



# Connect

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A Publication of the Maryland Business Roundtable for Education.



Through MBRT's "Maryland Scholars Speakers Bureau," 150 business volunteers reach nearly 17,000 middle and high school students, helping connect coursework to life after high school.

## Maryland's Legislative Session Results in Numerous Bills with Impact on Students and Teachers Across the State

**T**here was significant legislative activity in Maryland's 2015 General Assembly session related to Education. Here's a quick rundown of a few bills and budgets:

- Part of some **school districts' funding** is still unresolved as of this writing. At issue is \$68 million that was set aside by the General Assembly to help 13 Maryland school systems where the cost of education is highest. Governor Hogan has not agreed to release the funds to the jurisdictions, which includes Baltimore City,
- **SB 497** establishes a commission to review Maryland's use of assessments and testing in public schools. The commission's charge is to determine how much time is spent administering local, state, and federally mandated tests and whether current testing practices have a negative impact on instruction.

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**P2** | Maryland Business Roundtable (MBRT) Board of Directors meet with Dr. Lillian Lowery, State Superintendent of Schools, to discuss Common Core and other topics important to Maryland's business community.

**P3** | MBRT volunteers give Baltimore City's Western High School "Doves" insight into STEM fields, and help students map their paths to success through programs delivered via the STEM Innovation Network (STEMNet).

**P4** | Did you know that MBRT Board Member Bob Marshall operates the world's largest weather, lightning & climate network? Read more about Bob and his growing company, Earth Networks, maker of WeatherBug®.

# State Superintendent and MBRT Board Meet to Discuss Common Core, New Assessments

**D**r. Lillian Lowery has a long-term vision of Maryland students achieving academic success on par with the best students in the world, and she believes the rigor brought into play by Maryland's adoption of Common Core Standards will produce steady gains in student achievement.



“But we must be patient,” said Dr. Lowery at MBRT’s recent Board of Directors meeting. “Common Core represents an enormous improvement for Maryland in that we now have a framework that outlines skill mastery for each grade level and ensures that every public school student is prepared for the next step. It will take time to see the benefits of this approach.”

Dr. Lowery said that in fact we may see standardized test scores initially drop before the improvements begin to register. The reason for this is that the new assessments, which are aligned with Common Core and will be administered in Maryland in 2015-2016, measure different skills than the assessments they are replacing.

“Teachers overwhelmingly support Common Core and believe they will positively impact Maryland students,” said Dr. Lowery. “But teachers need the right support to ensure successful implement of standards. The PARCC assessment is part of this support, because it gives meaningful feedback on student performance.”

*“Clearly, the challenge shared by educators and the business community is to shape a workforce ready to succeed in tomorrow’s economy,” said Dr. Lowery. “MBRT brings the voice of business to the table, and state Department of Education listens to that voice.”*

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## Legislative Session Results in Bills Impacting Education

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- **HB 942** establishes a 2-year apprenticeship pilot program to prepare students to enter the workforce. Through a partnership with DLLR, MSDE will provide on-site employment training and related classroom instruction needed to obtain a license or certification for a skilled occupation in the manufacturing industry or the science, technology, engineering, and math industries. This program will be piloted at one urban and one rural school in 2016.
- As part of the capital budget, the General Assembly directed MSDE is to develop a State Education Technology Plan that identifies the technology, both wired and wireless infrastructure and equipment, needed in each public school to support online assessment administration. This requirement is in response to concerns that jurisdictions will not be able to technologically able to administer the Partnership for Assessment of Readiness for College and Careers (PARCC) assessments that will be given online in 2016-2017. The General Assembly also has expressed interest in advancing digital learning in Maryland classrooms.
- The capital budget again includes the Maryland Science and Mathematics Education Initiative, which provides summer professional development sessions for teachers and an equipment incentive fund to strengthen science and math education. The State budget includes \$2 million for this initiative in fiscal 2016, a decrease of \$621,000 compared to fiscal 2015 funding.



Paula Mister (left), Educational Coordinator, Medical Microbiology, and Ava Roberts (right), Assistant, both from Johns Hopkins Hospital, volunteered in a classroom at Western High School in Baltimore City.

## Evaluating and refining STEMNet to Best Serve Maryland’s Teachers and Students

The STEM Innovation Network (STEMNet) provides students and teachers access to expertise and resources in the Maryland business community. Since it was first launched in 2011, STEMNet has grown to serve thousands of students and teachers across the state by providing:

- Hundreds of trained STEM workplace professionals who engage students in the real-world application of learning
- Instructional resources developed by Master Teachers and aligned with Maryland’s College- and Career-Ready Standards
- A virtual professional learning community
- Information about STEM careers, what it takes to qualify for them, and how to prepare
- Real-world STEM problems in which students participate in solution development

Between 2010 and 2014, responding to a national call for increased emphasis on STEM education and workforce quality, MBRT took a lead role in Maryland by creating

the state’s STEM Innovation Network, providing a bridge between educators and industry. STEMNet was developed with the staunch support of the business community, using federal funds. With additional support from the business community and the state of Maryland, MBRT has been able to more than double the number of students and teachers that it reaches. MBRT’s vision for STEMNet is that it provides every student and teacher in Maryland valuable content that helps increase proficiency in STEM.

With four years of development under its belt, MBRT recently contracted with Regional Educational Laboratories Mid Atlantic to gather both quantitative and qualitative formative feedback about MBRT’s STEM Innovation Schools. This data will allow MBRT to identify opportunities for improvement in STEMNet structure, content, and process. The data will also help MBRT make informed decisions about the future of STEMNet and its business model. MBRT will have some of the results of the REL-MA evaluation in November 2015, with a final report coming out in May 2016.

Visit STEMNet at [www.thestemnet.com](http://www.thestemnet.com). For more information about Maryland Business Roundtable for Education, please visit our Web site at [www.mbrt.org](http://www.mbrt.org) or call 410-788-0333.

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# Spotlight on Earth Networks



## MBRT Board Member Reflects on Education and Earth Network's Success

**F**or Bob Marshall, CEO of Earth Networks and member of Maryland Business Roundtable's Board of Directors, his corporation's investment in STEM education makes good business sense.

"Earth Networks is all about STEM. If we can find good STEM-capable employees, we hire them," Bob said. "It is in our self-interest to have an education system that is second to none and delivering students that are ready to deliver STEM capacity in the workforce. But it's also the right thing to do."

Earth Networks, the parent company of the popular WeatherBug brand of mobile apps, operates the largest and most comprehensive weather observation, lightning detection, and greenhouse gas monitoring networks in the world. It provides weather intelligence to organizations that need data to make operational decisions. The Germantown, Md.-based firm serves numerous industries, including aviation, broadcast

media, energy and utilities, government agencies at all levels, schools, and the transportation sector.

Earth Networks finds 'signals' – valuable, meaningful intelligence -- in this sea of big data, Bob says, collecting data from thousands of sensors around the world and turning this data into intelligence to help customers in the U.S. and around in world optimize operations and make better safety related decisions.

"There is no greater need out there today than to have STEM-capable people who can work with the vast amounts of data that are coming off the 'internet of things,'" Bob says. "Virtually every single thing on the planet is connected to the internet. [Cisco CEO John Chambers] just said that over 50 billion devices will be connected to the internet in 2020 -- homes, watches, clothing, all creating a huge amount of data in real-time. But for the data to be useful, you have to be able to find the signal in the noise. That's why STEM education is so important to us."