http://www.mass.gov/governor/administration/ltgov/lgcommittee/stem/more-about-stem/

More About STEM

History

Efforts to increase the number of STEM degree holders is not new for Governor Patrick, Lt. Governor Murray and the Patrick-Murray Administration, and is complimenting the work that has already been done. This Council is building on previous efforts to bring together experts from various sectors to advise the administration on a variety of key STEM policy areas. For example, Governor Patrick engaged education stakeholders through the Readiness Project, IT professionals through the IT Collaborative, education and workforce development professionals with the Task Force on 21st Century Skills, and economic development professionals through the development of a Framework for Action: The State Regional Economic Development Strategy. The Legislature and the Department of Higher Education have also collaborated with the work done by the Robert H. Goddard Council since its creation in 2004. All of these partnerships have resulted in thoughtful reports and policy recommendations being delivered to the Governor and Administration.

Here in Massachusetts, while our students' test scores are among the best in the country, we need to better connect the high level of academic achievement of our students to STEM career paths. The number of students in our colleges and universities studying in STEM fields declined from 1993 to 2007, while the number rose nationally. Back in 2009, when the STEM Council was created, a report by the UMass Donahue Institute using SAT data showed that only 30.6% of college-going MA public school students expressed an interest in pursuing a college major in STEM education, well below the national average of 43.4% and of our leading competitor states including North Carolina at 47.7%.

However, since the STEM Council was created these statistics have risen. Recent SAT data has shown an increase to 37.1 in STEM interest among our students. Although numbers are improving, there is still work to go to exceed the national average of 43.4%.

The lower than national average STEM interest rate is troubling when you consider:

- Eighty percent of jobs created in the next decade will require math and science skills. STEM related jobs pay higher wages and have greater levels of job security during down economic periods than other sectors.
- STEM-related positions are likely to lead to medical advances, the creation of new products, and a stronger national economy.
- Having a pipeline of STEM graduates is not only important for Massachusetts, it is critical to the success of our nation as a whole. America is at risk of losing its leadership in technology and innovation as baby boomer retirements are expected to deplete the science and technology workforce by 50% over the next decade.

There is no better time for Massachusetts to focus on STEM. This Council is working to move Massachusetts in a positive direction relative to a STEM-prepared workforce and jobs. Our shared goal is to ensure that all students are educated in STEM fields, which will enable them to pursue post-secondary degrees or careers in these areas, as well as raise awareness of the benefits associated with an increased statewide focus on STEM. Through this collaboration, we can make a difference in supporting the Commonwealth's goal of continued leadership in scientific and technological innovation.

Recent News

The STEM Council under the Patrick-Murray Administration has helped form partnerships with key stakeholders that have led to funding support for STEM education as the Commonwealth builds a strong foundation for future academic success. Recent successes include: Massachusetts received 15 of 15 points, a 100% score on the STEM component on the Race to the Top application. The creation of the council within the Executive Branch was recognized as a reason for the top score.

Massachusetts was one of the four states NASA chose to focus on for their Summer of Innovation Initiative. The Governor joined NASA Administrator Charles Bolden on May 10, 2010 to make this announcement. This Initiative provides students with NASA's technology programs in NASA's robotics, Earth and space science, astrophysics and engineering missions to boost summer learning, particularly for students who are underrepresented and underperforming in STEM. As a part of this initiative, $1.5 million has been granted to six different colleges who have partnered with local schools. Click here for information from this event.

Five months after the Commonwealth's first STEM Plan was released, the Lt. Governor's Office and the Executive Branch Agencies have moved quickly to setup a governance system to implement the plan. At the last STEM Council meeting on March 3, 2011 Lt. Governor Murray and the Council's Executive Director David Cedrone outlined the Administration's STEM Agenda for 2011 leading up to the October 2011 STEM Summit. Lt. Governor Murray also announced an agreement with the National Governor's Association Center for Best Practices and Innovate+Educate which expands our existing partnership with these groups and makes Massachusetts their number one focus state in STEM Education. Click here to learn about the NGA/Innovate+Educate Partnership.