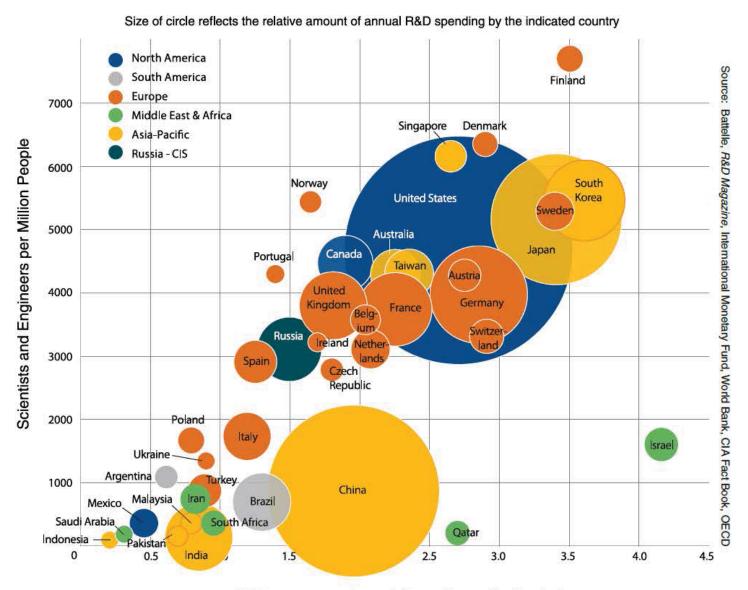
# Diversity Fueling Excellence in Research and Innovation: Building a Global Community of Experts

Gender Summit 5 Cape Town, South Africa 28-30 April 2015



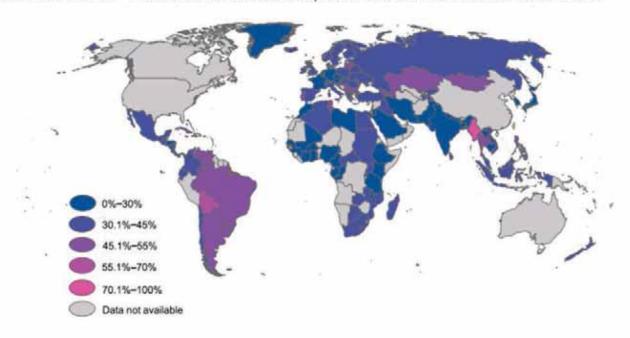
Wanda E. Ward, PhD Head, Office of Integrative Activities National Science Foundation

# **Dynamic Global Landscape for S&T**



### The Gender Gap in Science

FIGURE 1. THE GENDER GAP IN SCIENCE
WOMEN AS A SHARE OF TOTAL RESEARCHERS, 2010 OR LATEST AVAILABLE YEAR



Note: Data in this map are based on HC, except for Congo and India (based on FTE).

Source: UNESCO Institute for Statistics, October 2012.

See A Map of the Gender Gap in Science Around the Globe: A portrait from UNESCO shows where women are well represented among employed scientists, and where they are rare.

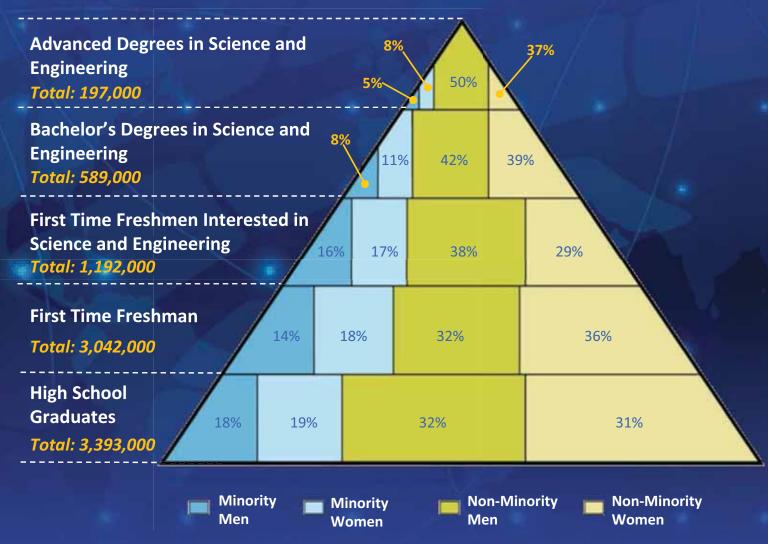
The map offers confirmation for the conclusion that (surprise) there's no biological explanation for the low numbers of women in science. Concludes Rebecca J.

Rosen in the Atlantic "Cultures vary, and the result is expressed in the map above. We'd do well to look at countries like Argentina and Brazil and see what is helping them achieve their nice purple color."



# Milestones in Higher Education

Milestones by Race/Ethnicity and Gender 2012 (rounded numbers)





# HORIZON 2020





# **Diversity Fueling Excellence in Research and Innovation**

A Call to Action to achieve positive change towards greater diversity in the Science, Technology, Engineering and Mathematics (STEM) workforce and leadership, and greater inclusion of biological sex and gender considerations or the "gender dimension" in research content and process.



National Science Foundation



National Sciences & Engineering Research Council



National Council for Science & Technology of Mexico



National Institutes of Health



Canadian Institutes of Health Research



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### **Gender Summit 3 — North America**

#### **GOALS**

- Develop a <u>collective commitment</u> to strengthen human capital development, research and innovation through diversity,
- Demonstrate <u>latest evidence</u> of how incorporating sex and gender consideration into STEM research and innovation contribute to excellence, and
- Expand and transform the Gender Summit into a **global level forum** for collaborative dialogue and activities focused on shaping science and society through the inclusion of gender dimension in research, innovation, and markets for science knowledge.



# 10 Parallel Roadmap Sessions

- Gender 3
  North America
- Cultivating and Promoting Future Leaders
- Empowering Voices of Early Career Scientists
- Integrating Gender into Research Content and Methods
- Improving Career Life Balance
- Creating and Sustaining Networks
- Transforming the Role of Gender in STEM and in Communication
- Ensuring Inclusive Excellence through Merit/Peer Review
- Enabling Organizational System
- Pioneers Trailblazing the Future
- Creating Bridges with European Funders



# **Five Priority Areas**

- Policy Context,
- Research Context: Content,
- Research Context: Process,
- Human Capital Development and Advancement, and
- Multinational Collaboration.





# **Policy Context**



- Work toward the elimination of gender discrimination in STEM employment practices, funding and support by including gender as part of strategic planning and by focusing on policy enforcement and revision as well as establishing new policies,
- Share successful policies that promote gender equity in STEM; and
- Share specific mechanisms for implementing successful policies with fidelity, precision and accuracy.



# Policy Context: Recent Developments



- White House Office of Science and Technology Policy Activities to Reduce the Impact of Bias:
  - Recognition awards to improve the climate and outcomes for women in STEM academic departments and Federal workplace,
  - Equitable training and working environments of Federal grant applications, and
  - Posting bias and equity policies.



#### **Research Context: Content**



- Advance scientific knowledge and eliminate gender bias in knowledge production and application through including the gender dimension in study design, analysis and reporting
- Incorporate the gender dimension (as well as dimensions of intersectionality related to race, age, and other relevant factors) in exposure regulations (that is regulations relating to environmental exposure to hazardous materials)



### **The Gender Dimension in Research**

- Health
- Environment
- Climate Change
- Food Security
- Transportation





#### Research Context: Process



- Promote diversity of thought through adopting common practices and guidelines within and across institutions, establishing checks and balances to identify and reduce bias, and collecting data to monitor outcomes; and
- Transform institutional practices and processes to achieve better and more innovative research cultures through fostering community and belonging and creating threat-free environments.

# Human Capital Development and Advancement

- Increase the diversity of people and ideas at the highest levels of the STEM enterprise by establishing and promoting policies that attract, retain and advance men and women in STEM;
- Develop a world-class STEM talent pool for transformative discoveries, learning and innovating by providing men and women with the same opportunities to do scientific work and have time for family life; and
- Ensure diverse future leadership through cultivating and promoting early and mid-career STEM talent.



# Why Build a Community of Experts?

#### **GS3 Global Forum Goal**

Expand and transform the Gender Summit into a global level forum for collaborative dialogue and activities focused on shaping science and society through the inclusion of gender dimension in research, innovation, and markets for science knowledge.

#### **GS3** Related Objective

Foster an inclusive community of experts—cross-disciplinary, government, industry, academic, and citizen partnerships—to address scientific and societal grand challenges.





















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# Multinational Collaboration: Building a Global Community of Experts

- Develop a parallel-funded and parallel-administered initiative—the
   Gender-Focused Multi-national Collaboration (GFMC)—involving the
   US, Mexico and Europe:
  - NSF CONACYT Collaboration
  - EU US Joint Consultative Group Meeting
- Maintain the GS3 Social Network as a vehicle for community building and engagement,
- Partner internationally to advance greater diversity in STEM through future Gender Summits,
- Foster multi-national opportunities for other countries to host future
   Gender Summits/promote the participation of other regions of the world, and
- Include or make available global data with the diversity perspective.





# Gender-Focused Multi-National Collaboration(s)

Knowledge Generation & Translation

Excellence, Empowerment and Equality in Systems and Processes

The Gender Dimension

Talent
Development
and
Advancement

Transformation of Academic Institutions & Federal Agencies



# Thank You!

