A Retrospective Evaluation of the STPF Program

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Bringing Scientists to the Federal Government: How Well Does It Work?

• Rationale
• Methods
• Key findings
• Areas for Improvement
• Q&A
The STPF Mission

In conjunction with partner scientific and engineering societies, STPF seeks to connect science with policy and foster a network of science and engineering leaders who understand government and policymaking, and are prepared to develop and execute solutions to address societal challenges.
Main Program Outcomes That Were Tested

Fellows

▪ Understanding of how public policy is formulated and implemented.
▪ Knowledge and skills in the areas of science and technology policy.
▪ Impact on career path.

Mentors/Host Offices

▪ Impact of fellow contributions to the work of the office.
Methods

Surveys Received

1261 alumni
235 mentors
Fellows who were surveyed

**DISCIPLINE:**
36% biological/agricultural/environmental,
23% physical science.

34% served in the legislative branch.

96% have a Ph.D.
73% are early career (<7 years).

70% served in the executive branch.
USAID 20%, State Dept.
18%, NSF 13%, EPA 12%, NIH 11%.

57% Women.
14% non-White.

28% in mid-Atlantic region prior to fellowship. 53% in mid-Atlantic now.

68% came from academia as academics (54%) or graduate students (14%).
89%

STPF: Fellow-approved
Fellows rate the program highly

- 2-week STPF orientation: 62% satisfied, 26% very satisfied
- Professional networking/engagement opps: 53% satisfied, 29% very satisfied
- Monthly PD and training opps: 44% satisfied, 32% very satisfied
- Logistical/admin support by STPF: 47% satisfied, 29% very satisfied
- Logistical/admin support by host: 41% satisfied, 34% very satisfied
- Affinity Group programming: 27% satisfied, 37% very satisfied
STPF meets fellow objectives

100% OUT OF

Very Successful
Extremely Successful

Understand intersections between science, tech, & policy
Offer my skills & experience in public service
Explore changing my career path

Learn to integrate policy into my area of expertise
Advance in my current career
Address policy on specific issue of interest/concern
Policy know-how and skills grow dramatically

“\textit{I learned to translate geek into wonk.}”
Fellows make meaningful contributions

OUT OF 100%

- **My assignments enhanced knowledge/understanding of policymaking**
  - Agree: 31%
  - Strongly Agree: 60%

- **My contributions had meaningful impact on work of host office**
  - Agree: 36%
  - Strongly Agree: 48%

- **My scientific/technical expertise allowed me to contribute meaningfully**
  - Agree: 37%
  - Strongly Agree: 46%

- **My disciplinary background allowed me to contribute meaningfully**
  - Agree: 32%
  - Strongly Agree: 39%
Fellows continue to be involved in policy-related activities

- Advocated for specific policy: 76%
- Science policy position paper: 54%
- Leadership in professional organization: 49%
- Participated in public science: 47%
- Advised political candidate on science: 15%
- Served in another role on a political campaign: 10%
- Created policy groups at home institution: 10%
- Helped guide political candidate’s platform: 10%
- Ran for local, state, national office: 3%
- Other: 14%
Being a fellow impacts subsequent professional activities

- **Gained greater knowledge of career options**
  - 29% AGREE
  - 61% STRONGLY AGREE

- **Gained lasting professional connections**
  - 24% AGREE
  - 64% STRONGLY AGREE

- **Engaged more with government**
  - 19% AGREE
  - 68% STRONGLY AGREE

- **Contributed to discourse between science & policy**
  - 34% AGREE
  - 52% STRONGLY AGREE

- **Provided scientific/tech expertise to policymakers**
  - 29% AGREE
  - 55% STRONGLY AGREE

- **Added value to teaching, advising, or mentoring**
  - 35% AGREE
  - 49% STRONGLY AGREE

- **Provided info about policymaking to science colleagues**
  - 36% AGREE
  - 48% STRONGLY AGREE

- **Career trajectory changed**
  - 17% AGREE
  - 65% STRONGLY AGREE
As federal scientist, I have been specifically prohibited from participating directly in policymaking. However, the fellowship helped me direct my research with policy implications in mind.

The knowledge, connections, and resources gained through the fellowship have rippled well beyond my work through the mentoring and coaching I do for professionals at all career and educational stages.
Significant impact on career trajectory

Prior → Just After Fellowship

Just After Fellowship → Current

Academic Position: 239

Academic: 239

Academic Position: 212

Non-Profit Position: 113

Non-Profit: 113

Non-Profit Position: 126

For-Profit Position: 67

For-Profit: 67

For-Profit Position: 93

Government Position: 439

Government: 439

Government Position: 338

International Position: 13

International: 16

International Position: 13

Student Status: 12

Student Status: 2

Student Status: 11

Unemployed Status: 19

Retired Status: 95
Mentors who were surveyed

Primary objective in hosting:
Accomplish tasks office couldn't otherwise complete (39%)
Bring scientific/tech skills to advance office's work (31%)

75% have been mentors for 1-5 years.
84% have mentored 1-5 fellows.
24% are STPF alumni.
Mentors are highly satisfied with the STPF program

- Overall experience as a mentor: 28% satisfied, 66% very satisfied
- Fellows’ work product: 17% satisfied, 76% very satisfied
- Fellow preparation to contribute: 24% satisfied, 67% very satisfied
- Adaptability/flexibility of fellows: 19% satisfied, 70% very satisfied
- Logistical/admin support by own office: 37% satisfied, 50% very satisfied
- Logistical/admin support by STPF: 39% satisfied, 43% very satisfied
Mentors say fellows are prepared to fit in and contribute

- Assignments enhance policy knowledge & understanding (80% agree, 18% strongly agree)
- There are opportunities to use knowledge & expertise in office (71% agree, 26% strongly agree)
- Fellows are able to integrate themselves into office team (72% agree, 23% strongly agree)
- Fellows have necessary knowledge & abilities for office tasks (65% agree, 29% strongly agree)
- Fellows are able to communicate to diverse audiences (57% agree, 36% strongly agree)
- Good fit between fellow interests & expertise and office needs (59% agree, 33% strongly agree)
- Fellows able to take leadership role on projects & assignments (62% agree, 28% strongly agree)
- Fellows display appropriate emotional intelligence (61% agree, 28% strongly agree)
Fellows provide scientific and technical expertise

- 54% Provided needed expertise to help address a complex problem
- 51% Translated scientific content into more easily accessible terms
- 44% Clarified the interpretations of data/scientific evidence
- 37% Provided data/scientific evidence that influenced decisions

- 34% Summarized scientific information for a decision maker
- 33% Applied the scientific method to find solutions to problems
- 30% Offered technical input that resulted in changes to plans/policies
What fellows said...

"It was a chance to do something new, get access to a job I’d never have had, and it continues to pay dividends because there are so many alums out there.... I personally connected to our science policy work as a foundation because of it."

"It was the most valuable experience I have had to date. It was a true privilege to meet the people I did, get the experience and exposure provided, and serve in the public sector."

"I think the experience is fantastic for opening one's eyes to the ways in which the government works, and where/what the levers are for using science to affect policy and how policy affects science."
What mentors said…

- It lets us bring a different perspective to the kinds of programmatic work we do, and it gives us access to the kind of people who would never otherwise consider coming to work for the government.

- I know it isn’t the intention of the program for the fellows to teach the hosts anything, but it was great for my office, too—we ended up learning SO MUCH from our fellows!

- Honestly, having really smart people who are keen to contribute, keen to learn, and have a really thorough scientific background; it’s just amazing.
Areas for Improvement

▪ Fellows want to strengthen ties with the program and engage with each other in meaningful ways: creating new collaborations, sharing information, and advocating for science.

▪ Many fellows and mentors would like to see the program grow to include more host agencies and more fellows.

▪ Some mentors suggested ways to improve the fellow selection and placement process.

▪ Some mentors asked for more guidance on how to determine the best tasks for fellows.
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*STPF is highly successful at bringing science to the federal government.*

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