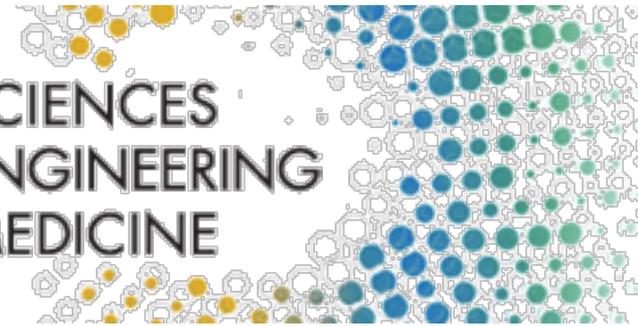


IMPACT ASSESSMENTS

*The National
Academies of*

SCIENCES
ENGINEERING
MEDICINE



**Suzi Iacono, Office Head
Integrative Activities**

ENGAGING NASEM

Extracting the Highest Value from Investments

PAUSE 60

DAYS Effective
9/23/15 to 12/15

- Address management concerns about costs
- Allow for agency-wide coordination
- Avoid duplication
- Sort out funding types



DEVELOP SOPS

Charge WG
Develop SOPs for new NASEM proposals
Change policy guidelines
Communicate changes to staff



ASSESS IMPACTS

Initial data analysis on Boards
Follow-on analysis on directorate investments
Develop insights and recommendations
Write report and take actions

IMPORTANT TAKEAWAY

Over three years, NSF has set up routine processes for tracking investments and assessing impacts.

STAFFING THE TEAM

- **Leah Nichols/OIA (co-chair)**
- Nicholas Anderson/GEO
- Clark Cooper/MPS
- Earnestine Easter/EHR
- Bob Fleischmann/BIO
- Amy Friedlander/CISE
- Pam Hawkins/BFA
- **Cassandra Dudka/OISE (co-chair)**
- Deborah Olster/SBE
- Sohi Rastegar/ENG
- Beth Strausser/Policy
- Lori Wiley/DGA
- Christopher Williams/OIA

COORDINATION TOOLS

NASEM AWARDS TRACKER

NASEM Tracking Spreadsheet - Active Projects

Award Number	Award Title	Managing NSF Directorate	Managing NSF Division	Managing Program Officer	NSF Award Amount	NASEM Project Co-Funding from Non-NSF Sources	Total Non-NSF Support	Award Effective Date	Expected or Actual Publication Date	Briefing Date(s)	NASEM Project
1741027	The Value of Social, Behavioral and Economic Sciences to National Priorities	SBE	SES	Cheryl Eavey	\$ 309,835	None	N/A	3/30/2017	6/9/2017	6/7/2017; 7/19/17	The Value of Social, Behavioral and Economic Sciences to National Priorities
1650389	Graduate Training in the Social and Behavioral Sciences: A Workshop	SBE	SMA	Corah	\$ 98,820	NIH Office of Behavioral and Social Sciences Research	\$ 126,177	10/1/2016	9/30/2017 (est)		Graduate Training in the Social and Behavioral Sciences: A Workshop
1647113	FRONTIERS OF MATERIALS: A DECADEAL SURVEY				\$			10/1/2016	10/1/2018 (est)		Frontiers of Materials: A Decadal Survey
1644492	Sexual Harassment in the Scientific and Technical Workforce And its Effects on the Careers of Scientists, Engineers, and Medical Professionals	O/D	OIA	Bernice Anderson	\$ 750,000	NIH; HHS; NASA;			2018 (est)		Impacts of Sexual Harassment on Academia
1643182	Grand Challenges and Opportunities in Environmental Engineering and Science for the Twenty-first Century	ENG	EFMA	William Cooper	\$ 900,000	DOE, State of CA Delta Stewardship Council	\$ 200,000	8/15/2016	2/15/2018 (est)		Grand Challenges and Opportunities in Environmental Engineering

Upcoming report releases and associated briefings

Clickable links to NA reports

Upcoming meetings and events

IMPORTANT TAKEAWAY

Provides up-to-date information on NASEM activities supported by NSF awards.

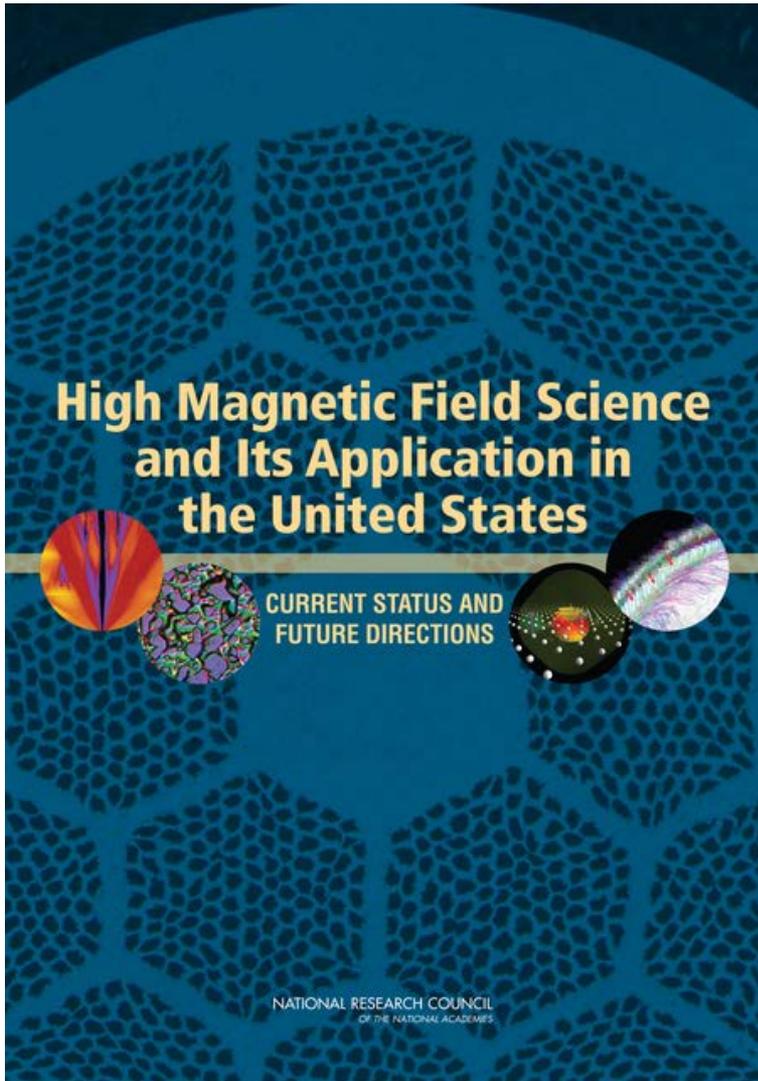
Methods for Understanding Impacts

- **Scores**
 - Number of report downloads
 - Altmetric scores – online influence – blog posts, tweets, wikipedia, facebook, etc.
 - Citations in NSF solicitations and program descriptions
 - Mentions in Whitehouse.gov and/or Congress.gov docs
- **Program Director Judgements/Experiences**
 - What are the most and least impactful NASEM awards for your directorate and why
- **New metrics TBD** – as we learn from the assessments

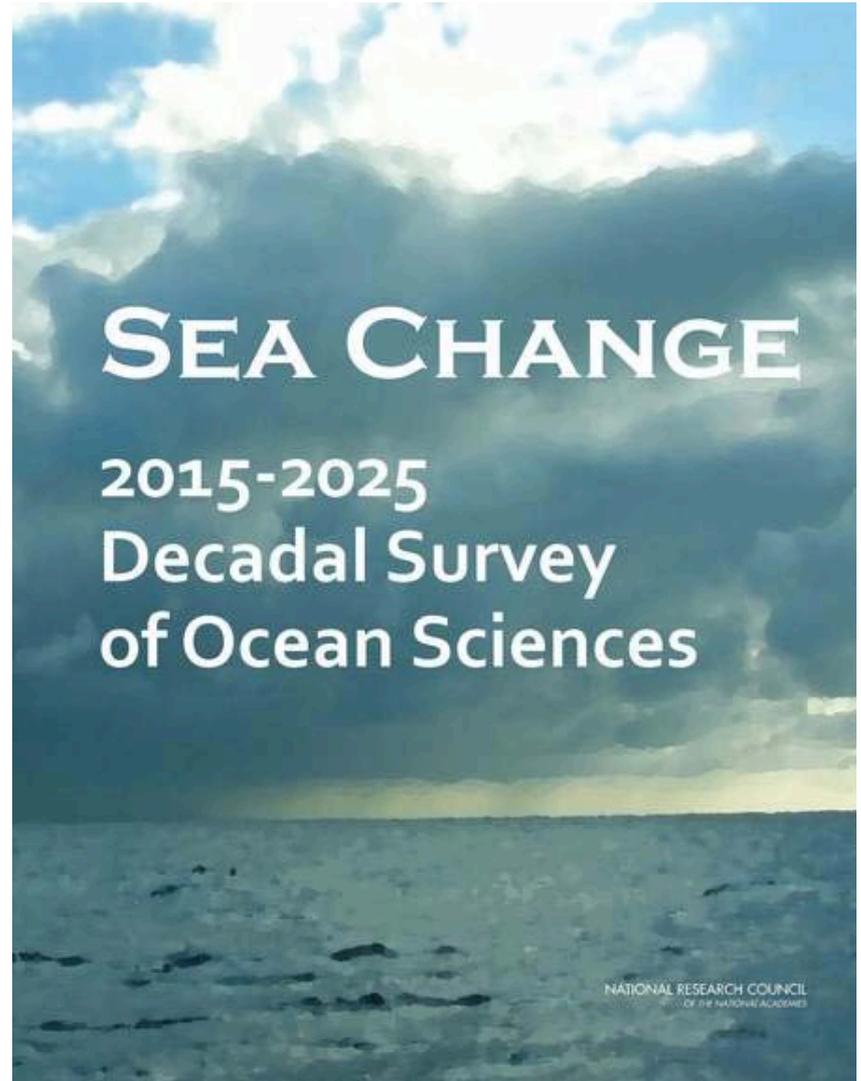
Impact Assessments of NSF Awards

Eleven Insights

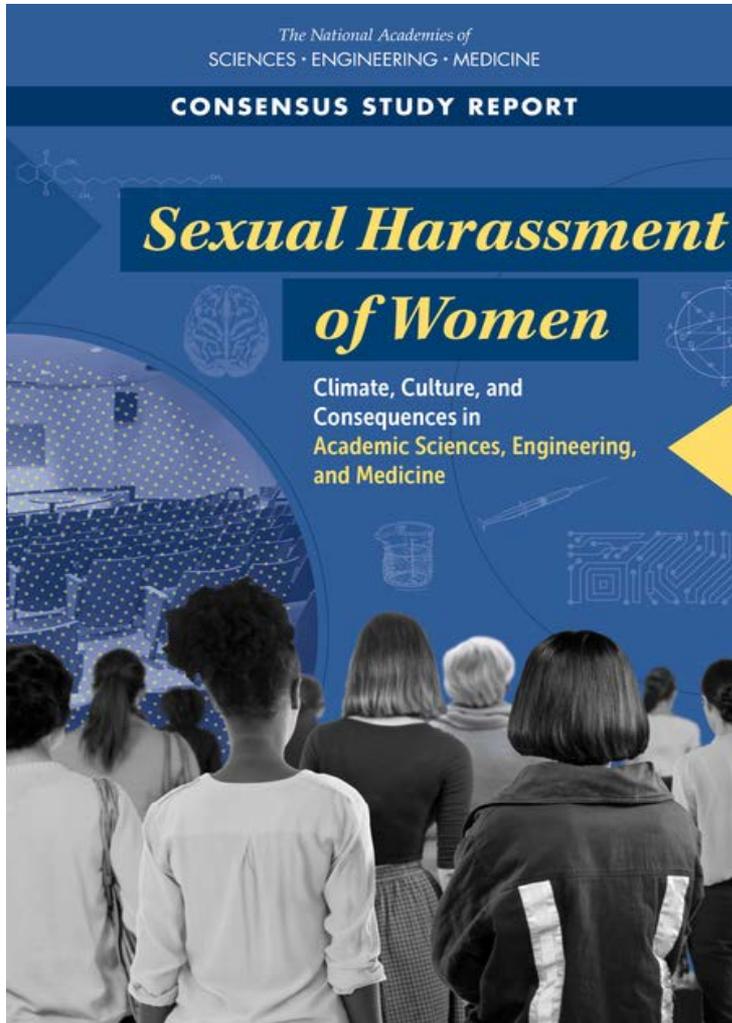
- Impact outcomes do not appear to depend on award size
- Impact metrics do vary by audience size
- Timing and resilience of topics appear to impact metrics
- Novel or insightful recommendations can spur change
- Specific, actionable recommendations can create impact
- Product timing is important
- Strong, engaged chairs and members create impact
- Clear, focused charges tend to be more impactful
- Community interest improves impact
- Collaborations or joint funding can indicate broad interest



Novel or insightful recommendations can spur change



Specific, actionable recommendations create impact



**Timing and resilience of topics
appears to affect impact metrics**



Mentioned by:

48 news outlets

10 blogs

845 tweeters

13 Facebook posts

1 video

INFORMATION TECHNOLOGY AND THE U.S. WORKFORCE

Where Are We and Where Do
We Go from Here?



Mentioned by:

18 news outlets

6 blogs

1 Wikipedia page

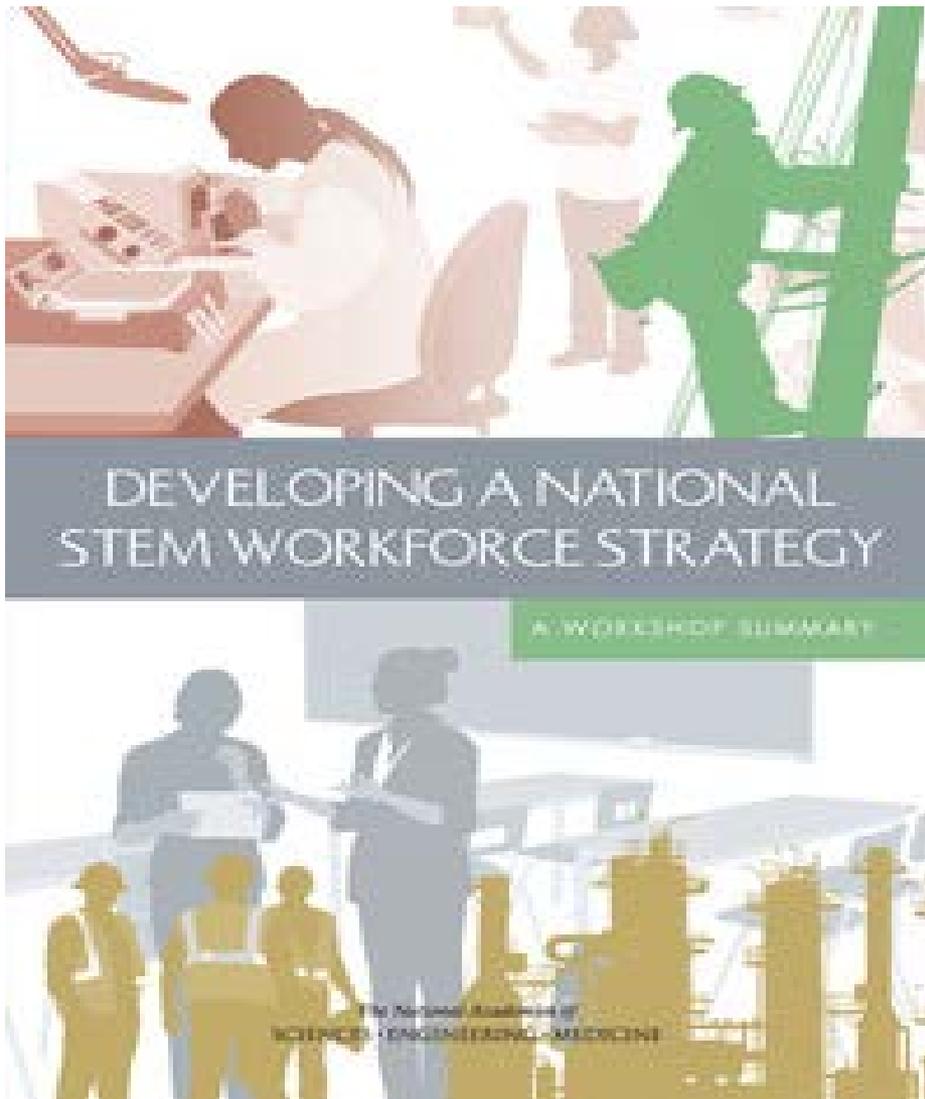
275 tweeters

2 Facebook posts

3 Google+ users

1 policy source

**Timing and resilience of topics
appears to affect impact metrics**



**National Science Board
Science and Engineering Indicators
2018**

**OUR NATION'S FUTURE
COMPETITIVENESS RELIES ON
BUILDING A STEM-CAPABLE U.S.
WORKFORCE
A Policy Companion Statement to
Science and Engineering Indicators
2018**

Reports that complement other reports can add weight to specific arguments and spur change

Impact Assessments of NSF Awards

Five Recommendations to NASEM & NSF

- Explore new models for reports – like the “authored report” after a workshop
- Describe the expected impact, including opportunities for achieving that impact as well as a work plan
- Ensure a clear and focused charge is given
- Enable recommendations that are insightful, specific and actionable
- Remain cognizant of the timeline and set expectations for engagements
 - **NEW: Allow for mid-course adjustments, if necessary**

THANKS!