

# STEM Advisory Council looks for best in education

[Jennifer Huberdeau](#) North Adams Transcript

Massachusetts Lt. Gov. Timothy P. Murray tours the surgical instruction unit at C. H. McCann Technical School on Thursday. (Gillian Jones/North Adams Transcript)



**NORTH ADAMS --** The newly established state Science, Technology, Engineering and Mathematics (STEM) Advisory Council, headed by Lt. Gov. Timothy Murray, called

on local education leaders Thursday, as it culls a list of the "best practices" and programs from around the state.

"It is amazing how quickly our economy has changed," Murray told a group of educators at Massachusetts College of Liberal Arts. "It will change even more in the next few years. We need to be prepared as a state. Anything we can do at this point to advance our STEM objective is critical."

The council, which was officially formed by Gov. Deval L. Patrick on Wednesday, has been charged with finding programs that successfully increase student test scores and participation in the science and math fields. The selected programs will become part of a five-year, state-wide STEM plan.

State Rep. Daniel E. Bosley, D-North Adams, who has championed STEM initiatives in the Legislature since 2003, said it is critical "to keep ahead of the curve and help lead the state into the next economy."

"We are poised to lead this initiative from the west to the east," MCLA President Mary K. Grant said as she welcomed Murray, noting that many on-going collaborations in Berkshire County are aimed at increasing student interest and scores in science and math.

The state announced last week that the college's \$50 million Center for Science and Innovation has been included in the governor's five-year capital budget. The center is just one part of a plan, Grant said, to ensure that growing science and technology markets in Albany, N.Y. have a skilled work force, but also to bring that market to the region.

"We don't want that technology to skip over the Berkshires and move on to Springfield," she said.

Initiatives through the Berkshire Compact, she said, ensure every child in Berkshire County is exposed to college before high school.

"We want them to see what college is like and bring them into the science labs to let them see what goes on there and get them excited about science," she said.

MCLA Dean of Academic Affairs Monica Joslin said that, by taking over the regional science fair, the college has helped increase participation by county high schools, through its partnerships.

"When we took over the science fair, we had zero participation from Berkshire County," Joslin said. "Last year we had 110 students from Berkshire County. In a survey, we found that 44 percent of the students who participated reached outside of the classroom to people in STEM-related jobs for help."

Berkshire Community College President Paul Raverta said that if Murray only took one message away from the meeting, it should be that the Berkshires is successful because of its partnerships.

"It all starts with the great relationships," Raverta said. "A second theme I think you should recognize is that we think regionally."

As part of his visit, Murray also toured C. H. McCann Technical School, where he viewed a variety of classrooms and shops directly related to science and math.

"I've made a commitment to visit all 45 of the state vocational and technical schools," he said.

"As the mayor of Worcester, I was chairman of the school committee at a time when we were deciding to build a new vocational school. But more importantly, we know these schools have higher graduation rates and lower dropout rates than traditional public schools. We know from talking with employers that these students understand the real-life applications of their classwork. We're looking to figure out how to replicate that real-life application and motivation experienced in vocational and technical schools on a statewide level."

During the meeting at MCLA, McCann Superintendent James Brosnan said that his school has several students taking advantage of dual-enrollment programs, which allow high school students to take classes at local colleges.

"It's a wonderful program, but we need to have a financial infrastructure to help support those students," Brosnan said. "We need to ensure that the students who should take those classes can, without having to worry about the cost."

Christopher Thomas, a math professor at MCLA, suggested the state begin training elementary school teachers how to teach math and also provide students with career pathways information at a young age.

"One of the problems is that you can't teach algebra to a person who hasn't memorized their multiplication facts," Thomas said. "Studies have said you shouldn't even bother teaching it to a person who doesn't understand fractions. I can't say there are many people who can do fractions correctly without a struggle. We need to ensure that these skills are taught very early on." He also suggested children be shown what STEM skills are needed for jobs before entering high school.

"I've long thought there should be a course in school called 'So this is what I want to be when I grow up; so this is what I need to do.' If a child wants to be an astronaut, he should be told he needs to do this, shouldn't do this -- take these math and science courses and so on," Thomas said.

Murray said Thomas wasn't off base in his suggestions -- the state is looking to replicate a North Carolina Web site that explains pathways for numerous jobs.

To reach Jennifer Huberdeau, e-mail [jhuberdeau@thetranscript.com](mailto:jhuberdeau@thetranscript.com).