

Careers in Neuroscience / Career Paths: Government Program Management

In a nutshell: A career in government* engages scientists on a broad level, providing them with the opportunity to inform and influence decision making and make a difference. Instead of working on a new treatment for mental illness, they may instead be looking at the policy implications of this issue. These positions make use of skills learned during scientific training and provide numerous occasions to remain involved with the research community.

**Much of the information presented here is specific to program management positions within the US government. Similar roles and functions are present at public agencies in a variety of national and international settings.*

Opportunities for Important, Meaningful Work

The federal government offers a trove of opportunity in program management for neuroscientists. In the US, the National Institutes of Health (NIH) and the National Science Foundation (NSF) have program officer and other administrative positions that allow scientists to shape the research agenda in a specific area related to neuroscience. Positions as political appointees and on Capitol Hill are also available and comparable positions may be available at the corresponding institutions in other countries.

Rigor of PhD Training Pays Off

The depth of training required to earn a PhD in neuroscience is ideal for jobs in government. Expertise in identifying pertinent issues, data analysis, writing grants and papers, and giving presentations are all needed for government work. The discipline, attention to detail, and patience required to succeed in science are also important for succeeding in government. What's more, neuroscientists find that the ability to collaborate with peers and mentor young scientists are additional useful skills.

Another benefit of government work is that it affords scientists many opportunities to continue to be a part of the research community. Reviewing grant proposals, reading papers, and attending informal meetings and conferences with other scientists are just a few ways to stay involved with research.

Work Description

At agencies such as NIH and NSF, the work of a program officer typically involves reading grant proposals and helping usher them through a formal review process. Program officers can also proactively address needs and opportunities in a particular area of research by polling the research community, organizing scientific workshops and symposia, and proposing new

initiatives or tools to facilitate research. Program officers also educate the public about the work of their agencies.

Another aspect of a program officer's job is to work with those scientists who were not funded after first submission of a grant proposal. Working as a mentor, the program officer has an opportunity to help those potential grantees understand the feedback and repackage the grant to address the reviewers' concerns.

At higher levels in government, the responsibilities expand. At the director level, neuroscientists play a leadership role in the formulation, interpretation, coordination, and implementation of policies and scientific management of the entire office's research program. Directors also plan high-level meetings, are involved in coordinating training programs, and assign program officers to the grants they are to review.

In addition, scientists can work on Capitol Hill or with the White House's Office of Science and Technology Policy (OSTP). On Capitol Hill, the work is fast-paced, with every day bringing a new challenge. Activities may involve writing speeches or talking points for members of Congress, preparing briefing papers, and attending Congressional hearings about appropriations for science. The positions in the White House tend to be policy oriented; staff members work with committees to prepare reports about different aspects of science, the economic benefits of science, science education, and more.

Place(s) of Employment

This overview focuses on a few agencies but those interested in exploring program management or policy should look throughout the US government.

Many institutes at NIH have positions suitable for neuroscientists. Among the most likely are the National Institute of Mental Health (NIMH), the National Institute of Neurological Disorders and Stroke (NINDS), the National Institute of Child Health and Development (NICHD), the National Institute on Drug Abuse (NIDA) the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and those that are members of the NIH Blueprint for Neuroscience.

NSF also has positions for neuroscientists. Organized into seven directorates, one is focused on the biological sciences, a second works on social and behavior issues, and a third addresses education issues. Neuroscientists could work in any of these offices, reviewing grants and working with Principal Investigators (PIs) on their research programs.

On the policy side, members of the House of Representatives and the Senate often have scientists on staff to help them understand issues related to science and make recommendations about which projects to fund. The White House OSTP does research and

prepares reports with recommendations about appropriate directions in research and education. Scientists in these positions have the potential to make a difference in federal science policy. Furthermore, scientists in one government agency are well positioned to hear about opportunities in other agencies, making lateral and upward career moves possible.

Government jobs at high levels, such as director of NSF and its 24-member Science Board, are political appointments with a fixed number of terms. These leaders then appoint their senior staff. But most positions in the federal system are open to all qualified applicants.

On the international front, the United States Agency for International Development (USAID) has both science and technology and global health initiatives. Scientists can go overseas and work on disease interventions, women's health issues, nutrition, and children in adversity. Working in partnership with NIH and NSF, USAID has a collaborative grants program called Partnership for Enhanced Engagement in Research (PEER). Using USAID funding and American scientific expertise, the program gives grants directly to scientists in developing countries so that they can build up their labs and use science and technology to solve relevant problems. In the process, the program also fosters a relationship between American scientists and those overseas.

Personal Characteristics

Neuroscientists working in government are detail-oriented but also enjoy working with people. They tend to be patient and welcome the opportunity to mentor young scientists. In more senior-level jobs, directors help develop programs and fellowships designed to help scientists transition from research to government work. These scientists also are committed to serving society and science by prioritizing the nation's research needs. Unlike in academic publishing, scientists may not get credit for their writing. Often, that goes to their boss, who may be the director of an NIH or NSF division.

Program officers and directors also recognize that patience is a prized quality. Working closely with grantees and helping them fine-tune their research agenda is an important way that program officers help researchers do their best work.

Education/Training

Typically, individuals in this career follow a similar course as those in academia. As an undergraduate, they may have majored in a related area, such as math, computer science, biology, physics, chemistry, or psychology, but will then go to graduate school in neuroscience or related area and receive a PhD. If an individual knows that he or she would rather pursue a career in government than in research, then a postdoc may not be necessary. Many people start through fellowships and internships in government affairs, health, education, human services, and global and international services. Such opportunities, offered by nonprofit organizations,

provide interested people with experience and training in government work and help pave the way for a full-time career in government. Others may apply directly to Capitol Hill positions or break into government by working through state and local agencies. Another option is to work for consulting firms with large government contracts. These firms may place scientists in government agencies.

Undergraduate and graduate students who already know they are interested in the intersection of neuroscience and policy might be able to begin moving in this direction while still in school. Students can consider taking courses at public health, policy or business schools; volunteering on political or policy campaigns; or exploring research focused on policy issues. Also, there are a few policy masters and doctoral programs that have a specific “neuroscience and public policy” track with joint degrees in neuroscience (PhD) and policy (Master’s in public policy) or law (JD). If this is the direction a young scientist wants to go in, it is never too early to network and seek out mentors.

Career Trajectories

A career in government can begin in many different ways. Some government employees begin their career in academia. They may be at the assistant or associate professor level when they decide to move to government. Others may obtain a full-time job; receive a fellowship, such as through the AAAS Science & Policy Fellowships (http://fellowships.aaas.org/PDFs/2013-14_info%20sheet.pdf); or participate in another kind of training program immediately following PhD training.

The government offers many opportunities for upward mobility for scientists. Some agencies allow staff to spend a short time ("a detail") at another institute or government office. These short-term appointments are an excellent way to find out if the alternative situation is a viable option. NSF also allows scientists from academia to spend one or more years working as a program officer. In some cases, the scientists return to their institutions, but others opt to make a permanent transition.

Employment Outlook

The employment outlook in government can be promising for scientists, but national budgets drive hiring. Federal and state agencies are the nation's largest employer, and many agencies have openings for neuroscientists interested in program management. In the U.S., the most likely prospects include NIH, NSF, Capitol Hill, and consulting firms. Internationally, positions may be available at the national or regional level.

Salary Information

Salaries in the U.S. federal government fall on the grade system, or GS, scale. Although salaries have been frozen for the last few years, federal employees tend to get small raises through step increases within the same grade. Junior level scientists usually start at a GS-12 or 13, while more senior scientists begin at a GS-14. The highest grade on this scale is a GS-15. High-level government opportunities, or Section C positions, are an option for senior scientists. Presidential appointees determine who fills these positions, and the salaries begin at the GS-15 level. Government salaries by grade can be found at <http://www.opm.gov/oca/12tables/pdf/ga.pdf>. International considerations may vary.

What You Can Do Now

Undergraduate Student: An interest in government work can emerge as early as the undergraduate years. Becoming involved in student government or committees is a good way to find out about this career path. Rising neuroscientists can join SfN and try to attend the Annual Meeting. Even as an undergraduate, it is never too soon to start networking and meeting people. Down the road, early contacts can become career connections.

Graduate Student: There are numerous opportunities in graduate school available to those interested in a government career. Many neuroscientists who work in policy attend the SfN Annual Meeting. One idea is to visit the nonprofit and government row on the exhibit floor; many neuroscientist program officers attend to talk about funding and priority programs, but would be happy to talk about career paths in government. Research, preparation, and a willingness to ask for 30 minutes of someone's time can pay off. If government work continues to seem like an attractive career path after completing graduate school, it is a good idea to start looking for opportunities while you're still working on your dissertation.

Early Career: In addition to the AAAS fellowship program, the Presidential Management Fellowship (PMF) program is another entry point (<http://www.pmf.gov/opportunity/index.aspx>). This fellowship is a two-year appointment and offers leadership training, placement in an agency, and feedback on your work. The Hellman Fellowship in Science and Technology Policy (<http://www.amacad.org/hellman.aspx>), OSTP Student Volunteer Program (<http://www.whitehouse.gov/administration/eop/ostp/about/student>), and the National Academies Christine Mirzayan Science & Technology Policy Graduate Fellowship Program (<http://sites.nationalacademies.org/pga/policyfellows/index.htm>) offer additional opportunities. Young professionals might also want to participate in SfN's Capitol Hill Day, when neuroscientists have an opportunity to meet with lawmakers to discuss advances in the field and funding priorities.

Mid-Career: Assistant or associate professors may decide to make a change at this juncture. With more experience, it is possible to enter the federal system at a higher grade. If a mid-level scientist is interested in making a change but is having trouble finding a suitable position, applying for a short-term assignment at an agency is a good entry point. It also may be helpful to attend conferences at NIH or large meetings sponsored by AAAS or SfN. These venues offer the opportunity to meet people who may have suggestions about how to break into the federal system.

Retirees: The government has flexible retirement options. People may phase out of full-time work by going part-time and then cutting back from there. Some U.S. agencies, such as NSF, do not have strict rules about retirement. People can work for as long as they want. Retirees may be able to remain connected to their former agencies and may return as consultants.

For More Information

The following websites have valuable information:

Society for Neuroscience: www.sfn.org

Government Pay Scale: <http://www.opm.gov/oca/12tables/pdf/gp.pdf>

USA Jobs: <https://www.usajobs.gov/>

AAAS Science & Policy Fellowships: http://fellowships.aaas.org/PDFs/2013-14_info%20sheet.pdf

PMF Program: <http://www.pmf.gov/opportunity/index.aspx>

NIH Blueprint for Neuroscience Research: <http://neuroscienceblueprint.nih.gov/>

Research Councils UK: <http://www.rcuk.ac.uk/Pages/Home.aspx>

SfN Capitol Hill Day: http://www.sfn.org/index.aspx?pagename=Capitol_Hill_Day

The Hellman Fellowship in Science and Technology Policy:

<http://www.amacad.org/hellman.aspx>

OSTP Student Volunteer Program:

<http://www.whitehouse.gov/administration/eop/ostp/about/student>

National Academies Christine Mirzayan Science & Technology Policy Graduate Fellowship

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