Comprehensive District Review Report

Worcester Public Schools

Review conducted January 23–27, 2017

Center for District and School Accountability

Massachusetts Department of Elementary and Secondary Education

Organization of this Report

Massachusetts Department of Elementary and Secondary Education

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Executive Summary

Worcester, the state's second-largest public school district, is experiencing a transitional period as revised priorities and a reorganization and redefinition of several key central office roles take hold. A 41-year veteran Worcester educator was named superintendent in May 2016. In October 2016, the new superintendent presented her "First 100 Days Report," in which she described four goals that now focus the district's efforts; the goals relate to curriculum and learning, community partnerships to support students, school and district leadership and professional learning, and school safety. In addition, the district is engaging the entire Worcester community to develop a new "visionary strategic plan" for transformation of the Worcester Public Schools and seeks to establish the Worcester Public Schools as a best-practice model for urban public education.

The 44 district schools, which enroll 25,479 students, reflect a wide range of progress, student achievement results, and teachers' perceptions of teaching conditions and practice. Worcester is a Level 4 district because one elementary school is a Level 4 school. Of the district's 33 elementary schools, 9 are classified as Level 1 and 10 are classified as Level 2. The district also has 21 schools classified as Level 3 for being among the lowest performing 20 percent of schools in their respective grade spans.

Table 1: Worcester Public Schools by Accountability Level, 2016–2017

Accountability Level	Number of District Schools Classified in Each Level	Number of Elementary Schools Classified in Each Level
1	10	9
2	12	10
3	21	13
4	1	1

A 2015 internal survey of teachers' perceptions of conditions supporting effective teaching practice indicated wide differences. In those Worcester schools where at least half the teachers completed the survey, the percentage of teachers agreeing that six conditions for effective teaching within the general control of principals were present ranged from 22 percent to 97 percent.

The review team observed 249 classes in 35 of the 44 district schools: 48 classes in grades 9–12, 31 classes in grades 7–8, and 170 classes in kindergarten through grade 6.[1] Observed lessons showed a wide variation in the quality of instruction across the district. Some observed lessons engaged students in rigorous curriculum that provided learning opportunities rich in critical thinking, collaboration, active learning, and a high-level application of knowledge, skills, and understandings. In contrast, other observed lessons fell short of the district's instructional expectations described in its Framework for High Quality Teaching and Learning. In those classrooms, observed lessons did not provide differentiated instructional approaches to meet students' diverse learning needs, low expectations for

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[1] The district has a variety of grade spans in its schools: Pre-K, Pre-K–6, 6–8, 7–8, 7–12, and 9–12. In this review, grade 6 was included with elementary schools and grades 7–8 were included with middle schools.

thinking and learning characterized lesson objectives and strategies, classroom management issues distracted teachers from teaching and students from learning, students had few opportunities to be responsible for doing the thinking in the classroom, and teachers' voices dominated the class. Overall, in contrast with teaching K–8, observers found that instruction in grades 9–12 was less rigorous, less engaging to students, less likely to encourage and develop students' higher-order thinking skills, and less likely to meet students' learning styles or needs either individually or in groups. There were, however, notable exceptions to this characterization of observed high-school lessons.

For the most part, the review team found a vibrant and informed leadership team in place in the district, one with the knowledge and training to effect meaningful improvement to professional practice and student achievement. The teacher force appeared committed and eager to support students to learn at high levels and to prepare them well to meet the challenges of life after high school. With adequate time, sufficient resources, appropriate support, and sustained efforts, the district can likely meet its goal of becoming a model of urban education in Massachusetts.

Strengths

New systems and practices in the areas of curriculum, instruction, and assessment, along with a restructured central office leadership staff, have the potential to provide improved support for teaching and learning. Newly defined positions for three managers for curriculum and learning are designed to support principals, teachers, and content specialists to help close the wide gaps in school practices and student performance. The district has implemented a new three-year curriculum review process and has developed a Framework for High-Quality Teaching and Learning to set expectations for excellence in teaching and learning. The student assessment system is well developed, thoughtful, and strategic. Leaders and teachers have access to useful data reports to guide decision making. The use of data informs multiple facets of leaders' work, such as setting and monitoring improvement goals and analyzing and developing the district's budget and its allocation of resources.

Under the newly established office of curriculum and learning, professional learning opportunities are more targeted, collaborative, and timely. The district offers a wide range of programs and services that address students' academic and social-emotional needs. The district has taken a number of steps to improve graduation rates, and while four- and five-year graduation rates remain below state averages, they have improved in recent years. Both the Massachusetts Association of School Business Administrators (MASBO) and the American Association of School Business Administrators (AASBO) have recognized the Worcester budget with awards for comprehensiveness.

Challenges and Areas for Growth

The review team identified a number of challenges to leadership and governance. For example, the time required for district and school leaders to respond to school committee members' motions requesting

information, background, and data has distracted administrators from the day-to-day work of school improvement. Also, the district has not provided common planning time at all schools to maximize teachers' ability to collaborate to improve teaching and learning. K–12 curriculum documents in ELA/English, math, and science are incomplete and not fully aligned to the 2011 Massachusetts Frameworks and the 2016 Massachusetts Science and Technology/Engineering Framework. Furthermore, there is uneven implementation of the district's Framework of High-Quality Teaching and Learning across schools of the same level and across different school levels. In observed classrooms, the quality of teaching varied widely within and across schools, with stronger teaching taking place K–8. Most notably, team members observed variations in expectations for student work and in students' opportunities to develop and use higher-order thinking skills. Other challenges included an inconsistent use of differentiated instruction to address students' learning needs and of appropriate resources for learning. And while district leaders strategically use data for decision-making, classroom teachers do not consistently demonstrate expertise in routinely analyzing and using data to make decisions about instruction, differentiation, and curriculum.

The implementation of the district's educator evaluation system has been inconsistent and uneven. The district has not made progress in using multiple measures of evidence to inform educators' evaluations. The district has not completed its initiative to develop and implement a more cohesive multi-tiered system of supports to meet the needs of all students. Finally, many school buildings are old, outdated, and overcrowded. Planning and resources have been inadequate to keep up with needed renovations, repairs, and upgrades to the schools.

Recommendations

To address the challenges highlighted above, the review team has made a number of key recommendations:

- School committee members should act with restraint with regard to the number and complexity of motions requesting information from school and district leaders.

- The district should ensure that at all schools and school levels teachers have adequate, frequent common planning time for collaboration.

- Teachers and leaders should finish aligning all ELA/English, math, and science curriculum documents to current state standards.

- The district should further articulate the Framework for High-Quality Teaching and Learning with the goal of prioritizing key instructional practices, communicating these key strategies to the full educational community, and supporting teachers in their implementation.

- The district should provide systematic, ongoing professional learning opportunities to build educators' ability to analyze and use data for improvement, and to promote critical thinking and promote high levels of student engagement, differentiate instruction, and use appropriate resources to meet students' diverse learning needs.

- The district should fully implement its educator evaluation system.

- The district should complete the development and implementation of its multi-tiered system of supports for all students.

- The district should develop a long-range plan to upgrade and renovate its schools and---equally critical---it should develop a long-range plan to fund these efforts.

Worcester Public Schools Comprehensive District Review Overview

Purpose

Conducted under Chapter 15, Section 55A of the Massachusetts General Laws, comprehensive 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 2016–2017 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.

Site Visit

The site visit to the Worcester Public Schools was conducted from January 23–27, 2017. The site visit included 42 hours of interviews and focus groups with approximately 131 stakeholders, including school committee members, district administrators, school staff, students, and teachers' association representatives. The review team conducted 4 focus groups with 15 elementary-school teachers, 6 middle-school teachers, and 18 high-school teachers.

A list of review team members, information about review activities, and the site visit schedule is in Appendix A, and Appendix B provides information about enrollment, student performance, and expenditures. The team observed classroom instructional practice in 249 classrooms in 35 of the 44 schools in the district. The team collected data using ESE's Instructional Inventory, a tool for recording observed characteristics of standards-based teaching. This data is contained in Appendix C.

District Profile

Worcester has a mayor/city council form of government, with the mayor serving as the chair of the school committee and the city council. The seven members of the school committee meet every other week.

The mayor chairs the school committee as well as the city council. The six members of the council are elected at large and serve two-year terms. Most are long-time members of the committee. The school committee has four standing committees: accountability and student achievement; finance and operations; governance and employee issues; and teaching, learning, and student supports. The school committee is served by a clerk, who is supported, in turn, by two clerks.

The superintendent has been in the position since May 2016. The district leadership team reporting directly to the superintendent includes the chief academic officer, the chief financial and operations officer, the chief human resources officer, the chief research and accountability officer, and the school safety director. The assistant to the superintendent/clerk of the school committee reports to the superintendent and to the school committee, although her principal duties are in support of the school committee. The number of central office positions had been reduced in recent years, but at the end of the 2015–2016 school year, the superintendent reallocated resources to restore and reorganize a number of positions key for improving teaching and learning in the district.

The organization of the district's staff is complex and reflects the many spheres of responsibility and influence needed to sustain a large, diversely populated urban district (see Appendix E: Worcester Public Schools Organizational Chart). The chief academic officer is responsible for a staff of approximately 137 people. Key central office leaders reporting to the chief academic officer include the manager of curriculum and learning, three managers for instruction and school leadership (two for the elementary schools and one for the secondary schools), the manager of social emotional learning, the manager of English language learners and supplemental support services, and the manager of special education and intervention services. Other leadership positions include the director of career and vocational technical education, the director of early childhood programs, the community and family engagement facilitator, and the early childhood facilitator. The 44 school principals report to the managers for instruction and school leadership. The manager of curriculum and learning oversees the work of 11 academic liaisons who specialize in content areas (including the arts and guidance), 34 guidance counselors, 49 instructional coaches, and 3 technology/media specialists. In the 2015–2016 school year, there were 1,763 teachers in the district.

Key leadership personnel reporting to the chief financial and operations officer include the director of transportation, the budget director, the director of materials management, the facilities director, the director of school nutrition, and the manager of grant resources. And each of these managers has staff reporting to them. The human resources officer and the chief research and accountability officer also lead teams of specialized professional staff members responsible for managing the day-to-day operations of their departments.

In the 2016–2017 school year, 25,479 students were enrolled in the district's 44[2] schools:

Table 2: Worcester Public Schools
Schools, Type, Grades Served, and Enrollment*, 2016–2017

School Name	School Type	Grades Served	Enrollment
Belmont Street Community	ES	Pre-K–6	558
Burncoat Street	ES	K–6	259
Canterbury Magnet	ES	Pre-K–6	376
Chandler Elementary Community	ES	K–6	514
Chandler Magnet	ES	Pre-K–6	464
City View	ES	Pre-K–6	497
Clark Street Community	ES	K–6	203
Columbus Park	ES	Pre-K–6	476
Elm Park Community	ES	Pre-K–6	499
Flagg Street	ES	K–6	404
Francis J. McGrath Elementary	ES	Pre-K–6	299
Gates Lane	ES	Pre-K–6	596
Goddard School of Science and Technology	ES	Pre-K–6	517
Grafton Street	ES	Pre-K–6	409
Head Start[3]	Pre-K	Pre-K	560
Heard Street	ES	K–6	269
Jacob Hiatt Magnet	ES	Pre-K–6	442
Lake View	ES	K–6	299
Lincoln Street	ES	Pre-K–6	285
May Street	ES	K–6	337
Midland Street	ES	K–6	242
Nelson Place	ES	K–6	454
Norrback Avenue	ES	Pre-K–6	566
Quinsigamond	ES	Pre-K–6	805
Rice Square	ES	K–6	412
Roosevelt	ES	Pre-K–6	654
Tatnuck	ES	Pre-K–6	385
Thorndyke Road	ES	K–6	376
Union Hill School	ES	K–6	521
Vernon Hill School	ES	Pre-K–6	561
Wawecus Road School	ES	K–6	147
West Tatnuck	ES	Pre-K–6	341
Woodland Academy	ES	Pre-K–6	627
Worcester Arts Magnet School	ES	Pre-K–6	405
Burncoat Middle School	MS	7–8	563
Forest Grove Middle	MS	7–8	997
Sullivan Middle	MS	6–8	863

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[2] In addition to the 44 schools serving students Pre-K–12+, the district manages the following alternative schools: Reach and Challenge Academies (56 students in grades 7–10); The Gerald Creamer Center (198 students in grades 11–12); and the Alternative School–St. Casimir (44 students in grades 7–12). The Dr. James Caradonio New Citizens Center serves recently arrived, non-English speaking students.

[3] The district serves 560 students in its Head Start program in several locations across the district.

School Name	School Type	Grades Served	Enrollment
Worcester East Middle	MS	6–8	816
Burncoat Senior High	HS	9–12	1,023
Claremont Academy	MSHS	7–12	532
Doherty Memorial High	HS	9–12, SP**	1,555
North High	HS	9–12	1,307
South High Community	HS	9–12, SP**	1,421
University Park	MSHS	7–12	254
Worcester Technical High	HS	9–12	1,389
Totals	**44 schools**	**Pre-K–12**	**25,479**
*As of October 1, 2016 ** Special Program			

Between 2013 and 2017 overall student enrollment increased by 3 percent. Enrollment figures by race/ethnicity and high needs populations (i.e., students with disabilities, economically disadvantaged students, 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 11 urban districts of similar size (8,000–26,000 students) in fiscal year 2015: $13, 588 as compared with $13,881 (see District Analysis and Review Tool Detail: Staffing & Finance). Actual net school spending has been below what is required by the Chapter 70 state education aid program, as shown in Table B10 in Appendix B.

Student Performance

Districtwide Results

Worcester is a Level 4 district because Elm Park Community was placed in Level 4 for being among the lowest achieving, least improving Level 3 schools.

Elementary Schools
- Of Worcester's 33 elementary schools with reportable data:
  - 9 schools are in Level 1 for meeting their gap narrowing targets for all students and high needs students and range from the 30th percentile to the 92nd percentile of elementary schools.
  - 10 schools are in Level 2 for not meeting their gap narrowing targets and range from the 15th to the 74th percentile of elementary schools.
  - 13 schools are in Level 3 for being among the lowest performing 20 percent of elementary schools and range from the 2nd to the 19th percentile of elementary schools.
  - Chandler Elementary Community was commended for high progress toward narrowing proficiency gaps.
  - West Tatnuck was commended for high achievement and high progress.

- Subgroup achievement:
    - At Chandler Magnet, students with disabilities, Hispanic/Latino students, English language learners and former English language learners, and high needs students are among the lowest performing 20 percent of subgroups.
    - City View has low assessment participation (less than 95 percent) for students with disabilities.
    - At Clark Street Community, students with disabilities and Hispanic/Latino students are among the lowest performing 20 percent of subgroups.
    - At Goddard School, students with disabilities, Hispanic/Latino students, and high needs students are among the lowest performing 20 percent of subgroups.
    - At Grafton Street, white students and English language learners and former English language learners are among the lowest performing 20 percent of subgroups.
    - At Lincoln Street, Hispanic/Latino students and high needs students are among the lowest performing 20 percent of subgroups.
    - At Quinsigamond, white students, students with disabilities, and high needs students are among the lowest performing 20 percent of subgroups.
    - At Rice Square, white students, students with disabilities, and high needs students are among the lowest performing 20 percent of subgroups.
    - At Vernon Hill School, students with disabilities are among the lowest performing 20 percent of subgroups.

Middle Schools and Middle-High Schools
- Of Worcester's 6 middle schools and middle-high schools:
    - University Park is in Level 2 for not meeting its gap narrowing targets for all students and high needs students.
    - Forest Grove is in Level 2 for not meeting its gap narrowing targets for all students and high needs students.
    - 4 schools are in Level 3 for being among the lowest performing 20 percent of schools in their grade-spans.

- Subgroup achievement:
    - At Claremont Academy, English language learners and former English language learners are among the lowest performing 20 percent of subgroups.
    - At Burncoat and Sullivan middle schools, students with disabilities, Hispanic/Latino students, and high needs student are among the lowest performing 20 percent of subgroups.

High Schools
- Of Worcester's 5 high schools:
    - Worcester Technical High is in Level 1 for meeting its gap narrowing targets for all students and high needs students and is the 74th percentile of high schools.
    - 3 schools are in Level 3 for being among the lowest performing 20 percent of high schools.
    - 3 schools are in Level 3 for having persistently low graduation rates for students with disabilities.

- Subgroup achievement:
    - At Burncoat Senior High, Hispanic/Latino students and high needs students are among the lowest performing 20 percent of subgroups; Burncoat has persistently low

> graduation rates for students with disabilities and low assessment participation (less than 95 percent) for students with disabilities, economically disadvantaged students, and Hispanic/Latino students.
> o   At North High, white students, students with disabilities, Hispanic/Latino students, and high needs students are among the lowest performing 20 percent of subgroups; North has persistently low graduation rates for students with disabilities and low assessment participation (less than 95 percent) for Hispanic/Latino students.
> o   South High Community has persistently low graduation rates for students with disabilities and low assessment participation (less than 95 percent) for students with disabilities and Hispanic/Latino students.

For district and school PPI, percentile, and level, 2013–2016, see Appendix B, Table B2.

In Worcester some schools administered MCAS in 2015 and 2016, some administered PARCC in 2015 and 2016, and some administered MCAS in 2015 and PARCC in 2016. Therefore, districtwide trend data is not available for ELA and math.

Between 2013 and 2016, the percentage of students scoring proficient or advanced in science on the MCAS improved by one percentage point for all students, and did not improve for high needs students, English language learners, and students with disabilities. In 2016, the percentage of students scoring proficient or advanced in science was below the state rate by 21 percentage points for all students, by 14 percentage points for students with disabilities, by 8 percentage points for high needs students and economically disadvantaged students, and by 1 percentage point for English language learners.

Table 3: Worcester Public Schools
Science Percent Proficient or Advanced by Subgroup 2013–2016

Group		2013	2014	2015	2016	4-Year Trend	Above/Below State (2016)
All students	District	32%	34%	33%	33%	1	-21
	State	53%	55%	54%	54%	1	
High Needs	District	24%	26%	22%	23%	-1	-8
	State	31%	33%	31%	31%	0	
Economically Disadvantaged	District	--	--	23%	24%	--	-8
	State	--	--	34%	32%	--	
ELL and former ELL students	District	19%	18%	17%	18%	-1	-1
	State	19%	18%	19%	19%	0	
Students with disabilities	District	7%	8%	9%	7%	0	-14
	State	21%	21%	22%	21%	0	

The district did not reach its 2016 Composite Performance Index (CPI) targets in ELA, math, and science for any group except economically disadvantaged students in ELA.

Table 4: Worcester Public Schools
2016 CPI and Targets by Subgroup

Group	ELA			Math			Science		
	2016 CPI	2016 Target	Rating	2016 CPI	2016 Target	Rating	2016 CPI	2016 Target	Rating
All students	79.5	86.1	Improved Below Target	68.1	81.0	Improved Below Target	66.0	77.6	No Change
High Needs	74.6	83.3	Improved Below Target	62.0	77.8	Improved Below Target	59.4	74.2	Improved Below Target
Economically Disadvantaged	74.3	75.3	On Target	61.4	63.5	Improved Below Target	59.2	62.8	No Change
ELLs	71.5	78.8	Improved Below Target	59.4	74.7	Improved Below Target	53.8	68.8	Improved Below Target
Students with disabilities	59.8	73.1	Improved Below Target	46.3	67.9	Improved Below Target	48.6	68.0	Improved Below Target

In 2016, students' growth in ELA was on target for all students, high needs students, and English language learners, and students' growth in ELA was moderate compared with their academic peers statewide for all students and each group that makes up the high needs population. Students' growth in math was below target for all students and each group that makes up the high needs population, and students' growth in math was moderate compared with their academic peers statewide.

Table 5: Worcester Public Schools
2016 Median ELA and Math SGP by Subgroup

Group	2016 Median ELA SGP			2016 Median Math SGP		
	District	Rating	Growth Level	District	Rating	Growth Level
All students	53.0	On Target	Moderate	50.0	Below Target	Moderate
High Needs	51.0	On Target	Moderate	48.0	Below Target	Moderate
Econ. Disad.	50.0	Below Target	Moderate	48.0	Below Target	Moderate
ELLs	54.0	On Target	Moderate	50.0	Below Target	Moderate
SWD	43.0	Below Target	Moderate	45.0	Below Target	Moderate

Between 2013 and 2016, the district cut its rate of out-of-school suspension by at least half for all students and for each subgroup that makes up the high needs population. Worcester's rates of in-school and out-of school suspensions were higher than the state rates for all students and for each group that makes up the high needs population.

Table 6: Worcester Public Schools
Out-of-School and In-School Suspension Rates by Subgroup 2013–2016

Group	Type of Suspension	2013	2014	2015	2016	State (2016)
High Needs	ISS	0.0%	4.8%	3.1%	3.0%	2.9%
	OSS	11.8%	8.6%	5.8%	5.4%	4.9%
Economically disadvantaged*	ISS	0.0%	5.1%	3.4%	3.3%	3.2%
	OSS	12.4%	9.1%	6.4%	5.9%	5.6%
ELLs	ISS	0.0%	3.8%	2.5%	2.7%	1.9%
	OSS	10.9%	7.4%	4.6%	4.8%	4.0%
Students with disabilities	ISS	0.0%	8.0%	5.5%	5.1%	3.5%
	OSS	20.2%	15.5%	10.7%	10.1%	5.9%
All Students	ISS	0.0%	4.3%	2.8%	2.8%	1.9%
	OSS	10.5%	7.5%	5.0%	4.6%	2.9%

*Low income students' suspension rates used for 2013 and 2014

Between 2013 and 2016, the district's four-year cohort graduation rate improved by 8.5 percentage points for all students and by 3.9 to 9.3 percentage points for high needs students, low income students, students with disabilities, and English language learners. In 2016, the district reached the four-year cohort graduation target for all students but not for any of the subgroups that make up the high needs population.[4]

Table 7: Worcester Public Schools
Four-Year Cohort Graduation Rates 2013–2016

Group	Number Included (2016)	Cohort Year Ending				Change 2013–2016		Change 2015–2016		State (2016)
		2013	2014	2015	2016	Percentage Points	Percent Change	Percentage Points	Percent Change	
High needs	1,533	70.5%	77.2%	78.7%	79.7%	9.2	13.0%	1.0	1.3%	79.1%
Low income	1,451	70.6%	77.1%	79.1%	79.9%	9.3	13.8%	0.8	1.0%	78.4%
ELLs	530	70.4%	75.8%	75.2%	74.3%	3.9	5.5%	-0.9	-1.2%	64.1%
SWD	434	53.0%	63.1%	62.4%	61.5%	8.5	16.0%	-0.9	-1.4%	71.8%
All students	1,795	73.4%	79.2%	80.8%	81.9%	8.5	11.6%	1.1	1.4%	87.5%

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[4] The four-year cohort graduation rate target is 80 percent for each group and refers to the 2015 graduation rate. Low-income students did not receive a 2016 accountability rating because of the change to the economically disadvantaged measure.

Between 2012 and 2015, the district's five-year cohort graduation rate improved by 6.8 percentage points for all students, and by 4.7 to 11.2 percentage points for high needs students, low income students, English language learners, and students with disabilities. The district did not reach the five-year cohort graduation target for all students or for any of the subgroups that make up the high needs population.[5]

Table 8: Worcester Public Schools
Five-Year Cohort Graduation Rates 2012–2015

Group	Number Included (2015)	Cohort Year Ending				Change 2012–2015		Change 2014–2015		State (2015)
		2012	2013	2014	2015	Percentage Points	Percent Change	Percentage Points	Percent Change	
High needs	1,524	75.4%	76.3%	80.9%	82.5%	7.1	9.4%	1.6	2.0%	82.0%
Low income	1,444	75.5%	76.4%	80.8%	83.0%	7.5	9.9%	2.2	2.7%	81.6%
ELLs	568	69.1%	78.0%	81.2%	80.3%	11.2	16.2%	-0.9	-1.1%	70.2%
SWD	434	62.6%	60.3%	67.6%	67.3%	4.7	7.5%	-0.3	-0.4%	74.5%
All students	1,780	77.6%	78.7%	82.5%	84.4%	6.8	8.8%	1.9	2.3%	89.4%

Between 2012 and 2015, Worcester's drop-out rate declined for the district as a whole and for each subgroup that makes up the high needs population. In 2015, the district's drop-out rate for all students and the drop-out rate for each group that makes up the high needs population were below the state rates.

Table 9: Worcester Public Schools
Drop-out Rates by Subgroup 2012–2015[6]

	2012	2013	2014	2015	State (2015)
High Needs	4.5%	3.4%	2.6%	1.8%	3.4%
Econ. Disad.[7]	4.5%	3.3%	2.5%	1.8%	3.3%
SWD	5.0%	3.6%	2.7%	2.0%	3.5%
ELLs	4.8%	4.3%	3.3%	1.9%	5.7%
All students	4.1%	3.4%	2.4%	1.7%	1.9%

School and Subgroup Results

Between 2013 and 2016, ELA CPI for all students improved by 2.4 points, from 77.1 in 2013 to 79.5 in 2016, and also improved between 2013 and 2016 in each grade that took the MCAS and in each grade that took PARCC except the 4th grade.

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[5] The five-year cohort graduation rate target is 85 percent for each group and refers to the 2014 graduation rate. Low-income students did not receive a 2016 accountability rating because of the change to the economically disadvantaged measure.

[6] Low income students' drop-out rates used for 2012, 2013, and 2014 economically disadvantaged rates.

[7] Low income students' drop-out rates used for 2012, 2013, and 2014 economically disadvantaged rates.

- ELA CPI in grades that took the MCAS improved between 2013 and 2016 by 3.8 points in the 3rd grade, by 6.4 points in the 4th grade, by 8.1 points in the 5th grade, by 5.2 points in the 6th grade, and by 0.6 points in the 10th grade.
    - ELA CPI in the 10th grade was 92.7 in 2016, 4.0 points below the 2016 state CPI of 96.7.

- ELA CPI in grades that took PARCC improved between 2013 and 2016 by 1.6 points in the 3rd grade, by 3.5 points in the 5th grade, by 4.0 points in the 6th grade, by 1.1 points in the 7th grade, and by 7.4 points in the 8th grade.

- ELA CPI declined by 6.1 points in the 4th grade on the PARCC assessment from 67.2 in 2013 to a transitional CPI of 61.1 in 2016.

Table 10: Worcester Public Schools
ELA Composite Performance Index (CPI) by Grade 2013–2016

Grade and Assessment		Number Included (2016)	MCAS Year		MCAS/PARCC			Gains and Declines	
			2013	2014	2015	2016	State (2016)	4-Year Trend	2-Year Trend
3	MCAS	734	71.7	70.2	71.4	75.5	--	3.8	4.1
	PARCC	1,076	71.7	70.2	69.8	73.3	--	1.6	3.5
4	MCAS	753	67.2	67.3	73.8	73.6	--	6.4	-0.2
	PARCC	1,122	67.2	67.3	63.4	61.1	--	-6.1	-2.3
5	MCAS	698	75.2	74.3	79	83.3	--	8.1	4.3
	PARCC	1,059	75.2	74.3	72.8	78.7	--	3.5	5.9
6	MCAS	637	76.9	79.6	83.4	82.1	--	5.2	-1.3
	PARCC	1,034	76.9	79.6	76.6	80.9	--	4.0	4.3
7	MCAS	--	78.9	79.1	77.7	--	--	--	--
	PARCC	1,545	78.9	79.1	79.8	80.0	--	1.1	0.2
8	MCAS	--	79.5	80.6	81.3	--	--	--	--
	PARCC	1,553	79.5	80.6	87.5	86.9	--	7.4	-0.6
10	MCAS	1,730	92.1	89.6	92.0	92.7	96.7	0.6	0.7
All	MCAS/PARCC	12,107	77.1	77.1	77.9	79.5	87.2	2.4	1.6

Between 2013 and 2016, ELA CPI improved by 0.2 to 20.7 points in 20 of 33 elementary schools with reportable data. ELA CPI improved in all 4 middle schools by 1.9 to 7.1 points and declined in both middle-high schools by 0.5 and 1.5 points. ELA CPI improved by 0.4 to 1.8 points in 4 of the 5 high schools.

- ELA CPI for high needs students improved by 0.7 to 20.6 points in 19 of 33 elementary schools with reportable data. ELA CPI improved by 1.3 to 6.0 points in 3 of 4 middle schools and declined by 2.1 and 3.6 points in both middle-high schools. ELA CPI for high needs students improved by 0.8 to 2.2 points in 3 of 5 high schools.
- ELA CPI for English language learners improved by 1.9 to 24.2 points in 19 of the 33 elementary schools with reportable data. ELA CPI improved by 0.2 to 5.8 points in 3 of the 4 middle schools and declined in both middle-high schools by 2.3 and 5.1 points. ELA CPI for English language learners declined by 2.3 and 5.1 points in 3 of 5 high schools.
- ELA CPI for students with disabilities improved by 1.0 to 24.3 points in 21 of the 32 elementary schools with reportable data. ELA CPI improved by 6.4 to 7.5 points in all 4 middle schools and

improved by 9.2 points in one middle-high school. ELA CPI for students with disabilities improved by 3.1 to 10.6 points in all 5 high schools.

For ELA Composite Performance Index (CPI) by school and subgroup, 2013–2016, see Appendix B, Table B3.

The percentage of students meeting or exceeding expectations in ELA on the PARCC assessment ranged from 15 percent to 91 percent in the 3rd grade, from 6 percent to 83 percent in the 4th grade, from 9 percent to 85 percent in the 5th grade, from 18 percent to 100 percent in the 6th grade, from 27 percent to 53 percent in the 7th grade, and from 31 percent to 60 percent in the 8th grade.

Table 11: Worcester Public Schools
ELA Meeting or Exceeding Expectations by School and Grade 2015–2016

School	3	4	5	6	7	8	Total
Belmont Street Community ES	15%	18%	35%	34%	--	--	25%
Wawecus Road ES	15%	25%	46%	42%	--	--	31%
Woodland Academy ES	28%	27%	39%	52%	--	--	36%
Chandler Magnet ES	20%	16%	9%	29%	--	--	19%
City View ES	29%	42%	42%	43%	--	--	39%
Clark Street Community ES	36%	6%	30%	28%	--	--	24%
Columbus Park ES	37%	37%	34%	37%	--	--	36%
Elm Park Community ES	28%	14%	21%	22%	--	--	22%
Goddard ES	16%	10%	38%	18%	--	--	19%
Gates Lane ES	45%	23%	34%	56%	--	--	39%
Grafton Street ES	22%	14%	26%	24%	--	--	21%
Lake View ES	46%	47%	71%	79%	--	--	58%
Lincoln Street ES	21%	19%	17%	23%	--	--	20%
May Street ES	44%	42%	58%	52%	--	--	49%
McGrath ES	33%	30%	34%	50%	--	--	37%
Midland Street ES	63%	63%	62%	92%	--	--	68%
Quinsigamond ES	25%	30%	28%	39%	--	--	30%
Roosevelt ES	65%	62%	65%	59%	--	--	63%
Worcester Arts Magnet ES	91%	83%	85%	86%	--	--	87%
Thorndyke Road ES	43%	57%	63%	72%	--	--	59%
Worcester East MS	--	--	--	54%	44%	52%	49%
Sullivan MS	--	--	--	100%	42%	43%	47%
Burncoat MS	--	--	--	--	50%	59%	54%
Forest Grove MS	--	--	--	--	53%	60%	56%
University Park MSHS	--	--	--	--	44%	31%	38%
Claremont Academy MSHS	--	--	--	--	27%	33%	31%
District	36%	33%	41%	49%	46%	50%	43%

The percentage of students scoring proficient or advanced in ELA on the MCAS ranged from 12 to 85 percent in the 3rd grade, from 20 to 79 percent in the 4th grade, from 40 to 89 percent in the 5th grade, and from 40 to 85 percent in the 6th grade. The percentage of students scoring proficient or advanced in ELA in the 10th grade ranged from 73 to 97 percent.

Table 12: Worcester Public Schools
ELA Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Burncoat Street ES	29%	35%	55%	45%	--	--	--	41%
Canterbury Magnet ES	12%	24%	46%	50%	--	--	--	33%
Chandler Community ES	52%	60%	67%	58%	--	--	--	59%
Flagg Street ES	65%	69%	82%	86%	--	--	--	76%
Heard Street ES	49%	63%	71%	74%	--	--	--	64%
Hiatt Magnet ES	39%	33%	65%	62%	--	--	--	48%
Nelson Place ES	63%	66%	63%	78%	--	--	--	68%
Norrback Avenue ES	48%	46%	65%	63%	--	--	--	55%
Rice Square ES	26%	44%	40%	50%	--	--	--	39%
Tatnuck ES	46%	53%	53%	56%	--	--	--	52%
Union Hill ES	39%	37%	66%	40%	--	--	--	45%
West Tatnuck ES	85%	79%	89%	85%	--	--	--	84%
Vernon Hill ES	16%	20%	43%	40%	--	--	--	28%
University Park MSHS	--	--	--	--	--	--	95%	--
Claremont Academy MSHS	--	--	--	--	--	--	85%	--
Burncoat Senior HS	--	--	--	--	--	--	79%	79%
Doherty Memorial HS	--	--	--	--	--	--	83%	83%
North HS	--	--	--	--	--	--	73%	73%
South High Community HS	--	--	--	--	--	--	84%	84%
Worcester Technical HS	--	--	--	--	--	--	97%	97%
District	43%	48%	61%	60%	--	--	82%	--

Between 2013 and 2016, math CPI for all students improved by 0.1 point, from 68.0 in 2013 to 68.1 in 2016, and also improved between 2013 and 2016 in each grade that took the MCAS except the 10th grade and in each grade that took PARCC except the 3rd and 8th grades.

- Math CPI in grades that took the MCAS improved between 2013 and 2016 by 6.5 points in the 3rd grade, by 4.4 points in the 4th grade, by 5.3 points in the 5th grade, and by 6.8 points in the 6th grade.
  - Math CPI on the MCAS in the 10th grade declined by 0.5 point from 80.1 in 2013 to 79.6 in 2016, 10.1 points below the 2016 state CPI of 89.7.

- Math CPI in grades that took PARCC improved between 2013 and 2016 by 1.4 points in the 3rd grade and by 6.0 points in the 8th grade.

- Math CPI on PARCC declined between 2013 and 2016 by 7.8 points in the 4th grade, by 6.3 points in the 5th grade, by 5.5 points in the 6th grade, and by 0.9 point in the 7th grade.

Table 13: Worcester Public Schools
Math Composite Performance Index (CPI) by Grade 2013–2016

Grade and Assessment		Number Included (2016)	MCAS Year		MCAS/PARCC		State (2016)	Gains and Declines	
								4-Year Trend	2-Year Trend
			2013	2014	2015	2016			
3	MCAS	734	70.3	70.5	72.8	76.8		6.5	4
	PARCC	1,088	70.3	70.5	67.6	71.7		1.4	4.1
4	MCAS	748	67.7	65.5	67.0	72.1		4.4	5.1
	PARCC	1,127	67.7	65.5	63.4	59.9		-7.8	-3.5
5	MCAS	702	67.8	65.1	71.9	73.1		5.3	1.2
	PARCC	1,074	67.8	65.1	60.4	61.5		-6.3	1.1
6	MCAS	639	69.8	70.9	77.4	76.6		6.8	-0.8
	PARCC	1,041	69.8	70.9	62.6	64.3		-5.5	1.7
7	MCAS	--	60.9	54.9	53.6	--		--	--
	PARCC	1,541	60.9	54.9	61.8	60.0		-0.9	-1.8
8	MCAS	--	59.7	57.7	52.9	--		--	--
	PARCC	1,508	59.7	57.7	64.0	65.7		6.0	1.7
10	MCAS	1,751	80.1	78.3	78.4	79.6	89.7	-0.5	1.2
All	MCAS/PARCC	12,189	68.0	66.3	66.8	68.1	81.5	0.1	1.3

Between 2013 and 2016, math CPI declined by 0.5 to 21.4 points in 18 of 33 elementary schools with reportable data. Math CPI improved by 2.9 to 5.8 points in 3 of 4 middle schools and by 2.5 points in one middle-high school. Math CPI declined by 0.3 to 2.5 points in 3 out of the 5 high schools.

- Math CPI for high needs students declined by 1.2 to 20.3 points in 19 of 33 elementary schools with reportable data. Math CPI declined by 0.9 to 3.8 points in 2 of 4 middle schools and declined by 8.9 and 0.5 points in both middle-high schools. Math CPI for high needs students declined by 0.8 to 6.8 points in all 5 high schools.
- Math CPI for English language learners declined by 0.2 to 20.5 points in 17 of the 33 elementary schools with reportable data. Math CPI declined by 4.6 to 7.1 points in 2 of the 4 middle schools and by 9.4 and 5.5 points in both middle-high schools. Math CPI for English language learners declined by 3.8 to 9.4 points in 4 of 5 high schools.
- Math CPI for students with disabilities improved by 0.1 to 24.4 points in 18 of the 32 elementary schools with reportable data. Math CPI declined by 1.6 and 4.1 points in 2 of 4 middle schools and by 0.3 point in one middle-high school. Math CPI for students with disabilities improved by 1.7 to 11.1 points in 3 of 5 high schools.

For math Composite Performance Index (CPI) by school and subgroup, 2013–2016, see Appendix B, Table B4.

The percentage of students meeting or exceeding expectations in math on PARCC ranged from 10 percent to 93 percent in the 3rd grade, from 6 percent to 89 percent in the 4th grade, from 3 percent to 70 percent in the 5th grade, from 4 percent to 75 percent in the 6th grade, from 15 percent to 40 percent in the 7th grade, and from 13 percent to 47 percent in the 8th grade.

Table 14: Worcester Public Schools
Math Meeting or Exceeding Expectations by School and Grade 2015–2016

School	3	4	5	6	7	8	Total
Belmont Street Community ES	25%	23%	29%	34%	--	--	27%
Wawecus Road ES	10%	20%	23%	11%	--	--	15%
Woodland Academy ES	24%	18%	10%	30%	--	--	20%
Chandler Magnet Es	19%	18%	6%	8%	--	--	12%
City View ES	36%	16%	19%	27%	--	--	24%
Clark Street Community ES	21%	9%	7%	12%	--	--	12%
Columbus Park ES	28%	29%	31%	17%	--	--	27%
Elm Park Community ES	42%	16%	13%	7%	--	--	21%
Goddard ES	23%	5%	12%	4%	--	--	11%
Gates Lane ES	40%	27%	13%	13%	--	--	22%
Grafton Street ES	11%	17%	3%	16%	--	--	12%
Lake View ES	51%	35%	68%	54%	--	--	50%
Lincoln Street ES	12%	6%	26%	38%	--	--	18%
May Street ES	40%	34%	55%	60%	--	--	47%
McGrath ES	35%	37%	29%	25%	--	--	31%
Midland Street ES	50%	46%	53%	75%	--	--	55%
Quinsigamond ES	14%	9%	15%	22%	--	--	15%
Roosevelt ES	67%	56%	55%	44%	--	--	57%
Worcester Arts Magnet ES	93%	89%	70%	68%	--	--	81%
Thorndyke Road ES	45%	50%	48%	60%	--	--	51%
University Park MSHS	--	--	--	--	32%	38%	35%
Claremont Academy MSHS	--	--	--	--	15%	13%	13%
Burncoat MS	--	--	--	--	28%	40%	34%
Forest Grove MS	--	--	--	--	40%	47%	44%
Worcester East MS	--	--	--	14%	20%	31%	24%
Sullivan MS	--	--	--	81%	30%	20%	34%
District	34%	27%	27%	30%	30%	33%	31%

The percentage of students scoring proficient or advanced in math on MCAS ranged from 24 percent to 93 percent in the 3rd grade, from 16 percent to 79 percent in the 4th grade, from 25 percent to 83 percent in the 5th grade, and from 32 percent to 83 percent in the 6th grade. The percentage of students scoring proficient or advanced in the 10th grade ranged from 43 percent to 84 percent.

Table 15: Worcester Public Schools
Math Percent Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Burncoat Street ES	46%	26%	25%	32%	--	--	--	32%
Canterbury Magnet ES	24%	16%	36%	45%	--	--	--	30%
Chandler Community ES	66%	60%	49%	32%	--	--	--	53%
Flagg Street ES	56%	61%	68%	83%	--	--	--	67%
Heard Street ES	49%	58%	58%	58%	--	--	--	56%
Hiatt Magnet ES	64%	18%	54%	43%	--	--	--	45%
Nelson Place ES	75%	51%	52%	62%	--	--	--	59%
Norrback Avenue ES	46%	30%	45%	66%	--	--	--	47%
Rice Square ES	40%	32%	28%	47%	--	--	--	36%
Tatnuck ES	66%	31%	47%	47%	--	--	--	48%
Union Hill ES	49%	32%	34%	33%	--	--	--	37%
West Tatnuck ES	93%	79%	83%	74%	--	--	--	83%
Vernon Hill ES	33%	17%	25%	37%	--	--	--	28%
University Park MSHS	--	--	--	--	--	--	84%	--
Claremont Academy MSHS	--	--	--	--	--	--	65%	--
Burncoat Senior HS	--	--	--	--	--	--	59%	59%
Doherty Memorial HS	--	--	--	--	--	--	71%	71%
North HS	--	--	--	--	--	--	43%	43%
South High Community HS	--	--	--	--	--	--	54%	54%
Worcester Technical HS	--	--	--	--	--	--	81%	81%
District	53	38	45	52	--	--	60%	--

Between 2013 and 2016, science proficiency rates improved by 1 percentage point in the district as whole, from 32 percent in 2013 to 33 percent in 2016, 21 percentage points below the 2016 state rate of 54 percent.

- 5th grade science proficiency rates were 29 percent in 2013 and 2016, 18 percentage points below the 2016 state rate of 47 percent.

- 8th grade science proficiency rates declined by 1 percentage point from 21 percent in 2013 to 20 percent in 2016, 21 percentage points below the 2016 state rate of 41 percent.

- 10th grade science proficiency rates improved by 5 percentage points from 46 percent in 2013 to 51 percent in 2016, 22 percentage points below the 2016 state rate of 73 percent.

Table 16: Worcester Public Schools
Science Percent Proficient or Advanced by Grade 2013–2016

Grade	Number	2013	2014	2015	2016	State (2016)	4-Year Trend	2-Year Trend
5	1,787	29%	34%	32%	29%	47%	0	-3
8	1,624	21%	23%	20%	20%	41%	-1	0
10	1,642	46%	46%	49%	51%	73%	5	2
All	5,053	32%	34%	33%	33%	54%	1	0

In 2016, in the 5th grade the percentage of students scoring proficient or advanced in science ranged from 3 percent at Grafton Street to 65 percent at Lake View, and was below the 2016 state rate of 47 percent in 21 of the 33 schools with a 5th grade. In the 8th grade the percentage of students scoring proficient or advanced in science ranged from 7 percent at Claremont Academy to 27 percent at Forest Grove, and was below the 2016 state rate of 41 percent in all 6 schools with an 8th grade. In grade 10 the percentage of students scoring proficient or advanced in science ranged from 37 percent at North High to 79 percent at University Park, and was below the 2016 state rate of 73 percent in 6 of the 7 schools with a 10th grade.

Table 17: Worcester Public Schools
Science Percent Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Belmont Street Community ES	--	--	28%	--	--	--	--	28%
Wawecus Road ES	--	--	6%	--	--	--	--	6%
Woodland Academy ES	--	--	17%	--	--	--	--	17%
Burncoat Street ES	--	--	48%	--	--	--	--	48%
Canterbury Magnet ES	--	--	18%	--	--	--	--	18%
Chandler Community ES	--	--	47%	--	--	--	--	47%
Chandler Magnet ES	--	--	9%	--	--	--	--	9%
City View ES	--	--	19%	--	--	--	--	19%
Clark Street Community ES	--	--	17%	--	--	--	--	17%
Columbus Park ES	--	--	49%	--	--	--	--	49%
Flagg Street ES	--	--	51%	--	--	--	--	51%
Elm Park Community ES	--	--	13%	--	--	--	--	13%
Goddard ES	--	--	4%	--	--	--	--	4%
Gates Lane ES	--	--	24%	--	--	--	--	24%
Grafton Street ES	--	--	3%	--	--	--	--	3%
Heard Street ES	--	--	58%	--	--	--	--	58%
Hiatt Magnet ES	--	--	48%	--	--	--	--	48%
Lake View ES	--	--	65%	--	--	--	--	65%
Lincoln Street ES	--	--	9%	--	--	--	--	9%
May Street ES	--	--	36%	--	--	--	--	36%
McGrath ES	--	--	11%	--	--	--	--	11%
Midland Street ES	--	--	56%	--	--	--	--	56%
Nelson Place ES	--	--	37%	--	--	--	--	37%
Norrback Avenue ES	--	--	35%	--	--	--	--	35%
Quinsigamond ES	--	--	13%	--	--	--	--	13%
Rice Square ES	--	--	26%	--	--	--	--	26%
Roosevelt ES	--	--	30%	--	--	--	--	30%
Worcester Arts Magnet ES	--	--	52%	--	--	--	--	52%
Tatnuck ES	--	--	64%	--	--	--	--	64%
Thorndyke Road ES	--	--	48%	--	--	--	--	48%
Union Hill ES	--	--	11%	--	--	--	--	11%
West Tatnuck ES	--	--	60%	--	--	--	--	60%
Vernon Hill ES	--	--	18%	--	--	--	--	18%
Burncoat MS	--	--	--	--	--	26%	--	26%
Forest Grove MS	--	--	--	--	--	27%	--	27%
Worcester East MS	--	--	--	--	--	21%	--	21%
Sullivan MS	--	--	--	--	--	16%	--	16%
University Park MSHS	--	--	--	--	--	17%	79%	45%

Claremont Academy MSHS	--	--	--	--	--	7%	47%	23%
Burncoat Senior HS	--	--	--	--	--	--	47%	47%
Doherty Memorial HS	--	--	--	--	--	--	62%	62%
North HS	--	--	--	--	--	--	37%	37%
South High Community HS	--	--	--	--	--	--	46%	46%
Worcester Technical HS	--	--	--	--	--	--	68%	68%
District	--	--	29%	--	--	20%	51%	33%
State	--	--	47%	--	--	41%	73%	54%

Between 2013 and 2016, science proficiency rates improved by 1 to 41 percentage points in 17 of 33 elementary schools with reportable data. Science proficiency improved by 2 percentage points in 1 of 4 middle schools and by 11 and 1 percentage points in both middle-high schools. Science proficiency improved by 2 to 9 percentage points in 4 of 5 high schools.

- Science proficiency rates for high needs students declined by 2 to 29 percentage points in 17 of 33 elementary schools with reportable data. Science proficiency rates for high needs students declined by 3 to 5 percentage points in 3 of 4 middle schools and improved by 1 percentage point in 1 middle-high school. Science proficiency rates for high needs students declined by 2 to 3 percentage points in 4 of 5 high schools.
- Science proficiency rates for English language learners improved by 2 to 53 percentage points in 14 of 25 elementary schools with reportable data. Science proficiency rates for English language learners declined by 2 to 7 percentage points in all 4 middle schools and in both middle-high schools. Science proficiency rates for English language learners declined by 4 to 18 percentage points in 3 of 5 high schools.
- Science proficiency rates for students with disabilities declined by 1 to 20 percentage points in 5 of 12 elementary schools with reportable data. Science proficiency rates for students with disabilities declined by 2 and 3 percentage points in 2 of 4 middle schools and by 9 percentage points in 1 middle-high school. Science proficiency rates for students with disabilities improved by 4 to 15 percentage points in 3 of 5 high schools.

For science percent proficient or advanced by school and subgroup 2013–2016, see Appendix B, Table B5.

Leadership and Governance

Contextual Background

The superintendent was chosen in March 2016 from a field of four internal candidates. One of the other internal candidates was the chief academic officer who had been serving as interim superintendent since the departure of the former superintendent in the fall of 2015 after 6.5 years in the district. The superintendent is a 41-year veteran teacher and administrator in the Worcester Public Schools, most recently having served as principal of South High School. She directly supervises five administrators: the chief academic officer, the chief research and accountability officer, the chief financial and operations officer, the chief human resources officer, and the school safety director. The superintendent is participating in the New Superintendent Induction Program, a three-year program that provides professional development and coaching focused on entry planning, team building, strategy development and robust supervision and evaluation.[8]

Worcester schools are divided into four geographic "quadrants," each of which once had its own "quadrant manager." In recent years, reductions in administrative positions at the central office meant that only two managers had responsibility for supervising and evaluating the principals in all four quadrants and for Pre-K–12 curriculum development. The superintendent has reallocated resources to restore managers' positions and to reorganize these and other positions critical for advancing teaching and learning in the district. The newly reorganized positions are three managers of instruction and school leadership (two for the elementary level and one for the secondary level) and one manager of curriculum and learning. While these managers report directly to the chief academic officer, the superintendent is working directly with them to achieve her goal of focusing their work and the work of other district office staff on supporting the work of principals.

The Educational Association of Worcester (EAW) represents all professional and clerical staff except principals and some district office administrators. The EAW plays a significant role in the district, seeing its responsibility as advocating for association members and ensuring that collective bargaining agreements are followed in all instances. It had a contested election in spring 2016, choosing new leadership over a president who had served for six years. In December 2016 association leaders reported 20 outstanding grievances and more than 16 "attorney assignments" including arbitrations and an unfair labor practice case. Also, in December 2016 the faculties at two schools took votes of "no confidence" in two principals.

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[8] The New Superintendent Induction Program (NSIP) is a partnership between ESE and the Massachusetts Association of School Superintendents and supported by the school district.

Strength Finding

1. **The superintendent's reorganization of district resources and leadership positions, along with associated changes in practice, have made support for teaching and learning more focused and systematic.**

   A. The superintendent sought to bring greater direction and coordination for curriculum improvement efforts by combining responsibility for curriculum and professional development in the new position of manager of curriculum and learning.

      1. This manager has responsibility to direct, coordinate, and support the work of 11 academic liaisons.

         a. School leaders reported that academic liaisons are spending more time in schools and are helping principals, coaches, and teachers.

   B. The superintendent sought to provide greater direction and support for principals by expanding the number of "quadrant managers" from two K–12 managers to two elementary and one secondary manager of instruction and school leadership.

      1. Principals reported that the managers are ensuring greater consistency, coordination, and support in 2016–2017.

   C. The superintendent has strategically hired and assigned leaders to advance teaching and learning.

      1. The two new elementary managers of instruction and school leadership were principals committed to organizing district work to support school leaders and recognized by colleagues for doing so successfully.

      2. The new superintendent has transferred to Level 4 elementary schools two principals who have led Level 4 schools to Level 1 status.

   D. The academic leadership team, with support from the superintendent, has redesigned district practices and processes to ensure more systematic and focused attention on supporting principals.

      1. District leaders reported that they provide different kinds and intensity of assistance to schools based on four levels of need: green (ongoing support to sustain high performance); yellow (need more support to sustain progress); red (need more intensive support to make progress); and "hot red" (need the most intensive support to reverse very low and/or downward performance trends).

         a. The superintendent and managers said that each of them is expected to spend a substantial portion of at least one day each week in one of their "hot red" schools, working with the principal and staff and observing classes.

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b. Managers and principals noted, as an example, the decision to have all teachers and administrators at the six "hot red" schools take the Skillful Teaching course offered by Research for Better Teaching after their analysis concluded that basic Tier 1 instruction was generally not strong in all six schools.

2. District leaders redesigned the School Accountability Plan (SAP) template, support structure, and expectations for accountability in 2016–2017.

   a. District leaders simplified the plan template to focus on the four key school turnaround practices identified by ESE.

   b. School administrators reported that the new SAPs are more streamlined and focused.

   c. District and school administrators said that in the fall 2016–2017 key district leaders, including the superintendent, worked with five principals to offer feedback on their first drafts of the SAPs and guide revisions when needed.

   d. District leaders and school administrators applauded a peer review process initiated in 2016–2017 through which principal pairs or trios give each other feedback on their SAPs.

3. To focus and coordinate district office support for school leaders, the three managers of instruction and school leadership reported that they have begun in 2016–2017 to write and disseminate to elementary- and secondary-school leaders weekly two-page newsletters that point leaders to relevant tools and resources, dates to remember, and deadlines.

   a. Principals reported that the written, email, and in-person communication from the managers and superintendent has been comprehensive and helpful.

4. To reduce the amount of time school leaders would be out of their schools and focus professional learning, district leaders changed the cohort-based Principal Leadership and Assistance Network (PLAN) meetings for 2016–2017 from all-day meetings to focused two-hour meetings scheduled immediately before districtwide principal meetings.

   a. School leaders reported that PLAN meetings are more useful and more focused on professional learning.

   b. District leaders described the focus of PLAN meetings as "sharing best/promising practices" such as data binders, videotaping lessons with feedback, and curriculum alignment.

Impact: The recent reorganization and changes in practice and processes support greater focus on and coordination of improvement to teaching and learning. If sustained, they can also ensure more support,

guidance, and accountability for principals that will likely lead to improved school leadership and more consistent school practices and performance.

Challenges and Areas for Growth

2. **School committee members make many motions that require action by administrators and administrators devote much time responding to these motions. Few motions that require action by administrators are aligned with district priorities for continuous improvement or with administrators' main responsibilities.**

    A. School committee members make many motions requesting information from administrators.

        1. School committee members submit items for inclusion on meeting agendas to the committee's clerk; consultation with the superintendent is not required or typical.

        2. During committee meetings, some motions are referred to one of the standing subcommittees. The subcommittee, in turn, reports its deliberations to the school committee and typically makes additional motions for administrative action.

        3. School committee members reported that their requests for information are often spurred by conversations with constituents, including teachers.

        4. As of mid-January 2017, the clerk for the school committee reported 52 outstanding motions awaiting administrators' response, excluding 17 motions made, but not responded to, in June 2016 during budget deliberations.

        5. Committee members estimated that the members make approximately 15 motions at each meeting, not including routine motions.[9]

        6. A review of the minutes for the 7 regular committee meetings of September 15, October 6, October 20, November 3, November 17, December 3, and December 17, 2016, indicated that committee members made 113 new, non-routine motions that require action by the administration, or an average of 16 motions per meeting, ranging from 5 on November 3 to 31 on October 20.

    B. Few motions made by members are aligned with district leaders' priorities for improving teaching and learning or with district goals for the year.

        1. The motions reviewed encompassed a wide range of topics, including: consider teaching "Smiley Face Song" in honor of Worcester native Harvey Ball; report on the number and description of community service activities performed by the Junior ROTC in 2015–2016 and 2016–2017; provide an inventory about the availability of [elementary literacy] tool kits;

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[9] Routine motions include motions to recognize staff, students or members of the community; accept donations; accept reports of the superintendent or standing committees; pay bills or adjust compensation, etc.

consider the feasibility of establishing a citywide girls ice hockey team; and establish an advisory committee to review options for an earlier start time for secondary school students.

C. District and school leaders devote much time to responding to motions.

1. District leaders reported that they spend up to four hours each Tuesday meeting with the clerk to the school committee reviewing, assigning, and planning responses to motions.

2. District and school leaders stated that they are often distracted from the work they consider central to their responsibilities to respond to urgent requests for information about topics they see as not aligned with district priorities to improve teaching and learning and/or related to their core responsibilities.

3. District leaders said that they are generally expected to respond to requests for information at the next school committee or subcommittee meeting.

4. District and school staff also spend time gathering and sharing the information that the clerk for the school committee needs to respond to motions designed to recognize students or staff.

   a. Administrators often provide the content for the letters and certificates and the recipients' contact information and explore options for a date for a staff member to join the recipients at a school committee meeting.

5. Two clerks support the work of the clerk of the school committee.

Impact: The large number of school committee motions seeking information from administrators demands much time and attention of many district and school administrators at a significant cost to the time and attention they can pay to their core leadership responsibilities. Because the requests are often not related to the district's goals, they distract district and school administrators from the instructional leadership work that is critical to school improvement.

3. **District and school leaders have not scheduled regular grade-level and content-level teacher meetings at all schools to focus on monitoring progress for all students, and on using data to improve teaching, learning, and curriculum. The district has not articulated expectations for teachers' use of collaborative meeting time.**

   A. Interviews and a document review indicated that Common Planning Time (CPT) is inconsistent across schools and school levels.[10]

   1. CPT is usually defined as time dedicated for grade-level or content-level teacher teams to collaboratively learn from each other, discuss students' progress, analyze data, develop and analyze lessons, and work together in other ways to improve their practice.

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   [10] Interviewees said that CPT schedules submitted to the review team mainly indicated teacher prep time.

2. Common prep time is defined as time during the school day for teachers, typically working independently, to plan and prepare for classes. Although contractually all teachers have common prep time,   teachers may choose to meet with colleagues during this non-teaching time, but they cannot be required to do so.

3. Some administrators said that having more standardized CPT was a district goal.

B. At the elementary level, managers stated that all schools had CPT. Managers and some teachers told the team that CPT looks different in each school.

1. In various interviews with staff and teachers, the team was told that CPT ranges from 30 minutes daily at the Level 4 and low Level 3 schools, to once or twice or three times a week at others.

2. The use of CPT for special education teachers and guidance counselors to meet with grade-level teachers to discuss student progress does not exist at all elementary schools.

C. Administrators and teachers said that time allocated for CPT varied across middle schools.

1. At one middle school, CPT takes place three times a week: once by cluster (i.e., interdisciplinary teams) and twice by department. Teachers often discuss student issues in the cluster meetings and the use of data to improve teaching, learning, and curriculum in the content-area meetings.

2. In another middle school, CPT is "disconnected" and takes place twice a week by teacher team and once a month by department at faculty meetings.

3. At a third middle school, CPT takes place once a week.

D. At the high schools, time allocated for CPT varies.

1. At two high schools, grade 9 and 10 teacher teams meet once or twice a week for CPT.

2. At some high schools, teachers do not have CPT; at others, only grade 11 and 12 teachers have scheduled CPT.

3. Some high school teachers told the team that CPT was their "duty period" on the days they were not assigned to a "duty." Teachers at other high schools might meet after school in monthly department meetings and monthly faculty meetings to collaborate.

E. District administrators stated that the district does not have standard expectations for how teachers use CPT for improvement. For example, some elementary teachers noted that work on curriculum depended on the school and that innovation schools had "lots more autonomy."

Impact: Without structured, frequent common planning time (CPT), teachers have limited opportunities to improve instruction in a collaborative and constructive way. Without common and articulated

expectations for how CPT should be used across the district, CPT cannot function as a primary and ongoing form of teachers' professional development.

Recommendations

1. **School committee members should exercise a great deal more restraint in making motions that are not related to the critical task of improving the quality of teaching and learning.**

    A. The school committee and the superintendent should consider collaborating to identify motions that are likely to advance school performance.

        1. The superintendent and the school committee should use the annual goal setting process to agree about the focus for the district's work in the year ahead and the information that the school committee will need to inform and support that work. In that way, school committee members and administrators can adopt a more predictable and systematic approach to gathering and analyzing the information that school committee members and the superintendent need.

        2. To increase efficiency and focus further, the school committee should consider using the "consent agenda" process used by many committees to reduce the time required to act on routine action items. Under a consent agenda, all routine matters are bundled as one action; members agree in advance that discussion of consent agenda items will only take place if a member proposes, and the committee votes, to remove a specific motion from the consent agenda for separate action.

        3. With increased efficiency and focus in the work of the school committee, the school committee and superintendent should consider ways to reallocate staff time from the office of the clerk to other offices with more direct impact on teaching and learning.

Benefit: By implementing this recommendation, district and school leaders will be able to maintain a consistent focus on the work that is critical to advancing the district's priorities so as to achieve its goal of becoming a model urban district in the Commonwealth.

Recommended resource:

* The *District Governance Program* (http://www.masc.org/field-services/district-governance-project), provided by the Massachusetts Association of School Committees, is designed to focus on continuous improvement and to build understanding of the roles and responsibilities of the school committee and the superintendent.

2. **The district should consider ways to provide sufficient, regular common planning time for all teachers.**

   A. District leaders should review school schedules and work with the Educational Association of Worcester to find ways for all teachers to have adequate, frequent opportunities to meet with colleagues during the school day, at least once each week, at all schools.

   B. The district should set common expectations for how to use common planning time. Examples include: to monitor progress and develop strategies to support struggling general education students, special education students and English language learners; to provide a forum to enable teachers' professional growth and development; and to analyze and use data to modify and adjust instruction, improve student learning, and revise the curriculum.

   C. District and school leaders can build on excellent "best practice" models that exist in the district for scheduling and using common planning time for improvement.

Benefit: Implementing this recommendation will enable teachers to more closely monitor student achievement, better address the diverse needs of all learners, and have more opportunities to grow and develop professionally. When grade-level or course-level teachers have shared time to analyze and discuss student achievement data, student work, and other information, teachers and leaders can make timely needed adjustments to teaching and the curriculum.

Recommended resources:

- *Time for Deeper Learning: Lessons from Five High Schools* (http://www.timeandlearning.org/publications/time-deeper-learning), from Mass2020, examines how schools that prioritize deeper learning are using whatever time they have available—whether through an expanded day or during a traditional school schedule—to reach their educational goals.

- In *Time for Teachers: Leveraging Time to Strengthen Instruction & Empower Teachers* (http://www.timeandlearning.org/school-resources/time-teachers authors Claire Kaplan, Roy Chan, David Farbman, and Ami Novoryta examine 17 high-performing and fast-improving schools around the country that have taken advantage of expanded school schedules to provide students with more time for engaging academic and enrichment classes and teachers with more time to collaborate with colleagues, analyze students data, create new lesson plans, and develop new skills.

Curriculum and Instruction

Contextual Background

The district has inconsistently addressed curriculum development and at the time of the site visit in January 2017 K–12 ELA, math, and science documents were incomplete. This work, now overseen by the chief academic officer, was previously managed by four quadrant managers who were responsible for Pre-K–12 curriculum development in all content areas in each of the district's quadrants: Burncoat, Doherty, North, and South. As part of her "First 100 Days Report," the superintendent analyzed the district's current procedural and operational structures for curriculum development and identified curriculum development as one of several district priorities.

The superintendent has reorganized the central office by restructuring several leadership positions to create a network of positions to oversee and support curriculum. The manager of curriculum and learning is a new position with responsibility for coordinating curriculum and professional learning to improve teaching and learning. The manager of curriculum and learning supervises the academic liaisons[11] in their work to support Pre-K– 12 curriculum development, the elementary science coach, and 49 school-based instructional coaches. The office of curriculum and learning distributes a monthly newsletter to principals to update them on district initiatives and professional learning opportunities.

The office of curriculum and learning also develops a comprehensive professional learning plan that is updated each year. The 2016–2017 plan includes topics that focus on district priorities and are differentiated to promote "continuous learning and professional growth" at all levels. Academic liaisons and managers as well as outside consultants facilitate professional learning offerings. A broad range of topics is offered and training focused on improving instruction may be targeted toward specific audiences. For example, *Skillful Teacher* training has been offered multiple times. However, this training is now targeted for teachers in Level 4 and low achieving Level 3 schools only, so not all teachers have the opportunity to participate in 2016–2017. The district will be challenged to provide sustained professional learning opportunities that will enable teachers to master strategies that support improvements in teaching and learning at all school levels.

Pre-K–12 curriculum map templates are common and incorporate Understanding by Design (UbD) elements. However, common instructional materials vary by content area across the district. Science is the most complete with uniform kits K–2, textbooks/kits in grades 3–6, and plans for updated common texts in grades 7–12.

The use of core instructional resources for math instruction is consistent across grade levels and schools. While various resources are available at the elementary level, all schools have access to *Everyday Math* (the former common text), *EngageNY*, and *Go Math*, the most current resource purchased for math instruction.

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[11] Before the reorganization, the principals supervised the liaisons.

At the elementary schools, teachers use several resources, structures, and programs to teach the ELA and literacy standards, and each school chooses its own materials. The *Fountas and Pinnell Benchmark Assessment System* (BAS) is the only common resource used in all elementary schools.

Literacy is at the forefront of the superintendent's improvement goals. She has made balanced literacy a priority for the district and set the expectation that every teacher is a teacher of literacy. Furthermore, the implementation of balanced literacy instruction is an initiative at all elementary schools. To support this, the professional learning plan has prioritized reading, writing, and discourse and expanded K–2 literacy training beyond the six lowest performing schools. *Keys to Literacy* workshops offer training in reading comprehension and explicit vocabulary development strategies. At the August 2016 administrative team meeting, professional development focused on balanced literacy.

The review team observed 249 classes in 35 of the 44 district schools: 48 classes in grades 9–12, 31 classes in grades 7–8, and 170 classes in kindergarten through grade 6.[12] The team observed 108 ELA classes, 95 mathematics classes, 17 science classes, and 29 classes in other subject areas. Among the classes observed were three career/technical education classes. 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.

Strength Finding

1. **The district has initiated several promising practices to more consistently coordinate and support improvement efforts in curriculum and instruction.**

   A. Interviews and a document review indicated that a new districtwide position, the manager of curriculum and learning, supports teachers and school administrators in all aspects of teaching and learning by level and content and works closely with the three managers of instruction and school leadership to support school improvement.

      1. District administrators said that the manager of curriculum and learning is responsible for the oversight of districtwide curriculum development, the professional development program, and additional professional learning opportunities that support the implementation of district initiatives.

         a. The manager works closely and collaboratively with the managers of instruction and school leadership to ensure that efforts are targeted and coordinated.

         b. The manager of curriculum and learning also has responsibility to use resources (time, personnel, professional development, and funding) strategically to support district improvement efforts in curriculum and instruction.

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[12] The district has a variety of grade spans in its schools: Pre-K, Pre-K–6, 6–8, 7–8, 7–12, and 9–12. In this review, grade 6 was included with elementary schools and grades 7–8 were included with middle schools.

2. Administrators stated that the assignment of personnel to these leadership positions was strategic.

   a. The managers of instruction and school leadership are former school administrators who understand district systems as well as the responsibilities of school administrators and the needs of schools.

   b. Principals expressed appreciation for these positions and reported that these managers are providing them consistent and focused support aligned with school and district improvement goals.

3. The manager of curriculum and learning also supervises the academic liaisons (English, math, science, social studies, visual arts, health, elementary science coach, foreign language, performing arts, and guidance).

   a. Administrators reported that academic liaisons support schools and school-based instructional coaches and meet regularly with managers to coordinate school and district efforts.

   b. Academic liaisons also participate in Professional Learning Community meetings (PLCs) and Instructional Leadership Team (ILT) meetings, assist in the development of common grade-level assessments, tease apart standards with teachers for deeper understanding of teaching and learning expectations, facilitate school-based data analysis, and support teachers in the implementation of new instructional resources and/or expectations.

   c. Academic liaisons also provide specific classroom support such as lesson planning and modeling.

4. The manager of curriculum and learning assigns instructional coaches, including ELL coaches, as resources to each school to provide instructional support and to help teachers meet the needs of students.

B. The district has recently established and is implementing a comprehensive, inclusive, and systematic process for the ongoing review and revision of curricula and the use of research-based tools to support this work.

1. The manager of curriculum and learning is responsible for developing a three-year plan for curriculum development and the management of related professional learning opportunities to support this work. Other central office managers and academic liaisons provide input to the plan's development.

2. At the time of the onsite in January 2017, the three-year plan was being developed. Interviewees said that once the master three-year plan has been shared, academic liaisons will develop one or two-year plans for their content areas based on the tasks outlined for completion.

a. Academic liaisons are responsible for sequencing state standards and lead the follow-up work in schools by collaborating with teachers and department heads to tease apart the standards and translate them into units and lessons.

b. Liaisons are also responsible for developing preliminary budgets to support the curriculum work in their content areas.

c. Academic liaisons also maintain lines of communication with school administrators through monthly newsletters that share curriculum updates, reminders of task-due dates, and professional resources/links.

3. Teachers are encouraged to participate in all curriculum work. Academic liaisons form groups of teachers from various schools and levels to develop the "backbone" of the work. Once this work is completed, teachers are encouraged to upload assessments, activities, and resources to enhance these documents.

4. The district uses a research-based template, Understanding by Design (UbD), as the foundation for the development of all curriculum documents. These documents include big ideas, essential questions, standards addressed by unit, vocabulary, assessments, and resources.

a. Academic liaisons and teachers have received four full days of professional development on the use of this template for curriculum and unit design.

b. Teachers use Moodle[13] or Google docs to create curriculum unit maps and upload them to the district's website. At the time of the onsite, the district was negotiating with Atlas and planned to develop a plan for transferring all curriculum documents to the Rubicon Atlas online platform.

Impact: Well-defined roles and inclusive structures, processes, and tools to support curricular and instructional improvement help ensure that all students have access to a comprehensive curriculum and high-quality instruction. Additionally, teachers likely have a clearer sense of content and instructional expectations and the resources available to effectively deliver that curriculum.

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[13] Moodle stands for "Modular Object-Oriented Dynamic Learning Environment." It is an open-source course-management system.

Challenges and Areas for Growth

2. **The district's K–12 ELA, mathematics, and science curricula are not complete. At the time of the onsite visit, the district was focused on alignment to the 2011 Frameworks for English Language Arts and Literacy and Mathematics and the 2016 Science and Technology/Engineering Framework.**

    A. Interviews and a document review indicated that science curricula are the most complete. Administrators credited this work to the long-standing support of the K–6 science coach and the K–12 science/engineering liaison.

        1. The district has completed alignment of the science curriculum to the 2016 Science and Technology/ Engineering Framework for pre-kindergarten through grade 3 and for grade 6.

        2. When completed, curriculum documents for each grade and course will define grade/course curriculum expectations and include a scope and sequence, Year-at-a Glance (YaaG) documents, and detailed curriculum maps.

        3. Common science assessments for grades 4–8 and for biology, chemistry, and physics courses are complete. Work has not begun for Pre-K–3 assessments.

    B. A review of ELA documents showed alignment to the 2011 Framework for English Language Arts and Literacy but ELA curriculum is still a work in progress. Teachers and administrators said that a six-month vacancy in the ELA liaison position delayed progress on curriculum development and refinement in this content area.

        1. ELA documents reviewed include a unit curriculum map, scope and sequence, and YaaG for each grade and course. An additional document, English Language Arts Yearlong Power Standards, references standards from the 2011 ELA Framework to address throughout the year. Work on developing common assessments for pre-kindergarten through grade 12 is complete. The district is integrating ESE model curriculum units into its curriculum for two grades per year.

        2. Scope and sequence documents reviewed are complete for pre-kindergarten through grade 8 and high school (English I-IV). YaaG documents are complete for pre-kindergarten through grade 8. Curriculum unit maps are a work in progress for all grades and courses.

        3. Administrators stated that core instructional resources for elementary literacy instruction vary by school. Teachers do not have access to common resources to support implementation of the curriculum.

    C. Interviews and a document review indicated that the mathematics curriculum documents are the least developed of the three content areas reviewed. Teachers and administrators said that the math liaison's position was vacant for a full school year.

1. YaaG documents are complete for pre-kindergarten through grade 8. These documents include year-long focus skills and Framework standards addressed by unit and term/quarter.

2. Pre-K–6 curriculum unit maps and scope and sequence documents are a work in progress; documents for grades 7–12 are more fully developed.

3. Common assessments for grades 4–8 and high school courses assess students' ability in complex thinking, the use of multiple problem-solving strategies, and the application of mathematics to solve real-life problems. Common assessments for pre-kindergarten through grade 3 are being developed.

Impact: Without fully aligned curricula supported by common instructional resources all students do not have access to cohesive and rigorous learning. The absence of comprehensive curricula and embedded assessments means that all students do not have access to high-quality content.

3. **School leaders and teachers do not share a common understanding of what constitutes best instructional practice.**

    A. Although the district has developed and implemented the Framework of High Quality Teaching and Learning, which represents a broad range of instructional strategies, it has not defined instructional priorities at the district or school level.

        1. While educators at all levels referred to the Framework as the district's instructional model, principals and district managers reported that the Framework has not been consistently used for schoolwide or districtwide instructional improvement.

        2. Principals told the review team that schools identify their own "three best practices" for improvement, which they are not always tightly aligned with the Framework.

            a. Principals' examples of their schoolwide priorities included metacognition, gradual release of responsibility, looking at student work (LASW), giving effective feedback, guided reading, student thinking and reflection, self-regulated strategy development (SRSD), "accountable talk," explicit vocabulary instruction, and comprehension strategies.

        3. When teachers were asked how they use the Framework of High Quality Teaching and Learning, they reported that implementation is building based. They also stated that they knew what the expectations were but said that achieving them "was another story." Teachers noted that the Framework "is what you make of it."

    B. Practices and protocols for implementing and monitoring the Framework are inconsistent across the district.

        1. The superintendent stated that teaching and learning had not been consistently monitored, but are now a priority.

2. Administrators at all levels reported that while they observe classrooms as required, they focus on different elements of the Framework and measure teachers' performance in various ways.

3. Some teachers said that while they were generally expected to implement the strategies in the Framework and use the educator evaluation rubric, they did not always receive feedback following classroom visits or observations.

4. Teachers also stated that although the Framework has been articulated and discussed at the district level and in schools, implementation of strategies has not been consistent across levels.

5. Observed instruction indicated uneven implementation of many elements of the Framework of High Quality Teaching and Learning across schools and levels.

   a. For example, in less than half of observed classrooms (49 percent), the review team observed moderate and strong evidence (29 percent moderate; 20 percent strong) that the teacher appropriately differentiated instruction so the lesson content was accessible for all learners (characteristic #8).

   b. In about two thirds of observed classrooms (68 percent), observers noted moderate and strong evidence (41 percent moderate; 27 percent strong) that the teacher implemented a lesson that reflects high expectations aligned to the learning objective(s) (characteristic #3).

   c. In more than two thirds of observed classrooms (74 percent), the review team noted moderate and strong evidence (37 percent moderate; 37 percent strong) that the teacher facilitated tasks that encourage students to develop and engage in critical thinking (characteristic # 6).

   d. In about two thirds of observed classrooms (66 percent), observers saw moderate and strong evidence (39 percent moderate; 27 percent strong) of students assuming responsibility for their own learning (characteristic # 7).

Impact: The absence of a shared vision of instructional best practices has resulted in an absence of clarity among school leaders and teachers. Without a consistent message of expectations for teachers and focused administrative monitoring, the district cannot strategically plan targeted professional development for continuous growth to ensure that all students will achieve at high levels.

4. **In observed classrooms, the quality of instruction was inconsistent among schools of the same level[14] and across school levels. Lessons that reflected high expectations, promoted critical thinking, differentiated instruction, and used appropriate resources to meet students' diverse learning needs varied by level. There was a consistently lower incidence of characteristics of effective instruction at the high-school level.**

    To better support the district's instructional improvement efforts, this analysis of classroom instruction aligns characteristics from ESE's Instructional Inventory with the three essential elements of the district's Framework of High Quality Teaching and Learning (HQTL): Organization of the Classroom (Teachers), Instructional Design and Delivery (Teachers), and Student Ownership of Learning (Students).

    A. **HQTL Framework Essential Element: Organization of the Classroom – Teachers.** In most observed classrooms, teachers provided and referred to clear learning objectives in lessons. Instructional practices that reflected effective classroom organization including the posting, discussion, and revisiting of content objectives and a respectful classroom climate were evident in observations but the quality of practices varied by school level. The review team observed moderate and strong evidence of teachers providing and regularly referring to clear learning objectives in the lesson (characteristic # 2) in 80 percent of elementary- (48 percent moderate; 32 percent strong) and middle-school classes (19 percent moderate; 61 percent strong) and in 71 percent of high-school classes (44 percent moderate; 27 percent strong).

        1. Teachers who provided clear objectives shared them orally with students throughout the lesson and many prominently posted or projected learning objectives. In some classrooms where objectives were not referred to or posted, students were able to state what they were working on and why, and often referred to previous learning experiences that led up to the day's task.

        2. In some classrooms teachers did not refer to a learning objective during the observation. Others posted or provided students with a list of activities (agenda) that would be completed during class. In some classrooms, a handout was distributed at the beginning of the lesson and students were asked to "get to work."

        3. Throughout the review, team members observed classrooms characterized by respectful behavior, routines, tone, and discourse (characteristic # 10). Moderate and strong evidence of this characteristic was observed in 80 percent of elementary-school classes (29 percent moderate; 51 percent strong), in 94 percent of middle-school classes (29 percent moderate; 65 percent strong), and in 73 percent of high-school classes (40 percent moderate; 33 percent strong).

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[14] The district has the following grade spans in its schools: pre-kindergarten, pre-kindergarten through grade 6, grades 6–8, grades 7–8, grades 7–12, and grades 9–12. In this review, observers included grade 6 in the elementary-school level, grades 7–8 in the middle-school level, and grades 9–12 in the high-school level.

a. While the majority of classrooms showed evidence of well-established routines and environments conducive to learning, 20 percent of observed classrooms were characterized by disrespectful behavior between teachers and students. In these observed lessons, teachers used ineffective rituals, routines, or responses to prevent or stop behaviors interfering with student learning. Students were observed swearing at teachers and refusing to participate in class activities or to complete tasks. In these classrooms, teachers called out students in front of their peers or spoke in a disrespectful tone.

B. **HQTL Framework Essential Element: Instructional Design and Delivery – Teachers.** In most observed classrooms, teachers demonstrated knowledge of subject matter and content. However, the team saw inconsistent implementation across school levels of instructional practices that promoted student engagement, high expectations, rigor, and the use of varied instructional strategies and materials to meet the needs of all students. Lessons did not consistently reflect high expectations aligned with learning objectives or use frequent formative assessments to check for student understanding.

1. The review team observed moderate and strong evidence that teachers demonstrated knowledge of subject matter and content (characteristic # 1) in 80 percent of elementary-school lessons (44 percent moderate; 36 percent strong), in 94 percent of middle-school lessons (29 percent moderate; 65 percent strong), and in 64 percent of high-school classes (35 percent moderate; 29 percent strong).

2. Observers noted moderate and strong evidence of instruction that reflected high expectations aligned to learning objectives (characteristic # 3) in 67 percent of elementary-school lessons (43 percent moderate; 24 percent strong), in 84 percent of middle-school lessons (42 percent moderate; 42 percent strong), and in 58 percent of high-school lessons (33 percent moderate; 25 percent strong). Classrooms reflected a similar trend in the use of appropriate instructional strategies that promoted student access and engagement with content. The team found moderate and strong evidence of teachers using appropriate instructional strategies well matched to the learning objectives (characteristic # 4) in 75 percent of elementary-school classrooms (45 percent moderate; 30 percent strong), in 84 percent of middle-school classrooms (45 percent moderate; 39 percent strong), and in 57 percent of high-school classrooms (38 percent moderate; 19 percent strong).

a. One lesson reflecting rigor and high expectations challenged students to use available materials to create a quiz board with wired circuits on the back. A bulb would light up when a question was connected with its correct answer. Students worked in teams to design a prototype that would solve a story character's problem. In another classroom, students used globes, sticks, flashlights, and Styrofoam balls to model a lunar eclipse and were assigned roles in their small groups that maximized student engagement.

b. Conversely, lessons that were not reflective of rigor and high expectations often were characterized by whole-class, teacher-directed instruction that required limited student interaction, with lectures, low-level questioning, and teacher modeling followed by paper/pencil assignments.

3. In observed classrooms, the incidence of teachers facilitating tasks that were engaging, promoted student discourse about content and ideas, and provided opportunities for students to connect to prior knowledge and engage in authentic application of new knowledge varied greatly across school levels.

   a. There was moderate and strong evidence that students were motivated and engaged in the lesson (characteristic # 5) in 77 percent of elementary-school classes (41 percent moderate; 36 percent strong), in 90 percent of middle-school classes (32 percent moderate; 58 percent strong), and in 63 percent of high-school classes (38 percent moderate; 25 percent strong). Lessons in which students were motivated and actively engaged include focused, well-designed group work, lively content discussions, and project-based activities.

   b. Moderate and strong evidence of teachers facilitating tasks that encouraged students to develop and engage in critical thinking analysis and/or application of new knowledge throughout the lesson (characteristic #6) was noted in 64 percent of elementary (41 percent moderate; 23 percent strong), in 77 percent of middle-school (29 percent moderate; 48 percent strong), and in 52 percent of high- school lessons (27 percent moderate; 25 percent strong).

4. Moderate and strong evidence of lessons structured with multiple entry points that account for differences in learning needs, interests, and levels of readiness (characteristic #8) was evident in 51 percent of observed elementary-school lessons (33 percent moderate; 18 percent strong), in 58 percent of middle-school lessons (26 percent moderate; 32 percent strong), and in just 34 percent of high-school lessons (15 percent moderate; 19 percent strong).

   a. Teachers and administrators reported that large class sizes---which are also a concern of parents---have limited teachers' abilities to effectively differentiate instruction and said that further work is needed to support teachers in this effort.

   b. Teachers reported that even though they understand the research behind differentiated approaches, professional development on the topic had been sporadic and application of these strategies in their classrooms has not been consistent.

   c. For example, when asked if they had a common districtwide understanding of what effective instruction looks like, a teacher noted, "Everyone knows what we are supposed to do. Getting there is another story."

d. Some administrators told the review team that "teachers don't have a clear understanding of what Tier I strategies look like."

5. Moderate and strong evidence of teachers using appropriate resources aligned to students' diverse learning needs (characteristic # 9) was found in 58 percent of elementary-school classes 39 percent moderate; 19 percent strong, in 74 percent of middle-school classes (35 percent moderate; 39 percent strong), and in only 46 percent of high-school classes 29 percent moderate; 17 percent strong).

6. Additionally, in observed classrooms teachers conducted formative assessments to check for understanding and provided feedback to students (characteristic # 11) in 70 percent of elementary-school classes (44 percent moderate; 26 percent strong), in 87 percent of middle-school classes (35 percent moderate; 52 percent strong), and in 55 percent of high-school classes 38 percent moderate; 17 percent strong).

C. **HQTL Framework Essential Element: Student Ownership of Learning – Students.** Classrooms where students were primarily responsible for their own learning through teacher-facilitated, student-led explorations and the learning of content individually, in pairs, or in groups throughout the lesson varied significantly by school level. In a high percentage of observed high-school classrooms, the instruction was teacher directed and students were not responsible for doing the thinking in the classroom.

1. Strong and moderate evidence that students assumed responsibility for their own learning whether individually, in pairs, or in groups (characteristic # 7) was noted in 65 percent of elementary-school classes (42 percent moderate; 23 percent strong), in 96 percent of middle-school classes (48 percent moderate; 48 percent strong), and in just 46 percent of high-school classes (21 percent moderate; 25 percent strong).

   a. Examples of students assuming responsibility for doing the thinking in the classroom include student-led discussions about loaded language/bias in newspaper headlines; students independently creating rotations, reflections, and translations of figures in a math class; pairs of student researching extreme natural disasters and developing class presentations after an in-depth study of non-fiction authors; and students defending their thinking through discourse and in writing.

   b. Classrooms in which students were not responsible for doing the thinking were generally characterized by whole-class, teacher-directed lessons where students depended upon direction for each step of their learning, teachers provided limited modeling of a skill or concept and distributed a paper-pencil task, and teachers asked questions that limited student responses to one word or phrase.

Impact: Without consistent implementation of the district's Framework for High Quality Teaching and Learning at all levels, the district cannot ensure that teachers consistently and effectively deliver

research-based instruction that meets the diverse learning needs of all students, optimizes learning opportunities, and adequately prepares students for college and careers.

Recommendations

1. **The district should complete as soon as possible its pre-K–12 English language arts, mathematics, and science curriculum maps and supporting documents.**

   A. The district has developed common curriculum templates (consensus maps) used in pre-kindergarten through grade 12 that include Understanding by Design elements. These maps should be expanded to include assessments, instructional resources, and strategies that meet all learners' needs, to ensure that teachers at all levels have access to a complete and comprehensive curriculum guide.

      1. The district should communicate to teachers the plan for completing the curriculum.

   B. The district should provide time to complete this work.

      1. The district should consider ways to provide sufficient, regular common planning time across the district to support curriculum development, revision, and review.

Note: At the time of the onsite, ESE was reviewing standards and was preparing to release new ELA/English and mathematics standards.[15]

Benefits: Implementing this recommendation will mean updated, comprehensive, and clearly articulated alignment of pre-K–12 curriculum, instruction, and assessment practices. As a result, all students will have equal access to a high-quality education that promotes higher levels of achievement and enables them to be college and career ready.

Recommended resources:

- The *Model Curriculum Unit and Lesson Plan Template* (http://www.doe.mass.edu/candi/model/MCUtemplate.pdf) includes Understanding by Design elements. It could be useful for districts' and schools' curriculum development and revision.

- ESE's *Quality Review Rubrics* (http://www.doe.mass.edu/candi/model/rubrics/) can support the analysis and improvement of curriculum units.

- *Summary of Grade-by-Grade Detailed Revisions in ELA/Literacy* (http://www.doe.mass.edu/boe/docs/FY2017/2017-03/item3-ELA-Revisions.docx) and *Summary of Grade-by-Grade Detailed Revisions in Mathematics*

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[15] On March 28, 2017, the Board of Elementary and Secondary Education voted unanimously to adopt revised learning standards in math and in English language arts and literacy.

(http://www.doe.mass.edu/boe/docs/FY2017/2017-03/item3-Math-Revisions.docx) show which 2011 standards were changed or moved in the 2017 Curriculum Frameworks.

2. **It is recommended that the district further articulate the Framework of High Quality Teaching and Learning, prioritize key instructional practices, communicate these key instructional strategies to the full educational community, and support teachers in their implementation.**

   A. The district should convene a representative group of teachers and administrators to identify key instructional practices in the Framework of High Quality Teaching and Learning.

      1. The district's educator evaluation rubric can support this work.

      2. The district should prioritize these foundational strategies as its "non-negotiables."

         a. The recommended product of these meetings is a set of key strategies that promote critical thinking, promote high levels of student engagement, differentiate instruction, and use appropriate resources to meet students' diverse learning needs.

      3. These might be drawn from the best practices that the district has focused on in the past.

      4. The group should include high-school teachers to ensure that the district's "non-negotiables" meet the need for instructional improvement at the secondary level.

   B. Once key instructional practices have been identified, district administrators should develop a plan for communicating instructional expectations with staff.

      1. Using grade level, department meetings, faculty meetings, common planning time and/or professional development days, the district is encouraged to discuss ideas and strategies from the Framework.

         a. Equitable opportunities should be provided by level for teachers to share best practices reflective of the Framework.

         b. Teachers and administrators might consider watching videos of effective teaching and discussing instructional strategies as a way to calibrate expectations.

   C. The administrative team is 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 teachers.

   D. Teachers should be provided with appropriate guidance and feedback as they implement the Framework.

      1. Professional development should focus on key instructional practices of the Framework.

      2. Principals, as instructional leaders, should ensure that teachers have the information and support necessary to meet the district's expectations for instruction.

3. Teachers should receive frequent, helpful feedback as they provide more student-centered, engaging learning experiences (see the Human Resources and Professional Development recommendation below).

Benefits: Implementing this recommendation will mean clear and articulated expectations for teachers and administrators for what constitutes best practices. A district that provides high-quality instruction for all students and ongoing professional supports for teachers and administrators creates and sustains a culture of continuous improvement, resulting in professional growth and increased student achievement.

Recommended resources:

- *An Effective Standards-Based K-12 Science and Technology/Engineering Classroom* (http://www.doe.mass.edu/STEM/Standards-BasedClassroom.pdf) and *Characteristics of a Standards-Based Mathematics Classroom* (http://www.doe.mass.edu/STEM/news07/mathclass_char.pdf) are references for instructional planning and observation, intended to support activities that advance standards-based educational practice, including formal study, dialogue and discussion, classroom observations, and other professional development activities.

- ESE's *Calibration Video Library* (http://www.doe.mass.edu/edeval/resources/calibration/) is a collection of professionally created videos of classroom instruction produced by the School Improvement Network. These videos depict a range of practice (this is NOT a collection of exemplars) to support within-district calibration activities that promote a shared understanding of instructional quality and rigor.

- ESE's *Online Calibration Training Tool* (http://www.doe.mass.edu/edeval/resources/calibration/tool/) uses videos of classroom instruction from ESE's Calibration Video Library to simulate brief, unannounced observations. Groups of educators, such as a district leadership team, watch a video together and then individually assess the educator's practice related to specific elements from the Model Classroom Teacher Rubric and provide the educator with written feedback. Through real-time data displays, the group members can then see how their conclusions compare to each other, as well educators throughout the state.

Assessment

Contextual Background

The district's office of research and accountability is responsible for overseeing and monitoring assessments and the use of assessment and other data. In addition, the office collects and analyzes most achievement data and disseminates user-friendly, timely data reports to the schools. The chief research and accountability officer provides leadership to a staff that includes a testing and evaluation specialist, a data analyst, a data assistant, and clerical support. The office works closely with leaders in the office of curriculum and learning to ensure that assessments and the use of assessment data are fully integrated into school improvement planning and improving teaching and learning.

The analysis and use of student achievement data and other student information is highly developed at the district level where the school committee and district leaders use data to prepare the budget and set and monitor district improvement priorities and goals. District leaders, managers, specialists, academic liaisons, and coaches are well informed about the data trends in the schools in which they work to support teaching and learning.

It is at the school level, however, where the system and its practices show fragility. Principals told the team that most principals are reasonably well versed in the analysis and use of data. And the ability of teachers and teacher-leaders to use data well for improvement differs across schools. While there are exemplary practices at some schools, some teachers said that they did not understand how to interpret data, data meetings were not well facilitated, and they had received little training about how to use data. Finally, in observed lessons formative assessments were the least common assessment format.

Strength Findings

1. **The Worcester Public Schools has developed and implemented a strategic assessment system to invest each school with the responsibility and authority to plan its own assessment program with guidance and expectations set by the district.**

   A. The office of research and accountability has district responsibility for oversight and monitoring of assessments and assessment data. It publishes an assessment handbook and sends a monthly assessment newsletter to all teachers and administrators. Both documents help stakeholders better understand the assessment system and its protocols and help support decision-making for assessment options and data use.

   B. Interviews with district leaders, principals, and teachers and a document review indicated that one district-required standardized assessment is given to each grade level at all schools in addition to MCAS and ACCESS testing. Each school may choose additional assessments that respond best to their needs.

1. The district requires each school to submit a yearly assessment plan by grade level to the office of research and accountability. The plan identifies the required and supplemental assessments that will be administered and how various assessments and data will be used to improve student achievement, support struggling students, and identify professional development needs. Plans can be revised during the year if additional assessments are needed.

2. Principals said that the plan is submitted after they have met with their school's Instructional Leadership Team (ILT) and discussed their analysis of achievement data and the School Accountability Plan.

C. Administrators stated that the schools develop the assessment plans from a "tool box" of required and optional assessments.

1. In pre-kindergarten and kindergarten, all entering students take the Early Screening Inventory (ESI) to identify children who may need special services. There are clear protocols for observing students' skills and progress before rescreening and possible referral.

2. District leaders and elementary teachers told the review team that in kindergarten through grade 1, schools have the option to administer DIBELS Next (Dynamic Indicators of Early Literacy Success) three times a year to assess early literacy skills. DIBELS Next is used as both a formative and benchmark assessment to group students and to measure and monitor progress.

    a. DIBELS Next became optional in 2016–2017 to accommodate schools using the Fundations literacy program, which includes formative assessments and progress monitoring in every lesson.

    b. If DIBELS Next is not used, the school's assessment plan must identify which measure(s) will be used to obtain and use early literacy data.

3. Interviews and a document review indicated that the district requires the use of the Fountas and Pinnell Benchmark Assessment System (BAS) in grades 1 and 2 three times a year. In kindergarten and grades 3–8, schools can use BAS as a supplemental assessment and the school can determine how often it is administered.[16]

    a. BAS provides data that measures decoding, fluency, vocabulary, and comprehension skills and is used as a formative and a benchmark assessment.

4. Measures of Academic Progress (MAP) tests in ELA and mathematics are required for grades 3–9 and are optional in grades 2 and 10. MAP tests are used formatively to guide decisions about instruction and curriculum.

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[16] BAS is not often used in middle schools, but may be used to monitor progress with struggling students.

5. At the high school, in addition to common subject-specific assessments, midterms and final exams, all grade 9–11 students must take the PSAT to demonstrate readiness for AP and other advanced course work and all grade 11 students must also take the SAT.

   a. The district pays all student fees for both the PSAT and the SAT and students take both tests during a school day, since many students have work/family obligations on Saturday.

   b. PSAT results are used to help students select appropriate course levels and to encourage them to take AP or other higher-level courses.

6. Interviews and a document review indicated that more and more students in grades 9–12 are choosing to take Advanced Placement (AP) courses and exams.

   a. The district emphasizes college and career readiness and encourages able students to enroll in challenging courses such as AP courses.

   b. According to ESE data, there has been a 56 percent increase in the number of high school students taking AP courses over the past five years and a 57 percent increase in the number of tests taken over the last five years.[17]

   c. In addition, there has been a proportional increase in the number of AP class sections offered and the number of teachers trained to teach AP.

7. All grade 11 and 12 students are required to take Accuplacer tests to identify academic skills in reading, writing, and mathematics to assess students' readiness for introductory college-level work.

   a. To be eligible for dual enrollment in local higher-education institutions, students in grade 10 may be asked to complete Accuplacer tests.

Impact: By requiring each school to design and describe its assessment program, the district has empowered the schools to be more strategic, thoughtful, and invested in the assessments that it administers to monitor student progress, measure student achievement, and inform school-based, grade-level, and classroom decisions about teaching and learning. When schools design their own assessment programs, it is likely that the data is used to improve teaching, learning, and the curriculum.

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[17] According to ESE data, the number of students taking AP tests has increased from 870 in 2011 to 1,361 in 2016; the total number of AP tests taken has increased from 1,427 in 2011 to 2,242 in 2016.

2. **District leaders analyze and use data to set improvement priorities and drive decision-making for budgeting and resource allocation. District leaders, managers, and other specialists are well informed of the data trends in the schools in which they work to support teaching and learning.**

   A. Interviews and a document review showed that the district established a culture of data-driven decision-making almost two decades ago.

      1. The office of research and accountability manages the collection and dissemination of data and data reports.

      2. The office manages SAGE (Student Attendance Grading Enrollment), the district's "home-grown" data management system, and when asked, produces accurate, user-friendly, high-quality data reports for the schools. Elementary data reports include results from DIBELS, MAP assessments, and Fountas and Pinnell BAS literacy assessments.

   B. District leaders analyze multiple sources of data and the district disseminates reports throughout the district to better understand student progress, achievement, and demographics.

      1. The district's Redesign Plan is based on an analysis of schools' differentiated improvement needs and grounded in a close analysis of student performance and other relevant data.

         a. The Redesign Plan presents and analyzes multiple sources of data disaggregated by student sub-groups, such as demographics, achievement data, perceptual data, and observations.

         b. The district has used data analyses to identify root causes, prioritize issues, and determine redesign priorities and intervention and support strategies.

      2. Using achievement data and other data points such as ESE's accountability levels, the district has placed schools into red, yellow, and green cohorts to help define how to focus on schools in critical need (red) and those with less intense need (green).

      3. District leaders identified a cohort of six schools in critical need as the highest priority. District leaders are now working with principals and teachers in an intensive professional learning program with Research for Better Teaching (RBT) to improve instruction.

   C. Interviews with district and school leaders and a document review indicated the expectations for how data should be used for improvement at the school levels.

      1. For example, Instructional Leadership Teams (ILTs) are responsible for developing their school accountability plans using a district-designed template and a needs assessment based on data. The plans should identify student results indicators to demonstrate how well the schools have met their improvement goals.

      2. Under the recent reorganization of the central office, managers are more focused and more aware of school-based data and have a more visible and active presence in the schools. This

has given them a greater understanding of school improvement needs and has helped them support principals to "dig down deep" into data.

3. The district requires each school to identify the assessments it will use and how assessment data will be used for improvement. Examples offered in assessment plans include: to individualize instruction, to monitor student progress, to identify student and teacher strengths and challenges, to provide student support and remediation, to group students for instruction, and to help plan instruction and professional development.

4. The monthly assessment newsletter sent to all leaders and teachers by the office of research and accountability provides teachers with useful information about how to use assessment data. For example, recent editions listed five ways to use DIBELS data and five ways to use MAP data.

Impact: When a district models and uses data in meaningful ways, it sets expectations for how data analysis can help define and monitor improvement goals and priorities as well as the allocation of resources. With effective data analysis, the district can also identify professional development needs for both teachers and leaders. By using data well at the district level, leaders also can exemplify a data literate culture that uses data to drive all decision-making to improve programs, teacher performance, and student achievement.

Challenges and Areas for Growth

3. At the school level, there are inconsistencies in how well data is understood, analyzed, and used to improve teaching and learning.

A.   Interviewees expressed contrasting views about how well the Instructional Leadership Teams (ILTs) used and leveraged data at their schools.

1. District leaders agreed that ILT members had responsibility to work collaboratively to review schoolwide data to understand strengths and challenges in order to develop the vision and mission of the school as well as the School Accountability Plan (SAP).

    a. Focus group attendees reported that in some schools ILT meetings were open to all and ILT members used and shared data by subject and grade level with teachers to identify school-based professional development and discuss strategies to help struggling students. In some schools, the ILT was the key in developing the School Accountability Plan.

    b. Teachers said that in other schools ILTs were more insular, were not transparent, and did not share meeting minutes. Teachers expressed the view that they were left out of the improvement process.

B. Teachers stated divergent views about how they use assessments and assessment data to inform decision-making.

1. For example, some teachers said that they used data to define flexible groups, to identify students in need of intervention, and to check students' progress. Teachers acknowledged that time was set aside to discuss student data and "drill down" to better understand student and class achievement. Others described coaches as helpful in putting data together for teachers' review.

2. Other teachers expressed the belief that there was, "more data than teachers knew what to do with," and "more testing than teaching" took place.

   a. Some teachers expressed concern that they had to administer weekly tests even though some children were not ready for them and noted that test results were not used to drive or differentiate instruction.

   b. Some teachers stated that they did not understand how to interpret MCAS data on their own, data meetings were not well facilitated, and teachers had not received sufficient training about how to use data. Some teachers expressed the belief that data analysis led to "blaming teachers." Others reflected on how teachers were "data'd-out" and wondered, "At what point does it [i.e., all the data and assessments] become overbearing?"

C. District leaders are aware of issues impeding the consistent and effective use of assessments and assessment data.

1. In the district's self-assessment submitted before the onsite, the district rated staff training and support as "Somewhat well" described by the indicator "The district offers ongoing, effective staff training and support to use student achievement data to improve performance." (Possible responses were Not at all well, Somewhat well, Well, and Very Well.)

   a. The district's professional learning plan for 2016–2017 does not list any professional learning activities for teachers or leaders to learn to analyze or use data well.

2. The superintendent told review team members that more professional development (PD) was needed for teachers to learn how to use daily formative assessments and that only some schools operated with an effective assessment program and used data rooms well to share and analyze data.

3. The superintendent also stated that there was inconsistent data in the district and an inconsistent ability at the school levels to analyze data, adding that it was unclear whether all the schools were using data. She also noted that PD on data analysis was needed in the district.

Impact: Without the support systems and resources needed for improved analysis, understanding, and use of student achievement and other data sources---such as sufficient common planning time, highly functioning Instructional Leadership Teams, and educators trained to analyze and use data well---the district cannot implement and sustain its improvement plans and efforts to ensure that all children learn at high levels.

Recommendation

1. **District and school leaders should develop uniform policies, structures, and practices at all schools to facilitate the analysis and use of student performance data and other data sources.**

    A. The superintendent, principals, and Instructional Leadership Teams should develop specific strategies, timelines, and clear expectations for the use of data districtwide.

        1. Building on the practices in place in some schools, the district and school leaders should establish systematic, consistent processes for the analysis and use of assessment data.

        2. The district should ensure that educators at all levels use data strategically to inform instruction, ongoing curriculum revision, program evaluation, and the educator evaluation system.

    B. Ongoing, targeted training in the analysis and use of student performance data should be provided for staff in each school, grade level, and subject area.

        1. Data use should include ongoing analysis of the performance of student subgroups.

    C. District and school leaders should review how grade-level and course-level meetings are used; they could provide opportunities for more frequent data analysis to improve educators' practice and student achievement.

Benefits: Implementing this recommendation will help teachers and school leaders to understand, and provide professional development for, the analysis and use of student performance data to the improve instructional skills and raise student achievement. The ultimate beneficiaries will be Worcester's students, who will be better prepared for school, work, and careers.

Recommended resources:

- ESE's *Assessment Literacy Self-Assessment and Gap Analysis Tool* (http://www.doe.mass.edu/edeval/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.mass.gov/edu/government/departments-and-boards/ese/programs/accountability/tools-and-resources/district-analysis-review-and-assistance/leadership-and-governance.html) 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.

Human Resources and Professional Development

Contextual Background

The district's Redesign Plan has as its three-year vision a school district in which the schools support students and families and district services support the schools. The goal of the Plan is to have systems in place to ensure the continuous improvement of educational delivery so that every student and staff member enjoys the advantages of an exciting environment of inquiry and learning.

A cornerstone of the Plan is to increase ability of educators, through a deep-rooted continuous improvement cycle, to sustain the district's work. To this end, two previously separate district departments---curriculum and instruction and professional development---have been consolidated, and under the leadership of the manager of this newly created office of curriculum and learning, the district's professional development (PD) programs, services, and structures are being expanded and improved. The redesign and revitalization of the district's PD system has already resulted in improvements in organization, coordination, and communication and the introduction of a number of promising practices.

Another related, key priority of the district's Redesign Plan is the implementation of an "educator evaluation system that connects professional practice with student outcomes." Although Worcester was an early adopter of the Massachusetts Educator Evaluation Framework and has endeavored to meet the requirements of the Educator Evaluation Framework, the implementation of its educator evaluation system has been inconsistent and of uneven quality. The district has not taken action on the more recent components of the Educator Evaluation Framework.

Strength Finding

1. **The newly created office of curriculum and learning has begun to develop professional development programming and structures that are more focused, collaborative, and timely than in the past.**

    A. Interviews and a document review indicated that professional development (PD) in the district is aligned with and informed by the core components of the Massachusetts Standards for Professional Development. According to these standards, PD should be a systematic and purposeful process that requires effective and collaborative leadership.

        1. Interviewees said that the district created a PD council in 2016–2017 to work in an advisory capacity with the manager of curriculum and learning to design, plan, and coordinate PD programming for the district. They reported that this leadership group has been working to improve communication and coordination among key stakeholders to enhance the quality and overall effectiveness of PD programs, services, and support structures.

2. The PD council is a committee composed of 18 members, including: three principals (representing elementary, middle, and high schools); liaisons in math, science, and visual arts; instructional coaches; the mentor coordinator; and two teacher representatives.

3. Interviewees stated that there have been increased efforts to better organize and coordinate PD programming so that it is more directly aligned with district priorities and needs, as well as individual school improvement goals and objectives. They said that balanced literacy has been identified as the district's primary focus area in 2016–2017 and that PD programming at both the district and school levels is being designed accordingly.

B. According to the Massachusetts Standards for Professional Development, PD design should be based on the collection and analysis of data relevant to identified goals and needs and should be assessed to ensure that it is meeting its stated objectives. The district is making increasingly effective use of data to improve its PD programming.

1. District and school administrators said that PD planning and prioritizing is informed by student performance data. Sources of academic data include state assessments such as PARCC and MCAS, ELL assessments, Advanced Placement scores, a variety of standardized tests in math and ELA K–6, and the results of district-generated grade level and content area common assessments.

2. PD council members told reviewers that more systematic efforts are also being made to compile data from staff in order to better plan and evaluate PD programs. These include annual surveys of principals and teachers to inform decisions about PD goals, needs, and learning objectives. Online feedback surveys are used to monitor and evaluate the quality and effectiveness of current programs and to plan PD offerings. Teachers are required to complete these evaluation forms in order to receive their PDPs.

C. The Massachusetts Standards for Professional Development standards also hold that PD should have clear goals and objectives that are systematically aligned with and supportive of educators' goals. This has been a primary focus of the new office of curriculum and learning.

1. Interviewees described the district's PD programming as being designed to advance and properly balance district goals and priorities with those unique to the needs of individual schools. They stated that in addition to the comprehensive offerings provided by the district, each school is required to develop eight hours of PD for its staff, which focuses on target areas described in its school accountability plan.

2. Administrators said that although the district's PD programming is directly aligned with district priorities, it is appropriately differentiated in order to better meet the diverse needs, professional goals, and skill and experience levels of the staff.

3. Interviews and a review of district documents indicated that a broad range of PD opportunities are available for teachers throughout the year. A variety of research-based

workshops, collaborative groupings, and trainings are provided to support teachers and specialists at all career stages. These include what was described as a comprehensive and high-quality new teacher induction and mentoring program.

Impact: Providing focused opportunities and supports for educators to work together on well-defined strategic needs and goals can help them to improve their practice and promotes a culture of continuous professional growth and shared responsibility among all staff to advance student learning.

Challenges and Areas for Growth

1. **The district has not achieved consistency in the implementation of its educator evaluation system.**

   A. The district has endeavored to meet the requirements and support the full implementation of the state's Educator Evaluation Framework, but overall its implementation practices and procedures vary widely in consistency and quality, as do the formal evaluations of both teachers and administrators.

      1. The team reviewed the formative assessments/evaluations and summative evaluations of 46 teachers selected randomly from across the district. In general, these evaluations were not instructive[18] and seldom provided teachers with feedback for improved classroom practice that was specific, measurable, or actionable. Nor did they generally contain clear and specific recommendations with the ability to significantly improve instruction or contribute meaningfully to professional growth.

      2. Team members conducted a similar review of the formative assessments/evaluations and summative evaluations of all the district's principals. In approximately 50 percent of cases, no formative assessments/evaluations or summative evaluations had been written for principals during the past two school years.

      3. When evaluations were written they were similar to those of teachers in that they were not instructive and contained little feedback that was specific, measurable, or evidence based, or concrete recommendations that were clear, actionable, or capable of contributing in a direct and meaningful way to the principal's professional growth or enhanced leadership capacity.

   B. The overall quality and consistency of supervisory and evaluative policies, practices, and procedures varies widely among and within schools across the district. This has contributed to a range of inequities, staff concerns, and contractual disputes.

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[18] An informative evaluation is factual and cites instructional details such as methodology, pedagogy, Standards and Indicators of Effective Teaching Practice or instruction of subject-based knowledge that is aligned with the state curriculum frameworks. It does not commit to improvement strategies. An instructive evaluation includes comments intended to improve instruction.

1. Interviewees said that, subsequent to the district's adoption of the state Educator Evaluation Framework, the district did not establish a process or structure to monitor the implementation of its educator evaluation system to ensure equity and consistency of practices and procedures. Teachers and teacher association leaders said that the absence of an appropriate and designated forum has left the grievance procedure as a primary vehicle to address and resolve evaluation-based inequities and concerns.

2. Teachers reported that in some schools and departments evaluations have not been written and there has been little supervision of classroom practice and a corresponding absence of regular, timely, and constructive pedagogical feedback. They indicated that the quality of evaluative processes varies widely from school to school and largely "depends on the person [the evaluator]."

3. Teachers and administrators acknowledged significant differences in the amount of evidence that teachers were required to submit in support of their educator plans. Teachers reported that in some schools they were asked to provide three to five pieces of evidence per standard, a total of approximately 20, while in other schools they were required to submit three to five pieces of evidence per standard and indicator, for a total of almost 70 artifacts.[19]

4. Teacher leaders reported instances in which evaluative documents and practices, including the use of improvement plans and directed growth plans, were employed very differently from school to school and in a manner that they believed was contrary to the procedures articulated in the present collective bargaining agreement. Teachers' association officials indicated that educator evaluation concerns would be a focus of collective bargaining agreement negotiations.

5. Teachers and teachers' association leaders expressed the opinion that many of the challenges in the implementation of the educator evaluation system were at least in part the result of an absence of adequate training provided by the district to administrators and teachers.

6. In the district's self assessment submitted in advance of the onsite, the district rated evaluation "Somewhat well" described by the indicator, "Evaluations are conducted by trained administrators who calibrate their work for fairness and consistency." (Possible responses were Not at all well, Somewhat well, Well, and Very well.)

Impact: The state designed the Educator Evaluation Framework to provide teachers and teacher leaders with the type of evidence-based, growth-oriented feedback and continuous support needed to

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[19] The educator evaluation regulations define Standards and Indicators for Effective Teaching Practice and for Administrative Leadership Practice (603 CMR 35.03 and 603 CMR 35.04).

significantly enhance pedagogical skills and expand professional competencies. Without consistent supervisory practices, evaluative procedures, and documentation, the district cannot create an effective and lasting mechanism by which to provide enriched learning opportunities, experiences, and increased academic outcomes for all students.

2. **The more recent components of the state Educator Evaluation Framework require districts to collect multiple measures of evidence in the evaluation of teachers and administrators. The district has not taken action on these more recent components of the state Framework.**

   A. As of the 2015–2016 school year, state regulations called for all districts to collect and include student feedback as a source of evidence in determining an educator's summative performance rating.[20] Similarly, the district should collect and use staff feedback to inform administrator's evaluations. Feedback may also be used to inform an educator's self-assessment, goal setting, and as evidence to demonstrate changes in practice over time. The district is currently out of compliance with this state requirement.

      1. Teachers and administrators acknowledged that the district has not taken action to implement this component of the state Educator Evaluation Framework and indicated they were unaware of any such initiative currently under consideration.

   B. The other recent component of the state Educator Evaluation Framework requires school districts to develop and use multiple measures of student learning, including common assessments and other statewide student growth measures, to assess student growth and achievement. These assessments are intended to provide reliable feedback about student learning and educator efficacy across all grade levels and content areas. They are also to serve as a component of an educator's summative performance rating. The district is currently out of compliance with this requirement, as well.

      1. Although the district has and is continuing to develop a battery of common student assessments, interviewees stated that they were unaware of any plan to include evidence of student learning as a component of educators' evaluations.

Impact: By missing the opportunity to implement the components of the Massachusetts Educator Evaluation Framework that require the collection and use of multiple measures of student learning to be used in the evaluation of teachers and administrators, the district is challenged to provide educators with a comprehensive, clear, and accurate description of their overall effectiveness and to help them identify areas of strength and opportunities for improvement in their practice.

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[20] On Tuesday, February 28, 2017**,** after collecting public comment since November 2016, the Board of Elementary and Secondary Education voted 9-1 to amend the educator evaluation regulations. The most significant change in the regulations is the elimination of a separate student impact rating. Under the amended regulations, evaluators do not have to make a separate judgment about an educator's impact on student learning. Instead, student learning is embedded as an indicator within one of the Massachusetts Educator Evaluation Framework's four standards.

3. **Teachers said that the quality and extent of faculty collaboration about professional development varied greatly across schools. District and school leaders agreed that the time available to support professional development was insufficient.**

   A. Although a primary purpose of the professional development (PD) council is to improve communication and collaboration among district stakeholders, interviewees indicated that the council has met only once in the 2016–2017 school year and that there are only 2 teachers among its 18 members, 1 from an elementary school and 1 from a middle school.

   B. Some teachers reported that some principals employ systematic and inclusive practices to solicit teacher input and involvement in developing, delivering, and evaluating PD programming, while others do not.

   C. District and school leaders stated that the time currently available to support PD programming needs was inadequate.

      1. They reported that, with the exception of two days prior to the opening of school and one day in October, full-day, early-release, and delayed-opening staff-development opportunities were not built into the district calendar. They said that, consequently, most PD programming has to be provided during the school day throughout the school year.

         a. This results in teachers being pulled out of their classes and principals having to arrange for substitute coverage. More importantly, it precludes districtwide horizontal or vertical grade-level and/or content-area teacher collaborations.

Impact: Without meaningful, systematic opportunities for educators to engage in planning PD and participating in ongoing learning experiences that support students' needs, the district cannot adequately develop a comprehensive set of learning experiences that is systematic, purposeful, and structured, over a sustained period of time, with the goal of improving teacher practice and student outcomes.

Recommendations

1. **The district should fully and effectively implement all components of the state Educator Evaluation Framework. Prioritized attention should be given to improving the overall quality and consistency of teachers' and administrators' evaluations and to developing systems for the collection and appropriate use of multiple sources of evidence to inform educators' evaluations.**

   A. The district should consider the formation of a joint committee, composed equally of administrators and teacher representatives, which would meet regularly and serve as a formal mechanism to monitor the overall implementation of the educator evaluation system, to identify problems proactively, and to collaboratively develop appropriate and timely solutions. In particular, the joint committee should focus on opportunities to maximize the efficiency of

the educator evaluation system by scrutinizing the amount of evidence the district is requiring of teachers in support of their educator plans.

B. The district should review current supervisory policies, practices, and expectations to improve the quantity and quality of evaluative feedback.

1. Additional and ongoing training, coaching, and support should be provided to enhance the supervisory practices and the evaluative skills of all administrators and evaluators. Attention should also focus on calibration to improve consistency among all evaluators in the observation, analysis, and written descriptions of classroom instruction and professional practice.

2. Evaluators should serves as instructional coaches/mentors to educators, to provide regular feedback that is continuous, frequent, and focused on specific professional practice and skills.

3. The district should support and monitor the skills and practices of all evaluators to ensure that they are providing all staff with high-quality instructional feedback that is timely, informative, instructive, and conducive to professional growth and overall effectiveness.

4. All administrators should receive ongoing training to observe and to analyze instruction and provide feedback focused directly on practice, growth, and student achievement.

C. In order to implement the requirements of the state educator evaluation regulations, the district is urged to take prompt action toward the development and appropriate use of multiple measures of student learning, growth, and achievement.

Benefits: By fully and effectively implementing all components of the state's Educator Evaluation Framework, the district will likely improve pedagogical practice and expand professional competencies. Through the use of multiple measures of student learning, the district will likely place student learning at the center of all district improvement efforts.

Recommended resources:

- Educator Evaluation Implementation Surveys for Teachers: (www.doe.mass.edu/edeval/resources/implementation/TeachersSurvey.pdf) and Administrators (www.doe.mass.edu/edeval/resources/implementation/AdministratorsSurvey.pdf) are designed to provide schools and districts with feedback 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.

- ESE's *"What to Look For" Observation Guides* (http://www.doe.mass.edu/candi/observation/) describe what observers should expect to see in a classroom at a particular grade level in a specific subject area. This includes the knowledge and skills students should be learning and using (as reflected in state learning standards) and best practices related to classroom curriculum, instruction,

and assessment for each subject area. The guides are not designed to replace any evaluation system or tools districts currently use, but are a resource to help classroom observers efficiently identify what teachers and students should be experiencing in specific subjects and grade levels.

- ESE's *Online Calibration Training Tool* (http://www.doe.mass.edu/edeval/resources/calibration/tool/) uses videos of classroom instruction from ESE's Calibration Video Library to simulate brief, unannounced observations. Groups of educators, such as a district leadership team, watch a video together and then individually assess the educator's practice related to specific elements from the Model Classroom Teacher Rubric and provide the educator with written feedback. Through real-time data displays, the group members can then see how their conclusions compare to each other, as well educators throughout the state.

2. **The district should continue to move forward with its efforts to develop a high-quality professional development program, focusing particular attention on providing sufficient time for professional development programs and enhancing teachers' involvement in professional development programming.**

   A. The district should consider modifying the role and composition of the Professional Development (PD) council so that it meets regularly, includes more teachers, and uses systematic and inclusive practices to solicit teachers' input and involvement in developing, delivering, and evaluating PD.

   B. The district should identify schools in which principals effectively engage teachers in planning, delivering, and participating in PD, and provide opportunities for principals from other schools to learn about these practices.

   C. The district calendar and master schedules of all schools should include sufficient time to support PD programs and activities.

Benefits: Increased opportunities for teachers to become more actively and formally involved in the professional development (PD) process will likely contribute to the creation of a professional learning community and promote a model of shared leadership within the district. Involving teachers more directly in PD governance and decision making, at both the district and school levels, will likely enhance their sense of ownership and increase their support and active participation in PD initiatives and programming, as well as promote a culture of professional growth, collaboration, and continuous improvement.

Recommended resources:

- ESE's *Professional Development Self- Assessment Guidebook* (www.mass.gov/edu/docs/ese/accountability/dsac/professional-development-self-assessment-guide.pdf) provides tools for analyzing professional development offerings' alignment with the Massachusetts Standards for Professional Development, the Educator Evaluation Framework, and the Standards and Indicators of Effective Practice.

- *The Massachusetts Standards for Professional Development* (www.doe.mass.edu/pd/standards.pdf) describe, identify, and characterize what high quality learning experiences for educators should look like.

- *Identifying Meaningful Professional Development* (https://youtube/zhuFio08GbQ) is a video in which educators from three Massachusetts districts discuss the importance of targeted, meaningful professional development (PD) and the ways districts can use the evaluation process to identify the most effective PD supports for all educators.

Student Support

Contextual Background

As is typical of large, urban districts in the Commonwealth, the diversity of the student population in Worcester presents both opportunities and challenges to educators. In the 2016–2017 school year, 76.3 percent of students fall in the high-needs subgroup because they are in one or more of the following groups: students from economically disadvantaged families, students with disabilities, and English language learners (ELLs) or former ELL students.

Many students come to school each day with high programmatic and support needs. For example, students with disabilities in the district represent 18.8 percent of the total student population, compared with 17.4 percent of the state; English language learners make up 34.2 percent of enrollment, compared with 9.5 percent across the state; 53.5 percent of students do not have English as their first language (FLNE), compared with 20.1 percent of the state; and 57.2 percent of students come from economically disadvantaged households, compared with 30.2 percent across the state.

In its current three-year vision, the district has recommitted itself to address students' diverse academic and social-emotional needs and has affirmed that the schools support students and families and that district services support the schools. To help meet that goal, in the 2016–2017 school year the district created a position of manager of social emotional learning. At the time of the site visit in January 2017, the new manager was acclimating to her role and exploring potential program and service provisions for students' needs. Also in its recent reorganization, the district redefined a district-level position to focus primarily on English language learners, and has provided ongoing professional development on Sheltered English Immersion (SEI). For the first half of the 2016–2017 academic year, the new manager of English language learners (ELLs) has focused on gathering data to better understand the profile of ELLs---who they are, where they are located, and what their needs are. The goal is to more accurately define the programs and initiatives that will better serve these students.

In 2015, under the direction of the chief academic officer, the district began an initiative to develop a more systematic tiered system of support for all students. Subcommittees composed of representative stakeholders have been working to further develop and improve academic, social-emotional, behavioral, attendance, and family/community supports. Although several subcommittees have designed draft implementation plans, this initiative is not fully realized.

Strength Findings

1. **The district offers a wide range of programs and services that address the needs of students with learning and social-emotional and behavioral challenges.**

   A. The district has inclusion classrooms at every school; bilingual classrooms at one elementary school, one middle school, and one high school; and two levels of life-skills programs.

   B. A Structured Therapeutic Education Program (STEP) provides academic, social-emotional, and behavioral supports in inclusion, partial inclusion, and substantially separate classrooms for nearly 500 K–12 students in 15 schools.

   C. The district also has a complement of Board Certified Behavior Analysts (BCBAs) who use Applied Behavior Analysis (ABA) procedures to support students with autism and other developmental disabilities.

   D. The district has taken a number of steps to improve graduation rates.

      1. All the comprehensive high schools have safety-net courses, after-school tutoring, online standards-based intervention modules, and online credit recovery.

      2. All three alternative high-school programs also provide online credit recovery, most have online standards-based intervention modules, and two offer competency-based coursework.

      3. The Burncoat Evening High School has course recovery for students.

   E. Four- and five-year graduation rates have improved in recent years, although they remain below state averages.[21]

   F. Between 2013 and 2016, the district cut its rate of out-of-school suspension in half for all students and for each high needs subgroup. In 2016, Worcester's rates of in-school and out-of school suspensions were higher than the state rates for all students and for each high needs subgroup.

   G. Between 2012 and 2015, the district's drop-out rate declined for the district as a whole and for each high needs subgroup. In 2015, the district's drop-out rates for all students and for each high needs subgroup were below the state rates (see Tables 5 and 8 in the Student Performance section above).

Impact: An effective system of supports enables the district to provide for students' academic and social-emotional well-being and can promote stronger academic achievement.

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[21] The four-year graduation rate improved from 72 percent in 2011 to 81.9 percent in 2016, compared with the 2016 state rate of 87.5 percent. The five-year graduation rate improved from 77.7 percent in 2011 to 84.4 percent in 2015, compared with the 2015 state rate of 89.4 percent.

2. **The district has in place a network of wraparound coordinators working to remove barriers to learning that often take place outside school walls.**

   A. Interviews and a document review indicated that the district has prioritized the work and continued funding for the services of wraparound coordinators in the district.

      1. Efforts to develop wraparound coordinator positions began in 2011 and continue to be funded today.

         a. A 2011 article from a local newspaper indicated that the district had created the positions and hired its first cadre of seven wraparound coordinators, paid from a federal Race to the Top (RTTT) grant. The article stated, "If the wraparound coordinators are successful, it will be up to the district to figure out how to pay for them in the long run."

         b. Central office administrators told the review team that the wraparound coordinator positions were originally funded through RTTT funds and now the positions are supported through Title I.

         c. Currently, there are nine wraparound coordinators in the district.

   B. Staff and parents spoke of the contributions that these coordinators have made in the lives of students and their families by, for example, helping to connect students and families with agencies to provide food, healthcare, and counseling services.

      1. Administrators noted that the wraparound coordinator "works with families and helps them adjust" by helping with "clothes drives, housing, and health and dental care."

      2. One staff member of a Level 4 school said that the wraparound services were "life changing for me" and noted that the wraparound coordinators touch "every realm [of students' lives]," by their work with "social services that provide, for example, assistance to families without heat." This group also described wraparound services as a "system of support" for students.

      3. Parents noted that not all schools in the district have the services of the wraparound coordinators and said if there were more funding, more coordinators could benefit even more students in need of support.

Impact: By helping students and families secure basic necessities such as food, clothing, housing, and healthcare, wraparound coordinators support the learning, social-emotional development, and the health and well-being of the district's most vulnerable students.

Challenges and Areas for Growth

3. **The district has not put in place a process to implement a multi-tiered system of support.**

   A. In 2011, the Department of Elementary and Secondary Education published a blueprint outlining the components of the Massachusetts Tiered System of Support (MTSS) as a three-tiered model representing increasing intensity of support and intervention.

      1. Tier I is the universal tier for academic as well as behavioral instruction and supports designed and differentiated instruction for all students across all settings.

      2. In addition to what students receive in Tier I, Tier II offers interventions or supports to students who need it (such as small-group interventions).

      3. Tier III, the most intensive intervention, provides varied supports to students in need. This may include special programming, increased time, or smaller intervention groups.

   B. In 2015, the district formed an MTSS committee. The vast majority of the committee's work is still in draft form and has not been implemented.

      1. Interviewees stated that the district's multi-tiered model is "not yet shared." They indicated that they are "still in the planning stages."

      2. Staff indicated that the district's MTSS model is not finalized so professional development has not been tied to it.

      3. A document review indicated that the MTSS committee's four subcommittees (academic supports; social, emotional, and behavioral supports; attendance supports; and family and community) are at various stages in their work.

         a. For example, the family and community subcommittee does not have an articulated three-tier model as do the other three subcommittees.

         b. While all four subcommittees have drafted action plans, some are completed more than others. For example, the social, emotional, and behavioral Supports subcommittee has only one action step listed as of 2016–2017. The review team was told that "the social-emotional group [was] lagging behind some."

Impact: Without the implementation of a comprehensive tiered instructional model and the consistent implementation of research-based instructional strategies, all students do not have access to a high-quality education that meets their individual needs.

Recommendation

1. **The district should complete the development of a systematic tiered system of support and implement it with fidelity across the district.**

   A. The district should further develop and improve its academic, social-emotional, behavioral, attendance, and family/community supports, with the goal of full integration and continuity of support services.

   B. The district should provide all staff with focused professional development in effectively using differentiation and interventions.

   C. All interventions provided in the district should be documented and communicated districtwide to ensure coordination and consistency.

Benefit: By implementing this recommendation the district likely will be able to improve programs and practices so that all students have access to high-quality teaching and learning that meets their individual needs in a safe and supportive school environment.

Recommended resource:

- The *Massachusetts Tiered System of Support (MTSS)* (www.mass.gov/ese/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. The MTSS website includes links to a self-assessment and a variety of helpful resources.

Financial and Asset Management

Contextual Background

The school committee has primary responsibility for the district's budget, finances, and capital assets, and uses a standing committee for finance and operations to work with the superintendent and chief financial and operations officer to review details of budget and capital asset proposals and management. The chief financial and operations officer supervises the day-to-day management of finances and assets. He is assisted by the budget director, the director of payroll, the manager of grant resources, the facilities director, the director of transportation, the information technology officer, the director of nutrition, and the director of materials management and their staffs. The chief financial and operations officer reports to the superintendent and provides her and the school committee with reports on the district's financial status and recommendations for its budget and capital investments. In addition, the chief financial and operations officer, the superintendent, and the budget director work closely with the city financial officer, the city manager, the city auditor, and the city procurement office on the district's budget and management of its finances.

The district's proposed budget for fiscal year 2017 was $377,118,333, a 1.7 percent increase over fiscal year 2016. It includes all grants and funds as well as $322,895,803 appropriated by the city. For the past six years the city's contribution has been less than that required to meet the state net school spending requirement, but the city's contribution is expected to exceed the requirement for fiscal year 2017. The budget development process is inclusive, transparent, and driven by school and student needs as well as budget limits.

Financial management practices are done in close collaboration with the city's auditor and procurement offices. Payrolls and purchase orders are approved by the city before being sent out and paid, and the city issues and receives bids; the school committee awards contracts. The chief financial and operations officer and the budget director submit quarterly financial reports to the superintendent, administrators, and the school committee along with recommendations for transfers as needed, and the school committee also accepts all gifts and grants.

Of the 44 schools in the district, some are over 100 years old. The district cleans and maintains all school buildings and the city and the Massachusetts School Building Authority (MSBA) Accelerated Repair program have funded annual projects for major repairs. In addition, MSBA has assisted the city with financing five new and renovated schools since 2000. E-Rate funding of approximately $3.5 million per year in addition to district funds have supported technology infrastructure and equipment.

Strength Findings

1. **The district uses a zero-based budget development process and input from many stakeholders to allocate resources and develop a budget based on district priorities and students' needs.**

    A. The district uses a zero-based budget development process including consideration of all grants and funds, and allocates resources on the basis of needs and priorities.

        1. District administrators reported that they use a zero-based budget development process to review all staffing, services, and materials for each school and cost center, including all funds and grants. The process starts with each school and cost center at zero, adding essential services and prioritizing all others up to a funding limit.

            a. Interviews with administrators and a review of the budget document indicated a seven-point plan for budgeting including a zero-based budget development process, a cap of 1.5 percent on administrative costs, the inclusion of all funding sources, and targeting new revenues to high priority needs such as student services and safety.

            b. In budget meetings administrators discuss needs, reconfigurations, and budget guidelines such as class size and staffing with principals and other administrators.

        2. District administrators and school committee members described budget and grant needs and priorities including a manager for social emotional learning, ELL services, and resources for the district's lowest performing schools.

    B. The budget development process gives many stakeholders opportunities to provide input into the proposed budget.

        1. Administrators described meetings with school and district administrators, school committee and city council members, local business and college leaders, and the city manager to discuss district needs, priorities, and available funding.

        2. A review of school committee minutes and the budget calendar indicated public school committee and city council hearings about the proposed budget, meetings of the school committee's standing committee on finance and operations and joint meetings with the city council's education committee, and presentations to local business and college organizations, the parent planning advisory committee and student advisory group.

        3. School committee members reported they get a lot of budget information, which helps them and the city manager know how they need to develop and adjust the budget.

        4. The superintendent works closely with the city manager on budget and other district issues.

    C. The district sets budget guidelines for an equitable distribution of resources based on both needs and priorities, and leverages its resources by efficiencies and partnerships.

1. Administrators have set clear and comprehensive guidelines for school and administrative staffing and support services such as a 1.5 percent limit on administrative costs, class size, assistant principals, and coaches.

2. Interviews with administrators and a review of budget documents indicated an emphasis on efficiencies such as energy-saving programs and bringing special education services in-house.

   a. Administrators told the team that they are exploring savings in transportation by bringing it in house.

3. Interviews and a document review indicated district partnerships with local businesses and agencies, such as public libraries, HEARS,[22] Recreation Worcester, and the Latino Education Institute of Worcester State University. Each school has a supporting business partner.

D. The budget development process takes into account priorities for schools and programs with high needs and allocates all funding resources to help fund them.

1. Central office administrators reported that in budget meetings with principals and other administrators they review student and school needs, accountability plan goals and priorities, and compliance issues, noting that they emphasize allocations of staff and other resources to meet high-priority needs.

2. In creating and reporting on the proposed budget central office administrators review all funding sources, including grants, and allocate resources as needed to meet district priorities and needs such as after-school programs, kindergarten assistants, and adjustment counselors for the lowest performing schools.

E. In the district's most recent budget, examples of high priorities based on needs include the turnaround plan for the district's Level 4 school and Research for Better Teaching (RBT) training to improve teaching in the six lowest performing schools.

   a. Also, central office administrators reallocated resources by restructuring the central office administration to meet needs for elementary and secondary managers and for curriculum and social-emotional learning managers.

   b. In order to present a balanced budget many of the requests put forth by principals and administrators had to be deferred.

F. District officials communicate frequently and effectively with city officials to advocate for funding to meet district and school needs.

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[22] Healthy Environments and Resilience in Schools is a partnership with the Health Foundation of Central Massachusetts, the Worcester Education Collaborative, and Clark University.

1. Interviewees reported that the school committee's standing committee on finance and the city council's subcommittee on education meet jointly with administrators to clarify information, to review district needs, and to discuss anticipated state aid and the net school spending requirement.

2. City administrators described a trusting, cooperative, and collaborative relationship between school administrators and the mayor, the city manager, and the city auditor related to funding for the schools and on city "chargebacks" for education.

3. The superintendent and the chief financial and operations officer meet regularly with the mayor (who chairs the school committee), the city manager, and the city's chief financial officer. They discuss state aid and required spending for education and city appropriations for the district budget and capital projects. The district and the city have an agreement for city "chargebacks" for education and review it regularly.

G. After not meeting the state net school spending requirement for six years, city appropriations for education in fiscal year 2017 are expected to exceed the requirement.

1. Administrators reported and a review of the budget document confirmed that the city manager recommended and the city appropriated an additional $1.5–1.8 million for the schools and reduced city charges to grants. The city approved additional funding for a health clinic and approved additional money for kindergarten to make up for a lost state grant.

H. In addition to funding for school and district operations the city has supported capital improvements for the schools by approximately $3 million annually for building projects and $500 million for equipment such as buses and technology.

Impact: The district's inclusive, transparent, and strategic budget development process has contributed to collaborative relationships and an atmosphere of trust with city officials and to a clear understanding by the school committee and other decision makers of what is needed to improve education and learning. The district's use of reallocations and efficiencies helps the district leverage its resources effectively.

2. **The district's budget documentation, which has won national awards, is comprehensive and includes summaries and detail for all funds as well as narratives describing the net school spending requirement and school and district priorities. Quarterly budget status reports to the school committee include expenditures, projected balances, and narratives for all funds with recommendations for transfers.**

A. The district's proposed budget document includes full detail and trends for all budget lines and all funds along with narratives explaining required and available funding and proposed initiatives.

1. Detail for each budget line includes the current and recommended staffing as well as the current and proposed budget. Budgets for grants and other funds are included for each line, and there is a section explaining grants and outside funds.

2. Narratives for each school and cost center include a description of the school/program such as demographics and achievement results along with school accountability plan goals.

3. The opening narrative and summary pages highlight the funding necessary to meet required net school spending and how it is calculated, appropriations to be recommended by the city manager for schools, and the district's seven-point financial plan for budgeting and planning.

4. The executive summary describes the increases and changes in revenues from city appropriations, grants, and outside funds such as the 1.4 percent increase recommended by the city manager. Estimated changes in grant funding, such as a new school redesign grant and loss of kindergarten grant funds, are also included.

5. Narratives also stress district goals and priorities and proposed program changes such as the restructuring of administrative positions, class size, and technology initiatives.

B. A document review indicated that the district's budget documentation has earned meritorious awards from the national Association of School Business Officials (ASBO) for 2014, 2015, and 2016.

C. Administrators prepare summary PowerPoint presentations and handouts for presentations to the school committee and the public.

1. Interviews with administrators and a review of school committee meeting minutes indicated that administrators have made PowerPoint presentations to the school committee and the public early in the year on anticipated revenues for the schools, especially Chapter 70 and city contributions, and in the spring summaries of the proposed budget.

    a. Administrators make PowerPoint budget presentations on particular programs such as instructional leadership, special education, ELL, and other support services.

2. A short two-page document is also available to stakeholders.

D. Quarterly budget status reports to the school committee are transparent and comprehensive, and they include recommendations for transfers.

1. Administrators reported that quarterly reports are major components of the district's seven-point financial plan; the school committee's standing committee on finance and operations reviews them in detail.

    a. The reports include the budget for each budget line, expenditures to date, and projected ending balances. A brief narrative describes the reasons for projected

surpluses and deficits such as savings in utilities and overruns in special education tuitions. Recommendations are made for transfers to cover projected deficits.

Impact: Transparent and comprehensive budget documentation has contributed to an atmosphere of trust, collaboration, and support by city officials and the community for the schools. It also enables the school committee to monitor and manage district finances efficiently and effectively.

Challenges and Areas for Growth

3. **Many of the district's schools are old, outdated, and overcrowded. Some buildings are in need of maintenance, major repairs, and upgrades. Planning and resources have so far been inadequate to keep up with school building needs.**

   A. Of the district's 44 schools, 23 have not been replaced or undergone a major renovation in the past 50 years, the lifespan expected by the Massachusetts School Building Authority (MSBA)---including 4 buildings over 100 years old. Facility problems include overcrowding, outdated learning spaces, and large maintenance needs.

      1. In its self-assessment submitted in advance of the onsite, the district identified the condition of buildings as "Somewhat well" described by the indicator "Buildings are generally in good condition and the district maintains its buildings well," and the use of space as "Not at all well" described by the indicator "Buildings are neither overcrowded nor underused." (Possible responses were Not at all well, Somewhat well, Well, and Very well.)

      2. Administrators reported that overcrowding is a problem in at least five schools, noting that some schools have to rent space in neighboring buildings and use portable classrooms.

      3. The district is in the process of replacing roofs and windows, upgrading security systems, replacing outdated light fixtures and door hardware, upgrading science labs, and replacing boilers as funding allows.

      4. Administrators noted environmental and health issues such as PCBs and mold in some buildings.

      5. They reported that the district spends only 69 cents per square foot on maintenance, and said that the maintenance staff of 28 is not sufficient to keep up with work orders and building needs.

         a. According to ESE data, the district's expenditures on maintenance in 2015 were $201 per pupil compared with $259 for the state, less than the 2–4 percent of the operating budget recommended by the MSBA and professional agencies.

      6. Issues identified in the district's 2015 school renovation proposals on its website included inadequate performing arts facilities, ADA noncompliance, nonfunctional and inadequate

classroom spaces, environmental issues, outdated mechanical systems, insufficient science labs and libraries, and outdated security systems.

7. Students cited buildings as one of the district's major needs for improvement, and teachers spoke of uneven resources in technology.

8. Reviewers visited 33 of the 44 schools and noted that they are generally clean, but that some are old and have peeling paint and worn floors and stair treads with instances of inadequate ventilation and water damage.

   a. Some classrooms are subject to noise from neighboring rooms, and in order to reach some classrooms students have to pass through other classrooms in session.

   b. Review team members observed teachers working with students in corridors because small instructional spaces are not available, especially in the older schools.

B. The city has supported some capital projects for the schools, supplemented by MSBA support, but additional new schools and renovations are needed.

1. Administrators and city officials reported that the city appropriates approximately $3 million each year for school capital projects and $500,000 for other capital expenditures such as buses, technology infrastructure, and security upgrades.

2. To the extent possible administrators leverage the city's allocation by applying for MSBA accelerated repair reimbursements of approximately 80 percent so that up to $15 million can be leveraged for school building projects.

   a. Recent repair projects have included roof and window replacements, gas boilers, and science labs.

   b. At the time of the onsite, the Nelson Place School was being renovated.

3. Administrators pointed out that based on the MSBA expectation that a new building should last 50 years the district would have to build a new school every year to keep up. Yet the facilities report lists only four schools renovated or newly built since 2000, and another (Nelson Park) under construction.

4. According to the DOR At A Glance report for Worcester, the city has approximately $23 million in excess and override capacity. Administrators pointed out that the city is eligible for approximately 80 percent reimbursement from the MSBA for building projects, so it would require only $10 million to build a $50 million school.

C. The district submits its proposed capital projects for inclusion in the city's capital plan, and does its own long-range plans for building renovations.

1. Administrators reported that they prepare a capital improvement plan consisting of facility, transportation, and technology needs for submission to the city annually for inclusion in the city's capital plan. These major repairs typically are limited to the $3 million annual allocation by the city but may include additional projects such as security upgrades.

2. In 2015 the district prepared an inventory of school facilities and proposed MSBA replacement/renovation projects in three schools, and accelerated repair projects in four schools.

3. The district has contracted with an architectural firm to prepare a facilities master plan for the district to prioritize school renovations and deferred maintenance projects as requested by MSBA.

Impact: Inadequate buildings and overcrowded and outdated classrooms are not conducive to student learning. Limited accessibility, distracting movement and noise in classrooms, walking to and from rented classrooms in the neighborhood, and limited technology also affect learning. And the slow pace of new and renovated schools compromises appropriate updating of facilities.

Recommendation

1. **The district, in collaboration with the city, should prepare a long-range plan for upgrading and renovating its schools and a plan for funding the projects.**

   A. The district's facilities master plan, currently being prepared by an architectural firm, is an important first step to a long-range plan for its school buildings.

      1. The master plan should include an assessment of the educational and building needs of all the schools along with recommended repairs, renovations, and replacements of the buildings, estimated costs, and a reasonable schedule for them.

   B. City officials as well as school committee members should be involved in the development of a long-range funding plan for school building needs.

      1. The long-range funding plan can be done in conjunction with a plan for long-range needs for other city facilities, perhaps in conjunction with the city's current capital plan.

      2. Funding must take into account the bonding capacity of the city as well as building and educational needs.

Benefits: Implementing this recommendation will mean sound planning practices that will ensure that safe, appropriate, and adequate learning environments are available to all Worcester's students and staff.

Recommended resources:

- ESE's *School Building Issues* web page (http://www.doe.mass.edu/finance/sbuilding/) includes funding opportunities, guidelines, and resources related to school buildings.

- *Planning Guide for Maintaining School Facilities* (http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003347), from the National Center for Education Statistics, is intended to help school districts plan for efficient and effective operations. It addresses various topics, including conducting a facilities audit, planning and evaluating maintenance, and managing staff and contractors.

- *The Massachusetts School Checklist* (http://www.mass.gov/eohhs/gov/departments/dph/programs/environmental-health/exposure-topics/iaq/iaq-methods/the-mass-school-checklist.html) is a list of the most important environmental health and safety issues for schools to address. It includes regulations and industry standards/guidelines related to elements on the checklist, as well as additional resources.

- The Green Ribbon Schools Award honors schools that are exemplary in reducing environmental impact and costs, improving the health and wellness of students and staff, and delivering effective environmental and sustainability education. The district might find several related resources useful, including Massachusetts' *Green Ribbon Schools Award Resource Guide* (http://www.doe.mass.edu/finance/sbuilding/GreenRibbon/ResourcesGuide.pdf) and the US Department of Education's *Green Strides* resource list (http://www2.ed.gov/about/inits/ed/green-strides/resources.html).

- MassEnergyInsight (https://www.massenergyinsight.net/home) is a free, web-based tool made available by the Massachusetts Department of Energy Resources as part of the Massachusetts Green Communities Program. The tool is designed to help communities learn about and monitor energy use and related costs, plan energy efficiency programs, and communicate this information.

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

Review Team Members

The review was conducted from January 23–27, 2017, by the following team of independent ESE consultants.

1. Karla Brooks Baehr, Ed. D., leadership and governance

2. Michele Kingsland-Smith, M. Ed., curriculum and instruction

3. Linda L. Greyser, Ed. D., assessment and *review team coordinator*

4. Frank Sambuceti, Ph. D., human resources and professional development

5. Kristan Rodriguez, Ph. D., student support

6. George Gearhart, Ed. D., financial and asset management

7. Charles Milt Burnett, Ed. D., classroom observations only

8. Katherine Lopez-Natale, Ed. D., classroom observations only

9. Wilfrid Savoie, Ed. D., classroom observations only

10. Richard Silverman, Ed. D., classroom observations only

District Review Activities

The following activities were conducted during the review:

The team conducted interviews with the following financial personnel: the chief financial and operations officer, the budget director, the manager of grant resources, the financial director of grants, and the chief financial officer for the city of Worcester.

The team conducted interviews with the following members of the school committee: six school committee members.

The review team conducted interviews with the following representatives of the teachers' association: Educational Association of Worcester (EAW) president and Massachusetts Teachers' Association (MTA) secretary.

The team conducted interviews/focus groups with the following central office administrators: the superintendent; the chief academic officer; the chief financial and operations officer; the chief human resources officer; the chief research and accountability officer; the assistant to the superintendent/clerk of the school committee; three managers of instruction and school leadership; the manager of curriculum and learning; the manager of English language learners; the manager of special education

and intervention services; the manager of social emotional learning; the liaison for English language arts; the liaison for mathematics; liaison for science and engineering; the elementary science coach; the liaison for history of social science; the liaison for curriculum, professional learning, and technology; the testing and evaluation specialist; the assistant director of special education; the special assistant to the director of special education for Medicaid and special projects; the department head for evaluation team chairs; and the staffing mentor coordinator.

The team visited the following elementary schools: Belmont Street Community (Pre-K–6), Chandler (kindergarten–grade 6), City View (Pre-K–grade 6), Columbus Park (Pre-K–grade 6), Elm Park Community (Pre-K–grade 6), Francis J. McGrath Elementary (Pre-K–grade 6), Gates Lane (Pre-K–grade 6), Goddard School of Science and Technology (Pre-K–grade 6), Grafton Street (Pre-K–grade 6), Jacob Hiatt Magnet (Pre-K–grade 6), Lake View (kindergarten grade 6), Lincoln Street (Pre-K– grade 6), Nelson Place (kindergarten–grade 6), Norrback Avenue (Pre-kindergarten–grade 6), Quinsigamond (Pre-K–grade 6), Roosevelt (Pre-K– grade 6), Tatnuck (Pre-K–grade 6), Union Hill School (kindergarten–grade 6), Vernon Hill School (Pre-K–grade 6), Wawecus Road School (kindergarten–grade 6), West Tatnuck (Pre-K–grade 6), Woodland Academy (Pre-K–grade 6), and Worcester Arts Magnet School (Pre-K–grade 6).

The team visited the following middle schools, middle-high schools, and high schools: Sullivan Middle (grades 6–8), Burncoat Middle (grades 7–8), Forest Grove Middle (grades 7–8), Worcester East Middle (grades 6–8), University Park (grades 7–12), Claremont Academy (grades 7–12), Burncoat Senior High (grades 9–12 plus special program), Doherty Memorial High (grades 9–12 plus special program), North High (grades 9–12 plus special program), South High Community (grades 9–12 plus special program), and Worcester Technical High (grades 9–12).

During school visits, the team conducted interviews with 34 principals and 4 focus groups with 15 elementary-school teachers, 6 middle-school teachers, and 18 high-school teachers.

The team observed 249 classes in the district: 48 in grades 9-12, at the 5 high schools and 2 middle-high schools; 31 in grades 7-8, at the 4 middle schools and 2 middle-high schools; and 170 in kindergarten through grade 6 at 23 of the 33 elementary schools.

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

o   Student and school performance data, including achievement and growth, enrollment, graduation, dropout, retention, suspension, and attendance rates.

o   Data on the district's staffing and finances.

o   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).

o   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.

o   All completed program and administrator evaluations, and a random selection of completed teacher evaluations.

Site Visit Schedule

Monday 01/23/2017	Tuesday 01/24/2017	Wednesday 01/25/2017	Thursday 01/26/2017	Friday 01/27/2017
Orientation with district leaders and principals; interviews with district staff and principals; document reviews; and visits to elementary schools for classroom observations.	Interviews with district staff and principals; interview with school committee members; and review of personnel files.	Interviews with town or city personnel; interviews with school leaders; interviews with school committee members; interview with teachers' association leaders; interview with town financial director; visits to elementary and middle schools for classroom observations; and focus groups with elementary-, middle-, and high-school teachers.	Interviews with school leaders; follow-up interviews; district review team meeting; parent focus group; and visits to elementary and high schools for classroom observations; and district wrap-up meeting with the superintendent.	Interviews with district and school leaders; focus group with high school students; and visits to elementary, middle, and high schools for classroom observations.

Appendix B: Enrollment, Performance, Expenditures

Table B1a: Worcester Public Schools
2016–2017 Student Enrollment by Race/Ethnicity

Student Group	District	Percent of Total	State	Percent of Total
African-American	3,918	15.4%	84,996	8.9%
Asian	1,898	7.4%	63,690	6.7%
Hispanic	10,638	41.8%	184,782	19.4%
Native American	43	0.2%	2,125	0.2%
White	7,923	31.1%	584,665	61.3%
Native Hawaiian	2	0.0%	855	0.1%
Multi-Race, Non-Hispanic	1,057	4.1%	32,635	3.4%
All Students	25,479	100.0%	953,748	100.0%

Note: As of October 1, 2016

Table B1b: Worcester Public Schools
2016–2017 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	4,864	24.6%	18.8%	167,530	38.4%	17.4%
Econ. Disad.	14,565	73.6%	57.2%	288,465	66.1%	30.2%
ELLs and Former ELLs	8,714	44.0%	34.2%	90,204	20.7%	9.5%
All high needs students	19,792	100.0%	76.3%	436,416	100.0%	45.2%

Table B2a: Worcester Public Schools
English Language Arts Performance, 2013–2016

Grade and Measure			Number Included (2016)	MCAS Year		MCAS/PARCC		Gains and Declines	
				2013	2014	2015	2016	4-Year Trend	2-Year Trend
3	MCAS	CPI	734	71.7	70.2	71.4	75.5	3.8	4.1
		P+	734	34%	38%	38%	43%	9%	5%
	PARCC	CPI	1,076	71.7	70.2	69.8	73.3	1.6	3.5
		Lv 4&5	1,055	--	--	31%	36%	--	5%
4	MCAS	CPI	753	67.2	67.3	73.8	73.6	6.4	-0.2
		P+	753	35%	35%	45%	48%	13%	3%
		SGP	681	48.0	49.0	53.0	59.0	11.0	6.0
	PARCC	CPI	1,122	67.2	67.3	63.4	61.1	-6.1	-2.3
		Lv 4&5	1,094	--	--	34%	33%	--	-1%
		SGP	987	48.0	49.0	41.0	38.0	-10.0	-3.0
5	MCAS	CPI	698	75.2	74.3	79	83.3	8.1	4.3
		P+	698	50%	45%	54%	61%	11%	7%
		SGP	628	57.0	54.0	56.0	61.0	4.0	5.0
	PARCC	CPI	1,059	75.2	74.3	72.8	78.7	3.5	5.9
		Lv 4&5	1,023	--	--	36%	41%	--	5%
		SGP	902	57.0	54.0	49.0	59.0	2.0	10.0
6	MCAS	CPI	637	76.9	79.6	83.4	82.1	5.2	-1.3
		P+	637	52%	57%	63%	60%	8%	-3%
		SGP	567	56.0	64.0	60.0	51.0	-5.0	-9.0
	PARCC	CPI	1,034	76.9	79.6	76.6	80.9	4.0	4.3
		Lv 4&5	1,004	--	--	40%	49%	--	9%
		SGP	903	56.0	64.0	57.0	66.0	10.0	9.0
7	MCAS	CPI	--	78.9	79.1	77.7	--	--	--
		P+	--	53%	55%	51%	--	--	--
		SGP	--	49.0	51.0	30.0	--	--	--
	PARCC	CPI	1,545	78.9	79.1	79.8	80.0	1.1	0.2
		Lv 4&5	1,500	--	--	49%	46%	--	-3%
		SGP	1,363	49.0	51.0	49.0	43.0	-6.0	-6.0
8	MCAS	CPI	--	79.5	80.6	81.3	--	--	--
		P+	--	59%	61%	61%	--	--	--
		SGP	--	45.0	50.0	48.5	--	--	--
	PARCC	CPI	1,553	79.5	80.6	87.5	86.9	7.4	-0.6
		Lv 4&5	1,508	--	--	50%	50%	--	0%
		SGP	1,373	45.0	50.0	57.0	53.0	8.0	-4.0

Table B2b: Worcester Public Schools
English Language Arts Performance, 2013–2016[23]

Grade and Measure		Number Included (2016)	MCAS/Accountability Year				State (2016)	Gains and Declines	
			2013	2014	2015	2016		4-Year Trend	2-Year Trend
10	CPI	1,730	92.1	89.6	92.0	92.7	96.7	0.6	0.7
	P+	1,730	80%	77%	81%	82%	91%	2%	1%
	SGP	1,383	57.0	47.0	52.0	54.0	50.0	-3.0	2.0
All	CPI	12,107	77.1	77.1	77.9	79.5	87.2	2.4	1.6
	P+	--	51%	52%	--	--	--	--	--
	SGP	8,858	51.0	53.0	51.0	53.0	50.0	2.0	2.0

[23] In the All category 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B2c: Worcester Public Schools
Mathematics Performance, 2013–2016

Grade and Measure			Number Included (2016)	MCAS Year		MCAS/PARCC		Gains and Declines	
				2013	2014	2015	2016	4-Year Trend	2-Year Trend
3	MCAS	CPI	734	70.3	70.5	72.8	76.8	6.5	4
		P+	734	43%	46%	50%	53%	10%	3%
	PARCC	CPI	1,088	70.3	70.5	67.6	71.7	1.4	4.1
		Lv 4&5	1,067	--	--	29%	34%	--	5%
4	MCAS	CPI	748	67.7	65.5	67.0	72.1	4.4	5.1
		P+	748	31%	30%	31%	38%	7%	7%
		SGP	682	50.0	42.5	44.0	53.0	3.0	9.0
	PARCC	CPI	1,127	67.7	65.5	63.4	59.9	-7.8	-3.5
		Lv 4&5	1,099	--	--	27%	27%	--	0%
		SGP	987	50.0	42.5	44.0	36.0	-14.0	-8.0
5	MCAS	CPI	702	67.8	65.1	71.9	73.1	5.3	1.2
		P+	702	43%	38%	46%	45%	2%	-1%
		SGP	633	53.0	49.0	60.0	65.0	12.0	5.0
	PARCC	CPI	1,074	67.8	65.1	60.4	61.5	-6.3	1.1
		Lv 4&5	1,038	--	--	23%	27%	--	4%
		SGP	901	53.0	49.0	43.0	41.0	-12.0	-2.0
6	MCAS	CPI	639	69.8	70.9	77.4	76.6	6.8	-0.8
		P+	639	45%	45%	54%	52%	7%	-2%
		SGP	569	57.0	59.5	64.0	67.0	10.0	3.0
	PARCC	CPI	1,041	69.8	70.9	62.6	64.3	-5.5	1.7
		Lv 4&5	1,011	--	--	24%	30%	--	6%
		SGP	903	57.0	59.5	49.0	57.0	0.0	8.0
7	MCAS	CPI	--	60.9	54.9	53.6	--	--	--
		P+	--	34%	29%	26%	--	--	--
		SGP	--	41.0	42.0	23.0	--	--	--
	PARCC	CPI	1,541	60.9	54.9	61.8	60.0	-0.9	-1.8
		Lv 4&5	1,496	--	--	31%	30%	--	-1%
		SGP	1,348	41.0	42.0	50.0	48.0	7.0	-2.0
8	MCAS	CPI	--	59.7	57.7	52.9	--	--	--
		P+	--	33%	29%	28%	--	--	--
		SGP	--	42.0	38.0	37.0	--	--	--
	PARCC	CPI	1,508	59.7	57.7	64.0	65.7	6.0	1.7
		Lv 4&5	1,465	--	--	34%	33%	--	-1%
		SGP	1,314	42.0	38.0	51.0	46.0	4.0	-5.0

Table B2d: Worcester Public Schools
Mathematics Performance, 2013–2016[24]

Grade and Measure		Number Included (2016)	MCAS/Accountability Year				State (2016)	Gains and Declines	
			2013	2014	2015	2016		4-Year Trend	2-Year Trend
10	CPI	1,751	80.1	78.3	78.4	79.6	89.7	-0.5	1.2
	P+	1,751	62%	59%	58%	60%	78%	-2%	2%
	SGP	1,384	49.0	49.0	53.0	53.0	50.0	4.0	0.0
All	CPI	12,189	68.0	66.3	66.8	68.1	81.5	0.1	1.3
	P+	--	41%	39%	--	--	--		
	SGP	8,853	49.0	47.0	48.0	50.0	50.0	1.0	2.0

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[24] In the All category 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B2e: Worcester Public Schools
Science and Technology/Engineering Performance, 2013–2016

Grade and Measure		Number Included (2016)	Spring MCAS Year					Gains and Declines	
			2013	2014	2015	2016	State (2016)	4-Year Trend	2-Year Trend
5	CPI	1,787	64.2	67.4	66.6	64.7	76.4	0.5	-1.9
	P+	1,787	29%	34%	32%	29%	47%	0	-3
8	CPI	1,624	54.8	57.2	55.5	55	71.3	0.2	-0.5
	P+	1,624	21%	23%	20%	20%	41%	-1	0
10	CPI	1,642	76.3	75.4	76.9	78.3	88.9	2.0	1.4
	P+	1,642	46%	46%	49%	51%	73%	5	2
All	CPI	5,053	64.8	66.4	66.0	66.0	78.7	1.2	0.0
	P+	5,053	32%	34%	33%	33%	54%	1	0

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

Table B3: Worcester Public Schools
ELA Composite Performance Index (CPI) by School and Subgroup 2013–2016

	2013	2014	2015	2016	4-Year Trend
Head Start	--	--	--	--	--
Belmont Street Community ES	66.9	68.5	65.7	68.1	1.2
High Needs	66.8	68.7	65.8	67.5	0.7
Econ. Disad.	--	--	67.6	67.6	--
ELLs	61.2	64.4	64.2	65.0	3.8
SWD	50.5	52.5	59.6	60.4	9.9
Wawecus Road ES	79.9	80.5	76.5	74.1	-5.8
High Needs	78.4	80.4	74.2	73.9	-4.5
Econ. Disad.	--	--	72.1	75.0	--
ELLs	78.8	84.2	71.3	73.6	-5.2
SWD	72.3	80.5	76.7	76.7	4.4
Woodland Academy ES	62.7	59.7	66.5	70.5	7.8
High Needs	62.6	59.6	66.3	69.8	7.2
Econ. Disad.	--	--	64.6	66.6	--
ELLs	61.8	58.5	66.8	70.3	8.5
SWD	40.2	39.4	37.2	45.0	4.8
Burncoat Street ES	58.7	61.3	71.6	69.9	11.2
High Needs	57.4	60.8	70.2	67.9	10.5
Econ. Disad.	--	--	69.7	68.1	--
ELLs	50.0	53.7	66.2	65.1	15.1
SWD	45.9	45.3	53.9	49.1	3.2
Canterbury Magnet ES	65.8	74.0	70.8	70.6	4.8
High Needs	65.3	73.2	71.1	70.2	4.9
Econ. Disad.	--	--	69.1	67.7	--
ELLs	61.5	70.8	69.4	67.1	5.6
SWD	56.1	75.0	71.4	66.5	10.4
Chandler Elementary Community ES	60.6	66.2	71.3	81.3	20.7
High Needs	60.6	66.2	70.9	81.2	20.6
Econ. Disad.	--	--	71.1	80.1	--
ELLs	56.9	64.4	70.4	79.4	22.5
SWD	38.6	40.5	45.4	62.9	24.3
Chandler Magnet ES	51.1	48.3	51.4	57.0	5.9
High Needs	50.1	47.3	50.5	55.3	5.2
Econ. Disad.	--	--	49.8	53.8	--
ELLs	46.3	43.8	48.8	52.2	5.9
SWD	29.9	30.4	31.1	29.1	-0.8
City View ES	69.4	71.1	73.8	75.0	5.6
High Needs	68.7	70.5	72.9	74.3	5.6
Econ. Disad.	--	--	73.9	74.0	--
ELLs	66.1	69.4	71.8	77.3	11.2
SWD	46.6	44.2	52.7	52.4	5.8
Clark Street Community ES	72.8	69.8	72.0	60.4	-12.4
High Needs	68.2	66.1	67.4	59.0	-9.2
Econ. Disad.	--	--	67.3	60.7	--
ELLs	65.0	61.4	65.8	56.6	-8.4
SWD	44.4	45.9	49.2	36.3	-8.1

Columbus Park ES	84.3	84.5	72.6	69.8	-14.5
High Needs	84.2	84.6	71.9	68.0	-16.2
Econ. Disad.	--	--	70.9	65.8	--
ELLs	86.6	85.7	75.8	70.2	-16.4
SWD	64.1	67.1	50.0	44.2	-19.9
Flagg Street ES	90.2	90.1	91.6	89.2	-1.0
High Needs	80.3	79.1	83.3	76.8	-3.5
Econ. Disad.	--	--	85.4	78.1	--
ELLs	86.5	84.8	88.0	79.4	-7.1
SWD	55.4	57.4	61.1	58.7	3.3
Elm Park Community ES	60.9	54.8	63.1	60.1	-0.8
High Needs	60.5	54.6	61.9	59.4	-1.1
Econ. Disad.	--	--	61.0	59.9	--
ELLs	60.0	52.3	62.1	56.2	-3.8
SWD	38.9	34.3	41.9	41.7	2.8
Goddard ES	54.4	59.2	67.3	59.7	5.3
High Needs	54.2	59.0	66.7	59.5	5.3
Econ. Disad.	--	--	64.9	57.1	--
ELLs	52.9	59.7	68.7	61.1	8.2
SWD	30.3	38.2	50.5	44.3	14.0
Gates Lane ES	81.8	71.2	72.5	78.3	-3.5
High Needs	80.5	68.3	70.1	76.1	-4.4
Econ. Disad.	--	--	68.6	76.0	--
ELLs	79.1	69.6	67.1	78.3	-0.8
SWD	75.0	49.8	69.9	80.7	5.7
Grafton Street ES	64.2	61.9	60.9	60.5	-3.7
High Needs	63.6	60.2	59.0	59.1	-4.5
Econ. Disad.	--	--	60.6	58.6	--
ELLs	62.5	59.8	52.2	59.4	-3.1
SWD	31.0	36.3	39.0	33.3	2.3
Heard Street ES	86.1	84.0	85.4	87.4	1.3
High Needs	81.5	79.5	82.6	83.3	1.8
Econ. Disad.	--	--	81.7	81.3	--
ELLs	80.3	81.4	85.0	87.9	7.6
SWD	67.6	73.9	76.1	73.8	6.2
Hiatt Magnet ES	80.1	79.8	78.9	77.6	-2.5
High Needs	78.1	77.9	76.0	74.7	-3.4
Econ. Disad.	--	--	76.1	75.0	--
ELLs	80.1	79.6	77.1	74.1	-6.0
SWD	50.0	52.6	55.2	51.9	1.9
Lake View ES	85.6	85.7	87.9	83.0	-2.6
High Needs	82.5	83.2	83.7	77.8	-4.7
Econ. Disad.	--	--	85.5	77.7	--
ELLs	85.2	78.1	85.3	83.2	-2.0
SWD	62.5	65.9	60.9	52.5	-10.0
Lincoln Street ES	67.1	65.9	60.3	61.7	-5.4
High Needs	66.6	65.7	57.9	59.2	-7.4
Econ. Disad.	--	--	56.4	59.5	--
ELLs	68.3	62.5	56.0	60.5	-7.8
SWD	42.5	41.7	33.6	38.8	-3.7

May Street ES	82.7	79.1	80.8	80.1	-2.6
High Needs	78.8	74.5	75.5	72.5	-6.3
Econ. Disad.	--	--	76.2	73.7	--
ELLs	81.1	73.6	77.6	73.1	-8.0
SWD	49.0	52.8	52.1	50.0	1.0
McGrath ES	73.6	71.6	70.9	76.3	2.7
High Needs	72.2	68.9	66.8	73.0	0.8
Econ. Disad.	--	--	65.4	72.6	--
ELLs	78.4	69.5	70.6	64.1	-14.3
SWD	45.8	36.3	42.5	57.3	11.5
Midland Street ES	82.0	88.1	86.6	88.5	6.5
High Needs	69.7	78.8	79.7	80.6	10.9
Econ. Disad.	--	--	83.0	82.0	--
ELLs	65.4	80.0	83.3	89.6	24.2
SWD	--	--	51.8	53.3	--
Nelson Place ES	85.9	83.0	85.5	88.2	2.3
High Needs	76.1	74.0	76.5	79.8	3.7
Econ. Disad.	--	--	76.1	79.8	--
ELLs	83.8	78.6	86.1	87.5	3.7
SWD	50.7	55.6	57.4	64.7	14.0
Norrback Avenue ES	73.6	78.0	78.0	80.4	6.8
High Needs	67.8	73.0	73.3	73.8	6.0
Econ. Disad.	--	--	72.0	73.8	--
ELLs	67.0	70.6	75.0	71.3	4.3
SWD	52.8	58.1	60.4	57.7	4.9
Quinsigamond ES	74.8	67.8	52.9	70.1	-4.7
High Needs	73.6	65.7	51.1	68.2	-5.4
Econ. Disad.	--	--	50.0	66.5	--
ELLs	74.1	65.8	53.4	72.0	-2.1
SWD	53.4	48.3	36.1	48.4	-5.0
Rice Square ES	62.5	62.4	64.3	69.4	6.9
High Needs	61.1	59.1	62.2	65.5	4.4
Econ. Disad.	--	--	65.2	65.1	--
ELLs	61.9	59.1	56.4	64.7	2.8
SWD	27.3	31.3	33.1	42.4	15.1
Roosevelt ES	74.9	81.0	75.3	88.1	13.2
High Needs	69.9	77.0	70.0	84.0	14.1
Econ. Disad.	--	--	70.5	83.7	83.7
ELLs	68.4	74.8	70.2	85.7	17.3
SWD	57.5	61.5	58.7	71.2	13.7
Worcester Arts Magnet ES	92.5	95.1	95.7	96.5	4.0
High Needs	88.1	91.9	93.5	93.5	5.4
Econ. Disad.	--	--	91.7	93.8	--
ELLs	84.2	90.2	94.9	94.9	10.7
SWD	75.0	87.5	86.3	84.7	9.7
Tatnuck ES	78.7	81.1	80.0	78.9	0.2
High Needs	73.9	77.6	76.8	75.0	1.1
Econ. Disad.	--	--	77.9	75.0	--
ELLs	72.8	79.9	82.1	74.7	1.9
SWD	61.8	64.8	59.6	57.5	-4.3

Thorndyke Road ES	77.6	77.1	81.5	82.6	5.0
High Needs	67.4	66.6	71.2	70.3	2.9
Econ. Disad.	--	--	68.8	68.8	--
ELLs	61.1	64.1	73.3	72.9	11.8
SWD	51.8	47.4	49.1	45.7	-6.1
Union Hill ES	74.4	74.0	75.1	75.0	0.6
High Needs	74.3	74.0	74.8	74.1	-0.2
Econ. Disad.	--	--	74.5	75.7	--
ELLs	71.0	68.9	73.0	73.3	2.3
SWD	57.9	65.2	62.7	54.2	-3.7
West Tatnuck ES	91.4	96.0	94.6	94.7	3.3
High Needs	86.3	92.9	91.1	90.2	3.9
Econ. Disad.	--	--	95.3	91.2	--
ELLs	85.8	96.6	99.2	96.1	10.3
SWD	72.7	80.0	76.9	71.4	-1.3
Vernon Hill ES	66.9	68.9	68.2	61.8	-5.1
High Needs	66.3	68.0	66.1	60.4	-5.9
Econ. Disad.	--	--	66.3	60.5	--
ELLs	67.0	68.5	66.9	59.3	-7.7
SWD	39.6	41.9	39.0	36.9	-2.7
University Park MSHS	89.4	87.6	91.1	87.9	-1.5
High Needs	88.4	86.3	88.1	84.8	-3.6
Econ. Disad.	--	--	90.0	85.9	--
ELLs	83.0	75.6	81.1	80.7	-2.3
SWD	--	--	--	--	--
Claremont Academy MSHS	81.9	77.4	76.4	81.4	-0.5
High Needs	81.0	76.6	74.1	78.9	-2.1
Econ. Disad.	--	--	74.5	80.6	--
ELLs	76.7	69.4	67.3	71.6	-5.1
SWD	51.6	47.4	57.4	60.8	9.2
Burncoat MS	82.1	81.9	79.6	86.3	4.2
High Needs	77.2	77.6	73.0	80.8	3.6
Econ. Disad.	--	--	72.7	80.7	--
ELLs	68.4	67.4	64.6	74.2	5.8
SWD	58.3	63.0	55.1	65.8	7.5
Forest Grove MS	85.2	86.3	89.3	87.5	2.3
High Needs	78.9	80.1	82.8	80.2	1.3
Econ. Disad.	--	--	84.5	81.7	--
ELLs	75.6	77.5	80.3	75.8	0.2
SWD	59.9	61.4	67.9	66.3	6.4
Worcester East MS	76.7	79.9	83.4	83.8	7.1
High Needs	75.7	78.8	81.1	81.7	6.0
Econ. Disad.	--	--	81.5	81.4	--
ELLs	73.2	74.5	78.1	77.8	4.6
SWD	50.7	55.8	62.8	57.8	7.1
Sullivan MS	79.5	79.8	80.7	81.4	1.9
High Needs	76.9	77.1	75.7	76.3	-0.6
Econ. Disad.	--	--	75.3	75.5	--
ELLs	72.2	71.1	70.7	69.0	-3.2
SWD	54.7	54.9	58.0	61.1	6.4

Burncoat Senior HS	91.2	89.0	92.8	91.6	0.4
High Needs	88.0	85.0	90.6	87.1	-0.9
Econ. Disad.	--	--	91.3	88.3	--
ELLs	83.9	80.2	86.4	75.6	-8.3
SWD	71.0	73.5	82.1	79.3	8.3
Doherty Memorial HS	93.4	94.2	93.3	92.8	-0.6
High Needs	90.1	91.1	89.2	86.8	-3.3
Econ. Disad.	--	--	91.2	89.8	--
ELLs	83.7	85.1	80.1	76.7	-7.0
SWD	74.4	79.3	79.7	78.0	3.6
North HS	87.8	83.5	87.1	89.5	1.7
High Needs	86.7	82.1	85.0	87.6	0.9
Econ. Disad.	--	--	86.0	87.8	--
ELLs	78.2	67.5	77.4	83.5	5.3
SWD	76.2	70.2	76.2	79.3	3.1
South High Community HS	92.1	90.6	90.9	93.6	1.5
High Needs	90.9	89.2	88.3	91.7	0.8
Econ. Disad.	--	--	89.1	92.7	--
ELLs	86.1	82.6	80.4	83.8	-2.3
SWD	82.7	76.3	77.5	85.8	3.1
Worcester Technical HS	97.5	97.4	98.9	99.3	1.8
High Needs	96.7	96.6	97.9	98.9	2.2
Econ. Disad.	--	--	98.5	99.1	--
ELLs	96.3	93.1	97.2	98.6	2.3
SWD	86.3	88.5	94.3	96.9	10.6

Table B4: Worcester Public Schools
Math Composite Performance Index by School and Subgroup 2013–2016

	2013	2014	2015	2016	3- or 4-Year Trend
Head Start	--	--	--	--	--
Belmont Street Community ES	74.5	69.3	65.9	67.2	-7.3
High Needs	74.3	69.6	65.5	67.3	-7.0
Econ. Disad.	--	--	65.2	66.4	--
ELLs	70.2	65.4	63.3	65.9	-4.3
SWD	58.2	51.9	61.4	61.8	3.6
Wawecus Road ES	68.6	75.6	70.4	72.4	3.8
High Needs	68.4	74.3	69.6	73.2	4.8
Econ. Disad.	--	--	68.6	75.5	--
ELLs	59.8	75.8	70.4	77.1	17.3
SWD	66.2	74.2	72.4	70.8	4.6
Woodland Academy ES	55.6	57.8	58.7	61.1	5.5
High Needs	55.7	57.8	58.5	60.3	4.6
Econ. Disad.	--	--	56.6	56.8	--
ELLs	55.3	57.2	59.9	60.9	5.6
SWD	40.4	36.1	34.9	33.8	-6.6
Burncoat Street ES	52.4	59.7	66.3	66.7	14.3
High Needs	51.3	58.9	65.3	64.1	12.8
Econ. Disad.	--	--	64.4	62.8	--
ELLs	48.7	54.8	65.2	65.1	16.4
SWD	37.5	42.4	50.8	50.9	13.4
Canterbury Magnet ES	68.2	69.7	60.5	66.8	-1.4
High Needs	67.6	69.0	61.4	66.4	-1.2
Econ. Disad.	--	--	58.7	63.8	--
ELLs	66.5	69.2	60.4	64.5	-2.0
SWD	59.4	68.5	67.2	61.0	1.6
Chandler Community ES	53.7	65.0	66.0	76.6	22.9
High Needs	53.7	65.0	65.9	76.2	22.5
Econ. Disad.	--	--	64.5	74.9	--
ELLs	54.2	63.9	64.9	76.1	21.9
SWD	30.7	39.3	33.3	55.1	24.4
Chandler Magnet ES	43.3	40.0	38.8	46.1	2.8
High Needs	42.6	39.3	38.5	44.6	2.0
Econ. Disad.	--	--	36.9	42.8	--
ELLs	40.5	37.2	38.0	43.0	2.5
SWD	29.4	25.5	25.6	27.1	-2.3
City View ES	66.6	66.3	61.3	64.8	-1.8
High Needs	66.2	65.5	59.5	64.3	-1.9
Econ. Disad.	--	--	61.2	64.4	--
ELLs	62.0	61.6	58.6	63.1	1.1
SWD	44.9	50.4	46.1	44.4	-0.5
Clark Street Community ES	68.2	61.3	60.7	46.8	-21.4
High Needs	63.3	56.9	56.1	46.0	-17.3
Econ. Disad.	--	--	53.9	46.6	--
ELLs	59.3	54.2	58.2	45.8	-13.5
SWD	47.9	37.2	38.7	27.4	-20.5

Columbus Park ES	79.8	79.9	60.6	60.9	-18.9
High Needs	79.2	79.7	60.4	58.9	-20.3
Econ. Disad.	--	--	59.1	56.7	--
ELLs	82.0	82.0	62.2	61.5	-20.5
SWD	61.5	62.8	48.4	40.7	-20.8
Flagg Street ES	87.8	85.8	88.9	85.2	-2.6
High Needs	80.3	74.7	80.6	70.0	-10.3
Econ. Disad.	--	--	76.4	68.4	--
ELLs	88.0	78.8	87.0	74.4	-13.6
SWD	48.9	52.9	61.1	53.8	4.9
Elm Park Community ES	55.9	44.1	53.9	56.4	0.5
High Needs	55.5	43.9	53.6	56.1	0.6
Econ. Disad.	--	--	52.4	57.2	--
ELLs	56.4	45.2	53.6	56.2	-0.2
SWD	30.9	25.4	32.9	41.3	10.4
Goddard ES	47.9	51.2	56.4	49.1	1.2
High Needs	47.6	51.0	56.2	49.5	1.9
Econ. Disad.	--	--	53.0	47.1	--
ELLs	47.9	53.4	59.9	49.2	1.3
SWD	23.9	30.2	38.2	34.9	11.0
Gates Lane ES	77.5	70.0	67.6	65.7	-11.8
High Needs	76.6	68.3	66.6	65.8	-10.8
Econ. Disad.	--	--	64.3	65.6	--
ELLs	76.8	69.6	64.8	65.4	-11.4
SWD	71.5	57.5	70.3	69.6	-1.9
Grafton Street ES	55.2	46.4	48.5	46.4	-8.8
High Needs	53.8	44.6	44.9	45.4	-8.4
Econ. Disad.	--	--	45.7	45.1	--
ELLs	55.0	42.6	42.8	44.6	-10.4
SWD	26.0	22.6	27.0	28.3	2.3
Heard Street ES	80.7	83.9	80.0	80.0	-0.7
High Needs	76.1	79.5	74.7	71.8	-4.3
Econ. Disad.	--	--	72.8	70.7	--
ELLs	75.0	85.9	80.6	78.6	3.6
SWD	58.3	67.0	62.0	57.1	-1.2
Hiatt Magnet ES	74.1	72.4	73.2	73.4	-0.7
High Needs	71.2	69.2	69.9	69.2	-2.0
Econ. Disad.	--	--	69.6	69.4	--
ELLs	76.0	71.8	72.9	68.1	-7.9
SWD	40.2	50.0	43.8	44.2	4.0
Lake View ES	76.9	78.1	82.1	79.6	2.7
High Needs	73.9	75.0	76.4	72.5	-1.4
Econ. Disad.	--	--	76.2	72.3	--
ELLs	77.3	73.8	78.3	80.1	2.8
SWD	57.8	54.5	51.6	46.3	-11.5
Lincoln Street ES	68.1	65.6	55.8	54.1	-14.0
High Needs	67.6	65.7	54.9	51.0	-16.6
Econ. Disad.	--	--	52.7	51.1	--
ELLs	68.2	62.5	54.7	48.4	-19.8
SWD	41.3	38.5	44.8	30.4	-10.9

May Street ES	**79.7**	**76.8**	**81.0**	**74.9**	**-4.8**
High Needs	74.6	69.3	75.3	67.5	-7.1
Econ. Disad.	--	--	75.8	66.5	--
ELLs	80.2	73.2	81.1	70.4	-9.8
SWD	40.0	46.3	56.3	51.8	11.8
McGrath ES	**61.8**	**72.4**	**68.4**	**70.2**	**8.4**
High Needs	60.8	69.9	65.2	66.4	5.6
Econ. Disad.	--	--	62.9	65.7	--
ELLs	67.9	73.8	68.9	61.2	-6.7
SWD	26.4	40.0	45.0	43.8	17.4
Midland Street ES	**83.6**	**75.4**	**77.8**	**83.1**	**-0.5**
High Needs	78.4	64.6	72.3	73.3	-5.1
Econ. Disad.	--	--	77.3	72.7	--
ELLs	77.1	66.4	78.5	86.5	9.4
SWD	--	--	33.9	51.7	--
Nelson Place ES	**85.7**	**83.5**	**80.3**	**84.5**	**-1.2**
High Needs	78.4	75.6	71.8	76.0	-2.4
Econ. Disad.	--	--	72.1	77.5	--
ELLs	86.3	82.7	83.8	85.6	-0.7
SWD	56.1	56.0	52.5	64.3	8.2
Norrback Avenue ES	**73.1**	**72.9**	**73.6**	**76.0**	**2.9**
High Needs	68.3	68.1	67.6	70.8	2.5
Econ. Disad.	--	--	65.9	71.1	--
ELLs	68.6	67.0	69.4	69.7	1.1
SWD	52.7	53.8	58.0	55.2	2.5
Quinsigamond ES	**66.7**	**58.6**	**48.4**	**54.5**	**-12.2**
High Needs	65.1	56.1	47.1	53.1	-12.0
Econ. Disad.	--	--	44.9	50.7	--
ELLs	67.8	56.4	51.3	56.0	-11.8
SWD	44.6	40.4	31.4	41.0	-3.6
Rice Square ES	**53.6**	**56.1**	**64.6**	**67.2**	**13.6**
High Needs	52.0	53.8	61.7	62.8	10.8
Econ. Disad.	--	--	63.7	62.7	--
ELLs	53.4	55.4	61.3	62.6	9.2
SWD	27.3	25.0	32.8	35.5	8.2
Roosevelt ES	**71.6**	**74.2**	**76.8**	**84.2**	**12.6**
High Needs	67.0	70.3	72.8	81.0	14.0
Econ. Disad.	--	--	72.0	81.6	--
ELLs	64.1	68.6	73.9	82.0	17.9
SWD	55.2	55.4	59.8	66.9	11.7
Worcester Arts Magnet ES	**92.0**	**92.8**	**94.2**	**94.5**	**2.5**
High Needs	88.1	88.9	88.8	91.6	3.5
Econ. Disad.	--	--	89.9	91.8	--
ELLs	86.7	90.2	92.6	91.7	5.0
SWD	79.3	76.3	70.0	79.4	0.1
Tatnuck ES	**72.1**	**74.2**	**78.4**	**76.1**	**4.0**
High Needs	68.7	69.1	75.7	71.4	2.7
Econ. Disad.	--	--	74.6	71.3	--
ELLs	69.0	70.6	80.5	69.8	0.8
SWD	57.4	59.2	66.5	56.9	-0.5

Thorndyke Road ES	79.0	73.1	74.6	78.0	-1.0
High Needs	70.5	62.5	63.7	62.9	-7.6
Econ. Disad.	--	--	61.5	62.1	--
ELLs	67.8	60.5	63.4	65.6	-2.2
SWD	66.1	54.3	50.9	41.3	-24.8
Union Hill ES	75.1	74.5	73.2	69.8	-5.3
High Needs	75.0	74.5	72.7	69.4	-5.6
Econ. Disad.	--	--	73.5	71.3	--
ELLs	75.9	72.1	74.3	68.1	-7.8
SWD	60.0	57.1	62.7	54.5	-5.5
West Tatnuck ES	90.6	93.3	93.0	94.3	3.7
High Needs	85.0	87.7	87.5	89.9	4.9
Econ. Disad.	--	--	91.9	88.5	--
ELLs	89.2	94.0	98.3	95.3	6.1
SWD	70.5	73.0	71.3	75.0	4.5
Vernon Hill ES	69.9	72.2	65.4	59.7	-10.2
High Needs	69.6	71.3	63.0	58.5	-11.1
Econ. Disad.	--	--	62.1	58.9	--
ELLs	71.4	71.6	65.6	58.7	-12.7
SWD	48.3	47.8	38.4	34.9	-13.4
University Park MSHS	78.2	75.2	74.8	73.8	-4.4
High Needs	77.5	73.1	68.1	68.6	-8.9
Econ. Disad.	--	--	70.1	68.1	--
ELLs	69.8	55.8	56.5	60.4	-9.4
SWD	--	25.0	--	--	--
Claremont Academy MSHS	54.1	46.6	52.3	56.6	2.5
High Needs	52.9	45.4	49.0	52.4	-0.5
Econ. Disad.	--	--	50.4	54.3	--
ELLs	49.6	37.8	42.2	44.1	-5.5
SWD	33.1	36.2	39.1	32.8	-0.3
Burncoat MS	63.7	59.0	60.4	66.6	2.9
High Needs	56.9	52.6	53.1	60.6	3.7
Econ. Disad.	--	--	52.6	59.3	--
ELLs	48.9	45.2	44.8	52.5	3.6
SWD	37.5	35.4	41.5	45.7	8.2
Forest Grove MS	73.0	70.2	74.8	71.7	-1.3
High Needs	64.2	60.4	63.1	60.4	-3.8
Econ. Disad.	--	--	63.5	62.0	--
ELLs	59.0	57.8	62.4	54.4	-4.6
SWD	46.6	42.3	45.0	42.5	-4.1
Worcester East MS	52.4	54.3	56.8	58.2	5.8
High Needs	50.5	52.4	53.3	54.6	4.1
Econ. Disad.	--	--	53.3	55.7	--
ELLs	50.2	48.2	50.3	50.3	0.1
SWD	31.4	31.6	31.4	29.8	-1.6
Sullivan MS	60.4	54.0	56.2	63.3	2.9
High Needs	56.9	49.3	48.9	56.0	-0.9
Econ. Disad.	--	--	48.8	55.7	--
ELLs	56.0	45.7	43.3	48.9	-7.1
SWD	35.9	31.6	32.5	42.4	6.5

Burncoat Senior HS	80.8	79.4	77.3	78.3	-2.5
High Needs	75.0	73.6	71.5	68.2	-6.8
Econ. Disad.	--	--	75.0	70.4	--
ELLs	63.7	68.3	64.9	54.3	-9.4
SWD	56.5	57.4	55.4	54.2	-2.3
Doherty Memorial HS	84.3	86.4	85.3	84.9	0.6
High Needs	77.5	79.7	77.3	74.3	-3.2
Econ. Disad.	--	--	82.0	76.0	--
ELLs	68.1	71.7	61.7	64.3	-3.8
SWD	61.0	64.2	62.8	62.7	1.7
North HS	72.3	66.4	64.0	69.9	-2.4
High Needs	71.2	64.0	59.6	65.5	-5.7
Econ. Disad.	--	--	61.5	66.0	--
ELLs	55.3	53.6	49.6	60.6	5.3
SWD	52.7	42.6	43.7	50.0	-2.7
South High Community HS	76.4	76.2	76.9	78.4	2.0
High Needs	73.5	74.5	73.7	72.7	-0.8
Econ. Disad.	--	--	76.7	74.1	--
ELLs	67.0	66.8	65.1	57.9	-9.1
SWD	51.8	53.0	61.3	62.9	11.1
Worcester Technical HS	92.5	89.6	91.5	92.2	-0.3
High Needs	90.5	87.3	86.2	88.3	-2.2
Econ. Disad.	--	--	89.8	90.3	--
ELLs	88.6	77.3	88.5	84.3	-4.3
SWD	65.7	64.6	63.0	70.0	4.3

Table B5: Worcester Public Schools
Science Percent Proficient or Advanced by School and Subgroup 2013–2016

	2013	2014	2015	2016	4-Year Trend
Head Start	--	--	--	--	--
Belmont Street Community ES	18%	31%	21%	28%	10%
High Needs	19%	31%	20%	26%	7%
Econ. Disad.	--	--	22%	26%	--
ELLs	14%	28%	21%	19%	5%
SWD	0%	--	17%	--	--
Wawecus Road ES	15%	40%	26%	6%	-9%
High Needs	15%	37%	17%	7%	-8%
Econ. Disad.	--	--	21%	8%	--
ELLs	7%	--	--	--	--
SWD	18%	--	0%	--	--
Woodland Academy ES	13%	10%	8%	17%	4%
High Needs	13%	10%	8%	17%	4%
Econ. Disad.	--	--	8%	10%	--
ELLs	13%	12%	8%	20%	7%
SWD	--	0%	--	0%	--
Burncoat Street ES	13%	14%	33%	48%	35%
High Needs	13%	14%	30%	44%	31%
Econ. Disad.	--	--	29%	45%	--
ELLs	--	9%	9%	53%	--
SWD	--	--	--	--	--
Canterbury Magnet ES	19%	21%	17%	18%	-1%
High Needs	17%	21%	16%	18%	1%
Econ. Disad.	--	--	23%	18%	--
ELLs	21%	22%	17%	25%	4%
SWD	0%	0%	--	0%	0%
Chandler Community ES	6%	28%	17%	47%	41%
High Needs	6%	28%	13%	48%	42%
Econ. Disad.	--	--	9%	48%	--
ELLs	4%	22%	12%	42%	38%
SWD	--	--	--	23%	--
Chandler Magnet ES	8%	9%	17%	9%	1%
High Needs	8%	9%	14%	8%	0%
Econ. Disad.	--	--	11%	10%	--
ELLs	6%	5%	16%	6%	0%
SWD	0%	0%	0%	--	--
City View ES	13%	25%	20%	19%	6%
High Needs	14%	23%	17%	19%	5%
Econ. Disad.	--	--	19%	20%	--
ELLs	9%	11%	9%	21%	12%
SWD	0%	29%	0%	0%	0%
Clark Street Community ES	45%	34%	30%	17%	-28%
High Needs	40%	18%	23%	14%	-26%
Econ. Disad.	--	--	17%	15%	--
ELLs	33%	17%	15%	25%	-8%
SWD	20%	8%	20%	0%	-20%

Columbus Park ES	40%	63%	55%	49%	9%
High Needs	37%	63%	50%	50%	13%
Econ. Disad.	--	--	52%	46%	--
ELLs	35%	57%	57%	57%	22%
SWD	9%	42%	20%	8%	-1%
Flagg Street ES	46%	55%	62%	51%	5%
High Needs	19%	29%	53%	7%	-12%
Econ. Disad.	--	--	50%	0%	--
ELLs	--	--	60%	--	--
SWD	--	--	--	--	--
Elm Park Community ES	6%	8%	7%	13%	7%
High Needs	6%	8%	7%	11%	5%
Econ. Disad.	--	--	3%	9%	--
ELLs	9%	9%	10%	9%	0%
SPED	5%	6%	0%	8%	3%
Goddard ES	15%	18%	17%	4%	-11%
High Needs	14%	18%	17%	4%	-10%
Econ. Disad.	--	--	15%	6%	--
ELLs	16%	20%	21%	3%	-13%
SWD	0%	6%	0%	7%	7%
Gates Lane ES	49%	39%	31%	24%	-25%
High Needs	45%	33%	26%	25%	-20%
Econ. Disad.	--	--	22%	23%	--
ELLs	60%	33%	27%	38%	-22%
SWD	4%	13%	3%	8%	4%
Grafton Street ES	28%	6%	23%	3%	-25%
High Needs	24%	6%	19%	0%	-24%
Econ. Disad.	--	--	23%	0%	--
ELLs	24%	0%	19%	0%	-24%
SWD	0%	--	--	--	--
Heard Street ES	45%	72%	54%	58%	13%
High Needs	39%	57%	46%	44%	5%
Econ. Disad.	--	--	44%	43%	--
ELLs	42%	--	--	50%	8%
SWD	20%	--	30%	--	--
Hiatt Magnet ES	39%	46%	34%	48%	9%
High Needs	32%	39%	26%	48%	16%
Econ. Disad.	--	--	28%	42%	--
ELLs	28%	31%	10%	56%	28%
SWD	--	--	--	--	--
Lake View ES	65%	49%	67%	65%	0%
High Needs	65%	46%	53%	58%	-7%
Econ. Disad.	--	--	55%	64%	--
ELLs	62%	30%	42%	--	--
SWD	--	--	--	--	--
Lincoln Street ES	11%	33%	19%	9%	-2%
High Needs	11%	33%	17%	9%	-2%
Econ. Disad.	--	--	18%	10%	--
ELLs	7%	30%	20%	6%	-1%
SWD	--	--	--	--	--

May Street ES	46%	45%	37%	36%	-10%
High Needs	37%	46%	28%	26%	-11%
Econ. Disad.	--	--	27%	31%	--
ELLs	36%	46%	33%	13%	-23%
SWD	--	--	--	--	--
McGrath ES	8%	19%	15%	11%	3%
High Needs	8%	23%	16%	9%	1%
Econ. Disad.	--	--	19%	10%	--
ELLs	--	--	--	12%	12%
SWD	--	--	--	0%	--
Midland Street ES	81%	58%	69%	56%	-25%
High Needs	58%	39%	67%	29%	-29%
Econ. Disad.	--	--	70%	--	--
ELLs	--	20%	--	40%	--
SWD	--	--	--	--	--
Nelson Place ES	47%	47%	50%	37%	-10%
High Needs	26%	24%	29%	18%	-8%
Econ. Disad.	--	--	18%	25%	--
ELLs	--	17%	43%	8%	--
SWD	18%	--	15%	7%	-11%
Norrback Avenue ES	20%	48%	53%	35%	15%
High Needs	10%	35%	40%	31%	21%
Econ. Disad.	--	--	39%	28%	--
ELLs	5%	40%	37%	31%	26%
SWD	11%	6%	30%	14%	3%
Quinsigamond ES	20%	24%	16%	13%	-7%
High Needs	15%	21%	14%	13%	-2%
Econ. Disad.	--	--	14%	9%	--
ELLs	14%	20%	9%	16%	2%
SWD	12%	5%	8%	0%	-12%
Rice Square ES	21%	12%	28%	26%	5%
High Needs	17%	15%	23%	17%	0%
Econ. Disad.	--	--	24%	22%	--
ELLs	0%	12%	18%	13%	13%
SPED	--	--	--	0%	--
Roosevelt ES	33%	40%	37%	30%	-3%
High Needs	29%	32%	22%	22%	-7%
Econ. Disad.	--	--	24%	26%	--
ELLs	21%	32%	19%	20%	-1%
SWD	11%	7%	5%	0%	-11%
Worcester Arts Magnet ES	71%	60%	67%	52%	-19%
High Needs	53%	50%	43%	32%	-21%
Econ. Disad.	--	--	25%	33%	--
ELLs	--	--	50%	30%	--
SWD	--	--	--	--	--
Tatnuck ES	26%	62%	56%	64%	38%
High Needs	19%	57%	47%	55%	36%
Econ. Disad.	--	--	46%	57%	--
ELLs	20%	44%	46%	72%	52%
SWD	0%	8%	18%	--	--

Thorndyke Road ES	38%	42%	25%	48%	10%
High Needs	31%	28%	12%	24%	-7%
Econ. Disad.	--	--	5%	22%	--
ELLs	15%	15%	17%	22%	7%
SWD	9%	--	--	--	--
Union Hill ES	20%	22%	23%	11%	-9%
High Needs	18%	22%	23%	10%	-8%
Econ. Disad.	--	--	24%	10%	--
ELLs	24%	18%	19%	10%	-14%
SWD	0%	8%	8%	0%	0%
West Tatnuck ES	53%	67%	63%	60%	7%
High Needs	32%	67%	47%	53%	21%
Econ. Disad.	--	--	--	--	--
ELLs	--	--	--	--	--
SWD	--	--	--	--	--
Vernon Hill ES	23%	30%	17%	18%	-5%
High Needs	21%	28%	14%	15%	-6%
Econ. Disad.	--	--	18%	17%	--
ELLs	30%	22%	11%	16%	-14%
SWD	--	--	0%	0%	--
Burncoat MS	24%	31%	19%	26%	2%
High Needs	15%	22%	13%	15%	0%
Econ. Disad.	--	--	14%	15%	--
ELLs	8%	13%	8%	6%	-2%
SWD	6%	7%	2%	7%	1%
Forest Grove MS	32%	33%	34%	27%	-5%
High Needs	18%	19%	14%	13%	-5%
Econ. Disad.	--	--	17%	13%	--
ELLs	12%	15%	6%	8%	-4%
SWD	4%	4%	1%	2%	-2%
Worcester East MS	21%	19%	13%	21%	0%
High Needs	18%	17%	8%	15%	-3%
Econ. Disad.	--	--	8%	16%	--
ELLs	15%	10%	7%	8%	-7%
SWD	5%	2%	0%	2%	-3%
Sullivan MS	16%	18%	20%	16%	0%
High Needs	14%	12%	13%	9%	-5%
Econ. Disad.	--	--	13%	9%	9%
ELLs	9%	6%	6%	5%	-4%
SWD	0%	4%	2%	3%	3%
University Park MSHS	34%	49%	48%	45%	11%
High Needs	33%	47%	36%	33%	0%
Econ. Disad.	--	--	43%	37%	--
ELLs	26%	21%	17%	4%	-22%
SPED	--	--	--	--	--
Claremont Academy MSHS	22%	16%	16%	23%	1%
High Needs	20%	15%	11%	21%	1%
Econ. Disad.	--	--	11%	26%	--
ELLs	16%	3%	3%	9%	-7%
SWD	9%	0%	0%	0%	-9%

Burncoat Senior HS	38%	42%	43%	47%	9%
High Needs	27%	29%	29%	25%	-2%
Econ. Disad.	--	--	30%	28%	--
ELLs	17%	23%	20%	13%	-4%
SWD	6%	14%	20%	10%	4%
Doherty Memorial HS	62%	62%	60%	62%	0%
High Needs	46%	48%	42%	43%	-3%
Econ. Disad.	--	--	49%	43%	--
ELLs	44%	38%	21%	34%	-10%
SWD	17%	20%	18%	15%	-2%
North HS	34%	31%	30%	37%	3%
High Needs	32%	26%	20%	29%	-3%
Econ. Disad.	--	--	21%	29%	--
ELLs	18%	14%	10%	21%	3%
SWD	8%	9%	6%	13%	5%
South High Community HS	44%	48%	47%	46%	2%
High Needs	39%	42%	37%	37%	-2%
Econ. Disad.	--	--	39%	38%	--
ELLs	33%	23%	19%	15%	-18%
SWD	2%	9%	8%	17%	15%
Worcester Technical HS	59%	57%	67%	68%	9%
High Needs	52%	51%	58%	58%	6%
Econ. Disad.	--	--	62%	62%	--
ELLs	41%	37%	53%	47%	6%
SWD	27%	13%	29%	20%	-7%

Table B6a: Worcester Public Schools
English Language Arts Performance, 2013–2016

Grade and Measure			Number Included (2016)	MCAS Year		MCAS/PARCC		Gains and Declines	
				2013	2014	2015	2016	4-Year Trend	2-Year Trend
3	MCAS	CPI	734	71.7	70.2	71.4	75.5	3.8	4.1
		P+	734	34%	38%	38%	43%	9%	5%
	PARCC	CPI	1,076	71.7	70.2	69.8	73.3	1.6	3.5
		Lv 4&5	1,055	--	--	31%	36%	--	5%
4	MCAS	CPI	753	67.2	67.3	73.8	73.6	6.4	-0.2
		P+	753	35%	35%	45%	48%	13%	3%
		SGP	681	48.0	49.0	53.0	59.0	11.0	6.0
	PARCC	CPI	1,122	67.2	67.3	63.4	61.1	-6.1	-2.3
		Lv 4&5	1,094	--	--	34%	33%	--	-1%
		SGP	987	48.0	49.0	41.0	38.0	-10.0	-3.0
5	MCAS	CPI	698	75.2	74.3	79	83.3	8.1	4.3
		P+	698	50%	45%	54%	61%	11%	7%
		SGP	628	57.0	54.0	56.0	61.0	4.0	5.0
	PARCC	CPI	1,059	75.2	74.3	72.8	78.7	3.5	5.9
		Lv 4&5	1,023	--	--	36%	41%	--	5%
		SGP	902	57.0	54.0	49.0	59.0	2.0	10.0
6	MCAS	CPI	637	76.9	79.6	83.4	82.1	5.2	-1.3
		P+	637	52%	57%	63%	60%	8%	-3%
		SGP	567	56.0	64.0	60.0	51.0	-5.0	-9.0
	PARCC	CPI	1,034	76.9	79.6	76.6	80.9	4.0	4.3
		Lv 4&5	1,004	--	--	40%	49%	--	9%
		SGP	903	56.0	64.0	57.0	66.0	10.0	9.0
7	MCAS	CPI	--	78.9	79.1	77.7	--	--	--
		P+	--	53%	55%	51%	--	--	--
		SGP	--	49.0	51.0	30.0	--	--	--
	PARCC	CPI	1,545	78.9	79.1	79.8	80.0	1.1	0.2
		Lv 4&5	1,500	--	--	49%	46%	--	-3%
		SGP	1,363	49.0	51.0	49.0	43.0	-6.0	-6.0
8	MCAS	CPI	--	79.5	80.6	81.3	--	--	--
		P+	--	59%	61%	61%	--	--	--
		SGP	--	45.0	50.0	48.5	--	--	--
	PARCC	CPI	1,553	79.5	80.6	87.5	86.9	7.4	-0.6
		Lv 4&5	1,508	--	--	50%	50%	--	0%
		SGP	1,373	45.0	50.0	57.0	53.0	8.0	-4.0

Table B6b: Worcester Public Schools
English Language Arts Performance, 2013–2016[25]

Grade and Measure		Number Included (2016)	MCAS/Accountability Year				State (2016)	Gains and Declines	
			2013	2014	2015	2016		4-Year Trend	2-Year Trend
10	CPI	1,730	92.1	89.6	92.0	92.7	96.7	0.6	0.7
	P+	1,730	80%	77%	81%	82%	91%	2%	1%
	SGP	1,383	57.0	47.0	52.0	54.0	50.0	-3.0	2.0
All	CPI	12,107	77.1	77.1	77.9	79.5	87.2	2.4	1.6
	P+	--	51%	52%	--	--	--	--	--
	SGP	8,858	51.0	53.0	51.0	53.0	50.0	2.0	2.0

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[25] In the All category 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B6c: Worcester Public Schools
Mathematics Performance, 2013–2016

Grade and Measure			Number Included (2016)	MCAS Year		MCAS/PARCC		Gains and Declines	
				2013	2014	2015	2016	4-Year Trend	2-Year Trend
3	MCAS	CPI	734	70.3	70.5	72.8	76.8	6.5	4
		P+	734	43%	46%	50%	53%	10%	3%
	PARCC	CPI	1,088	70.3	70.5	67.6	71.7	1.4	4.1
		Lv 4&5	1,067	--	--	29%	34%	--	5%
4	MCAS	CPI	748	67.7	65.5	67.0	72.1	4.4	5.1
		P+	748	31%	30%	31%	38%	7%	7%
		SGP	682	50.0	42.5	44.0	53.0	3.0	9.0
	PARCC	CPI	1,127	67.7	65.5	63.4	59.9	-7.8	-3.5
		Lv 4&5	1,099	--	--	27%	27%	--	0%
		SGP	987	50.0	42.5	44.0	36.0	-14.0	-8.0
5	MCAS	CPI	702	67.8	65.1	71.9	73.1	5.3	1.2
		P+	702	43%	38%	46%	45%	2%	-1%
		SGP	633	53.0	49.0	60.0	65.0	12.0	5.0
	PARCC	CPI	1,074	67.8	65.1	60.4	61.5	-6.3	1.1
		Lv 4&5	1,038	--	--	23%	27%	--	4%
		SGP	901	53.0	49.0	43.0	41.0	-12.0	-2.0
6	MCAS	CPI	639	69.8	70.9	77.4	76.6	6.8	-0.8
		P+	639	45%	45%	54%	52%	7%	-2%
		SGP	569	57.0	59.5	64.0	67.0	10.0	3.0
	PARCC	CPI	1,041	69.8	70.9	62.6	64.3	-5.5	1.7
		Lv 4&5	1,011	--	--	24%	30%	--	6%
		SGP	903	57.0	59.5	49.0	57.0	0.0	8.0
7	MCAS	CPI	--	60.9	54.9	53.6	--	--	--
		P+	--	34%	29%	26%	--	--	--
		SGP	--	41.0	42.0	23.0	--	--	--
	PARCC	CPI	1,541	60.9	54.9	61.8	60.0	-0.9	-1.8
		Lv 4&5	1,496	--	--	31%	30%	--	-1%
		SGP	1,348	41.0	42.0	50.0	48.0	7.0	-2.0
8	MCAS	CPI	--	59.7	57.7	52.9	--	--	--
		P+	--	33%	29%	28%	--	--	--
		SGP	--	42.0	38.0	37.0	--	--	--
	PARCC	CPI	1,508	59.7	57.7	64.0	65.7	6.0	1.7
		Lv 4&5	1,465	--	--	34%	33%	--	-1%
		SGP	1,314	42.0	38.0	51.0	46.0	4.0	-5.0

Table B6d: Worcester Public Schools
Mathematics Performance, 2013–2016[26]

Grade and Measure		Number Included (2016)	MCAS/Accountability Year				State (2016)	Gains and Declines	
			2013	2014	2015	2016		4-Year Trend	2-Year Trend
10	CPI	1,751	80.1	78.3	78.4	79.6	89.7	-0.5	1.2
	P+	1,751	62%	59%	58%	60%	78%	-2%	2%
	SGP	1,384	49.0	49.0	53.0	53.0	50.0	4.0	0.0
All	CPI	12,189	68.0	66.3	66.8	68.1	81.5	0.1	1.3
	P+	--	41%	39%	--	--	--		
	SGP	8,853	49.0	47.0	48.0	50.0	50.0	1.0	2.0

Table B6e: Worcester Public Schools
Science and Technology/Engineering Performance, 2013–2016

Grade and Measure		Number Included (2016)	Spring MCAS Year				State (2016)	Gains and Declines	
			2013	2014	2015	2016		4-Year Trend	2-Year Trend
5	CPI	1,787	64.2	67.4	66.6	64.7	76.4	0.5	-1.9
	P+	1,787	29%	34%	32%	29%	47%	0	-3
8	CPI	1,624	54.8	57.2	55.5	55	71.3	0.2	-0.5
	P+	1,624	21%	23%	20%	20%	41%	-1	0
10	CPI	1,642	76.3	75.4	76.9	78.3	88.9	2.0	1.4
	P+	1,642	46%	46%	49%	51%	73%	5	2
All	CPI	5,053	64.8	66.4	66.0	66.0	78.7	1.2	0.0
	P+	5,053	32%	34%	33%	33%	54%	1	0

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

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[26] In the All category 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B7a: Worcester Public Schools
English Language Arts (All Grades)
Performance for Selected Subgroups Compared to State, 2013–2016[27]

Group and Measure			Number Included (2016)	Accountability MCAS 2013	Accountability MCAS 2014		Accountability MCAS/PARCC 2015	Accountability MCAS/PARCC 2016	2-Year Trend	4-Year Trend
High Needs	District	CPI	9,145	73.3	73.2	CPI	73.1	74.6	1.5	1.3
		P+	--	44%	45%	Lv 4&5	--	--	--	--
		SGP	6,390	51.0	52.0	SGP	50.0	51.0	1.0	0.0
	State	CPI	222,707	76.8	77.1	CPI	76.3	77.1	0.8	0.3
		P+	--	48%	50%	Lv 4&5	--	--	--	--
		SGP	165,487	47.0	47.0	SGP	47.0	47.0	0.0	0.0
Econ. Disad.	District	CPI	7,228	--	--	CPI	73.0	74.3	1.3	--
		P+	--	--	--	Lv 4&5	--	--	--	--
		SGP	5,032	--	--	SGP	50.0	50.0	0.0	--
	State	CPI	152,877	--	--	CPI	77.6	78.2	0.6	--
		P+	--	--	--	Lv 4&5	--	--	--	--
		SGP	114,361	--	--	SGP	46.0	46.0	0.0	--
SWD	District	CPI	2,551	54.8	55.1	CPI	58.4	59.8	1.4	5.0
		P+	--	15%	16%	Lv 4&5	--	--	--	--
		SGP	1,660	43.0	43.0	SGP	45.0	43.0	-2.0	0.0
	State	CPI	91,177	66.8	66.6	CPI	67.4	68.2	0.8	1.4
		P+	--	30%	31%	Lv 4&5	--	--	--	--
		SGP	66,633	43.0	43.0	SGP	43.0	43.0	0.0	0.0
ELL or Former ELLs	District	CPI	4,725	69.6	68.4	CPI	70.3	71.5	1.2	1.9
		P+	--	39%	38%	Lv 4&5	--	--	--	--
		SGP	3,243	54.0	57.0	SGP	54.0	54.0	0.0	0.0
	State	CPI	52,960	67.4	67.8	CPI	68.9	70.7	1.8	3.3
		P+	--	35%	36%	Lv 4&5	--	--	--	--
		SGP	35,109	53.0	54.0	SGP	53.0	54.0	1.0	1.0
All students	District	CPI	12,107	77.1	77.1	CPI	77.9	79.5	1.6	2.4
		P+	--	51%	52%	Lv 4&5	--	--	--	--
		SGP	8,858	51.0	53.0	SGP	51.0	53.0	2.0	2.0
	State	CPI	491,267	86.8	86.7	CPI	86.8	87.2	0.4	0.4
		P+	--	69%	69%	Lv 4&5	--	--	--	--
		SGP	388,999	51.0	50.0	SGP	50.0	50.0	0.0	-1.0

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[27] 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B7b: Worcester Public Schools
Mathematics (All Grades)
Performance for Selected Subgroups Compared to State, 2013–2016[28]

Group and Measure			Number Included (2016)	MCAS 2013	MCAS 2014		MCAS/PARCC 2015	MCAS/PARCC 2016	2-Year Trend	4-Year Trend
High Needs	District	CPI	9,218	63.5	61.3	CPI	60.8	62.0	1.2	-1.5
		P+	--	34%	32%	Lv 4&5	--	--	--	--
		SGP	6,391	49.0	46.0	SGP	47.0	48.0	1.0	-1.0
	State	CPI	222,349	68.6	68.4	CPI	67.9	68.8	0.9	0.2
		P+	--	40%	40%	Lv 4&5	--	--	--	--
		SGP	165,191	46.0	47.0	SGP	46.0	46.0	0.0	0.0
Econ. Disad.	District	CPI	7,296	--	--	CPI	60.2	61.4	1.2	--
		P+	--	--	--	Lv 4&5	--	--	--	--
		SGP	5,030	--	--	SGP	45.0	48.0	3.0	--
	State	CPI	152,560	--	--	CPI	69.2	70.0	0.8	--
		P+	--	--	--	Lv 4&5	--	--	--	--
		SGP	114,091	--	--	SGP	46.0	45.0	-1.0	--
SWD	District	CPI	2,562	45.3	43.6	CPI	46.0	46.3	0.3	1.0
		P+	--	10%	9%	Lv 4&5	--	--	--	--
		SGP	1,662	44.0	41.0	SGP	44.0	45.0	1.0	1.0
	State	CPI	91,049	57.4	57.1	CPI	57.3	58.1	0.8	0.7
		P+	--	22%	22%	Lv 4&5	--	--	--	--
		SGP	66,511	42.0	43.0	SGP	43.0	44.0	1.0	2.0
ELL or Former ELLs	District	CPI	4,751	60.8	58.2	CPI	59.2	59.4	0.2	-1.4
		P+	--	32%	29%	Lv 4&5	--	--	--	--
		SGP	3,255	52.0	50.0	SGP	50.0	50.0	0.0	-2.0
	State	CPI	53,048	63.9	63.8	CPI	64.5	65.8	1.3	1.9
		P+	--	35%	36%	Lv 4&5	--	--	--	--
		SGP	35,290	53.0	52.0	SGP	51.0	50.0	-1.0	-3.0
All students	District	CPI	12,189	68.0	66.3	CPI	66.8	68.1	1.3	0.1
		P+	--	41%	39%	Lv 4&5	--	--	--	--
		SGP	8,853	49.0	47.0	SGP	48.0	50.0	2.0	1.0
	State	CPI	490,612	80.8	80.3	CPI	80.7	81.5	0.8	0.7
		P+	--	61%	60%	Lv 4&5	--	--	--	--
		SGP	388,423	51.0	50.0	SGP	50.0	50.0	0.0	-1.0

[28] 2015 and 2016 CPI and SGP are based on MCAS and PARCC test scores.

Table B7c: Worcester Public Schools
Science and Technology/Engineering (All Grades)
Performance for Selected Subgroups Compared to State, 2013–2016

Group and Measure			Number Included (2016)	Spring MCAS Year				Gains and Declines	
				2013	2014	2015	2016	4-Year Trend	2-Year Trend
High Needs	District	CPI	3,674	59.9	61.4	59.2	59.4	-0.5	0.2
		P+	3,674	24%	26%	22%	23%	-1	1
	State	CPI	89,857	66.4	67.3	66.3	65.4	-1.0	-0.9
		P+	89,857	31%	33%	32%	31%	0	-1
Econ. Disad.	District	CPI	2,958	--	--	59.4	59.2	--	-0.2
		P+	2,958	--	--	23%	24%	--	1
	State	CPI	61,476	--	--	67.1	65.8	--	-1.3
		P+	61,476	--	--	33.0%	29%	--	-4
Students w/ disabilities	District	CPI	1,109	45.6	47.3	48.3	48.6	3	0.3
		P+	1,109	7%	8%	9%	7%	0	-2
	State	CPI	38,109	59.8	60.1	60.2	59.7	-0.1	-0.5
		P+	38,109	20%	22%	22%	21%	1	-1
English language learners or Former ELLs	District	CPI	1,771	54.1	54.4	53.4	53.8	-0.3	0.4
		P+	1,771	19%	18%	17%	18%	-1	1
	State	CPI	18,594	54	54	53.9	54.1	0.1	0.2
		P+	18,594	19%	18%	18%	19%	0	1
All students	District	CPI	5,053	64.8	66.4	66	66	1.2	0.0
		P+	5,053	32%	34%	33%	33%	1	0
	State	CPI	208,262	79	79.6	79.4	78.7	-0.3	-0.7
		P+	208,262	53%	55%	54%	54%	1	0

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

Table B8: Worcester Public Schools
Annual Grade 9-12 Drop-Out Rates, 2013–2016

Group	School Year Ending				Change 2013–2016		Change 2015–2016		State (2016)
	2013	2014	2015	2016	Percentage Points	Percent Change	Percentage Points	Percent Change	
High Needs	3.4%	2.6%	1.8%	2.4%	-1.0	-29.4%	0.6	33.3%	3.7%
Econ. Disad.[29]	3.3%	2.5%	1.8%	2.4%	-0.9	-27.2%	0.6	33.3%	4.1%
Students w/ disabilities	3.6%	2.7%	2.0%	2.5%	-1.1	-30.5%	0.5	25.0%	3.1%
ELL	4.3%	3.3%	1.9%	2.7%	-1.6	-37.2	0.8	42.1%	6.6%
All students	3.4%	2.4%	1.7%	1.9%	-1.5	-44.1%	0.2	11.8%	1.9%

Notes: The annual drop-out 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. Drop outs 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 high school equivalency by the following October 1. Drop-out rates have been rounded; percent change is based on unrounded numbers.

Table B9: Worcester Public Schools
Attendance Rates, 2013–2016

Group	School Year Ending				Change 2013–2016		Change 2015–2016		State (2016)
	2013	2014	2015	2016	Percentage Points	Percent Change	Percentage Points	Percent Change	
All students	95.1%	94.5%	94.7%	94.6%	0.5	0.5%	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.

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[29] Low income numbers used for economically disadvantaged for 2013 and 2014

Table B10: Worcester Public Schools

Expenditures, Chapter 70 State Aid, and Net School Spending Fiscal Years 2014–2016

	FY14		FY15		FY16	
	Estimated	Actual	Estimated	Actual	Estimated	Actual
Expenditures						
From local appropriations for schools:						
By school committee	$273,087,211	$299,045,850	$304,751,850	$304,751,784	$322,895,803	$318,291,991
By municipality	$52,945,077	$53,942,167	$53,898,238	$32,342,533	$52,331,432	$53,958,808
Total from local appropriations	$326,032,288	$352,988,018	$358,650,088	$337,094,317	$375,227,235	$372,250,799
From revolving funds and grants	--	$55,500,558	--	$53,686,842	--	$54,922,384
Total expenditures	--	$408,488,576	--	$390,781,159	--	$427,173,183
Chapter 70 aid to education program						
Chapter 70 state aid*	--	$219,897,733	--	$220,569,583	--	$231,540,738
Required local contribution	--	$94,178,235	--	$99,280,899	--	$100,229,277
Required net school spending**	--	$314,075,968	--	$319,850,482	--	$331,770,015
Actual net school spending	--	$311,169,768	--	$317,548,974	--	$329,949,578
Over/under required ($)	--	-$2,906,199	--	-$2,301,508	--	-$1,820,437
Over/under required (%)	--	-0.9%	--	-0.7%	--	-0.5%

*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: FY14, FY15, and FY16 District End-of-Year Reports, Chapter 70 Program information on ESE website Data retrieved 12/13/16

Table B11: Worcester Public Schools
Expenditures Per In-District Pupil
Fiscal Years 2013–2015

Expenditure Category	2013	2014	2015
Administration	$356	$354	$346
Instructional leadership (district and school)	$614	$983	$709
Teachers	$5,772	$5,521	$5,628
Other teaching services	$842	$986	$1,046
Professional development	$167	$160	$149
Instructional materials, equipment and technology	$510	$571	$600
Guidance, counseling and testing services	$329	$349	$365
Pupil services	$1,276	$1,339	$1,357
Operations and maintenance	$820	$851	$831
Insurance, retirement and other fixed costs	$2,294	$2,430	$2,557
Total expenditures per in-district pupil	$12,980	$13,545	$13,588

Sources: Per-pupil expenditure reports on ESE website
Note: Any discrepancy between expenditures and total is because of rounding.

Appendix C: Instructional Inventory

Focus Area #1: Learning Objectives & Instruction		Insufficient	Minimal	Moderate	Strong	Avg Number of points
		(0)	(1)	(2)	(3)	(0 to 3)
1. The teacher demonstrates knowledge of subject matter and content.	ES	5%	15%	44%	36%	2.1
	MS	3%	3%	29%	65%	2.5
	HS	10%	25%	35%	29%	1.8
	Total #	14	38	101	96	2.1
	Total %	6%	5%	41%	39%	
2. The teacher provides and refers to clear learning objective(s) in the lesson.	ES	8%	12%	48%	32%	2.0
	MS	6%	13%	19%	61%	2.4
	HS	10%	19%	44%	27%	1.9
	Total #	21%	33	109	86	2.0
	Total %	8%	13%	44%	35%	
3. The teacher implements a lesson that reflects high expectations aligned to the learning objective (s).	ES	7%	26%	43%	24%	1.8
	MS	6%	10%	42%	42%	2.2
	HS	15%	27%	33%	25%	1.7
	Total #	21	60	102	66	1.9
	Total %	8%	24%	41%	27%	
4. The teacher uses appropriate instructional strategies well matched to the learning objective(s).	ES	7%	18%	45%	30%	2.0
	MS	10%	6%	45%	39%	2.1
	HS	21%	23%	38%	19%	1.5
	Total #	25	44	108	72	1.9
	Total %	10%	18%	43%	29%	
Total Score For Focus Area #1	ES	46	120	306	208	**8.0**
	MS	8	10	42	64	**9.2**
	HS	27	45	72	48	**6.9**
	Total	81	175	420	320	**7.9**

Focus Area #2: Student Engagement & Critical Thinking		Insufficient	Minimal	Moderate	Strong	Avg Number of points
		(0)	(1)	(2)	(3)	(0 to 3)
5. Students are motivated and engaged in the lesson.	ES	5%	18%	41%	36%	2.1
	MS	0%	10%	32%	58%	2.5
	HS	8%	29%	38%	25%	1.8
	Total #	12	48	97	92	2.1
	Total %	5%	19%	39%	37%	
6. The teacher facilitates tasks that encourage students to develop and engage in critical thinking.	ES	11%	26%	41%	23%	1.8
	MS	6%	16%	29%	48%	2.2
	HS	23%	25%	27%	25%	1.5
	Total #	31	61	91	92	1.8
	Total %	12%	24%	37%	37%	
7. Students assume responsibility for their own learning whether individually, in pairs, or in groups.	ES	10%	22%	42%	23%	1.8
	MS	6%	10%	48%	48%	2.1
	HS	27%	25%	21%	25%	1.5
	Total #	32	53	96	66	1.8
	Total %	13%	21%	39%	27%	
Total Score For Focus Area #2	ES	43	113	209	145	**5.7**
	MS	4	11	34	44	**6.8**
	HS	28	38	41	37	**4.8**
	Total	75	60	284	226	**5.7**

Focus Area #3: Differentiated Instruction & Classroom Culture		Insufficient	Minimal	Moderate	Strong	Avg Number of points
		(0)	(1)	(2)	(3)	(0 to 3)
8. The teacher appropriately differentiates instruction so the lesson content is accessible for all learners.	ES	22%	27%	33%	18%	1.5
	MS	10%	32%	26%	32%	1.8
	HS	33%	33%	15%	19%	1.2
	Total #	56	72	71	50	1.5
	Total %	22%	29%	29%	20%	
9. The teacher uses appropriate resources aligned to students' diverse learning needs. (e.g., technology, manipulatives, support personnel).	ES	11%	32%	39%	19%	1.7
	MS	13%	13%	35%	39%	2.0
	HS	40%	15%	29%	17%	1.2
	Total #	45	74	102	58	1.6
	Total %	16%	27%	37%	21%	
10. The classroom climate is characterized by respectful behavior, routines, tone, and discourse.	ES	6%	14%	29%	51%	2.2
	MS	6%	0%	29%	65%	2.5
	HS	10%	17%	40%	33%	2.0
	Total #	17	32	78	122	2.2
	Total %	7%	13%	31%	49%	
11. The teacher conducts appropriate formative assessments to check for understanding and provide feedback to students.	ES	8%	21%	44%	26%	1.9
	MS	10%	3%	35%	52%	2.3
	HS	23%	3%	38%	17%	1.5
	Total #	28	48	104	69	1.9
	Total %	11%	19%	42%	28%	
Total Score For Focus Area #3	ES	83	139	258	200	**7.3**
	MS	12	15	39	58	**8.6**
	HS	51	42	58	41	**5.9**
	Total	146	196	355	299	**7.2**

Appendix D: Worcester Public Schools Organizational Chart[30]

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                    │  Worcester School Committee      │
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                                   │
                    ┌─────────────────────────────┐        ┌──────────────────┐
                    │  Superintendent of Schools   │────────│  Assistant to    │
                    └─────────────────────────────┘        │  Superintendent /│
                                   │                         │  Clerk of School │
                                   │                         │  Committee       │
                                   │                         └──────────────────┘
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┌─────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
│Chief    │ │Chief     │ │Chief     │ │Chief     │ │School    │
│Research │ │Academic  │ │Financial │ │Human     │ │Safety    │
│and      │ │Officer   │ │and       │ │Resources │ │Director  │
│Account- │ │          │ │Operations│ │Officer   │ │          │
│ability  │ │          │ │Officer   │ │          │ │          │
│Officer  │ │          │ │          │ │          │ │          │
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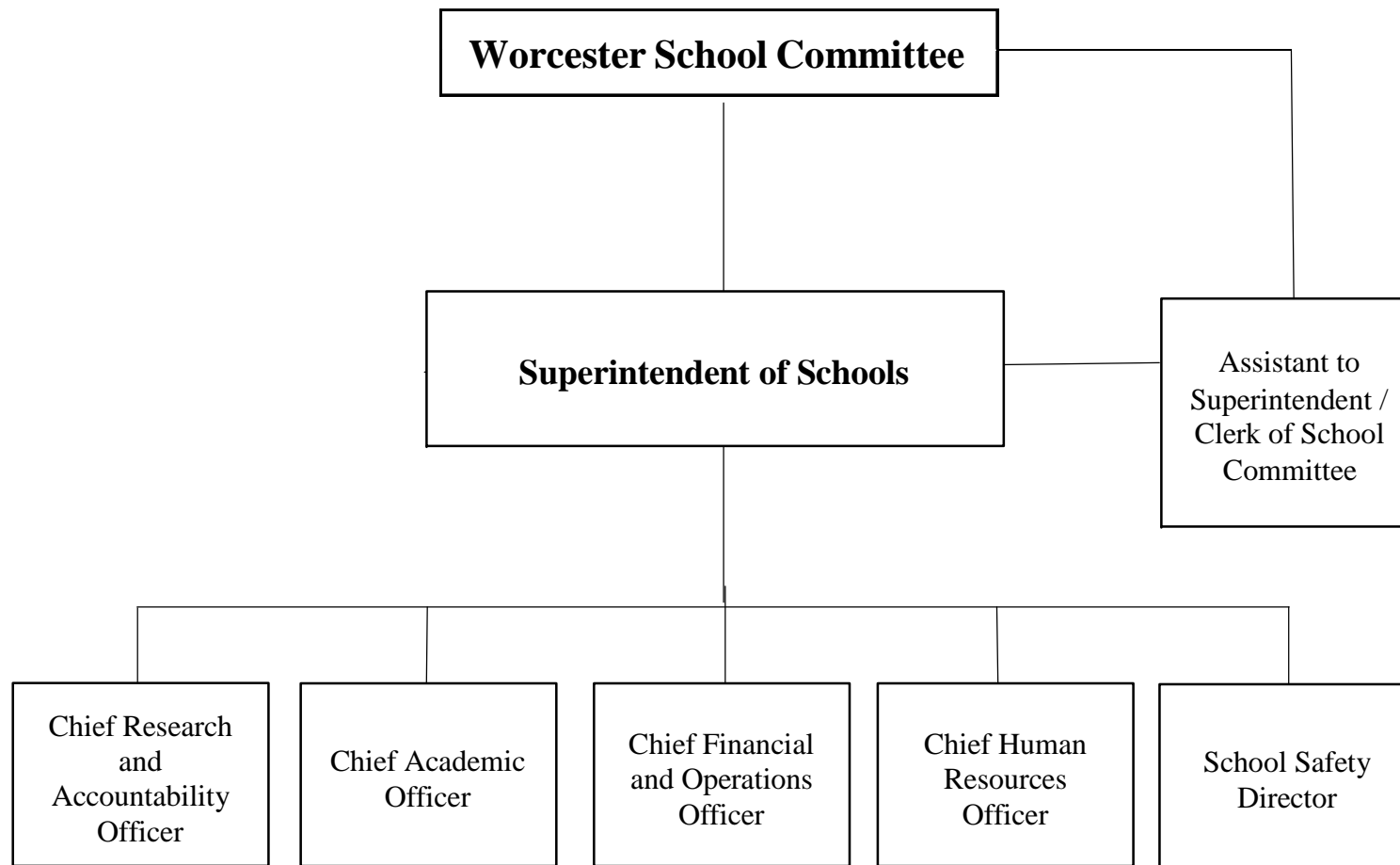
[30] **To display the complete Worcester Public Schools organizational chart (as of November 8, 2016), double click the image above.**