Targeted District Review Report

Sandwich Public Schools

Review conducted February 27–March 1, 2017

Office of District Reviews and Monitoring

Massachusetts Department of Elementary and Secondary Education

Organization of this Report

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Executive Summary

The Sandwich Public Schools have experienced substantial leadership transitions districtwide in recent years. From 1979 to 2004, only two superintendents served the district. From 2004 to 2016, there were five. In July 2016, the school committee hired an interim superintendent and in December 2016 appointed her as permanent superintendent. Since 2014, the district has appointed two elementary principals, a director of the STEM Academy (middle school), and a director of curriculum. While the review team was on site in late February/early March 2017, the high-school principal announced her retirement effective June 2017. The director of the STEM Academy had previously announced that he would retire at the end of the 2016–2017 school year. By September 2017 the district will have changed its entire leadership team in just three years.

Concurrent with recent leadership changes, there have been two shifts in grade configurations for schools enrolling students in pre-kindergarten through grade 8. The district traditionally supported 2 K–8 schools and 1 school serving pre-kindergarten through grade 8. At the beginning of the 2014–2015 school year, the new STEM Academy for grades 7–8 opened and was re-located to the high school. This decision meant that there would be two elementary schools serving kindergarten through grade 6 and one serving pre-kindergarten through grade 6. At the end of the 2014–2015 school year, the district closed the Wing Elementary School serving pre-kindergarten through grade 6 because of a continued decline in enrollment. In September 2015, the two remaining elementary schools were reconfigured into one school serving pre-kindergarten through grade 2 and one serving grades 3–6. (See the Leadership and Governance standard below.)

At the time of the review, the new curriculum director was in her second year of service. In addition, the district has a number of mid-level leaders who engage in curriculum and instruction: K–6 coordinators for literacy, math and science; K–6 coaches for ELA and math; and high-school department heads who until recently have overseen core content areas for grades 9–12 and now are beginning to incorporate grades 7–8 into their departments.

The new curriculum director is leading a district that operates with a partially documented curriculum only loosely aligned to the Massachusetts Curriculum Frameworks. Also, the district does not have clearly defined districtwide expectations for implementing high-quality standards-based instruction. In the elementary schools, teachers depend on programs to guide their teaching with some use of data-informed large-group/small-group instruction as an instructional model for ELA and math. The secondary schools emphasize project-based learning in some content areas, student engagement, and the use of technology as a tool for teaching and learning.

The team observed 53 classes throughout the district: 23 at the high school, 13 at the STEM Academy (middle school), and 17 at the 2 elementary schools. The team observed 18 ELA classes, 14 mathematics classes, 13 science classes, and 8 classes in other subject areas. 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.

In observed lessons, the review team found that the quality and rigor of instruction varied within and across schools, with the most consistently strong instruction observed at the Sandwich STEM Academy. Overall observed strengths included a teaching staff whose knowledge of subject matter engaged most students in content. Observed lessons often reflected a student-centered approach with frequent opportunities for students to take responsibility for thinking and learning while working in pairs or groups or individually. Team members noted that classroom climate was conducive to learning and teachers used rituals, routines, and responses to prevent or stop behaviors that distracted from learning. Challenges to effective instruction included lessons that did not consistently involve high expectations for learning, did not sufficiently encourage the development and application of critical thinking skills, and did not appropriately differentiate instruction, whether through products, content, or teaching strategies, to enable all students to gain access to lesson content.

Strengths

There are notable strengths in the district. First, the new superintendent has entered into the community and the school system in a collaborative, transparent, and calming way. She has begun to build trust within the school community and the community at large and has initiated a broad stakeholder effort to develop a new strategic plan for the schools. Second, the Joint Labor Management Team has improved the district's educator evaluation system. The system is streamlined and emphasizes more collaborative dialogue for improvement. Also, the new superintendent's budget process leverages and allocates resources to achieve priorities and improves transparency. School and town officials are working more cooperatively and constructively after a recent period of tension.

Challenges and Areas for Growth

The district faces a number of systemic and programmatic challenges. The current District Improvement Plan is outdated and current School Improvement Plans do not provide well-defined guidance for continuous improvement. The large number of leadership changes, a school closing, and multiple grade-level reconfigurations over a short period of time have contributed to some instability in the district. These have likely been factors in the substantial decrease in enrollment from grade 8 to grade 9 over the past several years (see Table 23 below). Until recently, there has been no districtwide leadership for curriculum and instruction. This has led to uncoordinated curriculum development and implementation across schools. Furthermore, curriculum documents are incomplete, located on more than one online platform, and not based on a consistent model. In addition, curriculum is generally not firmly grounded in state standards. In observed classes, overall the quality of instruction was inconsistent, with stronger practices noted in grades 7–8. Teachers did not sufficiently and consistently differentiate instruction to meet students' diverse learning needs or sufficiently and consistently stretch students' thinking through rigorous lesson activities.

Instructional strategies through grade 6 rely heavily on programs rather than on a common understanding and implementation of standards-based best practices. Common planning time during the school day for teachers to collaborate on lesson planning and instructional improvement does not exist in some schools and is insufficient in others. The district has not achieved consistency in the

implementation of its educator evaluation system and has not taken action on more recent components of the state's Educator Evaluation Framework. Also, the district does not have a cohesive, comprehensive, and collaboratively developed professional development plan. Finally, the district is challenged to keep up with the schools' maintenance, repair, and technology infrastructure needs and does not have a long-range plan to address them.

Recommendations

The review team recommends that the new superintendent and the district continue to develop a new district strategic plan grounded in the district's vision and mission and leading to new and more useful action plans for the district and each school.

Under the leadership of the curriculum director, the district should collaboratively develop curriculum maps that are firmly rooted in state standards. Furthermore, it should clarify, expect, and support strong standards-based instructional. The review team also recommends that the district work with the teachers' association to ensure that there is frequent, meaningful common planning time scheduled at all schools to enable teachers to collaborate on curriculum planning, lesson development, and other improvement initiatives.

The district should consistently implement the educator evaluation model, making sure that implementation is comprehensive and includes all required components. The district should also develop a more cohesive and comprehensive professional development plan that addresses individual growth needs as well as school and district improvement priorities. Finally, the review team recommends that the district prepare a maintenance plan for the short term and a more long-range capital improvement plan for buildings and technology.

The review team expresses its confidence that the district has the capacity in both its leadership and its teaching staff to enact these recommendations over time and become the high performing district to which the school community and the broader community aspire.

Sandwich Public Schools Targeted District Review Overview

Purpose

Conducted under Chapter 15, Section 55A of the Massachusetts General Laws, targeted 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 three district standards used by the Department of Elementary and Secondary Education (ESE). Targeted reviews address one of the following sets of three standards: **Governance and Administrative Systems** (Leadership and Governance, Human Resources and Professional Development, and Financial and Asset Management standards) or **Student-Centered Systems** (Curriculum and Instruction, Assessment, and Student Support standards). All targeted reviews include finding(s) about instruction based on classroom observations. A targeted review identifies systems and practices that may be impeding improvement as well as those most likely to be contributing to positive results. In addition, the targeted district reviews is designed to promote district reflection on its own performance and potential next steps.

Districts whose performance level places them in Level 2 of ESE's framework for district accountability and assistance will typically participate in a targeted district review (Level 3 and Level 4 districts typically receive a comprehensive review). Other relevant factors are taken into consideration when determining if a district will participate in a targeted or comprehensive review.

This targeted review by the Office of District Reviews and Monitoring focused on the following standards: Leadership and Governance, Human Resources and Professional Development, and Financial and Asset Management.

Methodology

Reviews collect evidence for each of the three district standards identified as the focus of the targeted review. Team members also observe classroom instructional practice. A district review team consisting of independent consultants with expertise in the district standards reviews documentation, data, and reports for two days before conducting a three-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. 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 Sandwich Public Schools was conducted from February 27–March 1, 2017. The site visit included 24 hours of interviews and focus groups with approximately 78 stakeholders, including school committee members, district administrators, school staff, students, and teachers' association representatives. The review team conducted 4 focus groups with 6 elementary-school teachers, and 8 middle-school and high-school teachers.

A list of review team members, information about review activities, and the site visit schedule are in Appendix A, and Appendix B provides information about enrollment, student performance, and expenditures. The team observed classroom instructional practice in 53 classrooms in 4 schools. The team collected data using an instructional inventory, a tool for recording observed characteristics of standards-based teaching. This data is contained in Appendix C.

District Profile

Sandwich has a board of selectmen/town manager form of government and the school committee elects its chairperson. The seven members of the school committee meet twice a month.

The current superintendent was appointed interim superintendent in July 2016 and permanent superintendent in December 2016. The district leadership team includes the director of curriculum (who also serves as the Pre-K–6 ELA coordinator), the director of finance, the director of pupil services, the ELL coordinator, the director of technology, the facilities manager and the nutrition director. Central office positions have increased over the past two years. The district has three principals leading four schools and a director leads the Sandwich STEM Academy (the middle school) and reports to the superintendent. There are eight other school administrators: six assistant principals, a Pre-K–6 math coordinator and a Pre-K–6 science coordinator. In 2016–2017 there were 215 teachers in the district.

In the 2016–2017 school year, 2,726 students were enrolled in the district's 4 schools:

Table 1: Sandwich Public Schools
Schools, Type, Grades Served, and Enrollment*, 2016–2017

School Name	School Type	Grades Served	Enrollment
Forestdale School	ES	Pre-K–2	644
Oak Ridge School	ES	3–6	903
Sandwich STEM Academy	MS	7–8	470
Sandwich High School	HS	9–12	709
Totals	**4 schools**	**Pre-K–12**	**2,726**

*As of October 1, 2016

Between 2012 and 2017 overall student enrollment decreased by 17.3 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 higher than the median in-district per-pupil expenditures for 47 districts of similar size (2,000–2,999 students) in fiscal year 2015: $14,225 as compared with

$13,342 (see District Analysis and Review Tool Detail: Staffing & Finance). Actual net school spending has been well above what is required by the Chapter 70 state education aid program, as shown in Table B6 in Appendix B.

Student Performance

Sandwich is a Level 2 district because Oak Ridge, Sandwich STEM Academy, and Sandwich High are in Level 2 for not meeting their gap narrowing targets for all students and high needs students.

Table 2: Sandwich Public Schools
District and School PPI, Percentile, and Level 2013–2016

School	Group	Annual PPI				Cumulative PPI	School Percentile	Accountability Level
		2013	2014	2015	2016			
Forestdale	All	--	--	--	--	--	--	--
	High Needs	--	--	--	--	--		
Oak Ridge	All	80	35	75	65	64	60	2
	High Needs	90	30	69	50	56		
Sandwich STEM Academy	All	70	50	30	40	42	62	2
	High Needs	65	60	60	50	57		
Sandwich High	All	86	86	64	71	74	54	2
	High Needs	82	79	79	57	71		
District	All	50	43	54	50	50	--	2
	High Needs	57	54	54	50	53		

Between 2013 and 2016, the percentage of students scoring proficient or advanced in ELA declined by 5 percentage points for all students, by 8 percentage points for high needs students, and by 6 percentage point for students with disabilities.

Table 3: Sandwich Public Schools
ELA Proficiency by Subgroup 2013–2016

Group		2013	2014	2015	2016	4-Year Trend	Above/Below State (2014)
All students	District	76%	77%	76%	71%	-5%	8
	State	69%	69%	--	--	--	
High Needs	District	53%	52%	54%	45%	-8%	2
	State	49%	50%	--	--	--	
Economically Disadvantaged	District	--	--	64%	55%	--	--
	State	--	--	--	--	--	
ELL and former ELL students	District	--	18%	71%	46%	--	-18
	State	34%	36%	--	--	--	
Students with disabilities	District	38%	40%	40%	32%	-6%	10
	State	29%	30%	--	--	--	

Between 2013 and 2016, the percentage of students scoring proficient or advanced in math declined by 8 percentage points for all students, by 6 percentage points for high needs students, and by 1 percentage point for students with disabilities.

Table 4: Sandwich Public Schools
Math Proficiency by Subgroup 2013–2016

Group		2013	2014	2015	2016	4-Year Trend	Above/Below State (2014)
All students	District	72%	71%	65%	64%	-8%	11
	State	61%	60%	--	--	--	
High Needs	District	45%	43%	36%	39%	-6%	3
	State	40%	40%	--	--	--	
Economically Disadvantaged	District	--	--	43%	45%	--	--
	State	--	--	--	--	--	
ELL and former ELL students	District	--	64%	43%	42%	--	29
	State	35%	35%	--	--	--	
Students with disabilities	District	29%	29%	21%	28%	-1%	6
	State	23%	23%	--	--	--	

Between 2013 and 2016, the percentage of students scoring proficient or advanced in science declined by 3 percentage points for all students, and by 1 percentage point for high needs students, and improved by 3 percentage points for students with disabilities. In 2016, the percentage of students scoring proficient or advanced in science was 4 percentage points above the state rate for the district as a whole and 13 and 3 percentage points above the state rate for economically disadvantaged students and high needs students and students with disabilities, respectively.

Table 5: Sandwich Public Schools
Science Proficiency by Subgroup 2013–2016

Group		2013	2014	2015	2016	4-Year Trend	Above/Below State (2016)
All students	District	61%	57%	61%	58%	-3	4
	State	53%	55%	54%	54%	1	
High Needs	District	35%	30%	38%	34%	-1	3
	State	31%	33%	31%	31%	0	
Economically Disadvantaged	District	--	--	45%	45%	--	13
	State	--	--	34%	32%	--	
ELL and former ELL students	District	--	--	--	--	--	--
	State	19%	18%	19%	19%	0	
Students with disabilities	District	21%	20%	28%	24%	3	3
	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 for students from economically disadvantaged families in math.

Table 6: Sandwich Public Schools
2016 CPI and Targets by Subgroup

	ELA			Math			Science		
Group	**2016 CPI**	**2016 Target**	**Rating**	**2016 CPI**	**2016 Target**	**Rating**	**2016 CPI**	**2016 Target**	**Rating**
All students	87.9	96.0	No Change	83.8	93.0	No Change	83.4	90.7	No Change
High Needs	73.3	89.9	Declined	68.5	83.3	Improved Below Target	68.6	82.2	Declined
Economically Disadvantaged[1]	79.0	86.8	Declined	73.7	73.7	On Target	75.0	78.6	No Change
ELLs	--	--	--	--	--	--	--	--	--
Students with disabilities	64.9	87.0	Declined	60.4	78.8	Improved Below Target	61.4	78.9	Declined

Students' growth in ELA was moderate compared with their academic peers statewide for all students and high needs students, and low for economically disadvantaged students from economically disadvantaged families and students with disabilities. Students' growth in math was moderate compared with their academic peers statewide for all students, high needs students, students from economically disadvantaged families and students with disabilities.

Table 7: Sandwich Public Schools
2016 Median ELA and Math SGP by Subgroup

Group	**2016 Median ELA SGP**			**2016 Median Math SGP**		
	District	**CPI Rating**	**Growth Level**	**District**	**CPI Rating**	**Growth Level**
All students	46.0	Below Target	Moderate	52.0	On Target	Moderate
High Needs	40.5	Below Target	Moderate	52.0	Above Target	Moderate
Econ. Disad.	39.0	Below Target	Low	50.0	On Target	Moderate
ELLs	--	--	--	--	--	--
SWD	39.0	Below Target	Low	53.5	Above Target	Moderate

[1] The economically disadvantaged subgroup does not have a CPI target and rating because 2015 is the first year that a CPI was calculated for the economically disadvantaged group; this CPI will serve as a baseline for future years' CPI targets.

In 2016, the district's out-of-school suspension and in-school suspension rates were below the state rate for all students, high needs students, students from economically disadvantaged families, and students with disabilities.

Table 8: Sandwich Public Schools
Out-of-School and In-School Suspensions by Subgroup 2013–2016

Group	Type of Suspension	2013	2014	2015	2016	State (2016)
High Needs	ISS	1.4%	1.1%	2.5%	1.5%	2.9%
	OSS	3.3%	2.7%	1.9%	1.8%	4.9%
Economically disadvantaged*	ISS	1.9%	0.9%	2.5%	0.8%	3.2%
	OSS	2.4%	2.8%	1.9%	1.9%	5.6%
ELLs	ISS	--	--	--	--	1.9%
	OSS	--	--	--	--	4.0%
Students with disabilities	ISS	1.1%	1.0%	3.2%	1.9%	3.5%
	OSS	4.4%	2.7%	2.0%	1.9%	5.9%
All Students	ISS	0.7%	0.5%	1.6%	1.0%	1.9%
	OSS	1.4%	1.1%	0.9%	1.3%	2.9%

* Suspension rates for students from low income families used for 2013 and 2014

Between 2012 and 2015, the district's four-year cohort graduation rate improved by 1.2 percentage points for all students and by 1.6 and 14.1 percentage points for high needs students and students from low income families, respectively, and declined by 6.6 percentage points for students with disabilities. The district reached the four-year cohort graduation target for all students and high needs students.[2]

Table 9: Sandwich Public Schools
Four-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	75	82.4	76.7	82.9	84.0	1.6	1.9%	1.1	1.3%	78.5
Low income	36	72.0	78.8	77.8	86.1	14.1	19.6%	8.3	10.7%	78.2
ELLs	--	--	--	--	--	--	--	--	--	64.0
SWD	54	86.2	75.4	83.3	79.6	-6.6	-7.7%	-3.7	-4.4%	69.9
All students	217	91.9	90.3	91.2	93.1	1.2	1.3%	1.9	2.1%	87.3

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

Between 2011 and 2014, the district's five-year cohort graduation rate declined by 1.3 and 0.5 percentage points for all students and students from low income families, respectively, and improved by 5.9 and 7.6 percentage points for high needs students and students with disabilities, respectively. The district reached the five-year cohort graduation target for all students, high needs students, and students with disabilities.[3]

Table 10: Sandwich Public Schools
Five-Year Cohort Graduation Rates 2011–2014

Group	Number Included (2014)	Cohort Year Ending				Change 2011–2014		Change 2013–2014		State (2014)
		2011	2012	2013	2014	Percentage Points	Percent Change	Percentage Points	Percent Change	
High needs	70	85.5	85.1	77.8	91.4	5.9	6.9%	13.6	17.5%	80.3
Low income	27	93.1	72.0	78.8	92.6	-0.5	-0.5%	13.8	17.5%	79.6
ELLs	--	--	--	--	--	--	--	--	--	69.8
SWD	54	81.3	89.7	76.9	88.9	7.6	9.3%	12	15.6%	73.5
All students	215	95.3	93.4	90.7	94.0	-1.3	-1.4%	3.3	3.6%	88.5

In 2015, the district's drop-out rate for all students was almost one-quarter of the state rate, and was below the state rate for high needs students, students from economically disadvantaged families, and students with disabilities.

Table 11: Sandwich Public Schools
Drop-out Rates by Subgroup 2012–2015

Group	2012	2013	2014	2015	State (2015)
High Needs	3.7%	2.9%	1.5%	1.8%	3.4%
Econ. Disad.[4]	4.8%	2.0%	1.2%	3.1%	3.3%
ELLs	--	--	--	--	5.7%
SWD	4.3%	3.7%	1.4%	1.7%	3.5%
All students	1.5%	2.1%	0.6%	0.5%	1.9%

Grade and School Results

Between 2013 and 2016, ELA proficiency rates declined by 5 percentage points for all students and in each tested grade by 1 to 12 percentage points.

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

[4] The drop-out rates for students from low-income families used for the 2012, 2013, and 2014 drop-out rates for students from economically disadvantaged families.

- Math proficiency rates declined by 12 percentage points in the 3rd grade, by 3 percentage points in the 4th grade, by 6 percentage points in the 5th grade, by 1 percentage point in the 6th grade, by 5 percentage points in the 7th grade, by 2 percentage points in the 8th grade, and by 3 percentage points in the 10th grade.
    - ELA proficiency in the 10th grade was 94 percent in 2016, 3 percentage points above the state rate of 91 percent.

Table 12: Sandwich Public Schools
ELA Percent Proficient or Advanced by Grade 2013–2016

Grade	Number	2013	2014	2015	2016	State (2016)	4-Year Trend	2-Year Trend
3	211	60%	58%	55%	48%	--	-12%	-7%
4	235	53%	63%	54%	50%	--	-3%	-4%
5	244	73%	67%	77%	67%	--	-6%	-10%
6	229	78%	80%	79%	77%	--	-1%	-2%
7	241	83%	85%	82%	78%	--	-5%	-4%
8	260	88%	89%	87%	86%	--	-2%	-1%
10	174	97%	98%	97%	94%	91%	-3%	-3%
All	1,594	76%	77%	76%	71%	--	-5%	-5%

In 2016, ELA proficiency rates were 49 percent, 51 percent, 68 percent, and 78 percent in the 3rd, 4th, 5th, and 6th grades, respectively, at Oak Ridge; 79 percent and 87 percent in the 7th and 8th grades, respectively, at Sandwich STEM Academy; and 95 percent in the 10th grade at Sandwich High.

Table 13: Sandwich Public Schools
ELA Percent Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Forestdale	--	--	--	--	--	--	--	--
Oak Ridge	49%	51%	68%	78%	--	--	--	62%
Sandwich STEM Academy	--	--	--	--	79%	87%	--	83%
Sandwich High	--	--	--	--	--	--	95%	95%
District Total	48%	50%	67%	77%	78%	86%	94%	71%
State	--	--	--	--	--	--	91%	--

Between 2013 and 2016, ELA proficiency rates declined by 10 and 3 percentage points, respectively, at Oak Ridge and Sandwich High.

- ELA proficiency rates for high needs students declined by 11 and 10 percentage points, respectively, at Oak Ridge and Sandwich High.
- ELA proficiency rates for students with disabilities declined by 9 and 10 percentage points, respectively, at Oak Ridge and Sandwich High.

Table 14: Sandwich Public Schools
ELA Percent Proficient or Advanced by School and Subgroup 2012–2015

School	2013	2014	2015	2016	4-Year Trend
Forestdale	75%	78%	70%	--	--
High Needs	54%	55%	43%	--	--
Econ. Disad.	--	--	56%	--	--
ELLs	--	--	--	--	--
SWD	33%	38%	24%	--	--
Oak Ridge	72%	71%	65%	62%	-10%
High Needs	45%	42%	45%	34%	-11%
Econ. Disad.	--	--	57%	45%	--
ELLs	--	--	--	----	--
SWD	30%	31%	21%	21%	-9%
Sandwich STEM Academy	--	--	86%	83%	--
High Needs	--	--	65%	62%	--
Econ. Disad.	--	--	77%	69%	--
ELLs	--	--	--	--	--
SWD	--	--	49%	45%	--
Sandwich High	98%	98%	98%	95%	-3%
High Needs	89%	91%	93%	79%	-10%
Econ. Disad.	--	--	95%	84%	--
ELLs	--	--	--	--	--
SWD	84%	86%	90%	74%	-10%

Between 2013 and 2016, math proficiency rates in Sandwich declined by 8 percentage points for all students and declined in the 3rd, 5th, 7th, 8th, and 10th grades.

- Math proficiency rates declined by 5 percentage points in the 3rd grade, by 6 percentage points in the 5th grade, by 20 and 22 percentage points in the 7th and 8th grades, respectively, and by 5 percentage points in the 10th grade.
    - Math proficiency in the 10th grade was 83 percent in 2016, 5 percentage points above the 2016 state rate of 78 percent.

- Math proficiency rates improved by 2 percentage points in the 4th and 6th grades.

Table 15: Sandwich Public Schools
Math Percent Proficient or Advanced by Grade 2013–2016

Grade	Number	2013	2014	2015	2016	State (2016)	4-Year Trend	2-Year Trend
3	213	74%	72%	69%	69%		-5%	0%
4	234	50%	60%	39%	52%		2%	13%
5	243	73%	71%	72%	67%		-6%	-5%
6	229	77%	75%	72%	79%		2%	7%
7	242	71%	65%	60%	51%		-20%	-9%
8	257	74%	67%	63%	52%		-22%	-11%
10	175	88%	92%	84%	83%	78%	-5%	-1%
All	1,593	72%	71%	65%	64%		-8%	-1%

In 2016, math proficiency rates were 70 percent, 53 percent, 69 percent, and 81 percent in the 3rd, 4th, 5th, and 6th grades, respectively, at Oak Ridge; 51 percent and 52 percent in the 7th and 8th grades, respectively, at Sandwich STEM Academy; and 83 percent in the 10th grade at Sandwich High.

Table 16: Sandwich Public Schools
Math Percent Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Forestdale	--	--	--	--	--	--	--	--
Oak Ridge	70%	53%	69%	81%	--	--	--	68%
Sandwich STEM Academy	--	--	--	--	51%	52%	--	52%
Sandwich High	--	--	--	--	--	--	85%	85%
District	69%	52%	67%	79%	51%	52%	83%	64%
State	--	--	--	--	--	--	78%	--

Between 2013 and 2016, math proficiency rates declined by 2 and 5 percentage points at Oak Ridge and Sandwich High, respectively.

- Math proficiency rates for high needs students did not improve at Oak Ridge and declined by 11 percentage points at Sandwich High.
- Math proficiency rates for students with disabilities improved by 11 percentage points at Oak Ridge and declined by 9 percentage points at Sandwich High.

Table 17: Sandwich Public Schools
Math Percent Proficient or Advanced by School and Subgroup 2013–2016

School	2013	2014	2015	2016	3- or 4-Year Trend
Forestdale	66%	66%	60%	--	--
High Needs	43%	44%	31%	--	--
Econ. Disad.	--	--	40%	--	--
ELLs	--	--	--	--	--
SWD	27%	25%	13%	--	--
Oak Ridge	70%	66%	63%	68%	-2%
High Needs	43%	37%	38%	43%	0%
Econ. Disad.	--	--	52%	52%	--
ELLs	--	--	--	--	--
SWD	21%	27%	15%	32%	11%
Sandwich STEM Academy	--	--	63%	52%	--
High Needs	--	--	31%	29%	--
Econ. Disad.	--	--	34%	32%	--
ELLs	--	--	--	--	--
SWD	--	--	19%	18%	--
Sandwich High	90%	94%	86%	85%	-5%
High Needs	70%	70%	52%	59%	-11%
Econ. Disad.	--	--	68%	63%	--
ELLs	--	--	--	--	--
SWD	61%	52%	39%	52%	-9%

Between 2013 and 2016, science proficiency rates declined by 3 percentage points in the district as whole, from 61 percent in 2013 to 58 percent in 2016, 4 percentage points above the 2016 state rate of 54 percent.

- 5th grade science proficiency rates declined by 7 percentage points, from 60 percent in 2013 to 53 percent in 2016, 6 percentage points above the 2016 state rate of 47 percent.

- 8th grade science proficiency rates improved by 1 percentage point, from 45 percent in 2013 to 46 percent in 2016, 5 percentage points above the 2016 state rate of 41 percent.

- 10th grade science proficiency rates improved by 2 percentage points, from 83 percent in 2013 to 85 percent in 2016, 12 percentage points above the 2016 state rate of 73 percent.

Table 18: Sandwich 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	243	60%	56%	66%	53%	47%	-7%	-13%
8	256	45%	38%	45%	46%	41%	1%	1%
10	164	83%	91%	78%	85%	73%	2%	7%
All	663	61%	57%	61%	58%	54%	-3%	-3%

In 2016, science proficiency was 54 percent in the 5th grade at Oak Ridge, above the2016 state rate of 47 percent. Science proficiency was 46 percent in the 8th grade at Sandwich STEM Academy, above the 2016 state rate of 41 percent. Science proficiency was 88 percent in grade 10 at Sandwich High, above the 2016 state rate of 73 percent.

Table 19: Sandwich Public Schools
Science Percent Proficient or Advanced by School and Grade 2015–2016

School	3	4	5	6	7	8	10	Total
Forestdale	--	--	--	--	--	--	--	--
Oak Ridge	--	--	54%	--	--	--	--	54%
Sandwich STEM Academy	--	--	--	--	--	46%	--	46%
Sandwich High	--	--	--	--	--	--	88%	88%
District	--	--	53%	--	--	46%	85%	58%
State	--	--	47%	--	--	41%	73%	54%

Between 2013 and 2016, science proficiency rates for all students declined by 4 percentage points for all students at Oak Ridge and improved by 5 percentage points for all students at Sandwich High.

- Science proficiency rates for high needs students improved by 3 percentage points at Oak Ridge and by 9 percentage points at Sandwich High.
- Science proficiency rates for students with disabilities improved by 17 percentage points at Oak Ridge and by 16 percentage points at Sandwich High.

Table 20: Sandwich Public Schools
Science Percent Proficient or Advanced by School and Subgroup 2013–2016

School	2013	2014	2015	2016	3- or 4-Year Trend
Forestdale	44%	46%	66%	--	--
High Needs	25%	22%	39%	--	--
Econ. Disad.	--	--	55%	--	--
ELLs	--	--	--	--	--
SWD	14%	6%	18%	--	--
Oak Ridge	58%	48%	59%	54%	-4%
High Needs	26%	15%	43%	29%	3%
Econ. Disad.	--	--	64%	46%	--
ELLs	--	--	--	--	--
SWD	0%	17%	9%	17%	17%
Sandwich STEM Academy	--	--	46%	46%	--
High Needs	--	--	18%	29%	--
Econ. Disad.	--	--	19%	34%	--
ELLs	--	--	--	--	--
SWD	--	--	17%	18%	--
Sandwich High	83%	92%	79%	88%	5%
High Needs	54%	67%	55%	63%	9%
Econ. Disad.			67%	72%	--
ELLs	--	--	--	--	--
SWD	41%	57%	46%	57%	16%

Leadership and Governance

Contextual Background

Over the past three school years the Sandwich Public Schools have undergone significant change. Historically Sandwich had one high school and two schools serving kindergarten through grade 8 and one school serving pre-kindergarten through grade 8.[5] In September 2014, the district opened a redesigned middle-school program for grades 7–8 as the Sandwich STEM Academy and relocated it to one wing of the high school. The three elementary schools then enrolled students through grade 6. In June 2015, the district closed the Wing Elementary School because of continued decreasing enrollment and once again restructured the elementary grades for the 2015–2016 school year. When school opened in September 2015, the two remaining schools, Forestdale and Oak Ridge, absorbed students from the decommissioned Wing Elementary School; Forestdale became a primary school for pre-kindergarten through grade 2 while Oak Ridge Elementary School enrolled students in grades 3–6.

During the same three school years, there have been meaningful changes in school and district leadership. When the STEM Academy opened in 2014, the superintendent appointed a director to work under the guidance of the high-school principal and report directly to the superintendent. At the start of the 2015–2016 school year, the superintendent appointed a director of curriculum, a districtwide position that had previously existed but had been eliminated several years prior. In addition, the district hired the current primary and elementary school principals just before or during the transitions as grades were reconfigured in 2013–2014 and 2014–2015. The district has also had 5 superintendents within the past 12 years after 25 years of relative stability in the superintendency. At the time of the onsite in late February/early March 2017, the high-school principal and the director of the STEM Academy planned to retire in June 2017. When school opens in September 2017, the entire leadership team will have turned over in just three years.

In June 2016, the school committee unanimously hired an interim superintendent and in December 2016 voted to appoint her superintendent with a three-year contract. The new superintendent has provided the school committee with an entry plan and annual goals. She has become visible in the community listening and learning about the schools and the community. She attends town governance meetings, meets regularly with town officials, and holds drop-in meetings for the public twice monthly at the town library. She has also established a faculty advisory committee and a student advisory committee (grades 7–12); each meets monthly to share stakeholder views.

Although all members of the school committee are in their first or second year of service, they function as a focused and effective governing body. Committee members have taken steps to become informed and knowledgeable about their responsibilities and have acted within the scope of their duties. Members have participated in training and professional development to become proficient in their roles and to inform decision-making. They are committed to fulfilling their responsibilities for goal setting, policy development, and budget and fiscal oversight. The school committee and the superintendent

[5] The Pre-K program was located at the Wing School.

have created a culture of collaboration and transparency, which enables them to work cooperatively with each other and other town boards and groups.

Given new leadership, the district improvement planning process is in a period of flux. The last strategic plan was written in 2012 with three overarching goals added in 2016. The new superintendent and school committee chair are co-chairing a district strategic planning committee, which includes broad school and community membership. Current School Improvement Plans (SIPs) do not provide a current, clearly defined plan for improvement. At the time of the onsite in late February/early March 2017, the SIPs were to be revised for the 2017–2018 school year as the district completed its strategic plan.

In the past five years, the district has experienced a significant decline in enrollment, especially between grades 8 and 9, as many students have left the district to attend charter, parochial, and vocational-technical high schools. A continued decline in enrollment may put funding levels at risk, may affect the ability of the district to achieve its improvement goals, and may mean that more Sandwich students will choose schools other than the Sandwich Public Schools.

Strength Findings

1. **Through a collaborative and supportive leadership style, the new superintendent promotes a culture of transparency, trust, and confidence throughout the district and the broader community.**

   A. The superintendent has extended an invitation to all members of the district and the greater Sandwich community to meet and discuss the state of the district, thereby building initial community trust and support.

      1. The superintendent met with town officials individually and in tri-board meetings to establish a more positive working relationship with the town. One town official spoke about the constructive relations that now exist between the schools and the town, stating that the superintendent is “very good to work with.”

      2. The superintendent holds two open-ended community outreach meetings monthly at the Sandwich library. Parents stated that she was available and willing to talk about what was going well and not so well.

      3. The superintendent created a student advisor group that includes one student representative from each grade, 7–12, and meets with them monthly to better understand students’ concerns and perspectives.

      4. The superintendent’s Teacher Advisory Council, which includes two or three teachers from each school, meets monthly.

   B. The superintendent is promoting a culture of data-driven accountability by providing goals with which her performance can be measured and by making public the data that informs her decisions and recommendations.

1. The superintendent provided the school committee with an initial entry plan citing data collected from meetings with multiple boards, committees, and groups, and annual goals with clear outcomes for direction setting.

2. The superintendent's MCAS report provided the school committee with a clear understanding of student achievement results and their implications for the district. One school committee member expressed appreciation that the superintendent did not attempt to "sugar coat" the results.

3. The superintendent collected data from faculty, staff, students, parents, and community members through a Sandwich Public Schools District Improvement Strategy Survey. This 27-item survey was completed and returned by 1,722 members of the school district and the Sandwich community.

4. To understand better why students chose to leave the district, the superintendent polled parents with a four-question survey.

5. The superintendent conducted school resource and personnel audits to better inform the district's budget development process. The budget presentation provided to the school committee included a description of the audits and a detailed description of the process used to develop the proposed fiscal 2018 budget.

6. The superintendent shares detailed follow-up notes after administrator team meetings with the administrative team and the school committee.

7. Representatives of the Sandwich Education Association (SEA) described the superintendent as a "breath of fresh air" stating that "there are goals and they are measurable."

C. The superintendent has initiated an inclusive strategic planning process for the development of a new data-driven district plan.

1. A strategic planning committee of 35 participants includes students, parents, teachers, administrators, community members, PTA leaders, and finance committee and board of selectmen members. The first meeting of the committee was held on November 19, 2016. A second meeting was held on January 7, 2017, and meetings continue to be held monthly. At the time of the onsite in late February/early March, 2017, the goal was to have a final strategic planning document approved by school committee in June 2017, with an implementation date of July 1, 2017.

2. Teachers reported that the superintendent was "very open," and noted that she guided but did not direct the strategic planning process.

Impact: Under the leadership of the new superintendent, the district has begun to create a culture of transparency, collaboration, and accountability. Within this culture, student learning and achievement can become the shared responsibility of district leaders, staff, parents, and the broader community.

This can lead to increased support for and confidence in the schools' ability to educate all the young people who reside in Sandwich.

Challenges and Areas for Growth

2. District and school planning documents do not provide a current, clearly defined vision for improvement for the district as a whole and for each school individually.

A. The district does not have a strategic plan to guide the district, leaving the individual schools to set their own visions, goals, and initiatives.

1. The District Improvement Plan has not been updated since 2012.

2. The district has three "Overarching Goals" created in 2015–2016 and projected for completion in 2018. Although these goals provide areas for planning (Curriculum & Instruction, Equity & Excellence, and Culture & Climate), they are not SMART goals[6] and do not inform strategic planning.

B. The School Improvement Plans (SIPs) do not consistently identify benchmarks, measureable evidence, outcomes, indicators, and specific student performance goals based on student achievement data to indicate that priorities have been met.

1. The Sandwich High School and the STEM Academy plans included a reference to the district's overarching goals; the Forestdale and Oak Ridge schools' plans do not.

2. The Oak Ridge SIP was written as a three-year plan. Interviewees said that the school improvement council "met faithfully" in 2015–2016, but has not met to review, revise, or monitor the plan in the 2016–2017 school year.

C. The majority of SIP goals are not SMART goals.

1. Only 2 of the 17 goals focus on student-centered objectives/actions; the others focus on administrators' and teachers' objectives/actions.

2. Only 3 of the 17 goals are measurable.

3. Fifteen of the seventeen goals are action oriented but not strategic.

Impact: In the absence of comprehensive, up-to-date, and aligned planning documents with SMART goals, the district, schools, and the community cannot systematically implement, monitor, and refine continuous improvement initiatives and the district cannot ensure accountability for meeting improvement priorities.

[6] SMART goals are specific and strategic; measureable; action-oriented; rigorous, realistic, and results- focused; and timed and tracked.

3. In recent years, the district has experienced declining enrollment, especially from grade 8 to grade 9, as well as multiple administrative changes and grade reconfigurations.

A. The number of students who live in Sandwich and choose to attend other public schools has increased overall in recent years. This has meant a decline in enrollment throughout the district. The decline is most dramatic between grade 8 and grade 9.

1. According to the latest available ESE data, in-district enrollment has decreased by 17.3 percent, from 3,296 in 2011 to 2,726 in 2017.

2. The number of Sandwich students choosing to attend charter schools increased from 62.2 full-time equivalencies (FTEs) in 2011 to 199.1 FTEs in 2016, with a peak at 201.3 in 2015.

Table 21: Sandwich Public Schools
Number of FTE Sandwich Students Enrolled in Charter Schools, 2011–2016

	2011	2012	2013	2014	2015	2016
Charter School FTEs	62.2	128.1	157.9	186.3	201.3	199.1

Source: ESE data warehouse

3. In addition to Sandwich student residents choosing to attend charter schools, the district sends an average of 126 students in grades 9–12 each year to Upper Cape Cod Regional Vocational Technical School of which it is a member and sending district. This is an average of 32 students per grade and has changed only slightly over time. The enrollment from Sandwich ranged from a high of 133 on October 1, 2015, to a low of 117 on October 1, 2014.

Table 22: Sandwich Students Enrolled in
Upper-Cape Cod Regional Vocational Technical High School, 2011–2016

October 1 Enrollment	2011	2012	2013	2014	2015	2016
Total Enrollment for Grades 9–12	124	131	117	127	133	126
Average Enrollment per Grade Level	31	33	29	32	33	32

Source: ESE data warehouse

4. On average 53 students a year leave the district between grade 8 and grade 9, or almost 20 percent of grade 8 students.

Table 23: Sandwich Public Schools
Changes in Enrollment, Grade 8 to Grade 9, 2012–2017

	2012 to 2013		2013 to 2014		2014 to 2015		2015 to 2016		2016 to 2017	
Grade 8	267		275		270		261		261	
Grade 9		170		199		176		171		176
Change from Grade 8 to Grade 9	-97		-26		-94		-90		-85	
Percentage Change Grade 8 to Grade 9	-36.3 percent		-9.4 percent		-34.8 percent		-34.4 percent		-32.6 percent	

Source: ESE data warehouse

B. In recent years, there have been multiple administrative changes and grade reconfigurations in the district.

1. A document review indicated that in the four years before the onsite review, four district-level positions have changed or been created and the leadership of three of four schools has changed.

2. In the 12 years before the onsite, 5 superintendents have led the district.

C. Teachers and administrators stated that they were feeling overly challenged by the number of changes and transitions that have taken place.

1. Teachers at the elementary level cited reorganization and change as a distraction.

2. Elementary principals expressed the view that they were principals of two schools during the transitions— the schools that they were leading and the schools that they were preparing to lead.

3. Parents expressed concern about the elimination of the STEM director's position in 2018.

Impact: Declining enrollment and multiple administrative changes and reconfiguring of grades have contributed to instability and may mean that more Sandwich students will choose a school other than the Sandwich Public Schools. This adverse spiral could further decrease tuition revenue and affect the ability of the district to achieve its student achievement goals.

Recommendations

1. **The district should continue its current district strategic planning process to create a document that clearly articulates its mission, vision, core values, and theory of action. The subsequent district action plan should include data-driven SMART goals that focus on student learning and achievement and should provide a model that school leaders can follow when developing school improvement plans.**

   A. The district and school leadership should ensure that district and school planning documents contain SMART goals based on available data.

   1. The district should review the use of ESE statistical reports, DART, and other tools available on Edwin Analytics as resources for the development of rigorous and realistic student achievement goals.

   2. The results of the survey for parents whose children have left the district might also provide useful data for planning purposes.

   3. In addition to setting goals for improvement, the district should also consider ways to sustain recent changes in structures and practices (e.g., the changes in grade configurations and report cards) in order to ensure stability.

   B. The district should finalize and implement a standard format for school improvement plans that include all recommended elements.

   1. The district and school improvement planning documents should identify on an annual basis the funds and other resources (staff, time, funding) needed to initiate and complete the plans' strategies and goals.

   C. The district and school improvement planning documents should be actively monitored and progress should be communicated to all school and community stakeholders at least annually.

Benefits: The district will benefit from implementing this recommendation by articulating for the schools and the greater Sandwich community a clear and comprehensive plan that can provide direction, can be monitored, and has the potential to improve student achievement. The district plan and fully aligned school improvement plans can provide guidance to ensure that the work at each level is intentionally designed to accomplish the district's short and long term goals. Creating these documents through an inclusive collaborative process may have the added benefit of increasing and sustaining confidence in the Sandwich Public Schools.

Recommended resources:

- ESE's *Planning for Success* tools (http://www.doe.mass.edu/research/success/) support the improvement planning process by spotlighting practices, characteristics, and behaviors that support

effective planning and implementation and meet existing state requirements for improvement planning.

- *What Makes a Goal Smarter?* (http://www.doe.mass.edu/edeval/resources/presentations/SMARTGoals/Handout5.pdf) is a description of SMART goals with accompanying examples. The handout was designed to support educators in developing goals as part of the educator evaluation system, but could also be a useful reference for the district as it develops or refines its DIP and SIPs.

- ESE's *District Analysis and Review Tool (DART)* (www.mass.gov/ese/dart) is organized by the District Standards and can help district leaders see where similar districts in the state are showing progress in specific areas to identify possible best practice.

- ESE's *Statistical Reports* page (http://www.doe.mass.edu/infoservices/reports/) provides links to downloadable district-level reports on graduation rates, grade retention, dropout rates, educator evaluation data, enrollment, mobility, and other data.

- The *Massachusetts Definition of College and Career Readiness* (http://www.mass.edu/library/documents/2013College&CareerReadinessDefinition.pdf) is a set of learning competencies, intellectual capacities and experiences essential for all students to become lifelong learners; positive contributors to their families, workplaces and communities; and successfully engaged citizens of a global 21st century. This could be a helpful resource as the district articulates its vision and goals.

- ESE's *District Standards and Indicators* (http://www.mass.gov/edu/docs/ese/accountability/district-standards-indicators.pdf) identify the characteristics of effective districts in supporting and sustaining school improvement.

- The *Conditions for School Effectiveness Self-Assessment* (http://www.mass.gov/edu/docs/ese/accountability/school-effect-self-assessment.pdf) is a tool for conducting a scan of current practice, identifying areas of strength, and highlighting areas requiring greater focus.

Leadership for Curriculum and Instruction

Contextual Background

During the many leadership changes and school reorganizations over the past few years, the district did not have districtwide leadership for curriculum and instruction until the appointment of a director of curriculum in the 2015–2016 school year. Now in her second year, the director is recalibrating priorities under the new superintendent's guidance. Furthermore, the new superintendent has made it clear that 2016–2017 is a year to "let teachers just teach" while a series of initiatives geared toward systemic improvement unfold. These initiatives include developing the new strategic plan and aligned School Improvement Plans to help refocus the district and each school on improvement priorities.

During the onsite in late February/early March 2017, although some teachers and leaders identified the 2011 Massachusetts Curriculum Frameworks as integral to teaching and learning, many seemed to be working to understand the standards in depth and integrate them fully into their work. As a result, a K–12 standards-based curriculum is only partially developed, which means that standards-based instruction cannot be robust. Even so, teachers have recently designed and implemented new standards-based report cards for kindergarten through grade 6; this has generated multiple conversations about how to teach to standards.

At the elementary level, curriculum and instruction rely heavily on programs for content and teaching strategies rather than on curriculum maps or other documents aligned with state standards. These programs include the Lesley Literacy Initiative, Everyday Math, and STEMscopes in science. At the secondary level, teaching is centered on content-based resources somewhat linked to state standards with an emphasis on student engagement, project-based learning, and the use of technology as a tool for teaching and learning.

The district operates with a distributed leadership model with multiple people responsible for leading curriculum, instruction, and assessment. Some roles include professional development, supervision, and educator evaluation and all have responsibilities for improving instruction.

At the district level, the new director of curriculum is charged with providing K–12 leadership for curriculum, instruction, and assessment and also serves as the coordinator for K–6 literacy. The Forestdale School (Pre-K–2) and Oak Ridge School (grades 3–6) share a K–6 coordinator for math and one for science. Each school has literacy and math coaches but no science coaches. K–6 literacy coaches receive a year of intensive training by the Lesley Literacy Collaborative in coaching teachers in leveled literacy, providing professional development (PD), and analyzing data. K–6 math coaches have had less rigorous training. They provide less structured "differentiated support" to implement Everyday Math, at teachers' requests.

Coordinators work with coaches and teachers to ensure fidelity of implementation of lessons, to improve instruction, to plan and revise benchmarks, and to analyze data. The math and science coordinators, who do not teach, spend one day a week at each elementary school. The director of

curriculum meets regularly with literacy coaches, but does not meet regularly or formally with coordinators or coaches in a group. The director of curriculum convenes teachers from non-core content areas such as art, health, and physical education.

At the secondary level, department heads in grades 7–12 in core-content areas are charged with focusing on PD, curriculum, instruction, and assessments. They also teach one class and observe lessons to inform educators' evaluations. Department heads meet monthly with middle- and high-school teachers; they currently meet with middle- and high-school teachers separately, but the plan for 2017–2018 is for department heads to meet with teachers in grades 7–12 together. In the 2016–2017 school year, the new director of curriculum has started to meet with the department heads.

Curriculum

Challenges and Areas for Growth

1. **The Sandwich curriculum is incomplete and is not based on a consistent model. In addition, some teachers do not connect their lessons to the state standards.**

   A. Administrators and teachers said that the district's curriculum posted in Atlas, a platform for curriculum documentation, is not complete. The district adopted Atlas five years ago when the high school was preparing for a New England Association of Schools and Colleges (NEASC) accreditation visit.

      1. A review of curriculum in Atlas indicated that many curriculum elements, including Essential Questions, Topics/Key Concepts, Skills, Assessments, Resources, Activities, Curriculum Frameworks and Standards, Assured Experiences, and Cultural References, are only partially documented.

   B. Department heads indicated that the high school had originally tailored the curriculum elements in Atlas to align their curriculum documentation with the Understanding by Design (UbD) framework.

      1. When asked about the curriculum elements in Atlas, elementary- level interviewees indicated that the framework was initially generated at the high school when Atlas was adopted. They did not indicate any awareness that the framework in Atlas came from the UbD model. Instead, interviewees said that teachers were being encouraged to build their own framework for curriculum development.

      2. Principals agreed that elements of UbD provided the framework in Atlas. However, they indicated that UbD was not the guiding model in the district's current curriculum development since the only high-school training in UbD was 15 years ago, in 2001–2002. Principals said that current teachers were more inclined to develop units with a focus on activities rather than with the end in mind as in the UbD approach.

C. Teachers and administrators said that several programs guide the teaching and learning in the district.

1. Programs such as Everyday Math for math K–6, STEMscopes in science K–6, the Lesley Literacy Collaborative for ELA K–6, and Project Lead the Way (PLTW) for project-based learning in secondary engineering classes provide the conceptual framework and the activities for teaching and learning in these core content areas and grade levels.

D. When asked about other platforms in addition to Atlas for storage of written curriculum, department heads indicated that teachers frequently stored curriculum in Google Docs folders. They said that teachers could upload files from Google Docs to Atlas if time were available.

E. In 2016–2017, while unpacking the state standards across the district, administrators, department heads, and curriculum coordinators came to understand how loosely teachers' daily lessons were connected to the state standards.

1. Curriculum coordinators and administrators indicated that a paper review indicated that the district's programs and other curriculum documents covered the state frameworks.

2. At the same time, however, curriculum staff found that many teachers were working to understand the state standards and integrate them into their teaching.

3. Department chairs indicated that some high-school teachers were not connecting their lessons to the state standards. Instead, teachers were referring to lists of activities that teachers had uploaded to Google docs.

4. Curriculum developed during the summer of 2016 was in units of study rather than in big-picture, standards-based curriculum maps that span a semester or a year's work.

E. Between 2013 and 2016, the percentage of students scoring proficient or advanced in English language arts (ELA) declined by 5 percentage points for all students, and in math by 8 percentage points for all students.

1. This decline in performance may be because of the absence of a fully documented curriculum that is aligned with state standards.

2. This decline in performance may also be because of some teachers' missed opportunity to align their daily lessons with the state curriculum frameworks.

Impact: With a number of programs that take the place of curriculum, with curriculum stored in different places, with incomplete curriculum, and with teachers working to understand state standards, the district cannot be confident that it is providing its students with a curriculum that is guaranteed and viable for all students.

2. Until 2015, the district was without K–12 curriculum direction. It had evolved into a system of smaller units operating as curriculum silos in terms of both personnel functions and curriculum development and implementation.

A. Staff members maintain separate or loosely coordinated curriculum functions.

1. K–6, literacy, math, and science curriculum leaders (i.e., the coordinators) operate independently of one another.

    a. When elementary curriculum coordinators were asked whether they worked as a team, they indicated that they worked with their coaches.

2. One person assumes the responsibilities for both the K–12 curriculum director and the K–6 literacy coordinator.

3. In 2016–2017, the K–12 curriculum director began to meet twice a month with high-school department heads, but with little coordination with the high-school administration.

4. High-school teachers teach electives at the STEM Academy, a practice that places constraints on schedules at the Academy and the high school.

5. High-school department heads, with their content-level responsibilities recently expanded to include grades 7 and 8, said that in 2016–2017 they were moving "slowly" to include middle-school teachers on their content teams.

B. Curriculum development, implementation, and professional development practices are undertaken separately rather than systemically.

1. The STEM Academy developed its curriculum independently of the elementary schools and the high school.

2. The high school, in part because it applies for NEASC accreditation every 10 years, has received regular funding for curriculum development. The elementary schools received funding for curriculum development for the first time in summer 2016.

3. At the elementary level, until the 2016–2017 school year, a large share of professional development time was devoted to K–6 literacy. For the 2016–2017 school year, professional development in the district was devoted to the development of science curriculum in kindergarten through grade 2, and math curriculum in grades 3–6.

4. School administrators, without coordination with the curriculum director, have made all decisions concerning which curriculum areas will be funded for summer development.

C. The 2015–2018 collective bargaining agreement between the Sandwich Education Association and the Sandwich School Committee states that the Sandwich curriculum council shall include

eight teachers (two per school) appointed by the association and other members.[7] The agreement further states that the council shall meet monthly and "serve as a forum for discussion and review of current and proposed curriculum, programs, technology and materials, and all associated professional development activities."

Impact: With curriculum staff operating relatively independently, the district has not sufficiently addressed systematic coordination of curriculum practices and lesson alignment with state standards.

Recommendation

1. **The district should develop standards-based curriculum maps under the leadership of the curriculum director.**

   A. In developing the curriculum maps, the district should address the limitations of its current curriculum.

   1. The district should decide upon a common format for curriculum development.

   2. The district should commit to a single platform for storage.

   3. The district should thoroughly familiarize its teachers with the state standards.

   4. The district should ensure that all elements of the documented curriculum provide students with learning experiences that connect directly to the state frameworks and that teachers develop and teach their lessons around an objective based upon the standards.

   B. All curriculum work should be coordinated under the curriculum director.

   1. The district, in consultation with administrators and teachers, should develop a curriculum plan to specify the district's vision and the steps needed to make a single effective system of the various curriculum activities now in place.

   2. The district should consider establishing the curriculum council specified in the teachers' collective bargaining agreement to assist the director in executing the plan.

Benefit: In implementing these recommendations, the director, with support from curriculum leaders, will assume the authority to coordinate all aspects of curriculum. This will ensure that the curriculum

[7] In addition to teachers, the curriculum council shall include the superintendent, two members of the school committee, school administrators, department chairs, curriculum coordinators, one parent representative per school, and two high-school students.

provides students with opportunities to master the requirements of the state frameworks and that documentation of the curriculum will be easily accessible in a single format.

Recommended resources:

- *Creating Curriculum Units at the Local Level* (http://www.doe.mass.edu/candi/model/mcu_guide.pdf) is a guidance document that can serve as a resource for professional study groups, as a reference for anyone wanting to engage in curriculum development, or simply as a way to gain a better understanding of the process used to develop Massachusetts' Model Curriculum Units.

- *Creating Model Curriculum Units* (http://www.youtube.com/playlist?list=PLTuqmiQ9ssquWrLjKc9h5h2cSpDVZqe6t) is a series of videos that captures the collaboration and deep thinking by curriculum design teams over the course of a year as they worked to develop Massachusetts' Model Curriculum Units. It includes videos about developing essential questions, establishing goals, creating embedded performance assessments, designing lesson plans, selecting high-quality materials, and evaluating the curriculum unit.

- ESE's *STE Quality Review Rubric* (http://www.doe.mass.edu/candi/model/rubrics/STE.pdf) is designed to help educators determine the quality, rigor, and alignment of lessons and units to the 2016 MA STE Curriculum Framework.

Instruction

Challenges and Areas for Growth

3. **In observed lessons, the quality of instruction varied within and across schools, especially in setting high expectations for learning, in developing critical-thinking skills, and in appropriately differentiating instruction. Overall the strongest instruction was observed at the STEM Academy.**

   The team observed 53 classes throughout the district: 23 at the high school, 13 at the STEM Academy (middle school), and 17 at the two elementary schools. The team observed 18 ELA classes, 14 mathematics classes, 13 science classes, and 8 classes in other subject areas. The observations were approximately 20 minutes in length. Among the classrooms observed were 13 inclusion classes with one or more paraprofessionals supporting students. 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.

   A. **Focus Area #1: Learning Objectives and Instruction.** In observed classrooms, most teachers demonstrated knowledge of subject matter and content. Learning objectives were generally clear; yet, they did not always set high expectations for learning at all schools. Observers also found variation in how well teachers matched strategies to objectives so that students could access and engage with lesson content.

1. Review team members found moderate and strong evidence that teachers demonstrated knowledge of subject matter and content so that students could acquire complex knowledge and skills (characteristic #1) in 77 percent of elementary lessons, in 92 percent of STEM Academy lessons, and in 80 percent of high-school lessons.

    a. A strong example of students engaging in complex learning was observed in a grade 1 ELA class where students listened to a story and then responded to writing prompts to explain their opinions about the story.

    b. In a high-school science lesson for students in grades 10–12, a learning objective was not evident. Students were playing charades and Pictionary with basic vocabulary words that rarely included science terms.

2. Observers found moderate and strong evidence that teachers provided and reinforced clear learning objectives (characteristic #2) in 65 percent of elementary lessons, in 69 percent of STEM Academy lessons, and in 61 percent of high-school lessons. In a related characteristic, review team members found moderate and strong evidence that lessons reflected high expectations aligned to learning objectives (characteristic #3) in 59 percent of elementary lessons, in 69 percent of STEM Academy lessons, and in 56 percent of high-school lessons.

    a. An example of a clear learning objective was noted in a grade 12 English class on the role of cultural values in shaping fiction. The teacher posted the objective and also reviewed it orally to clarify expectations for a class assignment.

    b. In a whole-class grade 2 math lesson on solving double-digit addition problems, lesson strategies were not well linked to the objective.

B. Focus Area #2: Student Engagement and Critical Thinking. In many observed lessons, review team members saw motivated and engaged students who assumed responsibility for their own learning whether individually, in pairs or in small groups. However, lesson tasks did not consistently encourage students to use critical thinking skills.

1. Observers saw moderate and strong evidence that students were motivated and engaged in lessons (characteristic #5) in 76 percent of elementary lessons, in 84 percent of STEM Academy lessons, and in 61 percent of high-school lessons.

    a. Grade 3 students in an ELA lesson were motivated and highly engaged in writing a friendly letter to a character in a story that they read. When asked, they explained to whom they were writing and why they chose that character.

    b. In a grade 7 engineering class, students engaged easily in a lesson researching an original invention by doing a crossword puzzle in pairs at their computers.

2. Review team members saw moderate and strong evidence that students assumed responsibility for their own learning whether individually, in pairs, or in groups

(characteristic #7) in 70 percent of elementary lessons, in 76 percent of observed STEM Academy lessons, and in 69 percent of observed high-school lessons.

a. In a grade 9 English class, students did a "write away" on computers to analyze mood and tone in a short story. After finishing, they shared their writing in pairs, checking that each piece included key vocabulary words and that they properly used the words "affect" and "effect" at least once.

b. Observers saw variation in how well students took responsibility for learning in three different high-school algebra lessons planned for whole-class instruction. In two classes, many students, while well behaved, were less engaged watching the teacher, or even another student, factor equations on the board and then listening to the teacher explain solutions. However, in the third algebra lesson, not only did students working in pairs factor the equations and put their solutions on the board, they also explained how they solved them to the class. Almost all students volunteered to respond to questions on the solutions.

3. Review team members saw moderate and strong evidence that lesson tasks and activities encouraged students to develop and engage in critical thinking throughout the lesson (characteristic #6) in 47 percent of elementary lessons, in 77 percent of STEM Academy lessons, and in 57 percent of high-school lessons.

a. In a grade 7 science lesson, students sat quietly while the teacher provided most explanations and input in class.

b. In a grade 10 English lesson, student teams collaborated to define a theme from the book that the class was reading. Each student on the team participated in teaching that theme to the class. The "audience" of students was required to fill out feedback forms to the presenters using a rubric to guide their comments.

C. Focus Area #3: Differentiated Instruction and Classroom Culture. Observers noted that differentiated instruction was the least well-developed characteristic of effective instruction districtwide. Teachers inconsistently used resources to support students' learning needs, whether support came from paraprofessionals, tools or manipulatives, or technology. Observers also noted variation in how well teachers used formative assessments.

1. There was moderate and strong evidence of the appropriate use of differentiated instruction to make content and tasks accessible for all learners (characteristic #8) in only 36 percent of elementary lessons, in 61 percent of STEM Academy lessons, and in just 18 percent of high-school lessons.

a. In a strong example of differentiation, students in a grade 4 math lesson on rectangles approached the topic from multiple entry points: by seeing and discussing a rectangular chocolate bar divided into rectangular pieces; by manipulating rectangular dominoes to

form larger rectangles; and by drawing different rectangles on graph paper and counting the rectangles in each shape.

b. In contrast, in two grade 4 ELA classes students were doing the same on-demand writing assignment about a special moment in their lives. In both lessons, the absence of differentiated instruction seemed to put some students at a disadvantage. To their credit, in one class students raised their hands and asked for help.

c. In most observed high-school classes (19 of 23 classes), lessons were one-size-fits-all with the teacher providing whole-class instruction, even though some lessons addressed thoughtful and interesting content. There were no varied strategies or content geared to students' strengths or specific learning needs.

2. There was moderate and strong evidence that teachers used appropriate resources aligned to students' diverse learning needs (characteristic #9) in 65 percent of elementary lessons, in 77 percent of STEM Academy lessons, and in 65 percent of high-school lessons.

   a. Technology was used to support learning at the STEM Academy and at the high school. For example, students used devices for all classroom writing such as the grade 6 ELA class where the teacher gave a differentiated writing assignment that students completed on Chromebooks. Some students answered questions, some created news pages, and some wrote "big ideas."

      i. Students built mechanisms for pulleys using the computer in a grade 11 engineering class.

      ii. Electronic devices were used to graph in high-school algebra.

      iii. A grade 12 English class watched an amusing video of common grammar mistakes between work sessions.

3. There was moderate and strong evidence of a positive and respectful classroom climate (characteristic #10) in 82 percent of elementary classrooms, in 84 percent of STEM Academy classrooms, and in 83 percent of high-school classrooms.

   4. Observers noted moderate and strong evidence of the appropriate use of formative assessments to check for understanding and provide feedback to students (characteristic #11) in 77 percent of elementary lessons, in 63 percent of STEM Academy lessons, and in 65 percent of high-school lessons. Most formative assessments were in question and answer format where teachers called on students who raised their hands rather than finding out how to adjust their instruction based on the group's understanding.

      a. In a grade 2 ELA lesson, the teacher asked thoughtful questions to a small group in a guided reading lesson, including "What do you predict will happen?" "What made you

think that?" "Did he change in the story?" and, "How did he feel…the same as yesterday?"

b. In a high-school science lab, pairs of students observed and interpreted the combustion reaction from burning candles. The teacher asked questions to probe how well they understood and could describe their observations.

Impact: A positive classroom climate sets the conditions for effective teaching and learning. High levels of student engagement, especially through the use of technology, can help students understand and apply knowledge and skills. However, without sufficient rigor and high expectations lessons miss opportunities to challenge students, do not develop higher- order thinking skills, and cannot maximize students' potential for learning and achievement. Finally, without differentiated teaching strategies, content, or products, the district cannot ensure that instruction meets students' diverse learning needs and provides all students with the opportunity to learn at high levels.

4. The programs used at each school include some research-based teaching strategies, especially at the elementary schools. However, the district has not identified and articulated a common instructional model.

A. At the elementary level, program resources for ELA, math, and science mainly determine the instructional strategies that teachers use.

1. When K–6 leaders and teachers were asked about implementing curriculum or about the district's expectations for effective teaching, they referred to the ELA, math, and science programs or the strategies embedded in them.

   a. For ELA, teachers use the Lesley Literacy Initiative's (LLI) guided reading strategy to teach literacy; this strategy includes large-group, small-group, and individualized reading, writing, and word study informed by ongoing assessments.

   b. In mathematics, guided reading has recently inspired teachers to shift to a guided math strategy. Teachers now form groups based on data analysis to teach mathematics and use strategies embedded in the Everyday Math program and other math resources.

   c. In science, teachers use the 5E's pedagogy (engage, explore, explain, elaborate and evaluate) that guides instruction for the STEMscopes program.

2. Elementary leaders shared a range of ideas about high-quality teaching, including knowing and interacting with students and ensuring a sense of community in the classroom. These strategies did not appear to be linked to a particular district priority or instructional model to improve student achievement.[8]

[8] Examples include: to know all students, to interact with students every day, to know the standards and a variety of ways to teach and assess them, to differentiate based on student needs, to have high expectations for teachers,

3. Elementary teachers told the review team that they understood effective teaching to be "hands-on and project-based." They said teachers should use objectives, content-based vocabulary, and whole groups that break into small groups. Elementary teachers also stated that the Responsive Classroom and the Lesley Literacy model were required.

B. Secondary leaders and teachers did not articulate a common understanding of expectations for high-quality teaching in the district.

1. Leaders said that project-based learning,[9] the use of technology, and student engagement were expected strategies for effective teaching. They also included the use of Project Lead the Way (PLTW), a program with a prescribed curriculum and instructional strategies to develop problem-solving skills in middle- and high-school engineering classes.

2. When department heads were asked about expectations for high-quality teaching, they identified a variety of strategies, including knowing standards, differentiation, and using schoolwide rubrics. They also included the use of technology and student engagement.

3. Secondary teachers told the review team that the district did not have a unified version of effective instruction other than an emphasis on project-based learning which teachers have been told to use everywhere. They expressed the view that while project-based learning worked well in some content areas, it was not necessarily appropriate everywhere.

C. Based on the review team's lesson observations, a number of effective, standards-based instructional strategies have not been prioritized, developed, and regularly included in the teaching strategies that teachers use.

1. In observed classrooms, the quality of instruction varied within and across schools, especially for: differentiating instruction; setting rigorous, high expectations; and encouraging and developing students' critical thinking skills.

Impact: Without explicit, common expectations for high-quality teaching, including differentiation, rigor, and higher-order thinking, students cannot benefit from challenging learning experiences that address their diverse learning needs and can help improve their knowledge, skills, and understanding.

5. Insufficient common planning time at the elementary level and an absence of expectations at the secondary level hampers the ability of teachers to effectively collaborate to improve both instruction and student achievement.

A. Interviews and a document review indicated that all teachers have scheduled common prep time.

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to be able to synthesize, to ensure a sense of community in the classroom, and to understand the needs of the instructional programs.

[9] Although project-based learning is a priority, only some teachers participated in a three-day intensive summer PD for PBL while others had only a one-day overview.

1. As required by the collective bargaining agreement, all teachers have regular common prep time during the school day to plan and prepare for classes. Teachers may choose to meet with colleagues during this non-teaching time, but they cannot be required to do so. Interviewees told the team that some teachers do meet informally during this block.

2. A leader stated that although teachers may meet informally for planning, it is not the same as having designated time for collaboration, adding that when teachers do collaborate and co-plan high quality lessons for students, those students benefit.

B. The high school does not have time dedicated for common planning when grade-level or content-level teacher teams can collaboratively discuss student progress, analyze data, and co-develop and analyze lessons to improve teaching and student achievement.

1. Teachers and leaders told the review team that the high school does not have common planning time, only a daily 84-minute block for common prep time.

2. Teachers told the team that they have "limited time together to work on improvements… such as differentiated instruction."

C. At the STEM Academy (grades 7–8) all teachers have an 84-minute block designated as common prep time.

1. The review team was told that some STEM Academy teachers may choose to collaborate during this block, especially to address questions and emails from the director.

2. A district leader said that common planning time did not take place at the STEM Academy; teachers used the time mainly for individual planning.

D. At the Oak Ridge Elementary School (grades 3–6) teachers have 30 minutes each week to collaborate.

1. The principal meets with grade-level teacher-leaders who then seek input from grade-level teachers to prepare an agenda for "collaboration time."

2. Sometimes grade-level teams invite a coordinator to meet with them for professional development or data analysis during the half-hour of "collaboration time."

E. At the Forestdale Elementary School (Pre-K–2), teachers have one hour each month for collaboration, which is only available to five of the ten teachers at each grade level.

1. To enable a monthly hour of common planning time, parents plan and manage an assembly for students.

2. Teachers reported that they "did everything" during this hour, including working with coordinators or coaches on PD, discussing students' social-emotional issues, and planning field trips.

Impact: There are missed opportunities for improvement when teachers do not have frequent and structured time for grade-level or content-level teams to learn from each other and to collaboratively work on continuous improvement. Without meaningful and frequent common planning time, teachers cannot discuss student progress, analyze data, co-plan and analyze lessons, and collaborate in other ways to improve teaching practices and, especially, to improve student achievement.

Recommendations

1. **Under the leadership of the director of curriculum, the district should collaboratively define and communicate common expectations for a district instructional model that ensures excellence in standards-based teaching. The district should provide support to teachers and leaders in understanding, implementing and monitoring the model.**

   A. The district should convene a representative task force of teachers and leaders to identify research-based best instructional practices that will be commonly understood as the characteristics of effective teaching in Sandwich. The expectation should be that these teaching characteristics be included in all teachers' instructional repertoires.

   B. In developing an instructional model, the district might choose to further develop the Understanding by Design (UbD) framework or expand the workshop model already in use in kindergarten through grade 6 for large group/small group instruction, or choose another approach.

   C. The district should plan and provide appropriate professional development (PD) to deepen teachers' and leaders' knowledge, skills, and understandings to implement the district's instructional model and its teaching strategies. Other suggestions include:

      1. In addition to PD during released time or PD days, the district should make provisions to include embedded PD to ensure that teachers acquire the needed expertise.

         a. Some embedded PD strategies to consider are frequent informal walkthroughs that are focused on specific teaching practices, follow an agreed-upon protocol, and provide useful feedback to faculty.

         b. Other embedded PD to consider includes lesson study, looking at student work, peer observation/discussion, and discussion of lesson videotapes at team meetings or full faculty meetings. The process to implement each of these strategies should be clearly defined and understood.

   D. It is recommended that this work be the foundation of a continuous improvement agenda for instruction that will take place over several years. The district will need to set priorities over time and secure adequate resources to ensure success.

Benefits: Teachers will agree upon, understand, and consistently implement research-based best instructional practices districtwide. Teachers will also be able to engage in meaningful conversations

about teaching practice and student progress and learning. Leaders will also have an integral role in each school's efforts to improve instruction through informal observations and discussions with faculty. The ultimate beneficiaries will be students who will be better prepared for college, work, and careers after high school.

Recommended resources:

- ESE's *Learning Walkthrough Implementation Guide* (http://www.mass.gov/edu/government/departments-and-boards/ese/programs/accountability/tools-and-resources/district-analysis-review-and-assistance/learning-walkthrough-implementation-guide.html) is a resource to support instructional leaders in establishing a *Learning Walkthrough* process in a school or district. It is designed to provide guidance to those working in an established culture of collaboration as well as those who are just beginning to observe classrooms and discuss teaching and learning in a focused and actionable manner. (The link above includes a presentation to introduce Learning Walkthroughs.)

- Appendix 4, *Characteristics of Standards-Based Teaching and Learning: Continuum of Practice* (http://www.mass.gov/edu/docs/ese/accountability/dart/walkthrough/continuum-practice.pdf) is a framework that provides a common language or reference point for looking at teaching and learning.

2. The district should revisit each school's daily schedule and make appropriate accommodations to ensure that all teachers have scheduled common planning time for a meaningful amount of time at least once each week.

A. District leaders should examine the school schedules and work with the teachers' association to find ways for all teachers to have adequate, frequent opportunities to meet with colleagues in common planning time meetings during the school day at all schools for a meaningful amount of time.

B. The district should collaboratively set common expectations for how teachers use common planning time.

1. Some examples include: to further develop and improve instruction, to monitor progress and develop strategies to support struggling students, to co-plan units and lessons, to develop and revise curriculum and assessments, to collaboratively analyze and use data to modify and adjust instruction, and to develop strategies and practices that align with meeting school and district improvement goals.

2. Teachers, principals, coaches and coordinators should provide input into common planning time topics, activities, and goals.

Benefits: By implementing this recommendation, the district will ensure that teachers have the time and support necessary to develop and sustain a culture of continuous improvement. With common planning time embedded in how teachers perform their work each week, they can more closely monitor

student achievement and better address the diverse needs of all learners. When grade-level or course-level teachers have shared time to examine and discuss student achievement data, student work, and other information, teachers and leaders can make needed adjustments to teaching and the curriculum. When teachers have frequent time to collaborate, they can co-plan lessons and work together to develop and refine curriculum and assessments. Common planning time ultimately can serve as an effective catalyst for improving student performance.

Recommended resources:

- *Time for Teachers* (http://www.timeandlearning.org/sites/default/files/resources/timeforteachers.pdf) describes the systems and practices implemented at 17 schools to provide their teachers with more time to reflect on, develop, and hone their craft.
- *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.

Human Resources and Professional Development

Contextual Background

There have been recent changes to staffing for human resources and professional development (PD) in the Sandwich Public Schools. Specifically, the district has made an investment in staff positions that support in-district human resource functions and job-embedded PD.

In January 2015, the district created a human resources specialist position to oversee human resource needs previously covered by the town, and added responsibilities such as processing of new hires, medical leaves, and background checks. This position, however, does not assume all personnel responsibilities. For example, the superintendent's office still manages staff recruitment, selection, and assignment.

The district has expanded the position of K–6 literacy coordinator to include the title and role of director of curriculum, a role that encompasses districtwide leadership for PD. In addition to full-time curriculum coordinators for elementary math and science, the district funds literacy coaches at the elementary level and has recently added math coaches. Coaches provide job-embedded PD in literacy and math. This is a substantial investment as the literacy coaches often are given up to a year of training before they provide PD to staff. In addition, department chairs oversee professional development for grades 7–12. This, too, is a substantial investment since these staff members only teach one class and receive a stipend.

The district offers half days of PD, study/book groups, and PD sessions integrated into existing meeting schedules (for example, in department meetings). The district lists offerings and registers session attendees in SmartEDU, an online PD management system. However, the district does not have an articulated vision or systemwide plan for PD.

One of the new superintendent's goals focuses on the review and revision of the district's educator evaluation system. Key actions for this goal include creating administrative evaluation protocols, engaging in learning walks, reconvening the Joint Labor Management Team (JLMT), and working with the JLMT to review and revise the educator evaluation system in Sandwich. As a result of this work, the process for submitting evidence in the educator evaluation system has been streamlined and the system focuses on collaborative dialogue. At the time of the onsite in late February/early March 2017, the term of the JLMT had recently been extended beyond the originally planned three years.

Strength Finding

1. **The district's joint labor-management team reviewed, revised, and ratified substantive changes to the educator evaluation system that focus less on conformance with requirements and more on collaborative dialogue and streamlined processes.**

   A. The new system focuses on face-to-face conversations between the evaluator and the educator and requires less evidence.

   1. Staff members reported that the new focus on conversations and interaction between educator and evaluator gives teachers a "voice in providing information for their own evaluations." Teachers said that the previous system was "very intensive" and "not worth the time and effort" but that now they "like to sit with the principal to talk about what we're doing."

   2. Administrators indicated that they are using the same formative and summative assessment and evaluation forms but that now prior to an assessment/evaluation an educator meets with the evaluator. They said they have conversations with educators "around the four standards and teacher goals."

   3. The educator evaluation language in the teachers/collective bargaining agreement limits the amount of evidence to eight pieces. Teachers indicated that now that the language has been changed, "Less evidence is required now."

   4. Administrators said that the previous method of evidence submission was "cumbersome and bureaucracy-driven," included too much "red tape," and was "not driven to make improvements in teaching."

   5. Teachers indicated that the past process of evidence submission was "a burden." They said that they had to submit a huge binder described as "unmanageable, way over the top, and stressful."

Impact: By focusing on face-to-face conversations between evaluators and educators and on the quality rather than the quantity of evidence, the district is promoting a culture of growth-oriented supervision through a combination of formal evaluations and ongoing feedback.

Challenges and Areas for Growth

2. The district has not achieved consistency in the implementation of its educator evaluation system. It has not taken action on the more recent components of the Educator Evaluation Framework that require the collection and use of multiple sources of evaluative evidence.

A. Interviews and a review of administrators' evaluations indicated that evaluations of principals and district administrators have not been completed in recent years.

1. Only one administrator in the district was evaluated in the 2015–2016 school year.

B. A review of the evaluative documents of 30 teachers randomly selected from across the district indicated that with few exceptions, staff did not receive instructive or growth-oriented feedback as a component of formative assessments/evaluations and summative evaluations.

1. While most evaluations were informative,[10] they did not include feedback or recommendations that were instructive, specific, or of sufficient quality to contribute in any meaningful way to improved instructional or professional growth.

C. Interviews and a document review indicated that in recent years, there has not been a districtwide, systematic approach to calibrating feedback expectations.

1. Members of the leadership team said that the district has not calibrated feedback expectations across the district. A review of the minutes for the leadership team meeting for October 28, 2016, indicated awareness of the need "to calibrate everyone to be looking for the same things so there is consistency between buildings."

2. Teachers said that they hoped to see "calibration of the observers."

3. Administrators stated that while colleagues within schools often shared observation descriptions or documents and talked about their practice, districtwide formal calibration training was not taking place.

4. When district leaders were asked whether they used the state's calibration videos for training, they indicated that they did not, but intended to use them.

D. As of the 2015-2016 school year the educator evaluation regulations (603 CMR 35.07) require all Massachusetts school districts to collect and use student and staff feedback as evidence in the teacher evaluation process and staff feedback as evidence source in the administrator

[10] 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.

evaluation process.[11] The district is currently out of compliance with this regulatory requirement.

1. Interviews and a document review indicated that the district has not taken action to implement this component of the Educator Evaluation Framework.

Impact: By not systematically enhancing educator capacity to significantly improve instruction or contributing meaningfully to their professional growth, the district is missing a critical opportunity to improve students' academic achievement.

3. The district does not have a cohesive, comprehensive, and collaboratively developed professional development plan.

A. There is no published plan for professional development (PD) in the district.

1. The review team did not find a PD plan on the district's website and the district did not provide a PD plan to the team.

2. Administrators indicated that the district does not have a PD plan.

B. Interviews and a document review indicated that teachers and other staff have little participation in planning districtwide professional development.

1. When staff was asked about a challenge of the district's current PD model, they indicated that teacher input was needed.

2. The 2015–2018 collective bargaining agreement between the Sandwich Education Association and the Sandwich School Committee states that the Sandwich curriculum council shall include eight teachers (two per school) appointed by the association and other members.[12] The agreement further states that the council shall meet monthly and "serve as a forum for discussion and review of current and proposed curriculum, programs, technology and materials, and all associated professional development activities."

3. Multiple interviewees stated that the district does not currently have a districtwide PD committee or a team with teacher representation.

[11] 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.

[12] In addition to teachers, the curriculum council shall include the superintendent, two members of the school committee, school administrators, department chairs, curriculum coordinators, one parent representative per school, and two high-school students.

4. Elementary staff members said that they felt "overloaded" by the number of PD topics and the number of individuals (such as coordinators and coaches) deciding on and implementing PD in multiple subject areas.

C. PD in the district is not aligned with or informed by the core components of the Massachusetts Standards for Professional Development. The guiding principles of these standards ensure that professional development: (a) is intentional; (b) is a structured, comprehensive, and coordinated process; and (c) requires strong leadership.

1. In multiple interviews, staff indicated that the district has shared the Massachusetts Standards for Professional Development and while there was "awareness" of the standards, the district was "not really using" them.

D. The staff consistently said that there was not enough time for PD.

1. Central office staff told the team that in 2016–2017, there were six early dismissals K–6 and six late starts in grades 7–12. Each of those provided from two to two and one-half hours for PD. In addition, each K–6 classroom teacher has received 6–12 hours of PD time when substitutes covered classes or their students were in assemblies. Each teacher and each grade level receive an amount of PD based on need. For example, teachers in grades 3–6 received extra time for PD about Standards Based Report Cards, such as how to assess standards.

2. When asked about the challenges for PD, multiple stakeholders indicated "time" and said they would like "bigger blocks of time like a half day" and "early release every week" for PD.

Impact: Without a comprehensive, coordinated, and collaboratively developed PD plan that is aligned with and informed by the Massachusetts Standards for Professional Development, the district limits its ability to enhance professional practice, to retain highly effective educators, to improve instruction, to advance district goals and priorities, and to increase student achievement.

Recommendations

1. The district should ensure that all required components of the educator evaluation system are instituted consistently and comprehensively.

A. It is recommended that the district use the state Educator Evaluation Framework or an approved variation of that Framework for all administrators in the district. This should include all five steps of the cycle (self-assessment, goal setting and educator plan development, plan implementation, formative assessment/evaluation and summative evaluation).

B. It is recommended that the district provide training, templates, and exemplars for SMART goals to ensure quality and consistency across the district (for teachers and administrators).

a. The district should ensure that the training, templates, and exemplars conform with the language in the bargaining agreement and guidance from the Department of Elementary and Secondary Education.

C. It is recommended that the district engage in systematic and formal calibration training and exercises with all assigned observers across the district, using such tools as the observation calibration video series and related calibration protocols and activities on the ESE website.

D. It is recommended that the district use the collective bargaining process to update the collective bargaining agreement to integrate student and staff feedback into the evaluation framework.

E. The district should engage in systematic and formal training for how to write informative and growth-oriented feedback in evaluation reports. The training should include techniques for providing mastery-oriented feedback with recommendations that are specific, measurable, and actionable.

Benefits: Implementing this recommendation will help ensure that the district's educator evaluation system meets the requirements of state law and regulation and is informative and instructive, and is used to promote individual growth and overall effectiveness.

Recommended resources:

- *Training Workshop 3: SMART Goals* (http://www.doe.mass.edu/edeval/training/teachers/default.html) provides teachers with the time, information, and resources they need to identify their student learning and professional practice goals. The facilitator will guide teachers through their own goal setting process and demonstrate the link between S.M.A.R.T. goals and the creation of an educator plan.

- 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 school leaders or educator preparation program supervisors, watch a lesson video, assess the teacher's practice related to specific elements from the Model Classroom Teacher Rubric, and then provide the teacher with written feedback. Through real-time data displays, the group members can then see how their conclusions compare with each other as well as with educators throughout the state.

- Part IV: Model Collective Bargaining Contract Language (updated Dec. 2015) (http://www.doe.mass.edu/edeval/model/PartIV.pdf): This section of the Massachusetts Model System for Educator Evaluation contains contract language that is consistent with the regulation for Teachers (Unit A), Administrators (Unit B), and the Student Impact Rating and District Determined Measures. Also included are Considerations for Collective Bargaining related to Student & Staff Feedback.

- Educator Evaluation Implementation Surveys for Teachers (http://www.doe.mass.edu/edeval/resources/implementation/TeachersSurvey.pdf) and Administrators (http://www.doe.mass.edu/edeval/resources/implementation/AdministratorsSurvey.pdf) are designed to provide schools and districts with information about the status of their educator evaluation implementation. Information from these surveys can be used to target district resources and supports where most needed to strengthen implementation.

2. The district should develop and implement a cohesive, comprehensive, and collaboratively developed professional development plan at the district level.

A. It is recommended that the district use the Massachusetts Standards for Professional Development in the design and development of a districtwide professional development plan. Once completed, the district should disseminate the plan widely.

1. The district should ensure that the professional development plan supports the new recertification requirements and is informed by district priorities defined in the new strategic plan and subsequent district action plan and school improvement plans.

2. The professional development plan should also address differentiated staff needs, student achievement results, and an assessment of instructional practices and programs at each school (including educator evaluation data).

B. It is recommended that the district ensure that teachers and staff play an active role in the development of the districtwide professional plan through the use of a teacher and administrative team (a professional development planning committee) such as the curriculum council. The district should ensure that this team serves not only in an advisory manner but also solicits feedback and input from the entire staff regarding needed training areas, professional development models, and quality and scope of offerings, toward making suggestions for continuous program improvement.

C. The PD planning committee should also provide recommendations for how the district should allocate time for professional development offerings.

Benefits from implementing a cohesive, comprehensive and collaboratively developed professional development plan include the development of a climate conducive to adult learning through effective communication, ongoing professional improvement, and joint responsibility for student learning**.**

Recommended resources:

- *The Massachusetts Standards for Professional Development* (http://www.doe.mass.edu/pd/standards.pdf) describe, identify, and characterize what high quality learning experiences should look like for educators.
- ESE's *Professional Development Self- Assessment Guidebook* (http://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 High-Quality Professional Development Standards, the Educator Evaluation Framework, and the Standards and Indicators of Effective Practice.
- *Identifying Meaningful Professional Development* (https://youtu.be/zhuFioO8GbQ) is a video in which educators from three Massachusetts districts discuss the importance of targeted, meaningful professional development and the ways districts can use the evaluation process to identify the most effective PD supports for all educators.

Financial and Asset Management

Contextual Background

The town of Sandwich has been funding its schools at a level slightly below the state per-pupil average and well above the required net school spending level. Areas funded above average include administration, leadership, and teaching, while guidance and maintenance have been funded below average. The district's enrollment has been declining consistently for the past five years, and the number of students who leave to enroll in charter schools has increased significantly, which is of great concern to the town and district.

Sandwich has a town meeting form of government with a board of selectmen who oversee town departments. The town manager has served the town since 1989. A tri-board of the finance committee, the school committee, and the selectmen review projected town revenues and provide input for budget guidelines voted by the selectmen, who later make budget recommendations for all town departments directly to town meeting. The school committee oversees the district and voted its recommended fiscal year 2018 budget for consideration by the finance committee and selectmen in February 2017.

The proposed fiscal year 2018 budget has been prepared in an inclusive and transparent way, involving administrators, town boards, and the school committee. The 2016–2017 process reflected a commitment to meet the guideline of a 2.5 percent increase requested by the selectmen. The budget development process was based on funding students' needs such as middle- school ELA and math and maintaining facilities by reallocating personnel and supplies. The fiscal year 2018 budget considers projected revenues from all funds, including grants and revolving funds.

The office of finance and operations handles district financial operations. The office is made up of a director and assistants who help manage budgets, accounts payable, payroll, and grants. The finance office uses the town's financial software to prepare and approve requisitions, purchase orders, and warrants. It submits warrants with backup materials, receipts, and grants for processing by the town accountant's and treasurer's offices. It prepares quarterly reports on the status of district funds, grants, revolving funds, and capital appropriations for consideration by the school committee's finance subcommittee, who make recommendations for budget transfers and contract approvals to the full committee. The district has managed its funds efficiently, using outside funds such as circuit breaker and choice funds to fully spend its budget and grants without exceeding them.

There are currently three schools in the district with the closing of the Wing Elementary School in 2015 and the reorganizing of the other schools. The closed school is currently used for administration offices while the town decides what to do with the building. The head of buildings and grounds has a staff of custodians, a maintenance crew, and groundskeepers. The technology director and his staff oversee and maintain technology equipment and infrastructure which is a priority in the district; the district has a 1:1 program for high-school students and Chrome book carts for classes in other grades for classroom and outside learning.

Strength Findings

1. School and town officials are working together more cooperatively and constructively after a recent history of tensions.

A. School and town officials described tensions and distrust in recent relations between the schools and the town.

1. Town officials described "uncooperative" school administrators in past years and financial information that they "could not count on."

2. School committee members and administrators spoke of a town versus school mentality and contentiousness in the past and a need for school and town boards to work better together.

3. School administrators and town officials also described tensions between previous superintendents and the school committee.

B. School and town board members have been holding joint meetings and informal discussions to improve cooperation and trust.

1. Town and school administrators reported that several joint committees include school as well as town administrators and board members.

   a. A tri-board was recently formed to review budget requests and available funding. It is made up of the selectmen, the school committee, and the town finance committee.

   b. Administrators reported that they attend meetings of the town capital improvement planning committee and "brown bag lunches" with other town department heads.

   c. The superintendent said that her strategic planning committee includes selectmen and finance committee members as well as school officials.

   d. Town officials described a school safety group created 12 years ago consisting of representatives from the school and fire and police departments, the building inspector, and the assistant town manager.

2. School committee members and administrators reported that former school committee, finance committee, and board of selectmen members have served on each other's boards, noting that a former selectman was serving on the school committee.

C. The superintendent, school committee members, and a town official described their efforts to be cooperative and the informal ways in which they have communicated with each other.

1. The superintendent stated that in order to heal relationships when she was preparing her proposed budget she made a major effort to meet guidelines set by the selectmen.

2. The superintendent and the chairman of the school committee have made it a priority to communicate with town officials. They have met with the town manager, selectmen, capital planning committee members, and finance committee members informally for coffee as well as attending their meetings.

3. Administrators described frequent communications and cooperation between district leaders and the town manager and his staff about budget and day-to-day issues such as snow plowing, repairs to school grounds and equipment, the use of the high school as a safety shelter, payroll and benefits for staff, depositing receipts and grants, and backup for warrants.

D. Both school and town officials described improvements in the relationships between school and town and in support for school needs.

1. School committee members and administrators reported that relationships with the town are improving and that boards are working together better.

2. Interviews with administrators and a document review indicated that at a fall 2016 town meeting $162,800 was allocated to supplement insurance payments to replace the HVAC chiller at the high school. At the time of the onsite in late February/early March 2017, in addition to the capital budget the town was expected to approve $300,000 in fiscal year 2018 for school technology and facility infrastructure.

3. Administrators reported and a review of financial documents indicated that that the town has continued to allocate increases in Chapter 70 funding to the school department; a $74,425 increase was reported for fiscal year 2016 and a $162,800 increase in fiscal year 2017 was earmarked for the high school HVAC chiller.

Impact: Improved communications and relationships between school and town officials have helped increase support for school and town needs. Sharing resources likely helps the district and the town manage facility and programmatic needs more efficiently and effectively. A more positive and supportive environment for schools and better public relations can likely improve the public's perceptions about the quality and desirability of the education that the schools are providing.

2. The new superintendent has modified the budget process to leverage and reallocate resources to better achieve district priorities and to improve transparency. The development of the budget is driven by student needs, and the process is inclusive and involves appropriate stakeholders. The process and the documentation are comprehensive and clear.

A. Interviews and a document review indicated that the district has leveraged its limited funding to improve student achievement and to achieve priorities by closing a school and by a new budget development process that includes a full review and analysis of current spending and staffing levels.

1. In the face of declining enrollments in recent years,[13] the district closed the Wing Elementary School in 2015, opened a STEM Academy for grades 7–8, and reorganized to a school serving pre-kindergarten through grade 2 and a school serving grades 3–6, and a high school.

2. Administrators said that in 2016–2017 the district did a complete personnel audit of current as well as proposed staffing levels, resulting in proposed staff reductions at the high school and in other areas where class size and other data indicated inequities.

    a. For example, the position of middle school STEM director is being eliminated, and an English teaching position is being reallocated from the high school to the middle school.

    b. A total of 6.33 positions are being cut to meet budget guidelines.

3. A similar analysis of supply and materials budget inequities have led to per-pupil allotments of $140 for supplies and $220 for technology, compared with the state average of $431 per pupil.

4. If the district had not reallocated resources, collective bargaining agreements and other costs to maintain a level-service budget would have required a 5.76 percent increase.

5. In order to meet the 2.5 percent guideline and meet contractual and other fixed cost increases, the district cut $814,813 from spending to prepare a proposed budget of $32,502,706.

B. Budget proposals are based on students' needs and other district priorities.

1. Priorities for the proposed fiscal year 2018 budget include additional time and teachers for ELA and math in grades 7–8 because of declining MCAS scores, a social worker for struggling learners, special education staff to meet caseload requirements, and additional equipment for the Project Lead The Way (PLTW) program at the high school.

2. Other priorities for the budget include technology (an 11 percent increase) and facilities (a 17 percent increase) to address technology requirements of the growing Project Lead The Way (PLTW program) and infrastructure to meet the demands of the widespread use of laptops by students, to prepare for the new MCAS, and to meet deferred building maintenance needs.

C. The proposed budget has been developed in collaboration with district and school administrators, school committee members, and town officials.

1. Administrators told the review team that the entire leadership team developed the budget proposals. The school committee vice chair, who is also the chair of the finance

[13] According to ESE data, between 2012 and 2017 overall student enrollment decreased by 17.3 percent.

subcommittee, was included in their discussions, which focused on the needs and priorities of each school and cost center and proposed reductions in staff, materials, and supplies.

2. Administrators and town officials described frequent meetings and informal coffees with each other to discuss available town funding for schools, the proposed school budget, and capital needs.

3. Administrators said that they attended meetings of the town capital improvement planning committee and town department "brown bag lunches" which discussed school proposals along with other town proposals. School leaders have not always participated in these meetings in the past. The committee has recommended $300,000 in 2016–2017 for school technology and capital needs.

4. Administrators reported that during the fall the town holds meetings of a tri-board consisting of the school committee, a finance committee, and the selectmen; as a result of the fall 2016 meeting the selectmen voted a 2.5 percent increase for the schools for fiscal year 2018.

5. Although previous superintendents usually have proposed budgets exceeding the guidelines voted by the tri-board, in 2016–2017 the new superintendent prepared a proposed budget based on the 2.5 percent guideline voted by the selectmen. The school committee approved the proposed budget, and it voted to request an additional 0.5 percent for deferred needs.

6. Interviews with administrators and a review of meeting minutes indicated that the school committee held four meetings and a public hearing on the proposed budget, including presentations by principals and cost center directors on their needs and proposed budgets.

7. Since the school committee approved the budget, the superintendent and the school committee chair have been meeting with the town manager, the finance committee, and the selectmen to present the proposed budget to the town.

D. Budget presentations and documents are comprehensive and transparent, and include summaries of district priorities and major changes, detail on expenditures and staffing along with historical trends in expenses and enrollment, the use of grants and revolving funds and anticipated town funding, and capital and technology proposals.

1. PowerPoint presentations have been developed to describe the methodology used to develop the budget. They also summarize major reductions based on the personnel audit, proposed initiatives and priorities, and capital requests.

2. The superintendent has prepared two brief articles for the public summarizing the budget process and highlighting proposed reductions and priorities; they are posted on the district's website.

3. The budget document includes historical comparisons and trends for enrollments and expenditures, line-item detail for each school and cost center, detailed staffing for each cost center, and similar data for grants and revolving funds.

    a. For example, the fiscal year 2017 budget presentation to the school committee included information on grants and revolving funds such as the 53 positions funded by them.

Impact: The district's inclusive, transparent, and strategic budget development process has improved relations between school and town officials and has led to a clearer understanding by the school committee and other stakeholders of what is needed to improve teaching and learning. The district's use of reallocations helps it leverage resources efficiently.

Challenges and Areas for Growth

3. Planning and resources have so far been inadequate to keep up with maintenance and repair needs. The district submits its maintenance and capital needs to the town annually rather than as part of a long-range plan.

A. Maintenance and repairs of buildings and grounds are done as needed with major capital needs submitted annually for the town's capital appropriations.

1. Interviews with administrators and a review of school committee meeting minutes and administrators indicated that the high-school HVAC chiller broke down in 2016. Other capital needs include the hot water system at the high school, school roofs and flashing, electrical work, HVAC controls which must be turned on and off manually, and only one pump where two are needed, paving, field lighting replacements, tennis court and field renovations, flooring replacements, HVAC and boiler systems, and wastewater facilities at two schools .

    a. Estimated capital needs for the schools total $5,188,472.

3. Administrators reported that the district plans to hire an electrician to catch up with electrical work and to save on contracted services.

4. Administrators told the team that school committee members have expressed concerns about the cleanliness and condition of school buildings.

    a. School buildings now in use were built and renovated between 1976 and 2001, with some green repairs completed in 2009–2011.

    b. Reviewers found school building spaces adequate and not overcrowded but some have worn areas and others need fresh paint.

    c. Administrators said that boilers broke down at an elementary school a few years ago and the school had to be shut down for a week.

B. Interviews and a document review indicated that the town has supported some capital projects and maintenance for the schools, although not all their needs have been met.

1. Administrators stated that the schools were not in good shape. Although building upkeep is a town priority and approximately $500,000 to $600,000 is appropriated annually for capital improvements townwide, not much is set aside for schools.

2. Capital appropriations for fiscal year 2027 include swimming pool repairs and two vans for the schools. The town allocated $162,800 to supplement insurance payments to replace the high-school HVAC chiller and $200,000 to upgrade the wastewater system at an elementary school.

3. Town officials noted that the town allocated $1.8 million a few years ago to repair the high-school pool and windows whose sills had fallen out. Town officials also reported that town departments assist with some school facility needs such as paving. The school committee and town capital improvement planning committee have approved $125,000 in capital projects for 2017–2018, including repairs to the high-school hot water system and other building repairs. However, this appropriation does not approach the $5 million in identified needs.

4. The proposed operating budget for 2017–2018 includes a 17 percent increase for maintenance of facilities.

5. According to ESE data, the district and the town spent less than the state average on maintenance per pupil for 2013–2015.[14]

C. Technology for instruction is a high priority of the district and the town, including providing computer devices to most students; this requires continued investments in equipment and infrastructure.

1. Some School Improvement Plans emphasize up-to-date and improved resources for technology as goals, such as additional and updated computer devices for all students.

2. Administrators reported that the district supports a 1:1 initiative for computers at the high school and carts of devices for kindergarten through grade 8. They told the team that they wanted to ensure that students were prepared for Project Lead the Way (PLTW) learning and computer-based MCAS testing.

    a. Teachers and administrators reported that technology in the district has had a positive impact on teaching and learning and needs to be supported.

[14] See DART Detail: Staffing and Finance at http://www.mass.gov/edu/government/departments-and-boards/ese/programs/accountability/tools-and-resources/district-analysis-review-and-assistance/dart-for-districts-and-dart-for-schools.html

b. Reviewers observed widespread use of laptops and other computer equipment in classrooms at all levels.

3. Administrators noted that equipment needed to be replaced and updated and that the fiscal year 2018 budget included an 11.64 percent increase for technology.

a. Teachers reported that technology infrastructure was inadequate to handle the computers in use in the district.

b. The school and capital improvement planning committees have approved $175,000 for next year to support technology infrastructure, and E-rate funds supplement local funding.

D. The town has developed a master capital plan but it has not been fully funded. School officials have voiced a need for more effective planning for maintenance, facility, and technology needs.

1. Town officials reported that a report on all town buildings was done 12 years ago resulting in a $25 million master capital plan. However, the town approved only $1.2 million in funding; debt exclusions have not been approved since and funding must be allocated annually.

2. Town officials and school administrators described the 2012 town plan and the process for submitting and funding capital projects. A capital improvement planning committee considers town and school facility needs each year and completes as many projects as they can with available funding.

3. Administrators said that the district needs a long-range plan for school facility and technology needs.

a. The school committee's 2016–2017 goals include approval of a long-range capital and maintenance plan.

b. The proposed goals for the new strategic plan include one on infrastructure, and the strategic planning process includes an infrastructure subcommittee.

Impact: Inadequate buildings are not conducive to student learning. And the slow pace of keeping up with maintenance and repairs compromises appropriate updating of facilities.

Recommendation

1. The district should prepare a maintenance plan and a long-range capital plan for building and technology needs as part of its capital planning. The plans should be flexible, adding new needs and making other changes as they arise.

A. The district should engage in long range planning for major building repairs and upgrades and for technology equipment replacements and infrastructure requirements.

1. The facilities plan should emphasize immediate needs, such as leaky roofs and manual HVAC control systems. It should also include the repairs and replacement of systems based on their anticipated useful lives, such as flooring, pumps, and boilers.

2. The use of computers is widespread and increasing in the district, and a replacement schedule as well as anticipated new devices should be included in the technology plan. Infrastructure needs such as servers, additional Wi-Fi data points and improved bandwidth should also be planned and scheduled.

3. If desired the plans could include vehicle replacements.

4. Plans for the annual maintenance needs of systems such as boilers, HVAC equipment, alarm systems, and technology servers and infrastructure should also be prepared.

B. Draft strategic plan goals already under consideration include long range capital planning for the facilities and technology needs of the district.

C. The capital and technology plans should include cost estimates in order to spread out the need for town appropriations in a manageable way.

1. Some major renovations and upgrades of facilities may be suitable candidates for the MSBA Accelerated Repair program, which would be of great assistance in funding projects and in generating support from the town.

2. Other anticipated outside revenues should be included, such as E-rate. The district may also wish to explore energy saving contracts.

Benefits from implementing this recommendation include a comprehensive picture of facility and technology needs, both current and anticipated. By scheduling them in a reasonable way the district and the town can anticipate the annual financial costs. Documenting them can be helpful in preventing surprises and enlisting voter support for a major capital program.

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 February 27–March 1, 2017, by the following team of independent ESE consultants.

1. Marta Montleon, CAGS, Leadership and Governance
2. Pat Williams, Curriculum Leadership
3. Linda L. Greyser, Ed. D., Instructional Leadership, *review team coordinator*
4. Kristan Rodriguez, Ph. D., Human Resources and Professional Development
5. George Gearhart, Ed. D., Financial and Asset Management

District Review Activities

The following activities were conducted during the review:

The team conducted interviews with the following financial personnel: the director of finance and staff members responsible for accounts payable, payroll, and grants and revolving accounts.

The team conducted interviews with the following members of the school committee: the chair and four members.

The review team conducted interviews with the following representatives of the teachers' association: the president, the vice president, the treasurer, and four building representatives.

The team conducted interviews/focus groups with the following central office administrators: the superintendent, the director of curriculum, the director of finance, the K–6 math coordinator, the K–6 science coordinator, and the ELL coordinator.

The team visited the following schools: Forestdale School (Pre-K–2), Oak Ridge School (grades 3–6), Sandwich STEM Academy (grades 7–8), and Sandwich High School (grades 9–12).

During school visits, the team conducted focus group with 6 elementary-school teachers, a focus group of 8 middle- and high-school teachers, and a focus group of 20 middle- and high-school students.

The team conducted a focus group with 10 parents; all four schools were represented in the group.

The team observed 53 classes in the district: 23 at the high school, 13 at the STEM Academy (middle school), and 17 at the 2 elementary schools.

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

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

Site Visit Schedule

Monday 2/27/2017	**Tuesday** 2/28/2017	**Wednesday** 3/1/2017
Orientation with district leaders and principals; interviews with district staff and principals; document reviews; interview with teachers' association; elementary teachers focus group; and visits to Forestdale School and Oak Ridge School for classroom observations.	Interviews with district staff and principals; review of personnel files; primary school teacher focus group; parent focus group; and visits to Forestdale School, Oak Ridge School, STEM Academy, and Sandwich High School for classroom observations, interview with town manager, school committee interviews, and parent focus group	Interviews with superintendent and school leaders; focus group with middle-high school students, visits to STEM Academy and Sandwich High School for classroom observations.

Appendix B: Enrollment, Performance, Expenditures

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

Student Group	District	Percent of Total	State	Percent of Total
African-American	33	1.2%	84,996	8.9%
Asian	61	2.2%	63,690	6.7%
Hispanic	57	2.1%	184,782	19.4%
Native American	14	0.5%	2,125	0.2%
White	2,545	93.4%	584,665	61.3%
Native Hawaiian	2	0.1%	855	0.1%
Multi-Race, Non-Hispanic	14	0.5%	32,635	3.4%
All Students	2,726	100.0%	953,748	100.0%

Note: As of October 1, 2016

Table B1b: Sandwich 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	476	58.8%	17.2%	167,530	38.4%	17.4%
Econ. Disad.	434	53.6%	15.9%	288,465	66.1%	30.2%
ELLs and Former ELLs	28	3.5%	1.0%	90,204	20.7%	9.5%
All high needs students	810	100.0%	29.2%	436,416	100.0%	45.2%

Notes: As of October 1, 2016. District and state numbers and percentages for students with disabilities and high needs students are calculated including students in out-of-district placements. Total district enrollment including students in out-of-district placement is 2,775; total state enrollment including students in out-of-district placement is 964,514.

Table B2a: Sandwich Public Schools
English Language Arts 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
3	CPI	211	86.1	84.3	83.9	79.0	--	-7.1	-4.9
	P+	211	60%	58%	55%	48%	--	-12	-7
4	CPI	235	80.1	84.1	80.1	78.1	--	-2.0	-2.0
	P+	235	53%	63%	54%	50%	--	-3	-4
	SGP	217	48.0	50.0	44.0	48.0	--	0.0	4.0
5	CPI	244	88.9	87.9	91.2	86.2	--	-2.7	-5
	P+	244	73%	67%	77%	67%	--	-6	-10
	SGP	229	54.0	47.0	51.5	48.0	--	-6.0	-3.5
6	CPI	229	92.2	92.0	91.4	90.3	--	-1.9	-1.1
	P+	229	78%	80%	79%	77%	--	-1	-2
	SGP	213	68.0	54.0	59.0	45.0	--	-23.0	-14.0
7	CPI	241	94.4	94.9	92.3	91.8	--	-2.6	-0.5
	P+	241	83%	85%	82%	78%	--	-5	-4
	SGP	229	56.0	55.0	55.0	52.0	--	-4.0	-3.0
8	CPI	260	95.8	96.4	94.1	93.6	--	-2.2	-0.5
	P+	260	88%	89%	87%	86%	--	-2	-1
	SGP	248	52.0	43.0	38.5	39.5	--	-12.5	1.0
10	CPI	174	99.0	99.1	99.2	98.0	96.7	-1.0	-1.2
	P+	174	97%	98%	97%	94%	91%	-3	-3
	SGP	161	36.0	40.0	42.0	39.0	50.0	3.0	-3.0
All	CPI	1,594	91.0	91.1	90.1	88.0	--	-3.0	-2.1
	P+	1,594	76%	77%	76%	71%	--	-5	-5
	SGP	1,297	53.0	49.0	48.0	46.0	--	-7.0	-2.0

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

Table B2b: Sandwich Public Schools
Mathematics 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
3	CPI	213	88.5	88.6	84.8	86.6	--	-1.9	1.8
	P+	213	74%	72%	69%	69%	--	-5	0
4	CPI	234	81.3	84.9	75.9	80.6	--	-0.7	4.7
	P+	234	50%	60%	39%	52%	--	2	13
	SGP	217	52.5	49.5	37.0	58.0	--	5.5	21.0
5	CPI	243	86.6	86.4	87.0	85.5	--	-1.1	-1.5
	P+	243	73%	71%	72%	67%	--	-6	-5
	SGP	231	55.0	57.0	53.0	75.0	--	20.0	22.0
6	CPI	229	90.8	88.7	88.0	91.2	--	0.4	3.2
	P+	229	77%	75%	72%	79%	--	2	7
	SGP	213	65.5	53.0	53.0	81.0	--	15.5	28.0
7	CPI	242	87.5	83.6	79.9	76.4	--	-11.1	-3.5
	P+	242	71%	65%	60%	51%	--	-20	-9
	SGP	229	53.0	55.0	31.0	35.0	--	-18.0	4.0
8	CPI	257	87.0	85.0	80.8	76.6	--	-10.4	-4.2
	P+	257	74%	67%	63%	52%	--	-22	-11
	SGP	249	68.0	50.5	29.0	27.0	--	-41.0	-2.0
10	CPI	175	94.8	96.4	92.5	94.4	89.7	-0.4	1.9
	P+	175	88%	92%	84%	83%	78%	-5	-1
	SGP	163	38.0	35.5	36.0	28.0	50.0	-10.0	-8.0
All	CPI	1,593	87.9	87.2	83.8	83.9	--	-4.0	0.1
	P+	1,593	72%	71%	65%	64%	--	-8	-1
	SGP	1,302	56.0	51.0	41.0	52.0	--	-4.0	11.0

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

Table B2c: Sandwich 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	243	84.1	83.7	87.3	81.4	76.4	-2.7	-5.9
	P+	243	60%	56%	66%	53%	47%	-7	-13
8	CPI	256	75.9	75.5	76.0	77.9	71.3	2.0	1.9
	P+	256	45%	38%	45%	46%	41%	1	1
10	CPI	164	94.5	96.9	92.4	95.1	88.9	0.6	2.7
	P+	164	83%	91%	78%	85%	73%	2	7
All	CPI	663	83.9	83.5	84.4	83.4	78.7	-0.5	-1.0
	P+	663	61%	57%	61%	58%	54%	-3	-3

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 B3a: Sandwich Public Schools
English Language Arts (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	464	80.1	79.9	78.9	73.4	-6.7	-5.5
		P+	464	53%	52%	54%	45%	-8	-9
		SGP	348	49.0	46.5	46.0	40.5	-8.5	-5.5
	State	CPI	--	76.8	77.1	79.5	--	--	--
		P+	--	48%	50%	55%	--	--	--
		SGP	--	47.0	47.0	47.0	--	--	--
Econ. Disad.	District	CPI	253	--	--	85.6	79.0	--	-6.6
		P+	253	--	--	64%	55%	--	-9
		SGP	180	--	--	48.0	39.0	--	-9.0
	State	CPI	--	--	--	80.9	--	--	--
		P+	--	--	--	59%	--	--	--
		SGP	--	--	--	47.0	--	--	--
Students w/ disabilities	District	CPI	282	73.7	73.0	69.6	65.1	-8.6	-4.5
		P+	282	38%	40%	40%	32%	-6	-8
		SGP	219	51.0	44.0	40.5	39.0	-12.0	-1.5
	State	CPI	--	66.8	66.6	71.6	--	--	--
		P+	--	30%	31%	39%	--	--	--
		SGP	--	43.0	43.0	44.0	--	--	--
English language learners or Former ELLs	District	CPI	13	--	77.3	87.5	76.9	--	-10.6
		P+	13	--	18%	71%	46%	--	-25
		SGP	9	--	--	--	--	--	--
	State	CPI	--	67.4	67.8	70.1	--	--	--
		P+	--	35%	36%	41%	--	--	--
		SGP	--	53.0	54.0	54.0	--	--	--
All students	District	CPI	1,594	91.0	91.1	90.1	88.0	-3.0	-2.1
		P+	1,594	76%	77%	76%	71%	-5	-5
		SGP	1,297	53.0	49.0	48.0	46.0	-7.0	-2.0
	State	CPI	--	86.8	86.7	89.3	--	--	--
		P+	--	69%	69%	75%	--	--	--
		SGP	--	51.0	50.0	50.0	--	--	--

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

Table B3b: Sandwich Public Schools
Mathematics (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	462	73.4	73.5	66.1	68.6	-4.8	2.5
		P+	462	45%	43%	36%	39%	-6	3
		SGP	349	52.0	48.0	37.0	52.0	0.0	15.0
	State	CPI	--	68.6	68.4	70.2	--	--	--
		P+	--	40%	40%	43%	--	--	--
		SGP	--	46.0	47.0	47.0	--	--	--
Economically Disadvantaged	District	CPI	253	--	--	71.3	73.7	--	2.4
		P+	253	--	--	43%	45%	--	2
		SGP	181	--	--	37.0	50.0	--	13.0
	State	CPI	--	--	--	71.9	--	--	--
		P+	--	--	--	47.0%	--	--	--
		SGP	--	--	--	46.0	--	--	--
Students w/ disabilities	District	CPI	281	64.5	65.8	55.1	60.6	-3.9	5.5
		P+	281	29%	29%	21%	28%	-1	7
		SGP	220	48.0	47.0	36.0	53.5	5.5	17.5
	State	CPI	--	57.4	57.1	60	--	--	--
		P+	--	22.0%	22.0%	27.0%	--	--	--
		SGP	--	42.0	43.0	44.0	--	--	--
English language learners or Former ELLs	District	CPI	12	0.0	84.1	71.4	68.8	68.8	-2.6
		P+	12	0%	64%	43%	42%	42	-1
		SGP	8	--	--	--	--	--	--
	State	CPI	--	63.9	63.8	64.4	--	--	--
		P+	--	35.0%	36.0%	37.0%	--	--	--
		SGP	--	53.0	52.0	50.0	--	--	--
All students	District	CPI	1,593	87.9	87.2	83.8	83.9	-4.0	0.1
		P+	1,593	72%	71%	65%	64%	-8	-1
		SGP	1,302	56.0	51.0	41.0	52.0	-4.0	11.0
	State	CPI	--	80.8	80.3	83.1	--	--	--
		P+	--	61.0%	60.0%	66.0%	--	--	--
		SGP	--	51.0	50.0	50.0	--	--	--

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

Table B3c: Sandwich 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	175	71.2	71.0	72.7	68.6	-2.6	-4.1
		P+	175	35%	30%	38%	34%	-1	-4
	State	CPI	89,857	66.4	67.3	66.3	65.4	-1	-0.9
		P+	89,857	31%	33%	32%	31%	0	-1
Econ. Disad.	District	CPI	91	--	--	76.7	75.0	--	-1.7
		P+	91	--	--	45%	45%	--	0
	State	CPI	61,476	--	--	67.1	65.8	--	-1.3
		P+	61,476	--	--	33.0%	29%	--	-4
Students w/ disabilities	District	CPI	110	63.1	66.3	67.7	61.4	-1.7	-6.3
		P+	110	21%	20%	28%	24%	3	-4
	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	3	--	--	--	--	--	--
		P+	3	--	--	--	--	--	--
	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	663	83.9	83.5	84.4	83.4	-0.5	-1.0
		P+	663	61%	57%	61%	58%	-3	-3
	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 B4: Sandwich Public Schools
Annual Grade 9-12 Drop-Out Rates, 2012–2015

Group	School Year Ending				Change 2012–2015		Change 2014–2015		State (2015)
	2012	2013	2014	2015	Percentage Points	Percent Change	Percentage Points	Percent Change	
High Needs	3.7%	2.9%	1.5%	1.8%	-1.9	-51%	0.3	20%	3.4%
Econ. Disad.[15]	4.8%	2.0%	1.2%	3.1%	-1.7	-35%	1.9	158%	3.3%
Students w/ disabilities	4.3%	3.7%	1.4%	1.7%	-2.6	-60%	0.3	21%	3.5%
ELL	--	--	--	--	--	--	--	--	5.7%
All students	1.5%	2.1%	0.6%	0.5%	-1	-67%	-0.1	-17%	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 B5: Sandwich 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	95.2%	94.4%	94.5%	94.8%	-0.4	-0.4%	0.3	0.3%	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.

[15] Low income numbers used for economically disadvantaged numbers for 2012, 2013, and 2014

Table B6: Sandwich 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	$29,225,227	$30,324,286	$31,300,000	$31,300,000	$30,915,593	$30,990,018
By municipality	$14,203,583	$16,358,901	$15,486,791	$14,969,455	$16,565,435	$16,401,482
Total from local appropriations	$43,428,810	$46,683,187	$46,786,791	$46,269,455	$47,481,028	$47,391,500
From revolving funds and grants	--	$5,041,647	--	$5,095,920	--	$4,976,766--
Total expenditures	--	$51,724,834	--	$51,365,375	--	$52,368,266
Chapter 70 aid to education program						
Chapter 70 state aid*	--	$6,588,268	--	$6,665,593	--	$6,740,018
Required local contribution	--	$24,951,122	--	$24,542,435	--	$24,211,459
Required net school spending**	--	$31,539,390	--	$31,208,028	--	$30,951,477
Actual net school spending	--	$38,676,287	--	$40,166,088	--	$41,680,105
Over/under required ($)	--	$7,136,897	--	$8,958,060	--	$10,728,628
Over/under required (%)	--	22.6%	--	28.7%	--	34.7%

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

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

Sources: FY13, FY14, and FY15 District End-of-Year Reports, Chapter 70 Program information on ESE website; Data retrieved 11/4/16 and 7/21/17

Table B7: Sandwich Public Schools
Expenditures Per In-District Pupil
Fiscal Years 2013–2015

Expenditure Category	2013	2014	2015
Administration	$483	$573	$557
Instructional leadership (district and school)	$711	$843	$1,149
Teachers	$5,281	$5,651	$5,822
Other teaching services	$1,004	$901	$874
Professional development	$142	$147	$119
Instructional materials, equipment and technology	$272	$210	$275
Guidance, counseling and testing services	$216	$222	$271
Pupil services	$1,148	$1,263	$1,386
Operations and maintenance	$969	$1,062	$1,039
Insurance, retirement and other fixed costs	$2,389	$2,631	$2,733
Total expenditures per in-district pupil	$12,615	$13,503	$14,225

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**	0%	24%	53%	24%	2.0
	MS	0%	8%	46%	46%	2.4
	HS	4%	26%	35%	35%	2.0
	Total #	1	11	23	18	2.1
	Total %	2%	21%	43%	34%	
2. The teacher provides and refers to clear learning objective(s) in the lesson.	**ES**	0%	35%	53%	12%	1.8
	MS	0%	31%	38%	31%	2.0
	HS	13%	26%	35%	26%	1.7
	Total #	3	16	22	12	1.8
	Total %	6%	30%	42%	23%	
3. The teacher implements a lesson that reflects high expectations aligned to the learning objective (s).	**ES**	0%	41%	53%	6%	1.6
	MS	0%	31%	46%	23%	1.9
	HS	4%	39%	39%	17%	1.7
	Total #	1	20	24	8	1.7
	Total %	2%	38%	45%	15%	
4. The teacher uses appropriate instructional strategies well matched to the learning objective(s).	**ES**	0%	35%	41%	24%	1.9
	MS	0%	31%	23%	46%	2.2
	HS	4%	35%	35%	26%	1.8
	Total #	1	18	18	16	1.9
	Total %	2%	34%	34%	30%	
	ES					**7.3**
	MS					**8.5**
	HS					**7.3**
	Total					**7.6**

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**	6	18	47	29%	2.0
	MS	0	15	46	38%	2.2
	HS	0	39	22	39%	2.0
	Total #	1	14	19	19	2.1
	Total %	2	26	36	36%	
6. The teacher facilitates tasks that encourage students to develop and engage in critical thinking.	**ES**	0	53	47	0%	1.5
	MS	0	23	46	31%	2.1
	HS	9	35	35	22%	1.7
	Total #	2	20	22	9	1.7
	Total %	4	38	42	17%	
7. Students assume responsibility for their own learning whether individually, in pairs, or in groups.	**ES**	6	24	29	41%	2.1
	MS	0	23	38	38%	2.1
	HS	9	22	26	43%	2.0
	Total #	3	12	16	22	2.1
	Total %	6	23	30	42%	
Total Score For Focus Area #2	**ES**					**5.5**
	MS					**6.5**
	HS					**5.7**
	Total					**5.8**

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**	18%	47%	18%	18%	1.4
	MS	0%	38%	46%	15%	1.8
	HS	61%	22%	9%	9%	0.7
	Total #	17	18	11	7	1.2
	Total %	32%	34%	21%	13%	
9. The teacher uses appropriate resources aligned to students' diverse learning needs. (e.g., technology, manipulatives, support personnel).	**ES**	6%	29%	59%	6%	1.6
	MS	0%	23%	8%	69%	2.5
	HS	26%	9%	39%	26%	1.7
	Total #	7	10	20	16	1.8
	Total %	13%	19%	38%	30%	
10. The classroom climate is characterized by respectful behavior, routines, tone, and discourse.	**ES**	0%	18%	53%	29%	2.1
	MS	8%	8%	46%	38%	2.2
	HS	4%	13%	35%	48%	2.3
	Total #	2	7	23	21	2.2
	Total %	4%	13%	43%	40%	
11. The teacher conducts appropriate formative assessments to check for understanding and provide feedback to students.	**ES**	0%	24%	53%	24%	2.0
	MS	0%	38%	13%	50%	2.1
	HS	4%	30%	39%	26%	1.9
	Total #	1	14	19	14	2.0
	Total %	2%	29%	40%	29%	
Total Score For Focus Area #3	**ES**					**7.1**
	MS					**8.5**
	HS					**6.4**
	Total					**7.1**