

Is Two-Tiered Public Education on the Rise in Massachusetts?

By Michael Sentance and Charles Chieppo

It's well established that 4th-grade reading and 8th-grade math are the test scores that are most predictive of students' future academic success. Students who are able to read at a proficient level by fourth grade will be able to undertake the middle school and high school curriculum. Those who have attained proficiency in mathematics by eighth grade will be able to take higher-level science and mathematics coursework in high school.

A review of Massachusetts' scores in those two areas on the National Assessment of Educational Progress (NAEP) since 1992 shows some troubling trends¹. The first is that overall improvement has stalled in the last decade. Yet, despite this aggregate stagnation, the percentage of students scoring in the very top category on NAEP has steadily increased, suggesting the emergence of a two-tiered public education system in Massachusetts.

The public education system in Massachusetts enjoys a reputation of being "first" in the nation. This ranking is owed, in full or in part, to the performance on the NAEP assessments. NAEP is also called "The Nation's Report Card," as it is designed to discern trends in state education policy. The assessment is reported out in two ways: a scaled score and performance levels. The scaled score allows for rankings, which policymakers and political figures use for a variety of purposes.

The performance level reports require a more thoughtful discussion of what is going on in our public education systems. NAEP scores are reported in two ways: scaled scores and proficiency levels. These proficiency levels are broken into four categories: "Below Basic," "Basic," "Proficient" and "Advanced."



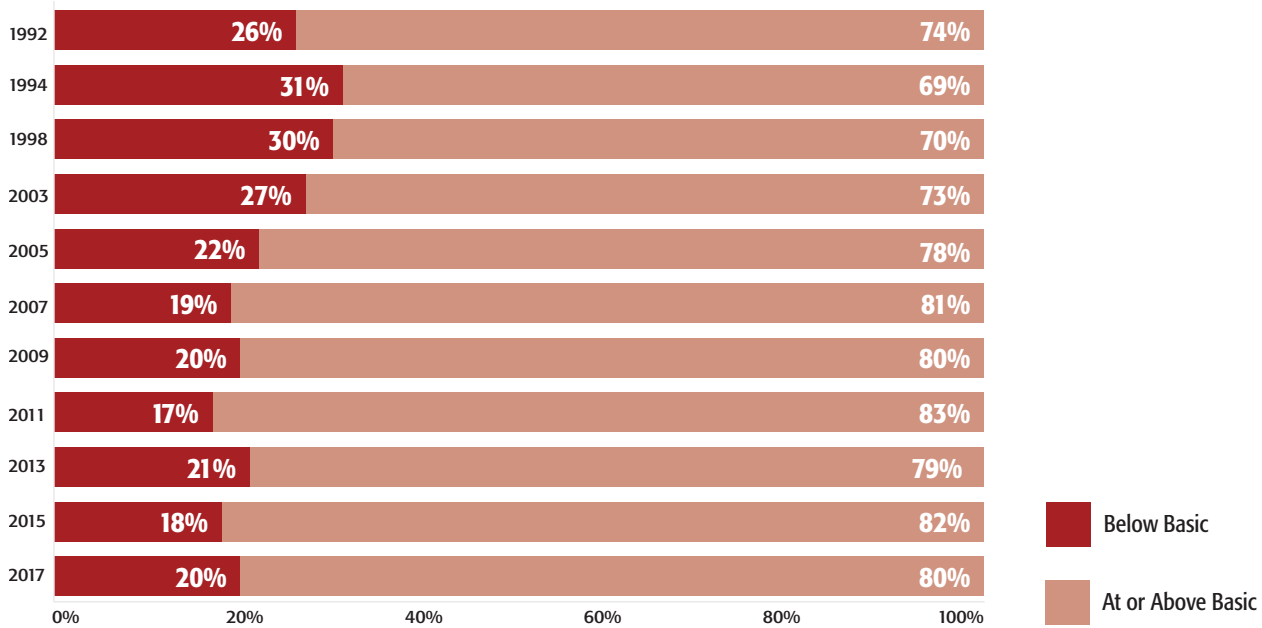
PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

Michael Sentance has worked to serve the interests of opportunity and justice for all students through improvements in schools on the local, state, and federal levels. He has served as the Secretary of Education in Massachusetts, the State Superintendent of Education in Alabama, and a senior official in the U.S. Department of Education. Sentance is a graduate of Georgetown University, Duquesne University, and Boston University.

Charles Chieppo is Pioneer Institute's Senior Media Fellow. Previously, he was policy director in Massachusetts' Executive Office for Administration and Finance and directed Pioneer's Shamie Center for Better Government. While in state government, he served as vice chair of the Massachusetts Convention Center Authority. His work has appeared in numerous publications, including *The Wall Street Journal*, *The Boston Globe*, *Boston Herald*, *Boston Business Journal*, *Providence Journal*, *Springfield Republican*, *Worcester Telegram & Gazette*, *Washington Times*, *Education Next*, *City Journal*, and *CommonWealth* magazine.

Figure 1 shows progress out of the lowest category (Below Basic). As reading has been a strength for Massachusetts since colonial times, it was distressing that more than a quarter of Massachusetts fourth graders were in this category. The number fell to 19 percent in 2007 but has remained flat since then. This is disconcerting, as the Commonwealth has made reading a priority and invested in strategies designed to improve the situation.

Figure 1. NAEP Proficiency Levels - 4th Grade Reading



However, mere basic performance in reading isn't the goal. Proficiency is.

Figure 2 shows progress toward proficiency. Here the evidence is clearer. The 36 percent of students who were proficient or better in 1992 rose to nearly half in 2007, then remained relatively unchanged (47–51 percent) in subsequent years.

Figure 2. NAEP Proficiency Levels - 4th Grade Reading

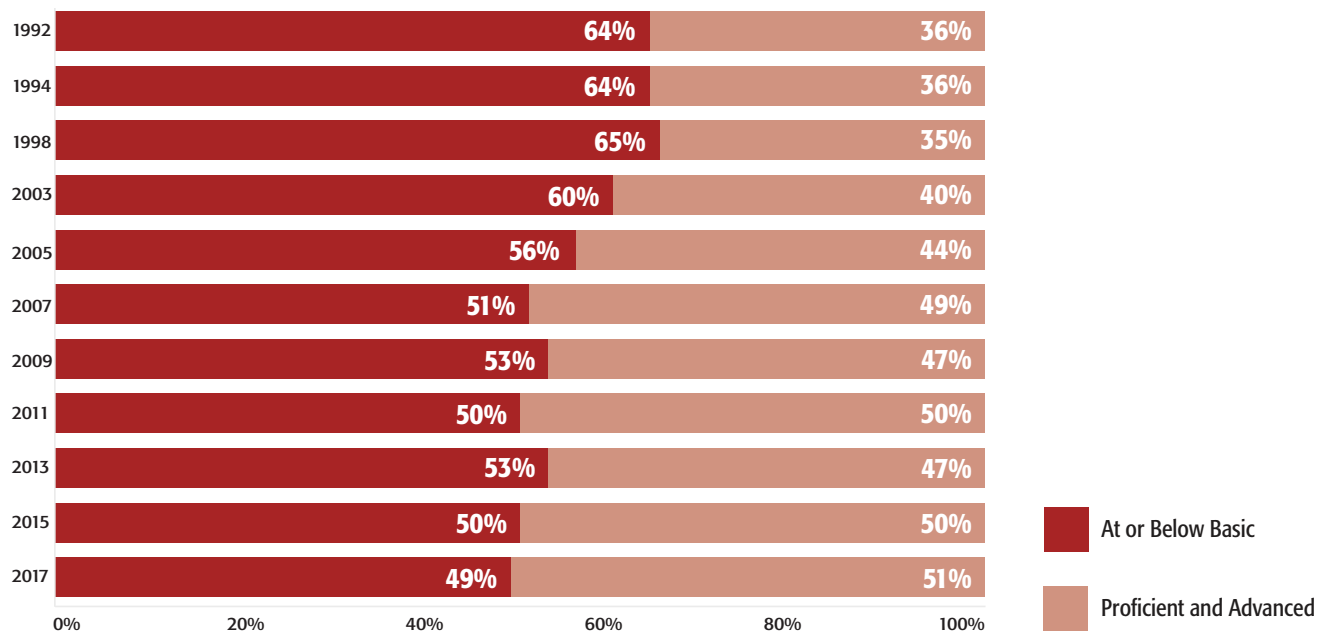
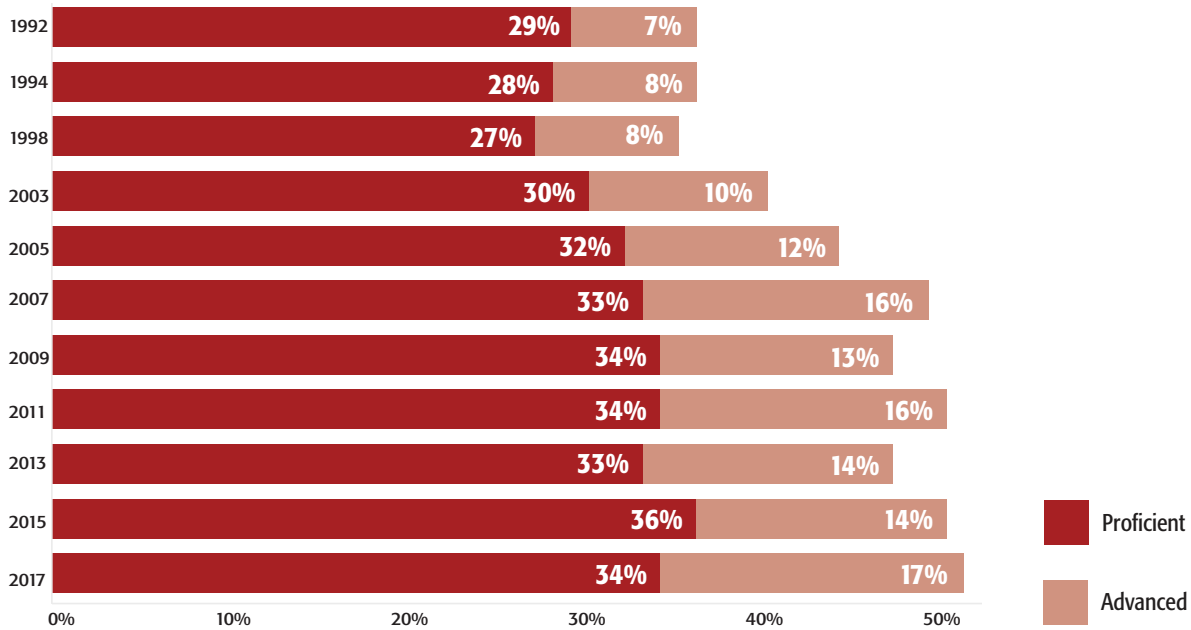


Figure 3 shows that the percentage of fourth grade students at the Proficient level has been fairly consistent, but there was growth in the Advanced category (from 7 percent to 16 percent), which occurred from 1992 to 2007. Again, since 2007, the percentage of students scoring Advanced has changed little, fluctuating between 13 and 17 percent.

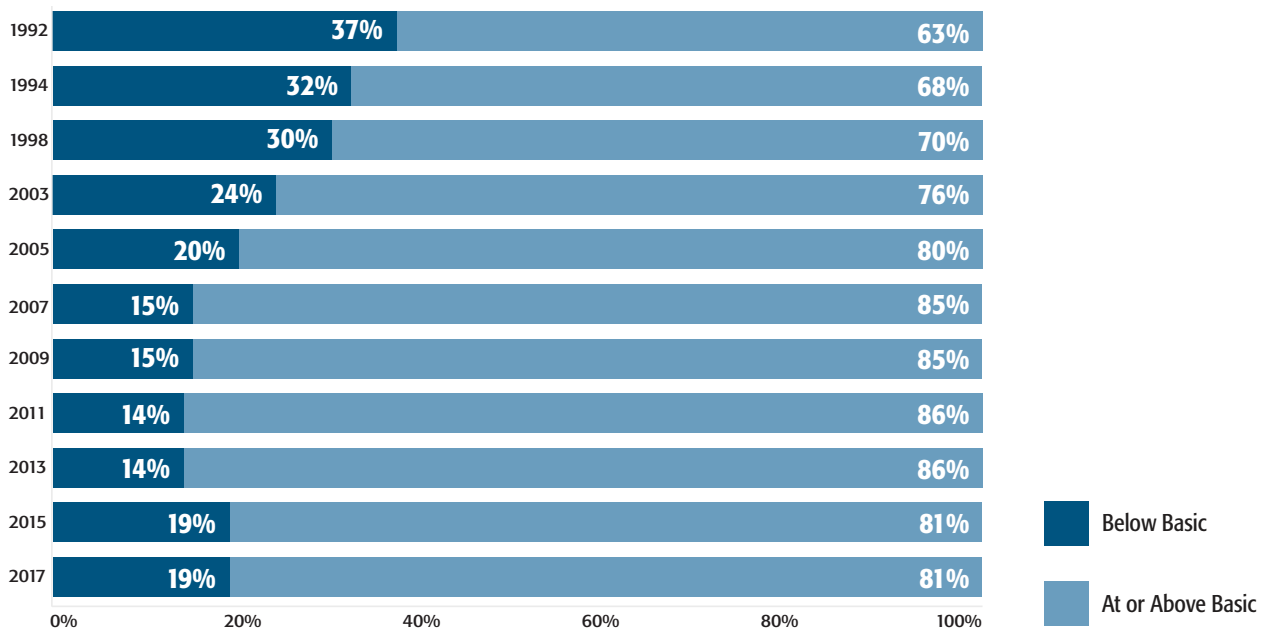
Figure 3. NAEP Proficiency Levels - 4th Grade Reading



The results in eighth grade mathematics tell a similar story with one important trend.

Figure 4 shows the 1992-to-2017 results in 8th grade math. The number of Massachusetts eighth grade students scoring Below Basic fell dramatically from 37 percent in 1992 to 15 percent in 2007. However, the progress then stopped and from 2015 to 2017 the percentage of students scoring in the bottom category rose slightly to 19 percent.

Figure 4. NAEP Proficiency Levels - 8th Grade Math



Going down another level, figure 5 shows that although the overall percentage of Massachusetts students scoring Proficient or Advanced more than doubled, from 23 percent in 1992 to 51 percent in 2007. However, since 2007, the results have been largely unchanged.

Figure 5. NAEP Performance Levels - 8th Grade Math

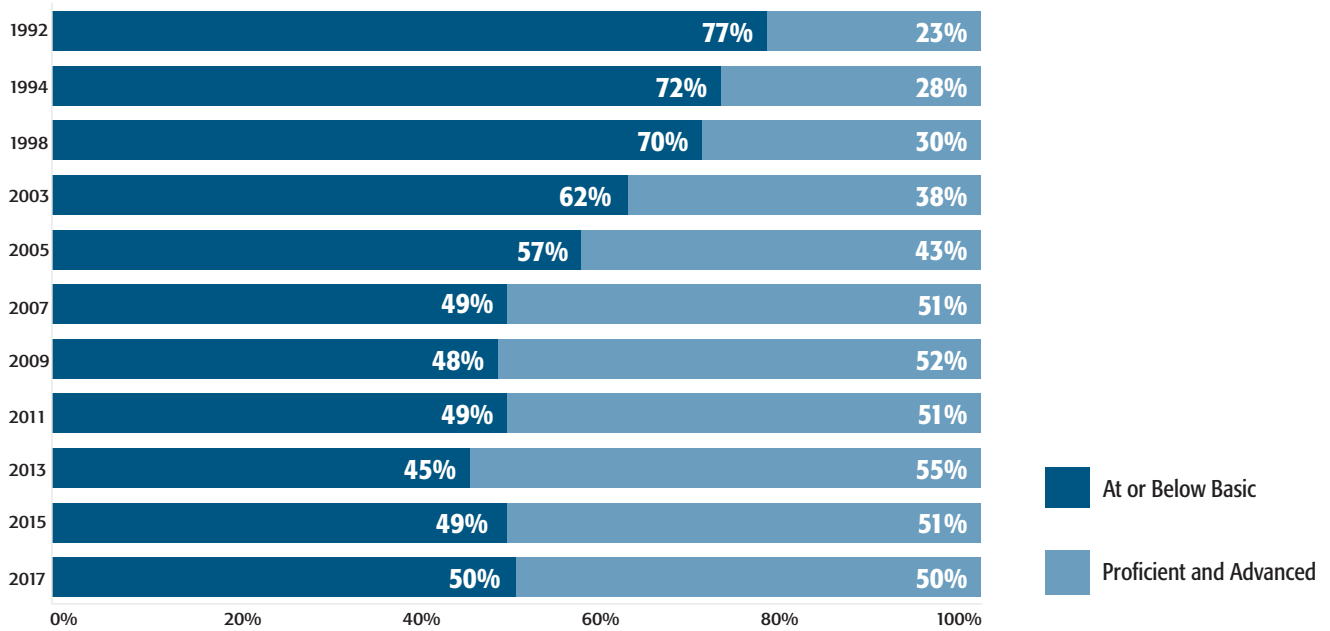
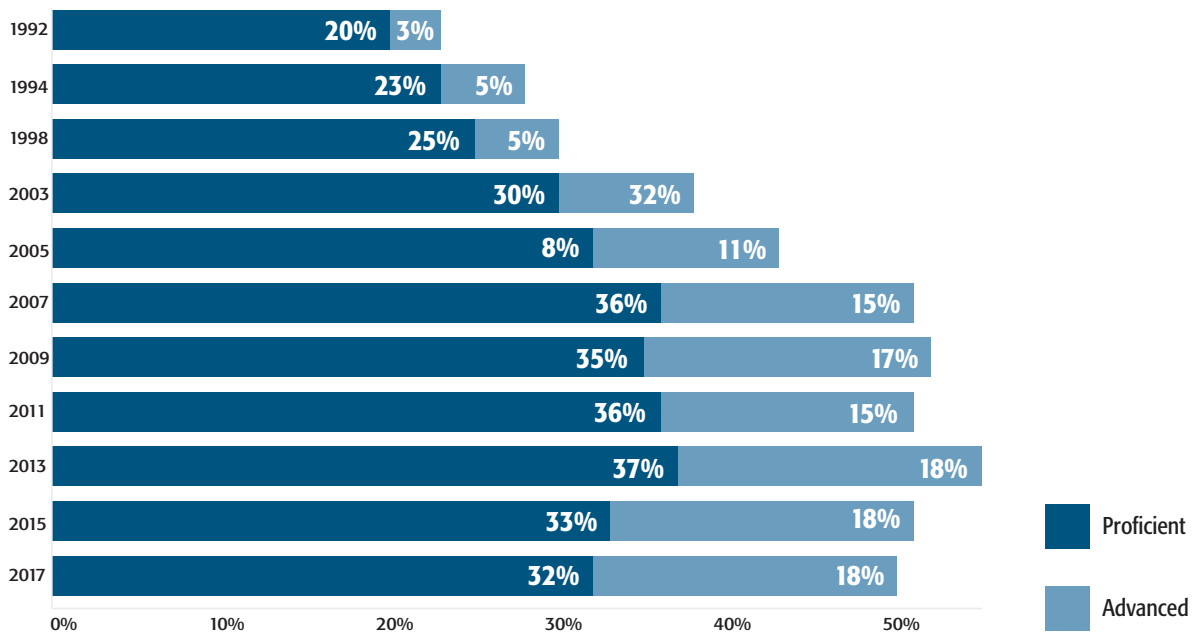


Figure 6 shows a deeper analysis of the progress in eighth grade math to proficiency (and above). As noted earlier, the overall performance of “Proficient and above” has been flat since 2007. There has been a curious — and somewhat disconcerting — movement in these upper categories.

Figure 6. NAEP Performance Levels - 8th Grade Math



While a majority of the Commonwealth's students achieved proficiency in 2007, the percentage in the Advanced category has increased and stabilized to the point where nearly a fifth of our eighth graders are performing at the Advanced level.

Conclusion

The past 25 years of work and investment has propelled the Massachusetts public education system to a high level of student achievement. It was a remarkable story that demonstrates that Massachusetts educators can rise to the challenge of a robust standards-based reform effort. The results in Massachusetts through 2007 show that rapid change is possible.

But that impressive climb, that success story, was arrested. In large ways and small, Massachusetts education and policy leaders have stepped away from the standards and accountability system that had worked so well. Over the last decade, the only significant change in Massachusetts' fourth grade reading and eighth grade mathematics NAEP scores has been that a larger percentage of students are scoring in the Advanced category. This persistent gain would suggest that there is another effort, another strategy being employed within the Commonwealth to drive students to this higher plane of achievement.

A recent article in the *Boston Globe* may provide some insight. The May 17, 2018 article, entitled "*In the past 10 years, the number of students taking AP tests in Mass. has more than doubled*,"² noted that more than 54,000 Massachusetts high school students took an Advanced Placement test in 2016–17.

The article also reports that the state's AP program operates in 79 high schools. The Department of Elementary and Secondary Education reports on its state profile page that there are 404 public secondary schools.³

Of course, to succeed in a high school Advanced Placement course, the preparation must begin with a solid foundation of more rigorous coursework in middle school. Such advanced work being done by a substantial minority of middle school students to prepare for the AP programs would likely be reflected in the state's NAEP achievement results.

This, together with other data on stubborn achievement gaps in the Commonwealth, suggests a two-tiered education system in which students in more advantaged or better managed school districts continue to improve, while the performance of lower- and middle-class students remain flat at best. This bifurcated approach to more rigorous coursework is simply at odds with the basic principles of the 1993 reform legislation.

In submissions urging General Electric and Amazon to locate in Massachusetts, the Commonwealth proudly boasted of the past NAEP results. But the future is still to be written. While the state releases self-congratulatory missives, our lack of progress lifting children of poverty and children of color in the past decade appears to be an almost willful denial of the results.

In 1993, education reform offered an infusion of new money in return for high standards and accountability for results at all levels of K–12 public education. But today Massachusetts has adopted weaker standards for all – but higher standards for some. With school district accountability largely gone, and funding disparities between rich and poor districts again becoming problematic, the promise of additional meaningful progress is faint.

Endnotes

1. For the purposes of this discussion, all the NAEP results from the beginning of the 1993 Massachusetts Education Reform Act are included. However, it should be noted in 1992–1996 the NAEP assessment was given under slightly different conditions than in the later years. In the early years, no accommodations were permitted for students. In later years, accommodations were permitted.
2. *Boston Globe*, May 17, 2018, authored by Zipporah Osei and Jennifer Fenn Lefferts, which can be accessed at: <https://www.bostonglobe.com/metro/2018/05/17/for-more-students-classes-are-just-ticket/73JHvxmkfAGAK4okADXETK/story.html>
3. See the DESE's web page: <http://profiles.doe.mass.edu/general/generalstate.aspx?topNavID=1&leftNavId=100&orgcode=00000000&orgtypecode=0>

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📍 185 Devonshire Street, Suite 1101 Boston MA 02110 📞 617.723.2277

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