



## **Careers in Neuroscience/Career Paths: Policy and Advocacy**

### **Introduction**

Becoming involved in policy and advocacy work is a powerful way for scientists to use their expertise to influence change. On the policy side, neuroscientists can join the federal workforce, with the option of working on Capitol Hill on the staff of a congressional member or for a specific agency, such as the [Office of Science and Technology Policy](#) (OSTP), [NIH](#), or [NSF](#). Working in advocacy, neuroscientists can become involved in promoting a particular cause for a nonprofit organization or for a government agency, with the goal of arriving at a specific outcome. Although the tasks of scientists in these positions are different than in the lab, there is some overlap in the required skills.

### **At the Intersection of Science and Policy**

Scientists working in policy believe that science can play an important role in improving society and are passionate about making that happen. For example, a scientist working on Capitol Hill can bring knowledge of physics to conversations about nuclear proliferation. Advocates for more funding for biomedical research can use their knowledge of the current state of research to strengthen the arguments made to policymakers. Scientists can also advocate at the state level for change, such as increasing the number of services covered by insurance companies for conditions such as autism.

Neuroscientists with an interest in foreign policy can take the lead in bringing global health and science issues to the top of the international agenda. Knowing how to navigate the federal bureaucracy to push issues forward are just two examples of how scientists can become effective change agents.

### **Work Description**

The day-to-day work for neuroscientists engaged in policy and advocacy are often defined by the setting. A typical day in the office of a congressional member is different from a day in the office of a government agency or a professional society

#### ***A Day in the Office of a Member of Congress***

There's no typical day in a member of Congress' office. In addition to regular duties, such as reading policy briefs, writing reports, and meeting with lobbyists and constituents, personal staffers must be tuned in to the news and have the ability to switch gears at a moment's notice.

Scientist staffers may be asked to write a speech or talking points for the member of Congress. For these reasons, scientists in these settings must be able to discuss and explain scientific concepts in a way that makes it accessible to the general public. As one scientist working on



Capitol Hill put it, "the message that I get is to talk about findings in lay language. That requires the ability to communicate outside the niche of science."

Unlike personal staffers, people who work for individual committees do not typically work with constituents. Rather they are responsible for most of the legislative work from inception to passage. A staffer in a committee is usually assigned a subset of the committee's issues, and the work can be much more specific and detailed than in a personal office. Committee staffers do a lot of technical writing and research, and the committees that have jurisdiction over scientific agencies often have several scientists on staff to ensure the language in the bill is sound and accurate.

### ***A Day in the Office of a Government Agency***

Scientists in government agencies often work closely with senior staff to coordinate the agencies' science portfolios. For example, at OSTP, a neuroscientist working in the science division may be focused on the future of undergraduate education, how to implement the new neuroscience initiative, and the future of the broader research program.

To accomplish these goals, scientists must be able to build relationships with people in science policy in the White House and on Capitol Hill, write policy briefs, [communicate science to non-scientists](#), and conduct research. In some instances, a scientist may be part of a team developing a comprehensive policy paper on a complex and sometimes controversial topic. This work requires the ability to collaborate with others, discuss research points with experts, and pull together sections written by different people to create a coherent report with a strong voice.

### ***Advocacy Work***

Many nonprofits and professional organizations, such as SfN, have [advocacy departments](#) that advocate for the issue or industry they represent. An advocate for an organization or a professional society collaborates with colleagues to find the most effective way to bring their message to Capitol Hill or to a state capital. Advocates try to build grassroots support through letter-writing campaigns, events to raise awareness for their cause, and social media such as Facebook and Twitter. Other tasks include ghostwriting opinion pieces for local newspapers and attending briefings on Capitol Hill.

Scientists working in advocacy in professional societies get their members involved by training them on how to advocate for a particular issue, such as increased funding for research and development.

Sometimes many organizations come together to form a coalition advocating for a specific cause. Coalitions also promote research, sponsor briefings for staff, and submit annual testimony to Congress. Executing these tasks involves strong organizational, writing, and communication skills. These abilities are needed to create a persuasive narrative to share with



external stakeholders. In addition, multitasking is important to ensure that all aspects of the job get done.

### **Place(s) of Employment**

The federal government has many opportunities for neuroscientists interested in policy. In addition to agencies within the Department of Health and Human Services, such as NIH, CDC, and FDA, scientists can find rewarding positions in the Environmental Protection Agency, Department of Agriculture, Department of Energy, Department of Defense, and State Department, as well as within the legislative branch. Science and Technology Fellowships offered through AAAS are a way for scientists to enter a career in government.

For those interested in advocacy, employment options include nonprofit organizations, professional societies in the United States and abroad, advisory groups charged with making recommendations to their country's government, and organizations focused on diseases and disorders.

### **Personal Characteristics**

Neuroscientists working in the policy and advocacy sectors are highly organized and strategic, and they have the ability to think about science with the big picture in mind. They thrive in a high-energy environment and relish the chance to help shape decisions that might affect the scientific enterprise. To this end, they are committed to staying current with ongoing research endeavors. They also are resourceful, hardworking, and have the ability to assimilate new knowledge quickly. They have strong people skills and the ability to either juggle many tasks themselves or delegate them appropriately. Scientists in this field are "quick studies" and can figure out how to navigate large bureaucracies to ensure that their mission, ideas, and budget concerns are put forth in a timely fashion.

### **Education/Training**

Typically, careers in policy and advocacy are possible for those with undergraduate or graduate training in neuroscience. As undergraduates, individuals may have majored in a related area, such as math, computer science, biology, physics, chemistry, or psychology. If young scientists know they are interested in policy work, they may take undergraduate courses in government or international relations. With the growing realization of the connections between science and policy, some universities are now offering interdepartmental courses on this topic.

Neuroscientists moving in this direction may then go on to graduate school in neuroscience or a related field, earning a PhD. Others may pursue master's degrees in related fields of interest, such as public policy or public health.



There are mixed opinions about whether it is necessary to do a postdoctoral fellowship when pursuing a career in policy or advocacy. Fellowships, such as those offered by AAAS, often are sufficient additional training for this career path.

### **Career Trajectories**

Many neuroscientists with a PhD point to the [AAAS Science and Technology Policy Fellowship program](#) as a good way to gain entry into policy and advocacy work. Although the numbers vary from year to year, there are typically about 30 fellows in Congress and 145 fellows in the executive branch. Congressional placements, as well as some in the executive branch, are sponsored by partner organizations. Typically assigned one-year placements, fellows can extend their appointment for an additional year. Some fellows continue on in a full-time job in the department where they were placed.

The AAAS fellowship program is extremely competitive. Applicants can enhance their application by demonstrating experience working for a cause or issue they believe in. For example, some fellows have worked to improve the quality of science teaching at different levels, from kindergarten through college. Others have taken on the cause of ensuring that graduate students receive health benefits.

AAAS has more [resources](#) with similar policy fellowship programs in a variety of fields including the biological sciences offered by the American Institute of Biological Science;, health policy fellowships offered by the Robert Wood Johnson Foundation;, and fellowships in physical science offered by the Fulbright Public Policy Fellowships.

For those looking to see what a career in science policy might be like, consider [SfN's Early Career Policy Fellows Program](#). The program is largely completed from participants' local districts but also gives them the opportunity to travel to Washington, DC, for a training session focused on advocating for science and an opportunity to meet with members of Congress. SfN also has a fellowship program held in at SfN's headquarters in Washington, DC, for a year of work in policy and advocacy. This is an excellent way for recent neuroscience PhDs to see what this work is like and whether they would like to pursue this career path.

The [government](#) has numerous job opportunities for scientists interested in policy work. Many agencies, such as NIH, NSF, and CDC, as well as the Department of Energy, the Department of Defense, and the Department of Agriculture, are looking for people with a scientific background.



## Employment Outlook

Over the last few decades, the Bureau of Labor Statistics has reported that the nonprofit sector is growing, signaling that this career path may be advantageous.

For scientists, there are numerous opportunities in scientific nonprofits. Large, established organizations have large staffs and often have opportunities for individuals with a PhD in science interested in pursuing advocacy. Other possibilities include professional organizations, such as SfN, as well as smaller, mission-driven nonprofits, such as the Global Virus Network. Most science organizations that look to the federal government or to specific states for funds have a need for scientists interested in advocacy.

## What You Can Do Now

SfN offers opportunities to get involved at all career levels. Attending [SfN's annual Capitol Hill Day](#) is a way to meet other scientists who are interested or working in the policy field.

***Undergraduate Student:*** An interest in working for a cause you believe in can emerge as early as the undergraduate years. Becoming involved in student government or committees is a good way to test the waters. It is never too soon to start networking and meeting people. Down the road, early contacts can become mentors.

***Graduate Student:*** Serving on committees and taking on leadership roles at school and within professional organizations offers rising scientists invaluable experience. By attending the [SfN annual meeting](#) every year and being proactive by seeking out experts from diverse career paths, graduate students have opportunities to meet people who may become important as careers evolve and develop. Internships can lead to future opportunities either within the organization or elsewhere, even if the targeted organization doesn't have a formal program. Being persistent — a quality needed for the field — will probably impress management at the organization. This is also the time to start looking into fellowships, which young neuroscientists may be eligible for while still in school or immediately after. Finally, LinkedIn is an excellent resource to use to get hired and to find contacts in organizations that interest you.

***Early Career:*** If pursuing a career in an organization with a strong science focus, some people in the field think that doing a postdoc is an asset. But those who know they would like to work in policy or advocacy should talk with knowledgeable people in their field of interest before making that assumption.

Because the job market is competitive, it is important to begin the job search while still in school or before the fellowship or postdoc has ended. When looking for a job, be sure to cast a wide net, looking at LinkedIn, organization websites, listings in job banks from professional organizations such as [SfN](#), or through contacts, such as your advisors, who may be serving on nonprofit science advisory boards. If an individual is interested in



doing policy work for the federal government, applying for a AAAS Science and Technology Policy Fellowship is another option, although a person with a PhD is eligible for this fellowship at any career stage. After landing the first job, take full advantage of the experience and learn as much as possible. "You can't always map out your career path," notes one leader in the nonprofit sector. "If you know what you like to do, you should always be open to new opportunities."

**Mid-Career:** At mid-career, people may already have had numerous jobs. That is typical of careers in the federal government and being involved in advocacy in the nonprofit sector. Scientists move around, gaining experience at one agency or organization, defining their interests, and then moving to an agency or nonprofit more in alignment with those interests. The more experience someone has, the easier it is to find rewarding work. Remaining active in the field by serving on an SfN committee can add to an individual's skill set and increase his/her network of contacts. Since the nonprofit science community is fairly small, being at the right place at the right time pays off.

**Retirees:** Most retirees from nonprofits continue to be connected to their organization. They may still engage in fundraising, or they may be invited back to serve on panels or speak at special events. If people follow their passions, they usually find that they are welcome at their former place of work for life.

### **For More Information**

The following websites have valuable information:

[Society for Neuroscience](#)

[Science Magazine](#)

[AAAS Science and Technology Policy Fellowships](#)

[Other Fellowship Opportunities](#)

[Federal Jobs](#)

[SfN's NeuroJobs Career Center](#)