

District Review Report

North Middlesex Regional School District



Review conducted January 5-8, 2015

Center for District and School Accountability

Massachusetts Department of Elementary and
Secondary Education

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North Middlesex RSD District Review Overview

Purpose

Conducted under Chapter 15, Section 55A of the Massachusetts General Laws, district reviews support local school districts in establishing or strengthening a cycle of continuous improvement. Reviews consider carefully the effectiveness of systemwide functions, with reference to the six district standards used by the Department of Elementary and Secondary Education (ESE): leadership and governance, curriculum and instruction, assessment, human resources and professional development, student support, and financial and asset management. Reviews identify systems and practices that may be impeding improvement as well as those most likely to be contributing to positive results.

Districts reviewed in the 2014-2015 school year include districts classified into Level 2, Level 3, or Level 4 of ESE's framework for district accountability and assistance. Review reports may be used by ESE and the district to establish priority for assistance and make resource allocation decisions.

Methodology

Reviews collect evidence for each of the six district standards above. A district review team consisting of independent consultants with expertise in each of the district standards reviews documentation, data, and reports for two days before conducting a four-day district visit that includes visits to individual schools. The team conducts interviews and focus group sessions with such stakeholders as school committee members, teachers' association representatives, administrators, teachers, parents, and students. Team members also observe classroom instructional practice. Subsequent to the onsite review, the team meets for two days to develop findings and recommendations before submitting a draft report to ESE. *District review reports focus primarily on the system's most significant strengths and challenges, with an emphasis on identifying areas for improvement.*

Site Visit

The site visit to the North Middlesex School District was conducted from January 5-8, 2015. The site visit included 20 hours of interviews and focus groups with approximately 105 stakeholders, including school committee members, district administrators, school staff, students, parents, community officials, and teachers' association representatives. The review team conducted 3 focus groups with 8 elementary school teachers, 7 middle school teachers, and 9 high school teachers.

A list of review team members, information about review activities, and the site visit schedule are in Appendix A, and Appendix B provides information about enrollment, student performance, and expenditures. The team observed classroom instructional practice in 66 classrooms in 7 schools. The team collected data using an instructional inventory, a tool for recording observed characteristics of standards-based teaching. This data is contained in Appendix C.

District Profile

The North Middlesex Regional School District has a regional town form of government and the chair of the school committee is elected. There are 9 members of the school committee and their meetings are sometimes 2 weeks apart, sometimes 3, and occasionally monthly.

The current superintendent has been in the position since July 2012. The district leadership team includes the superintendent, the assistant superintendent, the director of special education, the business manager, and the director of technology. Central office positions have experienced change over the last several years: the loss of the curriculum director in 2011, of the human resources director in 2013, and the absence of an assistant superintendent in 2013-2014. The district has 6 principals leading 7 schools and 6 assistant principals leading 7 schools. The assistant principals are not members of a bargaining unit. In 2013-2014 there were 265.6 teachers in the district.

In the 2014-2015 school year, 3,310 students were enrolled in the district's 7 schools:

**Table 1: North Middlesex RSD
Schools, Type, Grades Served, and Enrollment*, 2014-2015**

School Name	School Type	Grades Served	Enrollment
Squannacook	ECC	PK	82
Ashby	ES	K-4	208
Spaulding Memorial	ES	K-4	450
Varnum Brook	ES	K-4	579
Hawthorne Brook	MS	5-8	539
Nissitissit	MS	5-8	550
North Middlesex Regional	HS	9-12	901
Totals	7 schools	K-12	3,310
*As of October 1, 2014			

Between 2011 and 2015 overall student enrollment decreased by 15.5 percent. Enrollment figures by race/ethnicity and high needs populations (i.e., students with disabilities, students from low-income families, and English language learners (ELLs) and former ELLs) as compared with the state are provided in Tables B1a and B1b in Appendix B.

Total in-district per-pupil expenditures were lower than the median in-district per pupil expenditures for 32 K-12 districts of similar size (3,000-3,999 students) in fiscal year 2013: \$11,439 as compared with

\$12,194 (see [District Analysis and Review Tool Detail: Staffing & Finance](#)). Actual net school spending has been above what is required by the Chapter 70 state education aid program, as shown in Table B8 in Appendix B.

Student Performance

North Middlesex is a Level 2 district because 5 of its 6 schools are in Level 2 for not meeting their gap narrowing targets.

- Varnum Brook Elementary is in the 49th percentile of elementary schools and is the district's only Level 1 school, with a cumulative Progressive Performance Index (PPI) of 87 for all students and 84 for high needs students; the target is 75.
- Ashby is in the 43rd and Spaulding Memorial is in the 39th percentile of elementary schools. Ashby is in Level 2 for having a cumulative PPI of 53 for all students and Spaulding Memorial is in Level 2 for having a cumulative PPI of 67 for all students and 68 for high needs students; the target is 75.
- Nissitissit Middle is in the 66th and Hawthorne Brook is in the 51st percentile of middle schools. Both schools are in Level 2 for having a cumulative PPI of 61 or lower for all students and high needs students; the target is 75.
- North Middlesex Regional is in the 58th percentile of high schools and is in Level 2 with a cumulative PPI of 71 for all students and 73 for high needs students; the target is 75.

The district did not reach its 2014 Composite Performance Index (CPI) targets for ELA, math, and science.

- ELA CPI was 89.4 in 2014, below the district's target of 92.7.
- Math CPI was 82.8 in 2014, below the district's target of 85.8.
- Science CPI was 84.6 in 2014, below the district's target of 86.7.

ELA proficiency rates were above the state for the district as a whole and in every tested grade. ELA proficiency rates varied by elementary school.

- ELA proficiency rates for all students in the district were 74 percent in 2011 and 2014, 5 percentage points above the state rate of 69 percent.
- ELA proficiency rates were above the state rate by 13 percentage points in the 3rd grade, by 4 to 5 percentage points in the 4th and 10th grades, and 1 to 3 percentage points in the 5th, 6th, 7th, and 8th grades.
- Between 2011 and 2014 ELA proficiency rates increased by 13 percentage points in the 4th grade, and by 3 and 5 percentage points in the 3rd and 10th grades. Between 2011 and 2014 ELA

proficiency rates decreased by 8 percentage points in the 7th grade and by 3 to 5 percentage points in the 5th, 6th, and 8th grades.

- ELA proficiency rates between 2011 and 2014 increased at Spaulding Memorial and Varnum Brook and declined at Ashby.
 - ELA proficiency rates at Spaulding Memorial increased by 12 percentage points, from 55 percent in 2011 to 67 percent in 2014.
 - ELA proficiency rates at Varnum Brook increased by 14 percentage points, from 57 percent in 2011 to 71 percent in 2014.
 - ELA proficiency rates at Ashby declined by 31 percentage points, from 79 percent in 2011 to 48 percent in 2014.

Math proficiency rates were above or equal to the state rate in the district as a whole and in each tested grade except for the 5th and 7th grades, which were below the state rate by 1 to 2 percentage points. Math proficiency rates varied by elementary school.

- Math proficiency rates for all students in the district increased 4 percentage points from 59 percent in 2011 to 63 percent in 2014, above the state rate of 60 percent.
- Math proficiency rates in the district were above the state rate by 12 percentage points in the 3rd grade, by 9 and 6 percentage points in the 6th and 10th grades, respectively, and by 2 percentage points in the 4th grade. The 8th grade math proficiency rate was 50 percent, equal to the state rate.
 - Between 2011 and 2014 math proficiency rates increased by 10 percentage points in the 4th and 6th grades, by 9 percentage points in the 3rd grade, and by 4 percentage points in the 8th grade.
- Math proficiency rates were below the state rate by 2 percentage points in the 5th grade and by 1 percentage point in the 7th grade.
 - Between 2011 and 2014 the math proficiency rate in the 7th grade decreased by 5 percentage points, from 54 percent in 2011 to 49 percent in 2014.
- Math proficiency rates between 2011 and 2014 increased at Spaulding Memorial and Varnum Brook and declined at Ashby.
 - Math proficiency rates at Spaulding Memorial increased by 12 percentage points, from 56 percent in 2011 to 68 percent in 2014.
 - Math proficiency rates at Varnum Brook increased by 11 percentage points, from 60 percent in 2011 to 71 percent in 2014.

- Math proficiency rates at Ashby declined by 17 percentage points, from 76 percent in 2011 to 59 percent in 2014.

Science proficiency rates were above the state rate for each tested grade and in the district as whole.

- 5th grade science proficiency rates increased from 64 percent in 2011 to 68 percent in 2014, 15 percentage points above the state rate of 53 percent.
- 8th grade science proficiency rates increased from 36 percent in 2011 to 46 percent in 2014, 4 percentage points above the state rate of 42 percent.
- 10th grade science proficiency rates declined from 80 percent in 2011 to 76 percent in 2014, 5 percentage points above the state rate of 71 percent.

North Middlesex students' growth on the MCAS assessments on average is consistent with that of their academic peers statewide in ELA and faster in mathematics, with some exceptions.

- On the 2014 MCAS assessments, the districtwide median student growth percentile (SGP) for ELA was 47.0; the state median SGP was 50.0.
 - ELA median SGP fell below 40.0 in the 4th grade (median SGP of 39.5) and at Spaulding Memorial (32.0) and Ashby Elementary (33.0).
- On the 2014 MCAS assessments, the districtwide median SGP for mathematics was 52.0; the state median SGP was 50.0.
 - The math median SGP was above 60.0 in the 6th grade (median SGP of 65.0).
 - The math median SGP fell below 40.0 at Spaulding Memorial (38.0).

North Middlesex reached the 2014 four year cohort graduation target of 80.0 and the five year cohort graduation target of 85.0 percent.¹

- The four-year cohort graduation rate was 91.0 percent in 2011 and 93.9 percent in 2014, above the state rate of 86.1 percent.
- The five-year cohort graduation rate was 92.7 percent in 2010 and 93.2 percent in 2013, above the state rate of 87.7 percent.
- The annual dropout rate for North Middlesex has been below the state rate since 2009 and was 0.5 percent in 2014, below the statewide rate of 2.0 percent.

¹ 2014 graduation targets are 80 percent for the four year and 85 percent for the five year cohort graduation rates and refer to the 2013 four year cohort graduation rate and 2012 five year cohort graduation rates.

North Middlesex RSD District Review Findings

Strengths

Leadership and Governance

1. District leaders are developing a culture of collaboration within the district.

- A.** Interviewees in multiple interviews told the team that the superintendent has established collaborative relationships with the town administrators, boards of selectmen, and finance committees of the three member towns, thus successfully garnering support for an override and a debt exclusion for a new high school. In addition, the schools have received increases to the school budget ranging from 2–4.5 percent.
 - 1. One town official said that a “collaborative approach” has been taken and that the parties “work out issues before they become problems.”
 - 2. Other officials told the team that the superintendent has an “open door policy” and “is very good at communication.”
- B.** The superintendent has established a culture of collaboration among the leadership team that extends throughout the system. She has set forth her vision of effective instruction to the leadership team through meetings, discussions, and professional development opportunities.
 - 1. District leaders said that administrators, with the superintendent, conduct collaborative walkthroughs to foster a common understanding of effective instruction.
 - 2. In an effort to foster collaboration and a common understanding of instruction, the superintendent and the administrative team took an online data course together.
 - 3. Interviewees said that the superintendent has introduced the leadership team to the book *Leverage Leadership*. This serves as the framework for transforming the team into a high performance administrative unit.
 - 4. The position of assistant superintendent has been restored and strengthened this school year. The assistant superintendent has articulated a plan of approaching the issues of consistency in curriculum and instruction across the district.
 - 5. Principals reported that budget decisions are made collaboratively at the leadership team based on the most effective practices for student achievement.

Impact: Sowing the seeds of collaboration and cooperation is a critical step toward unifying the district and ensuring that all schools are focused on raising student achievement. Decisions that are made collaboratively are usually implemented more consistently across the district and result in higher student achievement.

Curriculum and Instruction

2. In observed classrooms districtwide, the learning environment was positive and respectful and in most classrooms the teachers demonstrated strong knowledge of subject and content.

- A.** Districtwide the tone of interactions between teachers and students and among students was positive and respectful.
 - 1. In 94 percent of observed classrooms there was clear and consistent evidence of a respectful and positive learning environment (#1).
 - a. In one elementary classroom students clapped after each student presented his or her strategy to solve a division problem; in another class, the teacher told her students that they did an “incredible job” during their morning opening exercises. Teachers referred to students as “mathematicians” and “readers.”
 - b. “Growth mindset” messages were posted in middle school classrooms and hallways reminding students that “mistakes were welcomed,” to “try their hardest” and not “to stop until you mastered” the task.
 - c. The review team characterized high school students as “focused” and “positive” with classrooms having a tone of respect.
- B.** Across the districts’ schools, students followed school and classroom rules whether posted or communicated in other ways and disruptions, if present, were managed effectively and equitably.
 - 1. Standards of behavior were consistently and clearly communicated in 86 percent of classes observed (#2). If a disruption took place, the teacher managed it without a loss of class time. For example, the team observed cell phone disruptions at middle- and high-school levels handled without any break in instruction.
 - a. Classroom rules were apparent at the elementary level where posters reminded students to be “good citizens” or “good listeners” and students received rewards for positive behavior.
 - b. At the high school, rules were not explicitly posted, but students were well-behaved and attentive. The team noted that if students strayed off task, one or two words from teachers were all that was needed to redirect them.
- C.** The physical arrangement of classrooms across the district promoted a positive learning environment where most students have full access to learning activities.
 - 1. The team found that in 82 percent of classrooms observed districtwide, the physical arrangement of the classrooms promoted a positive learning environment (#3).

- a. For example, elementary classrooms were generally arranged to accommodate groups of 3-6 students at desks or tables, in rows or semi-circles. Work stations, a table for small group work with the teacher, and a rug for morning meeting were consistently present. Students had easy access to one another and to books and materials that support learning.
- D.** Most teachers across the district demonstrated strong knowledge of subject and content.
1. The team found clear and consistent evidence that teachers were well prepared with strong knowledge of their subject and content (#6) in 100 percent of elementary classes observed, in 88 percent of middle level classes observed, and in 67 percent of high school classes observed.

Impact: By establishing a respectful and safe learning environment districtwide where students consistently follow standards of behavior and have full access to learning activities, the district has met an essential condition for learning. In addition, having a well-prepared and knowledgeable teaching staff further supports the district as it moves forward to full development of standards-based teaching and learning practices.

Human Resources and Professional Development

- 3. The district provides support to teachers new to the profession, to the district, or to a school through an organized and well-resourced mentoring program. Coaches are provided to support new administrators.**
- A.** The mentor program handbook entitled *Mentor's Guide to the NMRSD Induction Program and Mentor Programs* and the collective bargaining agreement describe a tri-level mentoring program to support teachers.
1. The collective bargaining agreement states that the first level of mentoring is for teachers with no professional experience and includes 40 hours of mentoring; the second level is for teachers new to the district with previous experience or already employed by the district but changing academic discipline or grade level and includes 20 hours of mentoring; and the third level is for teachers employed by the district but changing schools.
 - a. Interviewees and a document review showed that during the first year of mentoring, mentors and mentees meet weekly and keep logs of the meeting and activities. The Mentor's Guide includes samples of activities that may take place between the mentor and mentee, including classroom observations, pre-and post-observation meetings, and arranging for the mentee to visit colleagues' classrooms.
 - b. Teachers who mentor teachers with no experience are required to participate in three days of work before the school year, including two days of initial or refresher training and two half-days for beginning work with the assigned mentee.

- c. All mentees are assigned a mentor for one year. The superintendent and principals reported that teachers new to the profession are assigned mentors for two to three years, as determined by the principal. Interviewees confirmed that mentors are not only assigned to teachers new to the profession, but are also available to teachers who change grades or school.
 - d. Mentors are assigned according to the level of need and the grade or subject area. Administrators told the review team that approximately 22-30 teachers have mentors in 2014-2015.
 - 2. The assistant superintendent oversees the mentoring program along with two mentoring coordinators (elementary and secondary).
 - a. Mentoring coordinators receive a stipend and mentors receive a \$500 stipend or a lesser stipend plus in-service credits and additional professional development time.
 - 3. A review of 2014 TELL MASS survey data showed that of teachers who responded (n=25) 96 percent indicated that as new teachers they were formally assigned a mentor. Also, 96 percent of respondents indicated that the district provided seminars specifically designed for new teachers and 72 percent indicated that formal time was set aside to meet with mentors during school hours.
- B.** The district has a structured support system for new administrators.
- 1. The district engages a coach to work with new administrators every two weeks.
 - 2. The new assistant superintendent is participating in the New Superintendent Induction Program that is sponsored by ESE and the Massachusetts Association of School Superintendents.

Impact: A well-resourced and organized mentoring program creates a supportive environment and regular access to professional development and guidance. It is an investment by the district that may result in lower rates of teacher attrition. A stable team of teachers with ongoing support creates a foundation for consistent and continually improving instruction, which can lead to improved student achievement.

Student Support

- 4. The district has implemented a variety of programs and services responsive to the needs of students from prekindergarten to age 22.**
 - A.** The district has created the role of Evaluation Team Leaders who are responsible for monitoring the implementation of improvements in special education services delineated in Coordinated Program Reviews (CPRs).

- B.** Interviews and a document review showed that students on Individualized Education Programs (IEPs) may be referred to one of several programs that prioritize provision of services and integration in the general education classroom as often as possible.
 - 1. For students with Pervasive Developmental Disorder (PDD), the district has implemented two programs: the Pre-K STEPS program, a substantially separate program with the possibility of Pre-K integration, and the K-12 STEPS program, an integrated program.
 - a. District leaders reported that there are two program classrooms at Ashby Elementary School, two at Nissitissit Middle School, and one at North Middlesex Regional High School.
 - 2. The district has budgeted for a new social/emotional position in 2015-2016 for students in grades 6-8 diagnosed with autism.
 - 3. Students without a PDD diagnosis but who have moderate to intensive needs participate in the ACHIEVE program for students K-12.
 - 4. Students with language-based learning disabilities participate in the language-based program offered at one school per level. It is a full-day program beginning in grade 2 at the elementary level, a full day in middle school, and part of the day in high school.
 - a. The district employs team teaching so that students can be integrated into core content classrooms and taught in the least restrictive environment.
 - 5. The district offers therapeutic services, including those for students with speech and language needs and psychological and counseling needs. For families seeking counseling for students suffering anxiety, depression, or suicidal ideation, the district has contracted with Interface, an intake and referral service that facilitates the processing of insurance coverage.
- C.** Students receiving special education services are well integrated into the academic and social life of the high school.
 - 1. Interviewees reported that high school Advanced Placement (AP) courses are open to all students, and some students on IEPs have taken AP courses.
 - 2. High school teachers told the team that students accessing special education services at the high school are welcomed into the social life of the school and helped by other high school students.
- D.** Job training and placement is provided to all students through age 22.
 - 1. The School to Work program offers job exploration, employment evaluation, job placement, job coaching, follow-up, and classroom-based skill building.

2. The Gateway Program focuses on functional academics and vocational, social-emotional, and life skills to develop increased independence and self-reliance in supervised employment settings. Employment options include local businesses, the high school store, and the local Meals on Wheels program.

Impact: When a district presents a variety of programs that support its students, the quality of their learning and participation is increased. Integrated special education programs offer students the opportunity to participate in the life of the school in the company of a rich and varied peer set. Moreover, they keep those needing services in the district. Job training and placement programs contribute to building students' confidence, knowledge, experience, and skills and lead to increased independence and participation in the broader world.

Financial and Asset Management

5. The district has an inclusive budget process with a clear presentation of revenues, major initiatives, and cost drivers.

- A. Interviews and a document review showed that principals and other administrators present their budget requests along with explanations for each change.
 1. Administrators reported that principals and other administrators submit budget requests in the fall for each budget line along with a history of previous expenditures and budgets and narratives explaining new proposals and other changes from current allocations.
 2. They have the opportunity to request what they believe they need, such as math and reading specialists and class sizes.
 3. They may propose reductions and savings such as the reallocation of funds to improve student achievement.
- B. School leaders collaborate on priorities and initiatives for the proposed budget.
 1. Administrators reported that they discuss as a team priorities and initiatives to be included in the superintendent's proposed budget.
 2. These proposals and priorities are discussed with the school committee's finance subcommittee throughout the development phase of the budget process.
 3. The school committee is updated on the budget development process and major related issues and has input beginning in January, well before the formal presentation of the budget in March.

- C. The budget documents and presentations submitted to the school committee and the public include highlights of changes in both projected revenues and expenditures along with the rationale for each change.
 - 1. Budget documentation submitted to the school committee and to interested members of the public includes the request for each budget line along with a history of previous expenditures and budgets and a narrative explaining requested changes.
 - 2. The documentation includes a Power Point presentation for the school committee's public hearing on the budget, which highlights proposed revenue and budget changes, enrollment and class size data, staffing changes, achievement data, initiatives and priorities, proposed capital and technology projects, projected cost savings, and estimated assessments to member towns.
 - 3. Budget information is available to the public on the district website as well as at public meetings.
- D. Town officials have opportunities to provide input about what they think that the towns can afford for the school budget.
 - 1. Administrators and town officials reported that the superintendent meets informally and frequently with town administrators, finance committees, and selectmen during the budget process to discuss what each town can afford for education.
 - 2. Town officials noted that there are no surprises in the budget by the time the school committee votes in March.
- E. The general public also has opportunities to provide input into the budget.
 - 1. Minutes indicated that comments from the public are encouraged at the school committee's public hearing on the budget.
 - 2. The public hearing is widely publicized.
- F. Town officials reported and a review of data showed that town meetings have supported proposed school budgets with little opposition, resulting in budgets above the required net school spending level and improvements, such as a lower student/teacher ratio.
 - 1. Taxpayers also approved overrides for education, most recently in 2012 (for fiscal year 2013).
 - 2. The towns also supported a debt exclusion override for a new high school in 2014.

Impact: As a result of a clear presentation of proposed school budgets and effective communication between the district and town officials, the member towns have been supportive of education and funding has been above the required level.

Challenges and Areas for Growth

It is important to note that district review reports prioritize identifying challenges and areas for growth in order to promote a cycle of continuous improvement; the report deliberately describes the district's challenges and concerns in greater detail than the strengths identified during the review.

Leadership and Governance

6. The district's current five-year Strategic Plan and annual plan include consistent, general districtwide strategies to improve student achievement, but do not contain specific action steps and benchmarks. The district does not have consistent systems, structures, and practices to provide high-quality instruction for students.

- A.** The district's five-year Strategic Plan and annual plan include general strategies to improve student achievement as well as people responsible, required resources, and evidence of effectiveness. Missing from both plans is a set of specific action steps and SMART goals (specific and strategic; measureable; action-oriented; rigorous, realistic, and results-focused; and timed and tracked) as well as specific measures to determine whether the district has met its goals.
 - 1. Interviews and a document review showed that nine district goals were written and communicated in 2011.
 - a. These nine goals are the basis for the School Improvement Plans (SIPs) that were developed in the spring of 2014.
 - b. The superintendent refined these goals in summer 2014 to closely reflect her vision for the district and to provide direction for the schools to raise student achievement. They will serve as the foundation for SIPs in 2015-2016.
 - c. District leaders described the document outlining the nine district goals as the Strategic Plan.
- B.** Interviews and a document review showed that there is little consistency among the structures and processes used in the district to ensure that students receive equitable access to curriculum and instruction between and within schools. There are few formal structures to collaboratively develop and disseminate successful practices. (See the Curriculum and Instruction, Assessment, Human Resources and Professional Development, and Student Support findings below.)
 - 1. The two middle schools operate on two separate schedules, resulting in substantial differences in core instructional time.
 - a. Instructional time is not consistent for middle school students, with Hawthorne Brook Middle School offering fewer instructional minutes to its students. Students attending Nissitissit Middle School have an average of 286 minutes per week in core instructional time in ELA, math, and science. At Hawthorne Brook, as students progress from grades

5 through 8 the time they spend in core instruction decreases from 260 minutes per week to 242 minutes. In addition, core subjects of science and social studies are taught only two of three trimesters at Hawthorne Brook. The result is one-third less instructional time at Hawthorne Brook Middle School.

2. Documentation and articulation of curriculum vary from school to school. The quality and quantity of curriculum materials vary. Some courses have detailed lessons.
3. The supervision of staff varies across the district.
 - a. The number of walkthroughs is inconsistent across schools. One school reported more than 200 classroom visits, while other schools recorded only those required in accordance with the educator evaluation system. This suggests that teachers at different schools receive different levels of feedback to improve instruction.
4. The structure of high school departments is inconsistent. For example, until this year, the English department had not met to discuss curriculum and instruction for approximately five years. Conversely, the math department meets regularly and interviewees reported that it is the only department with an aligned plan for curriculum and instruction.
5. The superintendent told the team that she planned to introduce a strategic planning process to address the inconsistencies across the district and to specifically and deliberately focus all of the district's resources toward raising student achievement.

Impact: Without strong, unified districtwide systems, structures, and practices to improve instruction and student achievement, the district is challenged to evaluate progress toward its goals and to ensure continual districtwide improvement in teaching and learning.

Curriculum and Instruction

The team observed 66 classes throughout the district: 21 at the high school, 24 at the 2 middle schools, and 21 at the 3 elementary schools. The team observed 20 ELA classes, 25 mathematics classes, and 21 classes in other subject areas. Among the classes observed were 6 special education classes and 1 ELL class. The observations were approximately 20 minutes in length. All review team members collected data using ESE's instructional inventory, a tool for recording observed characteristics of standards-based teaching. This data is presented in Appendix C.

- 7. District leaders and teachers do not have a common understanding of key teaching and learning practices. Instructional leadership roles are not always clear.**
 - A.** School leaders and teachers described expectations for good teaching in the district.

1. The review team was told that good practices at the elementary level include the Cognitive Eight Strategies.² Teachers are expected to use agendas, objectives, activators and summarizers, and lessons designed with the end in mind.
 2. At the middle level, teachers told the team that they also follow the Cognitive Eight, but listed additional instructional expectations of student engagement and student talk.
 3. High school teachers and leaders noted that lessons are expected to run bell to bell and should include communication of clear objectives, both content and language based; the Cognitive Eight are not consistently used at the high school level.
- B.** Interviewees gave various answers when asked who the instructional leader was at their school or level.
1. The superintendent described a changing role for principals: from managers to instructional leaders. She told the team that in the past, principals had not seen themselves as instructional leaders; instead, they relied on teacher leaders for instructional leadership. The superintendent now conducts monthly walkthroughs with the leadership team focused on instructional practices.
 2. Teachers told the team that they relied on “respected colleagues” for instructional support. At one elementary school, teachers noted that there was not one “central person” for curriculum and instructional support. Middle school teachers and school leaders identified the instructional leaders as the principal and the assistant principal. High school teachers cited “ourselves, department heads, and colleagues” as resources for instructional support.
- C.** In observed classes key teaching practices were not consistent across schools and between levels in the district.
1. While communicating clear learning objectives for every lesson is an expectation for all teachers in the district, the practice is most developed at the elementary level. The team observed clear and consistent communication of clear learning objectives aligned to the *2011 Massachusetts Curriculum Frameworks* (#8) in 76 percent of elementary classes, in 67 percent of middle level classes, and in 57 percent of the high school classes.
 2. In most classes observed, students were all doing the same thing with very few examples of differentiation and other appropriate modifications. The team saw clear and consistent evidence of appropriate modifications for English language learners and students with disabilities (#10) in only 21 percent of classes observed districtwide.

² The Eight Cognitive Context Strategies: communicating agenda / itinerary; communicating mastery objectives; using activators; using summarizers; making connections to previous learning; posing essential questions; making connections to the real world /students' lives; and assigning homework at the start of the lesson.

3. The team saw well-provisioned, literacy-rich classrooms in 67 percent of elementary classes observed. Most had anchor charts, visuals, listening stations, manipulatives, word walls, posters, charts, and computers supporting the diverse needs of all learners. The team observed clear and consistent evidence of multiple resources available to meet all students' diverse learning needs (#5) in 46 percent of middle level classes and in 38 percent of high school classes observed.
 4. The team observed lessons that clearly and consistently reflected rigor and high expectations (#7) in only 45 percent of classes districtwide. Examples of lessons that did not reflect rigor included: students not sufficiently engaged while the teacher solved problems and gave the strategies; teacher-talk dominating classes; and in one class 11 minutes of instruction lost at the start.
 5. The team observed clear and consistent evidence of frequent formative assessments to check for understanding and inform instruction (#15) in only 38 percent of classes observed districtwide. In several classes, students held up individual whiteboards so the teacher could do an on- the-spot check of their work. However, the team saw few other examples of formative assessments to gather data about students' understanding.
- D.** While the team saw examples of challenging academic tasks that fully engage students, the practice was not consistent districtwide. The team found students clearly and consistently involved in challenging academic tasks (#17) in 52 percent of elementary classes, in 67 percent of middle school classes, and in 38 percent of high school classes.
1. The team observed clear and consistent evidence of students having opportunities to articulate their thinking verbally or in writing (#18) in 62 percent of elementary classes, in 45 percent of middle school classes, and in 33 percent of high school classes. Students elaborated clearly and consistently about content and ideas in 35 percent of classes observed district-wide.
 2. Districtwide the team found that in only 41 percent of observed lessons districtwide were students clearly and consistently given opportunities to inquire, explore, apply, analyze, synthesize and/or evaluate knowledge or concepts (#19). The team observed students engaging in higher order thinking in 48 percent of elementary classes, in 54 percent of middle school classes, and in 29 percent of high school classes.
 - a. Examples of practices observed that supported rigor, student expression, and higher order thinking include: students presenting persuasive speeches developed using a detailed rubric while the student audience analyzed the speeches using graphic organizers; students discussing and analyzing a Langston Hughes poem after studying the Civil Rights Movement; and elementary math students explaining in detail the strategies they used to solve a division problem.
- E.** In observed classrooms students had limited access to technology.

1. The team observed teachers clearly and consistently using available technology to support instruction and enhance learning (#16) in only 36 percent of classrooms districtwide. The team saw limited examples of the effective use of interactive whiteboards as an interactive teaching tool.
2. Opportunities for students to use technology were very limited. Students clearly and consistently used technology as a tool for learning and/or understanding (#22) in only 11 percent of classes observed districtwide.
 - a. Examples of practices observed that demonstrated the effective use of technology by students and teachers included: student-created interactive Glogster posters with images, text, and music; students using a classroom set of portable computers to search the web to develop essential questions for a project; and an interactive whiteboard used for an interactive math lesson.

Impact: Without clear instructional leadership and consistent effective practices across schools, the district cannot ensure that all students are benefiting from rigorous and challenging instruction. With limited use of technology to support student learning, the district is not ensuring that students are prepared with the 21st century skills they need for success in college and careers.

Assessment

8. **The district does not have a fully documented and aligned curriculum or a system in place to collect, disseminate, or analyze the formative assessment data that it needs to effectively monitor student progress and inform classroom instruction.**
 - A. With the appointment of an assistant superintendent, the district is undertaking curriculum work at several levels.
 1. Interviews and a document review showed that the district is in its second year of full implementation of Readers' Workshop K-6.
 - a. District administrators and teacher leaders are developing curriculum to support the transition.
 - b. The district's partner Teachers for Teachers has produced nine units to support the transition to Readers' Workshop.
 - c. District leaders reported districtwide training for implementation of BAS beginning in the spring 2013 and continued in district and site-based professional development (PD) in the fall 2013. In the fall 2014 the assistant superintendent reviewed K-4 BAS at a full day of PD. In January 2015 training focused on "looking at current BAS data to help plan next units."

2. The district is in its fourth year of implementation of the enVisionMath and BIG IDEAS Math programs K-8.
 - a. District administrators and teacher leaders told the team that they are unpacking the math standards to ensure enVision's alignment with the *2011 Massachusetts Curriculum Frameworks*. A fully documented math curriculum will be the result of this work.
 3. In science at the elementary level, the district is using a curriculum map aligned to the 2006 state framework and is just beginning to align its curriculum to the new state standards. Alignment of grades 7 and 8 curriculum has not begun.
 4. Interviewees reported that there is little curricular consistency at the high school.
 - a. Some areas, such as math, have well-documented curricula.
 - b. Others, such as English, are in the early stages of curriculum development.
- B.** Of those assessments that the district reported are in use, some are not administered with sufficient frequency to provide timely, useful data to inform instruction, and some are not used consistently across all schools and grades.
1. EnVision unit benchmarks are administered after approximately every four topics and do not provide teachers with sufficient formative data.
 - a. District leaders reported that students at risk are also monitored with other tools including BAS. They noted the use of Reading A-Z benchmark books and many curriculum-based measurements, including the Rosner Test of Auditory Analysis.
 2. Some assessments are not implemented consistently across all district grades.
 - a. Most consistent collection and dissemination of benchmark data is in K-6 at the school level.
 - i. Schools collect data for BAS in K-6, DIBELS in K-2, and Envision Unit Assessments in kindergarten through grade 4.
 - b. Two K-4 schools use elements of the Scott Foresman Benchmark Tests that supported the previous ELA program in place in the district.
 - c. Writing assessments are not administered consistently across the district.
- C.** The district does not have a system in place to collect, disseminate, and analyze assessment data between and among schools and the district office.
1. This year for the first time, the district is able to review district-level data.
 - a. District leaders reported that the assistant superintendent is also "collecting BAS data systematically on Google Drive."

2. Teachers and administrators reported that teachers have had little training in the analysis of assessment data.
 3. In two schools, the schedule does not allow for common planning time. As a result, all teachers do not have opportunities to meet and analyze assessment data and to plan adjustments to their instruction.
- D.** Interviewees said that the district recognizes the need for improved collection and dissemination of data and is considering hiring a curriculum and instructional data manager.

Impact: Without formative assessment data based upon a fully documented and implemented curriculum, teachers are designing and implementing instruction without full knowledge of their students' needs. As a result, students may not be receiving the instruction they need to progress and improve.

Human Resources and Professional Development

- 9. Implementation of the educator evaluation system has been uneven and inconsistent. Educator evaluations have not consistently included high-quality actionable feedback to promote professional growth.**
- A.** Primary and secondary evaluators have conducted observations and written formative and summative evaluations in accordance with ESE educator evaluation guidelines.
1. Most teacher evaluation files reviewed in TeachPoint, the district's evaluation management tool, contained documentation of goals, self-assessments, observations, and formative or summative evaluations. The team reviewed evaluations of 4 teachers assigned to a developing educator plan and 17 teachers assigned to two-year self-directed growth plans.
 2. Most of the teacher evaluations reviewed were informative in that they included observational information and information on goal progress or general information about a teacher's accomplishments. While some suggestions or recommendations for improvement were included as part of classroom observation reports, summative evaluations generally were not instructive and did not include specific recommendations to enhance professional growth.
 3. Teachers in focus groups said the evaluation system was now making sense and that they appreciated the feedback they were receiving. Elementary teachers said they are getting more frequent feedback from their evaluators. Middle school teachers said that they like getting immediate feedback and having more than one observation a year. High school teachers said that the evaluation process is better this year under the new principal.

4. The district is participating in ESE's Model Student and Staff Feedback Administration Project this year.
- B.** A review by the team showed that administrator evaluation documentation was incomplete. Most files did include a self-assessment and a goal setting document. However, in a number of instances, the goals were not SMART (Specific and Strategic; Measureable; Action-Oriented; Rigorous, Realistic, and Results-Focused; and Timed and Tracked.).
1. The team reviewed 15 administrator files.
 2. Summative evaluations of principals were not included in TeachPoint files. The superintendent said she had completed them; however, none were provided to the team.
 - a. The superintendent, principals, and administrators with less than three years of experience should be placed on one-year developing educator plans and have annual summative evaluations, consistent with the educator evaluation regulations.
 3. High school department heads were not evaluated in their role as department heads, but in their role as teachers.
 - a. District leaders reported that this practice was based on job descriptions and teachers' contracts.
- C.** Interviewees told the team that the district is making some effort this year to calibrate evaluations among administrators. They said they recognize that principals across the district do not have consistent expectations for instruction.
1. District leaders reported that most principals have had training in recent years in conducting walkthroughs and in writing consistent evidence. They noted that the assistant superintendent meets with all principals and assistant principals monthly to conduct walkthroughs "to address inter rater reliability and consistency for evaluations."
- D.** The superintendent and assistant superintendent said that they read all evaluations and visit schools to participate with principals in observations and walkthroughs.
- E.** When the current superintendent assumed leadership in July 2012, the district had an educator evaluation labor management committee in place.
- F.** District leaders reported that an evaluation committee has been in place in recent years; it is composed of administrators and teachers including teachers' association representatives.
- Impact:** When the educator evaluation system is not implemented consistently, the district does not have an effective instrument for supporting and evaluating its teachers and administrators. As a result, it does not provide educators sufficient opportunities for professional growth.

10. The district has not developed a professional development program that is tied to district, school, and educator goals. Professional development is uncoordinated and not developed collaboratively.

- A.** The district does not have a professional development (PD) plan. District leaders told the team that the district does not have a PD committee, and that PD, aside from that related to ESE initiatives (such as the implementation of the educator evaluation system), is “scattered.”
1. Interviewees said that PD has “floundered” since the prior assistant superintendent left the district.
 - a. In the 2014 TELL Mass survey results, 53 percent teachers who responded (n=224) indicated that they have a small role or no role in determining the content of in-service programs in the district.
 - b. District leaders reported that with the former assistant superintendent retired, a PD plan was created with a PD committee for the following school year (2013-2014).
 2. The assistant superintendent is new to the district this year and has assumed responsibility for restructuring PD. Going forward, she said that she plans to survey teachers and assemble a PD committee to develop short and long-term goals as well as a PD calendar.
 3. The superintendent told the team that PD varies by school level. At the elementary level, PD has primarily consisted of Teachers for Teachers (TfT) literacy training (Readers Workshop). At the middle level, each school has determined its own PD, and PD at the high school has focused on preparation for a NEASC review.
 - a. The district has offered summer courses for PD, but they have not been directly related to school and district goals. Principals have determined course offerings on their own.
 - b. A review of School Improvement Plans showed that some schools offer PD to accomplish their goals. For example, one SIP noted the attendance of teachers at EnVision and Fountas and Pinnell Benchmark Assessment System training.
 - c. Teacher leaders are an informal source of aligned PD for teachers, since they meet with the assistant superintendent to discuss many topics; however, because teacher leaders have a full teaching schedule and because the structure of common planning time differs from school to school, teacher leaders are not able to meet regularly with teachers.
- B.** Seven PD sessions about district-determined measures (DDMs) are scheduled in 2014-2015. This 30 hours of training includes an introduction to DDMs (identification and administration protocols), DDM analysis training, training on determining student growth, and a review and update on DDM protocols.

Impact: Without a detailed professional development plan aligned with district and school goals and linked to students’ and teachers’ needs, educators are not receiving focused guidance and support that helps the district make progress toward its goals.

Student Support

11. Practices currently in place are not sufficient to meet the needs of all students.

- A.** Interviewees pointed out that differentiated instruction takes place only in pockets across the district. Observers noted a low incidence of differentiation districtwide.
 - 1. The review team found clear and consistent evidence of teachers using appropriate modifications for English language learners (ELLs) and students with disabilities, such as explicit language objectives, direct instruction in vocabulary, presentation of content at multiple levels of complexity and/or differentiation of content, process and/or product (#10) in 29 percent of observed elementary classes, in 17 percent of middle school classes visited,, and in 19 percent of high school classrooms.
- B.** Some administrators reported that Tier 2 support across the district is not adequate.
 - 1. Title I teachers are providing Tier 2 instruction. District leaders reported that Tier 2 instruction has not been effective because there are not enough teachers dedicated to Tier 2 instruction.
- C.** Interviewees noted that there is an increasing need for services for students affected by anxiety and stress because of various challenges in their lives.
 - 1. There are two counselors at the middle-school level serving 1,039 students, above the average student-to-counselor ratio (2011 data) in Massachusetts of 441:1 and above the ratio of 250:1 recommended by the American Counseling Association.
 - 2. High school students reported that some counselors were more consistently available than others, and the process for making appointments was not always clear.
- D.** The district's website states: "The North Middlesex Regional School District is a low-incidence ELL district with a population of fewer than 20 students with a specific language group." Interviewees reported that few educators have been able to complete the RETELL training, a requirement to ensure that all teachers are prepared to respond to the needs of the ELLs in their classrooms.
- E.** Some parents reported that opportunities offered to strong students to accelerate their learning were limited and that enrichment programs had been eliminated. They characterized the reading initiative at the middle school level as unresponsive to the needs of students who were already strong readers and said that some teachers did not consistently challenge these students with extra work.

Impact: When instructional practices and support for students in general education classrooms are not responsive to the needs of all students, opportunities for high-quality learning are not equal.

Financial and Asset Management

12. Enrollment is declining, and consequently some buildings are underused and other resources have had to be cut back.

A. Enrollment in the district is declining.

1. According to ESE data, in-district enrollment has declined from 4,074 in 2010 to 3,310 in 2015, a 19 percent decrease; enrollment has declined from 4,659 in 2003 to 3,310 in 2015, a 29 percent decrease.
 - a. Administrators told the team that enrollment is declining because of a decline in births and because families are moving out of the area.
 - b. Administrators noted that declining enrollments have been an issue in promoting and approving budgets.
2. New England School Development Council (NESDEC) projections indicated that enrollment will continue to decline over the next 10 years to approximately 2,770.
3. Enrollment data indicated that the district is losing many ninth graders annually (approximately 26 percent in 2014); administrators reported that these students go to choice, charter, vocational, and private schools in the area.
 - a. According to ESE data, the number of choice and charter students leaving the district and the cost of their tuition have increased in the last three years.
 - b. Administrators said that they expected that the new high school will reverse this trend.

B. Two of the district's school buildings are underused and their future uses are uncertain.

1. Interviewees told the team that the Peter Fitzpatrick School has not been used as a K-2 school for at least five years, and is currently used for school administrative offices and for two special education programs. It has also been used as a local food bank.
 - a. Town officials reported that the district turned the Peter Fitzpatrick School back to the town in 2010 but a proposal to use it for other purposes was defeated by the voters.
2. District leaders reported that the Squannacook School has also not been used as a 3-5 school since the district consolidation in 2009. The building currently houses the district's Squannacook Early Childhood Center.

C. Budget constraints caused by the challenge of managing down the budget with declining enrollment have necessitated cuts.

1. Administrative positions have been reduced, including human resources and curriculum leadership positions.

2. Administrators said that the district has created in-house special education programs to reduce out-of-district tuition placements and transportation.
3. Administrators are considering reallocating funds from an open position to create a data analysis position. They are also considering reallocating paraprofessional positions to provide needed special education teachers.

Impact: Declining enrollments are putting pressure on the district to reduce costs and programs, as it has already done in the case of facilities, administrative positions, and other resources.

- Declining enrollments and underused buildings are an issue when town and school district budgets are under consideration.
- The district must pay to heat, light, maintain, and clean underused facilities.
- Declining enrollments affect the amount of state aid and certain grants.

North Middlesex RSD District Review Recommendations

Leadership and Governance

- 1. The district should develop and include in its planning documents a set of specific action steps and benchmarks to accomplish its goals.**
 - A.** The Strategic Plan and the annual plan should include specific action steps and SMART goals (specific and strategic; measureable; action-oriented; rigorous, realistic, and result-focused; and time and tracked). The planning documents also should include as evidence of effectiveness specific measures to determine whether the district has met its goals.
 - B.** The Strategic Plan's performance goals for students should drive the development, implementation, and modification of the district's educational programs.
 1. School Improvement Plans (SIPs) should be created in alignment with the Strategic Plan and based on an analysis of student achievement data.
 - a. Principals should provide the superintendent, school committee, and staff with regular updates on progress toward SIP goals.
 - b. The principal should use the SIP to inform his/her self-assessment and goal setting process when creating the Educator Plan, and progress toward Educator Plan goals should be used as evidence during implementation.
 2. Professional development should be designed to support the Strategic Plan's initiatives and goals.
 - C.** The Strategic Plan should be used as a tool for continuous improvement.
 1. The superintendent should periodically report to the school committee, staff, families, and the community on progress toward the Strategic Plan's goals.
 2. The district should establish procedures to review the Strategic Plan annually. Strategic activities and benchmarks should be adjusted when necessary to meet current conditions.
 3. The superintendent and school committee should consider aligning some goals in the Superintendent's Educator Plan (as part of the district's educator evaluation system) with the Strategic Plan's goals.

Recommended resources:

- The *Massachusetts Definition of College and Career Readiness* (<http://www.mass.edu/library/documents/2013College&CareerReadinessDefinition.pdf>) is a set of learning competencies, intellectual capacities and experiences essential for all students to become lifelong learners; positive contributors to their families, workplaces and communities; and

successfully engaged citizens of a global 21st century. This could be a helpful resource as the district articulates its vision and goals.

- *Massachusetts Transfer Goals* (<http://www.doe.mass.edu/candi/model/MATransferGoals.pdf>) are long range goals that students should work toward over the course of their PK-12 academic experience. They were written to provide an explicit connection between the standards-based Model Curriculum Units and Massachusetts' definition of College and Career Readiness. They are not recommended for use as a checklist, evaluation tool, or as an assessment tool, but they could be a helpful resource for the district as it articulates a vision and engages in long-term planning.
- ESE's *Planning for Success* tools (<http://www.doe.mass.edu/research/success/>) support the improvement planning process by spotlighting practices, characteristics, and behaviors that support effective planning and implementation and meet existing state requirements for improvement planning.
- *District Accelerated Improvement Planning - Guiding Principles for Effective Benchmarks* (<http://www.doe.mass.edu/apa/sss/turnaround/level4/AIP-GuidingPrinciples.pdf>) provides information about different types of benchmarks to guide and measure district improvement efforts.
- *What Makes a Goal Smarter?* (<http://www.doe.mass.edu/eval/resources/presentations/SMARTGoals/Handout5.pdf>) is a description of SMART goals with accompanying examples. The handout was designed to support educators in developing goals as part of the educator evaluation system, but could also be a useful reference for the district as it develops or refines its DIP and SIPs.

Benefits: A broad effort to develop and communicate a Strategic Plan and to include all stakeholders in the process will focus the district on consistent implementation of specific strategies to lead to improved student achievement. The Strategic Plan, the annual plan, and the SIPs will provide guidance and ensure that the work at each level is intentionally designed to accomplish the district's short- and long-term goals.

Curriculum and Instruction

2. The district should complete as soon as possible curriculum materials in all content areas.

- A.** The district should ensure that documentation in all content areas K-12 has common components that include: curriculum maps; sequenced units with written standards including literacy standards; objectives; instructional strategies that meet all learners' needs; resources; and formative and summative assessments.
 1. The district should communicate to teachers the plan for completing the curriculum.
 2. WIDA standards should be integrated into the curriculum for classes in which English language learners participate.

- B. The district should continue the K-8 curriculum mapping project in ELA and math and follow through with its plan to develop and/or revise existing units to support the new district-developed scope and sequence documents.

Recommended resources:

- ESE's *Common Core State Standards Initiative* web page (<http://www.doe.mass.edu/candi/commoncore/>) includes links to several resources designed to support the transition to the 2011 Massachusetts Curriculum Frameworks, which incorporate the Common Core.
- *Creating Curriculum Units at the Local Level* (http://www.doe.mass.edu/candi/model/mcu_guide.pdf) is a valuable tool for professional study groups engaging in curriculum development.
- *Creating Model Curriculum Units* (<http://www.youtube.com/playlist?list=PLTuqmiQ9ssquWrLjKc9h5h2cSpDVZqe6t>) is a series of videos about developing essential questions, establishing goals, creating embedded performance assessments, designing lesson plans, selecting high-quality materials, and evaluating the curriculum unit.
- *Model Curriculum Units* (http://www.youtube.com/playlist?list=PLTuqmiQ9ssgvx_Yjra4nBfqQPwc4auUBu) is a video series that shows examples of the implementation of Massachusetts' Model Curriculum Units.
- ESE's *Quality Review Rubrics* (<http://www.doe.mass.edu/candi/model/rubrics/>) can support the analysis and improvement of existing curriculum units as well as units under development.
- *Mathematics Framework Exploration Activities* (<http://www.doe.mass.edu/candi/commoncore/mathexplore/default.html>) are a growing set of activities designed by the Department of Elementary and Secondary Education mathematics staff and educators. The activities can be accessed and used to promote discussion and collaborative inquiry.
- *Science and Technology/Engineering Concept and Skill Progressions* (<http://www.doe.mass.edu/STEM/ste/default.html>) articulate of possible ways for students to progress through levels of understanding of concepts.
- ESE's *Writing Standards in Action* (<http://www.doe.mass.edu/candi/wsa/>) provide examples of high-quality student writing with annotations that highlight how each piece demonstrates competence in learning standards at each grade level.
- The *World-Class Instructional Design and Assessment (WIDA) English Language Development Standards Implementation Guide (Part I)* (<http://www.doe.mass.edu/ell/wida/Guidance-p1.pdf>) provides general information about the WIDA ELD standards framework, expectations for district implementation, and available support.

Benefits from implementing this recommendation will include a fully documented curriculum aligned to the *2011 Massachusetts Curriculum Frameworks*. Districtwide, teachers will be using aligned, documented, and cohesive curriculum materials that guarantee all students equal access to high-quality learning.

3. The district should ensure consistent implementation of standards-based teaching and learning practices that address all students' diverse learning needs, reflect rigor and high expectations, and give students opportunities to develop 21st century learning skills. The district should clarify and communicate instructional leadership roles.

- A.** District and school leaders and teachers should collaboratively develop and articulate expectations for instruction.
 - 1. Key instructional practices should be prioritized as the district's non-negotiables.
 - 2. These practices should include: effective differentiation strategies; practices that reflect rigor and engage students in challenging tasks and higher order thinking; ongoing checks for understanding; and methods for supporting students' use of technology to deepen their learning.
- B.** Once expectations for instructional practice are identified and defined, district administrators should develop a plan for sharing them with staff.
 - 1. Using grade-level, department meetings, faculty meetings, and common planning time and/or professional development days, the district is encouraged to share ideas and strategies.
 - a. Administrators and teachers are encouraged to conduct non-evaluative walkthroughs in pairs/small groups to generalize and share feedback about trends observed, and to discuss improvement strategies regularly with staff.
- C.** As teachers develop curriculum units, they should include differentiated and language-based strategies in lessons and units. Instructional accommodations to meet the needs of students with disabilities and English language learners should be addressed in each unit.
- D.** The district should support teacher leadership and growth by creating opportunities for exemplary teachers to have responsibility for instructional leadership and mentoring.
- E.** Teachers should be provided with appropriate guidance and feedback to help them continuously improve instruction.
 - 1. Professional development should focus on instructional priorities.
 - 2. The district should consider adding support in the form of instructional coaches to provide embedded professional development for teachers.

3. Principals, as instructional leaders, should ensure that teachers have the information and support necessary to meet the district's expectations for instruction.
4. Teachers should receive frequent, helpful feedback that helps them to continually improve their instruction (see the Human Resources and Professional Development recommendation below).
5. The district should review and, if possible, modify teaching schedules so that teachers at all levels have regular, frequent department and/or grade-level common planning and meeting time that can be used to collaboratively reflect on and improve curriculum and instruction.

Recommended resources:

- *Characteristics of Standards-Based Teaching and Learning: Continuum of Practice* (<http://www.doe.mass.edu/apa/dart/walk/04.0.pdf>) provides an overview of seventeen characteristics of standards-based practice, along with related indicators to suggest the level at which the practice is implemented, from Not Evident to Developing to Providing to Sustaining. It can help educators to understand what teaching and learning practices should be in place.
- *ESE's Learning Walkthrough Implementation Guide* (<http://www.doe.mass.edu/apa/dart/walk/ImplementationGuide.pdf>) is a resource to support classroom observations and discussions of teaching and learning.

Benefits from implementing this recommendation include a districtwide understanding of what constitutes high-quality teaching. This will provide a common language that will facilitate more focused feedback and professional development. Technology will be integrated into lessons, thus preparing students for full participation in the 21st century. A district that prioritizes high-quality instruction for all students develops and sustains a culture of continuous improvement that results in increased student achievement.

Assessment

- 4. The district should develop a system to collect, disseminate, and analyze formative assessment data at all levels and should ensure that sufficient data is available to inform instruction. The district should expand the professional development support it provides to help teachers use performance data effectively.**
 - A.** Staff at the district, school, and classroom levels should examine key data and make decisions appropriate to their roles. Most importantly, teachers' analysis should inform their instruction and ensure that students' needs are addressed.
 1. Assessment results should also be used to determine individual remedial and enrichment opportunities for students.

- B.** The district should consider increasing the frequency of some assessments, as appropriate, to provide teachers with current data frequently throughout the year.

Recommended resources:

- ESE's *Assessment Literacy Self-Assessment and Gap Analysis Tool* (<http://www.doe.mass.edu/eval/ddm/webinar/PartI-GapAnalysis.pdf>) is intended to support districts in understanding where their educators fit overall on a continuum of assessment literacy. After determining where the district as a whole generally falls on the continuum, districts can determine potential next steps.
- ESE's *District Data Team Toolkit* (<http://www.doe.mass.edu/apu/ucd/ddtt/toolkit.pdf>) is a set of resources to help a district establish, grow, and maintain a culture of inquiry and data use through a District Data Team.

Benefits from implementing this recommendation would include increased clarity and consistency in the district's use of data for decision making. It would help district leaders to provide the support necessary for teachers to analyze and use data to improve instruction and raise student achievement.

Human Resources and Professional Development

- 5. The district should ensure that all evaluations, including those of administrators, include high-quality feedback that is timely, informative, instructive, and capable of promoting individual growth and overall effectiveness.**

- A.** The district should review its current supervisory policies, practices, and expectations to ensure that the quantity and quality of evaluative feedback is enhanced.
- B.** The district, in collaboration with the teachers' association, should continue its efforts to assist district and school leaders with calibration of their expectations for instruction, grounded in the Standards of Effective Teaching and Administrative Leadership Practice.
- C.** Administrators should receive ongoing training to enhance their ability to observe and analyze instruction and to provide feedback focused directly on professional practice, growth, and student achievement.
- D.** The district should annually survey teachers concerning the effectiveness and usefulness of formative and summative evaluations.
 - 1. Survey results should be shared with the evaluators and the educator evaluation labor management committee. Results should be reviewed to measure the effectiveness of the process.

- E. The district should ensure that all educators participate in the educator evaluation system so that the district is able to report formative or summative evaluations for 100 percent of its educators this year.

Recommended resources:

- Educator Evaluation Implementation Surveys for Teachers and Administrators (<http://www.doe.mass.edu/eeval/resources/implementation/>) are designed to provide schools and districts with information about the status of their educator evaluation implementation. Information from these surveys can be used to target district resources and supports where most needed to strengthen implementation.
- *Rating Educator Performance* (www.doe.mass.edu/eeval/resources/implementation/RatingEdPerformance.pdf) is a guide to assist educators and evaluators in the determination of Summative Performance Ratings.

Benefits: When the district provides comprehensive ongoing training to evaluators, the quality of feedback to educators will improve, expectations for instruction will be more consistent, and this should lead to improved instruction and promote student learning, growth,

6. The district should align its professional development program with district goals.

- A. The district should move forward with its plan to create a professional development committee to plan and oversee professional development (PD) for the district.
1. The committee should develop a PD plan for the district that is aligned with the District Improvement Plan and the district's instructional expectations (see the Leadership and Governance and Curriculum and Instruction recommendations above).
 2. As part of this effort, the committee should outline and document a set of learning experiences for its educators that is systematic, sustained, and aligned with district goals.
 3. The plan should identify specific PD needs, determine how they might be met, and recommend adjustments in PD practices to accomplish them.
 4. The plan should address needs indicated by student performance data and trends from classroom observations. It should include goals focused on improving teacher practice and student outcomes.
 5. All current professional development programs should be inventoried and evaluated to determine whether they have been successful in improving student achievement and teacher competence.
 6. The committee should annually survey teachers and review TELL MASS data to learn whether professional development is meeting teacher needs.

7. Effective PD requires a long-term commitment by administrators and embedded support structures, such as facilitated team meetings, to convey and promote a common understanding of expectations for instructional practice from all educators.

Recommended resources:

- *The Massachusetts Standards for Professional Development* (<http://www.doe.mass.edu/pd/standards.pdf>) describe, identify, and characterize what high quality learning experiences should look like for educators.
- *Quick Reference Guide: Educator Evaluation & Professional Development* (<http://www.doe.mass.edu/edeval/resources/QRG-ProfessionalDevelopment.pdf>) describes how educator evaluation and professional development can be used as mutually reinforcing systems to improve educator practice and student outcomes.
- *The Relationship between High Quality Professional Development and Educator Evaluation* (<http://www.youtube.com/watch?v=R-aDxtEDncg&list=PLTugmiQ9ssqt9EmOcWkDEHPKBgRvurebm&index=1>) is a video presentation that includes examples from real districts.
- *ESE's Professional Development Self- Assessment Guidebook* (<http://www.doe.mass.edu/apa/ss/dsac/pd/PDProviderGuide.pdf>) provides tools for analyzing professional development offerings' alignment with the Massachusetts High-Quality Professional Development Standards, the Educator Evaluation Framework, and the Standards and Indicators of Effective Practice.

Benefits: Developing a professional development program aligned with district goals will prioritize student learning, enhance the skills of teachers, and help to implement best practices throughout the district that are consistent with the district's strategic direction. A high-quality professional development program coupled with the time and resources already available in the district will likely lead to improved student achievement.

Student Support

7. **District leaders, teachers, and staff should work collaboratively to improve practices and programs so that they are more effective in supporting and improving learning for all students.**
 - A. District leaders should work collaboratively with teachers, staff, and other stakeholders to improve practices with the goal of full integration and continuity of support.
 - B. All teachers and support staff should receive focused professional development and continued support to implement WIDA standards in the curriculum, as appropriate, and in effectively using

differentiation and accommodations to create classrooms where all students have equal access to high-quality curriculum.

- C. The district should analyze student performance data from multiple sources over time, including Early Warning Indicator System (EWIS) data, to identify students who may need additional support in order to reach academic goals, to better target student support, and to plan improvements in programs and services.
- D. The district should consider broadening the role of the Evaluation Team Leads (ETLs) in the district to support teachers' use of data to effectively differentiate Tier 2 instruction for struggling students and to inform decisions about resource allocation.
 - 1. The district should ensure that all teachers who do or may teach English language learners have received RETELL training.

Recommended resources:

- The *Massachusetts Tiered System of Support (MTSS)* (<http://www.doe.mass.edu/apa/sss/mtss/>) is a blueprint for school improvement that focuses on systems, structures and supports across the district, school, and classroom to meet the academic and non-academic needs of all students.
- MTSS Self-Assessment Overview (includes links to the MTSS Self-Assessment tool and *How to Complete the MTSS Self-Assessment*): <http://www.doe.mass.edu/apa/sss/mtss/sa/default.html>.
- ASCD's Differentiated Instruction web page (<http://www.ascd.org/research-a-topic/differentiated-instruction-multimedia.aspx#online>) offers comprehensive information and professional development options that address differentiating instruction, including actual examples from districts.
- ESE's *Early Warning Indicator System* (<http://www.doe.mass.edu/edwin/analytics/ewis.html>) is a tool to provide information to districts about the likelihood that their students will reach key academic goals. Districts can use the tool in conjunction with other data and sources of information to better target student supports and interventions and to examine school-level patterns over time in order to address systemic issues that may impede students' ability to meet academic goals.
- The *Massachusetts Model for Comprehensive School Counseling* (<http://www.doe.mass.edu/ssce/mscamodel.html>) is a standards-based model for school counseling outlining how school counseling programs can support student achievement and education reform objectives.
- *Useful WIDA ELD Standards Resources from the Download Library* (<http://www.doe.mass.edu/ell/wida/DownloadLibrary.html>) can be used as a type of recommended reading list for educators new to the WIDA ELD standards who are interested in

developing a deeper understanding of the framework's components and how to apply them into classroom instruction and assessment.

Benefits from implementing this recommendation include coordinated, systemic practices and programs carried out by highly qualified staff and informed by data that identifies the learning needs of all students. Implementing this recommendation will help ensure that all students have equal access to high-quality instruction that meets their individual needs.

Financial and Asset Management

8. District leaders should take decisive and collaborative action to assess the long-term impact of declining enrollment on available revenues and other resources, and to develop strategies to meet the challenges of increasing enrollment and underused school facilities.

- A.** The district should consider convening a task force, composed of representatives of the member towns and school administrators, to look at the long-term impact of declining enrollment on state aid, anticipated town funds, school programs, and staffing.
- B.** The possible uses of school buildings, especially those currently underused, should be explored.
- C.** The district might come up with a number of approaches to cope with declining enrollment and underused buildings, and present them to the school committee for its consideration.

Benefits from implementing this recommendation include:

- Planning and preparation for reductions in funding, programs, and staffing as enrollments continue to decline, and
- Reduced expenditures for underused buildings to be reallocated for educational programs.

Appendix A: Review Team, Activities, Schedule, Site Visit

Review Team Members

The review was conducted from January 5-8, 2015, by the following team of independent ESE consultants.

1. Dr. Magdalene Giffune, leadership and governance
2. Suzanne Kelly, curriculum and instruction
3. Patricia Williams, assessment, *review team coordinator*
4. James Hearn, human resources and professional development
5. Dr. Janet Smith, student support
6. Dr. George Gearhart, financial and asset management

District Review Activities

The following activities were conducted during the review:

The team conducted interviews with the following financial personnel: business manager, accountant, payroll specialist, and accounts receivable.

The team conducted interviews with the following members of the school committee: mayor, vice-chair, and three members.

The review team conducted interviews with the following representatives of the teachers' association: president, vice president, secretary, treasurer, and professional rights and responsibilities officer.

The team conducted interviews/focus groups with the following central office administrators: superintendent, assistant superintendent, director of special education, and business manager.

The team visited the following schools: North Middlesex Regional High School (9-12), Hawthorne Brook Middle School (5-8), Nissitissit Middle School (5-8), Spaulding Memorial Elementary School (K-4), Ashby Elementary School (K-4), Varnum Brook Elementary School (K-4).

During school visits, the team conducted interviews with 6 principals and focus groups with 8 elementary school teachers, 7 middle school teachers, and 9 high school teachers.

The team observed 66 classes in the district: 21 at the high schools, 24 at the 2 middle schools, and 21 at the 3 elementary schools.

The review team analyzed multiple data sets and reviewed numerous documents before and during the site visit, including:

- Student and school performance data, including achievement and growth, enrollment, graduation, dropout, retention, suspension, and attendance rates.
- Data on the district's staffing and finances.
- Published educational reports on the district by ESE, the New England Association of Schools and Colleges (NEASC), and the former Office of Educational Quality and Accountability (EQA).
- District documents such as district and school improvement plans, school committee policies, curriculum documents, summaries of student assessments, job descriptions, collective bargaining agreements, evaluation tools for staff, handbooks, school schedules, and the district's end-of-year financial reports.
- All completed program and administrator evaluations, and a random selection of completed teacher evaluations.

Site Visit Schedule

Monday 01/05/2015	Tuesday 01/06/2015	Wednesday 01/07/2015	Thursday 01/08/2015
Orientation with district leaders and principals; review of personnel files; interviews with district staff and principals; document reviews; and an interview with teachers' association;	Interviews with district staff and principals; review of personnel files; teacher focus groups; parent focus group; and visits to North Middlesex Regional High School for classroom observations.	Interviews with town or city personnel; interviews with school leaders; interviews with school committee members; visits to Nissitissit Middle School, Hawthorne Brooke Middle School, and North Middlesex Regional High School for classroom observations.	Interviews with school leaders; follow-up interviews; district review team meeting; visits to Ashby, Spaulding Memorial, and Varnum Brook elementary schools for classroom observations; emerging themes meeting with district leaders and principals.

Appendix B: Enrollment, Performance, Expenditures

Table B1a: North Middlesex RSD
2014-2015 Student Enrollment by Race/Ethnicity

Student Group	District	Percent of Total	State	Percent of Total
African-American	29	0.9%	83,556	8.7%
Asian	36	1.1%	60,050	6.3%
Hispanic	104	3.1%	171,036	17.9%
Native American	4	0.1%	2,238	0.2%
White	3,062	92.5%	608,453	63.7%
Native Hawaiian	1	0.0%	930	0.1%
Multi-Race, Non-Hispanic	74	2.2%	29,581	3.1%
All Students	3,310	100.0%	955,844	100.0%

Note: As of October 1, 2014

Table B1b: North Middlesex RSD
2014-2015 Student Enrollment by High Needs Populations

Student Groups	District			State		
	N	Percent of High Needs	Percent of District	N	Percent of High Needs	Percent of State
Students w/ disabilities	634	--	19.2%	165,060	--	17.3%
Low Income	--	--	--	--	--	--
ELLs and Former ELLs	16	--	0.5%	81,146	--	8.5%
All high needs students	--	--	--	--	--	--

Notes: As of October 1, 2014. District and state numbers and percentages for students with disabilities and high needs students are calculated including students in out-of-district placements. Total district enrollment including students in out-of-district placement is 3,370; total state enrollment including students in out-of-district placement is 966,391.

Table B2a: North Middlesex RSD
English Language Arts Performance, 2011-2014

Grade and Measure		Number Included (2014)	Spring MCAS Year					Gains and Declines	
			2011	2012	2013	2014	State 2014	4-Year Trend	2 Year Trend
3	CPI	227	87.5	89.6	88.1	89.8	82.6	2.3	1.7
	P+	227	67.0%	73.0%	63.0%	70.0%	57.0%	3.0%	7.0%
4	CPI	259	77.9	82.2	79.3	83	79.1	5.1	3.7
	P+	259	46.0%	57.0%	54.0%	59.0%	54.0%	13.0%	5.0%
	SGP	236	40	41	36	39.5	49	-0.5	3.5
5	CPI	286	88.6	83.8	88	85	84.5	-3.6	-3
	P+	286	70.0%	61.0%	71.0%	65.0%	64.0%	-5.0%	-6.0%
	SGP	276	46	51	52	42	50	-4	-10
6	CPI	292	90.3	88.2	87.5	87.8	85.8	-2.5	0.3
	P+	292	74.0%	71.0%	71.0%	71.0%	68.0%	-3.0%	0.0%
	SGP	273	44	52	46	47	50	3	1
7	CPI	269	94.7	91.7	91	91	88.3	-3.7	0
	P+	269	83.0%	78.0%	76.0%	75.0%	72.0%	-8.0%	-1.0%
	SGP	251	50	52	44	59	50	9	15
8	CPI	300	94.6	96.1	94.4	92.3	90.2	-2.3	-2.1
	P+	300	85.0%	89.0%	85.0%	82.0%	79.0%	-3.0%	-3.0%
	SGP	282	55.5	46	53	51	50	-4.5	-2
10	CPI	233	97.1	97.6	98.1	97.9	96	0.8	-0.2
	P+	233	89.0%	95.0%	96.0%	94.0%	90.0%	5.0%	-2.0%
	SGP	208	45	53	51	46.5	50	1.5	-4.5
All	CPI	1,866	90.2	89.8	89.4	89.4	86.7	-0.8	0
	P+	1,866	74.0%	75.0%	73.0%	74.0%	69.0%	0.0%	1.0%
	SGP	1,526	46	49	47	47	50	1	0

Notes: The number of students included in CPI and percent *Proficient* or *Advanced* (P+) calculations may differ from the number of students included in median SGP calculations. A median SGP is not calculated for students in grade 3 because they are participating in MCAS tests for the first time.

**Table B2b: North Middlesex RSD
Mathematics Performance, 2011-2014**

Grade and Measure		Number Included (2014)	Spring MCAS Year					Gains and Declines	
			2011	2012	2013	2014	State 2014	4-Year Trend	2 Year Trend
3	CPI	227	87.2	84.8	90	92.5	85.1	5.3	2.5
	P+	227	71.0%	64.0%	73.0%	80.0%	68.0%	9.0%	7.0%
4	CPI	258	76.7	79.1	78.5	82.5	79.6	5.8	4
	P+	258	44.0%	49.0%	47.0%	54.0%	52.0%	10.0%	7.0%
	SGP	240	38	40	37.5	45.5	50	7.5	8
5	CPI	287	79.9	75.4	83.5	79.9	80.4	0	-3.6
	P+	287	59.0%	51.0%	65.0%	59.0%	61.0%	0.0%	-6.0%
	SGP	274	44	40.5	50	43.5	50	-0.5	-6.5
6	CPI	292	79.9	82.3	81.7	84.7	80.2	4.8	3
	P+	292	59.0%	63.0%	60.0%	69.0%	60.0%	10.0%	9.0%
	SGP	274	55.5	60	55	65	50	9.5	10
7	CPI	270	78.7	72.5	74.6	72.9	72.5	-5.8	-1.7
	P+	270	54.0%	44.0%	48.0%	49.0%	50.0%	-5.0%	1.0%
	SGP	250	40	42	37	50.5	50	10.5	13.5
8	CPI	300	73.7	82.3	76.6	76.8	74.7	3.1	0.2
	P+	300	48.0%	62.0%	56.0%	52.0%	52.0%	4.0%	-4.0%
	SGP	284	43	54	54.5	58.5	50	15.5	4
10	CPI	234	93.8	94.3	92.3	94.2	90	0.4	1.9
	P+	234	84.0%	86.0%	85.0%	85.0%	79.0%	1.0%	0.0%
	SGP	213	49.5	39.5	53	51	50	1.5	-2
All	CPI	1,868	81.1	81.2	82	82.8	80.3	1.7	0.8
	P+	1,868	59.0%	59.0%	61.0%	63.0%	60.0%	4.0%	2.0%
	SGP	1,535	45	47	47	52	50	7	5

Notes: The number of students included in CPI and percent *Proficient* or *Advanced* (P+) calculations may differ from the number of students included in median SGP calculations. A median SGP is not calculated for students in grade 3 because they are participating in MCAS tests for the first time.

Table B2c: North Middlesex RSD
Science and Technology/Engineering Performance, 2011-2014

Grade and Measure		Number Included (2014)	Spring MCAS Year					Gains and Declines	
			2011	2012	2013	2014	State 2014	4-Year Trend	2 Year Trend
5	CPI	287	85.1	85.6	82.1	86.7	79	1.6	4.6
	P+	287	64.0%	65.0%	56.0%	68.0%	53.0%	4.0%	12.0%
8	CPI	300	71.2	79.7	70.2	77.7	72.4	6.5	7.5
	P+	300	36.0%	51.0%	32.0%	46.0%	42.0%	10.0%	14.0%
10	CPI	218	93.1	92	91.6	91.4	87.9	-1.7	-0.2
	P+	218	80.0%	78.0%	78.0%	76.0%	71.0%	-4.0%	-2.0%
All	CPI	805	82.3	85	80.2	84.6	79.6	2.3	4.4
	P+	805	58.0%	63.0%	53.0%	62.0%	55.0%	4.0%	9.0%

Notes: P+ = percent *Proficient* or *Advanced*. Students participate in STE MCAS tests in grades 5, 8, and 10 only. Median SGPs are not calculated for STE.

Table B3a: North Middlesex RSD
English Language Arts (All Grades)
Performance for Selected Subgroups Compared to State, 2011-2014

Group and Measure			Number Included (2014)	Spring MCAS Year				Gains and Declines	
				2011	2012	2013	2014	4 Year Trend	2-Year Trend
High Needs	District	CPI	624	78.2	76.1	75.8	77.1	-1.1	1.3
		P+	624	48.0%	45.0%	44.0%	49.0%	1.0%	5.0%
		SGP	468	42	45	42	44	2	2
	State	CPI	241,069	77	76.5	76.8	77.1	0.1	0.3
		P+	241,069	48.0%	48.0%	48.0%	50.0%	2.0%	2.0%
		SGP	183,766	46	46	47	47	1	0
Low Income	District	CPI	355	82.4	81.2	82	83.4	1	1.4
		P+	355	60.0%	58.0%	58.0%	60.0%	0.0%	2.0%
		SGP	283	42	43	45	44	2	-1
	State	CPI	189,662	77.1	76.7	77.2	77.5	0.4	0.3
		P+	189,662	49.0%	50.0%	50.0%	51.0%	2.0%	1.0%
		SGP	145,621	46	45	47	47	1	0
Students w/ disabilities	District	CPI	370	70.5	65.9	65.1	66.3	-4.2	1.2
		P+	370	31.0%	25.0%	23.0%	29.0%	-2.0%	6.0%
		SGP	262	39	44	38	43	4	5
	State	CPI	90,777	68.3	67.3	66.8	66.6	-1.7	-0.2
		P+	90,777	30.0%	31.0%	30.0%	31.0%	1.0%	1.0%
		SGP	66,688	42	43	43	43	1	0
English language learners or Former ELLs	District	CPI	14	83.3	80	76.8	80.4	-2.9	3.6
		P+	14	58.0%	60.0%	29.0%	57.0%	-1.0%	28.0%
		SGP	10	0	--	--	--	--	--
	State	CPI	47,477	66.2	66.2	67.4	67.8	1.6	0.4
		P+	47,477	33.0%	34.0%	35.0%	36.0%	3.0%	1.0%
		SGP	32,239	50	51	53	54	4	1
All students	District	CPI	1,866	90.2	89.8	89.4	89.4	-0.8	0
		P+	1,866	74.0%	75.0%	73.0%	74.0%	0.0%	1.0%
		SGP	1,526	46	49	47	47	1	0
	State	CPI	488,744	87.2	86.7	86.8	86.7	-0.5	-0.1
		P+	488,744	69.0%	69.0%	69.0%	69.0%	0.0%	0.0%
		SGP	390,904	50	50	51	50	0	-1

Notes: The number of students included in CPI and percent *Proficient* or *Advanced* (P+) calculations may differ from the number of students included in median SGP calculation. State figures are provided for comparison purposes only and do not represent the standard that a particular group is expected to meet.

**Table B3b: North Middlesex RSD
Mathematics (All Grades)
Performance for Selected Subgroups Compared to State, 2011-2014**

Group and Measure			Number Included (2014)	Spring MCAS Year				Gains and Declines	
				2011	2012	2013	2014	4 Year Trend	2-Year Trend
High Needs	District	CPI	622	63.7	64.3	64.5	66.9	3.2	2.4
		P+	622	30.0%	33.0%	31.0%	38.0%	8.0%	7.0%
		SGP	467	37	43	42	47	10	5
	State	CPI	241,896	67.1	67	68.6	68.4	1.3	-0.2
		P+	241,896	37.0%	37.0%	40.0%	40.0%	3.0%	0.0%
		SGP	184,937	46	46	46	47	1	1
Low Income	District	CPI	354	69.8	71.5	71.4	71.5	1.7	0.1
		P+	354	41.0%	45.0%	43.0%	45.0%	4.0%	2.0%
		SGP	281	37	40	44	47	10	3
	State	CPI	190,183	67.3	67.3	69	68.8	1.5	-0.2
		P+	190,183	38.0%	38.0%	41.0%	41.0%	3.0%	0.0%
		SGP	146,536	46	45	46	47	1	1
Students w/ disabilities	District	CPI	369	54.3	51.6	53.4	55.5	1.2	2.1
		P+	369	15.0%	15.0%	15.0%	22.0%	7.0%	7.0%
		SGP	265	36	40	39	46	10	7
	State	CPI	91,181	57.7	56.9	57.4	57.1	-0.6	-0.3
		P+	91,181	22.0%	21.0%	22.0%	22.0%	0.0%	0.0%
		SGP	67,155	43	43	42	43	0	1
English language learners or Former ELLs	District	CPI	15	77.1	72.5	76.8	80	2.9	3.2
		P+	15	67.0%	50.0%	43.0%	60.0%	-7.0%	17.0%
		SGP	10	--	--	--	--	--	--
	State	CPI	47,847	62	61.6	63.9	63.8	1.8	-0.1
		P+	47,847	32.0%	32.0%	35.0%	36.0%	4.0%	1.0%
		SGP	32,607	52	52	53	52	0	-1
All students	District	CPI	1,868	81.1	81.2	82	82.8	1.7	0.8
		P+	1,868	59.0%	59.0%	61.0%	63.0%	4.0%	2.0%
		SGP	1,535	45	47	47	52	7	5
	State	CPI	490,288	79.9	79.9	80.8	80.3	0.4	-0.5
		P+	490,288	58.0%	59.0%	61.0%	60.0%	2.0%	-1.0%
		SGP	392,953	50	50	51	50	0	-1

Notes: The number of students included in CPI and percent *Proficient* or *Advanced* (P+) calculations may differ from the number of students included in median SGP calculation. State figures are provided for comparison purposes only and do not represent the standard that a particular group is expected to meet.

**Table B3c: North Middlesex RSD
Science and Technology/Engineering (All Grades)
Performance for Selected Subgroups Compared to State, 2011-2014**

Group and Measure			Number Included (2014)	Spring MCAS Year				Gains and Declines	
				2011	2012	2013	2014	4 Year Trend	2-Year Trend
High Needs	District	CPI	239	67.6	70.6	64.5	69.8	2.2	5.3
		P+	239	29.0%	34.0%	24.0%	36.0%	7.0%	12.0%
	State	CPI	100,582	63.8	65	66.4	67.3	3.5	0.9
		P+	100,582	28.0%	31.0%	31.0%	33.0%	5.0%	2.0%
Low Income	District	CPI	141	70.5	74.4	69.5	75.9	5.4	6.4
		P+	141	34.0%	45.0%	31.0%	46.0%	12.0%	15.0%
	State	CPI	79,199	62.8	64.5	66.1	66.8	4	0.7
		P+	79,199	28.0%	31.0%	32.0%	33.0%	5.0%	1.0%
Students w/ disabilities	District	CPI	140	62.1	61.2	55.8	57.7	-4.4	1.9
		P+	140	21.0%	18.0%	14.0%	17.0%	-4.0%	3.0%
	State	CPI	38,628	59.2	58.7	59.8	60.1	0.9	0.3
		P+	38,628	20.0%	20.0%	20.0%	22.0%	2.0%	2.0%
English language learners or Former ELLs	District	CPI	6	--	--	--	--	--	--
		P+	6	--	--	--	--	--	--
	State	CPI	16,871	50.3	51.4	54	54	3.7	0
		P+	16,871	15.0%	17.0%	19.0%	18.0%	3.0%	-1.0%
All students	District	CPI	805	82.3	85	80.2	84.6	2.3	4.4
		P+	805	58.0%	63.0%	53.0%	62.0%	4.0%	9.0%
	State	CPI	211,440	77.6	78.6	79	79.6	2	0.6
		P+	211,440	52.0%	54.0%	53.0%	55.0%	3.0%	2.0%

Notes: Median SGPs are not calculated for STE. State figures are provided for comparison purposes only and do not represent the standard that a particular group is expected to meet.

**Table B4: North Middlesex RSD
Annual Grade 9-12 Dropout Rates, 2011-2014**

	School Year Ending				Change 2011-2014		Change 2013-2014		State (2014)
	2011	2012	2013	2014	Percentage Points	Percent	Percentage Points	Percent	
All students	1.1%	1.3%	0.9%	0.5%	-0.6	-54.5%	-0.4	-44.4%	2.0%

Notes: The annual dropout rate is calculated by dividing the number of students who drop out over a one-year period by the October 1 grade 9–12 enrollment, multiplied by 100. Dropouts are those students who dropped out of school between July 1 and June 30 of a given year and who did not return to school, graduate, or receive a GED by the following October 1. Dropout rates have been rounded; percent change is based on unrounded numbers.

Table B5a: North Middlesex RSD
Four-Year Cohort Graduation Rates, 2011-2014

Group	Number Included (2014)	School Year Ending				Change 2011-2014		Change 2013-2014		State (2014)
		2011	2012	2013	2014	Percentage Points	Percent Change	Percentage Points	Percent Change	
High needs	77	72.8%	78.0%	79.3%	85.7%	12.9	17.7%	6.4	8.1%	76.5%
Low income	55	75.0%	72.9%	79.1%	85.5%	10.5	14.0%	6.4	8.1%	75.5%
Students w/ disabilities	34	63.0%	71.7%	76.0%	76.5%	13.5	21.4%	0.5	0.7%	69.1%
English language learners or Former ELLs	--	--	--	--	--	--	--	--	--	63.9%
All students	247	91.0%	91.7%	92.8%	93.9%	2.9	3.2%	1.1	1.2%	86.1%

Notes: The four-year cohort graduation rate is calculated by dividing the number of students in a particular cohort who graduate in four years or less by the number of students in the cohort entering their freshman year four years earlier, minus transfers out and plus transfers in. Non-graduates include students still enrolled in high school, students who earned a GED or received a certificate of attainment rather than a diploma, and students who dropped out. Graduation rates have been rounded; percent change is based on unrounded numbers.

Table B5b: North Middlesex RSD
Five-Year Cohort Graduation Rates, 2010-2013

Group	Number Included (2013)	School Year Ending				Change 2010-2013		Change 2012-2013		State (2013)
		2010	2011	2012	2013	Percentage Points	Percent Change	Percentage Points	Percent Change	
High needs	82	83.0%	75.3%	79.3%	80.5%	-2.5	-3.0%	1.2	1.5%	79.2%
Low income	43	82.7%	77.1%	75.0%	79.1%	-3.6	-4.4%	4.1	5.5%	78.3%
Students w/ disabilities	50	78.6%	67.4%	73.9%	78.0%	-0.6	-0.8%	4.1	5.5%	72.9%
English language learners or Former ELLs	--	--	--	--	--	--	--	--	--	70.9%
All students	278	92.7%	91.7%	92.0%	93.2%	0.5	0.5%	1.2	1.3%	87.7%

Notes: The five-year cohort graduation rate is calculated by dividing the number of students in a particular cohort who graduate in five years or less by the number of students in the cohort entering their freshman year five years earlier, minus transfers out and plus transfers in. Non-graduates include students still enrolled in high school, students who earned a GED or received a certificate of attainment rather than a diploma, and students who dropped out. Graduation rates have been rounded; percent change is based on unrounded numbers. Graduation rates have been rounded; percent change is based on unrounded numbers.

**Table B6: North Middlesex RSD
Attendance Rates, 2011-2014**

Group	School Year Ending				Change 2011-2014		Change 2013-2014		State (2014)
	2011	2012	2013	2014	Percentage Points	Percent Change	Percentage Points	Percent Change	
All students	94.9%	94.6%	95.1%	95.5%	0.6	0.6%	0.4	0.4%	94.9%

Notes: The attendance rate is calculated by dividing the total number of days students attended school by the total number of days students were enrolled in a particular school year. A student's attendance rate is counted toward any district the student attended. In addition, district attendance rates included students who were out placed in public collaborative or private alternative schools/programs at public expense. Attendance rates have been rounded; percent change is based on unrounded numbers.

**Table B7: North Middlesex RSD
Suspension Rates, 2011-2014**

Group	School Year Ending				Change 2011-2014		Change 2013-2014		State (2014)
	2011	2012	2013	2014	Percentage Points	Percent Change	Percentage Points	Percent Change	
In-School Suspension Rate	0.0%	0.2%	0.0%	0.0%	0	0%	0	0%	2.1%
Out-of-School Suspension Rate	2.9%	1.9%	1.6%	1.7%	-1.2	-41.4%	0.1	6.3%	3.9%

Note: This table reflects information reported by school districts at the end of the school year indicated. Suspension rates have been rounded; percent change is based on unrounded numbers.

Table B8: North Middlesex RSD
Expenditures, Chapter 70 State Aid, and Net School Spending
Fiscal Years 2012–2014

	FY12		FY13		FY14	
	Estimated	Actual	Estimated	Actual	Estimated	Actual
Expenditures						
From school committee budget	\$42,857,640	\$43,823,809	\$44,847,082	\$44,249,796	\$45,034,706	\$44,974,130
From revolving funds and grants	--	\$4,262,141	--	\$4,007,400	--	\$4,192,048
Total expenditures	--	\$48,085,950	--	\$48,257,196	--	\$49,166,178
Chapter 70 aid to education program						
Chapter 70 state aid*	--	\$19,505,168	--	\$19,659,168		\$19,751,668
Required local contribution	--	\$16,450,543	--	\$16,881,292		\$17,328,829
Required net school spending**	--	\$35,955,711	--	\$36,540,460	--	\$37,080,497
Actual net school spending	--	\$38,390,823	--	\$39,972,840	--	\$40,322,241
Over/under required (\$)	--	\$2,435,112	--	\$3,432,380	--	\$3,241,744
Over/under required (%)	--	6.8	--	9.4	--	8.7

*Chapter 70 state aid funds are deposited in the local general fund and spent as local appropriations.

**Required net school spending is the total of Chapter 70 aid and required local contribution. Net school spending includes only expenditures from local appropriations, not revolving funds and grants. It includes expenditures for most administration, instruction, operations, and out-of-district tuitions. It does not include transportation, school lunches, debt, or capital.

Sources: FY12, FY13, FY14 District End-of-Year Reports; Chapter 70 Program information on ESE website.

Data retrieved December 1, 2014, and January 12, 2015

**Table B9: North Middlesex RSD
Expenditures Per In-District Pupil
Fiscal Years 2011-2013**

Expenditure Category	2011	2012	2013
Administration	\$322	\$329	\$413
Instructional leadership (district and school)	\$567	\$542	\$691
Teachers	\$4,531	\$4,250	\$4,561
Other teaching services	\$763	\$795	\$999
Professional development	\$86	\$92	\$78
Instructional materials, equipment and technology	\$204	\$264	\$276
Guidance, counseling and testing services	\$233	\$249	\$276
Pupil services	\$1,047	\$1,090	\$998
Operations and maintenance	\$959	\$900	\$1,022
Insurance, retirement and other fixed costs	\$1,927	\$2,054	\$2,126
Total expenditures per in-district pupil	\$10,638	\$10,564	\$11,439

Sources: [Per-pupil expenditure reports on ESE website](#)

Appendix C: Instructional Inventory

Learning Environment & Teaching	By Grade Span	Evidence		
		None	Partial	Clear & Consistent
		(0)	(1)	(2)
1. Tone of interactions between teacher and students and among students is positive & respectful.	ES	0%	0%	100%
	MS	0%	8%	92%
	HS	0%	10%	90%
	Total #	0	4	62
	Total %	0%	6%	94%
2. Behavioral standards are clearly communicated and disruptions, if present, are managed effectively & equitably.	ES	0%	10%	90%
	MS	4%	4%	92%
	HS	0%	24%	76%
	Total #	1	8	57
	Total %	2%	12%	86%
3. The physical arrangement of the classroom ensures a positive learning environment and provides all students with access to learning activities.	ES	0%	0%	100%
	MS	0%	25%	75%
	HS	5%	24%	71%
	Total #	1	11	54
	Total %	2%	17%	82%
4. Classroom rituals and routines promote transitions with minimal loss of instructional time.	ES	10%	14%	76%
	MS	8%	4%	88%
	HS	24%	29%	48%
	Total #	9	10	47
	Total %	14%	15%	71%
5. Multiple resources are available to meet all students' diverse learning needs.	ES	14%	19%	67%
	MS	25%	29%	46%
	HS	14%	48%	38%
	Total #	12	21	33
	Total %	18%	32%	50%
6. The teacher demonstrates knowledge of subject and content.	ES	0%	0%	100%
	MS	4%	8%	88%
	HS	14%	19%	67%
	Total #	4	6	56
	Total %	6%	9%	85%
7. The teacher plans and implements a lesson that reflects rigor and high expectations.	ES	10%	48%	43%
	MS	8%	25%	67%
	HS	19%	57%	24%
	Total #	8	28	30
	Total %	12%	42%	45%

Teaching	By Grade Span	Evidence		
		None	Partial	Clear & Consistent
		(0)	(1)	(2)
8. The teacher communicates clear learning objective(s) aligned to the <i>2011 Massachusetts Curriculum Frameworks</i> .	ES	10%	14%	76%
	MS	29%	4%	67%
	HS	38%	5%	57%
	Total #	17	5	44
	Total %	26%	8%	67%
9. The teacher uses appropriate instructional strategies well matched to learning objective (s) and content.	ES	14%	10%	76%
	MS	21%	17%	63%
	HS	29%	24%	48%
	Total #	14	11	41
	Total %	21%	17%	62%
10. The teacher uses appropriate modifications for English language learners and students with disabilities such as explicit language objective(s); direct instruction in vocabulary; presentation of content at multiple levels of complexity; and, differentiation of content, process, and/or products.	ES	43%	29%	29%
	MS	75%	8%	17%
	HS	62%	19%	19%
	Total #	40	12	14
	Total %	61%	18%	21%
11. The teacher provides opportunities for students to engage in higher order thinking such as use of inquiry, exploration, application, analysis, synthesis, and/or evaluation of knowledge or concepts (Bloom's Taxonomy).	ES	10%	48%	43%
	MS	17%	29%	54%
	HS	33%	43%	24%
	Total #	13	26	27
	Total %	20%	39%	41%
12. The teacher uses questioning techniques that require thoughtful responses that demonstrate understanding.	ES	10%	24%	67%
	MS	21%	25%	54%
	HS	14%	62%	24%
	Total #	10	24	32
	Total %	15%	36%	48%
13. The teacher implements teaching strategies that promote a safe learning environment where students give opinions, make judgments, explore and investigate ideas.	ES	0%	19%	81%
	MS	17%	25%	58%
	HS	10%	38%	52%
	Total #	6	18	42
	Total %	9%	27%	64%
14. The teacher paces the lesson to match content and meet students' learning needs.	ES	5%	10%	86%
	MS	17%	21%	63%
	HS	14%	29%	57%
	Total #	8	13	45
	Total %	12%	20%	68%
15. The teacher conducts frequent formative assessments to check for understanding and inform instruction.	ES	19%	29%	52%
	MS	21%	46%	33%
	HS	19%	52%	29%
	Total #	13	28	25
	Total %	20%	42%	38%
16. The teacher makes use of available technology to support instruction and enhance learning.	ES	43%	14%	43%
	MS	58%	8%	33%
	HS	57%	10%	33%
	Total #	35	7	24
	Total %	53%	11%	36%

Learning	By Grade Span	Evidence		
		None	Partial	Clear & Consistent
		(0)	(1)	(2)
17. Students are engaged in challenging academic tasks.	ES	14%	33%	52%
	MS	8%	25%	67%
	HS	14%	48%	38%
	Total #	8	23	35
	Total %	12%	35%	53%
18. Students articulate their thinking verbally or in writing.	ES	5%	33%	62%
	MS	17%	38%	46%
	HS	14%	52%	33%
	Total #	8	27	31
	Total %	12%	41%	47%
19. Students inquire, explore, apply, analyze, synthesize and/or evaluate knowledge or concepts (Bloom's Taxonomy).	ES	19%	33%	48%
	MS	25%	21%	54%
	HS	33%	38%	29%
	Total #	17	20	29
	Total %	26%	30%	44%
20. Students elaborate about content and ideas when responding to questions.	ES	14%	29%	57%
	MS	29%	38%	33%
	HS	48%	38%	14%
	Total #	20	23	23
	Total %	30%	35%	35%
21. Students make connections to prior knowledge, or real world experience, or can apply knowledge and understanding to other subjects.	ES	10%	19%	71%
	MS	33%	29%	38%
	HS	19%	29%	52%
	Total #	14	17	35
	Total %	21%	26%	53%
22. Students use technology as a tool for learning and/or understanding.	ES	90%	10%	0%
	MS	88%	0%	13%
	HS	71%	10%	19%
	Total #	55	4	7
	Total %	83%	6%	11%
23. Students assume responsibility for their own learning whether individually, in pairs, or in groups.	ES	19%	24%	57%
	MS	33%	13%	54%
	HS	33%	14%	52%
	Total #	19	11	36
	Total %	29%	17%	55%
24. Student work demonstrates high quality and can serve as exemplars.	ES	62%	19%	19%
	MS	67%	13%	21%
	HS	57%	38%	5%
	Total #	41	15	10
	Total %	62%	23%	15%