



SCIENCE & TECHNOLOGY  
**POLICY FELLOWSHIPS**



**MONUMENTAL  
OPPORTUNITIES**



@AAASFellowships

[aaas.org/policy-fellowships](http://aaas.org/policy-fellowships)

# Enhancing Public Policy Transforming Careers

SCIENCE & TECHNOLOGY  
POLICY FELLOWSHIPS



**GOAL:** Foster scientifically informed, evidence-based policy and practice.

**STRATEGY:** Engage scientists and engineers from a broad range of disciplines, backgrounds and career stages to:

- Contribute knowledge and analytical skills to the federal government
- Learn first-hand about policymaking and implementation at the federal level
- Build S&T leadership equipped to address complex societal challenges

**OUTPUT:** Policy-savvy scientists & engineers





Local

State

FEDERAL

Regional

International

# Fellowships Offer

- Knowledge of:
  - Interactions of branches of government
  - Balance of power
  - Federal budget
  - Policymaking processes
  - Procedure
- Understanding of stakeholders and factors affecting policy
- Political awareness



**Michael Donovan**, Executive Branch Fellow, USAID . On detail as a Embassy Science Fellow, surveying in Majuro.

# Developing Capacity

- Frame issues and messages
- Communicate to non-scientific audiences in policy language
- Strategic planning & timing
- Negotiation, persuasion, diplomacy
- Network, build alliances
- Collaborate, foster consensus
- Respond in necessary timeframes
- Balance return on investment



# Transferable Skills

## SCIENCE

- Develop hypothesis, test, analyze results
- Design, implement, manage experiments and studies
- Curiosity, analytical skills, investigate using different research methodologies
- Integrate information from disparate sources, generalize from data, ascertain patterns

## POLICY AND BEYOND

- Creativity, problem-solving, reach conclusions
- Project management, ability to focus and multi-task
- Objectivity, ability to consider other positions, alternate options
- Technical expertise coupled with interdisciplinary and systems thinking



# Transferable Skills

## SCIENCE

- Suspend judgment, work with ambiguity
- Poster, paper presentations
- Relay complex concepts, support position with data and logic
- Write and publish papers
- Write proposals, secure grants

## POLICY AND BEYOND

- Open-minded, flexible, persistent
- Public speaking
- Persuasive, resourceful communicator, rational thinker
- Writing and editing skills
- Fundraising, grant management

# Science Policy in Government

## Congressional Placements

- Collect and analyze information
- Write: briefs, talking points, speeches, press releases, reports, text for bills, websites
- Meet with stakeholders
- Organize hearings
- Facilitate, negotiate legislation
- Oversight

## Federal Agency Placements

- Collect and analyze information
- Write: briefs, talking points, speeches, press releases, reports, text for regulations, websites
- Meet with stakeholders
- Prep for hearings
- Facilitate, negotiate regulations
- Program development, implementation and evaluation
- Interagency collaborations

# What is Science Policy?

Policy for  
Science

Establish guidelines and regulations on the direction, funding, and conduct of science

Science for  
Policy

Inform decision-making, implementation, and evaluation of policies, regulations and programs

# Serving Society: Congress

- Organized press conference to announce a proposed bill on early warning systems following the Asian earthquake and tsunami
- Wrote text for a bill on water quality restoration for the Colorado River
- Coordinated oversight investigation of food safety issues & handling of peanut product recall



## **Michael Oleyar**

ASA Congressional Fellow  
At a SuperChefs against  
Superbugs meeting with Chef  
Maria Hines and members of  
Senator Patty Murray's  
(D-WA) staff.



# Serving Societies: Federal Agencies

- Led Hurricane Sandy Science Coordination task force launch of Rebuild By Design -- a multi-stage regional design competition
- Coordinated a market study of watershed services and benefits in the Chesapeake Bay
- Orchestrated international distribution of more than \$5 million in famine funds to provide rust resistant wheat seed



## **Jun Bando**

Executive Branch Fellow, U.S. Department of State  
Enroute to international discussions on piracy in Indian Ocean.

# 2013-14 Placements

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BILL & MELINDA  
GATES foundation



National Institutes  
of Health





# 2013-2014 AAAS S&T Policy Fellows

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## 275 Year-long Fellows

- 170 first year
- 105 second-year
- 6 short-term extensions

## 241 Executive Branch Fellows

- 230 selected & administered by AAAS
- 11 selected & administered by partner societies

## 34 Congressional Fellows

- 2 selected & sponsored by AAAS
- 32 selected & sponsored by partner societies







# Criteria

- Solid **S/T credentials** for career stage
- Show a **commitment** to apply scientific or technical expertise **to serve society**
- Exhibit good **communication skills**, especially to non-scientific audiences
- Demonstrate:
  - **problem-solving**
  - **initiative**
  - **maturity, good judgment**
  - **leadership qualities**
- **Match** to fellowship **program area**



# How Competitive Are the Fellowships?

## 2013-14 Selection Statistics

	APPS	APPS TO SCs	SEMI FINALISTS	INTERVIEWS	FINALISTS
Cong	101	31	11	11	2
DSD	267	162	96	95	64
EEA	193	164	96	96	59
HEHS	280	126	72	71	44
	841	483	275	273	159*

\* includes 30 dual finalists = 129 individual finalists

# Professional Development

- Orientation
- Skill Development & Career Workshops
- Educational Events
- Affinity Groups
- Networking



S&T Policy Fellows at Orientation



# 2015-16 Application Schedule\*

- Applications Open: May 1, 2014
- Applications Due: November 1, 2014
- Notification of Eligibility: Late December 2014
- Notification of Interview: February 2015
- Selection Interviews: Early March 2015
- Notification of Finalists: Mid-March 2015
- Placement Interviews: April 2015
- Placement Offers: May – June 2015
- Fellowships Begin: September 1, 2015
- Cong Placement Interviews & Offers: Mid-September - October
- Fellowships End: August 31, 2016

\*Note: Partner societies have different application and interview deadlines



# Alumni Fellows in Government

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***Frances A. Colón***

*Deputy Science and  
Technology Adviser to  
the Secretary of State,  
U.S. Department of  
State*



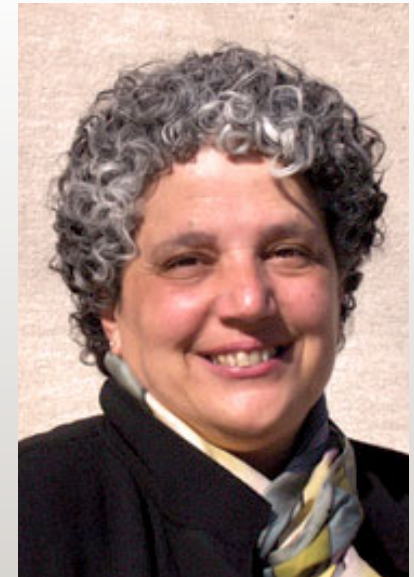
***Arati Prabhakar***

*Director,  
Defense Advanced  
Research Projects  
Agency, DoD*



***Ed Etzkorn***

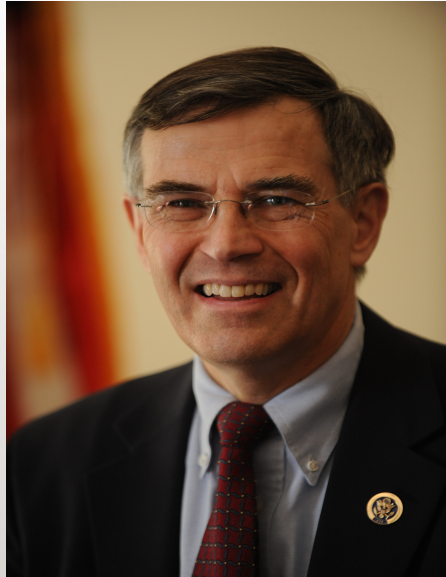
*Program Examiner,  
Energy Efficiency and  
Renewable Energy, Office  
of Management and  
Budget*



***Francesca Grifo***

*Scientific Integrity  
Official, Environmental  
Protection Agency*

# Alumni Fellows in Elected Office



***U.S. Representative  
Rush Holt (D-NJ)***



***State Senator Chris  
Rothfuss (D-WY)***

# Alumni Fellows in Nonprofit

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***Ranyee Chiang***

*Senior Technical  
Manager, Standards and  
Testing, United Nations  
Foundation, Global  
Alliance for Clean  
Cookstoves*

***Uday Varadarajan***

*Senior Analyst,  
Climate Policy  
Initiative*

***Jessica Tuchman  
Mathews***

*President, Carnegie  
Endowment for  
International Peace*

***Steven Buchsbaum***

*Deputy Directory,  
Discovery at Bill &  
Melinda Gates  
Foundation*



# Alumni Fellows in Private Sector

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***Alice Chen***

*Scientist,  
Law Firm of Keller and  
Heckman*



***Anish Goel***

*Director, Technology  
Policy and Geopolitical  
Affairs, The Boeing  
Company*



***Andrew Robertson***

*Director of Regulatory  
Policy, Merck*



***Audrey Ichida***

*Senior Manager,  
ICF International*

# Alumni Fellows in Academia

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**Joe Helble**

*Professor and Dean,  
Thayer School of  
Engineering,  
Dartmouth*



**Rosalyn Hobson  
Hargraves**

*Associate Professor,  
Engineering, Virginia  
Commonwealth  
University*



**Kevin Michael  
Foster**

*Professor and  
Executive Director,  
Institute for  
Community,  
University and  
School  
Partnerships, UT  
Austin*



**Rosina Bierbaum**

*Professor and former  
Dean, School of Natural  
Resources and the  
Environment, University  
of Michigan; Member  
PCAST*

# Explore

**Assess** your interests, strengths, areas for growth, preferred work environment:



**Research** science-policy employers:

- local/state/federal/international entities; national laboratories, government contractors
- think tanks and consulting firms
- scientific and engineering associations
- nonprofit organizations, industry, academia



# Explore

## **Network** with people working in policy

- Opportunities, challenges, rewards
- Types of projects, work flow and environment
- Skills needed, stakeholders engaged
- Trends in the sector or field
- Salary ranges
- Paths to current position

## **Experiment** with assignments

- Societies
  - policy committees
  - Congressional Hill visits
  - government relations offices
- Internships and fellowships



# Engaging Scientists and Engineers in Policy (ESEP)

A coalition of organizations partnering to empower scientists and engineers to effectively engage in policy processes

- American Association for the Advancement of Science
- American Meteorological Society
- American Physical Society
- Association of American Universities
- Association of Public and Land-grant Universities
- Antioch University
- COMPASS
- Emerging Leaders in Science and Society
- Massachusetts Institute of Technology
- National Council for Science and the Environment
- Union of Concerned Scientists
- University of Colorado Boulder

# Engaging Scientists and Engineers in Policy (ESEP)

## GOALS:

**Enable, empower and equip** scientists and engineers to engage in policy processes

**Promote networking** opportunities

**Motivate engagement at all levels:** local, state, national, international

**Facilitate institutional support** for civic engagement in policy

**Promote a new generation** of civically engaged scientists and engineers

# Engaging Scientists and Engineers in Policy (ESEP)

## Get involved! Connect! [aaas.org/esep](http://aaas.org/esep)

The screenshot shows the AAAS website with a navigation bar at the top containing links for ENHANCING EDUCATION, GLOBAL OUTREACH, INFORMING POLICY, PRESS & PUBLIC ENGAGEMENT, and SUPPORTING CAREERS. A red 'Join' button and a help icon are also present. The AAAS logo is centered, with the tagline 'ADVANCING SCIENCE. SERVING SOCIETY.' Below the logo is a secondary navigation bar with links for NEWS, JOURNALS & MORE, MEMBERSHIP, CAREERS, PROGRAMS, GIVING, and ABOUT, along with a search box. The main content area features the title 'Engaging Scientists and Engineers in Policy (ESEP)' and a paragraph: 'A coalition of scientific and engineering societies has put together a list of publications, fellowships, internships, and more, for scientists, S&T professionals, and students who are interested in becoming more involved with policy initiatives.' A button labeled 'OFFICE OF GOVERNMENT RELATIONS' with a right-pointing arrow is positioned below the text. At the bottom of the main area are links for RESOURCES, NEWS & EVENTS, and ABOUT. Below this is a grid of three news items: 1. 'Union of Concerned Scientists to Hold Engagement Webinar' dated 10 February 2014, with an image of laboratory glassware. 2. 'New Grad Program Connects Students to Real-World Problems' dated 5 February 2014, with an image of students in a classroom. 3. 'Call for Public Engagement Case Studies' dated 10 December 2013, with an image of people at a public engagement event.

# Webinar: Thinking Outside the Lab

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A promotional poster for a webinar. The background is a light blue with a faint molecular structure. On the left, a man in a dark suit and tie is shown from the chest up, resting his chin on his hand in a thoughtful pose. The text on the right side of the poster reads: "THINKING OUTSIDE THE LAB" in large, bold, black serif font; "Finding a fulfilling non-research career" in a smaller, black sans-serif font; "April 8, 2014, 1 p.m. ET" in a black sans-serif font; "#AAASwebinar" in a black sans-serif font; and "REGISTER NOW &gt;&gt;" in white sans-serif font on a red rectangular background. At the bottom left, the AAAS logo is followed by "MEMBERCENTRAL" and "Science Careers" in a white sans-serif font.

For more information and to RSVP: <http://bit.ly/OFb43R>

# Fellowships & Resources

## AAAS S&T Policy Fellowships

[aaas.org/policy-fellowships](http://aaas.org/policy-fellowships)

**Deadline: Nov 1**

- Partner Society Fellowships
- Resource section on other fellowships
- Sci on the Fly  
<http://www.aaaspolicyfellowships.org/sci-fly>

## AAAS Mass Media Science & Engineering Fellowships

[www.aaas.org/programs/education/MassMedia](http://www.aaas.org/programs/education/MassMedia)

## ELISS: Emerging Leaders in Science and Society

[www.aaas.org/page/eliss-overview](http://www.aaas.org/page/eliss-overview)

## California S&T Policy Fellowships

[www.fellows.ccst.us](http://www.fellows.ccst.us)

## Christine Mirzayan Science & Technology Policy Graduate Fellowships

<http://sites.nationalacademies.org/PGA/policyfellows/index.htm>

## ScienceCareers.org

## Professional Association Career Resources

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[aaas.org/policy-fellowships](https://www.aaas.org/policy-fellowships)