

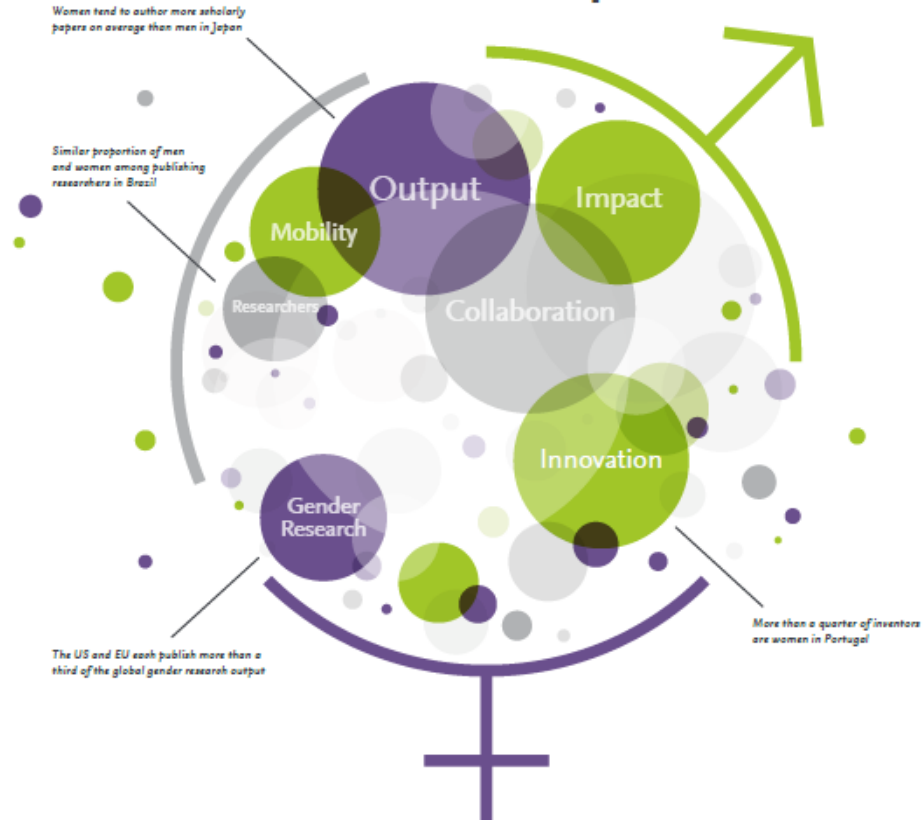
# **Gender Equity and the Committee on Women in Sciences, Engineering, and Medicine**

*Gender in the Global Research Landscape*  
Report Symposium

March 31, 2017

**Dr. Rita R. Colwell**  
The National Academies of Sciences,  
Engineering, and Medicine

# Gender in the Global Research Landscape



*Analysis of research performance through a gender lens across 20 years, 12 geographies, and 27 subject areas*



# National Academies of Sciences, Engineering, and Medicine

- National Academy of Sciences (NAS) - Current President, Dr. Marcia McNutt
- National Academy of Engineering (NAE) - Current President, Dr. C. D. Mote, Jr.
- National Academy of Medicine (NAM) - Current President is Dr. Victor J. Dzau
- Members of all Academies are elected by their peers for outstanding contributions
- Role of the National Academies of Sciences, Engineering, and Medicine,
  - Provide independent, objective analysis and advice to the nation
  - Conduct other activities to solve complex problems and inform public policy decisions
  - Encourage education and research
  - Recognize outstanding contributions to knowledge
  - Increase public understanding in matters of science, engineering, and medicine

# Committee on Women in Science, Engineering, and Medicine (CWSEM)

- A joint committee of the entire National Academies
- Mandated to “coordinate, monitor, and advocate action to increase the participation and recognition of women in science, engineering, and medicine—including women of color.”
- Activities include
  - Proposing consensus studies on major issues of importance to women academics and professionals
  - Proposing workshops and meetings on topics of significance to women in science, engineering, and medicine
  - Providing data and information for other Academies units as well as for the policy and academic communities

<http://sites.nationalacademies.org/PGA/cwsem/>

*The National Academies of*  
SCIENCES • ENGINEERING • MEDICINE

- The Committee on Women in Science, Engineering, and Medicine (CWSEM) is a standing committee in the Policy and Global Affairs division of the National Academies of Sciences, Engineering, and Medicine.
- Its mandate is to coordinate, monitor, and advocate action to increase the participation of women in science, engineering, and medicine.
- Established in 1990 as CWSE, the committee expanded its scope in 2007 to include medicine.



# Committee Mandate

The committee undertakes projects that support national efforts to increase the participation and recognition of women in the science, engineering and medical workforce by:



- Serving as a resource for organizations and individuals seeking information and analysis about the status of women in science, engineering, and medical employment and education;
- Formulating strategies to collect, analyze, and disseminate information on the needs and status of opportunities for women in science, engineering, and medicine;
- Proposing and supporting ad hoc committees appointed by the NAS President to organize workshops and conduct consensus studies with findings and recommendations for effective policies and programs to remove barriers to the participation of women in science, engineering and medicine, and to create supportive institutional environments and cultures that enable women to thrive and advance.

# CWSEM Membership

- **Rita R. Colwell** (NAS), Chair, Distinguished University Professor, University of Maryland, College Park and John Hopkins University Bloomberg School of Public Health
- **Alice Agogino** (NAE), Roscoe and Elizabeth Hughes Professor, Mechanical Engineering, University of California, Berkeley
- **Nancy Andrews** (NAM), Vice Chancellor and Dean, Duke University School of Medicine
- **Joan Bennett** (NAS), Professor, Department of Plant Biology and Pathology, Office for Promoting of Women in Science, Engineering, and Mathematics, Rutgers University
- **Robert J. Birgeneau** (NAS), Chancellor Emeritus, University of California, Berkeley
- **Vivian Pinn** (NAM), Former Director, Office of Research on Women's Health, NIH
- **Patricia Taboada-Serrano**, Assistant Professor, Kate Gleason College of Engineering, Rochester Institute of Technology
- **Lydia Villa-Komaroff**, Chief Scientific Officer, Cytonome/ST, LLC
- **Susan Wessler** (NAS), Distinguished Professor of Genetics, Botany and Plant Sciences, University of California, Riverside
- **Sheldon Weinbaum** (NAS, NAE, NAM), Distinguished Professor, The City College of the City University of New York
- **Risa Lavizzo-Mourey** [NAM], President and CEO, Robert Wood Johnson Foundation
- **Jennifer Chayes**, Distinguished Scientist and Managing Director of Microsoft Research New England and New York City
- **Edward Lazowska** (NAE), Bill & Melinda Gates Chair in Computer Science and Engineering, University of Washington
- **Valerie Taylor**, Senior Associate Dean of Academic Affairs, Dwight Look College of Engineering, and Regents Professor and Royce E. Wisenbaker Professor, Department of Computer Science and Engineering, Texas A&M University.

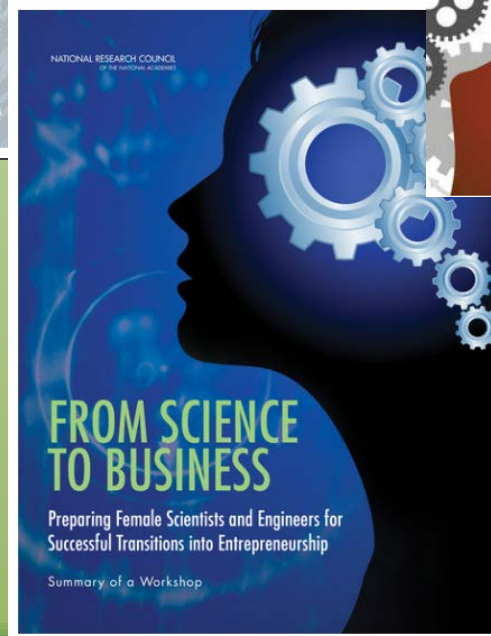
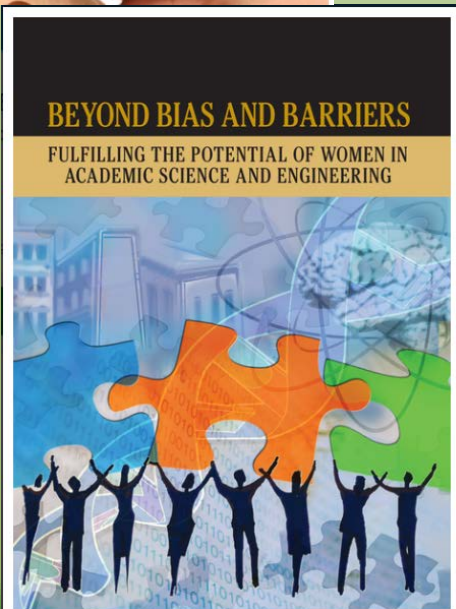
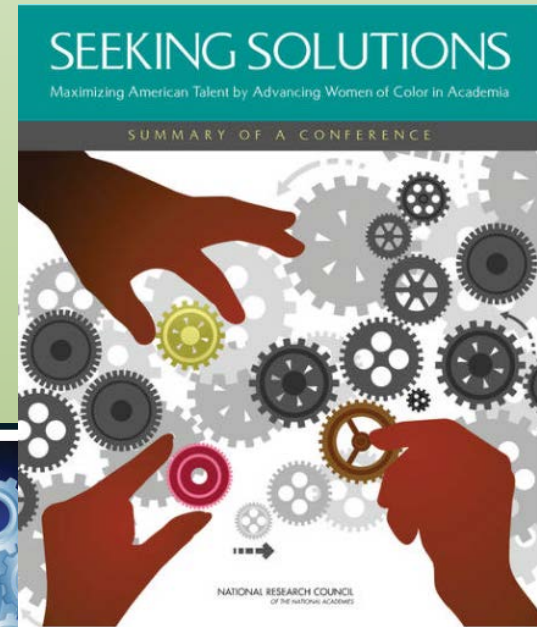
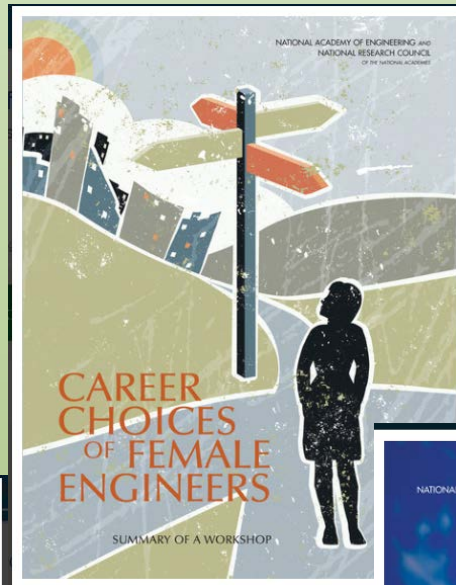
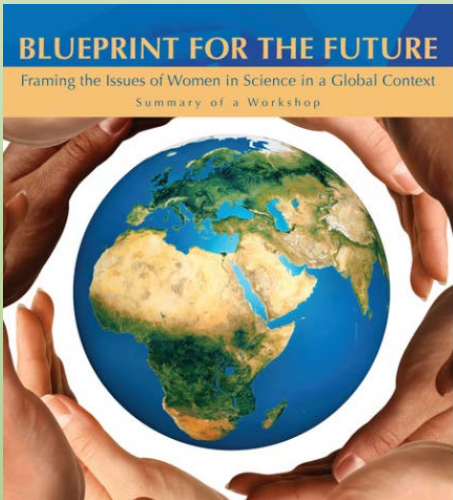
# Recent Studies

- **Career Choices of Female Engineers (2014)** summarizes a workshop held by the National Research Council's Committee on Women in Science, Engineering, and Medicine and the National Academy of Engineering that explored research on career pathways and outcomes for women who have received bachelor's degrees in engineering.
- **Seeking Solutions (2013)** reviews the existing research on education and academic career patterns for minority women in science, engineering, and medicine to enhance understanding of the barriers and challenges to the full participation of all minority women in STEM disciplines and academic careers.
- **Blueprint for the Future: Framing the Issues of Women in Science in a Global Context: Summary of a Workshop (2012)**. The scientific work of women is often viewed through a national or regional lens, but given the growing worldwide connectivity of most, if not all, scientific disciplines, there needs to be recognition of how different social, political, and economic mechanisms impact women's participation in the global scientific enterprise.





# Reports of the Committee on Women in Science, Engineering, and Medicine

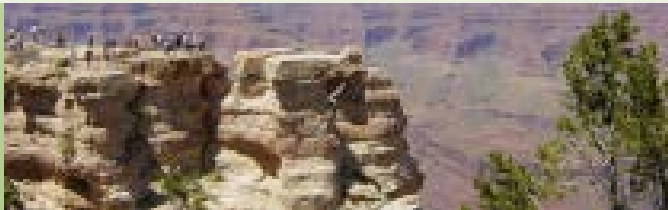


Current CWSEM Study:  
“Addressing the Impact of Sexual  
Harassment in Academia on the Career  
Choices of Women in Science,  
Engineering, and Medicine”

A Stony Silence at Fox News After  
Ailes's Departure 7/27/16



Female Grand Canyon National  
Park Employees Routinely Sexually Harassed  
By Co-Workers 1/13/2016



Sexual Harassment Can  
Be Hard To Forget 3/22/16



Sexual Assault Survey: One in  
Five Female Undergraduates  
Reports Attacks 0/22/2015



Three More Women  
Accuse Bill Cosby Of Sexual  
Assaults 10/01/15



Female Guppies Have Learned To  
Outswim Aggressive Male Guppies  
8/26/15



# Current Initiative

Following a successful workshop on this topic in May, 2016, and with support from NSF, NIH, the Luce Foundation and other private sponsors, CWSEM is launching a consensus study that will examine the following:

- A comprehensive review of the research on the prevalence of sexual harassment in the STEM fields in higher education.
- An examination of existing information on the extent to which sexual harassment negatively influences the retention and advancement of women in science, education and medical careers in academia.
- The identification of the most promising practices to address sexual harassment in higher education institutions and medical programs.

# CWSEM Study on Sexual Harassment

Co-Chair: **Paula Johnson**, Wellesley College

Co-Chair: **Sheila Widnall**, Massachusetts Institute of Technology

## Committee Members

Alice M. Agogino (NAE)

Nicholas Arnold

Gilda A. Barabino

Lisa García Bedolla

Kathryn Clancy

Lilia Cortina

Amy Dodrill

Liza H. Gold

Melvin Greer

Linda C. Gundersen

Elizabeth Hillman

Timothy R.B. Johnson (NAM)

Edward Lazowska (NAE)

Vicki J. Magley

Roberta Marinelli

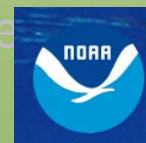
Constance A. Morella

John B. Pryor

Billy M. Williams

## Sponsors

HHMI · Henry Luce Foundation · NASA · NIH ·

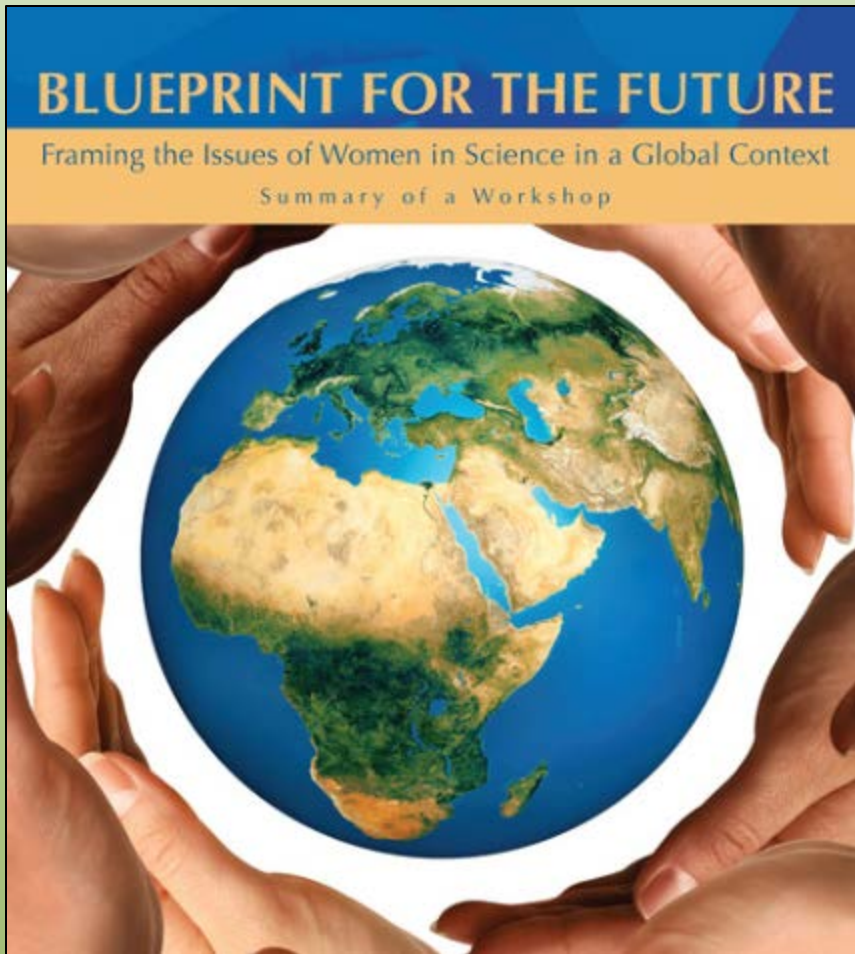




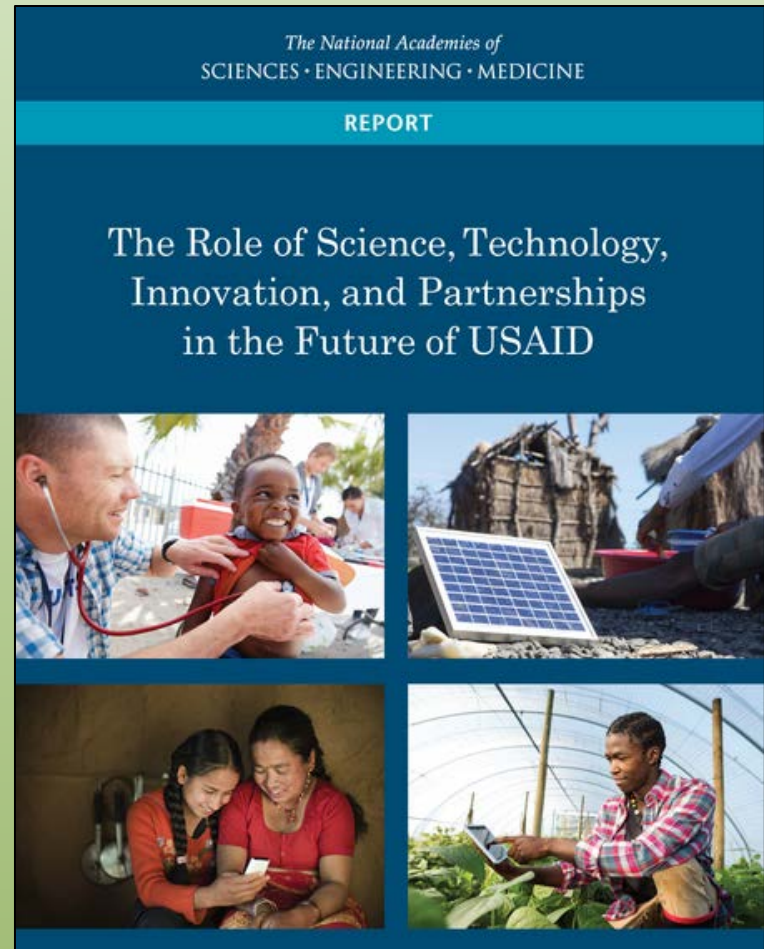
# Goals of CWSEM Study on Sexual Harassment

- What do we know about the extent of sexual harassment?
- Does sexual harassment in academia negatively impact the recruitment, retention, and advancement of women in STEM?
- What are the strategies and practices that have been the most successful in preventing and addressing sexual harassment in these settings?

# CWSEM's Global Interests

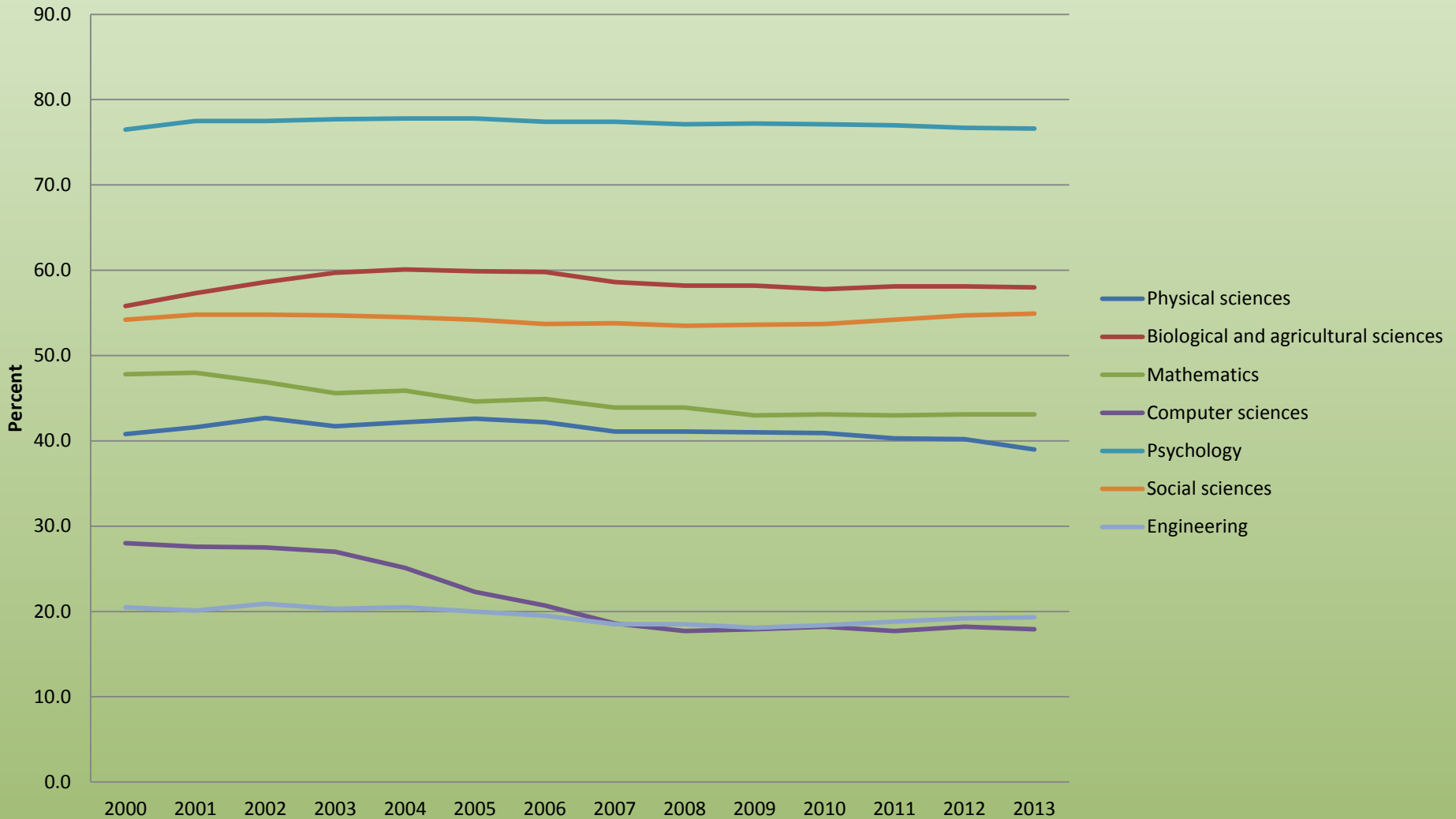


2011



2017

## Women's share of S&E bachelor's degrees, by field: 2000–13



Source: National Science Board Science and Engineering Indicators 2016



# Data and Evidence as a Basis for Policy

