



WHITE HOUSE INITIATIVE
on EDUCATIONAL EXCELLENCE *for* HISPANICS
25 Years of Fulfilling America's Future

Webinar on STEM Education

June 24, 2015



Building an All Hands-on-Deck Effort to Support STEM Education

White House Office of Science & Technology Policy

Office of Science & Technology Policy

Quick Background

- Director's Office
- Environment & Energy
- National Security & International Affairs
- Science
- Technology



Presidential Focus on Improving STEM Education

“I'm committed to moving our country from the middle to the top of the pack in science and math education over the next decade.

This is probably going to make more of a difference in determining how well we do as a country than just about anything else that we do here.”

–President Barack Obama, Nov 3, 2009



Why this Administration Believes Getting This Right is Essential to All of our Other Goals

Catalyze Breakthroughs for National Priorities

- Unleash a clean energy revolution
- Support advanced vehicle technology
- Drive breakthroughs in health IT
- Address the “grand challenges” of the 21st century

Promote Competitive Markets that Spur Productive Entrepreneurship

- Promote American exports
- Support open capital markets that allocate resources to the most promising ideas
- Encourage high-growth and innovation-based entrepreneurship
- Improve public sector innovation and support community innovation

Invest in the Building Blocks of American Innovation

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- Educate the next generation with 21st century knowledge and skills while creating a world-class workforce
 - Restore American leadership in fundamental research
 - Build a leading physical infrastructure
 - Develop an advanced information technology ecosystem



Our Toolkit for Action

- Authoritative statements of national policy (Executive Orders, Presidential Policy Directives, agenda-setting documents, etc.)
- President's Budget
- Work with Congress on legislation
- Presidential events and speeches
 - “And so today, I am pleased to announce that ...”
- Bully pulpit/ability to convene
 - “All hands on deck” – public-private partnerships such as “Educate to Innovate”
 - If you could call anyone, who would you call and what would you ask for?



Doing Things Differently

Using “All Hands on Deck” Call to Build Partnerships for Impact

“But I think all of you understand it will take far more than the work of government. It will take all of us.

It will take all of you. And so today I want to challenge you to use your love and knowledge of science to spark the same sense of wonder and excitement in a new generation.”



–President Barack Obama, speaking to National Academies of Science, April 27th, 2009



“Educate to Innovate” Launched in 2009

Public-Private Campaign to Spur STEM; \$1B in direct/in-kind raised

Some Key Partnerships

- “100Kin10”
- NMSI AP Initiative
- Maker Movement
- Annual White House Science Fair
- Change the Equation
- Focus on under-represented students

“Through these efforts, we going to expand the scope and scale of science and math education all across America.”

–President Barack Obama, November 3rd, 2009



100Kin10

ANSWERING THE NATION'S STEM CHALLENGE

- Over 200 organizations that have come together to meet the President's goal of 100,000 STEM teachers over the next decade
- Led by Carnegie Corp., they have raised a \$60M fund (including over 15 different funders).
- In addition to funding, over 200 other individual commitments, including by UChicago to build research track on the investments



Every Child a Maker

Maker Education Initiative

- Growing movement to give more opportunities to children to be able to make things – not just consume.
- Over 60+ “Maker Faires” planned this year. San Mateo Faire gets over 100,000 visitors.
- With support from Cognizant, Pixar, Make and Intel, Maker Education Initiative launched, with goal of building a movement to thousands more children a making experience.



Maker Faire





- NMSI developed a “waiting list” of 200 high-schools with large number of military children and no AP classes
- Implemented their AP Training Program (mix of teacher training and student incentives) in 4 schools with private funding and saw 57% increase in students with AP passing scores
- Under Joining Forces effort, grown to a diverse set of funders (Defense Education Authority), Navy, BAE, Boeing and others to fund 170 of these schools.



Focus on Under-Represented Students

- Department of Education's Civil Rights Data shows that more work is still needed.
- Major announcements at recent White House Science Fair, including "Let Everyone Dream" coalition and Underwater Dreams premiere, and an overall focus on under-represented students.
- Building up towards 25th anniversary of the White House Initiative on Educational Excellence for Hispanics, which includes a STEM focus.



But we can't stop there.
So let's brainstorm together!





The University of Texas Rio Grande Valley



HESTEC

Hispanic Engineering, Science and Technology Week

OCTOBER 4-10, 2015



CHANGING THE **WORLD**
THROUGH
STEM
SCIENCE, TECHNOLOGY, ENGINEERING & MATH

The University of Texas Rio Grande Valley (UTRGV)

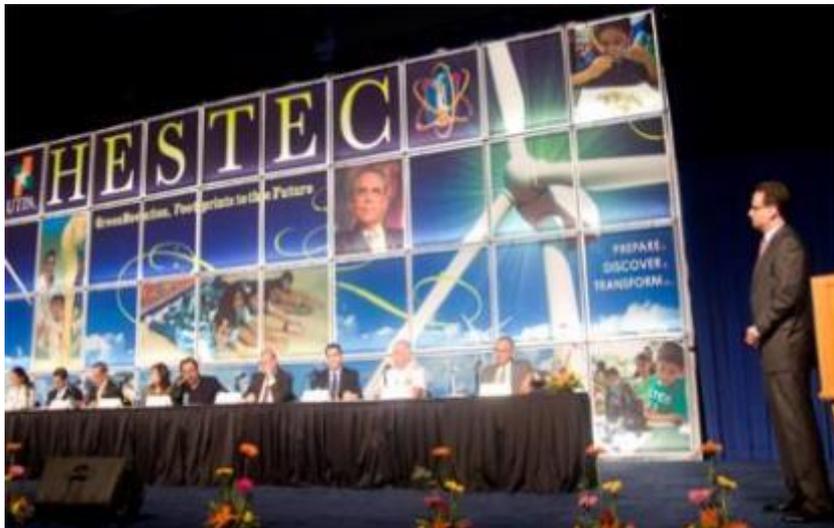
In 2013, the Texas Legislature overwhelmingly supported The University of Texas System's vision to create a new university in South Texas that would bring together the educational assets of UT Pan American, UT Brownsville, the Regional Academic Health Center, and a future South Texas School of Medicine.

Opening in the fall of 2015, with a projected enrollment of nearly 30,000 students, research expenditures exceeding \$20 million, a UT System investment of over \$500 million and an endowment of more than \$70 million, The University of Texas Rio Grande Valley (UTRGV) will be one of the largest Hispanic-serving institutions in the nation. By dramatically improving student learning outcomes and completion rates of low-income and first-generation college students, UTRGV will serve as a national model for a 21st century university as it expands educational opportunities, improves health care access and delivery through the incorporation of a medical school, and spurs economic prosperity.



About HESTEC

- Created in 2002 by The University of Texas-Pan American in collaboration with the Office of Congressman Rubén Hinojosa (TX-15).
- Since its inception, HESTEC has become a nationally renowned model for promoting science, technology, engineering and math (STEM) careers among South Texas students who are predominantly Hispanic.
- A collaboration with Region One Education Service Center's Gaining Early Awareness for Undergraduate Program (GEAR UP), the university works with the program to bring students, parents, and teachers to HESTEC. This year's GEAR UP participants will be in the 11th grade level.
- Project Objectives:
 - To emphasize the importance of STEM literacy to young students;
 - To encourage students to consider careers in STEM; and
 - To promote higher education to all children and their parents.



HESTEC Impact

- 14 years in existence promoting STEM education
- Program has garnered national attention and has been emulated by other cities.
- At UT Pan American, students entering into STEM fields have increased significantly. (*41% increase in student enrollment in engineering and computer science since 2010*)
- Over 37,000 middle and high school students; over 7,700 K-12 teachers
- Over 25,000 *each year* at Community Day
- Estimated 2,000 students at Career Expo each year



HESTEC at a Glance



SAVE THE DATE

OCTOBER 4-10, 2015

SUNDAY, OCTOBER 4 Congressional Dinner	TUESDAY, OCTOBER 6 Student Leadership Day	FRIDAY, OCTOBER 9 Fall Career Expo
MONDAY, OCTOBER 5 Educator Day	WEDNESDAY, OCTOBER 7 Latina Day	TUESDAY-FRIDAY, OCTOBER 6-9 Middle School Challenge
MONDAY, OCTOBER 5 Congressional Roundtable	THURSDAY, OCTOBER 8 Robotics Day	SATURDAY, OCTOBER 10 Community Day

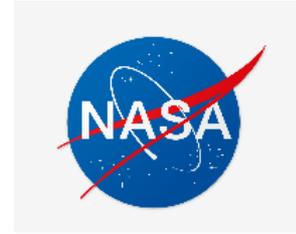
For more information, contact the UTRGV Office of Community Relations
(956) 665-3361 | 1201 University Dr., Edinburg, TX 78539 | utpa.edu/hestec |
VPGCR@utrgv.edu

"Throughout the last 14 years, the Hispanic Engineering, Science and Technology (HESTEC) program has impacted the lives of more than half a million people. Since its inception in 2002, this nationally recognized program has evolved into one of the most innovative and successful events of its type for raising awareness of STEM education and career opportunities for students of diverse backgrounds."

– Congressman Rubén Hinojosa (TX-15)



Our Partners



HESTEC Provides

- Regional participation - activities/participants on both campuses;
- Program match up to UTRGV themes of:
 - Engagement - students/educators/general public;
 - Experiential learning - hands-on activities/takeaways;
 - Regional exposure - showcase assets throughout the RGV;
 - Interdisciplinary - engineering, sciences, technology;
- An increase in the pipeline of students going to college and going into the STEM fields;
- An increase in opportunities for our students/future students;
- Helpful information to students re: careers in STEM; how to prepare now if interested in particular track, what's required to start up a business (entrepreneurial track); how to be professional;
- Educators with take-aways they can use in their classroom;
- Notable speakers and leaders that inspire and create an awareness of the opportunities available in STEM; and
- Corporate and federal partners with access to a diverse workforce pipeline.



Contact Information

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