

# Massachusetts K–12 Public School Facilities

2013			
Enrollment	# of Schools	Area of K–12 District Buildings	Average Area per Student
922,848	1,854	180 million gross square feet (GSF)	195 GSF

K–12 school buildings and grounds have an impact on our children’s educational success, the health and economic vitality of our communities, and the environment. Local school districts and many states have been working hard to support the ongoing maintenance, operations, new construction, and capital improvements of public school facilities.

Without a standards framework to inform spending levels, however, communities cannot plan or advocate for what their schools need. And communities with the least wealth are often the ones least able to meet the need. This fact sheet provides facilities spending and investment data within a standards framework to encourage a solutions-oriented public dialogue on how Massachusetts can provide healthy, safe, and educationally appropriate schools for all students.

For background, analysis, and data sources, visit [www.stateofourschools.org](http://www.stateofourschools.org) for the companion report **State of Our Schools: America’s K–12 Facilities 2016**.

## 20 Years of Facilities Spending and Investment

### Maintenance and Operations (M&O) Spending

Responsible maintenance and operations result in healthy and safe environments and help to secure the full life of school-construction investments already made. From 1994 through 2013, Massachusetts public school districts reported to the U.S. Census of Governments that they spent an inflation-adjusted total of \$23.3 billion from their annual operating budgets on “Maintenance and Operation of Plant,” which includes cleaning, routine and preventive maintenance, minor repairs, utilities, and school security. During this period, Massachusetts school districts spent 9.3% of their total operating funds on maintenance and operations.

State Maintenance & Operations of Plant FY 2011–2013 (in 2014\$)	National Average	
Annual Average	\$1,267 M	\$50 B
Annual Average per 2013 Student	\$1,373	\$1,039
Annual Average per GSF	\$7.03	\$6.64

### Capital Construction Investments

Changes in enrollments; updated standards for education, health, and safety; and normal deterioration of building systems and components require capital investments over the lifespan of every school facility. From 1994 through 2013, Massachusetts K–12 school districts reported spending an inflation-adjusted \$25.5 billion on school-construction capital outlay. An estimated 45% of Massachusetts’s construction spending in these years went to new school construction, either as replacement schools or to serve growing enrollments. On average, Massachusetts school district enrollments increased by 4.9% between 1993-94 and 2012-13 as compared with an increase at the national level of 11.3%.

State Capital Outlay for School Construction FY 1994–2013 (in 2014\$)	National Average	
Annual Average	\$1,276 M	\$49 B
Annual Average per 2013 Student	\$1,383	\$1,008
Total Investment 1994–2013 per 2013 Student	\$27,652	\$20,157

Massachusetts’s school districts paid 33% of the costs for K–12 capital projects with local funds, and Massachusetts’s local school districts’ long-term debt at the end of fiscal year 2013 totaled \$5.1 billion or \$5,565 per student, as compared with the national average of \$8,465. The state provided 67% of the cost of capital construction as compared with the national average of 18%.

## Using Standards to Plan for the Future

### M&O Spending Standards

For Massachusetts school districts to operate healthy, safe, and educationally appropriate school facilities, they should plan to spend from annual operating budgets an amount equal to at least 3% of the facilities’ current replacement value (CRV) on maintenance and operations—an estimated \$1,996 million per year. From 2011 through 2013, Massachusetts spent 63% of this standard. Meeting the standard would require spending an additional \$729 million statewide or about \$790 more per student.

State Average New Construction		State Facilities Gross Square Footage		Current Replacement Value
\$369 per GSF	X	180 million GSF	=	\$67 billion

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## Capital Construction Investment Standards

Massachusetts should plan to spend an amount equal to at least 4% of its facilities' CRV annually in capital funds on building system and component renewals, reducing accumulated deferred maintenance, and making alterations to ensure that its existing facilities support the educational programs and modern health and safety requirements—an estimated total of \$2,661 million per year. On average, from 1994 through 2013, Massachusetts districts spent 48% of the standard. Meeting the standard for its existing facilities would require an increase in annual average capital construction investments of about \$1,385 million statewide or \$1,501 per student.

## New Construction to Meet Enrollment Growth

The National Center for Education Statistics projects that, between 2012 and 2024, Massachusetts will experience a statewide total enrollment decrease of 10,773 students or 1.1 percent. Nevertheless, any Massachusetts district that does experience substantial enrollment growth will need to plan to spend additional capital funds to construct new facilities.

New Seats <sup>1</sup>	GSF per New Seat	Cost per GSF	Estimated 10-Year Cost	Estimated Annual Cost
0	195	\$ 369	\$0 M	\$0 M

(1) 80% of the projected increase in enrollment.

## Projected Annual Gap in Facilities Spending and Investment

Including the costs of any new construction required to accommodate enrollment growth, Massachusetts should plan to spend an average annual total of \$4,656 million on its K–12 facilities. Based on historic rates of spending, meeting this standard would require spending an additional \$2,113 million statewide or about \$2,290 per student.

K–12 Facilities Responsibilities		Modern Standards	Historic Spending	% of Standard	Projected Annual Gap
Maintenance & Operations at 3% of CRV		\$1,996 M	\$1,267 M <sup>2</sup>	63%	\$729 M
Capital Construction	Existing Facilities at 4% of CRV	\$2,661 M	\$1,276 M <sup>3</sup>	48%	\$1,385 M
	New Facilities	\$0 M			
<b>TOTAL</b>		<b>\$4,657 M</b>	<b>\$2,543 M</b>	<b>55%</b>	<b>\$2,114 M</b>

(2) FY2011-13 average; (3) 20-year (FY1994–2013) average, including NEW construction.

## Data Sources

- Basic state data are from the National Center on Education Statistics (NCES) Common Core of Data (2012-13) with charter school enrollment and number of schools included, when included in NCES state totals.
- Area of K-12 district building gross square footage (GSF) was provided by the Massachusetts School Building Authority.
- Facilities maintenance and operation spending, capital investment, debt, and state capital revenue data are district reported on fiscal surveys (F-33) to the U.S. Census of Governments, published by NCES for fiscal years 1994-2013.
- Dodge Data Analytics reported school construction contract start amounts at 186% of the district reported amount for capital construction. The national average is 71%. Based on this discrepancy, this profile reflects an increased amount for capital construction investment. See Appendix B of State of our Schools: America's K-12 Facilities 2016 for more detail.
- State share of capital construction is based on an adjusted value for state revenue for capital outlay. See Appendix C in State of our Schools: America's K-12 Facilities 2016 for details.
- Maintenance and operations spending and capital construction are adjusted to 2014 dollars, using the education adjusted Consumer Price Index, and the Turner Construction Index, respectively.
- The Percentage of new construction is based on Dodge Data & Analytics costs at contract start of public school districts' school construction projects by project type and state and year (1995-2013).
- For purposes of clarity, the figures in this profile have been rounded.