

# Tapping Massachusetts' Potential



## The Massachusetts Employers' STEM Agenda

### NATIONAL

Other nations around the world are investing in education and research and challenging U.S. leadership.

- China graduates four times as many engineers as the United States, while the number of engineering degrees awarded in the United States is down 20% from the peak year of 1985 (Tapping America's Potential).
- From 1995 to 2005, the percentage of high school students in the U.S. who indicated interest in majoring in engineering dropped by nearly 35% (Business Roundtable).

### STATE

While showing aptitude in STEM fields, Massachusetts students pursue studies in the fields at alarmingly low rates.

- According to the College Board, 20.5% of Massachusetts students who took the 2008 SAT indicated an interest in pursuing a career in the STEM fields, well below the national average of 26.3% and our competitor states.

A study by Raytheon in 2005 found that 84% of U.S. middle school students would rather clean their rooms, eat their vegetables, take out the garbage, or go to the dentist than do their math homework.

### THE CHALLENGE

The countries with whom we compete for workers, for ideas, and for new innovations are identifying their best math and science students, nurturing them, and educating them in STEM fields so they are prepared for the global marketplace. To remain competitive in the future, Massachusetts business and technology leaders are expressing urgency that similar investments be made in the U.S. and Massachusetts. Currently, they are not.

### THE COALITION

Given the underpinnings of the Massachusetts economy, and projections for its future growth, a public policy focus and investment in the STEM fields are of primary importance for many of the state's employers. In "Tapping Massachusetts Potential: The Massachusetts Employers' STEM Agenda," 15 of the state's leading business and technology organizations have formed a unique, collaborative call-to-action for STEM to become a statewide policy priority.

### THE GOALS

The group has challenged state government, industry and educational institutions to double the number of STEM bachelor degrees, with a special focus on currently underrepresented groups, and double the number of STEM teachers, grade 7 through 12, by 2020.

### THE RECOMMENDATIONS

1. Build public support for making improvements in STEM performance a statewide priority;
2. Motivate Massachusetts students and adults, using a variety of incentives, to study and enter STEM careers and remain in the state after graduation, with a special effort geared to those in currently underrepresented groups; and
3. Improve K-12 STEM teaching to foster student achievement and meet increased demand, including differentiated pay scales for mathematics and science teachers.

For more information, please contact the Massachusetts Business Roundtable:

617.728.0881  
maroundtable@maroundtable.com  
www.maroundtable.com

Associated Industries of Massachusetts  
Defense Technology Initiative  
Greater Boston Chamber of Commerce  
Massachusetts Biotechnology Council  
Massachusetts Business Alliance for Education  
Massachusetts Business Roundtable  
Massachusetts High Technology Council  
Massachusetts Network Communications Council  
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