hiring and human resource functions are not operating effectively; key positions are missing in the system, and building-level positions are not filled in a timely fashion (see Finding 1.2).

Clarity of administrative role relationships is essential to an organization in the control and management of its tasks and functions. An organizational chart graphically depicts the lines of authority and responsibilities from the school board and superintendent to site principals and classroom teachers responsible for delivering the curriculum. Job descriptions are clearly written summaries of duties and qualifications of persons employed by the school district. A clear set of job descriptions supports the district's internal and external communication by explaining who performs what duties within the organization. The superintendent must see to it that valid and specific job descriptions are provided, and the board must adopt all job descriptions to ensure adherence to board policy and directions. To graphically communicate the responsibilities and functional relationships within a school system, an organizational chart and job descriptions must be present, aligned, current, and accurate.

The auditors concluded that the school district's organizational chart and job descriptions did not meet audit standard to provide clear direction and position control. The NHPS Organizational Chart 2018 did not include any building-based personnel; job titles and job descriptions were missing for several key district positions. The organizational chart does not provide clear delineation of positions beyond top-level district administration; the deputy superintendent subsidiary organizational chart does not align with the current district chart. Existing board policy is weak in specifying each position's responsibility with respect to curriculum design and delivery. Greater structural clarity is needed to define which positions are responsible for developing and revising curriculum, which are assigned to implementing it, and which are responsible for supporting and monitoring its implementation (see Finding 1.2).

The audit team learned that the District Continuous Improvement 2018-2021 plan was designed as a one-year placeholder and that the superintendent was working to initiate a comprehensive strategic planning process in April 2019. (This action was taken into consideration in the recommendations.)

To improve planning and to better support the implementation of plans across the district, several recommended steps are offered for consideration by district leaders. Policy actions and budgeting procedures should be developed within the year, as well as the design and implementation of a new organizational structure. Other actions, such as implementation of a long-range strategic plan, should take place over three to five years.

Governance Functions: The following actions are recommended to the Board of Education for New Haven Public Schools:

G.1.1: Request the administration to draft for board review and adoption a policy that provides overall direction for the planning function and for the development of long- and short-range plans in the school system. It should include the following:

- The purposes, structure, and processes for planning;

- Required plans and their delivery schedules;

- Persons (by position) or bodies responsible for producing plans;

- Requirement that all plans reflect district goals and priorities and that plans for the entire district, the departments, and the schools be integrated with each other, synchronized with the budgeting process, and contain transparent links to specific resources, including personnel and funding; and

- Establishment of a stringent quality control process to ensure that plans conform to state and local requirements.

At a minimum, district policies should require the following plans:

- Long-range or district strategic plan;

- Comprehensive curriculum management plan to provide direction for the design, delivery, and evaluation of the curriculum;

- Professional development plan to improve the delivery of curriculum and evaluation of the professional development approaches and content to determine if student achievement has improved based on those practices;

- Student assessment and program evaluation plan to provide feedback for decision making;

- School comprehensive improvement plans to provide the necessary monitoring and resources for schools so that they may attain their goals;

- English Learner/Bilingual Program, Special Education Program, and Talented and Gifted Program plans, to establish clear expectations and guidelines for providing services to these groups; and a

- Technology plan to ensure effective use of technological resources for the improvement of teaching and learning.

G.1.2: Request the administration to ensure the strategic plan includes the critical characteristics identified in the audit criteria to create a cohesive system and effective template for all other district, department, and school plans. The most critical characteristic of a high-quality strategic plan is a very narrow focus for goals and action steps—less is better. Keeping the focus narrow increases manageability and the likelihood that actions will be carried out, and makes seeing the desired results easier.

G.1.3: Request the administration to establish budgeting procedures that ensure district, school, and departmental planning priorities are reflected in budgeting and spending.

G.1.4: Request the administration to prepare annual written status reports on progress toward the goals of the strategic plan based on levels of student achievement and to use annual evaluation data to review and revise the plan.

G.1.5: Annually review the district's strategic plan as part of the board's annual goal setting process, ensuring the strategic plan is a living document responsive to the changing conditions and needs of the school district.

Administrative Functions: The following actions are recommended to the Superintendent of Schools for New Haven Public Schools:

A.1.1: Assist the board in developing policy language that guides planning functions as outlined in Governance Action **G.1.1**.

A.1.2: Develop administrative regulations for the implementation of a board policy. Specifically address how plan development, implementation, monitoring, and evaluation will be operationalized across departments and campuses in the school district.

A.1.3: Continue to move forward with Strategic Planning, investing in a clear vision for student learning that should be reflective in all New Haven classrooms and schools, regardless of their theme, areas of emphasis, or focus. Develop focused, narrow goals for action that establish a firm basis to realize the vision. Distinguish between specific goals with their supporting actions and philosophical guidelines for the plan. Guidelines are rules for conduct and approach that are rooted in philosophy and beliefs; these should be inherent in every goal and action step taken across the system. These guidelines address matters such as broad stakeholder involvement, strong community relationships, an ethic of student-centered decision making, etc.

Action steps are measurable, concrete steps that are taken by designated personnel or departments, with attached timelines, monitoring procedures, and evaluation. They should be informed by the guidelines, but are measurable independent of those directives. They support the district goals. Utilize the Curriculum Audit™ report in setting priority strategies to achieve focus and to identify management clusters of activities.

Use criteria presented in Finding 1.2 to direct the necessary components of the strategic plan; also consider the following in deciding on its design and components:

- Include in the plan links to budget considerations and resources.

- Include expectations that all other district and school plans align to the strategic plan.

Publicize the final draft of the strategic plan, including preparation of user-friendly summaries for general public information. To enhance the ongoing awareness of the strategies and actions to be undertaken, ensure that the plan contents are regularly addressed in leadership and staff meetings at all levels of the district organization. Assure that progress is widely publicized throughout the community.

A.1.4: Develop comprehensive plans for curriculum management, professional development, student assessment, program evaluation, special needs populations programs, and technology.

A.1.5: Designate in the annual operating budget the resources needed to implement the priorities of the long-range district strategic plan.

A.1.6: To enhance the ongoing awareness of the strategies and actions to be undertaken, ensure that plan contents are regularly addressed in leadership and staff meetings at all levels of the district organization.

A.1.7: Clearly identify the urgent priorities and the various tiers of priorities in communicating the planning results, and establish practices to celebrate progress and promote continued fidelity as the plan is implemented.

A.1.8: Establish a timeline to review the strategic long-range plan annually prior to the review and revision of district, department/program, and school long-range plans to facilitate planning alignment and the coordination of district efforts.

A.1.9: Create a communication plan to share the mission, goals, strategies, action steps, and performance measures of the strategic plan and other plans with the board and staff. Provide user-friendly summaries for parents and community. Leverage the use of the district and school websites and social media tools to communicate transparency on a quarterly basis with updates on the status of goals, strategies, and actions steps.

A.1.10: Assist the board in revision and development of the policies for job description elements and design, and for the design of the organizational chart, and present these proposed draft policies to the board for adoption. Develop administrative regulations and procedures to implement the revised organizational chart. Develop or update job descriptions for all positions depicted on the organizational chart.

A.1.11: Revise the district's organizational structure to better clarify roles and responsibilities and to assure alignment across curriculum design, evaluation, and implementation. The organizational chart that reflects this structure should meet the audit design requirements included in the Principles of Sound Organizational Management, especially focusing on the span of control, chain of command, and full inclusion of essential positions for quality control. A recommended organizational chart is presented in Exhibit R.1.1:

Exhibit R.1.1

Recommended Table of Organization
New Haven Public Schools
April 2019

Recommended Table of Organization
New Haven Public Schools
April 2019

(continued from previous page)

Board of Education

Superintendent (cont. from previous page)

Assistant Superintendent CIA

Director School Choice/ Magnet Programming
- Supervisor of Magnet Programs
  - Magnet Resource Teachers
- • Lottery/ School Choice
  • Welcome Center

Director English Learner & Bilingual
- • Newcomers/ Translation Services
  • Dual Language
  • English Learner Services

Director of Student Support Services
- • SPED
  • College/Career
  • TAG
  • MTSS/SRBi
  • Student Supports (Social and Emotional, Learning, Counseling)
  • Opportunity

Director of Curriculum
- Prof. Dev.
- Supervisors
  • CTE/Dual Enrollment
  • Fine/ Visual Arts
  • World Languages
  • Science K-12
  • Math K-6
  • Math 7-12
  • ELA K-6
  • ELA K-6
  • ELA 7-12
  • Humanities
  • Magnet K-12
  • Pre-K

Director of Assessment
- • Student Assessment
  • Program Evaluation
  • Data Mgmt & Acentblty

Assistant Sup. Instr. Leadership
- Principals
  - Coach
    - Teachers

Assistant Sup. Instr. Leadership
- Principals
  - Coach
    - Teachers

Assistant Sup. Instr. Leadership
- Principals
  - Coach
    - Teachers

A.1.12: Ensure that all organizational chart drafts and adopted documents bear the date of drafting and/or adoption and that the most recent revision replaces earlier versions in document collections and any other communication media.

A.1.13: Annually provide the board with a review of the organizational chart and assurances that all positions noted on organizational charts have corresponding job descriptions that are available, listed, and currently adopted by the board.

A.1.14: Use the criteria in this audit report to redefine duties and responsibilities in job descriptions, especially in instructional management roles. Include the monitoring functions for fidelity in curriculum delivery, alignment of instructional resources to fit economically with the official adopted curriculum, curriculum management and assessment planning, teaching to mastery, and accountability roles.

A.1.15: Create, review, and update job descriptions to comply with audit criteria and to assure that all positions, new or existing, have a corresponding job description. Establish and maintain an up-to-date inventory of these documents, and submit them to the board for adoption.

- Ensure qualifications include education, certification or licensure, experience, and knowledge, skills, and abilities appropriate to the position.

- Ensure that immediate links to chain of command elements are updated to match the revised table of organization; include both the title of the supervisor and the titles of subordinates.

- Assure that all functions, duties, and responsibilities are complete and appropriate to the position.

- Include statements supporting each position's relationship to the curriculum as relevant. Include clear, complete statements of curricular linkages for positions with responsibilities closely associated with the curriculum and instructional program.

- Review and revise administrative regulations so the duties of any new positions and the revised duties of existing positions are clarified.

- Assure that these responsibilities and duties align with the curriculum management plan, student and program assessment plan, professional development plan, and program plans.

A.1.16: Review with and disseminate to administrative staff the revised and improved job descriptions and revised organizational chart to ensure consistent adherence to the chain of command and clarification of duties and responsibilities for accountability of end results.

A.1.17: Immediately establish expectations concerning hiring, supervision/evaluation, and termination of all positions in the district. Give particular attention to the process surrounding the hiring of teachers at any time of year. Include in these expectations criteria concerning teacher qualifications when the position is at a magnet school to connect teacher expertise and interest with magnet programming.

A.1.18: With regard to personnel evaluation and human resource management, make the following revisions:

a. Explicitly link the management of personnel with professional development planning and initiatives.

b. Revisit the implementation of the TEVAL instrument with teachers, training principals in its accurate implementation so that evaluations are not inflated. Be explicit in tying TEVAL appraisal with required professional development offerings.

c. Assure that non-certified personnel have an evaluation process, as well. Train supervisors in its implementation.

Assure that all human resource management practices align with and support the strategic plan and other district department and program plans. The key focus is on hiring early, hiring the best, and keeping the best.

Summary

The District Strategic Plan provides a starting point and unifying focus for defining the district's mission and vision and for assuring the future realization of that mission and vision. The strategic plan plays a critical role,

as well, in assuring that other plans across the system are aligned in content and focus with the overarching district goals, and in effecting change district-wide. Improving student achievement in New Haven Public Schools is both a mandate and attainable goal; there is no doubt that the district has the resources and will in the community and schools to do it. A culture of collaboration and focus that relies on the diversity of the community, the benefit of multiple perspectives, and the many supporting partners will move the district forward in attaining its vision.

The board and administration are responsible for maintaining rational focus for the district and authorizing and initiating only those programs or projects that are directly related to the district's vision, mission, and strategic goals. Maintaining consistency of purpose across the district, departments, and schools is critical to attaining higher levels of academic achievement for all students. The coordination and consolidation of all planning efforts will result in a unified district direction.

Recommendation 2: Develop and implement a comprehensive curriculum management system. Redesign and direct curriculum revision to ensure curriculum documents are of the highest quality and support instruction and student learning. Deeply align current district-developed assessments to the Common Core State Standards. Define and communicate expectations concerning an instructional planning model as well as a Framework for Strategies that clarifies expectations for curriculum delivery. Connect monitoring and professional development to these expectations.

The written curriculum is the school system's way of guiding and directing classroom instruction. A quality curriculum is based on the principle that the written, taught, and tested curricula are aligned and, ideally, deeply aligned. The first step in assuring alignment begins with a quality written curriculum guide that specifies what content is to be taught and suggests the best ways (contexts) to approach that content and to demonstrate mastery of it, as well as the desired cognitive type of student engagement. To be truly effective, not only must curriculum elements be aligned in content, but in context and cognitive type, as well. Context refers to the way in which something is learned or practiced. It can refer to the way teachers present material, as well as to the ways in which students practice or demonstrate it. The cognitive type refers to the type of cognitive functioning children engage in when performing a task or practicing a skill. This alignment is provided in a document, in either print or electronic format, and clearly provides guidance on prerequisite skills and describes classroom strategies for teaching. A quality guide also suggests a variety of rigorous, aligned resources and materials that support instructional goals. Such a goal provides a range of formative, diagnostic assessments, tools for pre-/post-testing, benchmark assessments, and sample test items, so teachers are able to evaluate when students have mastered the intended objectives and can demonstrate that mastery. All this is specified in the curriculum offered to teachers, so they know these are tools and resources that align with the tests in use.

In order to ensure consistency in the design and in the development of high-quality curriculum guides, district leadership must describe the expectations in a well-laid-out plan. A clearly written plan is part of a strong curriculum management system. The plan directs the stages of development and review and assigns responsibility for design and delivery to district and school staff members. The plan provides processes for curriculum development, adoption, implementation, monitoring, evaluation, and revision for all courses of study. A comprehensive curriculum management plan provides for system accountability and quality control.

Currently, the curriculum management system is not adequately defined in the New Haven Public Schools. There is no clear plan for curriculum design and delivery. Some components of curriculum management planning exist in board policies, job descriptions, and district plans, but a comprehensive written curriculum management plan does not provide an overall structure to guide the development of quality curriculum (see Finding 2.1). The scope of the K-8 curriculum is adequate, but numerous courses and subjects in grades 9-12 are not supported by board-adopted curricula (see Finding 2.2). In addition, the quality of the documents that do exist is not adequate to provide teachers with the foundational guidance needed to ensure student access to the district's intended curriculum. In general, the reading program design does not provide teachers with enough information for effective reading instruction (see Finding 2.3). Further analysis indicates that the internal consistency of district assessments and resource items with the Common Core State Standards and the *Smarter Balanced Assessment*

are inconsistent and limit the ability of teachers and administrators to accurately monitor student achievement (see Finding 2.4).

The auditors recommend the following steps to address the inadequacies in the system for managing curriculum across the district. These steps will help district leaders prioritize the work that needs to be done and focus all involved personnel on common goals, resulting in the improvement of student learning and performance. The recommended steps are organized into the following sections:

I. Curriculum Management Planning

II. Curriculum Design and Development

I. Curriculum Management Planning

The district needs a cohesive and comprehensive plan that directs the management of a quality, deeply aligned curriculum and its effective implementation in every classroom. Such management includes monitoring delivery to maintain equity and the district's philosophical and instructional priorities; and evaluating effectiveness, using the deeply aligned formative, progress monitoring, and diagnostic assessment tools. The plan should be developed in congruence with the Strategic Plan. It must also integrate and coordinate professional development across the schools, specify and support identified methods (and purposes) for monitoring curriculum delivery, and reinforce the model for instructional delivery. These processes and procedures must be formalized and institutionalized in policy to facilitate orientation of new staff and ensure smooth transitions in the event of staff turnover.

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education for immediate consideration in refining curriculum management planning:

G.2.1: Request the administration to draft a curriculum management planning policy for board review, revision, and adoption that provides direction for the development, implementation, monitoring, and evaluation of curriculum. Require regular reporting to the board on curriculum effectiveness, and include the following:

- A requirement for the alignment of the written, taught, and tested curriculum.

- A requirement that all courses offered at every grade level, beginning with core content area courses, be supported by quality written curriculum, including:

    ○ The expectation of K-12 articulation of learning goals and objectives;

    ○ A consistent format for the design of quality curriculum guiding documents; and

    ○ A process for the integration of technology with the design and delivery of curriculum.

- A requirement for differentiation and program integration and alignment in the written curriculum.

- A requirement of equitable curriculum access and delivery to all students.

- A requirement that all courses offered at every grade level, beginning with core content area courses, be assessed by the district for student learning.

- A requirement for a curriculum management plan that includes procedures for the design and delivery of the curriculum, a periodic review of the curriculum, professional development needs, timelines, responsibilities, monitoring, evaluation, and budgeting.

- A requirement of accountability for the design and delivery of the adopted curriculum through roles and responsibilities in current job descriptions.

- Formal board adoption of all curricula prior to implementation.

G.2.2: Request that the administration enforce the requirement of a written, board-adopted curriculum for all subjects and courses taught, starting with core courses/subjects and expanding to non-core courses/subjects.

G.2.3: Request the administration to establish systematic procedures requiring central office staff members to monitor curriculum implementation in schools.

G.2.4: Require school-level planning be linked to the implementation of the district's curriculum management plan and district goals.

G.2.5: Establish through policy that curriculum and assessment are system-wide decisions, and the delivery of the curriculum is a site-based decision.

Administrative Functions: The following actions concerning curriculum management planning are recommended for completion within the next six months by the New Haven Public Schools Superintendent:

A.2.1: Assist the board of education in developing policies that define the roles of the board, district administrators, and teachers regarding curriculum. For example, the board is primarily responsible for adopting curriculum; administrators are responsible for attending to its development, evaluation, and revision, as well as for overseeing and supporting its implementation; teachers are responsible for delivering the adopted curriculum and sometimes assisting in the writing or reviewing of the curriculum, with support from school personnel, outside consultants, or district administrators.

A.2.2: Develop a curriculum management plan for directing the design, delivery, monitoring, evaluation, and revision of curriculum. The plan should address the following areas (see also Exhibit 2.1.3):

1. **A philosophical framework for the design of the curriculum:** What are the underlying beliefs of district leadership regarding how children best learn, what constitutes effective teaching, what is the teacher's role, what is the student's role, and what is a district's role in making available or ensuring a student's education? Is education a process, a goal, or both? Defining the beliefs and philosophy establishes the foundation for what curriculum should look like, grounded in what the district believes to be highest quality instruction; what the district's and schools' respective roles are in providing each child with an education; and what a picture of an effective, engaging, culturally responsive classroom looks like. Defining the philosophical framework must take place before training teachers in the instructional strategies and in the model for planning. All curriculum work, in both design and delivery, must focus on and reflect that same district vision and philosophy. See Finding 2.1 for direction regarding the current sources across the district that suggest guiding philosophies and direction for instruction. Define the district's overarching vision for an effective New Haven classroom; curriculum development and revision should focus on supporting that target vision.

2. **How state and national standards will be considered in the curriculum:** Decide whether to use a backloaded approach in which the curriculum is derived from high-stakes tested learnings (topological and/or deep alignment), and/or a frontloaded approach, which derives the curriculum from the state test (but in a refined, more specific format). Of critical importance is the emphasis on condensing, revising, and streamlining the standards for feasibility and clarity of focus.

3. **Stages of curriculum development**: Specify the different stages for developing and revising the curriculum. These might include: backloading and released item analysis; review for alignment with external/target assessments in all three dimensions (content, context, cognition); assessing the complexity, rigor, and measurability of objectives; placing objectives in an articulated, Pre-K-12 sequence that expects mastery of content six to nine months before it is encountered on the state test or other high stakes tests; developing mastery-level projects and activities with accompanying rubrics; validating the existing objectives, materials, and resources against multiple external sources, such as Common Core State Standards (CCSS), AP standards, etc., or for rigor, cultural proficiency/inclusivity, technology integration, and student-centered, active learning; and creating a bank of high quality assessment items and formative/progress monitoring assessment instruments to support differentiated, individualized instruction. See **A.2.6** and **A.2.9** for more specific suggestions and information. The stages defined in the plan must particularly address the way student achievement data, teacher input, and monitoring data are used to evaluate the quality of the written curriculum. Revise the curriculum accordingly.

4. **Staff roles and responsibilities for curriculum development**: Who is responsible for what task? This aspect of the plan delineates which tasks are housed where and at what level, which are classroom-

based, which are school-based, which are department-based, and which are board-based. For example, it is the board's responsibility to determine the content of the educational program, in congruence with state law, and to approve and adopt the written curriculum. It is the teacher's role to deliver the curriculum, the principal's to monitor, instructional coach's and principal's role to support teachers in delivering the curriculum, etc.

Monitoring of classroom activities should be the primary responsibility of the principals, with support from other designated positions (such as instructional coaches), to identify and promote productive practices that support learning, correct or eliminate practices that do not, identify weaknesses or gaps in the written curriculum, and determine professional development needs. Clarify how monitoring and curriculum support responsibilities of any school-based personnel complement one another to prevent duplication of effort or possible conflicts in carrying out these supportive responsibilities. Teachers require latitude in making decisions regarding how and even to some extent when (for differentiation) to deliver instruction but should be expected to teach the appropriate objectives.

5. **Format and components of all curriculum, assessments, and instructional guide documents:** For consistency in every content area, specify the components to be included in the curriculum that are nonnegotiable and the other aspects that are "fluid" (flexible by content area or grade span). The curriculum should include the criteria presented in Exhibit 2.3.1 in addition to supporting assessments and tools to enable differentiation and implementation of the district's instructional planning model and Framework for Strategies in the classroom.

6. **Every content area a focused set of precise student objectives/student expectations and standards**: Objectives should be derived from the Common Core State Standards and represent refinements of the standards; be reasonable in number (condensed and prioritized) so the student has adequate time to master the content and practice it in authentic, rigorous contexts; be very specific so teachers clearly understand what mastery of these objectives looks like and what the standard of performance is; and be measurable (written in measurable terms).

Not all objectives require similar time or attention; each unit should have the mastery-level objectives identified, along with supporting objectives and prerequisite objectives. The written curriculum should not only specify the content of the student objectives, but also include multiple contexts and suggestions for activities and approaches that engage students in critical thinking, culturally responsive (and personally relevant) activities, and analytical cognitive types (suggested but not mandated, unless it is an assessment).

7. **Direction that curriculum documents not only specify the content of the student objectives/ student expectations, but also include multiple contexts and cognitive types:** Specify how content objectives are to be performed, including environmental conditions, such as computer based or paper/pencil, and nature of student tasks, such as meaningful writing in all content areas or real-life applications. The curriculum documents should explicitly describe how the most demanding levels of cognition are achieved for mastery-level objectives, and then support these with the end-route or supporting objectives.

8. **Design of curriculum to support differentiation and other expectations for delivery:** Curriculum guides should be revised so that they explicitly support in an integrated fashion district expectations for student use of technology and cognitive rigor. The curriculum should include vertical alignment of the district refined learning targets to support teachers' ability to select student learning targets at the right level of difficulty and to pre-teach and reteach as needed. This ensures that those students who need prerequisite concepts, knowledge, and skills are moved ahead at an accelerated pace, so they don't fall further behind, and that students who have already mastered the objectives are also moved ahead at a challenging pace.

Whole group, one-size-fits-all approaches, and reliance on test-like contexts (multiple-choice, low-level tasks) cannot meet most students' academic needs. District curriculum leaders must define what true academic differentiation and rigor look like and how teachers can manage so many different skill

levels and varying content knowledge in the classroom without holding certain students back or leaving other students behind. Such differentiation also requires a balance in pacing; certain skills are expected to be mastered at the end of a unit, but flexibility should be allowed within the unit that so when students don't master a specific skill or concept, there is time to reteach or provide more practice activities. This is critical to meeting the needs of a district with a diverse student population and varied demographics and must be supported by the design of the curriculum and all district documents that describe expectations for delivery (see Recommendation 5).

9. **Timing, scope, and procedures for a periodic cycle of curriculum and resource review/ development:** Ensure that every content area is addressed and has a written curriculum guide that facilitates effective, rigorous instruction. Direct that curriculum is kept up-to-date, particularly with changes in state standards or requirements, as well as testing modifications or changes. Such a cycle should also establish the timeline for reviewing the alignment, quality, and rigor of adopted resources and materials, and direct their revision or replacement where and when they are inadequate. ALL resources that are referenced by the curriculum should be screened for rigor, availability to all schools, cultural relevance, appropriateness, alignment to district expectations for instruction, and student engagement.

Weaknesses and gaps should be identified and supplements included. Note that while resources and materials are loosely held, these should still be suggested to teachers to assist them in their instructional planning. Resources should also be fully aligned, thus eliminating an overabundance of unaligned or partially aligned materials that may not meet the needs of individual students. A focus on authentic, relevant, and engaging texts in ELA is essential to supporting reading. Teachers must have access to a wide variety of levels and titles—quantity is every bit as important as quality when it comes to having enough books to teach reading.

10. **Assessment beliefs and procedures to determine curriculum effectiveness:** Specifies the overall beliefs and procedures governing the assessment of curriculum effectiveness. This includes curriculum-based diagnostic assessments and rubrics (as needed). Such assessments direct instructional decisions regarding student progress in mastering prerequisite concepts, skills, knowledge, and long-term mastery of the learning. What are all the instruments that will be used to measure progress toward meeting goals, including the goal of students mastering curriculum objectives? How will the data be used, who will use it, how will it be collected, analyzed, and disseminated to teachers, administrators, and concerned stakeholders? There must be an expectation for formative assessments included in the curriculum documents that teachers can use whenever needed to evaluate student progress in mastering learning targets (or to determine whether they already know the content about to be taught). Specific expectations for the administration of performance tasks need to be defined in the curriculum. When should they be administered? Which ones are mandatory? How do they align with the content objectives?

11. **Procedures teachers and administrators will follow in using assessment data to strengthen written curriculum and instructional decision making** (see Recommendation 6).

12. **Procedures for conducting formative and summative evaluations of programs and their corresponding curriculum content** (see Recommendation 6).

13. **Staff development program linked to curriculum design and delivery:** Professional development that trains teachers in the curriculum, its design, and how to deliver the curriculum in accordance with the board's performance expectations is critical. This includes support in the classroom to ensure that training and curriculum materials are properly used. See the professional development section in Recommendation 4 for more detailed information.

14. **Monitoring (and supporting) the delivery of curriculum:** Delineate the procedures, philosophy, and intent for supporting and monitoring the delivery of curriculum. Outline how instructional coaches will work in concert with principals and academic content supervisors to support effective delivery of the curriculum (see section IV. Curriculum Monitoring).

15. **Communication plan:** Establish a plan for communicating among and across departments regarding the process, goals, and products/measurables associated with curriculum design and delivery (which also includes professional development and assessment) to maintain constancy of effort, focus, and continuity.

A.2.3: Make periodic reports to the board of education regarding the progress in managing curriculum district-wide, using data from formative and summative assessments, as well as from monitoring practices. The importance of quality, deeply-aligned written curriculum that raises expectations for student performance and supports those expectations with critical resources for teachers cannot be overstated. Curriculum is a key component in ensuring better teaching and higher achievement. Planning for its development, implementation, and revision is essential for impact on student learning in every classroom.

II. Curriculum Design and Development

Administrative Functions: The following actions are recommended for completion within the next two to four years by the New Haven Public Schools Superintendent:

A.2.4: Require that efforts to revise and refine the written curriculum begin immediately.

A.2.5: Assist the board of education in developing policy that specifies what aspects of curriculum design are considered non-negotiable, such as the minimum components and any aspects for the format and structure of the curriculum (includes suggestions for activities that support student-centered, differentiated instruction, integrates expectations for language and vocabulary development, etc.). Require the curriculum to reflect the principles and concepts of Deep Alignment (see Finding 2.4) and cognitive rigor for all students.

A.2.6: Define what all curriculum needs to be considered a "model" curriculum. The curriculum has many components, but these are not all internally consistent nor specific enough for high quality. Examine the weaknesses in the components identified in Finding 2.3. The following components should be minimum requirements for every curriculum guide:

1. **Objectives (tightly-held)**: Learning objectives should be "refinements" of the CCSS: a specific restatement of the intended skill or knowledge to be learned that is measurable, and at the mastery level, connected to the contexts in which it is to be learned and demonstrated. They should include the standard of performance by which a teacher knows mastery of that skill or knowledge has been achieved.

   The refined learning objectives in the vertical alignment (where ALL levels are displayed) should link back to specific student expectations in the CCSS, but these specific learning targets give the teacher more precise information of what mastery looks like and clearly define which learning targets are assigned to which grade or instructional level (so the first grade learnings are clearly different from the second, and so on).

   Within discrete units, the learning objectives included must be presented with priority designated. This allows teachers to know which skills, concepts, and knowledge within that chunk of time (unit, etc.) are the most critical and which will be assessed. This makes the curriculum manageable for teachers. It is better to focus on fewer learnings and address them more "deeply" than including an entire battery of learning objectives that teachers "might" touch on or cover.

   Review all learning objectives for evidence of rigor (see Bloom's Taxonomy in Exhibit 2.4.1); assure that all suggested assessment activities support the highest level of rigor.

   Giving teachers a clear continuum of student learning from Pre-K-12 (i.e., a vertical alignment chart) allows them to move students who are already ahead at a more appropriate pace (beyond their grade level), because they know exactly what is next, just as they know what students have mastered when they come into their classroom. It also informs them of possible gaps in a student's learning, so they can access the curriculum materials for that skill at the prior grade level.

2. **Assessment (tightly-held):** Performance Tasks are a strength in the curriculum, but these must be tightly held and linked to specific, discrete skills and objectives. Review these assessments for authenticity, cognitive demand, and frequency, assuring that there are adequate measures in every unit for evaluating student progress. Results from periodic unit assessments should be collected throughout the year (once or twice per content area per grade level) for monitoring. Others should be collected at the school level, all under the expectation that teachers are reviewing the results to inform instruction. Develop high quality, clear, and specific rubrics to evaluate these measures, and also allow some differentiation of test items in the types of products students can submit, when and where possible. The more choice built into the assessments, the easier it is to implement them across the diverse schools and magnet programs that exist in the district. Random samples of all the assessments administered district-wide should be collected periodically by coaches to submit to the central office and reviewed for validity and reliability in scoring (applying the rubrics), as well as to see how well students are performing on them. See also **A.2.9** for more suggestions on formative measures in the curriculum.

   End-of-unit performance assessments that provide students with opportunities to engage in cognitively demanding tasks will deepen students' understanding of the given content. Relying on released test items or commercially produced assessments or unit/chapter tests is insufficient; the sample items to be included should be items based on deconstructed, released test items that have been altered and "deepened" to provide students with an adequate challenge level, ensuring their success on a multitude of test items related to the same content (*Deep Curriculum Alignment*).

3. **Prerequisites/Scope and Sequence:** Place the mastery-level objectives and learning targets, with supporting or end-route objectives (Pre-K-12), within a scope and sequence document (see Appendix E) to allow teachers to easily discern what content and skills students come in with, and what content and skills they are responsible for seeing students leave with. Such a document helps distribute accountability and eliminates gaps and overlaps in student learning—an important factor in an educational environment that must make the most of the time allowed with students. This will also facilitate greater articulation of the curriculum from one level to the next and assure greater coordination across a single level or course, as the mapping out of objectives is already completed, and any "misinterpretation" of the nonspecific state standards/student expectations is avoided.

4. **Resources and Materials (loosely-held, but suggested):** Every book, recommended professional resource, audiovisual aid, technological enhancement or program, and other resource should be linked (after ensuring teachers have all that are necessary) to a specific objective or lesson within a unit. Currently, there is a heavy reliance on resources in math and inconsistent access to resources in ELA and science.

5. **Strategies and Approaches (loosely-held, but suggested):** This is a critical part of achieving deep alignment and providing teachers, particularly inexperienced teachers, with support in selecting effective ways to teach the assigned objectives. Flexibility is always allowed in how teachers approach a given learning objective, but this component provides teachers with invaluable, research-proven suggestions if they want or need them. Although scripted lessons discourage differentiation, providing models for effective approaches is helpful, and giving suggestions for strategies and modeling ideas is critical. These suggestions give direction and suggest a sequence of learning to teachers, but are not intended to serve as lesson plans. Lesson planning is a teacher responsibility and should correspond to student needs.

   Providing additional suggestions for the structure of an instructional period (such as a literacy block) and for the way a classroom should be set up is another critical piece of support for inexperienced teachers (see Finding 2.3). Such structures should be provided for all content areas and for specific grade spans, as differences would be expected (see also **A.2.11**). A focus with suggested strategies and approaches is in how the teacher is modeling and scaffolding learning, as with the gradual release of responsibility model. These suggestions should also be aimed at differentiating for special populations in an integrated, everyday fashion. Differentiation should always be central, not an add-on.

6. **Student Activities and Assignments (loosely-held, but suggested):** These can be added over time, but the purpose of including suggested student activities is to provide teachers with an idea of what high quality, rigorous, culturally-responsive, and student-centered engagement looks like—independent practice, without teacher support. These can also serve as authentic assessments when provided with a specific rubric or checklist (as with the performance assessments).

   Other components for the curriculum are many and varied. With diverse populations, having academic vocabulary, essential questions, tips from "master teachers," and other suggestions are key to promoting effective instruction. These components are considered minimal; they are not to be exclusive of other components. Determine which components are required for ALL curriculum guides and which may be flexible, according to the content area/grade span. Not all grade levels require the same components. See **A.2.7** for additional input regarding formats.

A.2.7: Curriculum Format: Decide on a common format for all district curriculum that encompasses all the components (see **A.2.6** for guidelines regarding components). The degree of variation in curriculum documents from subject to subject is up to district leaders. However, the more similar the format, the more usable it is for teachers (particularly elementary teachers who teach more than one subject, or the secondary teacher with multiple preparations within the same subject area).

Continue using a unit-based format that allows for controlled pacing at the macro level (for the unit, semester, or year), but flexible pacing at the micro level (daily or even within a unit—typically 6-8 weeks). Units offer teachers a framework for teaching and a suggested sequence. Focus on a minimal number of high-level skills with each unit, rather than a multitude of standards. Minimally, the curriculum should include the following components (some are already in place, others are not):

1. **Introductory material**

   Introductory material can consist of any information deemed necessary to teachers in delivering the written curriculum. This includes any suggestions for the classroom routines, instructional block, how to use the guide, adhering to the vision for quality teaching and learning (both district-level and content-area-specific), etc.

2. **Units** (provides the structure for the curriculum; defines the format for the key components, as described in **A.2.6**):

   • Within each unit, define the structure or chunks of time within it. There may be one or two levels below the unit level, depending on the length of the unit and the content itself. For example, in ELA, there may be an eight-week unit that is broken down into three subunits of two to three weeks each. Each subunit may then be broken down into a three to eight day module.

   These subdivisions suggest a possible sequence of instruction to the teacher, while maintaining conceptual connections at the subunit and unit levels. Modules (or learning experiences, terminology to be decided) can be a varying number of days, but 5 or 6 on average (or even 3-10, depending on the course, grade level, and content). These modules suggest a teaching sequence and high-quality student activities <u>without</u> scripting daily lesson plans (which is the teacher's responsibility to develop, based on student need). In K-5 ELA, these are the weekly overviews. Similar subdivisions should be developed for all content areas; they do not always need to be a week at a time; in high school, such chunks might be as much as two weeks. These subdivision of the units (subunits, modules) are intended to suggest how the content is sequenced in smaller chunks from the unit level, without scripting at a daily level.

   • Develop and assign performance-based assessments (the "performance tasks") to be administered as the summative assessment for every unit. Develop high-quality rubrics for evaluating students' performance; train teachers and principals in their application and in the use of the data to improve student performance and instructional planning (see also <u>Recommendation 6</u>).

- Suggest aligned, rigorous, and relevant (authentic and culturally responsive) resources and materials for teacher use with every unit and module within each unit. Modify resources as necessary. Ensure that <u>all</u> teachers have all the recommended resources.

- Provide model lessons and approaches within the units, particularly for certain instructional components that will be included (such as shared reading in the lower elementary grades). These models are not intended to be prescriptive; rather, they are intended to serve as an example of how to approach a specific instructional component (such as how to conduct a guided reading lesson, which can't be scripted, but can be modeled). These are models; they provide teachers with a picture of how such a lesson is ideally carried out.

  Suggested approaches and strategies are intended to recommend to teachers how to model the learning or how to lead guided practice in concert with the gradual release of responsibility model. These suggestions align with the "I do, we do" aspects of the model.

- Suggest student activities and projects within the units; such activities may be individual or collaborative, but they are intended to be independent, with minimal teacher support/guidance. These suggestions align with the "you do" aspect of the gradual release of responsibility model. Suggested activities should have elements of choice built in to support differentiation of process and/or product. They should also encourage student reflection and personal engagement, as well as integration of multidisciplinary content and concepts. As often as possible, they should incorporate real-world scenarios for authentic, engaging learning.

3. **Curriculum Overview** (Year-at-a-Glance chart)

   The Curriculum Overview allows teachers and administrators to see the units of the entire year or course in a single document. This helps teachers see the vertical spiraling within a grade level or course, and also can incorporate hyperlinks, so teachers can "dive into" the curriculum at any point in the year—a helpful tool when they need resources or materials from other grade levels or from other units (when accelerating a student or scaffolding for a specific lesson). See <u>Appendix F</u> for a sample Curriculum Overview.

4. **Scope and Sequence Chart** (<u>Appendix E</u>)

   Giving teachers a clear <u>continuum</u> of student learning (a scope and sequence chart, organized by units within the grade levels/courses and then by grade level and course) from preschool through grade 12 allows them to move students ahead at an appropriate pace if the student is on-level; or to accelerate them if they are behind. This is easier when the teacher knows exactly where a student is on the continuum of learning and knows what content is next in the sequence. A scope and sequence chart also helps a teacher easily determine what students have mastered when they come into their classroom (particularly important for a district with high mobility and changing demographics).

   The scope and sequence chart also organizes the objectives by priority and suggests their sequence. Mastery-level objectives are presented for each unit with the supporting or process objectives underneath.

A.2.8: Review the concepts and principles of deep alignment; review all curriculum components for the integration of context and cognitive demand. Content is typically derived from state standards with local augmentation; cognition refers to the type of cognitive processes students engage in when learning content; and context refers to the way learning is experienced, e.g., write, model x based on y, represent, etc. Specificity regarding context and cognitive demand is an essential part of an effective guide. These two dimensions, along with content, give teachers insight as to what real mastery looks like.

Example: Students will order and compare *(cognition)* whole numbers to 1,000 by using the symbols <, >, = *(content)* in written form given sets of numbers in mixed sequence from 1 to 1,000 *(context)*.

This information is critical in supporting student success on the *Smarter Balanced* assessment and on the *SAT*; the *Smarter Balanced* assessment is a test that heavily relies on reading comprehension and writing in an electronic format. Preparing students for these contexts is critical to assuring their success.

A.2.9: Link, embed, and/or reference formative assessments (diagnostic, progress monitoring, pre/post-tests) within each curriculum guide. For each assessment instrument, specify when it is appropriate/ desirable to be used, its main purpose, and how to use the data it yields. For performance-based measures (projects, essays, etc.), include specific rubrics with exemplars that teachers can use to quantify students' learning. Identify those assessments for which the data will be entered electronically and monitored at the system and/or building level. Determine which assessments are mandatory and which assessments are open for teacher selection, but ALL should be rigorous, address the content described in the Common Core State Standards, and incorporate a wide variety of contexts—not just multiple choice. Emphasis should be given to assessments that engage students in writing and demand evidence of thinking.

Certain assessments must provide teachers with specific data on what skills, concepts, and knowledge students have mastered, as well as where there may be gaps, so that instructional decisions may be made that target those deficiencies and ensure teaching is never redundant. The assessments should be concise and yield the needed information in a very brief span of time–a few days, at the most. Ideally, all assessments could be quickly scored at each school, so teachers receive the data immediately and can adjust instruction accordingly. A battery of assessments will allow teachers to monitor every individual student's progress toward mastering the intended curriculum, so each student's performance on the state tests will not be a surprise or guessing game.

A.2.10: Establish a process to ensure that all texts, instructional materials, and ancillary resources for all courses that are suggested through the curriculum guides and provided to teachers by district personnel, including interventions and adopted programs, are screened for quality, rigor, cultural responsiveness, and alignment (in all three dimensions) to the curriculum and with district expectations prior to presenting to the board for adoption.

A.2.11: Establish a structure for the implementation of effective reading programs based on researched recommendations (see Finding 2.3 and Appendix G). Provide teachers with professional development, and monitor implementation (see Recommendation 4). Components should include:

1. **A clearly defined Literacy Block** with recommended time allotments and models for the literacy components of phonemic awareness, phonics, vocabulary, fluency/expression, and comprehension. It should cover how these components are to be delivered in conjunction with the district curriculum, and how the components of the literacy block support flexible student groupings, such as small group instruction.

2. **A continued use of authentic reading materials.**

3. **A continued emphasis on the gradual release of responsibility model** that moves students from most dependent to most independent and includes read-alouds, shared reading, guided reading, and independent reading time, as well as corresponding writing components, such as shared writing and independent writing.

4. **A direction for the use of student data** to assess miscues, comprehension, lexile levels, and vocabulary acquisition. Data should also be used to determine how to group students for targeted instruction (small-group, pair, or individual).

5. **Guidance to help teachers understand the defined sequence of skills** with a clearly defined sequence of phonics, language and mechanics, and vocabulary building skills K-6 (or beyond) with identified resources for teaching the sequence.

6. **Guidance for providing students with high-quality, on-level text** and directions for the use of classroom structures such as literature circles, thematic studies of multiple genres, and independent reading that allows students to continue practicing literacy skills.

7. **Guidance for the integration of other content area skills and concepts** to build on the concepts, knowledge, and skills taught in other content areas to reinforce cross-content knowledge and increase students' familiarity with a wide range of texts from various time periods.

A.2.12: Set clear expectations for the percentage of time teachers should be reaching the upper levels of SAMR while using instructional technology tools. Provide professional development (see Recommendation 4) on how to reach the upper levels with examples in each content level and grade level span. Monitor technology implementation through administrative classroom observations to measure instructional expectations against delivery.

A.2.13: Prepare for curriculum implementation. Ensure that the guides contain specific information concerning how they are to be used and that they convey the district vision for what effective instruction looks like. Such information should include suggestions for structuring class time that includes flexible student groupings, in support of differentiation.

At least six months to one year prior to rolling out any new or comprehensively revised curriculum, do the following:

- Train a core group of teachers who will field-test the curriculum (at least one unit). Train the teachers in its delivery.

- Field-test the curriculum with the trained teachers. Pilot the resource materials, assessments, and any other supporting materials.

- Collect preliminary data concerning the pilot curriculum's effectiveness in terms of student achievement.

- Revise field-tested curriculum guides based on feedback.

- Submit the final, revised curriculum guides for adoption by the board.

A.2.14: As curriculum work is ongoing, connect the design and development work to the plan for professional development needed to support its implementation (see Recommendation 4). All professional development should be driven by a focus on effective delivery of curriculum. Identify the weakest area of instructional delivery for every content area, and make that the key focus of all PD (e.g., differentiating the objective/content at elementary and supporting students who need prerequisites). See Recommendation 4 for more specific suggestions for planning and supporting effective curriculum delivery through professional development, coaching, and monitoring.

In summary, there is a strong tradition in place for prioritizing curriculum in the New Haven Public Schools. Elements of quality curriculum are in place; attention to the suggestions and actions in this recommendation will assist the district in improving classroom teaching and learning and improving student achievement. Curriculum is the most critical tool district leaders can place in the hands of its teachers; ensuring that the documents provide teachers with the tools and support they need to deliver the most effective instruction will allow teachers to be more focused on student learning needs, and less concerned with securing resources or finding ideas elsewhere. A strong, viable curriculum with all the tools and supports teachers need ensures greater consistency across the district and better access to quality learning environments.

Recommendation 3: Establish and implement clear expectations for equity and equal access district-wide and a commitment to serving all students in the district equitably. Assure equal access to programs, including magnet programming, and to the curriculum, and improve parent and community relations to increase involvement, enrollment, and student achievement. Establish specific goals and plans for programs serving special populations. Commit adequate resources to the improvement of these programs, and create a coordinated system for implementing them district-wide.

Realizing equity in effective school districts and assuring equal access to programs and services requires a strong philosophical foundation rooted in the belief that schools exist to serve students, that all students are capable of academic success, and that no child's potential can be measured and, therefore, expectations should be relentlessly high for all children, regardless of ethnic, linguistic, cultural, or economic background. This philosophy must be expressed in a set of belief statements, summarized in the district vision, and targeted by the district mission. For equity and equal access to prevail, the message from the top must be that the alternative to equity and equal access is not an option.

Equity is about ensuring that students have equal access to not only quality programs and services, but also to academic success. Ensuring academic success means providing instruction and resources to students based on their individual needs, not based on what works for most students or even based on a formula or standardized procedure. Equity in the world of public education shifts district focus from what teachers and administrators want to do for students to what the students need teachers and administrators to do. This student-centered approach also requires parent involvement, and is proactive in seeking it by venturing into the community, entering students' homes, and building relationships with students and their parents and families. District personnel who attain this level of involvement see improved student attendance, improved school behaviors, and higher student achievement.

At the system level, areas of inequity must be monitored and addressed through system-wide efforts, such as new policy directives, professional development initiatives, differential resource allocation, or even staffing changes. Identifying areas of inequity in a district is achieved through data analysis, as well as anecdotal evidence collected from district stakeholders. Areas of inequity must also be identified, monitored, and addressed at individual buildings through data analysis, classroom monitoring (walk-throughs), teacher evaluations, and building-level planning.

Programs that provide services to large subgroups of the student population must be clearly and specifically defined to assure their effective implementation and monitoring. These programs are essential at providing students with the supports they need for success. System-level direction then translates into support for teachers in delivering those services for the ultimate benefit of the child.

In the classroom, teachers themselves must monitor equity and assure equal access in similar ways but with a much smaller population. They look at test data by student subgroups and monitor their own instructional strategies and behaviors, ultimately evaluating whether students are making appropriate gains in achievement despite any demographic factors that might predict failure. The focus is on ensuring that every child has the support and services he or she requires to be successful in terms of resources, materials, instructional time, or targeted interventions. Such support in the classroom, however, requires support from building and district leaders, many times in the form of additional resources (human and fiscal).

Students from diverse backgrounds have varying needs and come to school with different background knowledge, experiences, and skills. These differences present challenges to educators who are inexperienced or unfamiliar with such diversity, particularly differences in cultural understandings, priorities, language, and perspectives. Such differences are present even in districts with apparently similar demographics—certain neighborhoods within a district can vary significantly in their culture and norms. Educators must learn to recognize, affirm, and appreciate differences, and teach students accordingly in a student- and culturally-responsive way, so students are actively and personally engaged in instruction. The driving philosophy behind the concept of equity is that all students can attain academic success if they are given the support they need. There are no exceptions; expectations must remain high for every single child, and failure is never allowed as an option. A child who does not succeed academically is a result of a failure on the part of the system.

New Haven Public Schools is a high needs, urban school district with a minority-majority population. Its students are culturally and linguistically diverse, and most are eligible for free or reduced-price lunch. Most of the student population is not attaining academic success, and certain subgroups do not have equal access to programs and services (see Findings 3.1 and 4.3). Certain student subgroups are more likely to be suspended or retained (see Finding 3.1). Program implementation across the system and other services lack consistency and are not clearly defined to support better implementation (see Finding 3.3). Service models are decided at individual school sites, contributing to the unequal access to curriculum. Teachers also reported a need for resources to support any services for students with special needs, such as EL, Gifted, and Special Education (see Findings 3.1 and 3.3). Teachers also reported that they are impeded by a system for allocating resources that is not responsive to need, not supported by clear communication, and not aimed at leveling the playing field for students (see Finding 3.1). The Schools of Choice model, while excellent in supporting innovation and engagement, has historically not been equally accessible. The disparate allocation of resources created by magnet funding has not resulted in the most disadvantaged populations receiving the greatest support; systems to monitor and regulate funding streams to schools are not in place (see Findings 3.1 and 5.1).

Auditors found that the New Haven Public Schools has policies with clear statements in support of student engagement and equal access to curriculum, but current practices are not in line with those expectations (see Finding 3.1). To address the issues and concerns related to equity, to improve communication and relationships with parents, to increase access to programs and services, and to increase the effectiveness of support programs in the system, the auditors suggest the following actions be taken. These actions are organized into two main sections: 1) student equity and family engagement, and 2) planning for special programs.

Student Equity and Family Engagement

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education for immediate consideration in improving student equity and family engagement:

G.3.1: Request the administration to revise *Policy 6121: Non-discrimination* so that it will accomplish the following:

- Define equity specifically in terms that clearly contrast it with equality. Specify when things are to be equal (access to resources, materials, courses) and when they are to be equitable (fair, just, and different in order to meet individual student differences).

- Require regular disaggregation (minimally every year) of all centrally collected assessment data by student subgroups (ethnicity, language, gender, GT/Special Education), and implement a plan to monitor subgroups' performance. Instruct district leaders to pay close attention to achievement gaps that fail to narrow over a reasonable amount of time, such as two years.

- Specify expectations for communication at all levels of the system to assure improved coordination and integration of district initiatives, departments, and procedures.

- Establish the district expectation and priority for high quality, student-centered instruction that is always culturally responsive and congruent with the Framework for Strategies in every classroom.

- Require a report on the status of equity and monitoring for it across the district.

G.3.2: Direct the development of a plan for implementing initiatives and procedures for monitoring and supporting equity, equal access, communication, and consistency district-wide. In policy, require the plan to include the following components for action:

- Establish goals for equity, congruent with expectations articulated in *Policy 6121*.

- Clearly specify the necessary actions (in measurable terms) to attain district goals with a corresponding timeline and persons responsible.

- Define roles and responsibilities of all key stakeholders in working toward equity and equal access.

- Describe procedures for monitoring actions and assigned tasks and initiatives.

- Collect data on the effectiveness of the plan's implementation.

- Review and evaluate the assigned actions periodically, with reports to the board.

- Revise the plan accordingly.

G.3.3: Develop policy for the *2000* and *4000* Series to clearly state district expectations for high standards of conduct in interpersonal relations at all levels of the system.

1. Include in the policy expectations for not only the way personnel communicate with one another, but also the way parents are treated by classified personnel at schools and at the district office.

2. Require regular training in interpersonal communication skills for all personnel—classified, certified, and administrative.

3. Require annual parent satisfaction surveys.

G.3.4: Request periodic updates from the superintendent regarding equity and parent satisfaction across the district, using measures congruent with policy and directed by the equity and equal access plan. The data collected and reviewed for the reports are intended to evaluate the district's success in implementing procedures and initiatives to attain equity and assure equal access.

Administrative Functions: The following actions are recommended to the New Haven Public Schools Superintendent:

The following action steps are recommended to support improved equity and achievement for all students and for improved communication and community relations (see also <u>Recommendation 1</u>). Community relations is especially critical when students can open enroll to neighboring school systems.

A.3.1: Assist the board in revising policy to prioritize equity across the district and to improve communication and interpersonal and community relations within the system.

A.3.2: Develop a plan for assuring and monitoring for equity, equal access, and improved communication and community relations across the district. Having a plan in writing that defines expectations, responsibilities, and tasks is essential to establishing improved culture, realizing change, and improving accountability. Monitoring for equity is necessary since many inequities exist without stakeholders' knowledge and intent.

In addition to the main components outlined in **G.3.2**, the following are to be integrated into the plan:

a) Re-emphasize, across the district, the philosophy that serves as the foundation for assuring equity and equal access in all aspects of district decision making, processes, and communications. With all definitions of equity, emphasize that challenge, rigor, and relevance are to go hand in hand with ensuring academic success and access for all students. A collaborative relationship with parents, school stakeholders, and the community is a priority in realizing this philosophy.

b) Describe how high expectations for all students, regardless of race, income level, language proficiency, gender, etc., to be established throughout the strategic planning process, will be upheld and enacted district-wide. Specifically describe how those expectations are to be actualized in classrooms, in schools, and across the district in day-to-day actions. Connect these expectations with every professional development initiative or training in explicit ways.

   Students can and will perform at expected levels, with proper support and encouragement. Maintain a consistently high expectation for student performance district-wide, and celebrate successes and improvements.

c) For each area where inequities and inconsistencies exist, establish goals (as specified in **G.3.2**) with action steps for remedying the inequities and inconsistencies. Be focused in identifying actions to take; too many initiatives or activities is not better. Rely on research and on what has worked in similar districts, keeping in mind the characteristics and student profiles unique to New Haven Public Schools. Allow enough time for the initiatives to work. Hold each person assigned to the action steps accountable for their implementation, and monitor results.

d) Institutionalize the importance of equity in all curriculum management functions throughout the district: all planning, monitoring, curricular revisions, curriculum delivery, etc. Establish steps to be taken in developing, reviewing, evaluating, and revising curriculum and accompanying resources to assure equity and equal access. Assuring representation of all subgroups in materials and resources is critical.

e) Direct the methods to be used in collecting data on equity across the district. Specify the instruments, measures, and procedures to be used to identify equity problems, to determine probable causes, and to evaluate the effect of the plan's action steps.

f) Establish the district priority for a welcoming, inviting, and accepting district culture that emphasizes high quality, student-centered instruction. This instruction must always be culturally responsive and integrate the SIOP model in every classroom. Require that training in SIOP and in culturally responsive instruction be completed by every single staff member and administrator, at all levels, within the next

two years. Collect data regarding who has completed which trainings; provide incentives to those who complete it. Be especially mindful of the differences among and <u>within</u> ethnic groups. Considerable diversity exists within the larger constructs of race; sensitivity to these differences and to the intersection of race, language, and economic level is very important. Nobody can be an "expert" at any culture but the one from which one came. However, being open, maintaining transparency regarding one's lack of understanding or familiarity, and affirming the advantage of differences are all part of creating a culture of valuing and appreciating every child, every family, and a school's diversity.

g) Train all classified, certificated, and administrative personnel in effective communication and interpersonal relations skills. Especially work with classified staff at the schools and central office who are the first point of contact for parents, requiring them to be positive and helpful always and to follow through with communication pipelines, so no complaint or concern is ignored or forgotten. Ensure that all district employees—every single one—know the district's expectations concerning effective communication and positive models of complaint and conflict resolution to be used not only with parents but among personnel, as well.

h) Establish expectations for communication at all levels of the system and for every single position in the district; have clearly defined goals, action steps, and procedures in place. Hold personnel accountable for communicating effectively and positively within the central office, with schools, and most importantly with parents. Distribute annual surveys to parents, students, and teachers regarding climate and the effectiveness of new forms of communication. Revise training and the communication structure according to new data. Work to be proactive in developing relationships with parents and family members before any problems with a student arise. Communicating the district philosophy concerning student success, equal access, and the district's ethic of caring is a critical first step in establishing positive parent-school relations.

i) Set expectations for inter-district collaboration and coordination. Ensure that all departments at the central office and all schools are communicating effectively, coordinating initiatives to minimize gaps and overlaps, and are working together toward district goals.

j) Determine the professional development needed to accomplish the goals of the equity and consistency plan—for whom and when. Require training for personnel in sensitive positions, particularly training in cultural sensitivity and culturally responsive instruction, as well as in socio-emotional learning. Evaluate the effectiveness of the professional development initiatives through ongoing data collection and analysis. Consider all subgroups, no matter their size, of equal importance. Revise the professional development offerings based on new data and needs.

k) Require any future magnet or application-only programs to monitor their student body enrollment by subgroups and gender in order to maintain proportionality in their enrollment.

l) Monitor achievement by student subgroups at ALL levels, using progress-monitoring tools that align to the standards and that provide meaningful data.

m) Establish procedures for building-based applications for additional resources to support innovative programming and/or equity-based allocations. Such an application process should be "blind"; the specific school and administrators should be anonymous, until final decisions regarding the allocations are made. This is to guarantee fairness and equity in allocating resources and to discourage any culture of favoritism. Criteria for the application should focus on goals for the resources, rationale for needing them (supported with data), specific actions to be taken if granted the resources, and a plan for collecting data and results to evaluate effectiveness.

Supporting equity and consistency across the district is complex and challenging, as it involves many different stakeholders and aspects of the school district. Be sure to consider all aspects addressed in <u>Findings 3.1</u> and <u>1.4</u> concerning inequities and inconsistencies in the district and issues with communication and community relations in developing this plan. Monitor its implementation regularly to improve not only students' academic success, but also the culture of respect and positive relationships in New Haven Public Schools.

A.3.3: Work with the necessary program administrators to ensure that students have equal access to all programs throughout the district. Implement intake procedures at schools with special programs to guarantee proportional representation of all district students in those programs. The representation of students in any program in the district should look like that of all students in the district.

Require that procedures defined for clustering students with special needs (EL, Special Education, Gifted and Talented) are used across schools for greater consistency. Avoid tracking, which occurs when one third or more of students represent an achievement level.

A.3.4: Review and revise staffing policies to assure that staff and human resources are allocated according to need and size of schools, all the way to pre-K. Such policies should also address personnel who support the behavioral, emotional, and social well-being of students, in addition to those who support academics. Allocating adequate resources to schools for support positions such as social workers, counselors, and parent outreach coordinators is absolutely essential in not only establishing positive relationships with parents, but also in assisting families who require support and in improving the overall culture and positive attitude of the community toward all New Haven schools.

A.3.5: The research is quite clear regarding the type of instruction that is effective for disadvantaged students: instruction that explicitly teaches grammar and language, is culturally responsive and inclusive of all students, and is cognitively challenging and rigorous, rather than focused on low-level, rote skills and knowledge, such as multiple-choice problems and packaged programs. Build the organizational capacity required for an improved educational experience for all students:

1. Over three to five years, train every teacher, coach, coordinator, assistant principal, and principal in culturally-responsive instruction in the context of the Framework for Strategies. The SIOP model is the preferred set of strategies and approaches, and research has proven the model to be effective for economically disadvantaged students as well as EL students in developing language and vocabulary. It is powerful when combined with culturally responsive instruction. Support professional development with embedded coaching, mentoring with feedback, walk-through protocols, and the teacher evaluation process.

2. Prepare teachers to deliver instruction using a wide range of challenging cognitive processes in order to engage all students in the meaningful application of English across all content areas and in many contexts. Establish the expectation that teaching and learning should be cognitively engaging always, and focused on improving language (and vocabulary!) skills of all students, as well. Embed modeling within professional development, and include model strategies for this within the curriculum. These suggested approaches should be an integral part of the district's Framework for Strategies.

3. In the curriculum:

   a. Provide research-based instructional resources matched to English language development (ELD) standards and congruent with accommodations needed by special education and gifted students for appropriate learning contexts and rigor.

   b. Provide content-based, high quality resources (print materials) calibrated to the diverse reading proficiency levels of all students that facilitate access to core concepts, assure cognitive engagement, and support personal relevance in the classroom. Such resources are especially critical due to the very diverse nature of New Haven learners.

   c. Provide a range of assessments (emphasis should be on cognitively demanding performance assessments) to gather diagnostic information and measure student progress toward their goals— either IEP, 504 plans, or the state standards.

   d. Use the mastery learning model (see <u>Recommendation 4</u>) to support differentiation of instruction (as well as accommodations and co-teaching) to meet the diverse learning needs of all students.

4. Prepare and train all administrators to support teacher implementation of the Framework for Strategies (and culturally responsive instruction) and to monitor their delivery across the district. Focus on

monitoring that engages teachers in reflection and works to motivate teachers intrinsically to modify their teaching practices to better meet students' needs. Monitor instruction for evidence of the instructional model and for the Framework for Strategies, and monitor test scores for student gains in achievement. Gains are identified by monitoring a single cohort of students over time—from year to year—to ensure their performance is improving. Academic improvement should not be consistent for every child—students who are below grade level must have accelerated instruction and learning opportunities, so they make faster gains than other students to ensure that they do not fall farther and farther behind.

5. Congruent with **G.3.3**, train every employee in the district in positive communication practices and interpersonal skills. Connect this training with PBIS/behavior management supports in place for students; expect consistency in all interpersonal relations regarding being respectful and appropriate to one another at all times, at all levels of the system. See **A.3.8** for additional information on behavior management actions.

6. Administer climate and satisfaction surveys to all parents and teachers annually; include stakeholder focus groups in the data collection process. Monitor data and adjust (conduct additional training, adjust plan goals and action steps, etc.) accordingly.

A.3.6: Reinforce community support roles at every campus, such as counselors, social workers, parent liaisons/translators, and behavior interventionists. These positions are critical for low-income populations and to support positive behavior in the school and community. Having regular contact with families and establishing relationships is a key strategy in not only improving student performance, but also improving attendance and decreasing mobility. This role is reinforced when community-based service leaders work in collaboration with district leaders. Schools with higher rates of behavior infractions and at-risk characteristics may require additional positions until such circumstances improve through interventions.

A.3.7: Develop a plan for parent outreach and relationship building, and for improving teacher-parent communication. Every parent needs to feel that they have a strong collaborative relationship with their child's teacher and principal. Every school needs procedures in place to provide services a child may require, or to locate the services a child (and his or her family) may need.

At the beginning of each school year, establish the requirement that all teachers, with social workers or parent/family liaisons and principals and any other identified personnel (such as school resource officers or counselors), make visits to the families or homes of their students in pairs or trios. In preschool and kindergarten, consider conducting home visits prior to the beginning of the school year or during the first two weeks, with a half-day schedule.

If parents are uncomfortable having school personnel in their home, arrange to meet them at their place of employment or a neutral location. Use translators as needed, with appropriate translating protocols (maintaining eye contact with the parent while speaking, deferring to the parent, keeping the translator "invisible"). The purpose of home visits is to proactively and positively engage parents in a discussion about their child and how the school can best support their child's learning and development with their support and cooperation. This time can also be used to communicate to parents the district's (and the school personnel's) commitment to serving their child successfully, in accordance with district philosophy and beliefs.

The time and effort needed to accomplish this daunting task is offset by undoubted improvements in student attendance, academic success, and behaviors. Parents are more likely to come to school for subsequent conferences, presentations, and events when they already have had a positive interaction with their child's teacher and school, and when they know that there are personnel in the building with whom they can communicate when English is not their first language.

A.3.8: Establish district expectations for positive behavior, and assure consistent implementation of PBIS district-wide. Such a program helps make behavior management practices more consistent across the system and decreases behavior referrals and infractions. Ensure that all teachers are adequately trained in how to implement the program; monitor referrals and disciplinary actions for possible issues that require district-level

intervention. Annually collect every school's plan for positive behavior support to monitor consistency and adherence to district expectations.

A.3.9: Coordinate all human resource, curriculum delivery, and building administrator functions to prioritize instructional quality and effectiveness in New Haven Public Schools. Ensure that all buildings have the most experienced and effective teachers and principals. Consider additional stipends and compensation strategies to attract and retain the best teachers at schools where performance is lowest and the teachers' performance is proving most effective.

The recommended action steps concerning equity and community/parent relations are all intended to establish a strong, student-centered foundation that represents not only an ethic of caring and respect, but also a healthy amount of challenge and demand for student engagement in the classroom. Such a culture is imperative and facilitates the accomplishment of every other goal, academic or otherwise. The next section addresses action steps related to key programs intended to support specific subgroups.

Program Planning: EL/Bilingual, Gifted, Special Education

Serving all students effectively requires being familiar with aspects of every child's learning profile. Ideally, all students could be served most effectively in the regular classroom through effective differentiation practices. However, direction must be provided by district leaders regarding what the expectations are regarding the best approaches to be used in meeting students' various needs. Another challenge is that no two students are alike, which requires a battery of assessments and diagnostic tools to provide insight into what kind of instructional practices and contexts are most effective for certain students.

Accordingly, certain needs, at times, require more intensive levels of support. Programs to meet these needs are developed to assure consistency in providing services to these students and to also be accountable in monitoring their progress and the impact of these services. In New Haven Public Schools, a large percentage of students require either special education services, English Learner (EL) or bilingual services, or require gifted services. Currently, special education enrollment is higher than average, gifted enrollment is lower than average, and EL students are not making adequate gains from year to year (see Findings 3.1 and 3.3). These programs were not adequately directed and coordinated by district-level plans, and their implementation varied widely from school to school, resulting in unequal access to curriculum and services (see Findings 3.1 and 3.3).

The following actions are recommended in order to improve services in these three areas, render the implementation of these programs more consistent and effective district-wide, and, most importantly, meet the needs of students who represent members of these subgroups.

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education:

G.3.5: Require the superintendent to present for board adoption revised policy requiring comprehensive plans that establish the expectations and guidelines for EL/bilingual, gifted, and special education programming across the district. The policy should require plans for each area that meet the criteria outlined in **A.3.3**, **A.3.4**, and **A.3.5**, and that also includes the following:

- Articulates the philosophical approach to each, including beliefs about best practices and instruction (using information and data from research).

- Specifies the requirements for the regular written curriculum and related resources/materials to support the expectations of the program. (The curriculum serving these three programs should be the same curriculum for all students. Only resources should vary, and certain self-contained, severe and profound programs may require separate curriculum.)

- Directs all curriculum documents (all content areas) to specifically embed sheltered instruction, acceleration and cognitive engagement, and accommodation strategies and student work ideas in the core content areas.

- Establishes guidelines for monitoring these students' equal access to all programs in the district.

- Directs the professional development of instructional, non-instructional, and administrative staff on the effective delivery of services for English language learners in all district-available program models.

- Delineates roles and responsibilities for all professionals who have a responsibility to implement the program models and/or monitor their implementation.

- Specifies the minimum skills and training all teachers must have if they have any ESL students in their classrooms.

- Suggests means of assessing student progress in both English language proficiency and the essential knowledge and skills beyond the *LAS Links*. It specifies how those assessment data are used to improve: 1) student content mastery; 2) students' English language development; and 3) program and service delivery.

- Outlines means for communicating student and program assessment data to key constituents: principals, teachers, board members, parent advisory council members, etc.

G.3.6: Commit adequate resources to support program planning/development and implementation, procurement of materials and resources, and professional development to meet the needs of English language learners, gifted, and special education students.

Administrative Functions: The following actions are recommended to the New Haven Public Schools Superintendent of Schools:

A.3.10: Prepare policy for board approval that meets the expectations outlined in **G.3.5** and **G.3.6.**

A.3.11: Develop a comprehensive plan directing programming for English learners that differentiates services for students at all grade levels. Include the following components:

a) **Philosophy of Approach:** Establish a philosophical approach to dual language and English language learner programming that is based on research and fully applied in the design of the district's EL program.

b) **Program Goals:** Articulate clear and measurable goals for the EL and bilingual program that target student attainment of academic English proficiency as well as mastery of the essential knowledge and skills. These goals should emphasize specific targets for reading and language development within a reasonable time frame, for every year a child is in the program. This is especially important in bilingual education, which emphasizes growth and development in both languages.

c) **EL/Bilingual Program Design**: Develop a model for EL and bilingual program delivery that specifically outlines goals for the program, instructional expectations, guidelines, and best practices for these students. With EL programming, it is critical to define the role of the ESL-specific teacher, the bilingual teacher, and the role of regular classroom teachers who have EL students in their classes. Of equal importance is defining the models for serving EL students that the district approves of and prefers, such as EL instruction with mixed groups of students, clustering, etc. The use of tutors should be strictly limited to emergency or less commonly spoken languages only. A focus on training teachers to work with ELs within their classrooms is preferable, with push-in support from ESL teachers. These acceptable program models must be clearly and specifically defined and disseminated to all buildings, then subsequently monitored to assure that all EL students are being not just adequately, but effectively served. Commit to the additional personnel needed to implement an effective EL and bilingual program, not just a minimally compliant one.

d) **Curriculum Design**. Direct how curriculum will be designed to reflect and meet the needs of the four stages of English language proficiency levels (beginning, intermediate, advanced, advanced high) for each phase of acquisition at each grade level, using the current EL and bilingual program standards scope and sequence. This document should be integrated with the core curriculum to place all these resources in a single location for classroom teachers.

Include appropriate resources for these students with each unit, specify the vocabulary that should be pre-taught, and provide visuals and manipulatives for teachers to do so. Translating the objectives for a unit into content AND language objectives, specifically (not just listing all the ELPS standards). The key is in being specific with the suggestions, targeting what the students need most and what teachers should prioritize. The focus must remain tight, or teachers will be overwhelmed by too many standards and objectives.

e) **Instructional Resources and Materials**. Establish an expectation that instructional resources will be sufficient for the needs of the EL and bilingual program. Adequately serving these students requires considerable instructional resources. Direct procedures for resource/material analysis (for alignment and quality), selection, use, and evaluation.

f) **Assessment**. Define tools best used to formatively assess student progress in mastering the core content, as well as tools to monitor progress in reading.

g) **Program Evaluation**. Outline how the program will be evaluated annually—what are the expectations for *LAS Links* performance? What are expectations for student performance on the state assessments? On district-level assessments? For assessments related to literacy, be sure to use data from tools measuring comprehension, not just fluency.

h) **Plan Budget and Dissemination**. Identify the budget necessary to implement the plan, and communicate the plan district-wide for all stakeholders. Establish an expectation that district and site personnel consistently rely on the district plan to direct decisions related to the education of English language learners.

A.3.12: Develop a comprehensive plan directing programming for gifted students that supports identification of and services for these students at all grade levels. Staff adequate administrators to plan for the program, train teachers, and monitor the program's implementation. Include the following components in the plan:

a) **Philosophy of Approach:** Establish a philosophical approach to gifted education. See Appendix G for an overview of literature related to effective programs.

b) **Program Goals:** Articulate clear and measurable goals for the gifted program that target 1) better identification practices, such as universal screening for giftedness; 2) better development of a talent pool in all schools to encourage the development of possibly gifted primary students; and 3) improved services and instruction for developing these students' varied types of giftedness.

Implement universal screeners for every single child, in third grade. Screen every child who is new to the district after third grade. Identify students who are potentially gifted for a talent pool in grades K-2; develop curriculum to be used with talent pool students to enhance and build on their strengths and potential.

c) **Program Design**: Develop a model for gifted program delivery that specifically outlines goals for the program, instructional expectations, guidelines, and best practices for gifted students. See Appendix G for specific guidelines in the most effective gifted programs. One suggested model relies on clustering gifted students at grades 3-8 and doing pullout instruction as well as differentiated activities within the classroom.

Specifically address how clustering is to be done effectively; monitor clustering across the district to assure consistency and adherence to district expectations.

d) **Professional Development**: Define giftedness in New Haven Public Schools (see Appendix G), highlighting ways in which students of poverty demonstrate characteristics of giftedness. Train ALL elementary teachers and principals in these characteristics over the next two years to support increased identification of gifted students and improved instructional support.

e) **Program staffing**: Staff every elementary school with at least a half-time teacher to work with students in a pull-out format, and to work with talent pool students. This teacher should model effective strategies that will benefit all students as well as the gifted.

f) **Curriculum Design**: Review the many types of giftedness and the different programs and opportunities that benefit these students. Design coursework accordingly for pull-out programs, and incorporate clear suggestions for differentiating for these students in the regular core curriculum.

g) **Instructional Resources and Materials**: Establish an expectation that instructional resources will be sufficient for the needs of the program. Direct procedures for resource/material analysis (for alignment and quality), selection, use, and evaluation. Review the resources used for the core areas to suggest adjustments and modifications that make these resources serve gifted students more effectively.

h) **Assessment**: Define how assessment tools will yield data concerning gifted student progress. Identify any additional tools to use for gifted students, exclusively.

i) **Program Evaluation**: Outline how the program will be evaluated annually. What are the expectations for gifted students' performance? What are expectations for these students' performance on the state assessments? On district-level assessments?

j) **Plan Budget and Dissemination**: Identify the budget necessary to implement the plan, and communicate the plan district-wide for all stakeholders. Establish an expectation that district and site personnel consistently rely on the district plan to direct decisions related to the education of gifted students.

A.3.13: Develop a comprehensive plan directing programming for special education students that is congruent with program mandates and best practices. The intent of this plan is not only to support compliance with mandates, but also to renew the focus on improved instruction for special education students.

a) **Philosophy of Approach:** Establish a philosophical approach to special education services. Consider the co-teaching model as the desired goal; define beliefs that serve as the foundation for the philosophical approach. Communicate this philosophy widely, and train school-level personnel accordingly.

b) **Program Goals:** Articulate clear and measurable goals for the special education program that target better identification practices and improved service delivery to maximize these students' learning. Most of the goals should be instructionally related rather than compliance related.

c) **Program Design**: Develop a model for special education delivery that specifically outlines the goals for the program, the instructional expectations, and guidelines and best practices for serving special education students in the regular classroom, such as with a co-teaching model. Be specific concerning options that need to be considered in order to implement the desired model effectively, such as scheduling considerations for a co-teaching model. If special education students are clustered into classrooms, establish clear and proper guidelines for their clustering to prevent all special education students for a single grade level being put into the same classroom.

d) **Professional Development**: Identify the training necessary for all stakeholders to implement the desired program model effectively. Plan the delivery of this training over the next three to five years, and specify ongoing training for teachers new to the district.

e) **Curriculum Design**: For accommodations, include a menu of frequently used accommodations within the regular core curriculum so classroom teachers have a solid set of suggested ways to accommodate material and activities for their students. If this resource is insufficient, define for teachers how to locate or procure other suggestions for accommodating student needs.

f) **Instructional Resources and Materials**: Establish an expectation that instructional resources will be sufficient for the needs of the program. Direct procedures for resource/material analysis (for alignment and quality), selection, use, and evaluation. Review the resources used for the core areas to suggest adjustments and modifications that enable these resources to serve special education students more effectively.

g) **Assessment**: Define how assessment tools will yield data concerning special education student progress.

h) **Program Evaluation**: Outline how the program will be evaluated annually. What are the expectations for special education students' performance? What are expectations for these students' performance on the state assessments? On district-level assessments?

i) **Plan Budget and Dissemination**: Identify the budget necessary to implement the components of this plan, communicate the plan district-wide for all stakeholders. Establish an expectation that district and site personnel consistently rely on the district plan to direct decisions related to the education of special education students across the district.

A.3.14: Require that procedures defined for clustering students with special needs (ELL, special education, gifted and talented) be used across schools for greater consistency. Having too many students from any subgroup in a single classroom also creates an inordinate burden for teachers, especially if multiple subgroups are in the same class: gifted, special education, and ELs.

In conclusion, the recommended actions outlined here are intended to focus the district on what is ideal for its students. It is, of course, true that moving the system toward the ideal is both difficult and time-consuming. The work will never be final, but the gains and successes will hopefully motivate district stakeholders and facilitate a culture of improvement that will have a long-lasting impact on New Haven students and their families. Having clarity of purpose in improving the culture within the system and in establishing goals and direction for programs serving the district's neediest students is critical.

Recommendation 4: Establish a vision for effective instruction in New Haven Public Schools, and create a system to support delivering the district curriculum in alignment with that vision. Design and implement a coordinated, system-wide professional development program that is differentiated, focused on curriculum delivery, aimed at equipping teachers with effective instructional approaches associated with high levels of student achievement, and aligned with the district vision. Establish and implement consistent standards and procedures for monitoring and evaluating the delivery of the curriculum and teachers' engagement of students.

The goal of all educators, campuses, and school districts is to provide a quality learning environment where all students are successful. Schools who are meeting that goal find success by providing well-organized, focused, and efficient systems that effectively meet the academic needs of diverse populations. Professional development is a key factor in ensuring the alignment of the written, taught, and tested curriculum. A characteristic of effective school districts is the presence of a comprehensive professional development plan that addresses organizational, unit, and individual developmental needs for quality job performance and is integrated with other guiding plans used by the district. Typically, the professional development plan links with a district strategic plan, a curriculum management plan, a student assessment plan, and any other plans that focus on school, departmental, or district goals and objectives. While a comprehensive District Strategic Plan is usually the fundamental planning document, a professional development plan guides the training needed to enhance administrative and teacher skills to achieve the intended goals identified across all documents. To ensure that coordination of training across the organization occurs, the administrative structure must include a clearinghouse function to collect and distribute information so that all units are aware of the system-wide efforts to build organizational skills. Even when most of the professional development occurs at schools or within departments, the coordinating function also monitors consistent adherence to expected guidelines and alignment with specified goals and objectives.

School districts that effectively meet the learning needs of diverse student populations and bring those students to personal educational success typically focus on instructional practices as well as quality curriculum (see Finding 2.3 and Recommendation 2). These districts undertake well-planned writing of curriculum, selection of aligned resources, and training for all who will implement the curriculum in classrooms, creating alignment and connectivity across the system. Similarly, they attend to the current research in the most effective instructional practices to meet varied learning needs so that curriculum comes to life in students' daily learning activities. Along with these actions, successful districts establish both coaching services to support teachers in implementation of content, and monitoring practices by school and district administrators to oversee the faithful implementation of curriculum and emphasis on prioritized instructional practices. Monitoring, feedback, and consistent evaluation practices provide the information needed to determine if the instructional practices are

meeting the needs of all student groups. Effective systems have clear policies and procedures that identify and define the expectations for monitoring of instruction. Monitoring affords systems the ability to ensure the effective, consistent implementation of the curriculum. The absence of monitoring procedures leaves curriculum delivery to individual interpretations of district goals that may not align with the district's vision for instructional effectiveness.

Professional development across the New Haven Public Schools is present; however, it is uncoordinated and lacks a clear and coherent plan. Auditors found a wide range of expectations without a clear plan for training and implementation of the district's curriculum. The auditors found evidence of coaching and monitoring of instruction in New Haven; coaches are critical in supporting instruction and in connecting central office initiatives with school sites. However, there were no clearly established expectations, routines, or focus for monitoring curriculum delivery, nor a vision for effective, engaging instruction with such a diverse clientele district-wide. Such a vision is critical in a district with a diverse, urban population to ensure expectations remain high and student engagement is effective.

To eliminate the deficiencies found in the New Haven Public Schools professional development, instructional practices, and monitoring systems, the auditors offer the following recommendations. The recommended steps are organized into the following sections:

    I. Instructional Practices and Planning

    II. Professional Development

    III. Instructional Monitoring

I. Instructional Practices and Planning

Instructional practices and the delivery of the curriculum are critical components of building a foundation for academic success. The alignment of the written and taught curriculum essentially equates to how well a teacher selects to teach the learning objective for any given day. Teachers should allow some flexibility in how they approach an objective, but a well-developed instructional model provides teachers with research-proven suggestions to improve delivery.

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education:

G.4.1: Request the administration to revise the policies to include clear expectations for what curriculum delivery should look like in every New Haven Public Schools classroom. The Framework for Strategies within the model should align with the district's long-range goals. Adopt the revised policies and request the administration to ensure their implementation (see **A.4.2** for suggestions regarding what these expectations may include).

G.4.2: Request the administration to widely disseminate to all teachers and school level administrators an overview of these expectations and the related research-based instructional strategies that are effective with diverse student populations, including economically disadvantaged, special education, and English language learners.

G.4.3: Request the administration to develop a data-driven lesson planning model based on completed research, and establish a district-wide expectation for its implementation.

G.4.4: Require that all school administrators (principals and assistant principals), coaches, district administrators, and teachers attend and participate in professional development to ensure appropriate coaching and support is available for the successful implementation of the Framework for Strategies and the data-driven lesson planning model.

G.4.5: Request the administration to regularly evaluate the effectiveness of the delivery of the curriculum across the district. Such an evaluation should use data from multiple sources: formative student assessments, performance assessments, summative assessments, monitoring data from campus and district administrators, and formal teacher appraisals.

Administrative Functions: The following actions are recommended to the New Haven Public Schools Superintendent:

A.4.1: Assist the board of education in the revision of board policy described in **G.4.1**.

A.4.2: Framework for Strategies: Define a Framework for Strategies and approaches expected to be used in all classrooms across the district. During meetings and discussions with all campus and district administrators, provide clear communication about the purpose of this instructional strategy framework. The framework falls within the "taught" portion of a newly created Instructional Planning Model. This is not intended to be a prescriptive, tightly held requirement. The framework is intended to provide a clear picture of what the district expects effective and rigorous instruction to look like. Teachers may have some latitude in selecting the strategies they want to utilize in delivering curriculum within this framework, but this autonomy is dependent upon the degree of success that derives from these strategies and approaches. Instructional expectations for this framework should be integrated into one consolidated document that is adopted by the board. The types of teaching practices district leadership expects to see and that are proven and effective should be specifically described in writing and adopted in policy to ensure their implementation. Suggested practices should be research-based, developmentally appropriate, and relevant to disadvantaged and diverse populations, and might include:

- Ensuring that the learning objective and language objective are posted and evident to students and that students can articulate what it is they are supposed to know and be able to do (learning objectives should be written and articulated using the academic language of the standards).

- Implementing high level questioning techniques to facilitate a deeper understanding of concepts and promote higher levels of cognition.

- Implementing the use of formative and summative assessment strategies (formative strategies are defined as those techniques used daily by the teacher, such as quick checks for understanding, exit tickets, etc.), with emphasis on confirming student mastery or targeting for specific interventions or supports based on those checks for understanding.

- Differentiation of content that is individualized and based on student need (grouping students so as to be able to provide them with scaffolds, reteaching, or needed supports that other students don't require), using varied and flexibly grouping strategies, such as small group, student partners, and cooperative learning strategies.

- Creating learning experiences that are culturally responsive and engaging for students, since they appeal to their funds of knowledge and personal backgrounds and experiences.

- Providing students with opportunities to process and verbalize their thinking on a routine basis, confirming conclusions or defending judgments with their peers.

- Using sheltered instruction strategies to provide English language learners access to the core curriculum and to support their English language learning and vocabulary development for all students (such as SIOP).

- Using research-based instructional strategies based on a prioritized, specific list to provide special needs students access to the core curriculum and to support their academic development.

- Engaging students in experimental inquiry, problem-solving, and investigation.

- Engaging students in metacognitive activities, whereby they analyze their own thought processes in approaching test questions, assignments, and new information.

- Using non-linguistic ways to support comprehension of, identification with, and the retention of new concepts or knowledge, such as pictures, concrete referents, visuals, graphic organizers, and outlines.

- Providing students with opportunities to establish and monitor their mastery of short- and long-term learning goals.

Despite the length of the list, select a few key areas of greatest weakness to focus on for professional development, and train teachers deeply, with in-classroom coaching and support for their successful and ongoing implementation (see Section II. Professional Development).

A.4.3: Instructional Planning Model: Planning and Monitoring of Student Learning: Describe expectations for how teachers are to use the data from pre-tests, progress monitoring tools, and post-tests to plan instruction in response to students' specific academic needs. Consider the Mastery Learning Model as a possible model for planning and executing instruction using a variety of strategies and approaches that the teacher is comfortable with (loosely held; but aligned with the Framework for Strategies described in **A.4.2**). The Mastery Learning Model[5] presents a model of close monitoring of student learning that is data-based and relies on flexible, small student grouping to deliver the exact teaching that those students need, rather than relying on whole group, one-size-fits all approaches. It is not an instructional model, in that it is neutral regarding the strategies or approaches selected; rather, it emphasizes planning instruction that is responsive to specific student need at the individual or small group level. This model is presented in Exhibit R.4.1.

Exhibit R.4.1

Mastery Learning Model
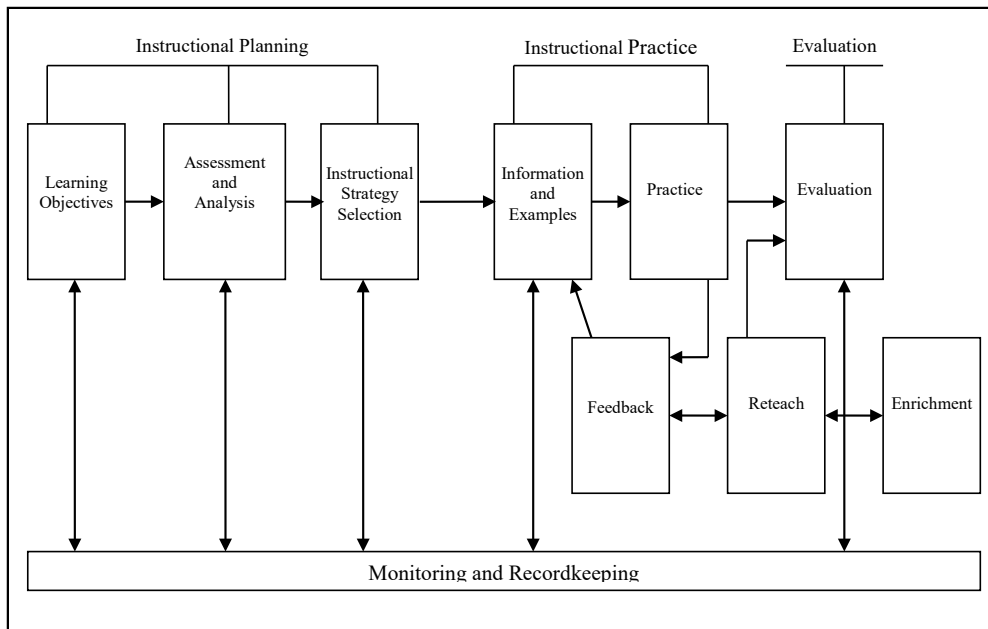
A.4.4: Differentiation: As part of the Instructional Planning Model, incorporate the expectation for differentiating the curriculum in the classroom to meet individual student needs. Differentiation occurs in two important ways: 1) differentiating the content or objective an individual student needs to learn based on where they are in the overall sequence of learning; and 2) differentiating the type of activity or performance product the student is expected to accomplish or create. Both types of differentiation are important, but teachers must learn the difference and apply one or the other or both, as needed, with each individual child, based on the individual child's _need_. A critical part of differentiating effectively is having a battery of skill-specific diagnostic assessments that give teachers key information on whether a student has mastered a targeted concept or skill. Differentiation is a further benefit of using the Mastery Learning Model, since this model describes the process in using data to plan individual and small group instruction. Differentiating for students in process or product is another aspect of differentiation; this is supported through the suggested strategies and activities and resources in the curriculum.

A.4.5: Lesson Blocks: Define the major components of the lesson block or period to support differentiation and the gradual release of responsibility model. This means defining for each content area expectations for how

---

[5] Hunter, Madeline. 1982. Mastery Teaching. El Segundo, CA: TIP Publications; and Downey C, Steffy B, Poston W, and English F; (2009) 50 Ways to Close the Achievement Gap. Corwin Press. Pages 151-155.

lesson time should be used each week. For example, in primary literacy, balanced literacy components should comprise time each day in the literacy block, along with phonemic awareness/phonics skills. These components should include: read-alouds (modeling reading), shared reading (modeled reading while students read along), guided reading (independent practice with maximum support, as well as guided practice), independent reading (independent practice), and phonics/word-work, as well as shared writing and independent writing. The block should define how many minutes teachers typically spend on each component. At upper elementary, rather than guided reading, literature circles may be substituted and used to allow for small group time and opportunities for the teacher to work with groups of students or even individuals, as needed. The intent is to clearly communicate to teachers the expected structure of the lesson in support of differentiation and classroom management. The written curriculum should include suggestions in alignment with the "block," or lesson structure, and align with the RtI model. The definitions of the block (also addressed in Recommendation 2) should exist in all content areas and align with best practice for that content area and grade span. Emphasis on small-group time is key for supporting differentiation of content; this should be a fundamental element of every block within a given week (if not daily).

A.4.6: Communicate the expectations for adherence to the Framework for Strategies and the instructional model widely, and thoroughly train teachers in both. Integrate throughout all discussions and meetings concerning curriculum delivery the need to not only verbally espouse high expectations for all students and respect and appreciation for cultural, ethnic, linguistic, and economic diversity, but to model it faithfully in every classroom every day.

The definition and adoption of a research-based, student-centered, rigorous Framework for Strategies and an Instructional Planning Model will greatly assist the district in moving forward with improving instruction and student achievement. The next most critical step, after defining these two critical elements of curriculum delivery, is training teachers to implement them along with the written curriculum.

II. Professional Development

The auditors found that design and delivery of professional development in the New Haven Public Schools is inconsistent, fragmented, and inadequately planned. Professional development lacks systemic coordination, monitoring, and evaluation to support district and program goals (see Finding 3.4).

The audit team developed several recommended steps for consideration by the board of education and superintendent to address the needs identified in the audit.

Governance Functions: The following actions are recommended to the Board of Education of New Haven Public Schools:

G.4.6: Request the administration to draft for board review, revision, and approval a policy that provides for the centralized control and direction of professional development in the district. The policy should incorporate the characteristics of the 18 Quality Criteria for Professional Development shown in Exhibit 3.4.2 and should address areas as noted below:

- Has policy that directs staff development efforts;

- Is based on a careful analysis of data and is data driven;

- Provides for system-wide coordination and has a clearinghouse function in place;

- Provides the necessary funding to carry out professional development goals;

- Has a current plan that provides a framework for integrating innovations related to mission;

- Has a professional development mission in place;

- Is built using a long-range planning approach;

- Provides for organizational, unit, and individual development in a systemic manner;

- Focuses on organizational change in that staff development efforts are aligned to district goals;

- Is based on proven, research-based approaches that have been shown to increase productivity;

- Provides for three phases of the change process: initiation, implementation, and institutionalization;

- Is based on human learning and development and adult learning;

- Uses a variety of professional development approaches;

- Provides for follow-up and on-the-job application necessary to ensure improvement;

- Expects each supervisor to be a staff developer of staff supervised; and

- Requires an evaluation process that is ongoing, includes multiple sources of information, focuses on all levels of the organization, and is based on actual change in behavior.

G.4.7: Request the administration to develop a multi-year comprehensive professional development plan, and implement a professional development program that ensures district-wide consistency, continuity, and quality control. The plan should evolve from consideration of the following minimum factors:

- District mission, vision, and strategic priorities;

- Staff appraisal data;

- Curriculum monitoring data;

- Student assessment data;

- Program evaluation data;

- Student equity needs;

- Staff member needs assessment, including both professional and support staff, and

- The district's newly defined Framework for Strategies and Instructional Planning Model.

The plan should also include an evaluation of the effectiveness of each professional development activity in terms of increased student achievement. This form of evaluation requires more than participant feedback or a satisfaction survey. Effectiveness must be measured in terms of demonstrated teacher competence of the professional development information in the classroom with coordinated practice, coaching, and feedback. This evaluation component will help determine whether the professional development program is achieving the desired results.

G.4.8: Request the administration to work with staff to define professional development roles and responsibilities, including creating and/or updating job descriptions. This includes clarifying individual, campus, and district responsibilities and accountability procedures, and coordinating and focusing professional development efforts on district priorities to prevent duplication and inconsistency.

G.4.9: Require that professional development training be conducted using proven research-based methodology aligned to theories of adult learning and engagement. Trainers should use strategies that model instructional practices staff members are to utilize in their own classrooms.

G.4.10: Request the administration to annually report on the comprehensive professional development plan. This will help ensure the program is meeting board policy and is aligned with system-wide goals and priorities. The report should include:

- An overview of the process used to determine the needs for professional development, including an analysis of the effectiveness in supporting goals or intended changes each year before adoption of the budget for each subsequent year so that appropriate prioritization can occur in budget decisions.

- A review of identified professional development needs, including a prioritization based on greatest levels of student need (with a specific focus on closing achievement gaps and eliminating disparities between ethnicities and subgroups).

- A review of the planning process used to identify and coordinate the best approaches to address student needs, as well as the process to identify what knowledge and skills are needed for teachers and/or administrators to address those student needs.

- A review of the major learning outcomes or, specifically, what the district and schools determined necessary to accomplish from the training activities.

- A review of the major learning activities offered at both the district and school levels. (There should be a limited number of focus initiatives at a given time.)

- An update on the percentage of targeted teachers who participated in high quality professional development by content and program areas.

- A review of the evaluation procedures used to measure the effectiveness of professional development activities in relation to planned teacher and student outcomes.

Administrative Functions: The following actions are recommended to the Superintendent of New Haven Public Schools.

A.4.7: Assist the board of education in the development of the recommended policy in **G.4.6** that establishes standards for professional development and expectations that are aligned to identified needs as well as expectations that teacher evaluations are linked to professional learning and growth. Ensure that professional development is planned and mandatory for all professional staff, including campus and district administrators responsible for monitoring the delivery of the curriculum (see Finding 3.4).

A.4.8: Develop administrative regulations and procedures to implement all adopted professional development policies and activities district-wide.

A.4.9: Designate a single position in the table of organization that is responsible for the system-wide coordination of the professional development program, and link that position to the curriculum/instruction department in the organizational structure. This position should work closely with curriculum and instruction; all professional development should be driven by the goal of supporting effective curriculum delivery.

A.4.10: Assign the responsibility to develop a comprehensive long-range professional development plan for review and approval to the specific district level administrator responsible for the professional development program. The plan should include the elements of a quality professional development plan as defined by characteristics of the 18 Quality Criteria for Professional Development in Exhibit 3.4.2.

A.4.11: Empower the assigned district level administrator with the authority and responsibility to approve and monitor all district and campus professional development activities in consultation with the superintendent, district administrators (specifically curriculum/instruction), and school administrators.

A.4.12: Assign to the specific district level administrator the responsibility to develop and present to the board an annual report on the status and outcomes of trainings based on student performance data resulting from the professional development plan and offerings. This report should include the following:

- A review of identified professional development and student needs;

- An overview of all major learning initiatives at both the district and school levels, outlining what the training should have accomplished and how those initiatives are being prioritized for initiation, implementation, and institutionalization;

- The alignment of learning initiatives in relation to performance goals; and

- The evaluation procedures used to measure the effectiveness of professional development in relation to improved instructional practices and student achievement.

A.4.13: Align the district professional development plan with the district and school improvement plans.

A.4.14: Identify the source(s) of funding for professional development activities, ensuring that legal requirements are met and that the necessary resources are available to effectively implement the professional development plan.

A.4.15: In response to other finding data in this report, plan developmental training in the areas of:

- Effective high-yield instructional strategies designed to promote student engagement. (Prioritize a specific list of the instructional strategies that research has shown to have the greatest impact on student achievement—see also **A.4.2**.) Select a few to focus on for a minimum of three years, such as differentiation. The focus must be narrow and deep; support teachers in the classroom with ongoing implementation, and integrate with the training expectations for the use of the written curriculum throughout.

- Quality instruction designed to close the achievement gap of English language learners, special education students, and those with other specific needs.

- Effective instructional walk-through system (non-evaluative) designed to measure the quality of the delivery of the curriculum in terms of content, context, and level of rigor as well as provide guidance in determining professional development needs (see Finding 3.4). Ensure and communicate that this system is separate from the teacher evaluation system and is not designed to rate individual teacher performance, but to collect data as to the overall delivery of the curriculum, which will guide coaching and professional development to increase student achievement.

III. Instructional Monitoring

Monitoring instruction is primarily how well the curriculum is delivered to students, how well the delivery remains in alignment to the standards, and whether the instruction is being differentiated to meet individual student needs. To effectively monitor delivery, administrators need a clearly defined curriculum aligned to the state standards at the appropriate depth and complexity as well as a specific framework for instructional delivery [Framework for Strategies] with a common language within the Instructional Planning Model. Monitoring is about supporting and facilitating quality and effective curriculum delivery, not just documenting a visit to the classroom.

Specifically, an effective classroom monitoring system must look at student engagement in relation to classroom practices of varying instructional strategies and approaches to instructional delivery (see Finding 3.2). Secondly, the system of monitoring must ensure that the content is aligned to the curriculum at the appropriate grade level and level of thinking or rigor (see Finding 2.3). The third and most definitive aspect of monitoring instruction rests with the documented evidence of instruction that is individualized to meet the academic needs of diverse student populations, specifically English language learners, special education students, and economically disadvantaged students, thus providing an avenue resulting in student growth and closing the achievement gap.

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education:

G.4.11: Request the administration to develop policies for adoption to align the monitoring of the curriculum delivery with the teacher evaluation system. The purpose of the monitoring and evaluation should be defined in terms of student achievement.

G.4.12: Develop the district philosophy of monitoring curriculum delivery. Determine the role of the school administrator as the instructional leader by determining the components necessary to effectively monitor curriculum delivery (e.g., teacher evaluation, related walk-throughs, and instructional walk-throughs (in alignment with the Framework for Strategies).

G.4.13: Request the administration to define the responsibilities for the monitoring of teachers regarding the delivery of the curriculum. Identify specific roles and responsibilities for each position in the monitoring process, and include the responsibilities in the job descriptions.

G.4.14: Request the administration to develop a process for the creation of an ongoing revision of instructional monitoring tools. The tools should allow for the school administrators to facilitate and improve the instructional program through feedback that fosters growth of staff in the delivery of the curriculum.

G.4.15: Request the administration to provide focused professional development that provides ongoing support for monitoring of instructional practices. Design training for new teachers and administrators on the Instructional Planning Model, the Framework for Strategies, and monitoring expectations as they enter the district.

G.4.16: Appropriate adequate resources to support the ongoing monitoring and teacher evaluation training for both teachers and administrators.

G.4.17: Require an annual report to the board on the improvement of teacher monitoring and evaluation efforts in relation to student achievement.

Administrative Functions: The following actions are recommended to the New Haven Public Schools Superintendent:

A.4.16: Revise board policies that reflect comprehensive monitoring and evaluation programs for all employees who support the delivery of the district curriculum. Policies should define individual, campus, and district responsibilities for monitoring and teacher evaluation.

A.4.17: Revise system planning documents to reflect the newly created district monitoring requirements for delivery of curriculum, and specifically link monitoring components to the currently adopted teacher evaluation system; incorporate how those will affect teacher growth and impact student achievement. Include a process to update documents on a regular basis. Expectations should include:

- Defining the purposes of monitoring (for example: learning environments, instructional activities, room arrangements, strategies utilized, curriculum that is being delivered, pacing, etc.).

- Specifying the following: 1) who will be monitoring, i.e., principals, assistant principals, district curriculum staff, coaches, lead teachers, and/or teacher teams; 2) what are their responsibilities; 3) what feedback is shared, and how will it be shared; 4) how should it occur and with what frequency; 5) what are the minimum expected requirements for monitoring.

- Establishing clear expectations for types of walk-throughs to be conducted: evaluative, based on teacher performance; or instructional to collect ongoing data for analysis and review to determine professional development needs.

- Designating which data from instructional walk-throughs will be used for district-level feedback for the purpose of determining professional learning needs, monitoring delivery of the curriculum, etc.; and which data will be used for teacher evaluations, instructional coaching, and improvement at the school level.

- Setting district goals with definitive expectations based on the indicators in the instructional walk-through form and requiring school administrators to set campus goals aligned with district goals. Establish a requirement to periodically review data with teachers and set grade level or department goals. Determine a timeline for evaluation of district and campus goals.

A.4.18: Define the instructional walk-through process to include the following characteristics:

- The process is a research-based model that addresses the different skill levels of teachers.

- The process is focused on the delivery of the curriculum, which includes the identification of effective instructional strategies.

- The walk-through process includes frequent, short classroom visits.

- The process provides an opportunity for reflective thought and dialogue (feedback).

Consider two other purposes and types of monitoring that supplement the non-supervisory classroom walk-throughs: CMSi SchoolView trend data collection and Examining Student Work data collection for calibrating student work. CMSi SchoolView is simply classroom observational data collected frequently over time to see if dominant teacher and student activities, the objectives taught, and the student work displayed all reflect the district's Instructional Planning Model and Framework for Strategies. Examining Student Work is a method

for collecting student work to calibrate it against the district and state standards and expectations to check alignment and determine whether the work is above or below level. All three methods for collecting data are for different purposes, and all three comprise one facet of monitoring that contributes to valuable district-level and school-level feedback for decision making.

A.4.19: Require that monitoring is the primary responsibility of the school leader (principal), potentially including assistant principals and any other instructional personnel based at the campus. Require monitoring and the development of reflective practitioners to be the primary responsibility of the building administrator, in keeping with the role as instructional leader.

A.4.20: Revise the principals' and assistant principals' job descriptions and board policy to include specific expectations for monitoring based on the district adopted and newly revised Instructional Planning Model and newly created Framework for Strategies.

A.4.21: Require district administrators to monitor principals under their supervision to ensure that instructional monitoring and evaluation occur as outlined in district procedures. Require that the monitoring and evaluation data be analyzed in terms of student achievement.

A.4.22: Design and revise professional development to monitor the delivery of the curriculum and to enhance the employee evaluation program. Provide training to and require attendance and participation of all instructional staff (district curriculum/instruction leaders, school administrators, and classroom teachers) on the Instructional Planning Model and Framework for Strategies to ensure effective implementation. Provide additional training to district instructional leaders, school administrators, coaches, and skills specialists on effective coaching, feedback, and instructional leadership to further develop capacity regarding improving instruction through a consistent instructional walk-through and teacher evaluation process.

A.4.23: Develop timelines for analysis of district level data and individual school data. Hold periodic data discussions with school administrators [principals] to determine if the classroom instruction and student achievement are in alignment. Based on data discussions and the instructional walk-through process, evaluate for effectiveness, and adjust goals as needed.

A.4.24: Develop an evaluation process to ensure consistent implementation across all schools and the district, and evaluate in terms of whether the implementation of the instructional model is impacting student achievement.

A.4.25: Require district personnel who observe or evaluate teachers to monitor student and teacher use of technology to ensure that it is used in a manner to enhance student learning and is increasingly consistent with the SAMR model in transforming student and teacher use of technology at the modification and redefinition level.

A.4.26: Report annually to the board the progress of the monitoring procedures in relation to student achievement. Require the monitoring of curriculum delivery to include monitoring for these teaching strategies and practices expected to be used in the classroom. The aim is to provide teachers with specific feedback regarding what type of strategies they were using, their effectiveness, and how that strategy could have been more effective or how perhaps another could have been used to improve student achievement.

These recommendations, when fully implemented, should allow the district to experience improvements in job performance related to professional development, effective instructional practices and delivery of the curriculum, and monitoring the delivery of instruction to ensure increased student achievement. Additionally, the steps will support creation of a systemic approach to implementation of a high-quality instructional model for teaching and learning in New Haven Public Schools.

Recommendation 5: Develop and implement a comprehensive set of policies that direct a sound system of curriculum management and control. Develop and implement administrative guidelines that establish a framework for consistent decision making at all levels of the system. Establish expectations in policy that provide clear direction for the most critical district functions related to curriculum management.

A comprehensive set of school board policies is necessary to guide the management of a school system and express the expectations and intentions of the elected body legally charged with governance of the school

district. Current, sound board policies provide an updated legal framework for school district operations and help create educational focus for ongoing decision making at the district and building levels. Policies are a reliable reference for district administrators in responding to recurring issues and making operational decisions to promote the consistency of administrative practices and the cohesion of organizational functions. Administrative regulations provide the implementation functions for board policy.

The current board policies of the New Haven Public Schools are outdated and do not meet audit standard in scope and quality to guide curriculum management of the district's educational program. Policies that direct planning, curriculum monitoring, student assessment, allocation of resources, facilities planning, and change management were absent or weak. Administrative regulations to inform implementation of responsibilities for staff were missing (see Finding 1.1).

The auditors' recommended actions address the primary needs in the area of policy. Because of the number of missing policies and policies that need comprehensive revision, the actions in this recommendation should be addressed over the next five years. These actions will establish clear parameters for philosophical direction, district mission and vision, operations, job performance, and curriculum management functions of curriculum design, curriculum delivery, student and program assessment, curriculum revision, monitoring, and professional development.

Governance Functions: The following actions are recommended to the New Haven Public Schools Board of Education:

G.5.1: Establish a timeline for the development, adoption, and continuous review of a comprehensive set of board policies that will provide a unifying, clear philosophical framework for the district's approach to curriculum development and delivery. Key policies that meet criteria outlined in Exhibits 1.2.3 to 1.2.8 should be developed and adopted within the next 12 months. Existing policies should be reviewed over a cycle of five to seven years, to assure that no policy remains that is more than seven-years-old.

G.5.2: Refine the charge of the Board of Education Governance Committee to oversee the review of all policies adopted by the board; review recommended board action on policies under consideration or review; evaluate suggestions for board policy that come from board members, administrators, faculty, and the public; establish priorities in policy review and adoption in consultation with the superintendent and the administration; and set review goals and schedules.

G.5.3: Establish a clear distinction between what constitutes a board policy and what constitutes an administrative regulation.

- Board policy establishes what the board considers the general goals and acceptable practices for the school district that are non-negotiable over time. Through its policies, the board exercises its statutory duties and power to govern, control, and manage the affairs of the school district, including the vision, philosophical framework, priorities and beliefs, strategic direction, organizational structure, curriculum, assessments, finances, facilities, equity, and performance standards. In addition, through policy, the board delegates authority to and through the superintendent to administer the school district. The superintendent and district employees are responsible for following and implementing the policies of the board.

  Policies are written in clear, succinct terms, are generally legally binding, and once adopted, provide a system of accountability for the board and superintendent. Policies are formally adopted by the board.

- Administrative regulations are the superintendent's directions to school district employees on how to implement board policy, laws, and regulations in the day-to-day operations of the school district. Regulations provide the details of policy implementation, assign responsibility and accountability, and establish standards of performance. They are developed and implemented by the superintendent in partnership with district administration, faculty, and staff. Administrative regulations are not generally adopted by the board.

G.5.4: Request the administration to prepare an administrative regulation outlining a process for board policy development. See **A.5.1** for specifics concerning this regulation.

G.5.5: Request the administration to prepare and present for review and adoption drafts of new policies or revisions of existing policies that will meet the criteria outlined in Exhibits 1.1.3 to 1.1.8 and address policy deficiencies identified in the findings included in this report.

Administrative Functions: The following actions are recommended to the New Haven Public Schools Superintendent of Schools:

A.5.1: Prepare an administrative regulation that specifies the policy development, evaluation, and revision process. Include in the regulation:

- Direction for the design (format and components) of policy. This should include the following:

    a) A policy format that contains the following components:

      - Purpose: Background information explaining the needs for the policy;

      - Scope: People or situation(s) covered by the policy;

      - Definitions: Unique terms that by being defined add to the reader's understanding of the policy;

      - Policy Statement: A well-articulated, authoritative expression of philosophy and direction;

      - Responsibilities: Individual areas of responsibility followed by the function to be performed;

      - Exclusions: Groups, individuals, budgets, etc., that are excluded from the provisions of the policy;

      - Contacts: Offices that can be contacted regarding the policy; and

      - Legal References: Listing of relevant state statutes and United States Code(s).

    b) How the need for board policy is identified. The need for a new policy may be identified by:

      - Board of Education;

      - Superintendent;

      - Staff; or

      - Stakeholder.

    c) Circumstances that would require the development of a new board policy or revisions to an existing board policy, including:

      - Changes in the external operating environment;

      - Change(s) to government statutes or regulations;

      - Review of the district's strategic direction;

      - New initiatives within the district; and

      - Need for consistency across the district.

    d) Steps in the process: The board will authorize the superintendent to draft a new board policy or revise an existing one. In its authorization, the board will clearly define the desired purpose and outcomes for the policy and make a preliminary determination of the scope of the policy (to whom the policy would apply).

    e) A board governance (policy) committee will review draft policies submitted by the superintendent for the following considerations:

      - Is the content of the policy within the scope of the board's authority?

- Does the policy support the district's mission, vision, core values, and strategic direction?

- Is the policy reasonable?

f) Initial Reading: Based on the recommendation from the board governance (policy) committee, the draft policy is placed on the board's agenda for an initial reading. At this time, the full board could discuss the policy or redirect the policy back to the board governance committee for additional refinement based on the questions, comments, and suggestions obtained during the initial reading. The policy will then be presented to the board for another reading.

g) Final Reading: The period between the initial and final readings allows time for concerned persons to ask about policy. At this time, the full board could discuss the policy and redirect the policy back to the board policy committee for additional refinement based on the questions, comments, and suggestions obtained after the initial reading. If revised, the policy will be re-presented to the board for an initial reading.

h) Adoption: Upon adoption, the policy will be posted to the district's web-based policy archive, and staff will be notified.

- Require that policies be developed in accordance with the characteristics and topics presented in Exhibits 1.1.3 through 1.1.8. These include:

a) School District Instructional Organization – Draft and adopt a policy that requires:

- The superintendent to develop and maintain an organizational chart that accurately depicts authority and responsibility.

- The superintendent to update the organizational chart annually.

- Job descriptions with clear and concise statements of qualifications; links to chain of command, direct reports, and subordinates; functions, duties, and responsibilities; and, where appropriate, the relationship to curriculum design.

- Performance appraisals linked to critical job functions.

b) School District Planning – Draft and adopt policy that requires:

- The superintendent to be responsible for providing direction for all short- and long-range planning that is designed to achieve the mission, vision, core values, and strategic directions established by the board.

- Planning based on an analysis of current system results and desired system results.

- All district plans clearly aligned with system priorities.

- The development, implementation, monitoring, and evaluation of district, school, and department plans that incorporate system-wide student achievement targets.

- Plans to be reviewed and updated annually.

- District plans to be evaluated using both formative and summative measures of student academic achievement.

- Planning timelines to be coordinated with budget development timelines.

- Plan implementation and results to become a component of administrator evaluations.

- Quarterly reports to the board on the status of all district plans.

c) Curriculum Development – Draft and adopt a policy that explicitly requires:

- Board adoption of the written curriculum.

- A planned curriculum review process that includes review of instructional resources and assessments.

- A district curriculum that is not only aligned with national standards and high stakes assessments, but is also more rigorous than state and national standards.

- District assessments aligned with the board-adopted curriculum and the alignment of all textbooks, instructional resources, and online and software applications with the board-adopted curriculum.

- Curriculum guides that include clearly stated learning objectives, a statement of prerequisite skills or knowledge, suggested instructional strategies, and strategies to assess learning. Require that the number of learning targets be feasible to ensure mastery of essential learnings within allocated instructional time.

- Expectations concerning instructional rigor and the preferred type of instructional engagement and activity in the classroom. These expectations should derive from philosophical statements concerning the educational program, system mission, and goals.

- The vertical articulation and horizontal coordination of the curriculum within schools, across grade levels, and among schools.

d) Monitoring Curriculum and Instruction – Draft and adopt a policy that requires:

- Teachers to be responsible for delivery of the board-adopted curriculum.

- Mastery learning practices to be employed at all grade levels and for all content areas, including electives.

- School administrators to be responsible for monitoring the delivery of the adopted curriculum on a weekly basis and ensuring gains in student achievement.

e) Assessment and Testing – Draft and adopt a policy that requires:

- The entire taught curriculum is measured for effectiveness.

- The use of student achievement data to identify subject areas that require additional emphasis and budgetary support.

- District assessments that go beyond that which is required for state accountability and are more rigorous than external high stakes assessments. Those assessments should be district-developed, authentic, and intended to be integrated with everyday instruction.

- The use of formative assessments to inform the effectiveness of curriculum delivery and to guide teacher monitoring of student progress.

- The use of summative assessments to evaluate curriculum design and appropriateness for the district population.

- The use of assessment data to evaluate effectiveness of existing programs and services at all levels of the system on a cyclical basis to ascertain cost-benefit.

f) Professional Development – Draft and adopt a policy that requires:

- The superintendent to establish, implement, and maintain a multi-year professional staff development plan that is aligned with district goals, priorities, and adopted curriculum, and that supports improved student learning.

- Professional development plans to be linked to district long-range plans and annual district goal priorities.

- Professional development that is identified, prioritized, and coordinated at the district, school site, and individual level.

- Professional development plans that provide professional staff development opportunities that are research-based approaches in both content and delivery.

- Professional development plans that provide for organizational, collegial, and individual development that includes follow-up, monitoring, and on-the-job application to support the acquisition and application of instructional strategies.

- Professional development plans to be funded sufficiently to obtain desired professional development goals.

g) Budget – Draft and adopt a policy that requires:

- Adherence to a program-centered budgeting process that includes incremental budgeting and funding possibilities.

- A multi-year budget process that provides ongoing support for curriculum and program priorities and connects costs with program expectations and data-based needs.

- Program evaluation and identification of specific, measurable program goals before the budget process begins.

- Documentation of costs to ensure that expenditures are aligned with revenues and cost-benefit analysis is facilitated.

- The allocation of resources according to documented needs, assessment data, and established district curriculum and program goals and priorities.

h) Support Services – Draft and adopt a policy that references connecting support services, such as transportation, technology, nursing, food service, and maintenance, to student learning. Include an expectation for the evaluation of support services and periodic reports to the board.

A.5.2: Prepare an administrative regulation that specifies the regulation development, evaluation, and revision process. Include in the regulation:

Establishing how the need for an administrative regulation will be identified. The need for an administrative regulation may be identified by:

- Superintendent,

- District administrators, or

- District staff.

Circumstances that call for a new or revised administrative regulation may include:

- Additions or changes to board policies,

- Additions or changes to governmental statutes or regulations,

- Changes in the internal and/or external operating environment,

- New initiatives within the district, and

- Need for consistent policy implementation across the district.

In developing administrative regulations, consult with those directly responsible for implementing the guiding board policy. A draft of administrative regulations should be reviewed by the superintendent's leadership team, with a focus on the following considerations:

- Is the regulation consistent with the guiding board policy?

- Is the regulation consistent with local, state, and federal laws?

- Is the regulation sufficient to guide consistent implementation of the guiding policy?

- Can the regulation be reasonably implemented?

Upon final approval by the superintendent, distribute the administrative regulations to all district administrators and staff. Post the regulations on the district's web-based policy archive.

A.5.3: Review all recommended policy additions and revisions outlined in the audit recommendations, and prioritize those policies for development and revision. Create administrative regulations attached to these areas, as needed.

A.5.4: Disseminate adopted board policies to all administrators. Publish board policies and administrative regulations on the district's website in a policy archive as soon as is feasible to enable easy internal and external access to the most current policies and regulations.

A.5.5: Include discussions of adopted policies and regulations in executive leadership meetings and other administrative meetings as adoptions are completed. Monitor for consistent implementation.

A.5.6: Establish a system to maintain policy congruence with state and federal laws, regulations, and other requirements.

Regular attention to the development, evaluation, and revision of policy over time is an essential part of assuring consistency in decision making district-wide. Implementing these steps will assure the district is set on a path for improved consistency and will adhere to the system's mission and vision.

Recommendation 6: Develop and implement a comprehensive plan for student assessment and program evaluation that will provide meaningful data for decision making to support improved student achievement. Require systematic evaluation of major programs and interventions linked with evidence of student learning to provide feedback for decisions regarding program selection, continuation, expansion, modification, or termination.

It is imperative that school districts develop a written comprehensive student assessment and program evaluation plan to support effective implementation of a guaranteed and viable curriculum. This comprehensive plan will help to facilitate test analysis and interpretation and will formalize a process that will serve to eliminate fragmentation and program information gaps. Informed curriculum decisions become possible when data from student assessment can be analyzed and considered for identifying strengths and weaknesses in the curriculum. Without extensive and reliable information, curriculum decisions are left to opinion or speculation of the personnel involved in decision making. School districts that are successful in raising student achievement have a clear direction and focused strategies that provide all staff with the knowledge and skills on how to analyze data results and use those results in making sound instructional decisions.

The auditors determined that New Haven Public Schools lacks a comprehensive student assessment and program evaluation plan to provide the feedback necessary to support sound decisions regarding the design and delivery of the curriculum.

The scope of student assessment was not sufficient to evaluate the taught curriculum in core and non-core courses, nor to provide teachers with sufficient formative data to guide day-to-day lesson planning. Assessment trends indicate that students' overall performance is lower than both state and national averages. Achievement gaps identified by the auditors are not projected to close unless significant changes occur. The auditors did not find any expectations that programs and interventions be selected for implementation based on a careful analysis of available research and the relationship to the adopted curriculum. Programs and interventions to improve student achievement have not been monitored or evaluated for long-term effectiveness in terms of student achievement. Without an established plan for evaluating programs, district leadership does not have a framework for the development of new initiatives or the elimination of unsuccessful programs.

In order to strengthen a comprehensive plan for student assessment and program evaluation in New Haven Public Schools, the following actions are recommended to the board and superintendent.

Governance Functions: The following actions are recommended to the Board of Education for the New Haven Public Schools:

G.6.1: Request the administration to prepare for review a policy requiring the development of a comprehensive student assessment plan. The policy should include the following:

- Description of the philosophical framework for the design of the student assessment plan and direction for both formative and summative assessment of the curriculum by course and grade.

- Requirement that formative, diagnostic assessment instruments are aligned to the district curriculum and are administered to students frequently to provide teachers information for instructional decision making.

- Requirement that curriculum documents model types of assessment approaches to be used on an ongoing basis to monitor learning.

- Requirement that a pool of quality assessment items and tasks be available to teachers of all core courses (at a minimum) and all non-core courses to use diagnostically during instruction.

- Requirement that staff provide secure formative assessment tools that are aligned with curriculum and used to measure mastery of key content after adequate opportunity to learn.

- Direction for use of data to analyze group, school, and system student trends. Include an expectation that when achievement gaps are evident in the data, aggressive action must be taken to intervene.

- An expectation for ongoing formative and summative program evaluation with an explicit set of formative and summative procedures to carry out this expectation, and provisions for regular formative and summative assessment of all levels of the system (organization and student).

G.6.2: Request the administration to address the auditors' analysis of the characteristics of a comprehensive student assessment plan.

G.6.3: Request the administration to prepare for board review a comprehensive program evaluation plan.

G.6.4: Direct that all job descriptions related to assessment be reviewed for congruence with the student and program assessment plan.

G.6.5: Request the administration to develop a board policy that provides a framework for program evaluation. This policy should include the following:

- Directives to have program evaluation procedures in place;

- Procedures for program evaluation;

- Use of multiple measures;

- Frequency of program evaluation;

- Clarity of evaluation procedures;

- Expectations for program reports; and

- Use of program reports/evaluations to support timely decisions regarding program effectiveness.

G.6.6: Require the superintendent to make regular reports to the board regarding the status of student performance on state and local assessments. Such reports must identify growth patterns, persistent gaps, and a formal evaluation of actions implemented to close achievement gaps.

G.6.7: Commit adequate resources to support the development and implementation of comprehensive student assessment and program evaluation planning.

Administrative Functions: The following actions are recommended to the superintendent of the New Haven Public Schools:

A.6.1: Assist the school board in developing a policy that provides direction for development and implementation of a comprehensive student assessment and program evaluation plan.

A.6.2: As directed by the board, draft a new comprehensive plan for student assessment. This plan should include the Characteristics of a Comprehensive Student Assessment Plan that are listed and discussed in Exhibit 4.1.1, and are also listed below:

- Describes the philosophical framework for the design of the student assessment plan and directs both formative and summative assessment of the curriculum by course and grade in congruence with board policy. Expects ongoing formative and summative program evaluation; directs use of data to analyze group, school, and system student trends.

- Includes an explicit set of formative and summative assessment procedures to carry out the expectations outlined in the plan and in board policy. Provides for regular formative and summative assessment at all levels of the system (organization, student).

- Requires that formative, diagnostic assessment instruments aligned to the district curriculum be administered to students frequently to give teachers information for instructional decision making. This includes information regarding which students need which learner objectives to be at the appropriate level of difficulty (e.g., provides data for differentiated instruction).

- Provides a list of student assessment tools, purposes, subjects, type of student tested, timelines, etc.

- Identifies and provides direction on the use of diverse assessment strategies for multiple purposes at all levels—district, school, and classroom—that are both formative and summative.

- Specifies the roles and responsibilities of the central office staff and school-based staff for assessing all students using designated assessment measures and for analyzing test data.

- Directs the feedback process; assures the proper use of assessment data at all levels.

- Specifies the connection(s) among district, state, and national assessments.

- Specifies the overall assessment and analysis procedures used to determine curriculum effectiveness.

- Requires aligned student assessment examples and tools to be placed in curriculum and assessment documents.

- Specifies how equity issues will be identified and addressed using data sources; controls for possible bias.

- Provides for appropriate trainings for various audiences on assessment and the instructional use of assessment results.

- Delineates responsibilities and procedures for monitoring the administration of the comprehensive student assessment plan and/or procedures.

- Establishes a process for communicating and training staff in the interpretation of results, changes in state and local student achievement tests, and new trends in the student assessment field.

- Describes an informational management system that permits all key stakeholders access to assessment data results in a timely fashion.

A.6.3: As directed by the board, draft a comprehensive plan for program evaluation. This plan/process should include the Characteristics of a Quality Program Evaluation Plan that are listed in Exhibit 4.4.1 and are noted below:

- Specifies procedures for program evaluation, including needs assessment and formative and summative evaluation methods.

- Expects multiple measures designed to obtain quality data about the goals and objectives of the program and for the measures to be accurate and reliable.

- Provides for multiple measures of data collection, resulting in both quantitative and qualitative data.

- Directs ongoing formative assessments for the first two years for any new program implementation and summative evaluation at the end of the third year.

- Directs that all existing programs undergo a program evaluation at least every three years and an assessment of both the quality of implementation (fidelity) and program impact (learner outcomes).

- Expects procedures used in the evaluation process be clearly described.

- Specifies that program evaluation reports clearly describe the program, including its context, purposes, and procedures.

- Expects that reports are provided in an expedient manner to support timely decisions regarding program effectiveness, identifying strengths and weaknesses, and including findings and recommendations for the continuation, modification, or termination of a given program.

- Expects all proposals for all program initiatives include needs assessment data, description of formative and summative evaluations, and data collection procedures.

- Directs that program evaluation designs are practical, ethical, cost-effective, and adequately address relevant political issues.

- Specifies creation of a data system allowing for attribution of cost by program supporting program-based benefit analysis.

- Expects outcome data to be correlated with measures of the fidelity of the program's implementation.

A.6.4: Continue to implement the Plan, Do, Study, and Act (PDSA) process as the data analysis framework and for school improvement planning. As the process continues, increase the focus and critical analysis on the monitoring aspect to measure progress of initiatives regarding the impact on student achievement.

A.6.5: Continue training in the Data Wise Improvement Process as noted in the Scope of Work action plan. Do not rush the process. Building the capacity of administrators, teachers, and staff will be critical. If possible, through grants and other fiscal means, utilize external sources when necessary to help facilitate the process and provide important support.

A.6.6: For the present, direct district curriculum and instructional leaders to evaluate the use of assessment data within the schools, and determine how well these data are communicated, understood, and used to guide instruction and program implementation, and to improve student achievement.

A.6.7: Ensure that annual operating budgets contain enough funding to implement the comprehensive assessment plan.

A.6.8: Direct human resource personnel to revise job descriptions to explicitly require staff to employ assessment, assessment data, and program evaluation throughout their responsibilities.

A.6.9: Evaluate the effectiveness of current efforts to close the achievement gap and research best practices in closing the achievement gaps. Pilot specific intervention strategies, use data to measure effectiveness, and fund interventions that demonstrate promise.

A.6.10: Continue monitoring the student information management system currently in operation. A database is only as good as users have confidence in its integrity and accuracy. Great care must be taken to ensure that there are no significant lapses in the system upon which instructional and curricular decisions will be made. Consistent and accessible reports are critical.

These recommendations, if implemented, provide the New Haven Public Schools a vehicle to consistently appropriately use data to assess student progress, evaluate programs and interventions, analyze results, and ensure that such results are used to make sound decisions about curriculum, instruction, assessment, and programs.

Finally, it is recommended that appropriate policies and regulations be developed and/or expanded over the next 12 months to support the development of a comprehensive student assessment and program evaluation plan

or process. Full development and implementation should be in place within the next two years or less. One exception is the Data Wise Improvement Process, which will take at least three years to be fully operational system wide.

Recommendation 7: Adopt a three-year plan for implementation of a performance-based budgeting and allocation system for New Haven Public Schools' campuses, departments, programs, and services.

The auditors found that the New Haven Public Schools funds schools largely upon the basis of enrollment (student head count). They also found many programs or "interventions" funded by the district that are designed to address needs of schools, but which are ineffectively planned or evaluated (see <u>Finding 5.1</u>). The auditors learned that the funds for the system are controlled by the board of education in concert with the city of New Haven, but allocations are generally made without solid information about expectations, costs, and planned results (see <u>Finding 5.1</u>).

The auditors found that many of the programs and services funded were not implemented in a way to evaluate benefits received from the cost of the program (see <u>Findings 5.1</u> and <u>5.4</u>). The New Haven Public Schools' leadership team needs to not only develop a budget that is within legally established limits and guidelines, but that also responds to the needs of its clientele, reflects the educational priorities of the district, and organizes funding along programmatic needs instead of enrollment. The challenge is to be able to determine not so much what the funding <u>is,</u> but rather what the funding <u>does</u>. Only then will the board of education and the New Haven community be able to ascertain whether it is getting maximum "bang from the buck."

Given the need to monitor results discussed in other recommendations of this audit report, such results must be used in determining budget priorities. Using its resources within the district to link curricular expectations, adopted goals and objectives, and testing and performance feedback data, it would be possible to move ahead with programmatic performance-based budgeting. Tangible connections are needed between the costs and the resultant benefits that accrue from the funded activities of the system.

Programmatic budgeting processes, tailored specifically for the New Haven Public Schools, can offer an efficient way for the board, the superintendent, and the New Haven Public Schools' leadership team to determine how well funds are being used in addressing system needs. To do this, all programs and activities of the organization must first be evaluated and reviewed based on performance <u>and</u> cost. The need is for a <u>performance-based budgeting system.</u>[6]

An annual budget, built anew each year, is recommended for use for the basic instructional and support areas of the budget, and linkages are needed with performance (or results) information. The major steps of installing programmatic budgeting include the following recommended actions:

Governance Functions: The following actions are recommended for consideration by the New Haven Public Schools Board of Education:

G.7.1: Review programmatic intervention recommendations, evaluate priorities, establish goals for programs and services, and monitor feedback of results.

G.7.2: Confer with the superintendent to identify key components for a board policy requiring improved quality control with a performance-based budgeting process, facilitating cost-benefit information about programs and services for data-driven decision making in budget planning and implementation.

G.7.3: Once information is available on the impact of allocations based on needs and results, share such information with the community as to system performance in periodic reports, such as a newsletter.

Within such a budgeting system, both finances and curriculum are monitored simultaneously. It is important to note that such a system should not be implemented hastily, nor can it be put into place overnight.

Administrative Functions: The following actions are recommended for consideration by the New Haven Public Schools Superintendent:

---

[6] Information about performance-based budgeting for schools may be found in <u>School Budgeting for Hard Times: Confronting Cutbacks and Critics.</u> (2011), Corwin Press.

A.7.1: Identify various educational activities or programs, and group them into broad areas of need or purpose served. Examples might be "elementary instruction—personnel, gifted education, district governance (board and superintendent functions), high school instruction, counseling and guidance, K-3 Reading, etc." Try to divide the organization into the most logical (but least number necessary, normally 20-30 program subgroups, based on the existing operating structure). Assign leadership of the new budgeting process to the Chief Academic Officer as chair of the decision-making team, and the Chief Financial Officer to manage the financial data and track monetary decisions. The superintendent and board of education need to avoid any conflict of interest by not participating in the process until recommendations are made to them following completion of the decision-making team's work.

A.7.2: Build budget "packages" within each of the subgroups that incrementally (or increasingly) deliver the objectives of the area of need or purpose. For example, any given program could be defined and packaged into units that provide programs and services at different levels of quality and cost; for example, 1) 90% of last year's budget, which allows recovery or savings of previous allocations if better used elsewhere; 2) 100% of last year's budget, which continues the allocation at the current or existing level; and 3) 105% of last year's budget level, which helps increase allocations for program improvement if needed, and it can be evaluated thoroughly both formatively and summatively.

A.7.3: Have program managers prepare packages for their areas with each package representing a level of activity that stands alone but builds sequentially on the previous package. Budget packages should be concise and meaningful. Examples might be minimal services, optimal services, and improved services. Program managers, or their designees, normally are on the decision-making team.

A.7.4: Define a tentative program structure after grouping and compilation of budget packages.

A.7.5: Include in each program area (package group) a goal statement, which clearly expresses the purpose the program or activity serves. Compile goal statements and budget packages and give to appropriate staff to gather data to best describe service levels, program outputs, and cost benefits.

A.7.6: Define organizational performance data, appropriate involvement of staff (including principals and teachers), current and desired service, and program objectives. Prepare guidelines and recommendations, and give them to those who will develop the program budgets.

A.7.7: Compile budget packages, including costs, into a work sheet with instructions for evaluating and ranking. Priorities must be set among competing intentions to facilitate allocations up to the predetermined funding levels. Couple past cost information, especially expenditure percentages, with performance data, and develop recommendations to guide preliminary budget-building estimates.

A.7.8: Give budget program packages to the appropriate program directors and staff for evaluation and ranking, and publish compiled results in a tentative budgeted program package list in order of ranked priority.

A.7.9: Make final decisions in allocation priorities based upon measured effectiveness of programs elements, revenues available, the appropriation levels to be authorized, and the program funding priorities and rankings by the administration and recommended to the board of education for funding and budget approval as required by law.

Given this approach to budgeting, the process of changing funding or allocation levels is based on "How well is this program or activity doing?" instead of "How much did we spend last year?" Top management, the board of education, and the community will have a more complete idea of what is funded (and what is not) in operations, programs, and services of New Haven Public Schools. Tangible connections between results and costs will be abundantly evident, and productivity stands a greater likelihood of improving.

New Haven Public Schools needs a credible rationale and an effective system for appropriating and/or reallocating finances, especially from aged, obsolescent, or unproductive programs and activities to new, emerging programs or activities of high priority based on organizational effectiveness, changing needs of clientele, or produced results. Moreover, valid linkages need to be identified among organizational objectives, results, and costs in the process of improving quality control and system prudence with its financial resources. It will be far easier

to explain why certain portions of the budget are increasing (and perhaps why certain portions are decreasing) each year.

Again, it is important to stress that it may take three or more years to develop such a budgetary system, and the budget's cornerstones must be curriculum unity[7] and monitored performance in New Haven Public Schools.

Recommendation 8: Design and implement a long-range facility planning process to provide for short-term and long-term facility and maintenance needs. Include all components of comprehensive long-range facilities planning with clear linkage to educational priorities, goals, and objectives in the district's strategic planning, including the district's continuous improvement plan and the Five Year Capital Plan. Incorporate planning for all operations, emphasizing information and instructional technology.

Effective school districts provide safe, healthy, and appropriate educational environments and administrative settings that support teaching, learning, and organizational management functions. Ensuring that the facilities are effective environments for 21st century educational practices is a critical component of quality plans. When well written and effectively implemented, a facilities plan stimulates a sense of community and generates ongoing support for schools and their related district operations. With the 21st century requirements for technological skills in the educational environment and the workplace, school districts offering K-12 opportunities to acquire these skills and developing ongoing, quality instructional technology planning better prepare students to succeed.

Although New Haven Public Schools are structurally adequate since undergoing an extensive construction program in partnership with the City of New Haven from 1995 through 2018, many facilities are now falling into disrepair due to failing systems and delay in completing timely repairs and upgrades. Most schools were observed to be clean and safe, but many were behind in addressing maintenance needs. Several schools have exceeded capacity, while others are underutilized. The varying conditions of facilities and the lack of a long-range plan to stay ahead of maintenance issues have resulted in inequities for students and some buildings that are not conducive to consistently safe and comfortable learning environments. Recent spending cuts have affected staffing for such positions as custodians and media specialists, and are impacting the quality of schools' instructional services. Some schools are more capable of providing support to technology, while others struggle to develop tech capacity, resulting in support that varies in adequacy (see Finding 5.3). Further, planning for the design and implementation of instructional technology failed to meet audit quality expectations.

The auditors recommend developing a long-range facilities plan that integrates data concerning current needs and conditions, and enrollment trends and projections to keep up with maintenance needs and infrastructure issues. This plan should coordinate with the district strategic planning, technology plan, and program-based budgeting. To address the needs identified by the audit team, the following recommendations are offered for consideration by the New Haven Public Schools leaders:

Governance Functions: The following actions are recommended for consideration by the New Haven Public Schools Board of Education:

G.8.1: Refine and revise as needed *Board Policy 7100: New Construction-Planning* to require the creation and periodic review and revision of a comprehensive, 5- to 10-year master plan for facilities development and maintenance. Develop and adopt a similar policy directing long-range planning for information technology.

G.8.2: Require the superintendent to submit for board approval a 5- to 10-year facilities plan that (a) includes information derived from curriculum and instruction planning, as well as facility, enrollment, and community population data; and (b) reflects goals, strategies, and related components of the strategic plan to be developed. Further, require an updated 5- to 10-year information technology plan. As appropriate to meet state direction and to ensure coordination, require integration of the plans.

G.8.3: Direct the administration to develop an instructional technology plan focused on the needs of teachers and students, and to refine technology curriculum courses at appropriate levels to support and enhance student

---

[7] Quality control results from unity of purpose, activity, and assessment, or in educational systems there is a cycle unifying what is taught, when and how it is taught, and what and how it is assessed. (See the quality control triangle in the Introduction section of this audit report.)

learning. Design student skills assessment for each offering and for overall needs assessment while considering 21st century demands for high-tech knowledge and skills in academia and the workplace.

G.8.4: Require that the plans be developed with a variety of school and community-based opportunities for stakeholder input, the expertise of district leaders and external experts, and the organizational involvement as required by *Board Policy 2220: Administration* and *Board Policy 2250: Monitoring of Product and Process Goals*.

G.8.5: Require the superintendent to schedule periodic reports to the board of education on the progress of facilities and information technology plan implementation. Specifically include in the report the impact of the technology improvements on both district operations and instructional uses. Incorporate these components of progress reporting with those related to the comprehensive strategic plan being developed.

Administrative Functions: The following actions are recommended for consideration by the New Haven Public Schools Superintendent:

A.8.1: Develop updated 5- to 10-year facilities and information technology plans responding to the direction in actions **G.8.1** through **G.8.3** to present to the board for approval.

- Ensure that the technology plan addresses state as well as local requirements and integrates needs assessment data on the status and condition of technology resources and stakeholder recommendations derived through the strategic planning process.

  ○ Inventory all technology based instructional equipment and software and determine the degree to which they are (a) accessible to all students and schools, and (b) adequate and effective for 21st century student-centered and blended-learning approaches and opportunities.

  ○ Establish and articulate hardware specifications to ensure durable, functional, and updated equipment.

  ○ Identify and aggressively seek external grants and other funding that adhere to the overall focus of the district and are aligned with the district's strategic plan as needed to expedite identified improvement needs for technology support services and instructional technology.

  ○ Create and refine structures, policies, and practices that support equitable distribution of technology resources across all schools for all students.

- Involve the leadership team in establishing a process, format, and contents for the master facilities plan, including ongoing monitoring and evaluation of the design and implementation of the plan.

  ○ Conduct an intense and comprehensive facilities assessment and life cycle analysis for each school building, including an examination of individual systems to fully determine current condition and projected needs.

  ○ Use the data to establish short-term and long-range goals to address prioritized facilities needs district-wide.

- Ensure that the facilities and technology planning processes include information from curriculum and instruction to facility design and finance and respond to needs identified in the information collected.

- Assess and evaluate the work order systems and procedures being used in facilities and technology management to ensure that there are effective processes in place to provide and maintain high quality resources to support optimum teaching and learning environments.

- Establish inclusive participation guidelines, and ensure solicitation of input from internal and external stakeholders.

A.8.2: Create processes for the integration of all plans into the strategic planning process and final product.

A.8.3: Widely disseminate the strategic plan, integrating the various components. Provide more detailed information as needed, but also develop a brief and understandable public information summary that can be used with parents and other citizens across the district.

A.8.4: Develop a calendar for periodic reports on plan implementation progress for the various components of the strategic plan, with emphasis on facilities and technology updates.

A.8.5: In response to **G.8.3**, ensure further development and refinement of a technology skills curriculum with accompanying skills assessments. Similarly, design student skills assessments for each offering and for overall needs assessment while considering 21st century demands for high-tech knowledge and skills in educational programming and in the workplace.

A.8.6: As enrollment projections dictate change, continue to evaluate educational facilities for closures, mergers, or further renovation/construction, and plan those in accordance with the collaborative and data-directed process used in earlier such decisions.

A.8.7: In accordance with audit criteria noted in Finding 2.3, direct the development of curriculum documents to guide all technology instruction at all grade levels where the courses are offered. Ensure accompanying assessments to evaluate the development of identified skills and knowledge.

With implementation of actions recommended to the board of education and the administration, the district's urgently needed long-range, coordinated planning can be formalized. Clearly stated and articulated educational goals linked to facilities and technology infrastructure are key to implementing the recommendations. Fully implementing a cohesive technology curriculum and pursuing grant funding that aligns with the overall focus of the school district and as incorporated in the district's strategic plan can accelerate attainment of the desired results. The district needs a strong framework for collective, coordinated community action to plan for future school facilities and the technology requirements of 21st century learning environments. Also, the district operations and school management functions need a strong infrastructure that supports technology being used as a tool for both student success and operational efficiency for support services. Implementation of the recommended actions and comprehensive involvement of the broad community of stakeholders, as already planned in New Haven Public Schools' strategic planning process, can create that infrastructure.

VI. APPENDICES

Appendix A

Auditors' Biographical Data

Zollie Stevenson, PhD, Co-Lead Auditor

Zollie Stevenson, Jr., PhD, is the Vice President for Academic Affairs/Chief Academic Office and tenured Associate Professor of Psychology at Philander Smith College in Little Rock, Arkansas. Prior to arriving at Philander Smith, he served as an Associate Professor in the Department of Educational Leadership and Policy Studies, School of Education at Howard University.

At the federal government level, he served as the Senior Executive Service level program director for Student Achievement and School Accountability Programs, Office of Elementary and Secondary Education, U.S. Department of Education, where he managed $16 billion in funds for the ESEA Title I program for economically disadvantaged youth, the Title III program for English learners, the McKinney-Vento Homeless Education program, and the School Improvement/Turnaround program.

Stevenson also has 17 years of state education agency/school district experience as a supervisor of federal programs, school reform, research and evaluation, accountability, assessment, and educational support programs. He has served on over 40 curriculum management audits. He earned the Ph.D. in Educational Psychology from the University of North Carolina at Chapel Hill.

Patricia Braxton, MEd, Co-Lead Auditor

Patricia E. Braxton has over 41 years of experience in education and during that time held various teaching and administrative positions. She served as Director of Curriculum and Instruction for the Woodstown-Pilesgrove Regional School District in Woodstown, New Jersey from 1999-2015. Prior to that she completed a 16½ year tenure with Camden City Schools in Camden, New Jersey (1983-1999), serving in various roles, including: Project Manager/Coordinator for the Teaching Essential Life Skills (TELS) program and the Cooper's Poynt Professional Development School, elementary reading center teacher, secondary reading department chairperson, and coach/trainer with the Office of Staff Development. She was a reading instructor at West Philadelphia High School in Philadelphia, Pennsylvania, and began her career as a fifth grade classroom teacher in Newport News Public Schools in Virginia. She has taught at the elementary, middle, and high school levels.

Ms. Braxton completed her undergraduate studies at Hampton Institute in Virginia and earned master degrees in Psychology of Reading (Temple University, Philadelphia, Pennsylvania) and in School Administration (Rowan University, Glassboro, New Jersey). She is certified as an elementary teacher, reading specialist K-12, supervisor, and school administrator. Ms. Braxton completed her Curriculum Management Audit training in 2006 and has served on audit teams in Maryland, Michigan, Arizona, Missouri, Alabama, Washington, DC, New Jersey, Pennsylvania, Texas, and Georgia.

Holly J. Kaptain, PhD

Holly J. Kaptain is the Executive Director of Curriculum Management Solutions, inc. (CMSi), owner of the Curriculum Management Audit, developed by Fenwick English. A former teacher, teaching assistant, curriculum writer, and grant project coordinator, Dr. Kaptain now consults in the areas of curriculum evaluation, design, and alignment, and on instructional strategies, particularly for linguistically diverse populations. She is a CMSi-licensed trainer in deep curriculum alignment and has participated in or led 35 curriculum audits in 17 different states since 1996. Dr. Kaptain received her BA from St. Olaf College, her MS in Curriculum and Instruction from Iowa State University, and her PhD in Educational Leadership and Policy Studies from Iowa State University. She completed curriculum management audit training in St. Paul, Minnesota, in July 1996. She completed advanced audit training in 1998, 2001, 2005, 2007, 2009, 2015, and 2018.

Dr. Kaptain has provided curriculum design and cultural sensitivity presentations at regional and national conferences and is a recipient of the Jordan Larson award for outstanding graduate work at Iowa State University in Educational Administration. She is a member the Association for Curriculum Supervision and Development.

Lynne Christensen, EdD

Lynne Christensen is currently retired and works part-time as a consultant. Previously she was a teacher in the regular classroom, kindergarten through grade 12; teacher and program administrator of talented and gifted education; and special education teacher. She became a building and central office administrator after approximately 20 years in the classroom, serving as a special education administrator, building principal, curriculum specialist, and data analyst. Ms. Christensen works as an adjunct at the college/university level, teaching undergraduate and graduate classes in general education, special education, curriculum design and delivery, as well as supervising undergraduate and graduate student teachers.

She earned a bachelor's degree at Bridgewater State University in Bridgewater, Massachusetts, in special education and elementary education. She earned a master's degree in Educational Leadership from Drake University in Des Moines, Iowa, and earned a doctorate in Leadership in Schooling at the University of Massachusetts, Lowell.

She completed her Level I Audit Training in Hershey, Pennsylvania; Level II in Tampa, Florida; and Level III in Houston County, Georgia. She has completed audits in Texas, Georgia, Connecticut, and Massachusetts.

Abbie Cook, EdD

Abbie Cook is the supervisor of a unique blended learning career tech campus in southwest Ohio. She has more than 20 years of experience in various roles in education. Dr. Cook earned her doctorate from the University of Cincinnati in Curriculum & Instruction. She also has a Master's Degree in Curriculum & Instruction: Instructional Technology and Design. To date in her career, Dr. Cook has also served as the district Director of Curriculum and Assessment, a virtual school curriculum coordinator, online teacher, and classroom teacher with at-risk students. She completed her Curriculum Management Audit training in Arizona in 2009 and has served on audit teams in Texas, Kentucky, Massachusetts, and Georgia. Her own school district has participated in multiple Curriculum Management Audits over the last decade.

Maureen Cotter, EdD

Maureen Cotter has 25 years of experience in education, policy, advocacy, and governance in Rhode Island. She is a former high school teacher, central office professional, and consultant assisting state and national education agencies on program development, curriculum design, and project management. Dr. Cotter served on an elected school board for 19 years and currently consults with school boards and executive staff providing governance and leadership training. She earned her EdD in Educational Leadership from Johnson & Wales University, MEd in Education Administration from Providence College, MS in Physical Education at the University of Rhode Island, and BS in Physical Education at Rhode Island College. Dr. Cotter completed her Curriculum Management Audit training in Tucson, Arizona, in 2009 and has served on audits in Arizona, Kentucky, Georgia, Maryland, Massachusetts, North Carolina, Pennsylvania, Rhode Island, Connecticut, and Texas.

Penny Gray, PhD

Penny Gray has been in education for over 45 years as a teacher and administrator in Indiana and California. She taught elementary school for 20 years and was Director of Curriculum Services in the San Marcos Unified School District in California. She has taught graduate courses in educational leadership and supervised students in the Administrative Credential Program at San Diego State University. Dr. Gray co-authored articles on state testing programs and labor relations and three books, *From Good Schools to Great Schools: What Their Principals Do Well, Leading Good Schools to Greatness: Mastering What Great Principals Do Well,* and *The New School Management by Wandering Around.* She received her PhD from Claremont Graduate School and completed her audit training in Burlingame, California, in 1998. Dr. Gray has served on 36 curriculum management audits in 13 states and Bermuda.

Appendix A (continued)
Auditors' Biographical Data

Tonya M. Hyde, EdD

Tonya Hyde is currently the Assistant Superintendent of Curriculum and Instruction at Lackland Independent School District. In this role, she utilizes over 20 years of experience to supervise educational programs and monitor curriculum design, implementation, and impact in alignment with state policies and regulations. Dr. Hyde has also served as an intern coach for Teachers College, Columbia University. Dr. Hyde was an American Educational Research presenter and co-author of quantitative research, "The Morality of Safety: Leveraging Collective Efficacy, Student Bullying and Teacher Protection of Students" in April 2015. She also presented at the University Council of Educational Administration (UCEA), her research "Principals Overcoming Challenges through School and Community Engagement," in November 2013. She recently completed the Level III Curriculum Management Solutions, inc., training in preparation to serve as a curriculum audit intern.

Robert Iuzzolino, DEd

Robert Iuzzolino received his BA Degree from Indiana University of Pennsylvania and his MEd and DEd from Pennsylvania State University. He has been an elementary and secondary teacher, as well as a building level and central office administrator. He also has served as Director of Curriculum, Instruction, and Assessment for an Educational Service Agency and an Adjunct Professor in a Graduate University Education Program. Dr. Iuzzolino has conducted several in-services and workshops on various educational topics with emphasis in the areas of curriculum alignment, assessment, instructional models, and supervision. He is a member of the International Literacy Association, National Council on Measurement in Education, Association for Supervision and Curriculum Development, and the National Association of Secondary School Principals. Dr. Iuzzolino is a licensed trainer of the following CMSi programs: 1) Coping with High Stakes Testing: Maximizing Student Achievement with the Power of Deep Curriculum Alignment; 2) A Baker's Dozen: Raising Student Test Scores; 3) Using a Mastery Learning Approach with Powerful Teaching Strategies; 4) Establishing Strategic Lesson Planning and Contextual Delivery; and 5) Taking the Mystery out of Testing. He completed his Curriculum Management Audit Training in 1996 in Albuquerque, New Mexico, and has done advanced audit training in 2002, 2005, 2009, 2015 and 2018. Dr. Iuzzolino has served as an auditor on several audits.

Sarah Mitchell, EdD
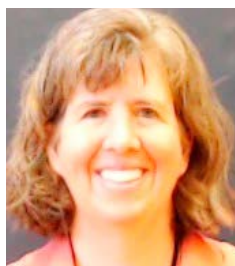
Sarah Mitchell is the Director of Secondary Education for the Frontier Regional and Union #38 School Districts. She has over 30 years of professional experience in the field of education including teaching students in grades PK through college. In her current role as the Director of Secondary Education, Dr. Mitchell supervises curriculum development, student assessment and testing programs, district professional development, and is responsible for writing and managing her district's state and federal grants. At the University of Massachusetts, Dr. Mitchell received her BS in Animal Science, her Masters degree in Environmental Health Sciences and her Doctorate in Education, Policy, Research and Administration. She completed her Curriculum Management Audit training in Arizona in 2007 and has served on audit teams in Alabama, Idaho, Massachusetts, Maryland, Missouri, New Hampshire, New York, Texas, Washington, and Wisconsin.

Laurie Pace, MS

Laurie Pace is the Director of Humanities for Texarkana ISD in Texarkana, TX. She has over 20 years of experience in education, including teaching grades K-7, serving as PreK mentor through Texas School Ready for the 38 districts within Region 8, Elementary English Language Arts and Reading for Region 8, and Assistant Principal of Instruction at Texas High School in Texarkana, TX. In her current role, she is leading a PK-12 literacy initiative along with supervising the development of curriculum enhancement documents in English Language Arts and Reading and Social Studies. Ms. Pace received her Bachelor of Science in Elementary Education, Masters of Science in Curriculum and Instruction, K-12 Reading Specialist, and PK-12 Principal certificate from Texas A&M University – Texarkana. She completed her Curriculum Management Audit training in Arizona in 2018 in preparation to serve as a curriculum audit intern.

William Poston, EdD

William K. Poston, Jr., is Emeritus Professor of Educational Leadership and Policy Studies at Iowa State University in Ames, Iowa, where he served from 1990 to 2005. Dr. Poston began his educational career as a math and physics teacher, and he accumulated 25 years of experience in educational administration, including 5 years as secondary school principal and 15 years as a superintendent in Tucson, Arizona; Phoenix, Arizona; and Billings, Montana. His many distinctive professional achievements include selection as an Outstanding Young Leader in American Education in 1980 and recipient of the Distinguished Alumni Award from the University of Northern Iowa.

He has authored numerous professional articles and has published over a dozen professional books, including *School Budgeting for Hard Times: Confronting Cutbacks and Critics* (2010), and *School Finance* (Chapter in Handbook of Educational Leadership). Dr. Poston taught school finance and school business management at Iowa State University, and he was the founding Director of the Iowa School Business Management Academy, sponsored by the Iowa Association of School Business Officials.

Dr. Poston completed his curriculum auditing licensure in 1988 and has led over 75 audits in many states and a few foreign countries.

Deitra Spence, EdD

Deitra Spence is an educational consultant with over 30 years of experience in public education. She recently served as the Assistant Superintendent for the Pre-K and Elementary Schools in the Trenton Public School District in Trenton, New Jersey. Until her retirement, Dr. Spence worked as a special assistant to the superintendent, supervisor of secondary counseling, middle school principal, and middle school assistant principal in two suburban Philadelphia school districts. Her professional career also includes 10 years in the School District of Philadelphia as an elementary school principal, high school vice-principal, reading specialist, and middle school teacher. As an adjunct professor, Dr. Spence has taught graduate level courses in the fields of school law, research design, instructional supervision, and educational leadership in colleges and universities in Pennsylvania and New Jersey.

Dr. Spence completed her undergraduate studies at the Pennsylvania State University and earned an MS in Curriculum Development and EdD in Educational Leadership from Temple University. She completed her audit training in 2011 and has served on a number of audit teams in Texas, Maryland, and Georgia.

Colleen Stearns, MEd

Colleen E. Stearns currently serves as the Director of English Language Arts and Spanish at IDEA Public Schools, the largest charter school network in the United States. In this role, she supervises the English Language Arts and Spanish programs across 97 schools in Texas and Louisiana, with a focus on supporting a team of curriculum managers and the implementation of teacher and leader trainings across seven regions. Prior to her current role, Ms. Sterns was a PK-12 teacher, reading specialist, dyslexia interventionist, School Administrator, district program coordinator, and curriculum designer. Ms. Sterns also serves as a University Supervisor at Concordia University Texas, coaching and evaluating Advanced Literacy interns who are completing their MEd in Advanced Literacy and pursuing the Texas Reading Specialist Certification, and she teaches graduate level courses in Elementary Methods and Secondary English Language Arts curriculum and instruction. She earned her BA at Southwestern University and her MEd in Educational Administration and MEd in Advanced Literacy at Concordia University Texas. She is currently completing her EdD in Curriculum & Instruction at Concordia University Texas with a focus on effective professional development for Advanced Placement mathematics and science teachers. Ms. Stearns completed her Curriculum Management Audit Training in 2018 and has served on audit teams in Texas.

David Surdovel, MEd

David Surdovel has experience in a multitude of educational settings at the K-12 and collegiate levels in both suburban and urban settings in New York, including positions of mathematics teacher, instructional coach, academic liaison, academic dean, and adjunct graduate lecturer in the New York City Department of Education and The City College of New York. Since moving to Texas, he has held positions of assistant principal; Instructional Specialist of Secondary Mathematics and Social Studies; Coordinator of K-12 Mathematics; Executive Coordinator of Science, Technology, Engineering, and Mathematics (STEM); Curriculum Director of Mathematics and Science; and currently as the Director of Mathematics and Curriculum Management for Tomball ISD. He has also held the position of Manor Site Supervisor for Austin Community College and President of the Austin Area Council of Teachers of Mathematics (AACTM). In 2010, Mr. Surdovel was recognized for his efforts with the Manor ISD "Shining Star" Professional Employee of the Year Award. He was recently appointed as the Governmental Relations Representative for the Texas Association of Supervisors of Mathematics (TASM) and serves on the state review committee for the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). He received his BA from Marist College in Poughkeepsie, NY and his MS and MEd degrees from Pace University in New York, NY. He completed his Curriculum Management Audit training through Curriculum Management Systems, inc., in 2015 and has served on audits in Maryland, Pennsylvania, Texas, and Washington.

Olivia Elizondo Zepeda, MEd

Olivia Elizondo Zepeda graduated from Northern Arizona University with a BA in Elementary Education. She began her teaching career upon graduation from NAU and later earned a Master's degree in Bilingual and Multicultural Education. Ms. Zepeda served as Associate Superintendent for the Gadsden Elementary School District from 2000 to 2017 and had previously served the district as director of curriculum and staff development, director of federal projects, principal and teacher at the elementary and middle school. She is currently retired and serves on the Arizona Western College Board of Trustees. Ms. Zepeda has taught graduate and undergraduate classes at the university level and is fully bilingual in English and Spanish. She has served in agencies that provide assistance to children and adults for educational purposes. She completed her audit training in Austin, Texas, in June 2017 and has served on audits in Arizona, Georgia, Pennsylvania, and Texas.

Appendix B

List of Documents Reviewed
by the
New Haven Public School Audit Team

[Click here and type List of Documents Reviewed]

Appendix C

Number of Classroom Computers by School and Student Enrollment
New Haven Public Schools
April 2019

School Name	Total Number Of Computers*	Total Student Enrollment
High School Classrooms		
Coop Arts & Humanities High School	348	609
James Hillhouse High School	367	952
Hill Regional Career High School	268	688
High School In The Community	184	233
Metropolitan Business Academy	269	404
New Haven Academy	94	290
Riverside Academy	88	139
Sound School	113	317
Wilbur Cross High School	373	1,669
Total High School	**2,104**	**5,301**
Middle Schools		
Betsy Ross Arts Magnet	216	444
Engineering and Science University Magnet School	258	584
Total Middle School	**474**	**1,028**
Elementary and K-8 Schools Classrooms		
Barnard Magnet School	550	526
Beecher Magnet School	138	483
Bishop Woods Executive Academy	148	442
Brennan Rogers Magnet School	99	491
Celetano Magnet School	197	409
Clemente Leadership Academy	85	467
Clinton Avenue School	116	488
Columbus Family Academy	153	503
Conte-West Hills Magnet School	114	669
Davis Street Magnet School	186	510
East Rock Magnet School	228	527
Edgewood Magnet School	134	441
Fair Haven School	151	834
Hill Central Music Academy	188	489
Worthington Hooker School	187	453
Jepson Magnet School	54	539
John C. Daniels Magnet School	164	533
John S. Martinez	141	553
King/Robinson Magnet School	122	505
Lincoln-Bassett School	66	403
Mauro-Sheridan Magnet School	174	557
Nathan Hale School	219	509
Quinnipiac Magnet School	6	277

Appendix C (continued) **Number of Classroom Computers by School and Student Enrollment** **New Haven Public Schools** **April 2019**		
School Name	**Total Number Of Computers***	**Total Student Enrollment**
Elementary and K-8 Schools Classrooms (continued)		
Ross Woodward Magnet School	247	659
Strong Magnet School	53	289
Troup School	105	455
Truman School	189	571
West Rock Stream Academy	11	199
Wexler-Grant School	81	370
Total Elementary and K-8	**4,306**	**14,151**
Early Childhood Program Classrooms		
Dr Mayo ELC	79	Not given
Total Early Childhood Programs	**79**	
DISTRICT TOTAL CLASSROOM COMPUTERS	**6,963**	
Miscellaneous Locations		
Central Office	311	
Meru1 Wifi	117	
Meru2 Wifi	122	
Meru3 Wifi	30	
Meru5 Wifi	69	
Meru6 Wifi	200	
Total	**849**	
*Computer count does not include carts or labs. Carts and labs are inventoried separately.		
Source: New Haven Public Schools Information Technology Department Computer Inventory		

Appendix D

Teacher Comments for Survey Question #22: The frequency with which I use the following learning technology tools in the classroom to support learning
New Haven Public Schools
April 2019

Resp.	Response Date	Other (please specify)
1	Apr 17 2019 08:25 PM	Smart board is NOT working.
2	Apr 12 2019 11:55 AM	My projector has been broken since December.
3	Apr 12 2019 09:39 AM	Extreme lack of support when there are IT issues for students and teachers.
4	Apr 11 2019 08:55 PM	I only have 6 computers in my room for students to use unless I can sign out a computer cart. I also don't have a projector or upgraded technology in my classroom. I have to use a portable projector, when available.
5	Apr 11 2019 08:49 PM	Programs purchased by my school such as Lexia and iReady are used and implemented with fidelity on a daily basis.
6	Apr 11 2019 01:46 PM	I have iPads from Donors Choose, not given to me.
7	Apr 10 2019 10:01 PM	I only have 5 computers in my classroom. They are used by the sped kids the most. The other students only go on the computer when they actually have technology class in the tech room twice a week.
8	Apr 10 2019 04:56 PM	Smart board doesn't work correctly
9	Apr 10 2019 01:10 PM	Eno board projector broken. Has been for some time.
10	Apr 10 2019 01:07 PM	Many schools have one-to-one technology. My school does not.
11	Apr 10 2019 12:24 PM	I have an overheard projector with NO ability to have my computer connected to operate it properly. I have made several requests throughout the year, but no one has been successful due to older computer connections
12	Apr 10 2019 12:08 PM	Technology is practically nonexistent and the furniture is inappropriate.
13	Apr 10 2019 10:49 AM	Technology lacking and difficult to sign out. Too few computers
14	Apr 10 2019 10:47 AM	Class computers are in need of repair
15	Apr 10 2019 10:09 AM	Other apps such as: Kahoot, Story Corps, PowerSchool (for students), Poll Everywhere, Socrative
16	Apr 10 2019 09:48 AM	N/A
17	Apr 10 2019 09:47 AM	Technology Tools do not apply to what I teach.
18	Apr 10 2019 09:34 AM	The document camera, projector and chrome books that my students use were obtained by me and not through the school or district.
19	Apr 10 2019 08:01 AM	I try not to use phones and I try to stop the students from using them for non-educational activities. I find they get too distracted and cannot focus.
20	Apr 10 2019 07:29 AM	The computers in my building are more than 12 years old
21	Apr 10 2019 07:19 AM	Do not have smart board software on computer or the special "pen" in order to use it
22	Apr 10 2019 07:13 AM	Lack of working technology in the school hinders use for all students at one time.
23	Apr 09 2019 11:34 PM	The reason I do not use the materials checked is because we do not have them; if we did they are no longer working.
24	Apr 09 2019 10:31 PM	Smart boards are not in every room.
25	Apr 09 2019 09:17 PM	My ENO board pen is not working and the district no longer supports repairs. I would like a document camera, have been told our school has a few, but have never received one.
26	Apr 09 2019 08:33 PM	iPads are always available; yet often choose not to use them.
27	Apr 09 2019 08:30 PM	The iPad I use is my own.
28	Apr 09 2019 08:26 PM	We share Chrome book carts - it is tedious to say the least.
29	Apr 09 2019 08:20 PM	Desperate need for 1:1, technology and stem is the future and our children need to be trained and efficient in usage.

Appendix D (continued)
Teacher Comments for Survey Question #22: The frequency with which I use the
following learning technology tools in the classroom to support learning
New Haven Public Schools
April 2019

Resp.	Response Date	Other (please specify)
30	Apr 09 2019 07:10 PM	NA
31	Apr 09 2019 06:50 PM	I brought my own projector and doc camera
32	Apr 09 2019 06:41 PM	Sadly I was just given a smart board and it has not been set up properly. It is supposed to be an interactive touch screen but it only functions as a projector. I was told the company does not know how to install it! Wasted money sitting in a box currently because no one knows how to set it up. My students and I would love to take advantage of this as a learning tool.
33	Apr 09 2019 06:36 PM	Need training on smart boards, they are new to us and we never received decent training
34	Apr 09 2019 06:32 PM	Paper and pens, books

Appendix E

Scope and Sequence Document
New Haven Public Schools
April 2019

		Previous grade level	
		Grade level: Content area:	
		Mastery-level Objectives	**Module, en-route, pre-requisite objectives**
UNIT 1	TITLE		Module 1:
			Module 2:
			Module 3:
UNIT 2	TITLE		Module 1:
			Module 2:
			Module 3:
UNIT 3	TITLE		Module 1:
			Module 2:
			Module 3:
			Module 4:
UNIT 4	TITLE		Module 1:
			Module 2:
			Module 3:

		Previous grade level	
	Grade level:	Content area:	
		Mastery-level Objectives	**Module, en-route, pre-requisite objectives**
UNIT 1	TITLE		
UNIT 2	TITLE		
UNIT 3	TITLE		
UNIT 4	TITLE		

Sample Curriculum Overview
New Haven Public Schools
April 2019

Curriculum Overview

Spiraled and Sequenced District Standards and Benchmarks

Units

	Aug/September	October	November	December	January	February	March	April	May
Unit	UNIT 1			UNIT 2			UNIT 3	UNIT 4	
Module	MODULE 1	MODULE 2	MODULE 3	MODULE 1	MODULE 2	MODULE 3	MODULE 4	MODULE 1	MODULE 2	MODULE 1	MODULE 2

Weekly* Sequence:

Learning Experience 1 of 2
Learning Experience 2 of 2
Learning Experience 1 of 4
Learning Experience 2 of 4
Learning Experience 3 of 4
Learning Experience 4 of 4
Learning Experience 1 of 3
Learning Experience 2 of 3
Learning Experience 3 of 3
Learning Experience 1 of 3
Learning Experience 2 of 3
Learning Experience 3 of 3

Anchor Activity — Anchor Activity — Anchor Activity — Anchor Activity — Anchor Activity

------Year-long Activity(ies)------

*this example has learning experiences of approximately 1 week each, but other time increments work.

Appendix G

A Review of Literature
Gifted and Talented Instruction and Best Practice
New Haven Public Schools
April 2019

Gifted and Talented Education: A Review of Relevant Literature

Educating the gifted can create certain difficulties for schools, particularly with regard to how they decide who is gifted and, once identified, how those children can best be served. Educating the gifted has begun to pose more of a problem for districts since the advent of *No Child Left Behind (NCLB)*. Since Adequate Yearly Progress (AYP) demands that all students make progress toward improvement, those who are very far behind the norm may receive the lion's share of academic attention, while those who are already topping out and therefore make little or no AYP may receive far less. At the same time, the movement away from tracking has pushed for an inclusive classroom: one in which students of all abilities reside and must be educated, but this is sometimes to the detriment of certain groups. A review of pertinent research articles taken from educational journals and publications offers some insight to the most pressing issues facing districts regarding gifted and talented (GT) education: What is the best method for assessing and identifying gifted and talented learners? Once students are identified, what are the best practices for meeting their needs? What might be the long term impact of the servicing choices districts make?

I. Identification: A Case for Multiple Measures

Identifying gifted learners would appear to be rather straightforward in theory: test scores and classroom attitudes, ability to reason and assimilate information all seem self-evident. But in practice, identified gifted populations in districts have been disproportionately white and lacking in both minority and low socioeconomic students, indicating that methods of identification may be better at measuring socioeconomic levels than identifying actual gifted potential. Other processes focus disproportionately on "academic leaders," or students who are high achieving and successful in the classroom, but some of the established characteristics of giftedness actually may manifest in boredom leading to misbehavior or may even be misdiagnosed as another condition entirely. In this model, the underachiever and misbehaver may be omitted, to their further detriment. Research indicates some steps districts can take to ensure that they are appropriately considering all students and identifying those who need focused attention and accelerated coursework.

Familiarity with the Characteristics of Giftedness

Characteristic of gifted learners as compared to regular learners established by research are a starting point for educators. These characteristics include the following:

1. Greater processing speed for both simple and complex tasks. The flow of information is faster from intake to output.

2. More thorough problem solvers who use a wider array of strategies to solve problems.

3. Employ more metacognitive strategies and are better at assessing their ability to learn something or complete a learning task.

4. Able to sustain attention to a problem.

5. Superior memory and more efficient retrieval.

6. Advanced ability for abstraction and generalization during learning.

7. Can learn with less direct instruction – in other words, they can to some extent teach themselves. (Kettler, 2014)

It is noteworthy that some of these characteristics, coupled with a lack of appropriate acceleration and differentiation, might lead to disruptive behavior or disengagement/withdrawal in the regular classroom (Valpied, 2005). The ability to process information more quickly than regular students means a student may arrive at a conclusion or understanding long before the rest of the class or even before the teacher is finished explaining the issue. Faced with lag time while the rest of the class catches up, s/he may look for other activities to occupy that time, some of which may be disruptive. Likewise, a gifted child who wants to spend more time on a problem may become frustrated when forced to leave it and move to another activity. While this in no way exonerates all misbehaviors, it does highlight the importance of not excluding behaviorally-challenged children from the possible pool of gifted learners. It may even indicate the necessity of more closely examining the root of misbehavior. A further characteristic, examined in some intriguing recent research, is that of the Need for Cognition (NCF), which is a tendency among gifted learners to "engage in and enjoy effortful, cognitive endeavors" (Meier, Vogel & Preckel, 2014, p. 39). This is a student who seeks out challenging cognitive work and who may even be mildly distressed by work s/he perceives as too easy. Because NCF is a strong predictor of attendance in gifted programs, it should be explored as a means of identifying students for gifted instruction. Positive academic self-concept and a high interest in math are also cited as predictors of attendance in gifted classes and indicate that these, too, should be investigated as identifiers of giftedness (Meier et. al, 2014).

Kitano's (1990) research into "psychological intensities" sheds further light on characteristics that often go hand in hand with intellectual giftedness but may be interpreted negatively. She found a relationship between intellectual precocity and the following characteristics:

- Liking to do things different from the group

- Impatience with peers

- Preoccupation with abstract ideas

- Preference for independent work

- Persistence

- Enthusiasm

- Vigorous pursuit of problem solving

- Serious approach to learning situations

- Need for recognition

Kitano also found a trend in the data for those with higher emotional sensitivity (reaction either positively or negatively to emotional outbursts from others or to stressors) to be associated with higher levels of originality, though this is hard to measure using traditional means. All of these characteristics can be "flipped," or made to be either positive or negative, depending on how they are perceived by the observer. Liking to do things differently from the group can make a child either original (good) or a non-conformist (not so good). Impatience with peers can be interpreted as a sign of immaturity (bad) or of advanced intellect (good). Preferring to work alone may look like an excellent understanding of one's academic needs or like poor socialization and immaturity. A need for recognition can be perceived as clingy and immature (bad) or conscientious fact checking (good). Vigorous pursuit of problem solving is good until the student refuses to leave a science project while the rest of the class is going to music. Further research indicates that some GT characteristics can be misinterpreted as ADHD or other similar disorders. Interestingly, a researcher has demonstrated that some of these intensities that may bring a child into conflict with his/her environment are ameliorated when that child is placed in a learning situation with his/her intellectual peers, particularly those characteristics that on a cursory basis appear to be issues of socialization and maturity (Valpied, 2005).

Valpied's (2005) research into institutional interpretation and response to some of the characteristics of giftedness demonstrated that, on occasion, parents, rather than the schools themselves, pushed for a child's inclusion in a gifted program. While this would not hold true for every case, in Valpied's research, the schools interpreted the students' daydreaming and frustration with tasks as mere average ability, rather than recognizing

the child's need for more complex tasks. In nearly all cases, the teacher had interpreted the gifted characteristics as attributes that in fact negated giftedness, such as disorganization, lack of productivity, and antisocial behavior. Disorganization, in particular, is common to gifted children, but is often seen as a negating factor. Lack of productivity, too, which may occur because a child sees no value in completing a task that is of no interest or that holds no meaning, is often cited as a negating factor (Valpied, 2005). It is not difficult to extrapolate from this research ways in which other factors might prevent children from being assessed for gifted intervention– factors such as English language proficiency, poverty of experience, timidity, or behavior issues.

Instruments for Assessing and Identifying Students for Gifted Instruction

Test scores are often the primary basis for inclusion in gifted programming, but Joseph Renzulli (2011), a national expert in gifted education and the director of the National Research Center on the Gifted and Talented, cautions against the use of state and national norms when making decisions regarding gifted and talented inclusion. Using local norms helps to ameliorate the still-low representation of low-income and minority students in gifted programming.

While test scores are limiting enough, sometimes only certain portions of test scores are examined to determine inclusion. Those portions are likely to be verbal reasoning or ability and logic/math ability, either because this is all the state/national/local exams test or because this is the traditional bias of gifted instruction and IQ tests. Reliance solely on these two areas for inclusion in gifted instruction may undervalue students whose giftedness lies in less traditional areas. Some evidence exists for the use of a Multiple Intelligences (MI) approach to gifted identification, primarily because it proposes a range of approaches rather than a single avenue of identification. Preliminary data indicated that an MI approach to identification results in less bias (more low-income students identified). Further evidence indicated that even adding just one additional intelligence type to gifted assessments increased the diversity of the identified population (Fasko, 2001). However, this method and philosophy do pose further issues for districts, namely, how to structure instruments to assess the various intelligences, and how to administer and score them while controlling for bias.

An intriguing piece of older research offers interesting insight in to the problem of identifying gifted students. In this study, which was seeking ways of nurturing potential in students who might be gifted but had not been identified as such by traditional means and did not have the verbal skills to provide sufficient clues to their potential, the researchers used a battery of identifiers designed to identify children with the potential to be identified as gifted if their latent talents were nurtured. The battery included, among other things, the Cartoon Conservation Scale (tests Piagetian development using pictures), Diagnostic Thinking Tasks (examines how students think/cognitive ability), Draw a Person (helps assess cognitive development), a Rating of Student Potential (to be completed by teachers), and a Student Interview and Peer Survey. The peer survey asked other students questions such as "Who is really funny? Who makes up stories? Who usually knows the answers? Who is good at building things?" In essence, the children's peers identified their potential. The fascinating result of this battery was a pool of children that closely paralleled the ethnic makeup of the schools involved in the study without any manipulation of the selection process to achieve that result (Johnson, Starnes, Gregory & Blaylock, 1985). Approximately 40% of the students identified and involved in the nurturance program were later identified as GT via traditional identifiers and enfolded into the GT program. While this research is old, it does shed light on ways of identifying potential when potential has not fully manifested itself in achievement or when potential may be obscured by a lack of English skills, poverty, or some other mitigating factor. The use of the student survey is of particular interest, since it highlights the possibility that ability in math or other academic areas may be readily identified by other students even in Limited English Proficient situations.

Just as giftedness can take many forms, gifted children may look very different from one another. Issues of poverty or language may mask giftedness, as may perceived "antisocial" behaviors or even misbehavior. Districts must be careful not to exclude children based on misconceptions about giftedness and how it manifests itself.

II. Teaching the Gifted and Talented: Options and Best Practice

Options

Some of the deepest controversy in gifted education centers around which method of education is best, both in terms of academic effectiveness in given areas of study and social and emotional growth. A number of options exist for districts, such as acceleration, enrichment, pull-out programs, and grouping. Each provides a different avenue for students and instructors, and each has certain caveats and concerns to be considered.

Acceleration

Acceleration can take several forms:

- Accelerated Study: Students have early entrance/early exit options. This lends itself well to standards-based instruction: if the student can demonstrate and document mastery, s/he has the opportunity to move forward. Students move up the grades at their own pace regardless of age.

- Content Acceleration: Similar to accelerated study, but allows the student to move forward in content only, not in grade level. In other words, a third grader might be allowed to do fourth grade work while remaining in third grade. Currently, math is usually the only content area that enjoys this freedom. One problem inherent in this option is the perception that students shouldn't progress too far beyond their peers, so the content acceleration is capped at some point, usually 6-12 months ahead at the elementary level. At the secondary level, content acceleration takes the form of honors classes, AP courses, International Baccalaureate courses, or dual-enrollment programs.

- Grade Level Acceleration: Students showing more than 2 years advancement in all subjects are allowed to skip grades. Determined after careful consideration of individual students.

- Telecommunication Options: Essentially provides advanced coursework via available technology. (VanTassel-Baska, 2005)

Acceleration is the most effective strategy for gifted students (Gallagher, Smith & Merrotsy, 2011), but is also the most controversial of the options available, primarily because of concerns that students who are allowed to advance will suffer social and emotional issues as a result of not being with their same-age peers. However, the students themselves regard acceleration as positive and many report being happier when allowed to advance. Research shows that their psychological and emotional needs were unaffected, which suggests a link between those needs and academic needs, rather than the two existing in a zero-sum relationship as has previously been supposed (Kim, 2006). It is important to note that acceleration alone is not enough to ensure success. Success is still dependent on the quality of the teachers and their willingness to differentiate and also dependent to some extent on the parents and their dedication and involvement (Kim, 2006).

Enrichment

Enrichment is the practice of going deeper in a particular content area when a student demonstrates mastery of concepts or advanced understanding. Enrichment can be a powerful tool because it accommodates both student interest and real world application. This is one of the easiest modes of education to incorporate into the classroom because it can be planned for and included in the regular curriculum. For example, a teacher could introduce new learning for 4 days, then have a day in which students who mastered the learning participate in enrichment activities while those who didn't are given additional help. Like acceleration, it is reliant on quality teaching and effective differentiation (as opposed to more practice of the same concepts) for success.   Enrichment can be combined with content acceleration, which accommodates both student interest and acceleration of the linear curriculum in specific subjects (Kim, 2006).

Pull-Out Programs

In a pull-out program, gifted students are taken out of the regular classroom by a specialized teacher and given advanced and/or enriched instruction in particular subject areas. It has the advantage of allowing gifted students to work with their intellectual peers where their precocity will not seem out of place or weird. Since teachers typically work with only a small portion of the total student body, the number of students is usually

low, increasing opportunity for more targeted differentiation. Research indicates that pull-out programs for enrichment have resulted in increased achievement in critical and creative thinking, especially if the pull-out was an extension of the regular curriculum (Rogers, 1993). One disadvantage of this type of program is that classroom teachers sometimes require gifted students to make up work they missed while participating in the pull-out, resulting in the child having to do twice as much work. Another disadvantage is that pull-out programs require additional staff and are more costly. Because of this, they are sometimes among the first to be eliminated in times of economic crisis (Brulles & Winebrenner, 2012). Occasionally, programs of this nature may be perceived as elitist, particularly if districts are not careful to control for bias in the inclusion process. This type of program is used more frequently at the elementary level.

Grouping

Grouping goes by several names: clustering, flexible grouping, ability grouping, etc. Essentially, students with similar intellectual ability are grouped together within the regular classroom to work on accelerated content or enrichment. Grouping is not the same as tracking, which funnels all students of a particular ability range into a single class and tends to be inflexible with regard to movement between tracks. Current research regards grouping within classes as one of the nonnegotiable options for serving GT students, even to the point that within-class grouping should be used in classes composed entirely of GT learners (VanTassel-Baska, 2005). As a strategy for educating gifted learners, ability grouping in math can produce academic gains a month greater than those of GT students who are not ability-grouped, even without adjusting the curriculum (Kim, 2006). Ability grouping has the added advantage of enabling appropriate pacing for GT students and producing greater achievement and more positive attitudes (Kim, 2006); it facilitates diagnosis of the student's level and prescription of necessary interventions and enrichment to advance progress; and it increases the likelihood that teachers will actually differentiate instruction and curriculum, which research has demonstrated they will do with more fidelity for a group of GT students and less fidelity if only one or two are present in their class (Brulles & Winebrenner, 2012). Since teachers spend about 84% of class time in the heterogeneous classroom doing whole-class activities (VanTassel-Baska, 2005), ensuring that differentiation occurs is an important consideration. Additionally, gifted students themselves are more likely to take advantage of differentiated learning opportunities if there are others working at advanced levels. They may also attempt more challenges and be more comfortable and confident learning with their intellectual peers (Brulles & Winebrenner, 2012). Cluster grouping (in which GT students are all placed in one or two classes rather than spread evenly across all classes) within the heterogeneous classroom has produced large gains in academic achievement across subjects, whether students are grouped for acceleration or enrichment (Rogers, 1993). Interestingly, while ability grouping is widely used in reading, more evidence exists for its efficaciousness in math, where it has produced significant academic gains for elementary students (Rogers, 1993). The extreme end of grouping is to place all gifted students full time in classes designed expressly for them. However, this is usually unpopular, not because it doesn't work but because it is seen as limiting appropriate socialization, promoting elitism, and possibly damaging other students' academic self-concept (Gallagher et al., 2011).

The One Grouping that Doesn't Work

It has long been asserted that mixed-ability learning groups are benefitted by the inclusion of gifted students. In such groups, gifted, high achieving, average, below average, and far below average students are combined to, in theory, maximize learning for all involved, but especially for average, below average, and far below average students, who will, it is supposed, benefit from the example of the high achievers and gifted students in the group. While this presents a charming picture of the inclusive and egalitarian ideal, the actuality deviates substantially. Probably the most surprising revelation is that non-GT learners did not show improvement in academic achievement when placed in mixed ability learning groups with GT learners (Kim, 2006). Gifted learners are often not effective as academic role models in part because their reasoning is intuitive and leapfrogs over connecting concepts, rather than being linear (Brulles & Winebrenner, 2012). Additionally, inclusion of GT learners in mixed groups resulted in a decrease in non-GT students' academic self-concept – in other words, they saw themselves as poor learners in the presence of GT learners (Brulles & Winebrenner, 2012).

Research also indicates that gifted learners made no academic gains when placed in mixed-ability group settings (Kim, 2006; Rogers, 1993). And it is not an enormous leap to conclude that the comfort GT learners feel in the presence of their intellectual peers translates to discomfort when isolated as the lone GT learner in a mixed ability grouping. Additionally, there is a tendency for teachers to use GT learners as peer tutors instead of differentiating for GT learning, regardless of the student's readiness for such a task (Bernal, 2003). Not surprisingly, GT learners often resent being placed in that role (Brulles & Winebrenner, 2012).

One of the reasons that mixed-ability grouping doesn't work as well as might be hoped is that the inclusive classroom can contain a range of abilities, the sheer breadth of which makes differentiation difficult for the teacher (Brulles & Winebrenner, 2012). This has led some to suggest that the range of abilities be limited in the classroom so that the teacher with GT students does not also have the far below average students. The goal is not, as may be supposed, to track students, but to reduce the total range of abilities in any given classroom (Brulles & Winebrenner, 2012). Additionally, Brulles and Winebrenner advocate for separating the GT learner from the high achieving learner, because high achieving learners out of the presence of GT learners will often "step up to the plate," as it were, and emerge as academic leaders. Thus, in their estimation, the most effective classroom would have gifted or high achieving students, and below average or far below average. The one thing all the research agrees on is that grouping, done correctly, produces academic gains for gifted learners and non- gifted.

The general consensus of the research is that all these modes of gifted instruction should be utilized as needed and in combination for the greatest academic effect. Gifted learners should have as many options as it is possible for a district to offer in order to ensure that all students' needs are met. And like all other forms of education, gifted education is not a one-size-fits-all proposition.

Best Practices

While the logistics of gifted learning can be carried out in a variety of ways, research points to a number of best practices in the gifted classroom. Many of these practices have made their way into regular instruction as a result of the push for inclusion in the wake of *NCLB*. The following practices are good pedagogy for any student, but they are critical for the gifted learner:

- Using advanced curricula in core areas at an accelerated rate;
- Grouping GT learners by subject area for advanced curricular work based on students' level of learning within the subject;
- Embedding multiple higher-order thinking models and skills within core subject area teaching to enhance learning;
- Using inquiry as a central strategy to promote GT learning in multiple modalities; and
- Using student-centered learning opportunities that are issue/problem-based and relevant to the students' world (VanTassel-Baska & Brown, 2007).

Appropriately differentiated curriculum is another critical practice for gifted students, and in VanTassel-Baska's (2005) estimation must be exemplary for the subject matter. Curriculum must be linked to GT learner characteristics, standards-based, and relevant to real world practices. The curriculum must be sufficiently advanced and complex for the best learners in the group, but it must also provide depth and creativity to stimulate open-ended response and high-level choices. Resources must also be differentiated to accommodate student interest and provide challenging ideas and conceptual depth.

Instructional differentiation is another nonnegotiable, whereby teachers use approaches that are inquiry-based, open-ended, and employ flexible grouping practices. In particular, problem-based learning allows gifted learners to encounter real world problems to explore at the highest levels of their ability. Teachers involved in this type of instruction must be well versed in high-level questioning skills and discussion facilitation to assist students in defining and solving issues. They must also be capable of differentiating products (projects, presentations, assessments) to measure learning in ways that depart from the standard paper-and-pencil exam (VanTassel-Baska, 2005).

III. The Need for Quality Teachers and Supportive Principals

One area in which districts sometimes fail to plan well for their GT populations is in the quality of the teachers assigned to those students. Since these are the front-line individuals, it is critical that they be both willing and well suited for the task of educating the gifted child. Likewise, principals who are uninformed about the efficacy of GT education modes or of gifted learner characteristics may also serve as roadblocks to success.

Research out of Australia demonstrates that teachers, even though well informed about gifted characteristics, still bought into the myth that acceleration will cause lasting social/emotional harm to students even while they themselves were engaged in the acceleration. Neither understanding of social and emotional development nor of the characteristics of giftedness changed the likelihood that a teacher would accept the myth of the stunted psyche, and in fact half of the teachers of the gifted involved in the study were opposed to at least some forms of acceleration (Gallagher et al., 2011). While this pertained almost exclusively to acceleration, the same research showed that principals were more likely to object to certain forms of ability grouping in the interest of egalitarianism (students) or fairness (teachers). All this suggests that staff development may need to shift its focus from child development issues to issues of efficacy for GT learners, especially since developmental issues appear to be well understood while efficacy measures do not. Likewise, it underscores the pivotal nature of principals, who can be facilitators and educational leaders who promote achievement, or can hinder achievement gains by failing to adequately support or implement measures for gifted instruction.

The current model of inclusion leads to classrooms that are egalitarian on the surface, but have difficulty serving all students' needs. Bernal (2011) asserts that GT students are particularly ill-served because, in his estimation, scattering GT students among several classrooms requires that all teachers be trained in GT instruction, and not all teachers are suited, or even inclined, toward such instruction. This assumption that any teacher can teach the gifted is a practice he calls "professionally naïve" (p. 184). An examination of VanTassel-Baska's (2005) list of the nonnegotiable qualities for those who would teach gifted learners lends support to this assertion. In her estimation, teachers of the gifted should be:

- Lifelong learners;

- Open to new experiences;

- Able to apply new experiences in the classroom;

- Passionate about at least one area of knowledge;

- Able to communicate that passion to students;

- Deeply knowledgeable about at least one subject area with the ability to use that knowledge at a high level;

- Good thinkers, able to manipulate ideas at the highest levels of cognitions (analysis, synthesis, evaluation) within and across subject areas (this implies that they were good students themselves); and

- Capable of processing information in a simultaneity mode, meaning they can address multiple objectives at the same time while recognizing how students might manipulate different higher level skills in the same task demand and then easily align lower level tasks within those that require higher level skills/ concepts.

Succinctly put: "Teacher-directed differentiation for gifted students has no meaning if teachers cannot perform these types of tasks and evidence these skills" (p. 96).

Mathematics research points to the importance of interactive approaches for gifted learners, although the argument could be made that all learners would benefit from these approaches. Research indicates that discussion (more interactive) in mathematics courses was directly correlated with increased achievement. Conversely, a less interactive approach (lecture) was directly correlated with a decrease in achievement (Matthews & Farmer, 2008). Hence, a teacher who merely talks at the students and assigns tasks with little or no interaction or discussion with the concepts and materials would directly hinder student achievement.

Research among potentially gifted low-income and minority students indicated that teachers who carefully planned hands-on lessons and found ways to maximize students' ability to express themselves in non-traditional ways saw gains in achievement that led to identification as GT for a high proportion of students. While not strictly related to gifted instruction, the implications of a hands-on curriculum thoughtfully implemented by an interactive teacher with a view to maximizing student learning and potential are hard to ignore (Johnson et al., 1985).

Teaching the gifted is, if anything, more cognitively challenging, even at the primary level. It is not a job to which those who have otherwise washed out of the traditional classroom should be relegated, or a job one is given by virtue of tenure in a position. It is manifestly not a job to which everyone is suited, and careful attention must be paid to the vetting and selection of teachers who aspire to this role.

IV. The Danger of Ignoring Gifted Students' Needs

While accelerating and enriching the gifted child does not pose any threat to the child's social and emotional development, not accelerating him or her does have a direct effect on academic self-concept and attitude.

Kim's (2011) research into gifted primary math students indicated that ability grouping produced more positive attitudes among GT learners, while VanTassel-Baska's (2005) research shows that content acceleration produced positive outcomes in enhanced learning, motivation, and extracurricular engagement. The benefits were felt both in and out of the classroom.

In fact, all types of acceleration and enrichment programs produce varying levels of academic gains for gifted learners over those who were not accelerated. Enrichment programs in particular resulted in increased likelihood of college attendance and improved achievement in critical thinking and creative thinking. Ability grouping within elementary classes is specifically tied to academic gains in math. Cross-grade grouping (non-graded classroom) is linked to positive academic gains in reading and math for students of all ability levels and large academic gains for GT students allowed to work at their own pace in all subjects (Rogers, 1993).

Providing children with intellectual peers has far-reaching consequences, both in and out of the classroom. Gifted learners are more likely to take advantage of differentiated learning opportunities if they are with a group of students working at higher levels rather than if they are alone in a class of regular learners. Because they are more comfortable with their intellectual peers, they are more likely to attempt greater intellectual challenges– they will, in effect, learn more. Placing them in a group makes it more likely that they will have the opportunity to learn more, as Brulles and Winebrenner's (2012) research demonstrated with regard to the fidelity of teachers actually differentiating the curriculum for gifted learners. The more GT learners there are in a given classroom, the higher the likelihood that the teacher will differentiate.

Valpied's (2005) work with the interpretation of the characteristics of giftedness showed that addressing giftedness, particularly putting gifted learners with their intellectual peers, ameliorated many of the characteristics that might otherwise bring a GT learner into conflict with his/her environment, further underscoring that socio-emotional needs and academic needs are inextricably linked. This research further showed that not providing more accelerated academic work and a peer group of intellectual equals could result in a reluctance to attend school, and eventually in the child's abilities "going underground" (p. 20). The child would, in effect, learn to hide his or her giftedness to appear the same as his or her non-gifted peers, and continually choose away from anything that might reveal advanced intellectual ability. The long-term ramifications of these actions are not difficult to imagine.

Mathematics deserves special attention within the context of gifted instruction. Math is an instructional area in which the opportunity to learn directly affects achievement because skill in math is not developed in isolation, but rather by undertaking difficult and challenging problems and understanding complex ideas. While linguistic ability and reasoning may be at least partially developed in isolation once a student attains a certain level of reading competency, mathematics activities require careful planning to ensure proper sequencing and they require oversight to ensure correctness and assess mastery. Planning, sequencing, oversight, and assessment are all direct functions of teaching (Ysseldyke, Tardrew, Betts, Thill & Hannigan, 2004). Put simply, in math, where there is no instruction, far less achievement occurs. Children denied the opportunity to advance in math

are less likely to take challenging math courses as they move up the grades. Algebra I, for example, serves as a gateway to advanced coursework in math and science both through the remainder of high school and into college (Matthews & Farmer, 2008). Performance in Algebra I is a predictor of participation in advanced instruction in both math and science at the secondary level. Students who take it late or take it and don't do well have set in motion a series of events that will impact their entire academic and even professional lives. Recognizing and nurturing gifted ability in math are of critical import. Some interesting research examining the efficacy of certain modes of gifted math instruction indicated that giving students an instructional management system to allow them to move through the curriculum at their own pace was more beneficial than allowing gifted students to "teach themselves" using materials. While the purpose of this study was to examine the efficacy of one particular intervention, the finding of the study can be more widely interpreted: gifted math students who are given focused instruction tailored to their ability level, paced in such a way that they can move through the curriculum at their own advanced rate, do better. Additionally, GT students attempted more tests and mastered more math objectives than non-GT students, but also more than the GT students left to attempt the materials without focused instruction, practice, and support (Ysseldyke et al., 2004).

V. Conclusion

Gifted learners are a challenge for districts, but a good one, because the potential for success is great. These are children who, once identified and nurtured, almost invariably do significantly better than non-GT students, and even better than GT students without focused attention, instruction, and differentiation. Unfortunately, these are sometimes the learners who get the least attention because their needs appear less great than those who are far below average. Ignoring the needs of the GT learner, however, can have long-term impact both emotionally and academically, particularly in mathematics. Districts that wish to enhance their gifted programs of instruction would do well to ensure that their selection processes are free of bias and open to a wide range of students, especially those whose abilities may be masked in some way. Additionally, districts should ensure that acceleration, ability grouping, and appropriate differentiation of the curriculum are available for the gifted students in their care in whatever combination best fits the individual learner, and that those students are entrusted to teachers who are themselves sufficiently cognitively gifted to meet the challenge of educating children of this level. Districts that attend to these practices will find themselves positioned to maximize achievement for these exceptional children.

References

Bernal, E. (2003). To no longer educate the gifted: Programming for gifted students beyond the era of inclusionism. Gifted Child Quarterly, 47(3), 183.

Brulles, D., & Winebrenner, S. (2012). Clustered for success. Educational Leadership, 69(5), 41-45.

Fasko, D. (2001). An analysis of multiple intelligences theory and its use with the gifted and talented. Roeper Review, 23(3), 26-30.

Gallagher, S., Smith, S., & Merrotsy, P. (2011). Teachers' perceptions of the socioemotional development of intellectually gifted primary aged students and their attitudes towards ability grouping and acceleration. Gifted and Talented International, 26(1) and 26(2), 11-26.

Johnson, S., Starness, W., Gregory, D., & Black, A. (1985). Program of assessment, diagnosis, and instruction (PADI): Identifying and nurturing potentially gifted and talented minority students. Journal of Negro Education, 54(3), 416-430.

Kettler, T. (2014). Critical thinking skills among elementary school students: Comparing identified gifted and general education student performance. Gifted Child Quarterly 58(2), 127.

Kim, S. (2006). Meeting the needs of gifted mathematics students. Australian Primary Mathematics Classroom, 11(3), 27-32.

Kitano, M. (1990). Intellectual abilities and psychological intensities in young children: Implications for the gifted. Roeper Review, 13(1), 5-10.

Mathews, M., & Farmer, J. (2008). Factors affecting the algebra I achievement of academically talented learners. Journal of Advanced Academics, 19(3), 472-501.

Meier, E., Vogel, K., & Preckel, F. (2014). Motivational characteristics of students in gifted classes: The pivotal role of need for cognition. Learning and Individual Differences, 33, 39-46.

Renzulli, J. (2014). More changes needed to expand gifted identification and support. The Phi Delta Kappan, 92(8), 61.

Rogers, K. (1993). Grouping the gifted and talented: Questions and answers. Roeper Review, 16(1), 8-12.

Valpied, J. (2005). The flip side of giftedness: Interactions between gifted characteristics and school responses. Australasian Journal of Gifted Education, 14(2), 12-26.

VanTassel-Baska, J. (2005). Gifted programs and services: What are the nonnegotiables? Theory into Practice, 44(2), 90-97.

VanTassel-Baska, J., & Brown, E. (2007). Toward best practice: An analysis of the efficacy of curriculum models in gifted education. Gifted Child Quarterly, 51, 342.

Ysseldyke, J., Tardrew, S., Betts, J., Thill, T., & Hannigan, E. (2004). Use of instructional management system to enhance math instruction of gifted and talented students. Journal for the Education of the Gifted, 27(4), 293-310.