

Online Learning: Addressing Challenges and Seizing Opportunities Massachusetts

THE CHALLENGES

America's K–12 education system faces three significant challenges: (1) increased global demands for skilled workers, (2) significant financial shortfalls, and (3) a looming teacher shortage. Independently, these factors present significant challenges for U.S. schools. In combination, they create a national imperative for swift action to create a more innovative, effective, and efficient education system.

THE OPPORTUNITIES

Every day, creative educators are using technology better to meet the needs of students and teachers. Technology can no longer be considered an “add-on” tool in education, but rather one that is integral. Embracing online-learning opportunities for students and teachers will strengthen the supply and quality of teachers, improve efficiency, and increase students' college and career readiness.

CHALLENGE 1: GLOBAL SKILLS DEMANDS GROW FASTER THAN U.S. COLLEGE GRADUATION RATES

The global economy increasingly demands a skilled workforce. According to the Organisation for Economic Co-operation and Development (OECD), only 40 percent of Americans aged twenty-five to thirty-four have a two- or four-year college degree, ranking the United States tenth among industrialized nations. Boosting the supply of skilled workers and leading the world in postsecondary attainment will require greatly increasing current high school graduation rates and college completion rates (depicted below.)

High School Graduation Rate (Class of 2006) ¹		
	State-Reported	Independently Reported
Massachusetts	80%	76%
United States	n/a	69%

College Completion Rates ²		
	Two-Year Institutions (Entered in 2005 and graduated within 3 years)	Four-Year Institutions (Entered in 2002 and graduated within 6 years)
Massachusetts	22%	69%
United States	31%	56%

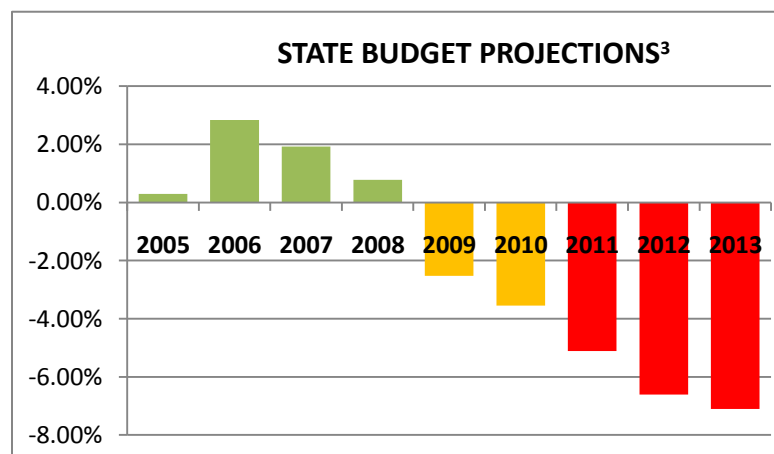
CHALLENGE 2: PROJECTED STATE DEFICITS INDICATE A PENDING FUNDING CLIFF

Local and state governments face continued declines in revenue. In many states, the 2008–09 recession has led to funding cuts or freezes for public education. Long-term forecasts predict that education funding will not return to former patterns forcing policymakers and educators to use scarce resources more effectively and efficiently to improve student outcomes.

According to the National Association of State Budget Officers, Massachusetts' 2010 budget cuts totaled=

2.4 billion⁴

including cuts to K–12 education.



CHALLENGE 3: THE LOOMING TEACHER SHORTAGE

Simply put, there are not enough highly skilled teachers to staff the nation's classrooms, let alone to accelerate improvements in achievement and attainment. Approximately one million teachers—almost one third of current teachers—are eligible to retire in the next five to seven years.⁵ Additionally, almost half of all new teachers leave the profession within five years of entering the classroom. The challenge is even more acute in difficult-to-staff subjects and in low-income and rural areas.

Percentage of Massachusetts public school teachers aged 50 and up in School Year 2008–09 = **53%⁶**

This page summarizes information about (1) online-learning opportunities in Massachusetts, (2) the presence of Massachusetts state policies that support online learning, and (3) how federal policy supports online learning in Massachusetts.

1. ONLINE-LEARNING OPPORTUNITIES

DO MASSACHUSETTS' STUDENTS AND TEACHERS HAVE ACCESS TO COMPUTERS AND THE INTERNET?

	MA	U.S.
STUDENTS PER HIGH-SPEED, INTERNET-CONNECTED COMPUTER (2006) ⁷	3.4	3.7
PERCENTAGE OF EIGHTH-GRADE STUDENTS WITH ACCESS TO COMPUTERS IN THEIR CLASSROOMS (2007) ⁷	88%	50%
PERCENTAGE OF INDIVIDUALS WITH ACCESS TO INTERNET AT HOME (2009) ⁸	82%	83%

DO MASSACHUSETTS' STUDENTS AND TEACHERS HAVE ACCESS TO ONLINE-LEARNING OPPORTUNITIES?

- **State virtual school:** Massachusetts operates a state-led learning portal. Massachusetts Online Network for Education (MassONE) offers blended classes. As of November 2009, MassONE had over 57,699 active users—a combination of teachers and students.⁹
- **Other online programs:** The Virtual High School Global Consortium provides online courses for approximately 39 percent of Massachusetts' high schools. Massachusetts has no law governing online learning.⁹

2. STATE POLICY INFRASTRUCTURE

DOES MASSACHUSETTS HAVE POLICIES THAT NURTURE ONLINE LEARNING FOR STUDENTS AND TEACHERS?

	MA	States with Policy
STUDENT STANDARDS INCLUDE TECHNOLOGY LITERACY ⁷	Yes	50
STUDENTS ARE TESTED ON TECHNOLOGY LITERACY ⁷	No	13
COMPUTER-BASED ASSESSMENTS IS OFFERED ⁷	Yes	26
INITIAL TEACHER-LICENSE REQUIREMENTS INCLUDE TECHNOLOGY ⁷	No	21
INITIAL PRINCIPAL-LICENSE REQUIREMENTS INCLUDE TECHNOLOGY ⁷	No	10

3. FEDERAL POLICY

DOES FEDERAL POLICY SUPPORT ONLINE-LEARNING OPPORTUNITIES IN MASSACHUSETTS?

- Since Fiscal Year 2002, **Massachusetts has received \$63 million** from the federal Enhancing Education Through Technology grant program to improve student outcomes through the use of technology such as improving teachers ability to use technology or improving online-learning opportunities.¹⁰

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SOURCES:

1) Editorial Projects in Education, *Diploma Counts*, 2009; 2) National Center for Education Statistics, Integrated Postsecondary Education Data System, 2010, analysis by the Alliance for Excellent Education; 3) D. J. Boyd, *What Will Happen to State Budgets When the Money Runs Out?* The Nelson A. Rockefeller Institute of Government, 2009; 4) *The Fiscal Survey of States*, National Association of State Budget Officers and National Governors Association, 2009; 5) National Center for Education Statistics, *Projections of Education Statistics to 2017* (NCES 2008-078) (Washington, DC: U.S. Department of Education, September 2008); 6) K. Smith, National Commission on Teaching and America's Future. Presentation to Arkansas AACTE-NEA Meeting, May 14, 2009; 7) Editorial Projects in Education, *Technology Counts*, 2010; 8) U.S. Census Bureau, Current Population Survey, October 2009; 9) *Keeping Pace with K-12 Online Learning: A Review of State-Level Policy and Practice*, 2009; 10) U.S. Department of Education, Historical Budget Tables, 2010 and State Education Technology Directors Association, State Profiles, 2010.