

The White House

Office of the Press Secretary

For Immediate Release

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White House Science Fair Fact Sheet & Backgrounder

Highlights New Commitments to Help More Girls and Boys Succeed in STEM

WASHINGTON, DC -- President Obama will host the 2014 White House Science Fair today and celebrate the student winners of a broad range of science, technology, engineering and math (STEM) competitions from across the country. This year's Fair will include a specific focus on girls and women who are excelling in STEM and inspiring the next generation with their work. The President will also announce new steps as part of his *Educate to Innovate* campaign, an all-hands-on-deck effort to get more girls and boys inspired to excel and to provide the support they need to succeed in these vital subjects.

Educate to Innovate components being announced today include among others:

- A new \$35 million Department of Education competition, in support of the President's goal to train 100,000 excellent STEM teachers;
- A major expansion of STEM AmeriCorps to provide STEM learning opportunities for 18,000 low-income students this summer;
- A national STEM mentoring effort kicking off in seven cities, as well as new steps by leading technology and media companies, non-profits and others to connect more students to STEM.

"When students excel in math and science, they're laying the groundwork for helping America compete for the jobs and industries of the future," said President Obama. "That's why I'm proud to celebrate outstanding students at the White House Science Fair, and to announce new steps my Administration and its partners are taking to help more young people succeed in these critical subjects."

Details on the White House Science Fair

The White House Science Fair will feature over 100 students from more than 30 states, representing more than 40 different STEM competitions and organizations that recognize the talents of America's next generation of scientists, engineers, inventors and innovators. Approximately 30 student teams will have the opportunity to exhibit their projects as part of the Fair.

The President will view exhibits of the students' work, ranging from breakthrough basic research to new inventions, and deliver remarks to an audience of students, science educators and business leaders on the importance of STEM education to the country's economic future.

This year's Fair includes a specific focus on girls and women who are excelling in STEM and inspiring the next generation with their work. Since day one, the President has been committed to getting more underrepresented groups, including women and girls, excited to excel at STEM subjects. For example, in the Administration's signature education reform initiative, Race to the Top, President Obama granted states competitive preference if they demonstrated efforts to close the STEM gap for girls and other groups that are underrepresented.

The White House Science Fair is a key part of the President's *Educate to Innovate* campaign to inspire more girls and boys to excel in STEM subjects. As the President has noted, "If you win the NCAA championship, you come to the White House. Well, if you're a young person and you produce the best experiment or design, the best hardware or software, you ought to be recognized for that achievement, too."

New Steps Being Taken by the Administration in Support of the President' STEM Education Goals

- The U.S. Department of Education launches a STEM-Focused Teacher Training Grant Competition to Grow

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Pathways for Effective STEM Educators: Responding to the President's goal to prepare 100,000 excellent STEM teachers over the next decade, the U.S. Department of Education is announcing a new round of the Teacher Quality Partnership (TQP) grant competition, which includes a focus on STEM teacher preparation. This competition will award approximately \$35 million in grants, and grow the portfolio of projects supported by the Department that are investing in STEM teachers. For this competition:

- Applications that increase opportunities for the preparation and professional development of STEM teachers will receive extra points. Applications may also receive additional points for targeting underrepresented groups for STEM teacher preparation and professional development. Applicants are encouraged to incorporate hands-on and field-based experiences into their STEM teacher preparation programs.
- TQP grants support partnerships among universities, high-need school districts, and schools to develop and execute pre-baccalaureate and residency teacher-training programs. These programs include yearlong clinical experiences, access to mentors, induction support, and professional development for partner districts and stipends. To date, 40 TQP grants have been awarded.
- **A major expansion of STEM AmeriCorps will provide STEM learning opportunities for 18,000 low-income students this summer:** Building on the President's launch of STEM AmeriCorps at the White House Science Fair last year, the Corporation for National and Community Service today is announcing a major summer AmeriCorps VISTA initiative that includes six Southern states. These 256 AmeriCorps members will connect approximately 18,000 at-risk students in low-performing schools to STEM opportunities. The AmeriCorps members will serve with community groups, educational institutions, and corporate sponsors that are committed to sharing their expertise to inspire new discovery and increase the students' chances for academic achievement. This initiative will make it possible for students to learn about and build robots, engage with community members to solve challenging STEM tasks, write code that will be uploaded to the International Space Station, participate in a "scientist-for-a-day" program that explores various careers, and learn about food production. This AmeriCorps VISTA project, which expands access to STEM education through national service, is one part of the overall STEM AmeriCorps effort. Other STEM AmeriCorps initiatives include partnerships with FIRST Robotics, US2020, Maker Education Initiative, Citizen Schools, Teach for America, and other organizations – efforts collectively reaching tens of thousands of students engaging in STEM learning.

New Partners Stepping Up in Response to the President's Call to Action

- **Working with US2020, Seven Cities to Launch STEM Mentoring Efforts:** Led by US2020, seven American cities are launching new campaigns this year to connect passionate STEM employees from local companies to students in their region, including: Allentown, PA; Chicago, IL; Indianapolis, IN; Research Triangle Park, NC; Philadelphia, PA; San Francisco, CA; and Wichita, KS. Sponsored by Cisco and launched at last year's White House Science Fair, the US2020 City Competition challenged cities to develop innovative models for scaling STEM mentorship for young students in STEM, particularly for girls, underrepresented minorities and children from low-income families. These seven cities – the winners from more than 50 competing cities – assembled city-wide STEM mentoring plans and recruited over 200 regional companies and organizations as partners. They will be supported by US2020 through a mix of financial support, capacity-building with VISTA AmeriCorps members, consulting support from Discovery Communications, access to the US2020 mentor matching platform, and membership in a community of practice. In addition, Discovery Communications will air a cross-channel public service announcement starring MythBusters and Science Channel's Head Rush host Kari Byron on its 14 U.S. Networks, focusing on the need to recruit STEM mentors to help encourage students at a young age, especially girls and minorities who are under-represented in STEM careers.

The long-term goal of US2020 is to mobilize 1 million STEM mentors annually by the year 2020, creating millions of moments of discovery – those life changing events when children launch rockets, build robots, write a computer program, or look into the farthest reaches of the universe. Today, Chevron and Discovery Communications are joining US2020 as its newest partners, joining founding partners Cisco, Cognizant, Raytheon, SanDisk and Tata Consultancy Services.

- **ConnectED Commitment by Esri to Provide Free Educational Software to Every K-12 School in America:** In continuing its support of education, and in line with the President's ConnectED vision of opening new opportunity through technology in the classroom, Esri will provide to every U.S. K-12 school in America free access to ArcGIS Online Organization accounts — the same GIS technology as used by government and business. These allow users to map and analyze data, create and share content, and collaborate in the cloud -- via computers, tablets, or smartphones, anytime, anywhere connected. This commitment expands on Esri's successful program in pilot schools at all levels across the country, and will allow students to do projects of unlimited content, from global to local, building community, as well as knowledge and skills for college and career.
- **New Nationwide Campaign to Engage Hispanic Youth in STEM:** NBCUniversal's Hispanic Enterprises and Content will launch a new nationwide campaign, *Aprender es Triunfar*, aimed at closing the Latino student

achievement gap, especially in STEM education. A central pillar of the campaign will be the release of *Underwater Dreams*, a new documentary film by award-winning filmmaker Mary Mazzio and narrated by actor Michael Pena. The film chronicles the compelling and inspirational story of four teenage boys, the sons of Mexican immigrants, who entered a sophisticated underwater robotics competition, going up against the likes of engineering powerhouse MIT. In support of reaching many Latino families with this inspirational message, AMC Theatres has committed to hosting 100 community screenings across the U.S. to enable school and non-profit groups to enjoy the film on the big screen this summer and fall. In addition, this July, MSNBC, Telemundo and mun2 will simultaneously broadcast a 44-minute television version. This project was made possible by the Bezos Family Foundation, the Laurie M. Tisch Illumination Fund, and Babson College, among others.

- A New Global Initiative to Connect STEM Students from around the World with Each Other and with Leading Scientists: The New York Academy of Sciences and its partners are launching the Global STEM Alliance, an ambitious program to connect STEM students from around the world with each other, and with their role models, through a mix of site-based programs, a collaborative digital platform, and a social learning network. The initiative will begin with students in the United States, Malaysia, Australia and the City of Barcelona, with other countries and regions expected to join. Working with Cisco's advanced tools, the virtual platform allows students to:

- interact and discuss STEM with counterparts in other countries;
- participate in mentoring relationships with brilliant, young scientists;
- elect to take cutting-edge STEM courses, challenges, games, and other activities;
- learn about a day-in-the-life-of a scientist;
- seek advice, and network with STEM-minded peers.

Additional members of the Alliance include GALXYZ, a game-based intergalactic science adventure, and Rocket 21, an online youth engagement platform, with more to come.

In addition, the New York Academy of Sciences and Rocket21 will partner to announce Dream Big for the World, a series of STEM challenges to immerse middle and high school students in the pressing global issues raised in the USAID Grand Challenges. Planned for launch during the 2014-2015 academic year, the challenge will invite students, working independently or in a team, to develop innovative solutions to their choice of Grand Challenges, with opportunities to connect virtually with content experts, as well as provide resources to teachers. The ultimate goal of the Global STEM Alliance is to mitigate STEM drop-out and create the next generation of STEM leaders and innovators, thereby closing the widely predicted gap in the technically adept workers needed to address the grand challenges of the 21st century.

- Khan Academy and NASA Collaborate to Help More Students Learn the Math and Science Behind Going to Mars: Today, NASA and Khan Academy are partnering to launch www.khanacademy.org/NASA, a series of interactive lessons that invite users to engage with the science and mathematics used to measure our universe and the exciting engineering problems involved in launching and landing on Mars. The simulations, challenges, and games transport students deep into STEM subjects, blending NASA's space exploration expertise with Khan Academy's compelling approach to online self-paced learning. These dynamic educational materials will be free and available on Khan Academy to millions of learners worldwide. In just the past two years, Khan's free online educational materials have reached over 100 million learners worldwide and delivered over 2 billion exercise problems.

Ongoing Momentum by Existing Partners in the President's Call to Action

- Time Warner Cable Reaches Goal of Connecting 1 Million Minds to STEM: Five years ago, in response to the President's call to action, Time Warner Cable (TWC) launched a new philanthropic initiative, *Connect a Million Minds*, to have parents, mentors and others commit to connecting over one million students to highly-engaging after-school STEM activities. Through national and local non-profit partnerships, employee volunteers, original public service announcements, and innovative campaigns like STEM in Sports and *Wouldn't It Be Cool If...*, TWC has organized direct and in-kind investments of more than \$100 million to-date to inspire student interest in STEM subjects. Together with its partners, including FIRST Robotics and the Boys and Girls Clubs of America, TWC has reached its goal of connecting one million students to STEM opportunities in their communities. Building on this success, TWC will continue connecting students through new and expanded partnerships that bring high-quality STEM learning to existing afterschool programs, and by leveraging its media assets, which include "It Ain't Rocket Science," an original television series that introduces families to STEM events and careers.
- Over 130,000 Youth Engaged in STEM Learning Outside of the Classroom: Four years ago, responding to the President's call to action, the Association of Science-Technology Centers (ASTC), a global organization

of science centers, museums, and related institutions, announced the national '*Youth Inspired Challenge*' to engage at least 25,000 youth, ages 10-19, in at least two million hours of hands-on science enrichment outside of the classroom. In addition to the strong support of community leaders, social support organizations, corporations, and individual citizens, ASTC announced today that institutions in all 50 states across America have joined the initiative, with the result that the *Youth Inspired Challenge* has vastly exceeded its goal and continues to grow. As of today, the results indicate that participating institutions are providing programs that can engage more than 132,000 youth in nearly 3.5 million hours of targeted STEM learning. The *Youth Inspired Challenge* places particular emphasis on expanding opportunities for STEM engagement of underrepresented groups, including minorities, women, and youth with disabilities, and ASTC plans to continue the effort to reach even more students.

- [Summer Launch of Online Resource Library for Maker Educators](#): Building on the successful launch of their Maker Corps program at the last White House Science Fair, the Maker Education Initiative (Maker Ed) will launch an online resource library, a culmination of the most valuable insights gained from national partnerships including playbooks, videos, projects, and an interactive community of practice. Maker Ed expects more than 100,000 educators to benefit from these resources, which will go live in advance of the 2014-2015 school year.
- [Math and Science Effort for Military-Impacted Students Continues to Add Partners and Grow](#): As part of the First Lady's Joining Forces effort, the National Math and Science Initiative (NMSI) College Readiness Program is leading a campaign to give many more students in military families access to rigorous Advanced Placement (AP) coursework in math and science. Starting in four public high schools in 2010, by 2013, the 52 schools in the NMSI program that had completed their first year were showing a 67 percent increase in passing math, science and English AP scores – more than nine times the national average while African-American and Hispanic students saw an 80 percent increase. Women saw a 62 percent increase in passing math and science AP scores. With additional support, NMSI is now expanding its program to reach a total of 78 high schools this year.

Background on the exhibits, students and competitions at the White House Science Fair can be found [HERE](#).