

Kellina Craig-Henderson, Ph.D.  
Deputy Assistant Director  
U.S. National Science Foundation  
Social, Behavioral, & Economic  
Sciences

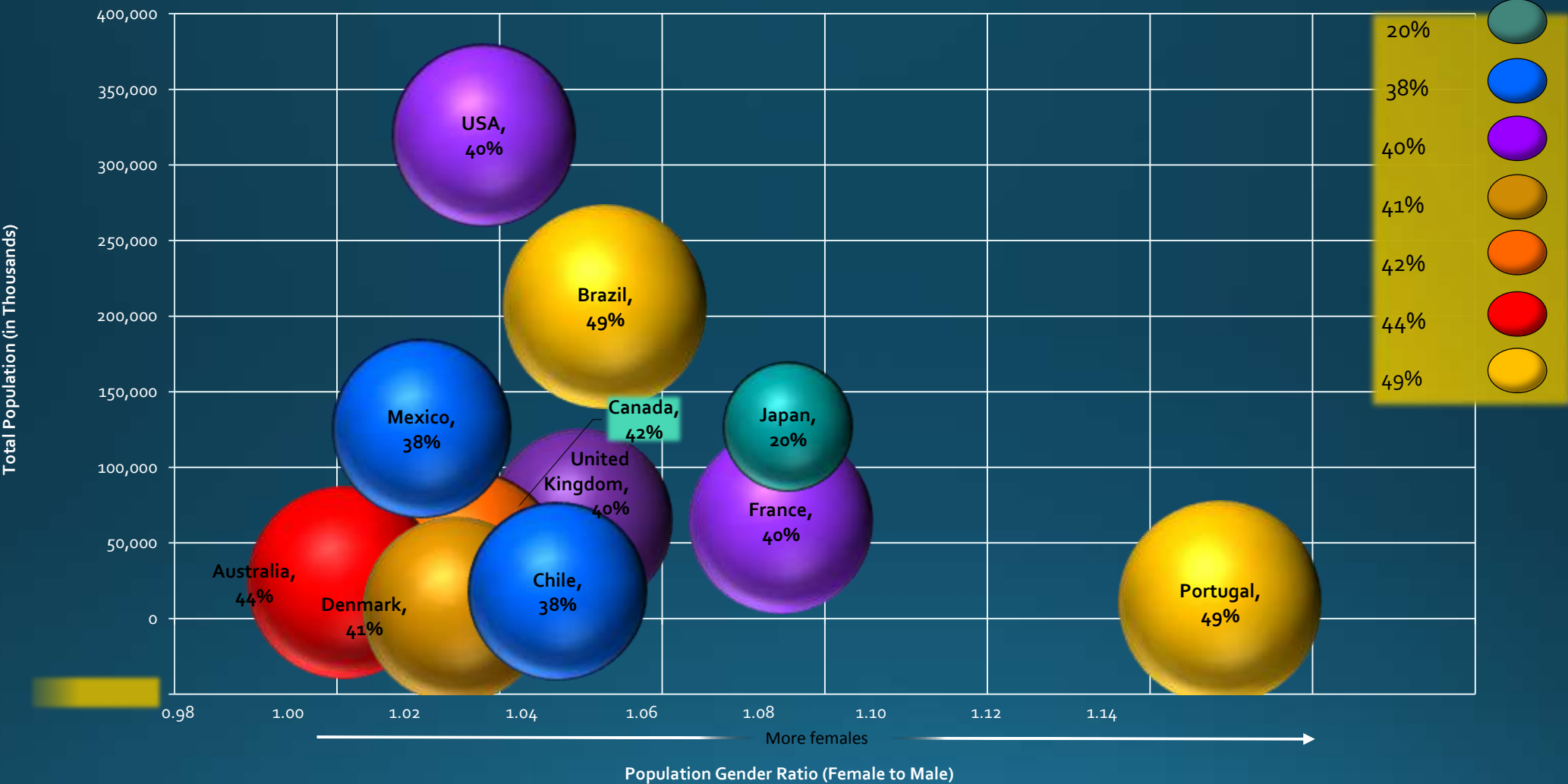


# Challenges, Pitfalls and Strategies Developing Evaluation Methods for Diversity in Research

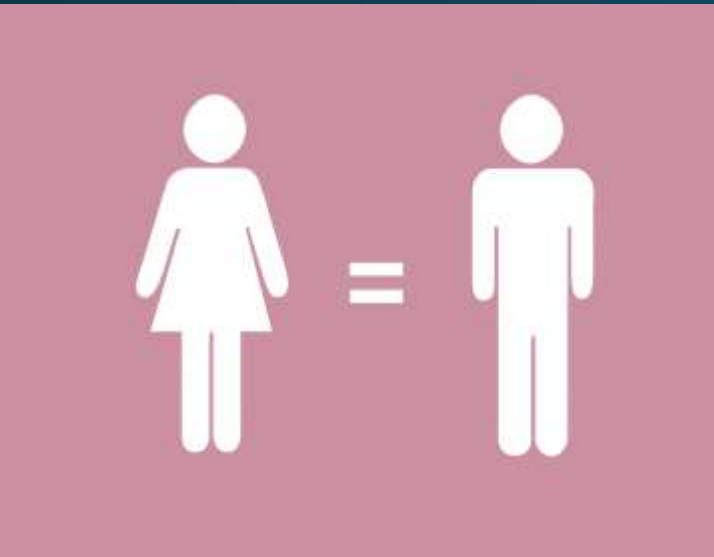


Gender Summit 10- Tokyo Japan - May 2017

# Percent of Women in STEM as a Function of National Gender Ratio 2011-2015 According to Elsevier



United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, custom data acquired via website May 15, 2017.  
 United Nations, Department of Economic and Social Affairs, Population Division (2015). World Population Prospects: The 2015 Revision, DVD Edition.  
 Elsevier: Gender in the Global Research Landscape Report, <https://www.elsevier.com/research-intelligence/resource-library/gender-report>, extracted May 15, 2017, Elsevier B.V.  
 Registered Office: Radarweg 29, 1043 NX Amsterdam, The Netherlands.

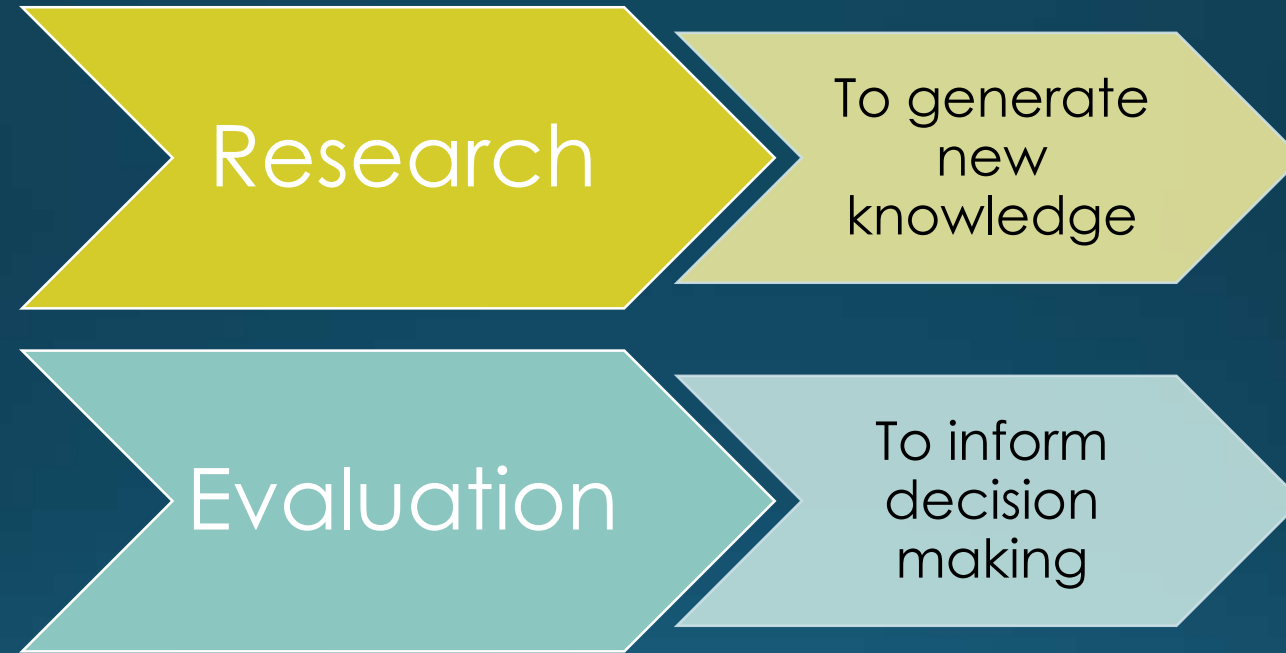


# Gender equity is the standard (i.e. normative) in several notable exemplars

- ADVANCE program (U.S. NSF)
- Athena SWAN (EU)
- KASOKU program (Japan - Kyushu University)
- Restart Postdoctoral Fellowship (JSPS program)
- HeforShe campaign (global UN)
- Science with and for Society work programme (EU's EC)



# Research vs Evaluation?



Both foster learning and share methods.  
They ask different questions.



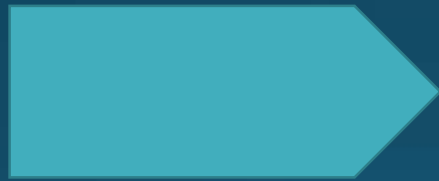
# Why do evaluation?

- **To gain insight about a project and its operations** – To learn how it is evolving and to establish what we can learn about how the project works
- **To improve practice** – to modify or adapt practice to enhance the success of activities
- **To assess effects** – to understand the direction of the changes attributable to the project and assess progress
- **To build capacity** - calibrate funding, enhance skills, strengthen accountability



# At the outset of Evaluation, are gender considerations present?

- Before the research has been initiated, in the proposal.
- During the actual conduct of research, may edit the protocol.
- At the conclusion, when the research is being disseminated.



# Evaluative Inquiry Process

## Strategic Plan

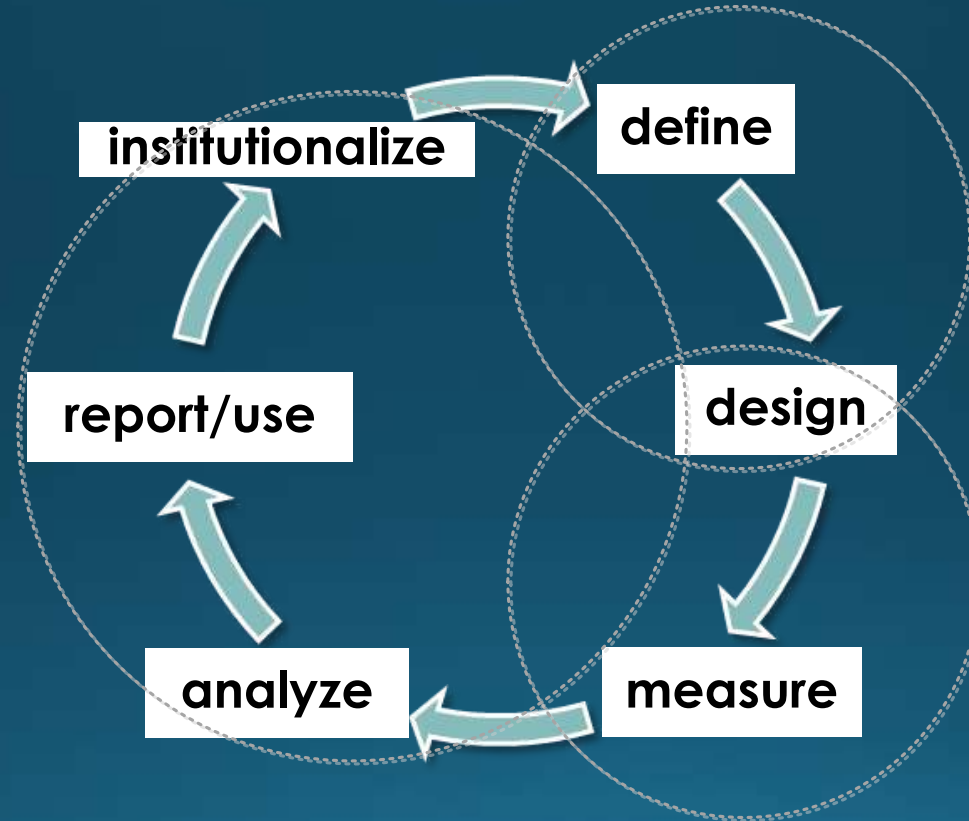
criteria for what constitutes evidence

1

3

how evidence, once analyzed and synthesized, can be used

## Evaluation Report



## Evaluation Plan

2

processes & methods for obtaining evidence





# Evaluation Principles

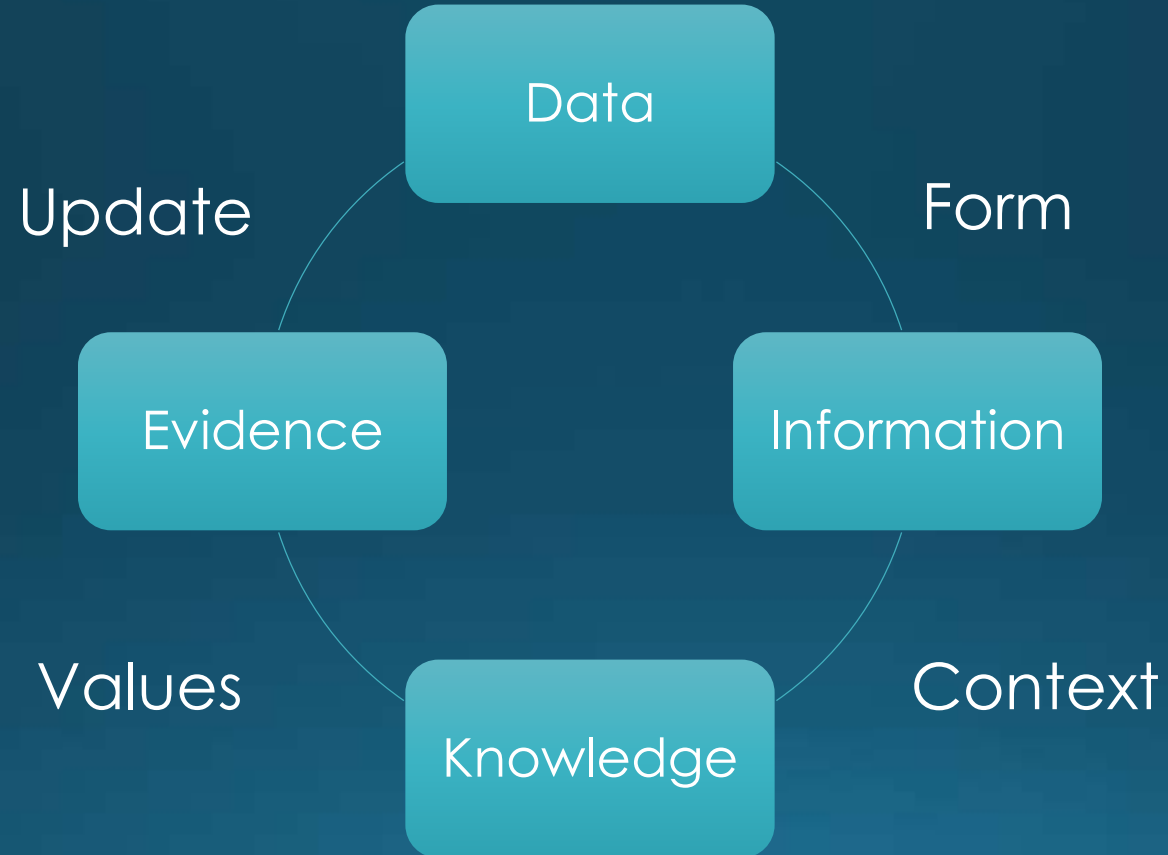
- Rigor
- Relevance
- transparency
- Impartiality
- Ethical behavior



*Requires careful, reflective thinking*



**Evaluation:** *generate evidence to make claims*



# PI Roles in Evaluation

1. Engage internal and/or external evaluator.
2. Involve the team in the evaluation process.
3. Clarify what success looks like.
4. Shape evaluation questions.
5. Identify evidence needed to learn and change, if necessary
6. Interpret and use results to manage and improve the project



**AS ONE EXAMPLE:**

*Research from  
the Science of  
Broadening  
Participation  
Reveals...*

- **Subtle gender biases exert indirect effects on promotion, tenure**
- **Slower rate of, and less capital accumulation for women in leadership**
- **Science faculty's subtle gender biases favor male students**



# NSF ADVANCE PI's

## SUBTLE GENDER BIAS INDEX

- Includes institutional, departmental, interpersonal and individual level items
  - Assesses the impact of micro-biases
  - Examines quality of the setting as moderators
- 

### Sample items:

*"At my institution, there are predominantly White males in charge."*

*"Men in my department are unsure of how to treat women faculty."*

*"Men at my institution are comfortable interacting with women."*

*"I have observed other colleagues experiencing bias."*



# Summary

- Evaluation can support plans and projects
- Evidence, multiple perspectives, level of analysis, type of “intervention”, assumptions all matter
- The process of **evaluation** employs critical thinking and encourages “double loop” learning
- Evaluation can help you:
  - Inform decisions to help manage
  - Clarify options to identify where to focus
  - Identify strengths/weaknesses to help improve
  - Provide information on key contextual factors to help position any responses



# THANK YOU!

Kellina Craig-Henderson, Ph.D.  
Deputy Assistant Director  
Directorate for Social, Behavioral and Economic Sciences  
(SBE)

(<http://www.nsf.gov/dir/index.jsp?org=SBE>)

National Science Foundation

4201 Wilson Blvd.

Arlington, VA 22230

(703) 292-2651

[khenders@nsf.gov](mailto:khenders@nsf.gov)

