



“Diversity and Inclusion Fuels Innovation in STEM” Capitol Hill Day

**Stacey DeVecchio
President**



Agenda

- Welcome/ Overview
- Six Tips for Social Media Success
- Current Public Policy Issues Related to Women and STEM
- Communicating with Congress
- Overview of Congressional Visit Talking Points
- Perspectives from the Administration and Congress
- Role Play Exercise
- Closing Remarks

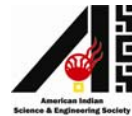


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Sponsoring Organizations



Inspire. Prepare. Support.





Six Tips for Social Media Success

Kelly Janowski

**Director of Public Relations and Social
Media, Society of Women Engineers**



Current Public Policy Issues Related to Women and STEM

Paula Stenzler

**Chair, SWE Government Relations and
Public Policy Committee**

Melissa Carl

SWE Washington Representative



Core Message of D&I Capitol Hill Day

- Through this Capitol Hill Day, we are educating Members and staff about how a commitment to attaining a diverse and inclusive U.S. science, technology, engineering, and mathematics (STEM) workforce would help maintain our competitiveness through innovation.
- However, we need to acknowledge the current budget situation, and the fact that Congress must prioritize funding.



Core Message of D&I Capitol Hill Day

- Women and other under-represented groups currently represent only a small portion of the STEM workforce.
- While funding for R&D and STEM education are important, Congress and the Administration must prioritize resources to those efforts that target underrepresented groups in STEM; i.e. the ADVANCE and Broadening Participation in Engineering programs.



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Core Message (cont.)

- Leveraging the U.S.'s diverse population is our country's unique advantage in a global competition.
- A truly diverse workforce will fuel increased innovation when it takes advantage of the variety of approaches and perspectives offered by diversity.

Current Environment

- Sequestration from the Budget Control Act of 2011 commenced in March of 2013
- Due to this agreement, non-defense discretionary spending faced 5.5% to 7.8% cuts annually over the next ten years, while defense discretionary spending faced a 8.5% to 10% cut annually



Current Environment

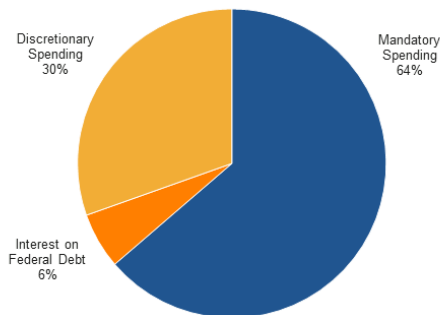
- On October 1st, the federal government shut down for the first time in 17 years
- The government was closed for three weeks; all non-essential employees were furloughed



Current Environment

- Murray-Ryan budget agreement was passed Jan 17, and relaxed part of the budget sequester for FY14 and FY15, but extends it out another year to pay for it
- The top-line numbers of President Obama's budget were released March 4; the details will be released March 11
- Support for R&D and STEM is bi-partisan, but funding is still tight

Projected Mandatory and Discretionary Spending and Interest on Federal Debt (Fiscal Year 2014)



Source: OMB
National Priorities Project


FY15 Budget Request

- On March 4, President Obama released a nearly \$4 trillion dollar budget
- While it does stick to the House-Senate budget deal, it proposes \$56 million in additional spending (pre-K, infrastructure, and job training) with offsets from increased revenue and additional spending restraint
- In his budget, the President asks the federal agencies to re-evaluate their STEM programs, and diversity in STEM is listed as one of the five factors



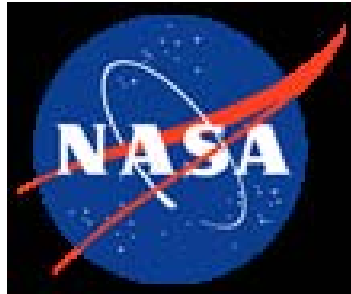
NSF Budget Request

- In the FY14 budget deal, NSF received \$7.2 billion with the Education and Human Resources (EHR) Directorate receiving \$846.50 million; the Research and Related Activities account (which includes the Engineering Directorate) is \$5.8 billion
- The FY15 budget request would provide \$7.3 billion for NSF with \$889.75 request for EHR; the request for the RRA account is \$5.8 billion



NASA and Title IX

- In 2005, NASA has been required to do 2 Title IX reviews a year
- Due to this work, NASA has released a report on best practices and report on institutional self assessment; NASA is taking its Title IX obligation very seriously
- NASA recently launched a MissionSTEM website to provide technical assistance to grantees and the general public





Communicating with Congress

Erin Prangley

**Associate Director of Government
Relations, American Association of
University Women**





Overview of Congressional Visit Talking Points

Betty Irish
**Chair-Elect, SWE Government Relations and
Public Policy Committee**



Importance of Congressional Visits



- “All politics is local”: Members of Congress are concerned about what their constituents think, and how potential legislation will affect their districts
- Given the lack of engineers in Congress, many do not realize women and minorities are underrepresented in the engineering population
- It is important for you to let your Member know that the diversity in STEM issues are very important to you, and that you would like their support.



Importance of Congressional Visits



- The main purpose of Congressional visits is relationship building for you and your professional organization.
- They should not be one-shot meetings.
- Remember, staff members are your friends!
 - Responsible for multiple issues;
 - You – and SWE/ your professional organization – can offer to serve as a resource and expert on engineering issues.

Talking Points

- While we understand the tight budget constraints, federally funded research helps solve our nation's biggest challenges, and research and education are inextricably linked.
- Stable and sustained funding for key federal science and engineering agencies is critical (e.g. NSF, DOD, DOE, NASA, NIH, NIST, etc.)

Talking Points (cont.)

- With limited resources, it makes sense to specifically target underrepresented populations and fund capacity-building and retention programs at the federal science and engineering agencies.



Change the Equation report

ENGINEERING EMERGENCY

African Americans are losing ground in engineering, one of the nation's most rewarding and important careers. We cannot afford to squander their potential.

Brought to you by
CHANGE THE EQUATION

ENGINEERING PAYS OFF

\$79,000

annual mean wage for Engineering

(Engineering occupations includes all engineering and architecture occupations, including Engineering Technical occupations, which most often require less than a bachelor's degree)

\$45,790

annual mean wage for all occupations

Source: Bureau of Labor Statistics, 2012



Engineers Enjoy Greater Security

3.8% Unemployment rate for engineers

7.0% Unemployment rate for all occupations

Source: Bureau of Labor Statistics, 2014

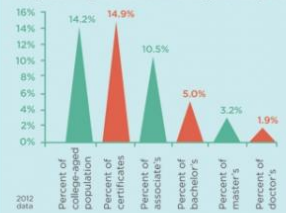
UNTAPPED POTENTIAL



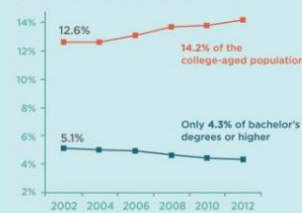
By 2022, 9 in 10 new engineering jobs will require at least a Bachelor's degree

Source: Bureau of Labor Statistics, 2013

African Americans earn a small share of engineering bachelor's or higher degrees



African Americans have lost ground in engineering degrees



OPPORTUNITY LOST

35% of African American students attend high schools that did not offer calculus in 2010

20% attend high schools that did not offer physics in 2010

Source: Change the Equation Vital Signs, 2012

ONLY 3 in 10 African American students who are likely to succeed in AP math—a gateway to careers in engineering—actually take the course



Lack confidence

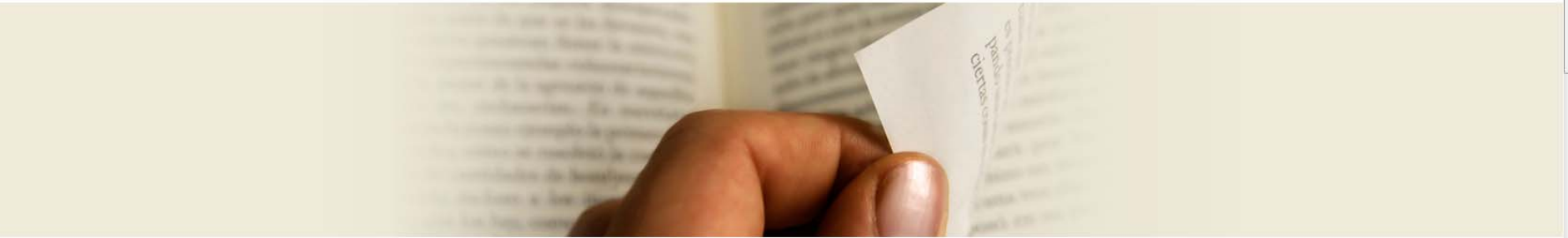
Lack access

Source: College Board, 2011



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RESEARCH PUBLICATIONS

Here you will find a collection of a wide range of reports regarding STEM education and career fields.

Click on the images below to view or download documents.

RESEARCH BRIEFS

NACME Research Briefs provide a summary of population trends, pre-college educational challenges for URM, enrollment and persistence in engineering, engineering degrees, and the U.S. engineering workforce, and provide policy recommendations based on this data.



2013 Trends in U.S. Population in the Engineering Workforce



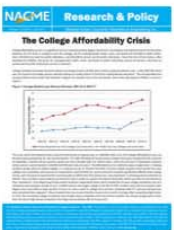
2013 Pre-College Challenges for URM in Engineering



2013 URM Women in Engineering



2013 Engineering Degrees in the US



2013 College Affordability Crisis





Specific Asks

House Reps and Senators:

- NSF has a key role in improving STEM education, and is unique in having a legislated mandate (The Equal Opportunities for Women and Minorities in Science and Technology Act of 1981) to increase the participation of under-represented groups in STEM. We support the diversity activities of both the Education and Human Resources Directorate and Engineering Directorate, especially the ADVANCE and Broadening Participation in Engineering programs.

Specific Asks (cont.)

House Reps and Senators:

- NASA has taken its Title IX obligation seriously, issuing two reports- one on best practices and the other is a guide on self-assessment. We support the efforts of the NASA Office of Diversity and Equal Opportunity.



Perspectives of the Administration and Congress



Role Play Exercise in Small Groups



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Closing Remarks

Stacey DeVecchio
President



Questions?

Thanks for your participation in the 2014
“Diversity and Inclusion Fuels Innovation in
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