MONUMENTAL

OPPORTUNITIES AT THE INTERSECTION OF

Science & Policy

@AAASFellowships fellowships.aaas.org
1973-2013: 40 Years of S&T Policy Fellowships
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
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
Abilities to Develop

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

2011-13 DSD Fellow Natasha Vidangos, with Deputy Assistant Secretary, Department of Energy, Phyllis Yoshida, and Executive Assistant Secretary of Energy of Brazil, Francisco Romario Wojcicki, discussing U.S.-Brazil Energy Cooperation at the Sao Paulo Industrial Trade Organization's (FIESP) annual energy conference.
Enhancing Public Policy
Transforming Careers

**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; and
- build S&T leadership equipped to address complex societal challenges.

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

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

2012-13 Congressional Fellows, Erica Bickford, AGU and Todd Bianco, GSA, seated behind Senators Whitehouse and Sanders at the EPW hearing for the nomination of Gina McCarthy as EPA administrator.
Serving Society: Legislative Branch

- 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, 2012-13 ASA Congressional Fellow, Office of Senator Patty Murray, (D-WA) at a SuperChefs against superbugs meeting with chefs from Washington State who are committed to using antibiotic free food due to concerns with antibiotic resistance.
Executive Branch

• Collect and analyze information
• Research options
• Meet with stakeholders
• Write: briefings, talking points, speeches, text for reports, press releases, websites
• Prep for hearings
• Program development, implementation and evaluation
• Interagency collaborations

Michael Smith
2006-2007 S&T Policy Fellow at EPA. Assisting participants at a workshop in Oman.
Serving Society: Federal Agencies

- Assisted in developing U.S. counter-piracy strategy for the Horn of Africa

- Orchestrated distribution of more than $5 million in famine funds to provide rust resistant wheat seed

- Lead drafter of Connecting the Americas 2022 initiative factsheet. Talking points from factsheet used by President Obama during bilateral meetings with Costa Rica President Lauren Chichilla

Jun Bando, PhD
2006-2008 S&T Policy Fellow at U.S. Department of State.
2012-2013 AAAS S&T Policy Fellows

279 Year-long Fellows
- 176 first year
- 103 second-year
- 6 short-term extensions

245 Executive Branch Fellows
- 235 selected & administered by AAAS
- 10 selected & administered by partner societies

34 Congressional Fellows
- 2 selected & sponsored by AAAS
- 32 selected & sponsored by partner societies
Social Scientists in the Executive Branch

Craig Fisher, PhD, Clinical Psychology
2011-13 HEHS Fellow, NSF, Office of the Director, Office of Legislative and Public Affairs

• Fellowship Project: develop and spearhead a project analyzing value of social, behavioral and economic research

• Provides examples of ways in which NSF-funded, basic, social and behavioral science research bears on national security and economic interests

• [www.nsf.gov/about/congress/reports/sbe_research.pdf](http://www.nsf.gov/about/congress/reports/sbe_research.pdf)
Fellowship Areas

Diplomacy, Security & Development

Congressional

Energy, Environment & Agriculture

Health, Education & Human Services
Qualifications

- Doctoral-level degree (PhD, MD, DVM, DSc) in any scientific or engineering discipline

- Master’s degree in engineering & three years of professional engineering experience also may apply

- Hold U.S. citizenship*

* Some partner societies accept non U.S. citizens
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**
Professional Development

• Orientation

• Skill Development & Career Workshops

• Educational Events

• Affinity Groups

• Networking

Kei Koizumi, Assistant Director for Federal R&D at the White House Office of Science and Technology Policy at a AAAS Symposium
Alumni Fellows in Government

Frances A. Colón
Deputy Science and Technology Adviser to the Secretary of State at U.S. Department of State


Arati Prabhakar, Director,
Defense Advanced Research Projects Agency, DoD

Julie Callahan, International Policy Manager, Center for Food Safety and Applied Nutrition, FDA
Alumni Fellows in Academia

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, SNRE, U. Michigan; Member PCAST
Alumni Fellows in Private Sector

Asha Collins, Engagement Manager, Quintiles Consulting

David Lee, Associate, Booz Allen Hamilton

Andrew Robertson, Director of Regulatory Policy, Merck

Audrey Ichida, Senior Manager, ICF International
Alumni Fellows in Nonprofit

Jessica Tuchman Mathews, President, Carnegie Endowment for International Peace

Francesca Grifo, Senior Scientist and Science Policy Fellow at Union of Concerned Scientists

Steven Buchsbaum Deputy Director, Discovery at Bill & Melinda Gates Foundation

Uday Varadarajan, Senior Analyst, Climate Policy Initiative
Explore

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

Career counseling
Personality assessment
Capability assessment
Values assessment

Options

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
Fellowships & Resources

AAAS S&T Policy Fellowships
fellowships.aaas.org  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

California S&T Policy Fellowships
www.fellows.ccst.us

ScienceCareers.org

Professional Association Career Resources

40 Years of Monumental Experiences, Fundamental Contributions, Substantial Results.