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Federal Term Appointment Hiring Authorities for Science, Technology, Engineering, and Mathematics Personnel

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INSTITUTE FOR DEFENSE ANALYSES

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Executive Summary

Science, technology, engineering, and mathematics (STEM) personnel work across the Federal Government in support of agency missions and are employed in a variety of positions. Federal STEM personnel are critical to advancing new scientific fields, ensuring national security, and promoting economic prosperity. While many of the STEM personnel hired by Federal agencies are appointed to permanent positions, agencies may benefit from hiring some of these STEM personnel into positions of a nonpermanent (time-limited) nature. Using time-limited STEM appointments can help agencies promote the flow of innovative ideas and expertise through their agencies, flexibly shape their STEM workforces to meet their changing needs, and evolve by keeping abreast with continual advancements in science and technology (S&T) fields. Term appointments are one type of nonpermanent, time-limited appointments.

The White House Office of Science and Technology Policy (OSTP) asked the IDA Science and Technology Policy Institute (STPI) to (1) analyze agency-reported hiring data within the Office of Personnel Management (OPM) Enterprise Human Resource Integration (EHRI) system to illustrate the use of term appointments for STEM positions across the Federal Government, (2) identify hiring authorities that agency human capital officials use to make term appointments for STEM positions, (3) interview human capital officials and report on benefits and challenges they have experienced when using term-appointment authority for STEM positions, and (4) provide human capital officials' policy recommendations to improve the use of term-appointment authorities.

Methodology

STPI researchers used three sources of information for this work:

- *OPM EHRI data:* After an initial analysis of the EHRI data, STPI researchers concluded that OPM's EHRI system does not track term appointments as a distinct category from other nonpermanent appointments, such as temporary and indefinite appointments. OSTP therefore requested that STPI analyze the data for STEM nonpermanent and permanent hires, as well as total hires, made by select agencies between fiscal years (FYs) 2005 and 2012.
- *Literature review*: The STPI team identified Federal hiring authorities that have term components through a literature review of legislation, regulations, and agency policies.

• *Semi-structured interviews*: Team members interviewed 23 human capital officials from various Federal agencies that employ STEM personnel. Human capital officials reported a diversity of benefits and challenges related to their agency's use of term appointments and the term appointment hiring authorities available to them.

Overview of Term Appointment Authorities

Term appointments are nonpermanent appointments that are longer than one year but have a prescribed not-to-exceed (NTE) date, which defines the end date of their tenure. All agencies have term-appointment authority under the regulations of Title 5 Code of Federal Regulations (CFR) Parts 316.301–316.304, which authorize term appointments for a period up to 4 years. Supplementary hiring authorities that provide additional term flexibilities not available through the Title 5 authority are also granted to specific agencies. These additional term flexibilities include setting longer term lengths, the ability to extend term appointments, and the ability to noncompetitively convert term appointees to permanent positions in the competitive service.

OPM EHRI Data Findings

STPI researchers derived findings from OPM's EHRI nonpermanent STEM hire data on use over time of STEM nonpermanent appointments throughout the Federal Government and in select agencies.

Federal use of STEM nonpermanent appointments have remained stable over time

STEM nonpermanent appointments remained stable as approximately 2% of total hires between FYs 2005 and 2012, even as STEM permanent appointments increased from approximately 4% to 5.5% of total hires.

Hiring of STEM nonpermanent appointments varies across Federal agencies

There is variance among agencies as to both the percentage of their workforce hired into STEM positions and the proportion of nonpermanent to permanent appointments for new STEM hires. For example, an average of 80% of new STEM hires for the National Science Foundation between FYs 2005 and 2012 were nonpermanent appointments, while only an average of 4% of new STEM hires for the Department of Justice were nonpermanent. This disparity suggests individual agencies use nonpermanent hiring authority to varying degrees, and this is likely due to different organizational structures, needs, and missions as well as to the hiring authorities available to agencies.

Hiring Authorities Identified with Term Appointment Component

STPI researchers identified 20 Federal Government-wide, agency-specific, and multi-agency hiring authorities with term components. Each authority may have unique term lengths, conditions for extensions, conversion authorities, basic pay, and aggregate pay caps, yet do not necessarily touch upon all of these elements. Most hiring authorities with term components are agency-specific and are not available to all Federal agencies. In addition, most agency-specific hiring authorities with term components allow agencies to set the tenure of their term appointments to more than the 4 years authorized in the standard Title 5 term appointment authority. Hiring authorities with term components may also have additional flexibilities that allow agencies to convert term appointees into competitive service positions (e.g., the National Aeronautics and Space Administration's term appointment authority) and set basic pay compensation outside of the civil service pay scale known as the General Schedule (e.g., the Department of Energy's EJ and EK term appointment authority).

Benefits and Challenges of Using Term Appointments

During interviews, human capital officials reported benefits and challenges related to their agencies' use of term appointments and related hiring authorities. Benefits reported include:

- **Increased agency control in shaping its STEM workforce**. Because term appointments are short in duration, agencies can adjust their workforces by extending, converting, or concluding the appointments as appropriate to meet current and anticipated needs.
- **Improved management of research portfolios**. Term appointees hired as program managers may help to bring in novel management styles from industry and academic backgrounds. They may also provide new and innovative directions for their research portfolio.
- Ability to attract high-quality term applicants. Human capital officials that use term appointments to hire management-level positions such as program managers and directors reported that the short-term nature of these positions helped to attract the quality of candidates they wished to recruit.

Human capital officials also reported challenges related to using term appointments, including:

• **Conversion of term appointments**. Term conversion authority allows some agencies to noncompetitively convert a term employee and the associated term position into the Federal competitive service. For agencies without term conversion authority, staffing challenges may arise when a project for which a

term appointee was initially hired transitions to a project of unlimited duration that requires the term employee to remain on staff as a permanent employee.

- Extension of term appointments. A project for which a term appointee was initially hired may extend beyond the initial time allowed under the term appointment. The inability to extend a term appointee creates risk and may result in the loss of experienced individuals that have developed project-specific experience and knowledge over the course of their tenure.
- Length of initial Title 5 term appointments. Title 5 term appointment authority allows for initial appointment lengths to be 1 to 4 years, but no longer. Several agencies reported STEM projects of a time-limited nature may require term appointments longer than the 4 years granted under Title 5 term appointment authorities.
- Loss of human capital investment: Reluctance to use term appointments may arise due to perceptions that agencies could "lose" their human capital investment in term employees at the completion of their appointments.
- Inequalities between term employees with term and those with permanent appointments. Perceived and real inequalities between employees with term and career appointments may negatively affect agency culture.

Policy Recommendations from Human Capital Officials

STPI researchers asked human capital officials for policy recommendations to improve the use of term appointment authorities. Human capital officials provided both specific recommendations relevant to their immediate agency needs and more general recommendations. Most of their recommendations focused on establishing or extending term appointment authority flexibilities and can be broadly categorized as follows:

- Allow longer initial term appointment lengths. STEM projects of a timelimited nature may require term appointments longer than the typical 4 years granted in Title 5 and other term appointment authorities. In such instances, longer initial term appointment lengths could be authorized.
- **Delegate approval authority for term extensions**. Delegating approval authority for term appointment extensions to hiring managers could allow for quicker extensions with less administrative processes.
- **Increase speed and flexibility of appointee hiring**. Administration of the hiring process can be an impediment to recruiting and hiring STEM term candidates. To address inefficiencies within the hiring process, agencies could review their own hiring practices for term appointees and make alterations in their internal processes in order to mitigate administrative delays and increase flexibility.

• **Provide noncompetitive conversion authority**. Noncompetitive conversion authority can be useful when an agency wants a term employee to become a permanent employee, particularly when a term project evolves into a permanent agency need and the agency needs to retain the expertise of the term appointee.

Conclusion

All Federal agencies have access to term appointment authority under Title 5 CFR Part 316.301–316.304. However, some agencies also have supplementary hiring authorities that are granted specifically to provide additional term flexibilities not available through Title 5. The differences between Federal Government-wide and agency-specific authorities explain, in part, why the data analysis in this report demonstrated that the use of nonpermanent STEM appointments across Federal agencies is inconsistent. It also explains, in part, why human capital officials reported varied opinions as to the benefits and challenges of using term appointment authorities. However, additional research is needed to better understand the relationships between reported benefits and challenges, agency-specific term appointment authorities, and agency mission requirements.

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Science, technology, engineering, and mathematics (STEM) personnel work across the Federal Government in support of agency missions and are employed in a variety of positions. Federal STEM personnel are critical to advancing new scientific fields, ensuring national security, and promoting economic prosperity. While many of the STEM personnel hired by Federal agencies are appointed to permanent positions, agencies may benefit from hiring some of these STEM personnel into positions of a nonpermanent (time-limited) nature. Using time-limited STEM appointments can help agencies promote the flow of innovative ideas and expertise through their agencies, flexibly shape their STEM workforces to meet their changing needs, and evolve by keeping abreast with continual advancements in science and technology (S&T) fields. Term appointments are one type of nonpermanent, time-limited appointments.

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A. Methodology

1. OPM data

After an initial analysis of the EHRI data, a team of STPI researchers concluded that OPM's EHRI system does not track term appointments as a distinct category from other nonpermanent appointments, such as temporary and indefinite appointments. OSTP therefore requested that STPI analyze the data for STEM nonpermanent and permanent hires, as well as total hires, made by select agencies between fiscal years (FYs) 2005 and 2012. The team then calculated each agency's ratio of STEM nonpermanent to STEM permanent appointments over time to analyze STEM nonpermanent hiring trends within the Federal Government. This analysis helped to illustrate the landscape of the past and current STEM nonpermanent hiring practices within the U.S. Government and provided context on how Federal agencies use nonpermanent appointments, such as term appointments.

2. Literature review

STPI researchers identified 20 Federal hiring authorities that have term components through a review of legislation, regulations, and agency policies.

3. Semi-structured interviews with human capital officials

STPI researchers interviewed 23 human capital officials from various Federal agencies that employ STEM personnel. A full list of interviewed human capital officials can be found in Appendix A. The officials interviewed reported benefits and challenges related to their agency's use of term appointment hiring authorities and employment of term appointees. After the interviews were completed, the research team followed up with interviewees to verify information gathered and offered them an opportunity to comment on benefits and challenges identified by other human capital officials. Appendix B provides details.

B. Defining Term Appointment

Federal appointments can be broadly categorized as permanent or nonpermanent. Permanent appointments are more traditional for Federal positions within the competitive service and have no proscribed end date. In contrast, nonpermanent appointments may have a specified end date, depending on the type of nonpermanent appointment (Figure 1).

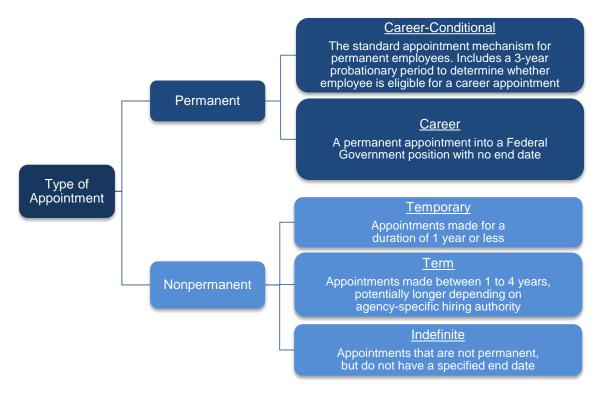


Figure 1. Categories of Permanent and Nonpermanent Federal Appointments

Nonpermanent appointments are primarily classified as one of three types: temporary, term, and indefinite appointments.¹ Temporary appointments have specific not-to-exceed (NTE) dates that are limited to a year or less.² Term appointments are nonpermanent appointments that are longer than a year but have an NTE date. Typically, the NTE date of term appointments is between 1 and 4 years, but some agencies have the authority to set the NTE date of their term appointments to more than 4 years. Indefinite are nonpermanent, yet have no prescribed NTE date, which defines the end-date of their tenure.³ In contrast, temporary and term appointments are both time-limited (i.e., they have a specified NTE at the point of hire).

C. Term Appointments and Hiring Authorities

All agencies have access to a Federal Government-wide authority provided by the regulations of Title 5 Code of Federal Regulations (CFR) Parts 316.301–316.304. Supplementary hiring authorities granted to specific agencies provide additional flexibilities not available through Title 5 authority. Such flexibilities can include the ability to set longer term lengths, extend term appointments, and convert term appointees to permanent positions in the competitive service.

D. Report Structure

The structure of this report is as follows:

- Chapter 2 provides data and analysis on historic agency hiring practices of STEM nonpermanent and permanent employees between FYs 2005 and 2012.
- Chapter 3 presents a table of identified hiring authorities that agencies use to make term appointments.
- Chapter 4 reports the benefits and challenges of using term appointments, as reported by agency human capital officials.
- Chapter 5 provides OSTP with an analysis of policy recommendations suggested by human capital officials to facilitate use of term appointments.

¹ Other nonpermanent appointments include temporary appointments pending establishment of a register (also referred to as TAPER appointments) authorized by OPM and emergency-indefinite appointments authorized by Title 5 CFR Part 230 and 402.

² See OPM's definition of "temporary appointments" at https://www.opm.gov/policy-dataoversight/hiring-authorities/competitive-hiring/.

³ See OPM's definition of "indefinite appointments" at https://www.opm.gov/policy-data-oversight/dataanalysis-documentation/personnel-documentation/processing-personnel-actions/gppa35.pdf.

2. Data on Personnel with Nonpermanent Appointments

A. Data Analysis Method

STPI researchers worked with OPM to identify agency hiring data within its EHRI system. The EHRI is an electronic record with employment data such as term status and base salary on 2 million Executive branch employees (excluding the Intelligence Community). The following Federal entities were selected for inclusion in the analysis based on their STEM personnel hiring rates:

- Department of Justice (DOJ)
- Department of State (DOS)
- Department of Homeland Security (DHS)
- Department of Agriculture (USDA)
- Department of Interior (DOI)
- Department of Defense (DOD)
 - Office of the Secretary of Defense (OSD)
 - Military Departments
- Department of Commerce (DOC)
- Department of Health and Human Services (HHS)
- Department of Energy (DOE)
- Environmental Protection Agency (EPA)
- National Science Foundation (NSF)
- National Aeronautics and Space Administration (NASA)
- Nuclear Regulatory Commission (NRC)

From its EHRI-Statistical Data Mart (EHRI-SDM), OPM extracted STEM nonpermanent and permanent new hires as well as total agency new hires from select Federal agencies between FYs 2005 and 2012. From these data, STPI researchers calculated the percentage of total Federal hires that were STEM nonpermanent and permanent hires. The same percentage was also calculated for each agency. Trends

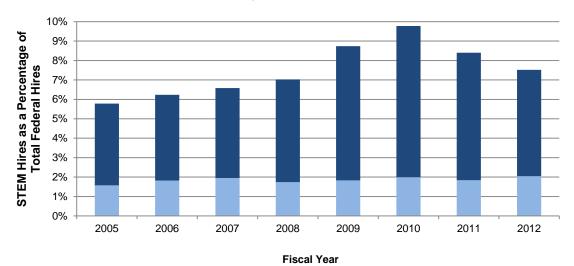
derived from the results of these calculations provide an overview of the past and current STEM nonpermanent hiring practices within the U.S. Government. Raw data from OPM's EHRI-SDM system can be found in Appendix C.

B. Findings

STPI researchers derived the findings discussed here from the nonpermanent STEM hiring data on the use of STEM nonpermanent appointments over time throughout the Federal Government and within specific agencies.

1. Federal use of STEM nonpermanent appointments have remained stable over time

STEM nonpermanent appointments have hovered around 2% of total hires between FYs 2005 and 2012, even though the percentage of all STEM hires (both permanent and nonpermanent) among Federal hires have varied. While the percentage of total STEM hires jumped from 5.3% in FY 2008 to 7.8% FY 2010 (a period when the Federal budget was heavily influenced by the American Recovery and Reinvestment Act of 2009 and funding to Federal agencies increased), total STEM nonpermanent hires increased a modest 0.3% during this time (Figure 2).



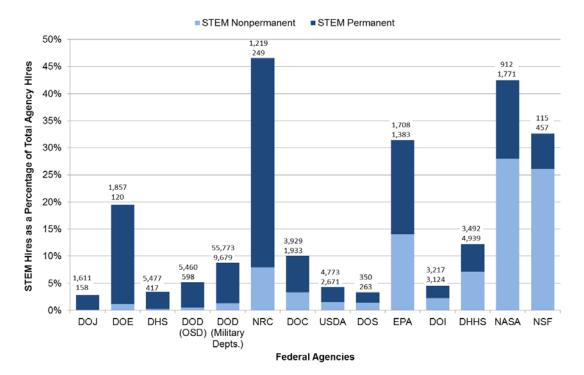
STEM Nonpermanent STEM Permanent

Figure 2. STEM Nonpermanent and Permanent Hires as a Percentage of Total Federal Hires, FY 2005–2012

Note: Total STEM hires of select agencies were calculated as a percentage of total hires for each fiscal year between 2005 and 2013, as represented by the vertical axis. The red (bottom) section of each column represents the portion of STEM hires that were nonpermanent. The dark blue (top) section of each column represents the portion of STEM hires that were permanent. While the percentage of STEM permanent hires have varied between FYs 2005 and 2012, the percentage of STEM nonpermanent hires have remained relatively stable at 2% of total hires.

2. Hiring of STEM nonpermanent appointments varies significantly across Federal agencies

There is significant variance among agencies as to both (1) the percentage of their workforce which are hired into STEM positions and (2) the proportion of STEM permanent to nonpermanent appointments for new hires (Figure 3). For example, an average of 80% of NSF's new STEM hires between FYs 2005 and 2012 were nonpermanent appointments while only an average of 4% of DOJ's new STEM hires were nonpermanent,⁴ suggesting that the degree at which individual agencies use nonpermanent hire varies—possibly due to the different organizational structures, needs, and missions of agencies as well as variability of hiring authorities available to agencies.



Note: STEM hires for each agency were calculated as an average percentage of total hires made by each agency between FY 2005 and FY 2012. Taller columns indicate agencies that hire a higher percentage of STEM personnel into their workforce. Each agency's percentage of STEM new hires is split to show the proportion of STEM new hires that are nonpermanent (red, bottom section) and permanent (dark blue, top section). The average number of STEM nonpermanent and permanent hires between FY 2005–FY 2012 for each agency are labeled above their column with the top number representing average permanent STEM hires. The further to the right of the graph the agencies are presented, the higher the average percentage of STEM nonpermanent hires.

Figure 3. STEM Hires as an Average Percentage of Total Agency Hires, FY 2005–2012

⁴ Refer to Appendix C for a table showing percentages of STEM nonpermanent new hires relative to STEM permanent new hires by agency and fiscal year.

For example, the mission requirements of NSF and NASA may lend to greater use of STEM nonpermanent appointments. NSF has a unique model of using rotating STEM nonpermanent appointments from academia to staff its program offices. Until recently, NASA has had S&T mission requirements for its Space Shuttle program that require subject matter experts to work on a program for a limited duration. These unique mission requirements explain, in part, the reason NSF and NASA have historically had a higher proportion of STEM nonpermanent versus permanent hires than other agencies. Furthermore, NASA and NSF use agency-specific hiring authorities with additional term flexibilities not available in the Federal Government-wide Title 5 term appointment authority. NASA can set its initial term tenures to be from 1 to 6 years as opposed to 1 to 4 years as authorized by the Title 5 term appointment authority.⁵ NSF's "Excepted Authority of the NSF Act^{"6} does not place statutory limits on the agency's use of term appointment. However, at its own discretion, NSF can limit the term appointments made into its rotator programs to 1 to 3 years to NSF needs. These agencies' term flexibilities may help to explain the higher proportion of nonpermanent versus permanent STEM appointments at NASA and NSF.

Note that DOE has a low ratio of STEM nonpermanent appointments compared to STEM permanent appointments, yet has a high percentage of STEM new hires. This may be due to the fact that the DOE personnel data reported to OPM does not include DOE National Laboratories, which conduct much of DOE's in-house research and development (R&D) but whose employees are contractors, not Federal personnel. In addition, there are smaller subagencies within larger agencies (i.e., departments) that reported more substantial use of term appointments in field interviews than is represented in the departmental OPM EHRI data. For example, the Defense Advanced Research Projects Agency (DARPA) and Advanced Research Projects Agency–Energy (ARPA-E) are subagencies of DOD and DOE, respectively, and a much higher percentage of their new hires are STEM term appointments than observed at their respective departments.

⁵ See Chapter 3 and Appendix D for details about NASA's term appointment hiring authority.

⁶ The "Excepted Authority of the NSF Act" authorizes NSF to make term appointments for some of its rotator programs including the Visiting Scientists, Engineer, and Educator Program. More information about this hiring authority can be found in Appendix D.

3. Hiring Authorities Identified with Term Appointment Components

The term length (tenure) of an appointment is often just one element of a hiring authority, and hiring authorities with term components may provide agencies with other employment flexibilities, such as higher basic pay caps, aggregate pay caps, and additional benefits and bonuses.⁷ For this reason, hiring authorities can impact the use of term appointments and shape the conditions of a term appointee's employment.

STPI researchers identified 20 hiring authorities that have term appointment components through a review of legislation, regulations, and agency policies.⁸ Table 1 outlines the term structure of each authority, including term length, term extension limitations, and conversion authority, relevant legislation and regulations, base pay and aggregate pay caps in terms of Executive Schedule Level (e.g., EX-I, EX-II, etc.), and limitations on the number of employees. The table indicates not only the complexity of the Federal onboarding process but also how the authorities that human capital officials use to hire employees place varied conditions and restrictions on an individual's employment. More details on these authorities and their individual hiring components are provided in Appendix D.

Congress (through legislation), the President (through Executive orders), or OPM (if authorized to do so), may delegate hiring authorities across the Federal Government or to specific agencies. Most hiring authorities with term components are agency-specific and are not available to all Federal agencies (e.g., the NSF term appointment authority may be used only by NSF). Federal Government-wide hiring authorities with term appointments are available to all Federal agencies, but these are often more restrictive than agency-specific authorities. For example, term appointments of Senior Executive Service (SES) employees are limited to 3 years.

⁷ See OPM guide on "Human Resources Flexibilities and Authorities in the Federal Government" at https://www.opm.gov/policy-data-oversight/pay-leave/referencematerials/handbooks/humanresourcesflexibilitiesauthorities.pdf for information on some of the flexibilities and hiring authorities available to agencies.

⁸ Note that although STPI researchers conducted a thorough literature review, the table should not be considered exhaustive since the review did not necessarily identify all Federal hiring authorities with term components.

Appointment Type	Authority	Legislation	Term Length	Term Extensions	Conversion Authority	Basic Pay Cap	Aggregate Pay Cap	Limits on Number of Employees
Applicable to All Federal Agencies								
Term Appointment	5 CRF Part 316	Public Law 89- 554 (80 STAT. 378), 1966	Up to 4 years	Extensions up to the 4-year limit	No	N/A	N/A	Not specified
Temporary Appointment	5 CRF Part 316	Public Law 89- 554 (80 STAT. 378), 1966	1 year or less	Extensions up to 1 additional year	No	N/A	N/A	Not specified
Senior Executive Service (SES) Authority	42 U.S.C. § 1863(g) and 5 U.S.C. § 3131–3152	National Science Act of 1950	Up to 3 years	No extensions	Yes	EX-II (\$181,500)	Not specified for term appointments; career appointments are limited to EX-I	Up to 5% of all Federal SES nonpermanent appointments
Applicable to Multiple Federal Agencies								
Title 42, Special Consultants	42 U.S.C. § 209(f); 42 CFR Part 22.3(a)	Not found	Up to 5 years	Unlimited extensions	Not specified	No statutory cap, \$250,000 (2011) for DHS (with Assistant Secretary approval for amounts above this value); \$350,000 for NIH, FDA, and CDC; EX-IV (\$157,100) for time-limited appointments	Not specified	Not specified
Title 42, Fellows	42 U.S.C. § 209(g)	Not found	Up to 5 years	Unlimited	Not specified	No statutory cap, EX-IV (\$157,100) for HHS	Not specified	Not specified
Term Appointment, Defense Civilian Intelligence	10 U.S.C. § 1608	National Defense Authorization Act (NDAA) FY 1997	Up to 1 year	Extensions up to 1 additional year	Yes	Not specified	Not specified	Not specified

Table 1. Authorities Related to Term Appointments

Appointment Type	Authority	Legislation	Term Length	Term Extensions	Conversion Authority	Basic Pay Cap	Aggregate Pay Cap	Limits on Number of Employees
Applicable to Multiple Federal Agencies (continued)								
Highly Qualified Experts, Intelligence Community	50 U.S.C. § 403-1(f)3(a)iii	National Security Act of 1947	Up to 5 years	Extensions up to 1 additional year	Not specified	Up to the salary of the Vice President (\$233,000)	Cannot exceed limit set by 3 USC 104 (\$233,000)	No Limits
Applicable to Specific Federal Agencies								
Term Appointment, National Science Foundation (NSF)	42 U.S.C. § 1863(g) (also see 42 U.S.C. § 1873(a)(3))	National Science Act of 1950	Varies	Varies	Not specified	EX-III (\$167,000)	Not specified	Not specified
Department of Homeland Security (DHS),Homeland Security Advanced Research Projects Agency (HSARPA)	6 U.S.C. § 187	Homeland Security Act of 2002	Up to 5 years	Extensions up to 2 additional years (with DHS Secretary's approval)	Not specified	OPM interprets as EX-IV rate (\$157,100)	Not specified	Not specified
Advanced Research projects Agency–Energy (ARPA-E)	42 U.S.C. § 16538(g)	America COMPETES Act of 2007	Fellowships, 2 years; Program Director, 3 years	Extensions up to 2 additional years	Not specified	EX-II (\$181,500)	Calendar-year limitation under Title 5 U.S.C. § 5307(a)(1)	120 maximum
Broad Term Appointment, NASA	5 U.S.C. § 9806	NASA Flexibility Act of 2004	–Up to 6 years	Extensions up to the 6-year limit	Yes	Not specified	Not specified	Not specified
Excepted Service Authorities for EK and EJ Pay, Department of Energy (DOE)	42 U.S.C. § 7238	Hydrogen Future Act of 1996	Noncompetitive appointments, 2 years; other time-limited appointments, up to 4 years	Renewal is necessary to extend	Yes	EX-III (\$167,000)	EX-I (\$201,700)	200 each for E and EK

Appointment Type	Authority	Legislation	Term Length	Term Extensions	Conversion Authority	Basic Pay Cap	Aggregate Pay Cap	Limits on Number of Employees
Applicable to Specific Federal Agencies (continued)								
Experimental Personnel Management Program, Defense Advanced Research Projects Agency (DARPA)	5 U.S.C. § 3104	NDAA FY 1999, Section 1101	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2013, 60 maximum
Specially Qualified Scientific and Professional Personnel, National Security Agency (NSA)	5 U.S.C. § 3104	NDAA FY 2001, Section 1113	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2001, 10 maximum
Specially Qualified Scientific and Professional Personnel, National Geospatial- intelligence Agency (NGA)	§ 3104	NDAA FY 2001, Section 1113	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2001, 10 maximum
Specially Qualified Scientific and Professional Personnel, Department of Defense (DOD), Office of the Secretary of Defense (Research and Engineering)	§ 3104	NDAA FY 2008, Section 1108	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2008, 20 maximum
Specially Qualified Scientific and Professional Personnel, DOD Office of the Director, Operational Test and Evaluation	5 U.S.C. § 3104	NDAA FY 2012, Section 1111	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2012, 10 maximum

Appointment Type	Authority	Legislation	Term Length	Term Extensions	Conversion Authority	Basic Pay Cap	Aggregate Pay Cap	Limits on Number of Employees
Applicable to Specific Federal Agencies (continued)								
Specially Qualified Scientific and Professional Personnel, Designated DOD Laboratories	5 U.S.C. § 3104	NDAA FY 2001, Section 1113	Up to 4 years	Up to 2 additional years	Not specified	EX-III (\$167,000)	Calendar-year limitation under 5 U.S.C. § 5307(a)(1)	NDAA FY 2001 - 40 maximum
Highly Qualified Experts, DOD	5 U.S.C. § 9903	NDAA FY 2004	Up to 5 years	Up to 1 additional year	Yes	EX-IV (\$157,100)	Cannot exceed limit set by 3 U.S.C. § 104 (\$233,000)	2,500 maximum
Civilian Faculty at Military Academies	10 U.S.C. §§ 184, 1595, 1746, 2113, 4021, 4338, 6952, 7044, 7478, 9021, 9314, 9338	Uniformed Services Health Professions Revitalization Act of 1972	Up to 5 years	Extendable	Not specified	Not specified	Not specified	No limits
Personnel Demonstration Projects, DOD Science and Technology Reinvention Laboratories (STRLs)	5 U.S.C. § 4703 (also 10 U.S.C. § 2358, in the notes)	NDAA FY 1995	Up to 5 years	Up to 1 additional year	Yes, varies with STRL	Some up to EX-IV (\$157,100)	Some up to EX-I (\$201,700)	Varies

Most authorities are granted in legislation passed by Congress and incorporated as a section of the United States Code (U.S.C). Implementing regulations for these U.S.C. sections are in the Code of Federal Regulations (CFR). Many of the details regarding the mechanism with which an authority may be implemented, the conditions under which the authority can be applied, and the on-boarding flexibilities the authority provides are found in both the relevant U.S.C and CFR. These details include those shown in Table 1: the authority's minimum and maximum term length, ability and requirements to extend an employee's term appointment, ability to noncompetitively convert term appointees to competitive status, basic pay cap, total aggregate pay cap, and limitations on the number of employees that can be hired using the specific authority.

Most agency-specific hiring authorities for STEM positions with term components allow agencies to set term length longer than the 4 years authorized in the standard Title 5 term appointment authority. However, to encourage a constant rotation of personnel, some agencies have hiring authorities that limit the terms to less than the standard 4 years. For example, the Advanced Research Projects Agency–Energy (ARPA-E) limits its fellowship positions to 2 years and its program director positions to 3 years. In contrast, the Department of Health and Human Services (HHS) has a hiring authority under Title 42 U.S.C. 209(f) that has no explicit limits to term length at all. Many of the identified hiring authorities also allow agencies to extend term appointments for one or two additional years beyond the initial term of the appointment. Some authorities, such as the SES authority, have no opportunities for extensions, while the HHS authority provides unlimited opportunities for extensions.

Hiring authorities with term components may have additional flexibilities that allow agencies to noncompetitively convert term appointees into competitive service positions, such as the NASA's broad term appointment authority, and set basic pay compensation outside of the General Schedule (GS) civil service pay scale. For example, DOE can compensate employees hired under these EJ and EK authorities up to a maximum of level III of the Executive Schedule (EX-III), which is currently \$167,000. (For convenience, both the GS and EX salary tables are reproduced in Appendix E). The Highly Qualified Expert authority granted to the Intelligence Community provides the highest pay cap of the authorities identified at a maximum level of the Vice President's salary (currently \$233,000).⁹ Some of the identified hiring authorities also authorize the distribution of cash awards and performance- or contribution-based bonuses. These are often limited by an aggregate pay cap, which is the maximum total amount of compensation an employee hired under the authority may receive in a given year. For example, the maximum basic

⁹ The Vice President's salary is governed by Title 3 U.S.C. § 104, and Executive Order No. 13655 established the current rate.

pay employees hired under the DOE's EJ and EK authorities may receive is EX-III, but the employees may be given additional cash bonuses until their total aggregate earnings (i.e., their basic pay and all additional cash rewards) equal the amount of EX-I, which is currently \$201,700.

4. Benefits and Challenges of Using Term Appointments

Human capital officials reported a range of benefits and challenges related to their agencies' use of hiring authorities with term appointment components. After the interviews were completed, the research team followed up with interviewees to verify information gathered and offered them an opportunity to comment on benefits and challenges identified by other human capital officials. See Appendix B for details. STPI then conducted a qualitative analysis of the compiled benefits and challenges and assimilated them into the higher level categories provided in Sections A and B. All of the benefits and challenges reported in this chapter are derived from interviews with human capital officials.

A. Benefits

Human capital officials reported a range of benefits associated with using term appointments, including:

- Increased agency control in shaping its STEM workforce,
- Improved management of research portfolios, and
- Attracting high-quality term applicants.

Human capital officials with agency-specific term appointment authorities at their disposal reported certain additional flexibilities (e.g., in term length, extension, and conversion) as being particularly useful. The availability of agency-specific term appointment authorities may also contribute to the relatively greater proportion of STEM nonpermanent to permanent new hires in certain agencies (e.g., NASA and NSF) as referenced in Figure 3 in Chapter 2.

1. Increased agency control in shaping its STEM workforce

Due to the short-term nature of term appointments, agencies can extend, convert, or conclude them as appropriate to adjust their workforces to best respond to current and anticipated needs. For example, agencies can quickly adapt their workforce to changing areas of scientific interest by bringing in talented researchers and experts on a time-limited basis. In addition, agencies can hire term employees to meet short-term needs for time-limited projects and staff shortages rather than hiring new permanent employees.

2. Improved management of research portfolios

Several agencies that frequently conduct high-risk, high-reward R&D often hire their program managers for these portfolios as term appointees. Human capital officials from these agencies reported that this practice brings their agencies both novel management styles from industry and academic backgrounds and new and innovative directions for their research portfolios.

3. Attracting high-quality term applicants

Agencies that use term appointments to hire management-level positions, such as program managers and directors or other prestigious positions, such as fellowships, reported that the short-term nature of these positions helped to attract the quality of candidates they wished to recruit. In addition, some agency representatives expressed difficulties in attracting talented STEM candidates away from academic and private sector careers. Term appointments were reported as a mechanism to attract talented STEM candidates who may wish to work in a Federal agency for only a few years before returning to or starting a career elsewhere.

B. Challenges

Human capital officials reported a number of challenges that generally related to

- Conversion of term appointments,
- Extension of term appointments, and
- Issues arising from the transitory nature of term appointments.

1. Conversion of term appointments

Term conversion authority allows agencies to noncompetitively convert term employees and their term positions into the Federal competitive service. For agencies without term conversion authority, staffing challenges may arise when a project for which a term appointee was initially hired transitions to a project of unlimited duration that requires the term employee to remain on staff as a permanent employee.¹⁰ Human capital officials reported that conversion authority streamlines the administrative process and eliminates the risk of losing the term employee due to the hiring process.

¹⁰ While some agencies, such as DOD Science and Technology Reinvention Laboratories (STRLs) and NASA, have the authority to noncompetitively convert their term appointments to career or career-conditional appointments (provided that the term appointment itself was conducted through a competitive examination), the Federal Government-wide term appointment authority applicable to all agencies does not grant agencies conversion authority.

2. Extension of term appointments

A project for which a term appointee was initially hired may lengthen beyond the initial time allowed under the term appointment. In such a case, without an authority to extend a term appointee, an agency would be required to undertake administrative procedures to rehire the term appointee through either a competitive or alternative term hiring authority. Human capital officials reported that the inability to extend term appointments creates risk that could result in the loss of experienced term appointees who have developed project-specific experience and knowledge over the course of their tenure. These officials also reported that the approval process for extending term appointments was so burdensome, both in terms of the time required and the number of approvals required, that term appointees and hiring managers often opt to not extend appointments that are needed.

3. Length of initial Title 5 term appointments

Title 5 term appointment authority allows for initial appointment lengths to be set for a length of 1 to 4 years, but no longer. Several agencies reported STEM projects of a time limited nature may require term appointments longer than the 4 years granted under Title 5 term appointment authorities.

4. Loss of human capital investment

Human capital officials reported that institutional resistance to the use of term appointments is due to perceptions that agencies could "lose" their human capital investment in term employees at the completion of their appointment. They suggested that the departure of a term employee may result in a loss of institutional knowledge, project efficiency and productivity, and general stability in the workplace.

5. Inequalities between term employees and permanent appointment employees

Perceived and real inequalities between employees with term appointments and those with career appointments were reported as issues that can negatively affect agency culture. For example, several officials noted that there is a perception among members of their workforce that term employees hold a lower status due to their lack of permanency within the organization, even if term appointees hold the same titles and positions as their peers in permanent appointees. Human capital officials also reported that at some agencies, term appointees receive fewer bonuses and relocation and retirement benefits than career employees. For instance, SES term appointees are ineligible to receive performance awards, whereas career SES appointees are eligible. Another inequality between term and permanent employees centers on reductions in force (RIFs), which require agencies to eliminate positions and lay-off employees. Under OPM regulations, term appointees are more vulnerable to RIFs than permanent employees.¹¹

The short-term nature of term appointments can also make it difficult for managers to evaluate term appointees' performance in regards to promotion or professional development opportunities. For example, managers might be reluctant to give a term appointee a supervisory or project manager role if his or her term appointment was to end shortly or in the middle of the project. Professional development opportunities might also be limited for term appointments if agencies are reluctant to invest in employees who are scheduled to leave the agency rather than permanent employees.

¹¹ Title 5 CFR Part 351.

5. Policy Recommendations from Human Capital Officials

STPI researchers asked human capital officials for policy recommendations to improve the use of term appointment authorities. Human capital officials provided both specific recommendations relevant to their immediate agency needs and more general recommendations. Most of their recommendations focused on establishing or extending term appointment authority flexibilities and can be broadly categorized as follows:

- Allow longer initial term appointment lengths
- Delegate approval authority for term extensions
- Increase speed and flexibility of appointee hiring
- Provide conversion authority

A. Allow Longer Initial Term Appointment Lengths

Human capital officials reported that their STEM projects may extend longer than 4 years and have recommended extending the maximum tenure length for term appointments to up to 10 years. Human capital officials recommended agencies be granted authority to establish longer initial term appointment lengths. This recommendation was justified by noting that if term appointees leave before the completion of projects, agencies are forced to find and re-train replacements, which risks the stability and efficiency of the project.

Title 5 CFR and limited SES term appointments are governed by Executive regulations that could be amended to increase term length limits without legislation; OPM holds sufficient discretionary authority to make such amendments. Term appointment authorities in which the term length is authorized by statute would require a legislative amendment. An exception to this rule are term appointment authorities that can be altered by an authorized official designated in the statute, such as the civilian faculty at military academies authorities and the 42 U.S.C. § 209(f-g) authorities.

B. Delegate Approval Authority for Term Extensions

Human capital officials recommended delegating approval authority for term appointment extensions to the hiring manager level. This could reduce the administrative burden for agencies to apply for term appointment extensions, while also creating a more expedited approval process. Implementation of this recommendation could be provided in legislation, regulation, Executive policy, or agency policy, depending on the legal construct of the term appointment authority.

C. Increase Speed and Flexibility of Appointee Hiring

Human capital officials reported that the administration of the hiring process is an impediment to recruit and hire STEM term candidates. One human capital official reported that it can take up to 3 months for an applicant to be hired, and found this to be an impediment to recruiting high-quality STEM professionals for term positions. To address such inefficiencies in the hiring process, agencies and departments could review their own hiring practices for term appointees and make alterations in their internal processes in order to mitigate administrative delays and provide more flexibility.

D. Provide Noncompetitive Conversion Authority

Noncompetitive conversion authority can be valuable for situations when agencies want to keep term employees after their term ends. This situation arises for various reasons, such as the desire to retain high-quality STEM professionals within the agency workforce or when a temporary project for which the term appointee was hired turns into a long-term agency need. Currently, term employees who are not eligible for noncompetitive conversion must re-apply under a competitive search process to become a career or career-conditional employee.

All Federal agencies have access to term appointment authority under Title 5 CFR Part 316.301–316.304. However, some agencies also have supplementary hiring authorities that are granted specifically to provide additional term flexibilities not available through Title 5. These additional term flexibilities can include ability to set longer term lengths, extend term appointments, and convert term appointees to permanent positions in the competitive service. The differences between Federal Government-wide and agency-specific authorities explain, in part, why the data analysis described in Chapter 2 demonstrated that the use of nonpermanent STEM appointments across Federal agencies is inconsistent. It also explains, in part, why human capital officials reported varied opinions as to the benefits and challenges of using term appointment authorities. However, additional research is needed to better understand the relationships between reported benefits and challenges, agency-specific term appointment authorities, and agency mission requirements.

Appendix A. Names and Affiliations of Agency Human Capital Officials Interviewed

The following Federal human capital officials were interviewed:

- Michelle Williams, Department of Defense (DOD), Air Force Research Laboratory
- Susan Hickman, DOD, Army Research Laboratory
- Shane Kosinski, DOD, Advanced Research Projects Agency—Energy
- Ginger Kisamore, DOD, Naval Research Laboratory
- Mary Vander Linden, Defense Advanced Research Projects Agency
- Kim Bruner, Department of State
- Lovie Tate, Department of Treasury
- Kevin Mahoney, Department of Commerce (DOC)
- Essex Brown, DOC, National Institute of Standards and Technology
- Sandra Manning, DOC, National Oceanic and Atmospheric Administration
- George Waldmann, Department of Energy
- Kermit Howard, Department of the Interior
- Trevor Norris, Department of Justice
- Deborah Perkins, Department of Transportation (DOT)
- Eric Falzone, DOT, Volpe National Transportation Systems Center
- John McGowan, Health and Human Services, National Institutes of Health, National Institute of Allergy and Infectious Diseases
- Adam Cox, Homeland Security Advanced Research Projects Agency
- Sherri McGee, NASA
- Susan Salter, Nuclear Regulatory Commission
- Cynthia Smith, National Security Agency
- Chris Cataldo, National Science Foundation
- Patricia Jensen, Office of the Director of National Intelligence, Intelligence Advanced Research Projects Agency
- Allen Hatcher, Department of Agriculture

Appendix B. Interview Protocol and Results

Following the completion of interviews with agency human capital officials listed in Appendix A, STPI researchers compiled tables of the benefits and challenges that had been discussed (reproduced below and on the next page).

Benefits--Term Appointments Benefit Agencies by:

Agree?

A. Creating a more productive workforce

Facilitating a technologically advanced workforce that can keep pace with rapidly evolving research areas

Rotating in personnel who have unique perspectives and new innovative ideas

Attracting higher-quality applicants

Instilling a sense of urgency in employees with limited length terms, creating a more productive workforce

B. Increasing agency control of its workforce

Meeting short-term needs without hiring a career-tenured employee

Providing needed flexibilities during times of uncertain fiscal climates

Creating a trial period for an applicant before committing him to a career position

C. Attracting individuals who are not interested in permanently separating from an academic or private sector career for a Federal career position

D. Providing additional salary, benefits, and/or onboarding-process flexibilities

Allowing agencies to offer special pay incentives to term appointees

Allowing agencies to use a pay banding system or other alternative compensation mechanism instead of the General Schedule system

Allowing agencies to hire outside of the traditional competitive hiring process

E. Spreading Institutional Knowledge of How Agencies Operate

Additional Benefits? Please list:

Challenges--Term Appointments Create Challenges for Agencies due to:

Agree?

A. Issues with term length & renewals

Insufficient length of the term appointment

Duration of some projects lasting longer than the term appointment

Time length of a term appointment when agencies may not know if the project's capabilities will be an enduring need

Administrative burden of term extension requests is prohibitive to term renewal

B. Attracting lower-quality applicants

C. Issues with long term sustainability

STEM workers finding the lack of long-term stability less appealing

Inability to noncompetitively convert term appointments to permanent positions

Loss of investments in human capital assets

Departure of multiple term appointees causing loss of institutional knowledge and stability

D. Inequalities between term and career employees

Workforce perception that term employees hold a lower status

Term appointees receiving fewer bonus, relocation, and/or retirement options than career employees

Term appointees are less protected in the event of a Reduction in Force

Inability for term appointments to transfer between agencies without competition for new position

Difficultly in evaluating term appointees' performance for promotion and/or professional development opportunities

Additional Challenges? Please list:

The tables were then populated with information gathered during the interviews and sent to each official to verify and amend. Officials were told that specific statements would not be attributed to them directly. Seventeen of the 23 officials interviewed responded with further clarifications. Table B-1 provides the number of agencies that reported each benefit and challenge identified.

Identified Benefits and Challenges	Number of Agencies that Reported the Benefit/Challenge
BenefitsTerm Appointments Benefit Agencies by:	_
A. Creating a more productive workforce	10
Facilitating a technologically advanced workforce that can keep pace with rapidly evolving research areas	8
Rotating in personnel who have unique perspectives and new innovative ideas	9
Attracting higher-quality applicants	6
Instilling a sense of urgency in employees with limited length terms, creating a more productive workforce	2
B. Increasing agency control of its workforce	15
Meeting short-term needs without hiring a career-tenured employee	10
Providing needed flexibilities during times of uncertain fiscal climates	8
Creating a trial period for an applicant before committing him to a career position	5
C. Attracting individuals who are not interested in permanently separating from an academic or private sector career for a Federal career position	3
D. Providing additional salary, benefits, and onboarding-process flexibilities	11
Allowing agencies to offer special pay incentives to term appointees	5
Allowing agencies to use a pay banding system or other alternative compensation mechanism instead of the General Schedule system	6
Allowing agencies to hire outside of the traditional competitive hiring process	9
E. Spreading institutional knowledge of how agencies operate	2
ChallengesTerm Appointments Create Challenges for Agencies due to:	
A. Issues with term length & renewals	11
Insufficient length of the term appointment	4
Duration of some projects lasting longer than the term appointment	6
Time length of a term appointment when agencies may not know if the project's capabilities will be an enduring need	2
Administrative burden of term extension requests is prohibitive to term renewal	3
B. Attracting lower-quality applicants	4
C. Issues with long term sustainability	13
STEM workers finding the lack of long-term stability less appealing	5
Inability to noncompetitively convert term appointments to permanent positions	7
Loss of investments in human capital assets	6
Departure of multiple term appointees causing loss of institutional knowledge and stability	4
Complications due to regulations implying that term appointments should be used solely for short-term agency needs rather than short-term assignments	1
D. Inequalities between term and career employees	11
Workforce perception that term employees hold a lower status	3
Term appointees receiving fewer bonus, relocation, and/or retirement options than career employees	3
Term appointees are less protected in the event of a Reduction in Force	3
Inability for term appointments to transfer between agencies without competition for new position	1
Difficultly in evaluating term appointees' performance for promotion and/or professional development opportunities	2

Table B-1. Interview Results

Appendix C. Data on New Hires in Agencies

The data in Table C-1 were provided by the Office of Personnel Management for use in this project.

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2012	STEM Nonperm	387	261	601	234	59	4	24	95	597	48	403	47	20	3	147	22
	Non-STEM Nonperm	6,612	15,745	11,257	795	4,693	994	387	319	3,232	2,442	14,862	133	113	39	3,225	1,337
	STEM Perm	1,025	337	1,160	310	754	177	123	71	444	613	321	16	115	27	2,357	51
	Non-STEM Perm	7,545	2,002	12,760	3,724	6,863	5,144	463	117	3,951	11,253	1,925	36	325	31	10,528	581
	Total New Hires	15,569	18,345	25,778	5,063	12,369	6,319	997	602	8,224	14,356	17,511	232	573	100	16,257	1,991
	Ratio STEM Nonperm to Perm	27%	44%	34%	43%	7%	2%	16%	57%	57%	7%	56%	75%	15%	10%	6%	30%
	Ratio Non- STEM Nonperm to Perm	47%	89%	47%	18%	41%	16%	46%	73%	45%	18%	89%	79%	26%	56%	23%	70%

 Table C-1. Permanent and Nonpermanent STEM and Non-STEM Hires by Agency, FY 2005–2012

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2011	STEM Nonperm	430	319	618	198	80	5	35	177	645	32	419	43	90	18	97	27
	Non-STEM Nonperm	8,859	16,370	12,307	3,914	5,509	1,103	379	528	3,325	3,754	14,690	123	75	77	2,929	1,557
	STEM Perm	2,029	676	2,255	426	785	173	202	257	462	825	482	19	139	59	2,711	62
	Non-STEM Perm	13,512	3,162	18,550	3,503	6,483	4,362	512	361	5,009	15,340	2,073	27	277	38	11,898	663
	Total New Hires	24,830	20,527	33,730	8,041	12,857	5,643	1,128	1,323	9,441	19,951	17,664	212	581	192	17,635	2,309
	Ratio STEM Nonperm to Perm	17%	32%	22%	32%	9%	3%	15%	41%	58%	4%	47%	69%	39%	23%	3%	30%
	Ratio Non- STEM Nonperm to Perm	40%	84%	40%	53%	46%	20%	43%	59%	40%	20%	88%	82%	21%	67%	20%	70%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2010	STEM Nonperm	475	423	937	238	72	9	22	237	649	52	511	62	247	35	167	34
	Non-STEM Nonperm	9,788	20,190	15,792	5,694	6,298	1,953	533	632	4,003	3,640	17,238	125	164	116	4,604	1,417
	STEM Perm	2,413	905	3,781	478	1,420	388	260	267	667	779	530	20	130	120	4,086	36
	Non-STEM Perm	15,063	4,069	23,258	2,314	8,889	7,808	716	446	5,879	10,624	2,472	42	316	94	14,014	495
	Total New Hires	27,739	25,587	43,768	8,724	16,679	10,158	1,531	1,582	11,198	15,095	20,751	249	857	365	22,871	1,982
	Ratio STEM Nonperm to Perm	16%	32%	20%	33%	5%	2%	8%	47%	49%	6%	49%	76%	66%	23%	4%	49%
	Ratio Non- STEM Nonpermanen t to Perm	39%	83%	40%	71%	41%	20%	43%	59%	41%	26%	87%	75%	34%	55%	25%	74%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2009	STEM Nonperm	420	307	880	389	83	1	14	171	783	44	427	68	226	28	137	28
	Non-STEM Nonperm	12,353	18,678	22,202	6,992	6,438	2,173	447	622	3,540	4,332	16,199	152	94	86	4,564	1,493
	STEM Perm	1,724	717	4,132	650	816	323	397	272	585	838	534	10	91	141	3,842	36
	Non-STEM Perm	12,241	3,439	25,190	2,853	8,586	6,972	993	448	5,249	16,791	2,655	37	353	117	12,961	417
	Total New Hires	26,738	23,141	52,404	10,884	15,923	9,469	1,851	1,513	10,157	22,005	19,815	267	764	372	21,504	1,974
	Ratio STEM Nonperm to Perm	20%	30%	18%	37%	9%	0%	3%	39%	57%	5%	44%	87%	71%	17%	3%	44%
	Ratio Non- STEM Nonperm to Perm	50%	84%	47%	71%	43%	24%	31%	58%	40%	21%	86%	80%	21%	42%	26%	78%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2008	STEM Nonperm	279	302	770	298	82	12	7	168	662	34	373	57	399	48	113	33
	Non-STEM Nonperm	10,938	17,508	21,725	2,337	7,501	2,502	274	619	3,625	3,292	15,462	82	142	138	4,232	1,495
	STEM Perm	905	520	2,644	590	589	180	350	289	511	698	462	16	146	287	2,881	17
	Non-STEM Perm	9,098	3,528	22,146	3,585	8,610	5,991	900	381	4,622	26,442	2,275	41	305	226	14,142	752
	Total New Hires	21,220	21,858	47,285	6,810	16,782	8,685	1,531	1,457	9,420	30,466	18,572	196	992	699	21,368	2,297
	Ratio STEM Nonperm to Perm	24%	37%	23%	34%	12%	6%	2%	37%	56%	5%	45%	78%	73%	14%	4%	66%
	Ratio Non- STEM Nonperm to Perm	55%	83%	50%	39%	47%	29%	23%	62%	44%	11%	87%	67%	32%	38%	23%	67%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2007	STEM Nonperm	290	322	560	205	123	6	8	195	547	66	324	58	316	50	124	45
	Non-STEM Nonperm	8,599	15,492	15,401	1,534	7,448	2,013	235	532	3,058	3,392	13,478	98	237	106	3,385	1,380
	STEM Perm	808	475	1,411	494	400	156	164	198	317	551	330	9	92	226	1,986	45
	Non-STEM Perm	8,289	2,820	14,967	2,900	6,262	5,032	674	256	3,407	20,567	1,864	35	254	218	10,166	719
	Total New Hires	17,986	19,109	32,339	5,133	14,233	7,207	1,081	1,181	7,329	24,576	15,996	200	899	600	15,661	2,189
	Ratio STEM Nonperm to Perm	26%	40%	28%	29%	24%	4%	5%	50%	63%	11%	50%	87%	77%	18%	6%	50%
	Ratio Non- STEM Nonperm to Perm	51%	85%	51%	35%	54%	29%	26%	68%	47%	14%	88%	74%	48%	33%	25%	66%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2006	STEM Nonperm	248	364	521	209	43	9	6	185	545	92	329	68	266	40	98	30
	Non-STEM Nonperm	9,129	18,326	14,446	1,027	8,286	1,624	312	449	2,737	8,782	12,755	117	208	86	3,021	1,652
	STEM Perm	1,015	518	1,507	515	368	135	182	160	230	452	268	13	87	224	1,686	42
	Non-STEM Perm	10,928	2,875	15,552	3,844	5,991	4,045	630	270	2,680	15,107	1,642	25	256	148	9,572	725
	Total New Hires	21,320	22,083	32,026	5,595	14,688	5,813	1,130	1,064	6,192	24,433	14,994	223	817	498	14,377	2,449
	Ratio STEM Nonperm to Perm	20%	41%	26%	29%	10%	6%	3%	54%	70%	17%	55%	84%	75%	15%	5%	42%
	Ratio Non- STEM Nonperm to Perm	46%	86%	48%	21%	58%	29%	33%	62%	51%	37%	89%	82%	45%	37%	24%	69%

		Department of the Air Force	Department of Agriculture	Department of the Army	Department of Commerce	Department of Defense	Department of Justice	Department of Energy	Environmental Protection Agency	Department of Health and Human Services	Department of Homeland Security	Department of the Interior	National Science Foundation	NASA	Nuclear Regulatory Commission	Department of the Navy	Department of State
FY 2005	STEM Nonperm	280	373	407	162	56	12	4	155	511	49	338	54	207	27	95	44
	Non-STEM Nonperm	10,154	18,648	18,058	4,397	9,405	1,628	195	408	3,471	7,511	13,340	91	269	57	3,648	2,161
	STEM Perm	961	625	1,690	466	328	79	179	194	276	721	290	12	112	135	1,304	61
	Non-STEM Perm	9,626	3,040	18,049	2,818	4,699	3,740	545	359	3,003	14,933	1,754	17	254	105	8,924	1,079
	Total New Hires	21,021	22,686	38,204	7,843	14,488	5,459	923	1,116	7,261	23,214	15,722	174	842	324	13,971	3,345
	Ratio STEM Nonperm to Perm	23%	37%	19%	26%	15%	13%	2%	44%	65%	6%	54%	82%	65%	17%	7%	42%
	Ratio Non- STEM Nonperm to Perm	51%	86%	50%	61%	67%	30%	26%	53%	54%	33%	88%	84%	51%	35%	29%	67%

Appendix D. Hiring Authorities with Components of Term Appointments

Title 5 Term Appointments

Title 5 of the Code of Federal Regulations (CFR) Parts 316.301–316.304 grant Federal Government-wide authorities for hiring employees under term appointments.¹ These regulations are authorized under Title 5 United States Code (U.S.C.) §§ 3301–3302, which give the President broad authority to prescribe rules for competitive service.

Term appointments can be made for a number of reasons, including the need to bring on new personnel for limited short-term project work or extraordinary workloads. In addition, term appointments may be used in cases where there is a scheduled abolishment, reorganization or contracting out of term appointees job functions. Term appoints can also be made when there is uncertainty of future funding and the need to maintain the current number and location of permanent employees within the organization given the number of limited full-time employees allowed. The regulations specifically state that this is not an exclusive list of reasons for using term appointments.²

Hiring Process

Appointments can be made competitively and noncompetitively. Competitive term appointment hires are made through the traditional Title 5 § 332 process or through direct hire procedures (See definitions section for explanation of direct hire). Noncompetitive term appointments can be made through a number of mechanisms including veterans recruitment appointment authority under 5 CFR Part 307.103, former Peace Corps personnel authority under 5 CFR Part 315.607, and reappointment of employees within the same agency for individuals who left before serving maximum tenure allowed.³ Vacancy announcements for term positions must indicate that the agency has the option to extend the term appointment up to 4 years.

¹ Title 5 CFR Parts 316.401-316.403 provide authority for hiring temporary employees.

² Title 5 CFR Part 316.301(a).

³ Temporary appointments have the same specifications for hiring.

Term Structure

Title 5 term appointments can be made for periods of 1 to 4 years with the opportunity to extend initial appointments up to the 4-year limit.⁴ Additionally, OPM service centers can grant agency requests for extensions beyond 4 years if the extension is "clearly justified and is consistent with applicable statutory provisions."⁵ The first year of the appointment is designated as a trial period under 5 CFR Part 316.304, which allows the agency to terminate the employee at any time during the trial period.

Base Pay, Additional Pay, and Benefits

When using the General Schedule pay system for Title 5 employees, there are no additional pay benefits offered to term appointees under these regulations. Alternate pay systems could be used for certain positions or certain agencies if given the authority by Congress, the President or OPM.

Senior Executive Service Authority

In addition to competitive service and excepted service, senior executive service is one of the three systems into which Federal personnel can be appointed. The SES was established in the Civil Service Reform Act of 1978 to facilitate the recruitment of highquality mangers for executive leadership positions in the Federal Government. While many of the executives hired into SES are career appointments (appointments made without a term limitation), 5 U.S.C. § 3134(e) authorizes up to 5% of all SES appointments government-wide to be limited emergency or limited term SES appointments. Title 5 U.S.C. § 3136 promulgates that regulations for SES appointments shall be prescribed by OPM.

Hiring Process

Career and career-conditional SES appointees must be hired competitively, but term-limited and limited emergency SES appointments are not required to go through the

⁴ Agencies are also authorized to make temporary appointments not to exceed 1 year for positions that have not been filled by temporary appointments for 24 months of the last 36 months. However, OPM has the authority to waive this initial provision requirement in cases of major reorganizations, base closings or other unusual circumstances when requested by an official in the headquarters of the requesting agency/department. Temporary appointments may be extended up to 1 additional year for a total of 24 months. Additional extensions of 1 year or less may be made for intermittent or seasonal work if the employment is less than 6 months (measured by 1,040 hours) in a service year where a service year is defined as the 12 months following the initial appointment. Provisional temporary appointments may be made in limited cases designed by 5 CFR Part 316.403.

⁵ Title 5 CFR Part 316.301(b).

competitive process. While OPM outlines several SES selection methods and strictly requires particular steps to appoint career-reserved SES positions (e.g., announcements on USAJobs, ranking candidates, etc.) such requirements are not necessary for term-limited SES appointments. Furthermore, the candidate's qualifications for term-limited SES positions may be approved at the level of the agency head or his/her designee.⁶

However, the total number of limited term and limited emergency appointments may not exceed 5% of the total number of SES positions allocated to the U.S. Government by OPM. ⁷ The actual numerical limitation is determined by OPM on a biannual basis after agencies submit for OPM's approval requests with a specific number of SES positions for their organizations. These requests must include the desired SES position title, any additions or removals of designated career-reserved positions, and the justifications for such proposed changes.⁸ In addition, individual agencies are only allowed up to 3% of its SES position allocation for limited (i.e., limited term and limited emergency) appointments. If agencies wish to appoint more than 3% of its SES allocation as limited appointments, they must obtain the approval of OPM.⁹

Term Structure

Title 5 U.S.C. § 3132 and OPM guidance restrict limited term appointments to 3 years or less, with no opportunities for extension. Limited emergency appointments, which must be used to meet an unexpected and urgent agency need, are restricted to a maximum tenure of 18 months, with no opportunities for extension. Under OPM guidance, these appointments may only be made for a SES General position, which will expire due to time-limited nature of the work delegated to the position.¹⁰ However, NASA has a special SES authority that authorizes them to make term-limited appointments for a period up to 4 years for positions with duties that will expire at the end of such term.¹¹ Under rare circumstances, the Administrator of NASA may extend this term-limited appointment for up to an additional 2 years.¹²

¹⁰ Ibid.

⁶ See OPM SES webpage under "Selection Process" at http://www.opm.gov/policy-data-oversight/seniorexecutive-service/selection-process/#url=Process.

⁷ Title 5 U.S.C § 3134(e).

⁸ Title 5 U.S.C § 3133(b)(2).

⁹ See OPM SES webpage under "Overview & History" at https://www.opm.gov/policy-dataoversight/senior-executive-service/overview-history/.

¹¹ See 5 U.S.C § 9813(c)(1)(a).

¹² The term "rare" was not defined in 5 U.S.C § 9813, where the criteria were established.

Base Pay

The National Defense Authorization Act (NDAA) for FY 2004 enacted a performance-based pay system for the SES. This established rates of pay for SES in 5 U.S.C. § 5382 state that pay should not be less than the minimum basic pay under 5 U.S.C. § 5376, currently no less than 120% of the minimum basic pay for GS-15, 120% of \$100,624 or \$120,749) and no more than the rate of the EX-III, currently \$167,000.¹³ There are certain agencies that can be certified by OPM under 5 U.S.C. § 5307(d) to have their own performance appraisal systems that differentiate pay based on relative performance. These agencies are authorized to set the maximum basic pay for personnel in SES to EX-II, currently \$181,500.¹⁴

In addition, there are certain positions that are deemed critical under 5 U.S.C. § 5377. These positions may include those which require "expertise of an extremely high level in a scientific, technical, profession, or administrative field" and are critical to the agency's mission. These positions can be held within the SES and receive a maximum rate of basic pay at EX-I (currently \$201,700) unless a higher rate is approved by the President.

Additional Pay and Benefits

While career SES employees are eligible to receive performance awards, the Presidential Rank award, and recruitment/relocation/retention incentives, limited term and term limited emergency employees are ineligible for these benefits under OPM guidelines. No SES members are eligible for premium pay such as overtime, holiday, or Sunday pay.¹⁵

Title 42 Positions under 42 U.S.C. § 209 (f-g)

Originally established in 1944 under the Public Health Service Act, 42 U.S.C. § 209(f) and (g) grants HHS (including NIH, FDA, and CDC) the authority to hire skilled

¹³ See the most up-to-date Executive Schedule at http://www.opm.gov/policy-data-oversight/payleave/salaries-wages/salary-tables/pdf/2014/EX.pdf.

¹⁴ See OPM SES webpage under "Salary" at http://www.opm.gov/policy-data-oversight/senior-executiveservice/compensation/.

¹⁵ For additional information, see OPM guidelines for SES performance and Presidential Rank awards (http://www.opm.gov/policy-data-oversight/senior-executive-service/reference-materials/), OPM guidelines for recruitment incentives (http://www.opm.gov/policy-data-oversight/pay-leave/recruitment-relocationretention-incentives/fact-sheets/recruitment-incentives/), relocation incentives (http://www.opm.gov/policydata-oversight/pay-leave/recruitment-relocation-retention-incentives/fact-sheets/relocation-incentives/), and retention incentives (http://www.opm.gov/policy-data-oversight/pay-leave/recruitment-relocation-retentionincentives/fact-sheets/retention-incentives-likely-to-leave-for-a-different-federal-position/).

S&T individuals into excepted service as consultants via § 209(f) or fellows via § 209(g).¹⁶ In practice, Section 209(f) is often used to hire senior investigators, administrators, division directors, and senior officials in the Office of the Director, while § 209(g) is often used to hire research fellows, staff scientists/clinicians, senior scientists/clinicians, and tenure-track investigators.¹⁷ An interviewed human capital official at HHS estimated that there are currently over 7,000 HHS employees working in Title 42 positions and about 4,900 of them are at NIH. The advantages of HHS's 42 U.S.C. § 209 (f) and (g) hiring authorities include flexible and competitive compensation outside the GS, quick time-to-hire once a position is authorized to hire under Title 42, and indefinite or unlimited term appointments.

Hiring Process

In order for HHS to be able to hire for positions under 42 U.S.C. § 209 (f) and (g) authorities, one of its 11 Operating Divisions (OPDIVs)¹⁸ must first be able to demonstrate they have thoroughly exhausted other applicable personnel systems such as Title 5, the Senior Biomedical Research Service (SBRS)¹⁹ and the Public Health Service Commissioned Corps, and have been unable to find candidates with the critical skills sets necessary through these traditional mechanisms. To justify the use of Title 42 for initial appointment, the OPDIV must draft a case documentation that demonstrates the applicant's credentials and stature in the scientific community are commensurate with the position, that all recruitment efforts with other personnel systems were as extensive as those used to recruit under Title 42, and that these recruitment efforts failed to acquire the necessary candidates.²⁰ Case documentations are submitted by the OPDIV head to the Policy Office at HHS, which is then processed and sent to the HHS Office of Human Resources (OHR) for approval and delegation. In an interview, HHS human capital

¹⁶ Government Accountability Office (GAO), Pay for Consultants and Scientists Appointed under Title 42, GAO B-323357. July 11, 2012. http://gao.gov/assets/600/592385.pdf.

¹⁷ See NIH 2005. Title 42 Pay Model: Guidance for Spring Increases. National Institute of Health, Bethesda, MD. Available: http://www1.od.nih.gov/oir/sourcebook/administrative/Guidance-T-42%20Spring%20Increases%202005%20-%20Revised.pdf.

¹⁸ OPDIVs effectively operate at the agency level. For example, NIH has a single OPDIV. For a list of HHS's 11 OPDIVs, see http://www.hhs.gov/about/foa/opdivs/index.html.

¹⁹ See Public Law No. 101-509, Section 304, for a description of the SBRS alternative pay and personnel system.

²⁰ HHS, *Human Resources Manual*, Instruction 42-1, "Appointment of 42 U.S.C. § 209(f) Special Consultants," February 15, 2012, http://www.hhs.gov/asa/ohr/manual/files/42.pdf; and HHS, *Human Resources Manual*, Instruction 42-2, "Appointment of 42 U.S.C. § 209(g) Service Fellows," September 12, 2012, http://www.hhs.gov/asa/ohr/manual/files/42-2.pdf.

officials noted that the entire Title 42 hiring process—from exhausting traditional personnel system to actually hiring the Title 42 appointee—could take up to 30 days.

Recently, HHS started to develop an "Exhaustion Appendix," which lists positions within HHS that have a history of unsuccessful recruiting or retention under the traditional personnel systems. Most of these positions such as Senior Investigators, Scientific Executives, Institute and Center Directors, and the NIH Deputy Director require a high-level of scientific expertise and cannot remain vacant for extended periods of time. To expedite the recruitment process of these positions, OPDIVs can request to have these positions designated as "42 U.S.C. § 209(f)" positions, which would allow the positions to be filled without the required exhaustion of other personnel systems and case documentation. There are no similar exemptions for § 209(g) positions. Currently, 10 categorical positions (most of which are STEM and administrative positions) are listed in the "Exhaustion Appendix" of the HHS *Human Resources Manual.*²¹ OPDIVs can request to have additional positions listed by providing the HHS OHR Title 42 Program Manager with documentation that indicates historical failures of hiring through traditional personnel systems and justifies the need to use alternate means of hiring.

Term Structure

All positions under 42 U.S.C. § 209(f) and (g) are appointed into the excepted service. Appointments made under § 209(f) can be indefinite or term appointments, with periods lasting up to 5 years but with unlimited extensions. Appointments made under § 209(g) must be time-limited, with terms lasting up to 5 years and opportunities for reviewed extension.²²

Base Pay Compensation

HHS policy guidance authorizes officials to provide base salaries of up to \$250,000 for indefinite appointments under 42 U.S.C. § 209(f), and Executive Level IV (currently \$157,100) for § 209(f) time-limited appointments and all § 209(g) appointments. The guidance states that base salary is to be set at the lowest rate necessary to recruit the candidate. For any recommended salaries above these values, the OPDIV head and HHS human capital officials must obtain the approval of the Assistant Secretary for Administration. Since 1956, Congress included a pay cap in its appropriations to the

²¹ The following positions at NIH are listed in HHS, *Human Resources Manual*, "Exhaustion Appendix": Senior Investigator (excluding Clinical Senior Investigators); NIH Distinguished Investigator; NIH Clinical-Track Investigator, Staff Clinician, and Senior Clinicians; Scientific Executive; NIH Deputy Director; IC Director, IC Deputy Director; Scientific Director.

²² HHS, Human Resources Manual.

Public Health Service for 42 U.S.C. § 209(f) and (g) appointees. This language appears for each of Public Health Service's appropriations until 1993.²³ Public Law No. 102-394 § 202 for FY 1993 limited maximum base pay for temporary consultants and scientists of HHS (time-limited appointments in § 209(f) or any appointments under § 209(g)) to Executive Level III (currently \$167,000).²⁴ However, a Government Accountability Office (GAO) report released in 2012 determined that appointments made under the 42 U.S.C. § 209(f) and (g) authority is not subject to the statutory pay cap limits of 5 U.S.C. § 3109 and 5 U.S.C. § 5373.²⁵

Base pay is determined through consideration of the candidate's qualifications; experience; and other factors such as current salary, competing offers of employment, and cost-of-living disparities.²⁶

Additional Pay and Benefits

Title 42 prohibits employees from receiving the additional market-based pay established in the VA and HHS Title 38 authority detailed in the previous section. § 209(f) appointees annual pay increases are based on performance, through consideration of the employee's annual performance review. Title 38 § 209(g) fellows can also receive other pay adjustments with thorough documentation and justification. These pay increases may or may not be the same as the pay increases applied through the GS but are limited to 6% of the original base pay.²⁷

Employees appointed under § 209(f) and (g) are eligible to receive pay incentives such as recruitment, retention, and relocation bonuses distributed as outlined by 5 U.S.C. § 5753 and 5 CFR Part 575. In addition to standard pay incentives, employees appointed under 209(g) are also eligible to receive travel allowances at similar rates authorized to Title 5 employees. Total compensation, including all additional pay and bonuses, may not exceed \$275,000 without prior approval from the Secretary.²⁸

Employees who are appointed under 42 U.S.C. § 209 (f) and (g) for more than 12 months will receive the same or commensurate benefits to those appointed under Title 5,

²³ GAO, Pay for Consultants and Scientists Appointed under Title 42.

²⁴ HHS, *Human Resources Manual*.

²⁵ GAO, Pay for Consultants and Scientists Appointed under Title 42.

²⁶ HHS, Human Resources Manual.

²⁷ Ibid.

²⁸ Ibid.

as outlined in 5 CFR Chapter 1, Subchapter B. Title 42 employees are also subjected to the same leave provisions as Title 5 employees.²⁹

NSF Term Appointment Authority

The National Science Foundation (NSF) is authorized to fill Program Director positions through two rotator programs: the Intergovernmental Personnel Act mobility program and the Visiting Scientist, Engineer and Educator (VSEE) program. These rotator programs bring in STEM professionals from universities or other external organizations for short-term periods, and typically these professionals retain their affiliation with their originating institution. IPA appointees are hired through a government-wide authority allowing an exchange of personnel between Federal agencies and other select organizations. The National Science Foundation Act of 1950, NSF's establishing legislation, granted the "Excepted Authority of the NSF Act," which provides the authority that underlies their VSEE appointments and a third, broader mechanism to hire Program Directors and other technical positions referred to as "temporary excepted service appointments."³⁰ The following sections detail the broader NSF temporary excepted service authority, which is not specific to rotators.

Hiring Process

Under 42 U.S.C. § 1873(a), NSF is authorized to hire personnel without regard to the provisions of Title 5 that govern competitive service appointments as the NSF Director deems necessary for conducting the responsibilities delineated in the NSF establishing legislation.

Term Structure

NSF's enabling statute does not specify the length of term for which technical and professional personnel can be hired, but NSF limits the term for temporary excepted service appointments to 3 years.³¹

²⁹ Ibid.

³⁰ Title 42 U.S.C. § 1873(a)(1) and (2).

³¹ An NSF vacancy announcement is available at http://www.nsf.gov/pubs/2013/cbet13007/cbet13007.jsp?org=NSF demonstrates the three term-limited hiring mechanisms.

Base Pay

Those hired under the term appointment may not receive compensation at a rate that exceeds the maximum basic pay delineated in 5 U.S.C. § 5376; currently for NSF, this maximum rate is Executive Level IV or \$157,100.

Additional Pay and Benefits

Those hired under a temporary excepted service appointment are provided the standard civil service benefits as long as the appointments are more than one year. These benefits include retirement, health, and life insurance.

Homeland Security Advanced Research Projects Agency Term Appointment Authority

Title 6 U.S.C. § 187 grants the Secretary of Homeland Security the authority to hire personnel to the Homeland Security Advanced Research Projects Agency (HS-ARPA) for 5-year terms in the same manner as section 1101 of the Strom Thurmond National Defense Authorization Act (NDAA) for FY 1999, which is the legislation that granted the Secretary of Defense the authority to design hiring and compensation systems outside of Title 5. Since the HS-ARPA's hiring authority is modelled from the DARPA hiring authority, please refer to the DARPA section for further information on its hiring process, base pay, additional benefits, and term appointment structure.

Advanced Research Projects Agency—Energy (ARPA-E) Term Appointment Authority

In the same legislation, Congress granted the ARPA-E Director two authorities to hire personnel completely without regard to the provisions of Title 5: one for general STEM professionals and the other for ARPA-E's program directors. The program director hiring authority under 42 U.S.C. § 16538(2)(c) explicitly requires that the program director be hired as a term employee, but a human capital representative estimated that 80% of ARPA-E's workforce is term appointees, indicating that both hiring authorities may be used to hire term appointments. The ARPA-E Director was also granted all hiring authorities that the Secretary of Energy had been authorization on August 9, 2007 to hire administrative, financial, and clerical staff. Title 42 U.S.C. § 16538(g) describes ARPA-E's legal hiring authorities. The sections that follow refer to both of ARPA-E's special hiring authorities, unless otherwise indicated.

The House Committee on Science and Technology determined that the Director's ability to hire outside of standard process and at pay grades commensurate with what

employees may be paid in the private sector was important to enable ARPA-E the potential to recruit the highest talents available in the science and engineering fields.³² Much like the DARPA model, the short tenure limitations of employees hired under this statute was intended to promote "fresh leadership and ideas on a continuous basis."³³ Under this special hiring authority, the ARPA-E Director is able to hire up to a limit of 120 personnel, all of whom are hired with a specified term length. The authority also allows the Secretary of DOE or ARPA-E Director to contract to a recruiting firm to identify quality applicants.

Term Structure

The restrictions in 42 U.S.C. § 16538(2)(c) limit initial term appointments for program directors not to exceed 3 years with additional opportunities for extension.³⁴ There is no statutory limit for term length of term employees appointed under the general ARPA-E hiring authority. The statutory language for extension is ambiguous, but an ARPA-E human capital official indicated extension for 1 to 2 years occur with about 20%–30% of their term appointees. There are also no statutory limits to the total length of ARPA-E's term appointments including the extensions according to a DOE official interviewed.

Base Pay and Additional Compensation

The America COMPETES Reauthorization Act of 2010 revised some of ARPA-E's hiring authority in 42 U.S.C. § 16538 to limit the Director's ability to fix basic pay to a maximum of Level II of the Executive Schedule.³⁵ The revision also gave the Director the authority to provide annual payments in addition to basic pay as long as it does not exceed the least of the following amounts: \$25,000, 25% of the annual basic pay, or the legal bonus allowed to executive branch employees under 5 U.S.C. § 5307(a)(1).

³² House Committee on Science and Technology, *Establishing the Advanced Research Projects Agency— Energy (ARPA-E)*. Hearing before the Subcommittee on Energy and Environment, Committee on Science and Technology, House of Representatives, 109th Congress, 1st session. April 26, 2007. H.R. 364.

³³ House Committee on Science and Technology, Should Congress Establish "ARPA-E," the Advanced Research Projects Agency—Energy? Hearing before the Committee on Science, House of Representatives, 109th Congress, 2nd session, March 9, 2006.

³⁴ Title 42 U.S.C § 16538(g).

³⁵ Office of Personnel Management (OPM), Salary Table No. 2014-EX. Available from http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/EX.pdf.

NASA Term Appointment Authority

The NASA Flexibility Act of 2004 authorized the agency to expand their term appointment flexibilities from the existing Federal-wide term appointment authority. Additional term appointment flexibilities include the ability to extend term lengths up to a total of 6 years and to convert term appointments to career or career-conditional appointments.³⁶ Such flexibilities do not require approval beyond what was originally required for the Federal Government-wide term appointment authority.³⁷ According to a 2009 Government Accountability Office (GAO) report, NASA also indicated that it makes no distinctions between term and career/career-conditional appointments on policies regarding employee working condition.³⁸

Term Structure

While NASA term appointments made before the enactment of the NASA Flexibility Act of 2004 may be extended, the total tenure of any term appointee is limited to 6 years, including all extensions. During or upon the expiration of their term appointment service, some term appointees may be eligible for conversion to a permanent position in the competitive service.³⁹ In order for term appointees to be considered for conversion to a career or career-conditional position in the competitive service, the term appointee must have been hired under open, competitive examination. In addition, the announcement for term positions must state explicitly that it is eligible for conversion to career or career-conditional appointments before the position is filled. Also, the term appointee must have completed at least 2 years of continuous service under a term appointment in the competitive service, the term appointee's performance under the term appointment has been evaluated as "fully successful" or equivalent, the permanent position to which the term appointee is being converted to must not have a greater promotion potential than the original term position and the position must be in the same occupational series and geographical location. Under this conversion authority, the

³⁶ Title 5 U.S.C § 9806.

³⁷ NASA Desk Guide for the NASA Flexibility Act of 2004 at https://searchpub.nssc.nasa.gov/servlet/sm.web.Fetch/NASA_Flex__Act_Desk_Guide_Ver3.pdf?rhid=1 000&did=778337&type=released.

³⁸ GAO, NASA Workforce: Responses to Follow-up Questions regarding the National Aeronautics and Space Administration's Use of Term Appointments, Washington, D.C.: GAO, February 25, 2009, http://gao.gov/assets/100/95982.pdf.

³⁹ See NASA Desk Guide.

employee who is converted to career or career-conditional employment acquires competitive status.⁴⁰

According to a GAO report released in 2008, since NASA's extension of its term appointment authority in 2004, the rates of its term appointments and term conversions have increased.⁴¹ As of July 2009, 66% of all of NASA's term appointments since FY 2005 have been converted to permanent appointments. Of the term appointments made since FY 2005, 5% were re-hired under a new term appointment.⁴² In 2008, NASA's term appointment employee made up 8% of its total workforce. In 2005, the number of term appointments for science and engineering new hires began to outpace the number of permanent appoints for S&E new hires.⁴³

DOE EK and EJ Authorities

The Department of Energy has several mechanisms for appointing personnel in to excepted service. These mechanisms include at least two authorities that allow for termlimited appointments known as the EJ and EK authorities. These authorities were granted by the DOE Organization Act of 1977 and the NDAA for FY 1995, respectively. The EJ authority was established with the aim to broadly recruit highly-qualified scientific, engineering, professional and administrative personnel while the EK authority was established to enhance the recruitment of highly-qualified scientific, engineering, and technical personnel specifically with roles relating to safety at defense nuclear facilities. DOE guidance recommends EJ and EK authorities to be used for filling positions expeditiously due to an urgent mission requirement, a significant shortage of external candidates for a critical occupation or position, or the need to use a time-limited appointment. They are also sometimes used to retain employees in a critical occupation or position by incentivizing them with conversions to the EJ and EK pay plans.⁴⁴

⁴⁰ Title 5 U.S.C § 9806.

⁴¹ GAO, NASA Workforce: Briefing on National Aeronautics and Space Administration's Use of Term Appointments.

⁴² GAO, NASA Workforce: Responses to Follow-up Questions regarding the National Aeronautics and Space Administration's Use of Term Appointments, Washington, D.C.: GAO, February 25, 2009, http://gao.gov/assets/100/95982.pdf.

⁴³ GAO, NASA Workforce: Briefing on National Aeronautics and Space Administration's Use of Term Appointments.

⁴⁴ DOE, *Excepted Service Authorities for EJ and EK Pay Plans*, DOE Order 329.1, March 30, 2012, https://www.directives.doe.gov/directives/0329.1-BOrder/view.

Hiring Process

Time-limited EJ and EK appointments may be made competitively or noncompetitively. In order for these authorities to be used for noncompetitive appointments, one of three following requirements must be fulfilled:

- 1. Requesting officials can demonstrate on a case-by-case basis that they have had difficulties recruiting highly qualified candidates for key positions, i.e., the position they wish to fill, or similar positions. This request may be justified by analyzing position offer/acceptance rates, proportion of similar positions filled, length of time required to fill similar positions, number of qualified candidates applying for vacancies, etc. Requesting officials may also demonstrate that the position must be filled in a timely manner in order to fulfill an urgent need.
- 2. The Head of Departmental Element, the Director, or the Office of Human Resource Services designated the use of these authorities for a particular position.
- 3. Individuals are to be competitively recruited for an entry-level scientific, technical, engineering, administrative, and professional position.⁴⁵

Time-limited EJ and EK appointments made competitively must follow the same external and internal recruitment process as required by the permanent EJ and EK appointments. The external competitive placement process includes open vacancy announcements, candidate ranking, certificates and veterans' preference, and a ranked selection process.⁴⁶

The use of these authorities are subject to the approval of the Executive Resource Board (ERB), however, this approval authority has been delegated to the Senior Management Review Board (SMRB). Thus, SMRB approves all EJ and EK advertisements, appointments, pay settings, promotions, and performance awards. SMRB may not delegate these authorities unless approved by the Chair of the ERB.⁴⁷ By law, only 200 eligible positions may be filled by each of the EJ and EK authorities.

⁴⁵ DOE, DOE Desk Reference for EJ and EK Authorities, http://energy.gov/sites/prod/files/2013/08/f2/Excepted%20Service%20EJ%20and%20EK%20Desk%20 Reference%202012_0.pdf.

⁴⁶ See DOE Desk Reference for more detail on the competitive placement process for EJ and EK authorities.

⁴⁷ DOE Desk Reference.

Term Structure

While appointments made under the EJ and EK authorities are usually indefinite terms filled by competitive placement procedures, time-limited appointments may be made for a tenure of up to 4 years. However, if time-limited appointments are made noncompetitively under the EJ and EK authorities, the initial term period may not exceed 2 years.

Base Pay

The basic pay for EJ and EK appointees is based upon an institutionally defined broad banding system made up of five pay bands. These pay bands make up a range of pay from a minimum of GS-5, Step 1, to a maximum without locality pay of up to EX-III. Initial basic pay may be set within any of the pay bands under the consideration of market conditions, salary history, high cost of living area, unique skills, comparable competitive service position, or consistency with other recent pay setting actions.⁴⁸

Additional Pay and Benefits

EJ and EK appointees are eligible for locality and comparability increases; promotion, performance-based pay adjustments, and performance awards; as well recruitment, relocation, and retention incentives. The annual aggregate compensation for EJ and EK appointees including the above mentioned rewards may not exceed EX-I. If the duration of the time-limited appointments exceed one year, the EJ and EK appointees are entitled to the same benefits (e.g., health benefits, life insurance, retirement, and leave accrual as applicable to general DOE personnel).⁴⁹

Defense Advanced Research Projects Agency 1101 Authority

Section 1101 of the Strom Thurmond NDAA for FY 1999 established the Experimental Personnel Program for Scientific and Technical Personnel Positions at the Defense Advanced Research Projects Agency (DARPA). This authority, often referred to as Section 1101, allows the Secretary of Defense (SECDEF) to hire scientists and engineers in a streamlined manner at DARPA and compensate them at greater levels than exist in Title 5. This authority has been delegated to the DARPA director to determine pay, bonuses, term length, and term extensions. Initially sunset for 2003, the authority has been reauthorized in multiple NDAAs. The 2012 NDAA (Pub Law 112-81) pushed the sunset date to September 30, 2016.

⁴⁸ DOE, Excepted Service Authorities for EJ and EK Pay Plans.

⁴⁹ DOE Desk Reference.

Title 5 U.S.C. § 3104 codifies the provisions of the NDAAs for the 1101 authority. Currently, 60 positions may be filled under this authority, up from 20 when the authority was originally authorized.

Term Structure

Appointments may be made up to 4 years, and 2-year extensions may be authorized if the SECDEF determines that the action "is necessary to promote the efficiency" of DARPA.⁵⁰

Base Pay

The SECDEF is authorized to establish base pay levels with the maximum basic pay rate set by 5 U.S.C. § 5376. Under this provision, basic pay may not exceed Level III of the Executive Schedule.

Additional Pay and Benefits

Employees are eligible for locality-comparability pay as determined in 5 U.S.C. § 5304. Additional payments may not exceed the lesser of the following amounts within a 12-month timespan: the current equivalent of \$50,000 in FY 2010 or 50% of the employee's annual rate of basic pay. Total aggregate compensation may not exceed the salary of the Vice President as set by 3 U.S.C. § 104. The current salary of the Vice President is \$233,000.⁵¹

Highly Qualified Experts

The NDAA for FY 2004 included a provision establishing a program within the Department of Defense (DOD) to recruit Highly Qualified Experts (HQEs). The statute established a civilian personnel program that allows for the SECDEF to hire up to 2,500 employees outside of competitive service with highly competitive salaries guided by loose provisions within the law.

In 2010, DOD issued policy guidance⁵² requiring all DOD components to convert Senior Mentor (SM)⁵³ positions into HQE positions, creating the HQE-SM position. A

⁵⁰ Title 5 U.S.C. 3104 Note.

⁵¹ The Vice President's salary is governed by Title 3 U.S.C. § 104, and Executive Order No. 13655 established the current rate.

⁵² Secretary of Defense, "Policy on Senior Mentors," Memorandum, April 1, 2010, http://www.acq.osd.mil/dpap/dars/docs/SeniorMentorPolicy.pdf.

⁵³ Senior Mentor is a "retired flag, general or other military office or senior retired civilian official who provides expert experience based mentoring, teaching, training, advice and recommendations to senior

2011 DOD Inspector General (DODIG) report noted that of the 194 senior mentors in FY 2010 only 7 remained as HQE-SMs as of October 31, 2011. The report noted that public financial disclosure and conflict of interest requirements led to many senior mentors resigning their positions. In addition, the new requirements limited pay and therefore was less attractive.⁵⁴ Given the limited use of HQE-SM positions, guidance for these positions is not discussed below.

Hiring Process

DOD issued a revised guidance on HQEs in April 2013.⁵⁵ Under the guidance, preappointment staffing reviews for all HQEs must be conducted to ensure that appointments are made free of political influence, follow merit system criteria and follow all other laws and regulations. In rare cases involving applicants who were previously Federal employees, the Deputy Assistant Secretary of Defense for Civilian Personnel Policy must conduct pre-appointment staffing requirements.

The guidance also states that Secretaries of Military Departments and Heads of Defense agencies can hire HQEs and re-delegate hiring authority to anyone who reports directly to them. Defense Laboratory Directors may also hire HQEs but cannot re-delegate this authority. HQEs can be terminated at any time by the official who appointed them. Employment data available through OPM indicates that, at maximum, 124 employees have been hired as HQEs.⁵⁶

Term Structure

HQEs may be employed for up to 5 years with the option for the appointing official to extend an individual HQE's term by 1 additional year. If the initial appointment was less than 5 years, additional 1 year incremental appointments may be given up to a length of service of 6 years. The appointing official may terminate the HQE at any time but should be given no less than a 3 day notice when possible.

military officers, staffs, and students as they participate in war games, warfighting courses, operational planning, operational exercises, and decision-making exercises." Secretary of Defense, "Policy on Senior Mentors," Memorandum, April 1, 2010.

⁵⁴ DODIG, DOD Complied with Policies on Converting Senior Mentors to HQEs, but Few Senior Mentors Converted, October 31, 2011, http://www.dodig.mil/audit/reports/fy12/audit/dodig-2012-009.pdf.

⁵⁵ DOD, DOD Civilian Personnel Management System: Employment of Highly Qualified Experts (HQEs), DODI 1400.25, April 3, 2013, http://www.dtic.mil/whs/directives/corres/pdf/140025_vol922.pdf.

⁵⁶ OPM, Fedscope Database, March 2013, http://www.fedscope.opm.gov/ibmcognos/cgibin/cognosisapi.dll.

Base Pay Compensation

Initial pay is determined through assessing various factors including compensation for a comparable private sector position, applicant's skills, professional and educational accomplishments, and the complexity of the work being performed. Additional factors could be included such as type of position, personal qualifications, budget considerations, and organizational equity. The pay range for HQEs begins at GS-15 step 1 (currently \$100,624) and goes up to the limit of Level IV of the Executive Schedule (currently \$157,100).⁵⁷ Title 5 provisions do not apply to HQEs under this policy.

Additional Pay and Benefits

HQEs are eligible for locality-based comparability payments in addition to basic pay. However, the total rate of pay for basic pay and locality pay cannot exceed Executive Service Level III (currently capped at \$167,000). HQEs may also receive recruitment, relocation, and retention incentive payments but may not receive other premium payments. Legislative limits set the total aggregate pay cap at the level of the Vice President of the United States, currently set at \$233,000.

Case Example: Defense Advanced Research Projects Agency

DARPA uses a variety of alternative hiring mechanisms to bring in highly qualified experts. Prior to 2004, the HQE authority had been used interchangeably with DARPA's 1101 authority (described previously) and the Intergovernmental Personnel Act (IPA) Mobility Program. The HQE authority was originally modeled after the 1101 authority. However, internal DOD changes in policy led to a much more complex system for approving new HQE hires. In addition, reductions in maximum pay have led to limited use of HQEs by DARPA. According to a FY 2012 DARPA report to Congress, only 1 HQE position was filled in FY 2012.⁵⁸ DARPA indicated that the HQE position has less use now than the IPA or 1101 authorities currently being used.

Highly Qualified Experts in the Intelligence Community

On October 16, 2008, Intelligence Community (IC) Directive 623 established the process for the Director of National Intelligence (DNI) to employ HQEs.⁵⁹ The DNI is

⁵⁷ OPM, Salary Table No. 2014-EX, http://www.opm.gov/policy-data-oversight/pay-leave/salarieswages/salary-tables/pdf/2014/EX.pdf.

⁵⁸ DARPA, DARPA Highly Qualified Expert (HQE)/Intergovernmental Personnel Act (IPA) Positions Fiscal Year 2012 Report, May 2, 2013, http://insidedefense.com/iwpfile.html?file=pdf13%2F06192013 darpa.pdf.

⁵⁹ DNI, "Appointment of Highly Qualified Experts," Intelligence Community Directive Number 623, http://www.dni.gov/files/documents/ICD/ICD_623.pdf for full guidance.

empowered under 50 U.S.C. § 403-1 (f)(3)(a)(iii) to "encourage and facilitate the recruitment and retention by the intelligence community of highly qualified individuals for the effective conduct of intelligence activities." The IC Directive notes that the process is designed to ensure that the IC can compete with other agencies that currently have flexible hiring processes. The provisions within the IC Directive closely match the DOD HQE program. HQEs can be hired in the Office of the Director of National Intelligence (ODNI) and all IC components, including those designated by the DNI and head of the agency of interest.

The following personnel may request that the DNI make HQE appointments: Deputy Directors of National Intelligence, Associate Directors of National Intelligence, ODNI officials with authority equivalent to that of the Deputy or Associate Director, and heads of IC components. The DNI, Principal Deputy Director of National Intelligence, and the Director of the Intelligence Staff are authorized under the guidance to make appointments. The guidance also allows HQEs to be detailed to IC components on a reimbursable or nonreimbursable basis.

Term Structure

Similar to the DOD requirements, appointments are made for up to 5 years. There is a similar exception clause allowing for the DNI to extend an appointment for an additional year. The guidance also allows for the requesting or appointing authority to terminate the appointment at any time for any reason.

Base Pay Compensation

Initial pay is determined through assessing various factors including compensation for a comparable private sector position, qualifications, professional experience, mission impact of work assignments, and type of degree of the applicant. The requesting official recommends an initial pay to the authorizing official. The DNI has the authority under the IC Directive to set the rate of basic pay for HQEs up to the salary of the Vice President (\$233,000). Pay increases up to this threshold are based on employee performance and level of accomplishment.

Additional Pay and Benefits

HQEs are eligible for the same benefits as employees in the Senior National Intelligence Service. These include retirement, health insurance, and life insurance. However, employees are not eligible for additional payments above basic pay other than for relocation and recruitment. The total aggregate pay including relocation and recruitment bonuses may not be greater than the salary of the Vice President.

Civilian Faculty at Military Academies

Civilian faculty member hiring practices at military schools and academies have been provided special allowances through Title 10 U.S.C. Provisions within Title 10 allow for the secretaries of each military department to hire and determine the compensation levels for their civilian instructors and professors at the military academies they govern. Title 10 U.S.C. § 1595 gives the Secretary of Defense the same authorities for schools under DOD's purview. These authorities effectively place faculty within the excepted service without requiring the traditional rationale that these positions cannot be hired through establishing standard criteria and ranking applicants.

Hiring Process

The Under Secretary of Defense for Personnel and Readiness issued DOD Instruction (DODI) 1402.06 in 2007 establishing policies and standards for recruiting civilian faculty members in DOD educational institutions.⁶⁰ This three-page document provides broad instructions to post-secondary military educational institutions such as directing institutions to develop titles and duties for faculty that are comparable to civilian colleges and universities in order to stay competitive with those institutions. DOD Instruction 1402.06 also indicates that the Under Secretary of Defense for Personnel and Readiness may issue further guidance if necessary.

Despite this guidance, there are no uniform process for hiring civilian faculty at military academies. While some jobs may be posted to USAjobs.gov, this is not a requirement for schools. Several human capital officials indicated that hiring processes are often developed at the institution level with some oversight from the service leadership. At several institutions, the hiring process mirror that of private universities with the chair of the department taking the predominate role in chairing a search committee. Interviewees indicated that the process for hiring can be short or rather lengthy depending on the levels of approval needed to search and hire a faculty member.

Base Pay and Additional Compensation

The authorizing official for each authority is given broad authority to set compensation levels and determine how initial salaries are determined. The pay structure at each university varies widely with some universities using pay banding systems while others have developed their own schedules with steps similar to the GS. Maximum pay

⁶⁰ DOD, Civilian Faculty Positions in Department of Defense (DOD) Post-Secondary Educational Institutions. DODI 1402.06, November 6, 2007, http://www.tia.mii/unba/dimetions/comma/df/14020/ca.mdf

http://www.dtic.mil/whs/directives/corres/pdf/140206p.pdf.

levels have been established by multiple services but the specific cap varies. One institution set maximum aggregate pay for professors with MDs at \$400,000.

Term Structure

In looking at several universities, faculty are often given time-limited appointments with the possibility of indefinitely extending them. Term lengths vary from 1 year to an indefinite amount of time. Indefinite appointments effectively give faculty tenure at an institution. In discussions with human capital personnel at these institutions, they indicated that the time-limited nature of these appointments is sometimes unappealing to faculty compared to private universities and colleges.

Defense Civilian Intelligence Term Appointment Authority

The NDAA for FY 1997, codified in 10 U.S.C. § 1608, gives the Secretary of Defense the authority to make time-limited appointments to defense intelligence positions. Defense intelligence positions are not subject to Title 5 competitive service provisions and include Intelligence Senior Level positions and Defense Intelligence Senior Executive Service positions.⁶¹ The SECDEF may also authorize other appointing officials to make these appointments. The authority does not specify additional or alternate compensation components than currently allowed for permanent civilian intelligence employees at the DOD. See 10 U.S.C. Chapter 83, Subchapter I for further information on the hiring process, base pay, and additional compensation offered to civilian intelligence personnel.

Term Structure

Time-limited appointments are statutorily limited to not exceed two years. However, the SECDEF is required to review term appointees after the first year of employment to determine if the appointment should continue. Time-limited civilian intelligence employees are not eligible for noncompetitive appointments to the Defense Intelligence Senior Executive Service.

⁶¹ Title 10 U.S.C. § 1601.

Appendix E. General Schedule (GS) and Executive Schedule (EX) Salary Tables

Grade	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Within Grade Amounts
1	\$17,981	\$18,582	\$19,180	\$19,775	\$20,373	\$20,724	\$21,315	\$21,911	\$21,934	\$22,494	Varies
2	20,217	20,698	21,367	21,934	22,179	22,831	23,483	24,135	24,787	25,439	Varies
3	22,058	22,793	23,528	24,263	24,998	25,733	26,468	27,203	27,938	28,673	735
4	24,763	25,588	26,413	27,238	28,063	28,888	29,713	30,538	31,363	32,188	825
5	27,705	28,629	29,553	30,477	31,401	32,325	33,249	34,173	35,097	36,021	924
6	30,883	31,912	32,941	33,970	34,999	36,028	37,057	38,086	39,115	40,144	1,029
7	34,319	35,463	36,607	37,751	38,895	40,039	41,183	42,327	43,471	44,615	1,144
8	38,007	39,274	40,541	41,808	43,075	44,342	45,609	46,876	48,143	49,410	1,267
9	41,979	43,378	44,777	46,176	47,575	48,974	50,373	51,772	53,171	54,570	1,399
10	46,229	47,770	49,311	50,852	52,393	53,934	55,475	57,016	58,557	60,098	1,541
11	50,790	52,483	54,176	55,869	57,562	59,255	60,948	62,641	64,334	66,027	1,693
12	60,877	62,906	64,935	66,964	68,993	71,022	73,051	75,080	77,109	79,138	2,029
13	72,391	74,804	77,217	79,630	82,043	84,456	86,869	89,282	91,695	94,108	2,413
14	85,544	88,395	91,246	94,097	96,948	99,799	102,650	105,501	108,352	111,203	2,851
15	100,624	103,978	107,332	110,686	114,040	117,394	120,748	124,102	127,456	130,810	3,354

Table E-1. Annual GS Rates by Grade and Step (Effective January 2014)

Source: Office of Personnel Management, Salary Table 2014-GS, https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/2014/general-schedule/.

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	Level	Rate
_	Ι	\$201,700
	II	181,500
	III	167,000
	IV	157,100
	V	147,200

Table E-2. Annual EX Rates by Grade and Step (Effective January 2014)

Source: Office of Personnel Management, Salary Table 2014-EX, http://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/pdf/2014/EX.pdf.

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Glossary

Aggregate Limitation on Pay	A limit under Title 5 U.S.C. on the total amount of allowances, differentials, bonuses, awards, or other similar payments an employee may receive in a calendar year, when combined with the employee's basic pay.
Alternative Pay Schedule	A pay system that does not use the General Schedule grades. Examples include the Senior Executive Service Schedule, the Foreign Service pay plan, and the Federal Wage System.
Appointment	An appointment brings an individual onto the rolls (staff) of an agency
Conversion	A conversion changes an employee from one appointment to another appointment (under either the same or different authority) in the same agency with no break in service or with a break of 3 days or less
Extension	An extension continues a time-limited appointment (one with a NTE date) up to the maximum time allowed by the authority under which it was effected
Appointment Not-to-Exceed	Appointment not to exceed includes temporary or limited appointments made for periods up to one year or less
Term Appointment	Term appointment is an appointment made to a position that will last longer than 1 year but with a specified not- to-exceed date and that is of a project nature where the job will terminate upon completion of the project
Emergency Appointment	Emergency Appointment is an indefinite appointment made in a national emergency, as defined in 5 CFR Part 230, Subpart D.
Career Appointment	Competitive service permanent appointment given to an employee who has completed 3 substantially continuous, creditable years of Federal service. In special cases (such as Administrative Law Judges), career appointment may be given to a person at the time he or she is hired from a civil service register. See 5 CFR Part 315.
Excepted Service	Unclassified service, unclassified civil service or positions outside the competitive service and the senior executive service. Excepted service positions have been excepted from the requirements of competitive service

	by law, Executive order, or OPM regulation. See 5 U.S.C. § 2103 and 5 CFR Part 213.
Indefinite Appointment	One given a nonpermanent employee who is hired for an unlimited period of time.
Pay-Band System	An alternative pay schedule that combines some of the grades from the General Schedule (GS) scale into broader clusters called "bands" of grades. Instead of the typical 15 grades in the GS, there are fewer, yet broader salary ranges in a pay-banding system.
Provision Appointment	A temporary appointment to a continuing position when the agency intends later to convert the employee to a permanent appointment and has current authority for such conversion
Reduction in Force	When an agency must abolish positions, the Reduction in Force regulations determine whether an employee keeps his or her present position or has a right to a different position
Recruitment Incentives	Are payments made to the newly-appointed employees when an agency determines that a position is likely to be difficult to fill in the absence of an incentive (5 U.S.C. § 5753, Chapter 35)
Relocation Incentives	Are payments made to current employees who must relocate to accept a position in a different geographic area when an agency determines that the position is likely to difficult to fill in the absence of an incentive (5 U.S.C. § 5753)
Retention Incentives	Are payments made to employees when an agency determines that the unusually high or unique qualification of the employee or a special need of the agency for the employee's services makes it essential to retain the employee and that the employee would be likely to leave the Federal Service in the absence of a retention incentive (5 U.S.C. § 5754)
Senior Executive Service	Most managerial, supervisory, and policy positions classified above General Schedule grade 15 or equivalent positions in the executive branch of the Federal Government.
Temporary Appointment Tenure	An appointment made for a period not-to-exceed 1 year The period of time an employee may reasonably expect to service under his or her current appointment. Tenure is governed by the type of appointment under which an employee is currently serving, without regard to whether the employee has competitive status or whether the employee's appointment is to a competitive eservice position or an excepted service position

Time-Limited Appointment An appointment made for a limited period of time and with a specific not-to-exceed date determined by the authority under which the appointment is made

Abbreviations

ARPA-E	Advanced Research Projects Agency–Energy				
CFR	Code of Federal Regulations				
DARPA	Defense Advanced Research Projects Agency				
DHS					
DNI	Department of Homeland Security				
DOC	Director of National Intelligence Department of Commerce				
DOD	Department of Defense				
DODIG	Department of Defense Inspector General				
DODIG	Department of Energy				
DOL					
DOJ	Department of Interior				
DOJ	Department of Justice				
	Department of State				
DOT	Department of Transportation				
EHRI	Enterprise Human Resource Integration				
EPA	Environmental Protection Agency				
EX	Executive Schedule				
FY	fiscal year				
HHS	Department of Health and Human Services				
HQE	Highly Qualified Expert				
HSARPA	Homeland Security Advanced Research Projects				
	Agency				
IC	Intelligence Community				
ICD	Intelligence Community Directive				
IDA	Institute for Defense Analyses				
NASA	National Aeronautics and Space Administration				
NDAA	National Defense Authorization Act				
NRC	Nuclear Regulatory Commission				
NSA	National Security Agency				
NSF	National Science Foundation				
NTE	not-to-exceed				
ODNI	Office of the Director of National Intelligence				
OPM	Office of Management and Budget				
OSD	Office of the Secretary of Defense				
OSTP	Office of Science and Technology Policy				
R&D	research and development				
RIF	reduction in force				
S&T	science and technology				
SBRS	Senior Biomedical Research Service				
SDM	Statistical Data Mart				
SECDEF	Secretary of Defense				
	•				

SES	Senior Executive Service
STEM	science, technology, engineering, and mathematics
STPI	Science and Technology Policy Institute
STRL	Science and Technology Reinvention Laboratory
USDA	United States Department of Agriculture
U.S.C.	United States Code

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ensuring natio	onal security, an	nd promoting ec	conomic prosperity. Hi	iring some of	these ST	EM personnel into nonpermanent	
						flow of innovative ideas and expertise,	
						ents in science and technology fields. This	
						Il STEM positions. STPI researchers	
						system and interviewed human capital term appointments for STEM positions.	
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