

## Public School Funding in Massachusetts: Where We Are, What Has Changed, and How We Compare to Other States

(NOTE: This paper was updated on September 14, 2010. Due to substantial underreporting of data, the US Census Bureau's capital spending amounts for Massachusetts schools are incomplete and, therefore, have been deleted from the following analysis.)

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### EDUCATION FINANCING IN MASSACHUSETTS AND THE 50 STATES IN FY 2008

Recently released Fiscal Year 2008 education spending data from the US Census Bureau provide important information on long-term spending trends in Massachusetts and help paint a picture of the state's commitment to elementary and secondary public education. This Census data also allows for instructive comparisons between Massachusetts's support for public education and that of other states. It is important to note that this FY 2008 spending data predates the beginning of the ongoing fiscal crisis that began in 2009. The economic crisis of the past two years has changed greatly the dynamics of education finance in Massachusetts and around the country, with cuts to state and local spending and a large infusion of additional federal funds. The recent shift towards a greater dependence on federal funding sources is not reflected in the bulk of this paper but is discussed separately in its final section.

Key takeaways from FY 2008 US Census data on K-12 education spending include:

- **Massachusetts ranks high in per-pupil spending but ranks low in total education spending as a percentage of the state economy.** As an affluent state, Massachusetts has a greater capacity to invest in education than lower-income states. The state's high per pupil ranking reflects these greater resources, even when correcting for higher costs. (Massachusetts also ranks high on educational outcomes as reflected in National Assessment of Educational Progress (NAEP) standardized test scores, often leading the nation.) However, when viewed as a share of the state's total ability to fund education – the total size of the economy – Massachusetts ranks lower than many less affluent states.
- **Massachusetts continues to rank low in state and local funding as a percentage of the total economy, although this percentage increased steadily from the mid-1990s to the mid-2000s.**
- **Massachusetts schools rely heavily on local funding sources.** Even though local sources have represented a decreasing share of the total funding pie, Massachusetts schools are still more reliant on local funding than most other states.

In addition, an analysis of Massachusetts education finance data that is more current than the US Census's indicates that education stimulus funding has increased the federal government's relative contribution to Massachusetts schools in FY 2009, FY 2010, and FY 2011.

This paper is organized into three different sections that each analyze different aspects of state education spending. Themes for the three sections are:

1. ***How much does Massachusetts spend per student?*** Cost differences between states and varying rates of inflation make direct comparisons difficult. This paper accounts for these differences by adjusting US Census per-pupil expenditure amounts using the Comparable Wage Index, a geographic measure of wage levels used to facilitate comparisons across states.<sup>1</sup>
2. ***What is K-12 public education's share of the total economy?*** In order to analyze how education spending in Massachusetts compares to the size of our state economy, how that has changed over time, and how it compares to other states, this paper examines education spending as a percentage of total personal income, a common gauge of a state's economy.<sup>2</sup>
3. ***What are the sources of funding?*** The relative proportions of state, local, and federal funding sources vary over time and across states. Looking at the composition of state and local education spending in Massachusetts, in particular, provides an important metric for analyzing the effects of major state education reforms that began to be implemented in 1994. For this reason, most comparisons of spending over time use 1993 as a baseline.

### **How much does Massachusetts spend per pupil?**

Because costs and wages vary widely across different parts of the country, it is important to adjust for these differences in order to make a fair comparison. Massachusetts continues to rank well in terms of both nominal spending, ranking 5<sup>th</sup> in the nation, and cost-adjusted spending, ranking 9<sup>th</sup> (Figure 1). The state's cost-adjusted per-pupil spending level of \$13,136 exceeds the national average by \$2,710, or roughly 26 percent.

It is important to note that the US Census's per-pupil measure is more inclusive than many measures of per-pupil education support because it includes capital spending, not just current education costs. Because of this inclusion, the measure is a good way to capture a state's total education support. However, given Massachusetts' relatively low capital spending level, the US Census's total per-pupil expenditure measure understates the extent to which Massachusetts spends more than other states when looking at only in-classroom spending.

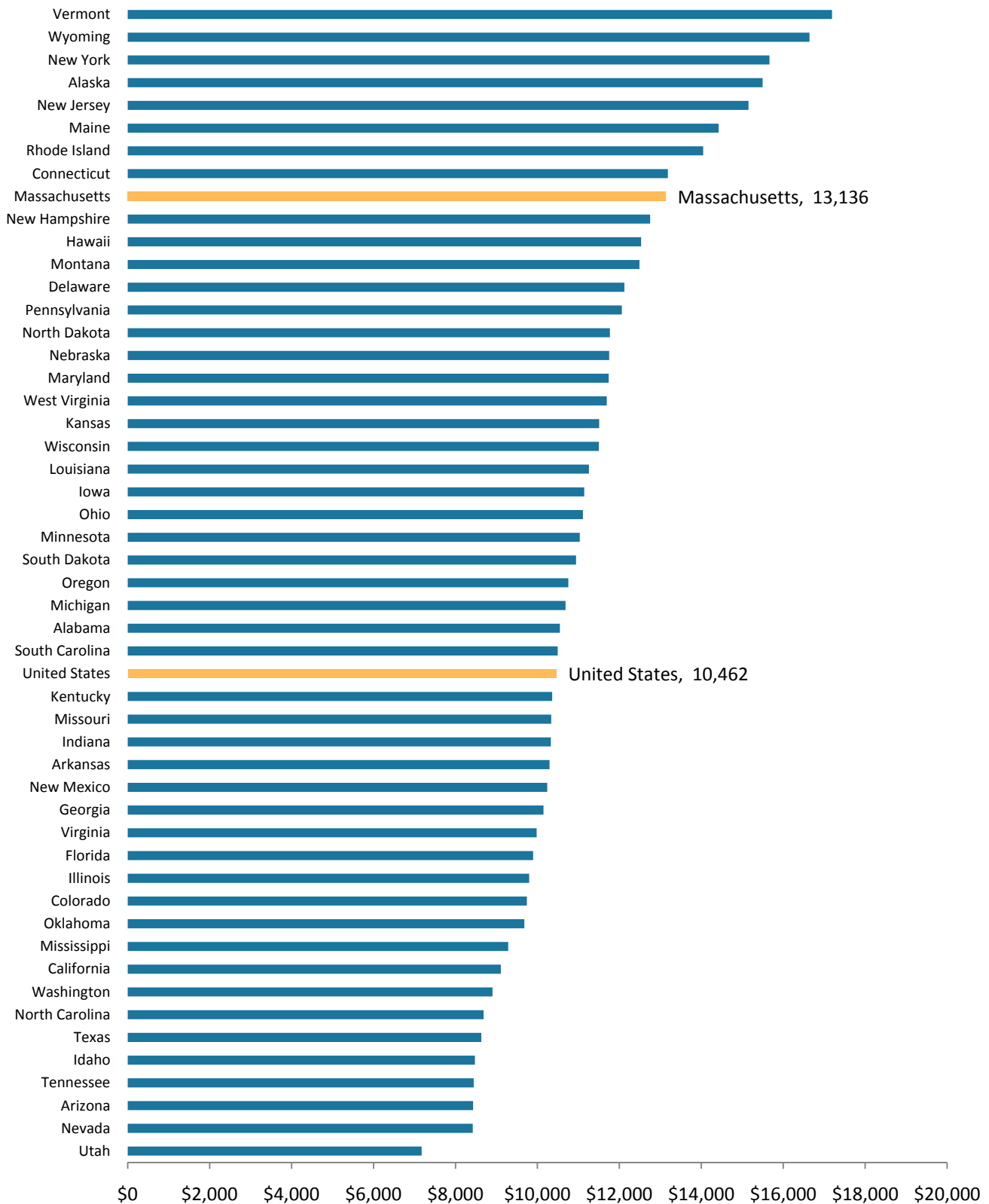
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<sup>1</sup> For more information on the Comparable Wage Index see: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006865>

<sup>2</sup> For more information on the use of personal income to gauge economic growth please see: New England Public Policy Center of the Federal Reserve Bank of Boston, "Assessing Alternative Measures of State Income," July 30, 2008, available at: <http://www.bos.frb.org/economic/neppc/memos/2008/weinerpopov073008.pdf>.

**FIGURE 1. Massachusetts Ranks High in Cost Adjusted Per Pupil Spending, 2008**

US Census per pupil expenditures adjusted by the Comparable Wage Index



Massachusetts's results on the NAEP suggest that the state is getting strong results for its per-pupil investment. Figure 2 shows a snapshot of these scores for eighth grade math and reading over all years that data are available. To see how Massachusetts compares to other states at different grade levels and subject areas please click [here](#).

**Figure 2. Massachusetts Ranks High on Educational Outcomes**

MA state ranking on the National Assessment of Educational Progress (NAEP) exam

		1992	2000	2003	2005	2007	2009
<b>Grade 8 Math</b>	<b>Massachusetts Ranking</b>	12	12	3	1	1	1
	Total states with available data (inc. DC)	42	40	51	51	51	51
		1998	2002	2003	2005	2007	2009
<b>Grade 8 Reading</b>	<b>Massachusetts Ranking</b>	4	2	1	1	1	1
	Total states with available data (inc. DC)	37	42	51	51	51	51

**Education Spending as a Share of the Economy**

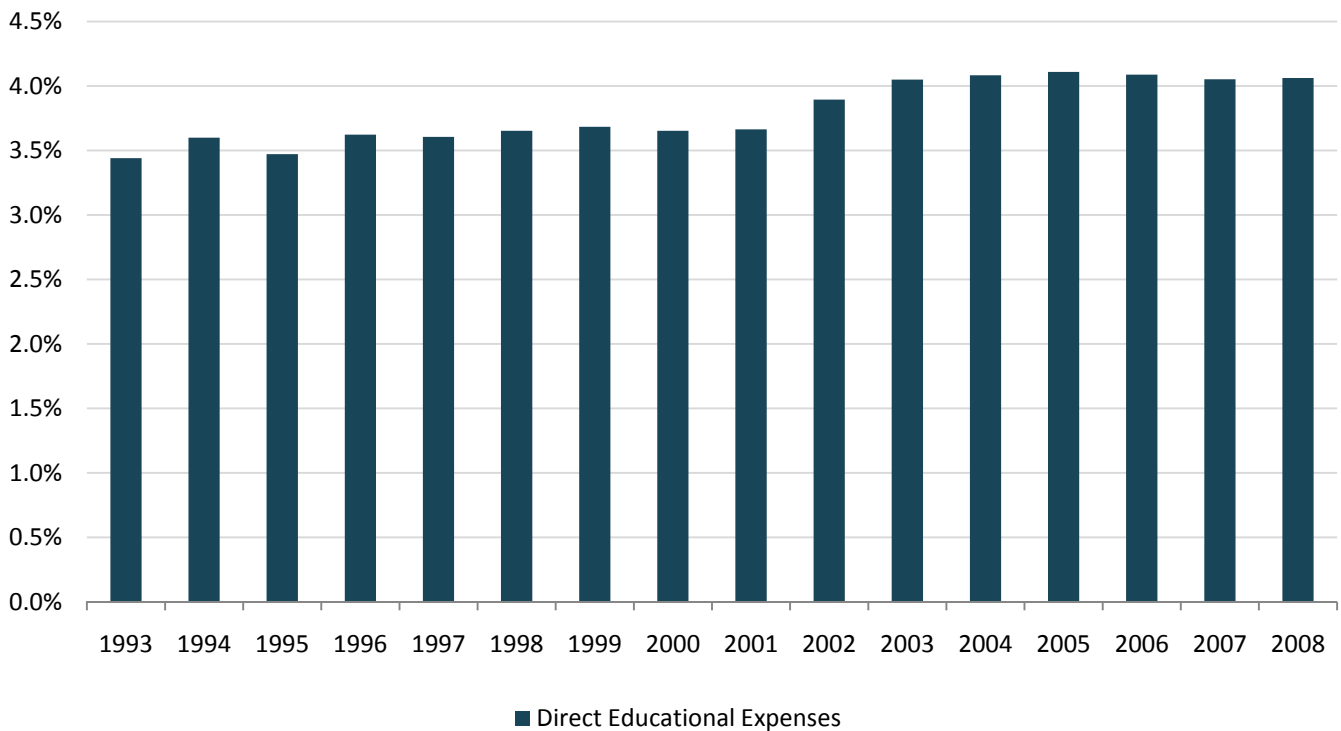
Education support in Massachusetts as a share of the state's economy continued to lag behind the national average in FY 2008, ranking 30<sup>th</sup> in the nation for total education expenditures as a percentage of personal income (Figure 4).

*Education as a Share of the Economy in Massachusetts, 1993-2008<sup>3</sup>*

- Current education support comprises a much larger share of the state’s economy than it did in the early-1990s (Figure 3). In the 1992-1993 school year, education spending comprised 3.54 percent of the state’s economy, compared to 4.35 percent in the 2007-2008 school year – 23 percent growth.
- When looked at as a share of the economy, education spending has remained roughly stagnant since FY 2003.

**Figure 3. Education Spending Represents a Growing Part of the Massachusetts Economy**

MA education spending as a percent of Personal Income



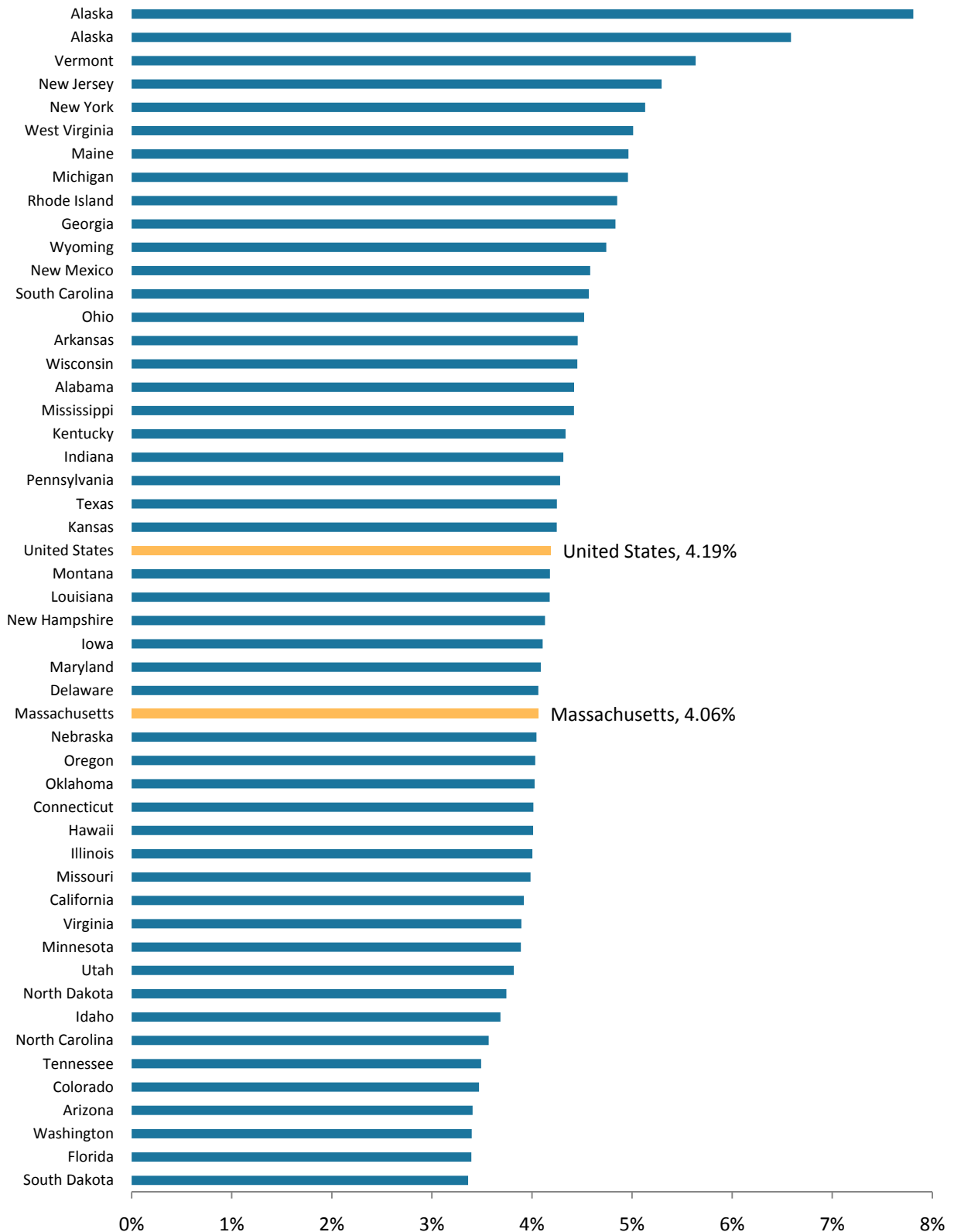
*Massachusetts Compared to the Rest of the Country*

- Even with the growth in education spending as a share of Massachusetts’s economy over the past 15 years, the state continues to lag behind the national average. According to the most recent US Census data, on average education makes up 4.19 percent of a state’s economy, about 3 percent more than in Massachusetts (Figure 4).

<sup>3</sup> “Direct educational expenses” are based upon the US Census Bureau’s category of “current spending,” which includes expenses such as: salaries, benefits, professional and technical services, and supplies. “Capital expenses” are based upon the Census category of “capital outlay,” which includes expenditures for the purchase and construction of buildings, roads, and equipment, and also for major additions, replacements, and alterations to fixed structures. “Other” expenses are based upon the Census category “other current spending,” which includes spending for non-elementary and secondary instruction such as community services and adult education classes.

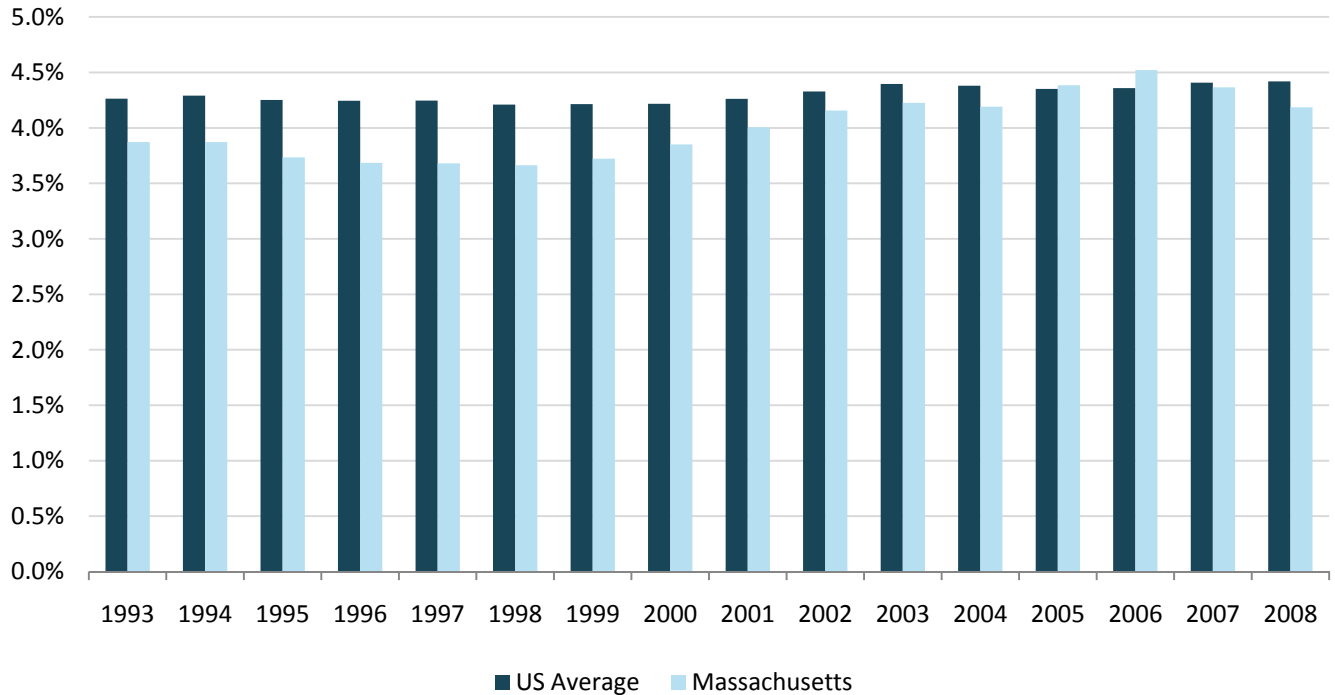
**FIGURE 4: MA Ranks Low in Total Education Spending as Percent of Economy, 2008**

Education spending as percent of Personal Income



- Massachusetts has grown very close to the national average when looking only at state and local education spending as a share of the economy, setting aside federal money. As Figures 5 and 6 demonstrate, state and local education spending in Massachusetts comprises 4.19 percent of personal income in FY 2008, compared to the national average of 4.42 percent. During FY 2005 and FY 2006, state and local spending in Massachusetts surpassed the national average.<sup>4</sup>

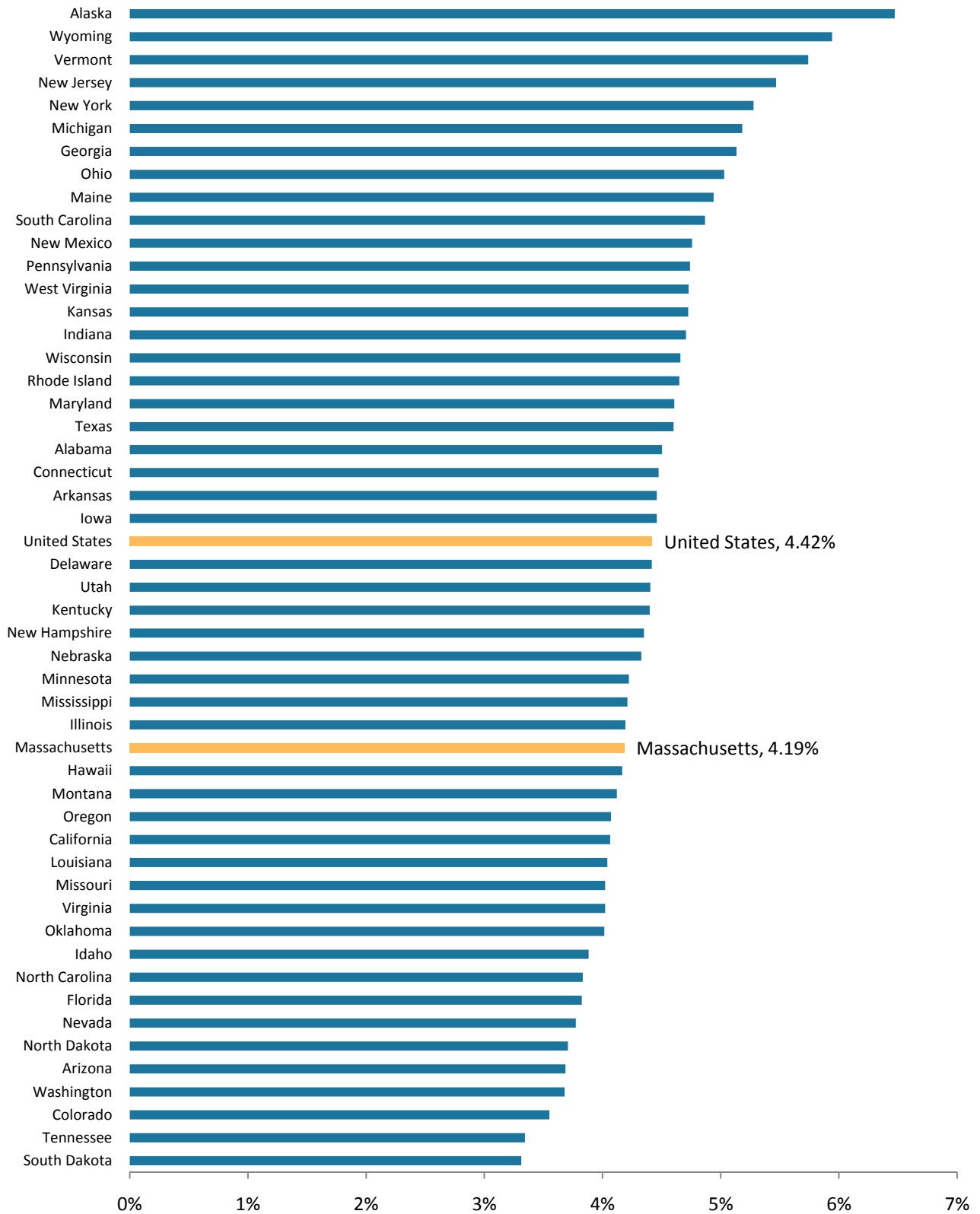
**Figure 5. Massachusetts has Grown Closer to the US Average in State & Local Education Investment**  
State and local education revenue as a percent of Personal Income



<sup>4</sup> Please note that the percentages in Figures 5 and 6 are higher than percentages in Figure 4 because Figures 5 and 6 use state and local revenue, which include revenues spent on capital projects. Total expenditures included in Figure 4, by contrast, do not include capital spending due to major undercounting of Massachusetts’s capital spending in the US Census Bureau data set.

**FIGURE 6: MA Ranks Low in State & Local Revenue as Percent of Economy, 2008**

State and local education revenue as percent of Personal Income





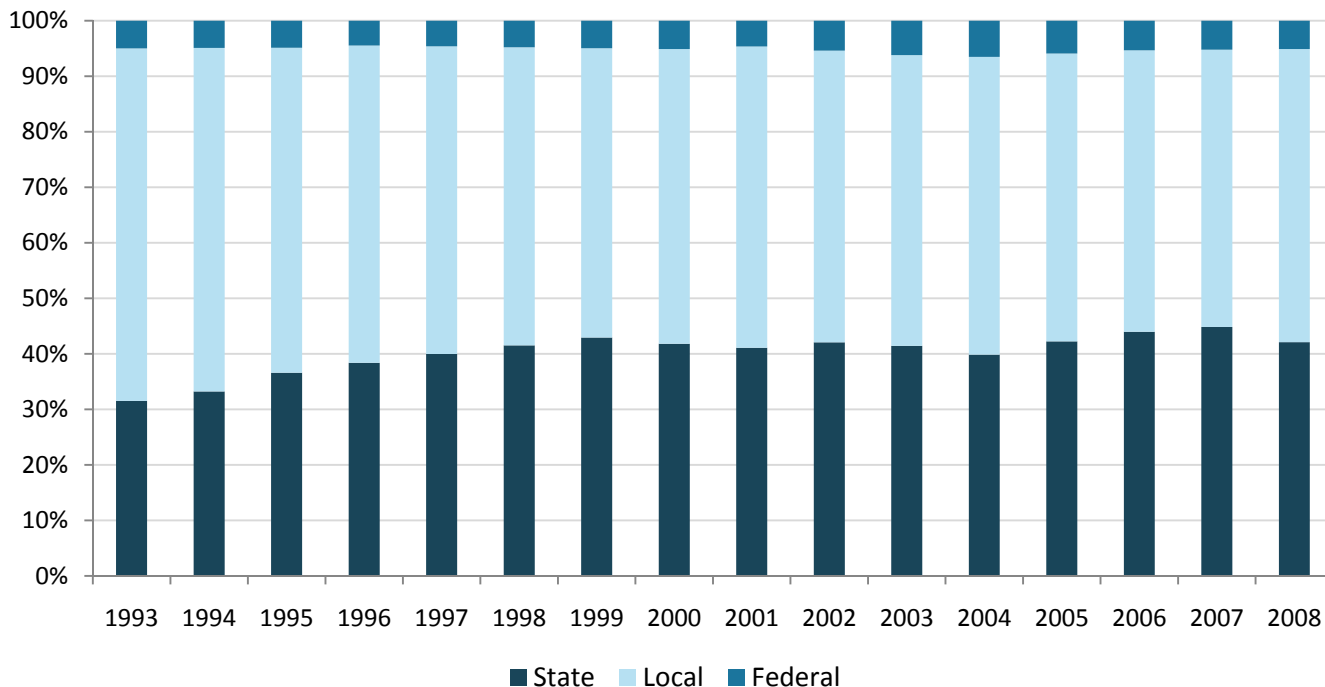
## Composition of Education Spending

For almost two decades, except for a slight decrease in fiscal years 2003 through 2005, state and local governments have together funded roughly 95 percent of school budgets in Massachusetts. Shown below, Figure 7 demonstrates that the federal government historically plays a relatively small role in education funding, although this has changed during the current fiscal crisis (not reflected in the chart below).

Public schools in the United States have historically been dependent on local property taxes, particularly in New England, and the Education Reform Law of 1993 served to reduce somewhat this reliance in Massachusetts, ushering in a series of significant state funding increases during the remainder of the 1990s. While Massachusetts has shifted some of the education funding responsibility away from local sources, however, Massachusetts is still heavily reliant on local revenues when compared to other states. Massachusetts continues to rank among the lowest in the nation in the proportion of education funding that comes from federal sources – for FY 2008, Massachusetts was ninth most dependent upon local funding. In general, New England states tend to be particularly reliant on local property taxes.

**Figure 7. State Support for Massachusetts Schools Has Increased**

Percent of funding coming from state, local, and federal sources



### *Massachusetts Sources of Funding: 1993-2008<sup>5</sup>*

- State funding as a share of total education spending reached its highest level ever in FY 2007 and decreased slightly in FY 2008 (Figure 7). State spending increased through the 1990s and leveled out for much of the 2000s.
- FY 2007 marked the first year in which local revenues made up the smallest proportion of education spending in Massachusetts. Since the beginning of Education Reform in 1993, the local share of education spending has declined by just over 10 percentage points. It is important to note that a significant portion of unrestricted state aid to cities and towns gets allocated to school districts, ultimately counting as a local contribution. There were cuts to unrestricted local aid during the years before FY 2007 that may have contributed to declining “local” support for education.
- Federal funding for education in Massachusetts remains relatively flat, ranging from 4.5 percent to 6.5 percent from 1993 to 2008. Federal funding has made up a larger percentage during fiscal years 2009 and 2010, due to a combination of new federal stimulus funding and declining state contributions.

### *Massachusetts Compared to Other States*

- Even with the increase in the share of state spending on education, Massachusetts is still below the national average in state share of education spending. In FY 2008, the state ranked 37<sup>th</sup> in the nation in state spending as a percentage of the total education investment (Figure 8). In FY 2007, Massachusetts ranked 29<sup>th</sup> in this category.<sup>6</sup>
- Massachusetts continues to rank very low in federal support of public education. In FY 2008, 5.1 percent of total education spending was from federal sources, ranking Massachusetts 48<sup>th</sup> in the nation. This is largely a result of the fact that a high percentage of federal education aid given is tied to the number of low-income school children in a district, and Massachusetts is a relatively affluent state.

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<sup>5</sup> Education spending data in FY 1997 contains an error in state spending information and so the chart above uses an average of FY 1996 and FY 1998 data to approximate FY 1997.

<sup>6</sup> For more information on FY 2007 data please see: [www.massbudget.org/documentsearch/findDocument?doc\\_id=683&dse\\_id=944](http://www.massbudget.org/documentsearch/findDocument?doc_id=683&dse_id=944)  
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**Figure 8: Massachusetts Schools are Dependent Upon Local Sources of Revenue, 2008**

	State Revenue		Local Revenue		Federal Revenue	
	Share of Total	Rank	Share of Total	Rank	Share of Total	Rank
United States	48.3%		43.7%		8.1%	
Vermont	88.5%	1	5.0%	49	6.5%	37
Hawaii	84.8%	2	3.0%	50	12.2%	7
Arkansas	76.0%	3	13.4%	48	10.6%	12
New Mexico	71.2%	4	15.7%	47	13.1%	6
Minnesota	65.8%	5	28.5%	44	5.6%	45
Idaho	65.5%	6	24.9%	45	9.5%	18
Alaska	64.9%	7	21.3%	46	13.9%	4
Delaware	63.0%	8	30.7%	39	6.3%	40
Washington	62.4%	9	29.5%	43	8.1%	26
Alabama	60.2%	10	30.6%	40	9.2%	19
California	59.9%	11	30.1%	42	10.0%	15
North Carolina	58.8%	12	32.0%	36	9.1%	20
Kansas	58.4%	13	35.2%	33	6.4%	39
West Virginia	58.1%	14	31.1%	38	10.8%	10
Kentucky	57.9%	15	31.6%	37	10.5%	13
Nevada	57.5%	16	36.0%	32	6.5%	38
Michigan	57.3%	17	35.1%	34	7.7%	30
Utah	56.3%	18	34.6%	35	9.1%	21
Mississippi	53.8%	19	30.2%	41	16.0%	2
Wyoming	52.9%	20	40.9%	25	6.3%	41
Oregon	52.8%	21	38.7%	29	8.5%	23
Oklahoma	51.2%	22	37.7%	31	11.1%	9
South Carolina	50.7%	23	40.3%	27	9.0%	22
Wisconsin	50.1%	24	43.9%	23	6.0%	43
Montana	49.4%	25	38.7%	30	12.0%	8
Arizona	48.5%	26	40.7%	26	10.8%	11
Indiana	48.5%	27	44.2%	22	7.3%	34
Iowa	46.5%	28	46.1%	21	7.4%	32
Tennessee	46.1%	29	43.5%	24	10.4%	14
New York	45.4%	30	48.7%	17	5.9%	44
Georgia	45.2%	31	47.1%	19	7.8%	28
Maine	44.5%	32	47.8%	18	7.7%	29
Ohio	44.1%	33	49.0%	16	6.9%	35
Louisiana	43.9%	34	39.3%	28	16.8%	1
Texas	43.2%	35	47.0%	20	9.8%	16
Colorado	42.4%	36	50.8%	14	6.8%	36
<b>Massachusetts</b>	<b>42.1%</b>	<b>37</b>	<b>52.8%</b>	<b>9</b>	<b>5.1%</b>	<b>48</b>
Maryland	42.0%	38	52.6%	10	5.4%	46
New Jersey	41.3%	39	54.9%	6	3.9%	50
Missouri	41.1%	40	51.1%	13	7.8%	27
Virginia	41.0%	41	52.8%	8	6.2%	42
Florida	39.4%	42	52.3%	11	8.3%	24
Rhode Island	38.7%	43	53.7%	7	7.6%	31
New Hampshire	38.6%	44	56.2%	5	5.2%	47
Connecticut	38.5%	45	57.3%	2	4.2%	49
North Dakota	36.1%	46	50.2%	15	13.7%	5
Pennsylvania	35.8%	47	56.8%	4	7.4%	33
Illinois	33.8%	48	58.2%	1	8.1%	25
South Dakota	33.2%	49	51.5%	12	15.2%	3
Nebraska	33.0%	50	57.3%	3	9.7%	17

Because it only extends to FY 2008, US Census Bureau education finance data cannot be used to analyze funding trends during the fiscal crisis that hit state budgets beginning in FY 2009. Nonetheless, it is useful to analyze how funding responsibilities have changed over the last three years, as local budgets have been strained and as the federal government has increased its support through several forms of new stimulus funding. In order to get a sense of how the composition of funding sources has changed in Massachusetts from FY 2008 through FY 2011, we have looked at alternative data sources for this more recent time period by compiling information on major (although not all) state, local, and federal funding sources. It is important to emphasize that the methodology used for constructing Figures 9 and 10 is not identical to that used by the US Census, so data in these charts should not be used for making precise comparisons with previous years.

**Figure 9. Education Stimulus Money Has Increased the Federal Share of Funding**

		2008 (pre-fiscal crisis)		2009		2010		2011
		Total Allocations	Percent of Total	Total Allocations	Percent of Total	Total Allocations	Percent of Total	Total Allocations
<b>State</b>	State K-12 Funding	\$4,942,599,000	<b>42.5%</b>	\$4,821,990,170	<b>39.4%</b>	\$4,881,553,423	<b>39.5%</b>	\$4,918,793,440
<b>Local</b>	Local Contributions	\$6,252,876,784	<b>53.7%</b>	\$6,539,916,220	<b>53.4%</b>	\$6,611,962,266	<b>53.5%</b>	n/a
<b>Federal Ongoing Sources</b>	Title I	\$203,233,148		\$223,492,794		\$225,788,540		\$218,788,894
	IDEA	\$236,575,065		\$239,654,773		\$250,818,022		\$250,582,820
<b>Federal Stimulus Sources</b>	Additional Title I funded through American Recovery and Reinvestment Act (ARRA)		<b>3.8%</b>		<b>7.2%</b>	\$81,840,139	<b>7.0%</b>	\$81,840,139
	Additional IDEA funded through ARRA			\$140,275,780		\$140,275,780		
	State Fiscal Stabilization Fund funded through ARRA			\$411,999,998		\$172,175,259		\$75,271,375
	Race To The Top funded through ARRA							\$62,500,000
	Education Jobs Fund							\$149,400,000

As Figures 9 and 10 demonstrate, federal education funding has increased during the recent fiscal crisis. Federal stimulus funding has totaled between approximately \$390 million and \$510 million over each of the last three years. While a small amount of Race To The Top and Education Jobs Fund money will be available to Massachusetts schools in FY 2012 and subsequent years, there is indication that the US Congress plans to pass new stimulus legislation of the scale passed for FY 2009 to FY 2011.

<sup>7</sup> State K-12 funding sources for FY 2009 - FY 2011 include Chapter 70 education aid, School Modernization And Reconstruction Trust Fund (SMART) funding, and all grants included in *MassBudget's* "Elementary and Secondary Education" budget category.

"Federal" sources for FY 2009-2011 include Title I and IDEA grants.

"Federal Stimulus" sources for FY 2009 - FY 2011 include Title I American Recovery and Reinvestment Act (ARRA), IDEA ARRA, State Fiscal Stabilization Fund, Education Jobs Fund, and Race To The Top (RTTT) allocations. Since RTTT is a four-year grant starting in FY 2011, this paper uses a one-year \$62.5 million prorated amount.

**Figure 10. Education stimulus money has increased the federal share of funding**

Percent of funding coming from state, local, and federal

