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For Immediate Release September 16, 2010

President Obama to Announce Major Expansion of "Educate to Innovate" Campaign to Improve Science, Technology, Engineering and Math (STEM) Education

WASHINGTON, D.C. -- Today at the White House, as part of his "Educate to Innovate" campaign to raise American students to the top of the pack in science and math achievement over the next decade, President Obama will announce the launch of *Change the Equation*, a CEO-led effort to dramatically improve education in science, technology, engineering, and math (STEM).

Change the Equation, a new 501(c)3 non-profit organization, is a response by the business community to the President's "call to action" at the National Academy of Sciences in spring 2009 for all Americans to join the cause of elevating STEM education as a national priority essential to meeting the economic challenges of this century.

"Our success as a nation depends on strengthening America's role as the world's engine of discovery and innovation," said President Obama. "I applaud Change the Equation for lending their resources, expertise, and their enthusiasm to the task of strengthening America's leadership in the 21st century by improving education in science, technology, engineering and math."

Within a year, *Change the Equation* will replicate successful privately-funded programs in 100 high-need schools and communities such as efforts to allow more students to engage in robotics competitions, improve professional development for math and science teachers, increase the number of students that take and pass rigorous Advanced Placement (AP) math and science courses, increase the number of teachers who enter the profession with a STEM undergraduate degree and provide new opportunities to traditionally underrepresented students and underserved communities. Change the Equation will also create a state-by-state "scorecard" to highlight areas for state-level improvement, and help companies increase the impact of their own engagement in STEM education.

Change the Equation was founded by astronaut Sally Ride, former Intel Chairman Craig Barrett, Xerox CEO Ursula Burns, Time Warner Cable CEO Glenn Britt, and Eastman Kodak CEO Antonio Perez, with support from Bill and Melinda Gates Foundation and Carnegie Corporation of New York. With a membership of 100 CEOs, and funding of \$5 million for its first year of operations, *Change the Equation* is in a unique position to meet its three goals of:

- [Great teaching](#): Improving STEM teaching at all grade levels;
- [Inspired Learners](#): Inspiring student appreciation and excitement for STEM, especially among women and under-represented minorities; and,
- [A Committed Nation](#): Achieving a sustained commitment to improving STEM education.

The President will also announce specific public-private partnerships involving *Change the Equation* members, non-profits and foundations. Such announcements include increased opportunities for student engagement in science museums across the nation, improved teacher professional development in Newark, New Jersey, harnessing the power of electronic games for STEM education, and dramatically expanding the number of skilled volunteers participating in National Lab Day.

Also on Thursday, the President's Council of Advisors in Science and Technology (PCAST) will release a report outlining ambitious new policy proposals for improving STEM education.

Background

President Obama has identified three overarching priorities for STEM education, necessary for laying a new foundation for America's future prosperity: increasing STEM literacy so all students can think critically in science, math, engineering and technology; improving the quality of math and science teaching so American students are no longer outperformed by those in other nations; and expanding STEM education and career opportunities for underrepresented groups, including women and minorities.

Presidential leadership on the issue has already made a difference. The President made STEM a priority as part of the Administration's \$4 billion Race to the Top (RTT) competition. States were encouraged to develop a comprehensive strategy to improve achievement in STEM subjects, partner with local institutions, and broaden participation of women and underrepresented minorities. As a result, the winning states are taking decisive actions to embed improvements in STEM education into their overall educational reform plans, such as Maryland's decision

BLOG POSTS ON THIS ISSUE

October 20, 2010 6:23 PM EDT

"One Work of Art, One Relationship, One Lifetime at a Time."



First Lady Michelle Obama celebrates exemplary programs from across the country that reach underserved youth by hosting the National Arts and Humanities Youth Program Awards.

October 20, 2010 2:26 PM EDT

What You Missed: Tuesday Talk with The President's Committee on the Arts and Humanities

Watch the full video of our Tuesday Talk with the President's Committee on the Arts and Humanities, complete with links to jump to each question.

October 19, 2010 11:59 AM EDT

President Obama Signs Executive Order On Education and Hispanics



President Obama signs an Executive Order to renew and enhance the White House Initiative on Educational Excellence for Hispanics.

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to triple the number of STEM teachers, North Carolina’s investment in 10 STEM “anchor schools” that will develop an exemplary curriculum, or Rhode Island’s plan to support their school turnaround strategies with “STEM distinguished educators”, and through partnerships with informal education providers and community groups to teach environmental science.

These efforts by Governors, State Superintendents, industry, foundations, and science and engineering professionals to work together demonstrates the power and potential of the of the “all hands on deck” approach that the President has called for. With the commitments made today, the “Educate to Innovate” campaign has resulted in over \$700 million in financial and in-kind support for STEM programs. The private sector is responding not just with financial support, but with commitments that take advantage of their core competencies and the skills and passion of their employees. The launch of Change the Equation will expand the number of companies that are involved in improving STEM education and increase the impact of their engagement.

New Public Private Partnerships and Commitments

“Youth Inspired Challenge” by a coalition of science centers and museums: 350 science centers and science museums, with leadership from the Association of Science-Technology Centers and local corporate and foundation support, are pledging to offer 2 million hours of science enrichment to at least 25,000 youth in all 50 states, with an emphasis on girls and underrepresented minorities.

Transforming Libraries and Museums into 21st Century Learning Labs: In partnership with the Institute of Museum and Library Services (IMLS), the John D. and Catherine T. MacArthur Foundation will fund the creation of 30 new hands-on learning (“YOUmedia”) centers across the country. These centers, based on the successful YOUmedia Center at the Chicago Public Library, will become hubs for youth engagement, creativity and hands-on learning, advancing the President’s goal of empowering young people to be “makers and creators of things, rather than consumers.” MacArthur and IMLS will provide more than \$4 million in planning grants over a three-year period, and will be joined by a number of partners such as the Knight, Pearson, Mozilla, and Grable Foundations, and the Chicago and New York Community Trusts.

National STEM Video Game Challenge: The Entertainment Software Association, Microsoft, and AMD in partnership with the American Library Association, the Joan Ganz Cooney Center at Sesame Workshop, the Boys and Girls Clubs of America and E-Line Media, will launch two annual competitions – focused on both playing and designing games for STEM learning. The Youth Prize, with \$50,000 in prize money, will be for student designers from 5th to 8th grade, and will target outreach and opportunities for students in high-poverty schools from underserved urban and rural communities. The Developer Prize will be open to anyone and focus on STEM games for early learners, pre-K to 4th grade, with special emphasis on developing technologies with the greatest potential for effectively reaching underserved communities. In addition, AMD will expand its “Changing the Game” initiative over next three years, reaching 20 regions and 10,000 children in hands-on game development.

Raytheon’s New STEM Tool for State Policymakers: Raytheon will leverage its engineering workforce and unique expertise in modeling and simulation to expand its national “STEM Modeling Tool” to the state level, empowering policymakers to identify promising STEM education interventions to expand the STEM-ready workforce, based on the specific characteristics and assets of each state. In total, Raytheon has committed to investing \$55 million in STEM programs over the next five years.

National Math Science Initiative’s (NMSI) To Assist Military Families: In partnership with Lockheed Martin and Military Child Education Coalition, NMSI will announce a new effort to expand access to Advanced Placement (AP) classes in STEM subjects to public high schools that serve a large number of military families. This initiative starts this fall with four schools serving Fort Campbell and Fort Hood. Additional corporate partners will provide support for an additional three schools in Fall 2011. NMSI’s support program for AP classes will make it possible to offer college-level courses for children in military families that will travel with them if they are transferred because the AP curriculum is consistently uniform regardless of the district they may attend. The high-standard curriculum, which is reinforced with intensive teacher training by NMSI, will help children in military families build a future of college-readiness wherever duty calls.

Nature Publishing’s “Bridge to Science” Program for Parents and Scientists: Nature Publishing, parent company of science publications such as Scientific American and Nature, will make a three year, \$5.5 million commitment to a series of programs to build stronger connections between parents, students and scientist, including providing parents easy-to-do experiments, and creating an online platform for parents and children to become “citizen scientists.” In addition, Nature and its affiliated journals will provide cost-free professional development for biology teachers interested in incorporating cutting-edge science, and recruit 1000 scientist-readers to participate in classrooms through efforts such as National Lab Day.

New Efforts to Bring Passions of Scientists and Engineers into Classrooms: HP will be launching a major US-wide employee volunteering initiative to improve STEM education. They will provide matching donations for volunteer hours, recruit scientist and engineer retirees, start a major collaboration with DonorsChoose.org and National Lab Day, and engage HP business partners to also expand employee volunteering. They will also launch the HP Catalyst Initiative, a global network of education leaders in STEM dedicated to developing more effective learning experiences for students. In addition, the biotechnology industry, with leadership from the Biotechnology Institute, is announcing a “Scientists in the Classroom” Campaign to train and deploy scientists from companies in high-impact collaborations with teachers and students on laboratory projects in high schools. Eight founding biotechnology companies have already pledged over \$4M to the effort. In partnership with efforts such as Citizen Schools and National Lab Day, the program will be launched in communities this fall in 10 states, reaching a run-rate of 1000 life scientists assisting in schools over five years.

Multi-Year Investments in STEM Programs: ExxonMobil will commit to investing \$120M in STEM education programs over three years, impacting thousands of teachers and students. This will include major investments in scaling programs with a track record of success, such as the UTeach and AP programs through its support of the National Math and Science Initiative. Merck will launch a five-year \$19.5M investment to support science education in schools, and for the first-time, focus on the multi-year partnership with a large urban school district near Merck facilities. This will include a multi-year partnership with Newark Public Schools to co-design an intensive professional development program for both teachers and administrators, expanding every year with the goal of district-wide adoption.

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For Immediate Release September 16, 2010

Remarks by the President at the Announcement of the "Change the Equation" Initiative

South Court Auditorium, Eisenhower Executive Office Building

3:43 P.M. EDT

THE PRESIDENT: Thank you. Thank you, everybody. Thank you. (Applause.) Thank you so much. Thank you. Thank you, everybody. Please have a seat. Thank you very much.

Thank you to Ursula and all the board members here. We are so excited about this initiative. And I want everybody to also know that I've got one of the finest Secretaries of Education I think in the history of this country in Arne Duncan, and he is excited about it as well. (Applause.)

So I hope you don't mind, before I begin, I just want to comment on a vote that just took place a little while ago in Congress. I want to thank the Senate for finally passing the small business jobs bill that had been held up for months by partisan delay. It's going to make a difference in millions of small business owners across the country who are going to benefit from tax breaks and additional lending so companies have the capital to grow and hire. And this is really welcome news.

Now, these tax breaks and loans are going to help create jobs in the short term. But the reason all of us are here, companies large and small, is to talk about an issue with far-reaching consequences for our economy in the long run, and that's the education of our children.

It's an incredibly impressive gathering that we have here. We've got dozens of leaders from the business community who are part of today's announcement. We're joined by talented and enterprising students -- where are the students? Raise your hands. We're very proud of you guys. (Applause.) We have some passionate and dedicated teachers. Teachers, raise your hands. Proud of you. (Applause.)

I want to recognize all the members of Congress who are with us, as well as the top scientists from my administration, including my science advisor John Holdren, who is here. Where's John? There he is, right there. (Applause.) As well as -- and in addition, we've got -- and this is obviously the coolest thing -- we've got two trailblazing astronauts in Sally Ride and Mae Jemison, who are here. So we are just honored to have all of you here at the White House.

We're here for a simple reason: Everybody in this room understands that our nation's success depends on strengthening America's role as the world's engine of discovery and innovation. And all the CEOs who are here today understand that their company's future depends on their ability to harness the creativity and dynamism and insight of a new generation.

And that leadership tomorrow depends on how we educate our students today -- especially in science, technology, engineering and math.

We know how important this is for our health. It's important for our security. It's important for our environment. And we know how important it is for our economy. As I discussed this morning with my Export Council, our prosperity in a 21st century global marketplace depends on our ability to compete with nations around the world. And we are never going to win that competition by paying the lowest wages or simply by trying to offer the cheapest products. We're going to win by offering the most innovative products. We're going to win by doing what we do best, which is harnessing the talents and ingenuity of our people to lead the world in new industries. That's how we can create millions of new jobs exporting more of our goods around the world.

Now, as any one of the scientists, CEOs and teachers here will tell you, this kind of innovation isn't born in the boardroom or on the factory floor. It doesn't begin in a basement workshop or a research laboratory. That's where the payoff happens. But it starts long before. It starts in a classroom. It starts when a child learns that every star in the night sky is another sun; when a young girl swells with accomplishment after solving a tough math problem; when a boy builds a model rocket and watches it soar; when an eager student peers through a microscope and discovers a whole new world. It's in these moments that a young person may discover a talent or a passion that might lead to a career. It's in these moments every day that our nation -- our promise as a nation is realized. And it

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October 27, 2010 10:39 AM EDT

Behind the Scenes Video from the White House Science Fair

Check out the behind the scenes video from the first ever White House Science Fair including Bill Nye the Science Guy and hosts of Mythbusters Jamie Hyneman and Adam Savage.

October 25, 2010 4:24 PM EDT

Closing the IT Gap: An Update

As part of the President's Accountable Government Initiative, OMB along with our colleagues throughout the federal government has been launching a series of initiatives to close the "technology gap" between the private and public sectors to cut waste and boost performance. As part of that effort, my team was directed to develop a comprehensive strategy to reform how IT projects are built and procured.

October 25, 2010 3:59 PM EDT

Celebrating Science and Engineering on the National Mall



OSTP Director John P. Holdren spends the day with an estimated half-a-million visitors at the USA Science and Engineering Festival on the National Mall.

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is in these moments that we see why a quality science and math education matters, why it is absolutely critical to us.

Now, despite the importance of education in these subjects, in recent years we have been outpaced by our competitors. There is no disputing that. One assessment shows American 15-year-olds ranked 21st in science and 25th in math when compared to their peers around the world. Yet for years we've failed to address this challenge. There's been some talk about it. There have been some white papers and some reports about it. But we haven't solved it.

And instead, we've oftentimes gotten into tired arguments traded across old divides. And parents and students and teachers have been basically left to accept that mediocrity was the best that America could do. And we've got some islands of excellence, but we assume that we can't substantially turn this around.

The cost of this inaction is immeasurable -- the inventions that are never built, the businesses never started, the cures never discovered, the sparks of imagination never lit -- the brimming potential squandered because we failed to come together for the sake not just of our children, but for the sake of our future.

Now, I ran for President because I believe we cannot accept this failure of responsibility. I believe -- as all of you do, and that's why you're here today -- that America doesn't play for second place, and we certainly don't play for 25th. That's why, soon after I took office, I set this goal for our nation: We will move from the middle to the top of the pack in math and science education over the next decade. And we are on the way to meeting this goal.

Under the leadership of Arne Duncan -- a man who has devoted his life to the idea that every single child deserves a world-class education -- we launched an initiative called "Race to the Top." Under "Race to the Top," states are actively competing to produce innovative math and science programs, raising standards, turning around struggling schools, recruiting and retaining more good teachers.

At a difficult time for our nation -- when budget cuts across America have threatened the jobs of countless teachers -- we've also fought some tough opposition to save hundreds of thousands of educator and school worker jobs. These are folks in the classroom right now because we refused to accept a lesser education for our children, even at a time of economic hardship.

Today, my science advisory board -- which is represented here by Eric Lander and Jim Gates -- released a set of recommendations to recruit and train more great teachers over the next decade and to promote breakthrough innovation in math and science education. And it was a terrific report. I sat with Eric this morning and got a full briefing on it, and there are so many promising ideas out there, proven ideas, that can work if we apply the will to it. **And I'm asking Arne Duncan and Dr. Cora Marrett, Acting Director of the National Science Foundation, to take a look at all these recommendations closely and then start figuring out how can we implement them.**

What I've also said for a long time is that our success will not be attained by government alone. It depends on teachers and parents and students and the broader community. It depends on us restoring an insistence on excellence in our classrooms and from our children.

And that's why last year I challenged scientists and business leaders to think of creative ways to engage young people in math and science. And now they are answering the call.

All across this country, companies and nonprofits are coming together to replicate successful science programs. New public/private partnerships are working to offer additional training to more than 100,000 teachers and to prepare more than 10,000 new teachers in the next five years.

Media companies are creating content to inspire young people in math and science. And businesses are working with nonprofits to launch robotics competitions and other ways for kids to make things and learn with their hands.

So now we're building on this effort. The business leaders gathered in this room with this board at the helm are launching a new organization called "Change the Equation" to help our country reach the goal of moving to the top in math and science education. It brings together a coalition of more than a hundred CEOs from the nation's largest companies who are committed to bring innovative math and science programs to at least a hundred high-need communities over the next year.

And by the way, they're doing this not only out of a sense of duty to the country -- not only because it's the right thing to do -- but they've got a self-interest in it. Xerox is going to do really well if we've got a whole bunch of engineers and scientists and math majors who are clamoring to work for some of America's most innovative businesses.

We're also announcing other commitments from companies and foundations and nonprofits that will create fun and educational programs for students in science museums, build hands-on learning centers and 21st century libraries, make sure that the students of military families have access to AP courses, and improve professional development for math and science teachers.

And I think the teachers here will acknowledge that one of the challenges is making sure that those folks who are teaching these subjects in the classroom, that they're up to date, up to speed in getting the best professional training possible.

And this coalition is also going to extend opportunities to all of our young people, and that includes efforts to open doors for women and minorities, who all too often have been underrepresented in scientific fields but who are no less capable of success in scientific careers.

So I want to thank all the leaders who are here today for their outstanding commitment to this cause, for lending their resources, their expertise, and their enthusiasm to the task of strengthening America's leadership in the 21st century by improving education. And I want to encourage others to be part of this growing movement, to harness the incredible potential for our young people, for while this may be a difficult time for our nation, and we face some tough challenges, it's that potential that ought to give us hope.

We need no better example than the students who are here today from West Philadelphia High School. These students, under the direction of some terrific teachers, entered a global competition against serious corporate and college challengers to build a production-ready car that runs on very little fuel. So as part of an after-school program, they worked to get their vehicles ready. They tweaked the hybrid engine. They figured out how to make their cars run more efficiently.

At first, the adults didn't really think their team had a chance -- admit it. (Laughter.) But then something strange happened. Where older and more seasoned teams failed, they succeeded, even making it through an elimination round.

Now, they didn't win the competition. They're kids, come on. (Laughter.) But they did build a car that got more than 65 miles per gallon. They went toe to toe with car companies and big-name universities. (Applause.) They went against big-name universities, well-funded rivals. They held their own. They didn't have a lot of money. They didn't have the best equipment. They certainly didn't have every advantage in life. What they had was a program that challenged them to solve problems and to work together, to learn and build and create. And that's the kind of spirit and ingenuity that we have to foster. That's the potential that we can harness all across America. That's what will help our young people to fulfill their promise to realize their dreams and to help this nation succeed in the years to come.

And I just have to editorialize. This is the kind of thing that just isn't going to get a lot of attention initially. This will not lead the nightly news. You won't see this on the cover of Roll Call or Politico. It's not -- doesn't have conflict and controversy behind it. (Laughter.)

But these are actually the kinds of things that 10 years from now, 20 years from now, we're going to look back and say this is something that made a difference. These are the kinds of things I'm really proud of. It doesn't get a lot of fanfare, but from the bottom up, it's making a huge difference in our country.

And so I just want to thank all of you who are here for your participation. And I wasn't sure, by the way, whether all the folks on the stage here were introduced, so I just want to make sure that everybody gets introduced. In addition to Ursula Burns from Xerox, I want to thank Rex Tillerson of Exxon Mobil; Craig Barrett, who's the former Intel CEO; Antonio Perez of Kodak; Glenn Britt from Time Warner; and somebody who's not on the stage but is going to be the CEO of "Change the Equation," Linda Rosen; and obviously one of my heroes, Sally Ride. We are just so grateful to them. We're grateful to you. Let's go get this thing done.

Thank you very much, everybody. (Applause.)

END
3:58 P.M. EDT

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