



United States Government Accountability Office  
Washington, DC 20548

September 10, 2008

Congressional Requesters

Subject: *NASA Workforce: Briefing on National Aeronautics and Space Administration's Use of Term Appointments*

Congress expanded the National Aeronautics and Space Administration's (NASA) ability to use term appointments to fill civil service positions in 2004. NASA sought this flexibility to ensure that it could hire and retain the workforce it desired. In a joint explanatory statement accompanying the Consolidated Appropriations Act, 2008 (Pub. L. No. 110-161), you asked us to review NASA's use of term appointments for civil servant positions. We briefed the committees on the results of our review. This report summarizes that briefing, which is reprinted in full as an enclosure. As agreed to by the committees, this concludes our work performed under this mandate.

## **Summary**

Since receiving its expanded human capital flexibilities, NASA has steadily increased its use of term appointments when hiring new employees. Subsequently, NASA has increased the number of conversions from term to career or career-conditional appointments. From 2003 through 2007, the majority of employees who separated from NASA voluntarily retired. Less than 1 percent separated because the employee's appointment expired. NASA's goal is to evolve to a science and engineering workforce that at a minimum is comprised of 15 percent term/temporary appointments by 2013. However, NASA centers are given the option to use term appointments for other positions.

## **Background**

Over the past few years, GAO and others in the federal government have underscored the importance of human capital management and strategic workforce planning. Federal agencies, as a whole, face new and increasingly complex challenges in the 21st century and must transform their organizations to meet the challenges of long-term fiscal constraints, changing demographics, evolving governance models, and other factors. This involves developing a strategic approach to human capital management that integrates human capital efforts with their missions and program goals, which we have recently reported federal agencies typically lack.

In response to an increased governmentwide focus on strategic human capital management, NASA has taken several steps to improve its human capital management. These include steps such as requesting and receiving additional human capital flexibilities through the NASA Flexibility Act of 2004 (Pub. L. No. 108-201) (Flexibility

Act) to help the agency compete successfully with the private sector in attracting and retaining employees and to reshape and redeploy its workforce to support its mission.

Congress passed the Flexibility Act, which included a term appointment authority that was broader than that otherwise generally available to government agencies. In general, federal agencies may make term appointments for 1 to 4 years where the need for employee services is not permanent.<sup>1</sup> The Flexibility Act grants NASA an expanded term appointment authority that allows the agency to make term appointments for 1 to 6 years and also allows NASA to non-competitively convert employees from term to career or career-conditional appointments under certain conditions.<sup>2</sup> Reasons for making a term appointment include project work such as NASA's science and exploration projects, scheduled abolishment of a position, reorganization, or uncertainty of future funding. According to NASA, such authority is particularly useful to NASA as it manages the agency's transition from the Space Shuttle Program to a new generation of transportation vehicles. Other flexibilities granted NASA include recruitment, relocation and retention bonuses, as well as the creation of a Science and Technology Scholarship Program.

Another human capital management tool that is available to all federal agencies is the reduction-in-force (RIF)<sup>3</sup> process, which federal agencies use to separate or demote employees for reasons such as lack of work, reorganization, shortage of funds, or the exercise of certain reemployment or restoration rights. NASA has stated that it will only use its RIF authority as a measure of last resort. However, NASA has been prohibited from conducting a RIF since 2005 when Congress included moratorium language in the NASA Authorization Act of 2005<sup>4</sup> (Pub. L. No. 109-155).

### **NASA's Use of Term Appointments**

Since passage of the Flexibility Act, NASA's use of term appointments has steadily increased. We examined NASA's demographic trends from fiscal years 2003 through 2007 and found that term appointment hiring is increasing and surpassed full-time permanent hiring in fiscal year 2005 (see fig. 1). Currently, term appointments make up 8 percent of NASA's total workforce, and range from 3 percent to 20 percent depending on the center. Overall, NASA has experienced an increase in hiring levels at the agency.

The majority of NASA's civil service workforce is made up of scientists and engineers. NASA saw a marked decrease in full-time permanent hiring for science and engineering

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<sup>1</sup> 5 C.F.R. Part 316 Subpart C (2008).

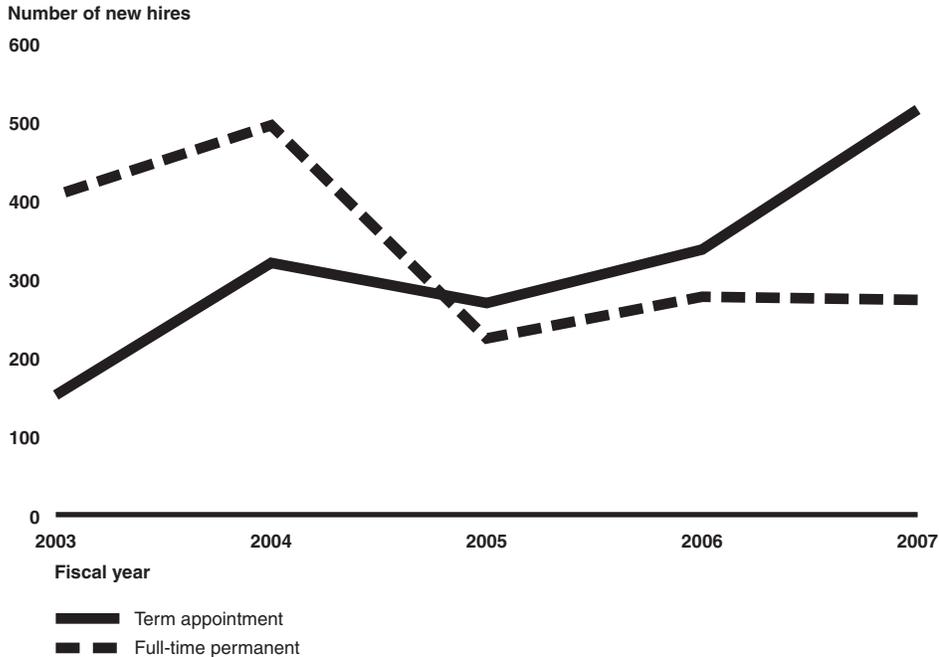
<sup>2</sup> Permanent employees are generally hired into the federal government under a career-conditional appointment. A career-conditional employee must complete 3 years of substantially continuous service before becoming a full career employee. Career-conditional employees automatically become career employees upon completion of this service requirement.

<sup>3</sup> 5 C.F.R. Part 351 (2008).

<sup>4</sup> The Consolidated Appropriations Act, 2008 (Pub. L. No. 110-161) had the effect of extending a moratorium on RIFs that was included in the NASA Authorization Act of 2005 (Pub. L. No. 109-155). Specifically, the act states that "no funds shall be used to implement any Reduction in Force or other involuntary separations (except for cause) by NASA prior to September 30, 2008."

positions while significantly increasing term appointment hiring for science and engineering positions from fiscal years 2003 through 2007, which mirrors the overall workforce trends shown in figure 1.

**Figure 1: Trend of Full-time Permanent and Term Appointment New Hires**



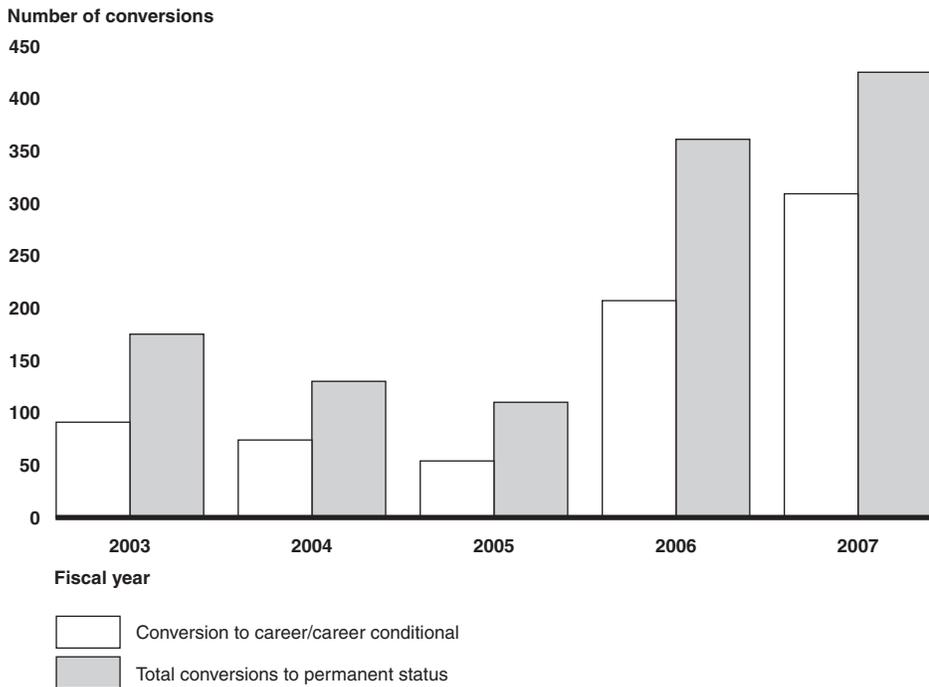
Source: GAO analysis of NASA data.

The Flexibility Act grants NASA the ability to non-competitively convert term appointments to career or career-conditional appointments if certain conditions are met, such as

- the current term appointment was made from a competitive announcement that stated the potential for conversion to a permanent appointment;
- the term appointee completed at least 2 years of continuous service; and
- the term appointee demonstrates good performance.

Since the passage of the Flexibility Act, NASA's conversion rates more than doubled from fiscal years 2005 through 2007 (see fig. 2), with Johnson Space Center accounting for the largest percentage of conversions when compared to other centers at NASA.

**Figure 2: Number of Conversions from Term Appointment Each Fiscal Year**



Source: NASA.

Note: Total Conversions to Permanent Status include Cooperative Education Program (co-op) conversions to career/career conditional appointments.

On the other side, most employee separations from NASA consisted of full-time permanent employees from fiscal years 2003 through 2007. Over half of all separations were for voluntary retirement—less than 1 percent of all separations during that time were due to expired appointments that were not renewed. Term appointments accounted for only 4 percent of all employee separations, and appointees left for various reasons such as resignation, transfer to another agency, expired appointment, and termination during the probationary period.

NASA has taken steps to fully integrate term employees with permanent employees in the NASA workforce. For example, policies that govern employee working conditions apply to all employees, regardless of term or permanent appointment. Furthermore, term employees are not identified in any way that separates them from their permanent coworkers. For example, according to NASA officials the badges of term and permanent employees are identical. Term employees receive the same benefits as permanent employees, such as coverage under Federal Employees Health Benefits, Federal Employees Group Life Insurance Programs, and Federal Employees Retirement System; annual and sick leave; and within-grade increases. Term employees are also covered by the same adverse action procedures as permanent employees as long as they have successfully completed their probationary period (which permanent employees must also complete). Further, term employees are allowed to apply for permanent positions

with NASA once they are eligible and when vacancies are advertised, and may be eligible for noncompetitive conversion to permanent appointment if certain criteria are met.

NASA considers its term hiring authorities to be among the most important of its human resources strategies and believes that term appointments provide an attractive employment package for applicants, while still not burdening the agency with the obligations of permanent employees. NASA believes the agency needs to have a more flexible workforce to respond effectively to mission, programmatic, and budget changes as well as demographic and labor market fluctuations, and that the agency needs evolve to a more appropriate blend of permanent and nonpermanent civil servants. In light of this, NASA has set a goal for NASA centers to maintain a minimum of 15 percent term/temporary workforce for science and engineering positions by 2013 (not including students or Cooperative Education Program).<sup>5</sup> While the 15 percent goal is focused only on science and engineering positions, most centers target all hires for term appointments. NASA has committed to the Office of Management and Budget to increase its use of term appointments in order to increase its future ability to downsize its civil service workforce if necessary due to the changing nature of the agency's work, program and project funding decreases, and/or termination of program or project work. NASA officials stated the agency's options are limited for creating a flexible workforce given the prohibition on RIF and that using term appointments generally has not seemed to deter applicants. We are not making any recommendations in this report.

### **Agency Comments and Our Evaluation**

In written comments on the draft report, NASA generally agreed with the information presented and our conclusions. NASA also provided some observations on the report, which have been addressed in the report, as appropriate. NASA's written comments are reprinted in enclosure II.

### **Scope and Methodology**

To assess NASA's use of term appointments, we reviewed and analyzed criteria such as laws, regulations, requirements documents, and stakeholder reports as well as analyzed workforce data and identified trends. We also interviewed appropriate officials from NASA, including those within the Office of Human Capital Management, Office of General Counsel, Space Operations Mission Directorate, Exploration Systems Mission Directorate, and Kennedy Space Center; the International Federation of Professional and Technical Engineers; and the National Academy of Public Administration. We assessed the reliability of the data and determined that they were sufficiently reliable for the purposes of this report. For more information on how we conducted our review, please see the scope and methodology section in the enclosed briefing.

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<sup>5</sup> NASA officials stated that the 15 percent goal was determined by taking into consideration information from worst-case staffing scenarios, a model used to predict the degree of workforce change at each center over the 5-year budget horizon, and prior experience with centers operating with term to permanent employee ratios relatively close to the 15 percent target. GAO did not validate the reliability of NASA's model.

We conducted this performance audit from February 2008 to May 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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We are sending copies of this report to the NASA Administrator and other interested congressional committees. We will also make copies available to others upon request. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you or your staff have any questions regarding this report, please contact me at (202) 512-4841 or [chaplainc@gao.gov](mailto:chaplainc@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions to this report are listed in enclosure III.



Cristina T. Chaplain  
Director, Acquisition  
and Sourcing Management

Enclosures - 3

*List of Requesters*

The Honorable Barbara A. Mikulski  
Chairman  
The Honorable Richard C. Shelby  
Ranking Member  
Subcommittee on Commerce, Justice, Science,  
and Related Agencies  
Committee on Appropriations  
United States Senate

The Honorable Alan B. Mollohan  
Chairman  
The Honorable Rodney P. Frelinghuysen  
Ranking Member  
Subcommittee on Commerce, Justice, Science,  
and Related Agencies  
Committee on Appropriations  
House of Representatives

The Honorable Mark Udall  
Chairman  
The Honorable Tom Feeney  
Ranking Member  
Subcommittee on Space and Aeronautics  
Committee on Science and Technology  
House of Representatives

# Enclosure I: Briefing Slides



**GAO**

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## Briefing to Congressional Requesters

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## NASA's Use of Term Appointments

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- Mandate
  - A joint explanatory statement accompanying the Consolidated Appropriations Act, 2008 requires that GAO review NASA's use of term appointments for civil service positions
- Objective
  - Identify trends regarding NASA's use of term appointments for civil service positions
- Reporting
  - Plan to issue a product summarizing our findings during the late summer



To assess NASA's view on the use of term appointments, interviewed officials from

- NASA, including those within the:
  - Office of Human Capital Management
  - Office of General Counsel
  - Space Operations Mission Directorate
  - Exploration Systems Mission Directorate
  - Kennedy Space Center
- International Federation of Professional and Technical Engineers
- The National Academy of Public Administration



- Reviewed and analyzed laws, guidance, requirements documents, internal NASA studies and reports, prior GAO reports, and other issued reports related to NASA's workforce.
- Examined NASA's workforce strategy and human capital plans to determine current and future plans for the use of term appointments and NASA's efforts in workforce transition.
- Analyzed data from NASA's Workforce Information Cubes for NASA (WICN), which is a workforce reporting and monitoring system. Specifically, to assess NASA's workforce new hire and separation demographics, we analyzed WICN data on NASA employees from fiscal year 2003 through 2007. We limited our analysis to full time permanent, part time permanent, temporary, term appointment, and intern-fellow employee data.



- We assessed the reliability of the NASA workforce data by (1) reviewing existing information about the data and the system that produced them, (2) interviewing agency officials knowledgeable about the data, (3) reviewing past data reliability assessments. We determined that the data were sufficiently reliable for the purposes of this engagement.
- We conducted this performance audit from February 2008 to May 2008, in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Term Appointments Available Government-  
Wide

- U.S. Code of Federal Regulations (5 C.F.R. Part 316 (2008))
- Civil service regulations for temporary and term employment by agencies
- Agencies may make term appointments for 1 – 4 years where the need for employee services is not permanent
- Reasons for making a term appointment include
  - project work,
  - extraordinary workload,
  - scheduled abolishment,
  - reorganization,
  - uncertainty of future funding



- Grants NASA the ability to make term appointments for 1 – 6 years
- Allows NASA to convert employees from term to permanent appointment without competition under certain conditions
- Requires NASA to submit a workforce plan to include identifying and addressing areas of critical need
  - Critical need is a specific and important requirement that NASA cannot fill due to an inability to fill positions or employees do not possess the requisite skills
- Other flexibilities include –
  - Recruitment, relocation and retention bonuses
  - Creation of Science and Technology Scholarship Program
  - Limited appointments to SES positions

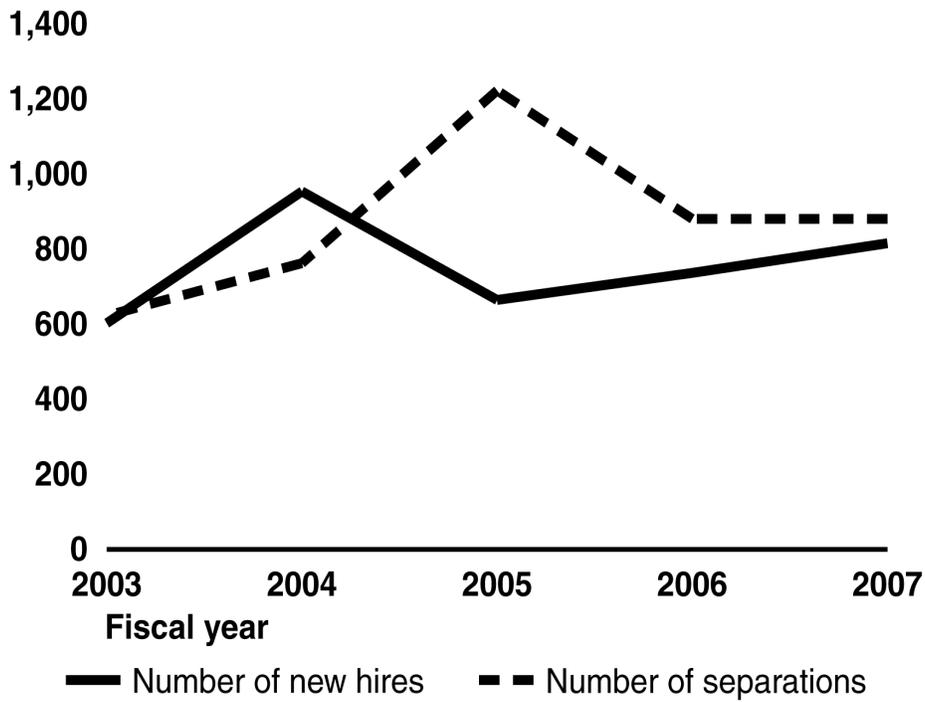


NASA Overall Workforce Trends  
from Fiscal Years 2003 – 2007

- Overall, NASA experienced an increase in hiring levels from fiscal years 2003 – 2007, with a peak in fiscal year 2004
- NASA also experienced an increase in separations from the agency, with a peak in fiscal year 2005
- Science and engineering as well as professional administrative staff made up the majority of all new hires and separations
- Aerospace engineering and general engineering represent the top 2 occupations for hiring and separations
- Majority of new hires are between the ages of 30 – 49
- Majority separations are between the ages of 50 – 69



### Overall Number of NASA New Hires and Separations by Fiscal Year



Source: GAO analysis of NASA data



- Since passage of the NASA Flexibility Act of 2004, NASA's use of term appointments has increased.
- Goal of 15 percent of science and engineering positions
  - Use for other positions determined by Centers
- Term appointments seen by NASA management as a tool to manage the workforce due to the moratorium on the use of reduction-in-force
- NASA officials stated that NASA is using its term appointment authority consistent with the purposes for which it originally requested this flexibility
- NASA's guidance implementing the NASA Flexibility Act of 2004 lists similar reasons for making a term appointment as the Code of Federal Regulations



- Some Centers base decisions to hire terms on analysis of the position, such as the recruitment market or uncertain work volume
- Center officials stated that using term appointments generally does not deter applicants
- Barriers to hiring terms include hiring ceilings and market competitiveness

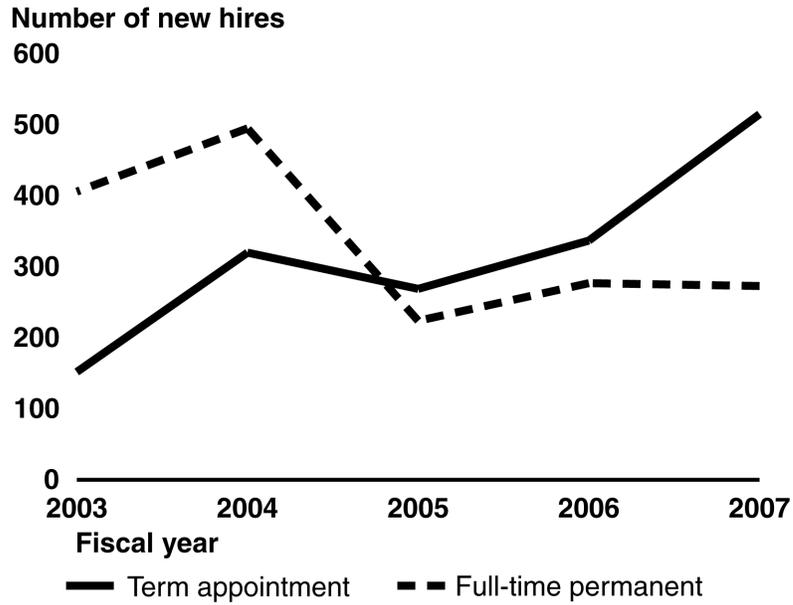


Conversion of Term Appointments  
to Permanent Status

- Term employees allowed to apply for permanent positions with NASA once they are eligible and vacancies are advertised
- Term employees appointed under the NASA Flexibility Act of 2004 may be noncompetitively converted to a permanent competitive service appointment if specific criteria met, such as:
  - Current term appointment made from a competitive announcement that stated the potential for conversion to a permanent appointment
  - Completed at least 2 years of continuous service
  - Employee demonstrates good performance



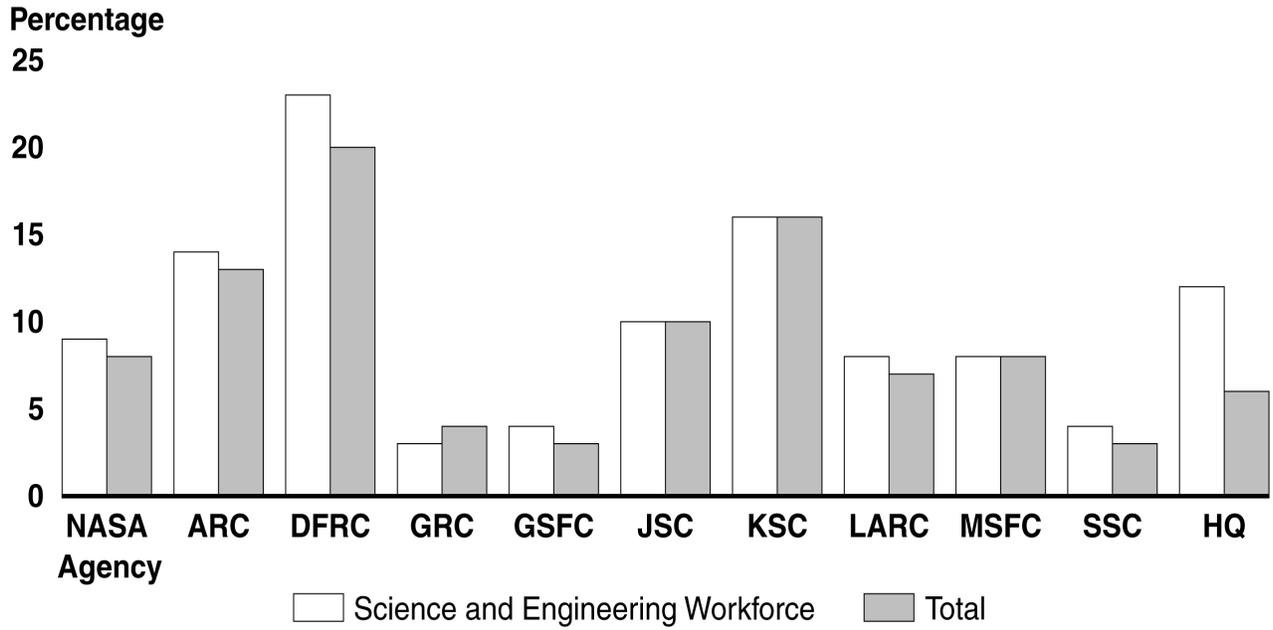
### Trend of Full-Time Permanent and Term Appointment New Hires



Source: GAO analysis of NASA data



### Percentage of NASA Term Appointment Workforce by Center



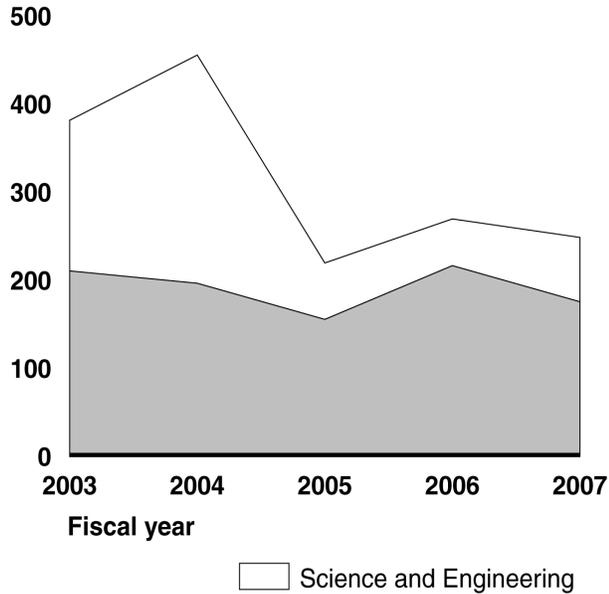
Source: NASA



Number of Full-Time Permanent and Term Appointment  
 Science and Engineering and Professional Administrative  
 New Hires each Fiscal Year

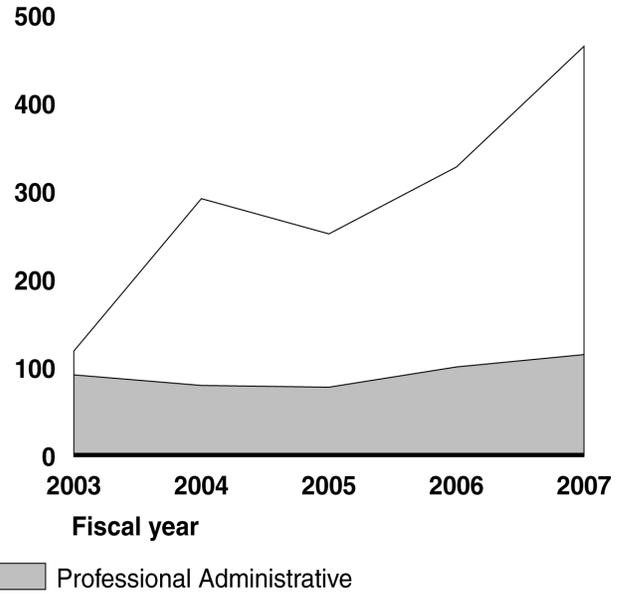
**Full Time Permanent**

Number of new hires



**Term Appointment**

Number of new hires

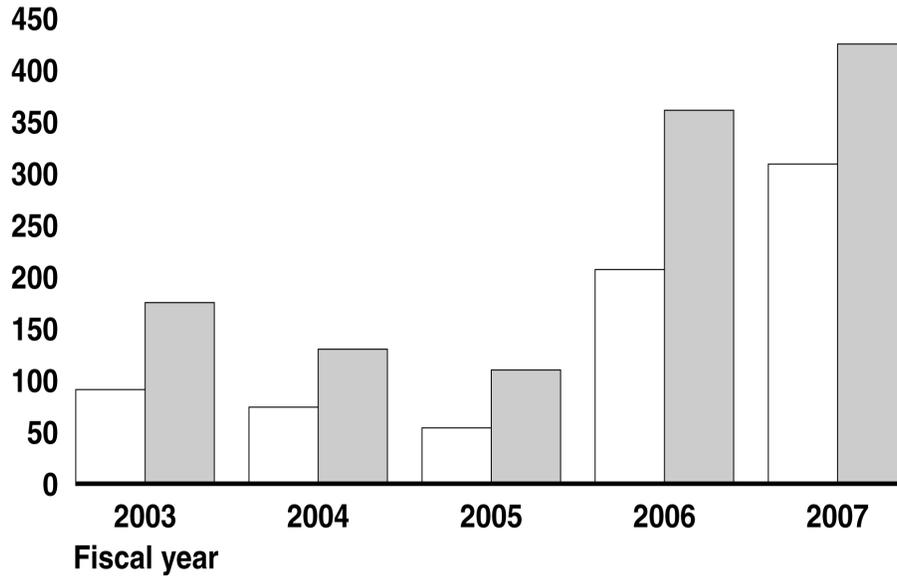


Source: GAO analysis of NASA data



### Number of Conversions from Term Appointment Each Fiscal Year

Number of conversions



□ Conversion to Career/Career Conditional    ■ Total Conversions to Permanent Status

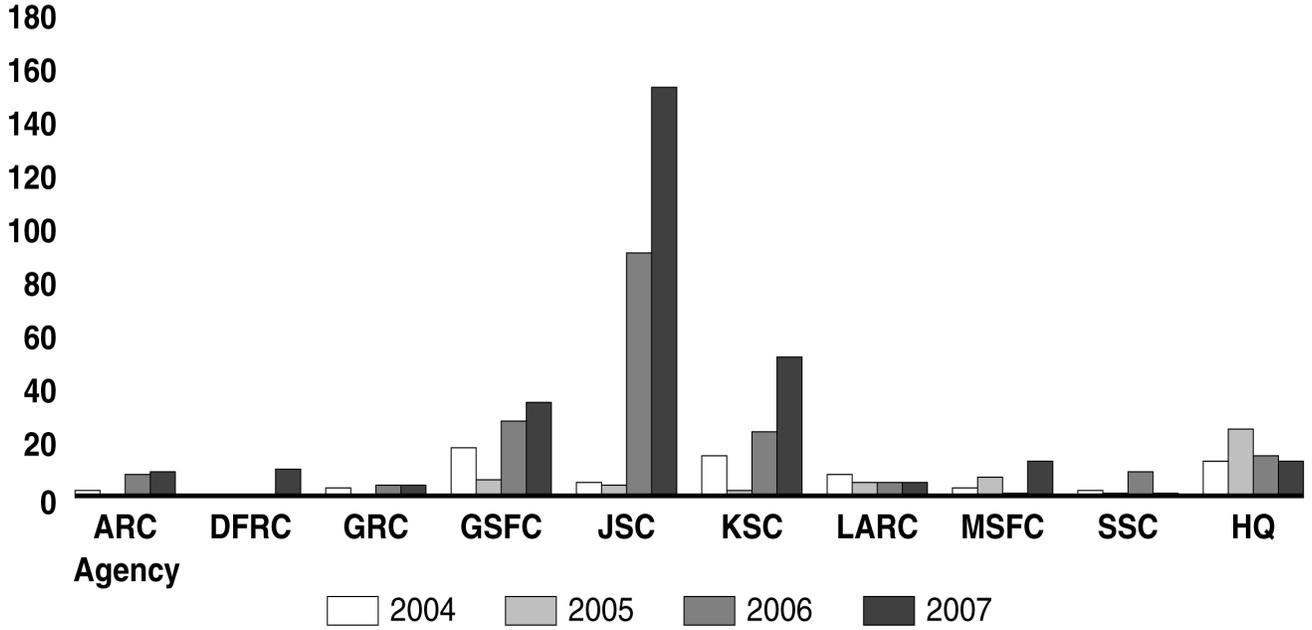
Note: Total Conversions to Permanent Status include Cooperative Education Program (co-op) conversions to career/career conditional appointments.

Source: NASA



Conversions from Term Appointment to Permanent by Center

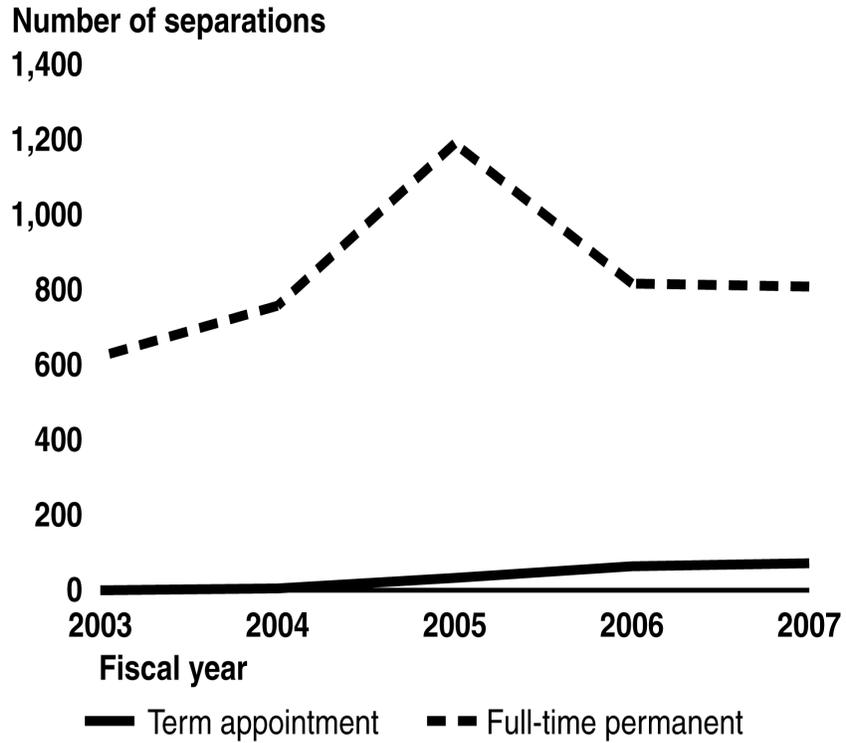
Number of conversions



Source: NASA



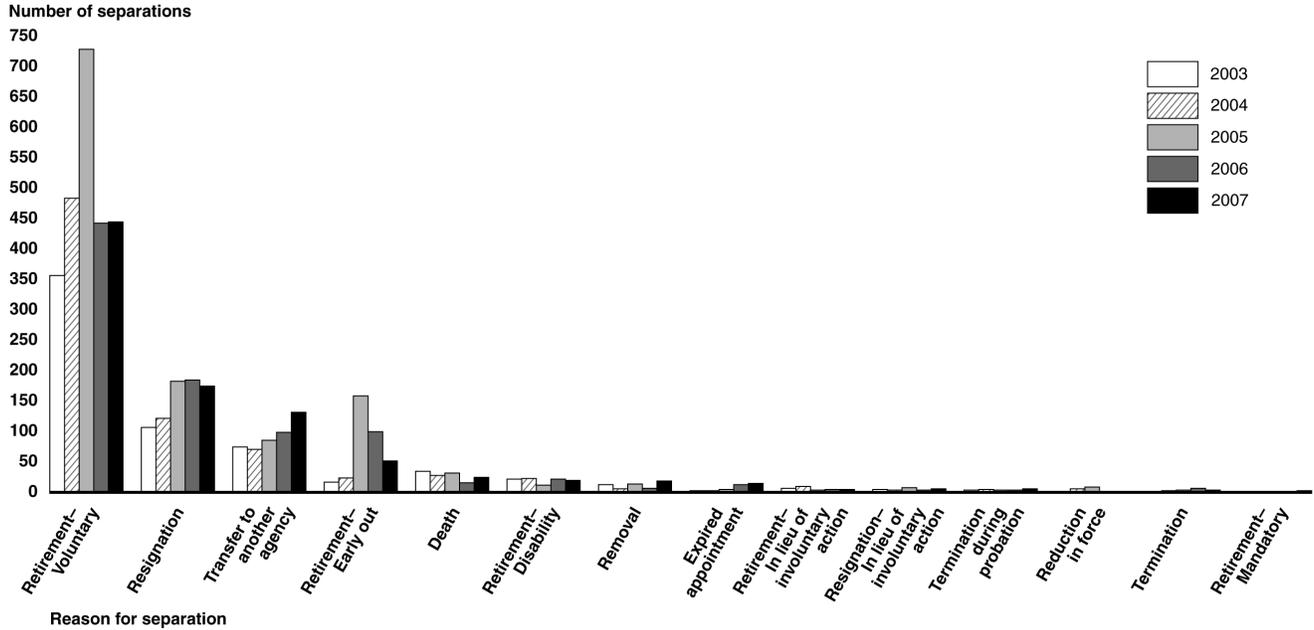
### NASA Workforce Separations by Type of Appointment for Fiscal Year 2003 - 2007



Source: GAO analysis of NASA data



### Trends of NASA Workforce Separations by Reasons Given for each Fiscal Year



Source: GAO analysis of NASA data



- NASA uses its term appointment authority to have a more scalable workforce
- Using term appointments to manage the workforce due to reduction-in-force limitations
- Use of term appointments for the science and engineering workforce is increasing
- Rate of conversions from term to permanent is also increasing
- Majority of separations due to retirement

# Enclosure II: Comments from the National Aeronautics and Space Administration

National Aeronautics and Space Administration  
Headquarters  
Washington, DC 20546-0001



August 22, 2008

Reply to Attn of: Space Operations Mission Directorate

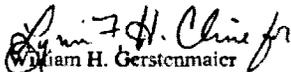
Ms. Christina T. Chaplain  
Director, Acquisition and Sourcing Management  
United States Government Accountability Office  
Washington, DC 20548

Dear Ms. Chaplain:

The National Aeronautics and Space Administration (NASA) appreciates the opportunity to comment on your draft report entitled, "NASA Workforce: Briefing on National Aeronautics and Space Administrations, Use of Term Appointments" (GAO-08-920R).

Overall, NASA finds the draft report to be thorough, objective, and helpful in addressing one of our top Agency activities, workforce management. We are pleased with your recognition of our positive steps and progress in this area and generally agree and support the conclusions you have reached. However, in reviewing the draft report, we have enclosed some observations that will help clarify a few points in the report. If you have any questions or require additional information, please contact Ms. Toni Dawsey at (202) 358-0520.

Sincerely,

  
William H. Gerstenmaier  
Associate Administrator  
for Space Operations

Enclosure

**NASA Comments on the Government Accountability Office (GAO)-08-920R  
Draft Report -  
NASA Workforce: Briefing on National Aeronautics and  
Space Administration's Use of Term Appointments**

The following observations will help clarify the following points in the report:

**Paragraph 1, *Summary*:**

This section paraphrases NASA's term policy, leaving out the target date as well as appointments that are nonpermanent but other than term. It states: "NASA's goal is to maintain a science and engineering workforce that at a minimum is comprised of 15 percent term appointments." NASA's current policy is: "Centers will evolve toward achieving and maintaining a minimum profile of 15 percent term/temporary workforce for science and engineering positions by 2013, (not including students/coops)."

**Paragraph 3, *Background*:**

The report notes that "Congress included moratorium language in the NASA Authorization Act of 2005 (Pub. L. No. 109-155)." Note that this same moratorium language has been included in each subsequent draft NASA Authorization Act, and has been included in the FY 2007, NASA Appropriations Act as well as the pending FY 2009, House and Senate Appropriations Acts.

**Paragraph 4, *Figure 2*:**

It is not clear what types of conversions are being compared in this figure. While the meaning of "Conversion to Career/Career Conditional" is clear, the meaning of "Total Conversions to Permanent Status" and what comprises it, is not.

# Enclosure III: GAO Contact and Staff Acknowledgments

## **GAO Contact**

Cristina Chaplain, (202) 512-4859 or [chaplainc@gao.gov](mailto:chaplainc@gao.gov)

## **Acknowledgments**

In addition to the contact named above, Jim Morrison, Assistant Director; M. Greg Campbell; Amber Lopez; Jean McSween; Jose Ramos; and Alyssa Weir made key contributions to this report.

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