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Comptroller General
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United States General Accounting Office
Washington, DC 20548

November 15, 2002

The Honorable Dana Rohrabacher
Chairman
The Honorable Bart Gordon
Ranking Minority Member
Subcommittee on Space and Aeronautics
Committee on Science
House of Representatives

Subject: *Human Capital Legislative Proposals to NASA's Fiscal Year 2003
Authorization Bill*

You asked us to provide additional comments on several issues relating to the July 18, 2002, hearing held by your Subcommittee on the National Aeronautics and Space Administration's workforce and management challenges. Basically, these issues are associated with NASA's proposed legislative provisions for additional flexibilities and authorities to help it address its human capital challenge. I am pleased to submit the following comments for your consideration.

- 1. You and the NASA Administrator recognized that it would require five to seven years for NASA to transform its workforce and meet the goals of its Strategic Human Capital Implementation Plan. Does NASA's Strategic Human Capital Implementation Plan include an appropriate set of goals and a sound strategy for addressing NASA's human capital challenges? Do you have any recommendations that would strengthen this plan?**

Because our work has not entailed a detailed analysis of NASA's Strategic Human Capital Implementation Plan, we are not in a position to report on the appropriateness and soundness of the goals and strategies at this time.¹ However, in response to your question, we observe that NASA's Strategic Human Capital Implementation Plan contains a number of goals and strategies, as well as specific improvement initiatives that the agency is implementing or is committed to implementing. The goals, strategies, and improvement initiatives are organized under

¹The focus of our work to date has been following up on NASA's actions to respond to its shuttle program workforce challenges.

five human capital pillars. Furthermore, the plan contains milestones for achieving the improvement initiatives and metrics for assessing their progress.

Until recently, NASA’s Strategic Human Capital Plan and companion Strategic Human Capital Implementation Plan were in draft form and were being reviewed by the Office of Management and Budget (OMB) and the Office of Personnel Management (OPM). OMB and OPM approved those plans subsequent to the Subcommittee’s hearing—in August 2002. According to NASA, it developed its plans based on OMB’s scorecard of human capital standards, OPM’s scorecard of supporting human capital dimensions, and our human capital model.² The pillars and goals are described below.

Table 1: NASA’s Strategic Human Capital Plan Pillars and Goals

Pillar	Goal
<p>Strategic Alignment</p> <p>NASA aligns human capital to support the vision and accomplish the agency’s mission and goals.</p>	<p>(1) The agency is well structured organizationally and matches its workforce and workload to support its mission in a safe, effective, and efficient way.</p> <p>(2) Employees understand how what they do and how they do them in support of overall agency goals.</p> <p>(3) Human resources activities clearly, effectively, and efficiently support and enable the agency’s mission.</p>
<p>Strategic Competencies</p> <p>NASA recruits, acquires, and retains a diverse workforce with world-class capabilities in strategic competencies needed for all components of its mission.</p>	<p>(4) The agency knows the competencies it needs and the workforce is concentrated in those competencies.</p> <p>(5) NASA recruits, acquires, and retains world-class employees in the essential competencies.</p>
<p>Learning</p> <p>NASA promotes a knowledge-sharing culture and a climate of openness, continuous learning, and improvement.</p>	<p>(6) NASA has a climate of open sharing of relevant knowledge to facilitate best practices, promote personal and professional growth, and avoid failures.</p> <p>(7) NASA actively collects, shares, and utilizes best practices from its successes and lessons learned from its failures.</p>
<p>Performance Culture</p> <p>NASA creates a culture that focuses on results, motivates employees to perform, and ensures fairness in the workplace.</p>	<p>(8) NASA fosters an inclusive climate where employees are valued and treated fairly and with respect, and they feel empowered to make meaningful, relevant, and fulfilling contributions.</p> <p>(9) Equal opportunity and diversity are utilized and valued for their contribution to the agency’s mission.</p> <p>(10) The NASA rewards and recognition system acknowledges high-level performance and encourages the behaviors the agency desires in individuals and groups.</p>
<p>Leadership</p> <p>NASA ensures it has leaders who are adaptable; who inspire, motivate, and guide others toward goals; who mentor and challenge the workforce; and who demonstrate high standards of honesty, integrity, trust, openness, and respect.</p>	<p>(11) NASA recruits, selects, hires, and retains a diverse, high performing cadre of leaders who are nurtured through training and development opportunities.</p> <p>(12) Leaders are held accountable for overall performance, at the individual and organizational levels, in maintaining high standards of honesty, integrity, safety and equal opportunity principles.</p>

Source: NASA.

²U.S. General Accounting Office, *A Model of Strategic Human Capital Management*, GAO-02-373SP (Washington, D.C.: Mar. 15, 2002).

One of the things that I pointed out at the Subcommittee's July 2002 hearing that agencies must do to successfully address their human capital challenges is to ensure that their strategic human capital plans are results-oriented and data-driven. This includes developing appropriate information on the number and location of employees and their key competencies and skills, as well as data on the profile of the workforce, and performance goals and measures for human capital approaches. Further, this data must be used effectively to develop strategies that continually ensure that agencies have the right mix of employees to meet their future needs. A key to success in this area will also be NASA's ability to implement its new financial management system, because it will encompass the integrated workforce planning and analysis system that NASA includes as an improvement initiative in its Strategic Human Capital Plan and plans to implement in 2005. The workforce planning and analysis system is expected to track the distribution of NASA's workforce across programs, capture critical competencies and skills, determine management and leadership depth, and facilitate gap analyses. Currently, NASA has limited capability for personnel tracking and planning, particularly on an agencywide or programwide basis. Based on the numerous initiatives NASA will need to undertake, transforming the agency will likely require a multi-year implementation period.

- 2. How effectively is NASA using existing authorities to meet its human capital goals?**
- 3. Do you have any recommendations for how NASA can more fully utilize the existing authorities?**
- 4. If fully utilized, are the existing authorities sufficient to meet NASA's goals? If not, what goals cannot be met without new or expanded authorities?**
- 5. Which proposed new or expanded authorities, if any, are required if NASA is to meet its human capital goals?**

Our work associated with NASA's human capital challenge has focused primarily on following up on the agency's actions to respond to its shuttle program workforce challenges. At this time, without having performed a more detailed analysis of NASA's human capital plans, we are not in a position to assess NASA's use of existing authorities, the sufficiency of those authorities, and their relationship to its agency-wide human capital goals.

However, we will soon issue a report on human capital flexibilities that could be of significant use to the Subcommittee as it considers NASA's request for additional authorities and flexibilities to recruit, train, and retain critical skills. The report emphasizes that federal agencies should first identify and use the flexibilities available under existing laws and regulations. If additional flexibilities are desired, agencies should develop sound business cases to justify the need for the additional authorities. In this regard, the report discusses agency and union officials' views on the most effective flexibilities for managing their workforces and additional flexibilities that would be most helpful in managing their workforces. It also identifies key practices that agencies should implement to use human capital flexibilities effectively.

According to interviews we held with agency officials at numerous federal organizations and union representatives of several national organizations, work-life programs, such as alternative and flexible work schedules, transit subsidies, child care assistance, and employee assistance programs, are among the most effective human capital flexibilities available in federal agencies for managing the workforce to achieve agency missions and accomplish agency goals. These flexibilities—all of which are currently available to NASA—are effective because they serve as important recruitment and retention tools as employees weigh the balance between their work life and leisure time. In addition, agency and union officials frequently cited monetary recruitment and retention incentives, including recruitment and relocation bonuses for hard-to-fill positions; special hiring authorities, such as limited term appointments and student employment and outstanding scholar programs; and incentive awards to employees for superior job performance and specific accomplishments, including cash and time-off awards.

Categories of additional flexibilities suggested by the officials that would be the most helpful in managing the workforce, if authorized, include (1) more flexible classification and pay approaches, (2) greater flexibility to streamline and improve the federal hiring process, (3) increased flexibility in addressing employees' poor job performance, (4) additional workforce restructuring options, and (5) expanded flexibility in acquiring and retaining temporary employees. These suggestions would provide a starting point for executive branch decision makers and Congress to consider as they seek to reform federal human capital policies and practices. Key aspects of these additional authorities are included in various legislative initiatives under consideration by Congress. In other cases, however, additional analyses may be needed to ensure that any new authorities are granted and implemented consistent with a focus on program results, merit, and other important federal employment goals.

Our forthcoming report also emphasizes the importance of effectively implementing human capital flexibilities, noting that by more effectively using flexibilities, agencies would be in a better position to manage their workforces, ensure accountability, and transform their cultures to address current and emerging demands. To ensure the most effective use of human capital flexibilities, it is important that agencies

- plan strategically and make targeted investments;
- ensure stakeholder input in developing policies and procedures;
- educate managers and employees on the availability and use of flexibilities;
- streamline and improve administrative processes;
- build transparency and accountability into the system; and
- change the organizational culture.

With regard to NASA, we plan to periodically monitor the agency's human capital planning and implementation efforts and report to Congress as appropriate. We will be pleased to meet with the Subcommittee in this regard.

6. What meaningful objectives and measurable goals would you recommend to track progress over the next five years as NASA implements its human capital plans?

It might be better to address this question in terms of the supporting metrics in the human capital plans that NASA has established for assessing its human capital goals. NASA's human capital plans refer to a hierarchy of metrics to assess the agency's progress toward achieving its goals. The plans state that the highest level of metrics are those "critical few" that NASA's senior management and stakeholders care most about and have identified as most appropriate for incorporation into the agency's Government Performance and Results Act-related annual performance and reporting process. Two specific metrics, which the plans state cover a number of goals, have been identified as critical to helping NASA assess its progress toward achieving its human capital aims and assisting it in analyzing root causes of problems and issues. Recognizing that we have not performed a detailed analysis of NASA's human capital plans, these metrics seem meaningful and reasonable to track over the next 5 to 7 years. However, this does not suggest that NASA's commitment to achieving the remaining human capital goals and measures in its human capital plans should be lessened or that the remaining goals and measures should not be tracked. The two critical metrics are:

(1) NASA's progress in closing gaps in critical competencies. Using this metric, NASA will be able to determine, on an agencywide basis, whether the gap between the strategic competencies it has and those it needs is no greater than 10 percent by the end of fiscal year 2004 and that, within the same period, no gaps exist in those competencies identified as "mission critical." Thereafter, NASA will reduce the strategic competencies gap to no more than 5 percent within 2 years and maintain at that level, except there will be essentially no gaps in competencies identified as mission critical.

(2) Alignment of NASA's human capital strategy with its mission, goals, and organizational objectives. This metric will allow NASA to determine whether it is achieving an overall combined score that is in the top 10 percent of all scores governmentwide on the OPM-administered governmentwide survey. This metric will assess NASA's performance relative to whether (a) people have the resources they need to perform their jobs, (b) the performance management system is effective in identifying poor performance and taking steps to improve performance, (c) awards and recognition programs incentivize and reward the behaviors the agency wants to foster, (d) the workforce has adequate opportunities for learning and improvement, and (e) NASA fosters an environment of inclusiveness.

According to NASA's Strategic Human Capital Implementation Plan, the results of the two critical metrics will serve as guideposts for evaluating the overall health of NASA's human capital management effort. NASA believes that they cover directly or indirectly agency progress in addressing all of the areas of concern expressed by internal and external parties regarding the agency's workforce, including:

- identifying and managing competencies needed to carry out the mission and eliminating gaps in mission critical competencies;
- succession planning;
- strategically using existing personnel tools, flexibilities, and technologies;
- differentiating between high and low performers through appropriate incentives and awards and merit-based human resources management; and
- appropriately considering skill mix, technology, electronic government, and competitive sourcing.

7. Could NASA meet its goals solely through the use of the proposed alternative personnel system demonstration authority? Are there risks associated with solely using the demonstration authority? Would this present any special challenges for congressional oversight?

NASA's legislative proposal for streamlined demonstration and alternative personnel system authority would provide a mechanism for converting a successful demonstration project,³ upon approval by OPM, to a permanent alternative personnel system, without the need for special legislation and without any limitation on the number of employees that would be covered by the project as is under current authority. It is our understanding that the NASA Administrator believes that it would be difficult for the agency to meet its goals solely through the use of this proposal. He testified at the July 2002 hearing that the legislative provisions when taken individually would only help NASA deal with its human capital strategic threats to a limited degree. The Administrator stated that when taken together as an integrated package, the provisions would form a strong nucleus in support of NASA's Strategic Human Capital Plan and the President's Management Agenda and would enable NASA to avert a serious human capital crisis.

Without having fully analyzed this proposal in relation to NASA's unique human capital needs, it is difficult at this time to state whether NASA could meet its goals solely through the use of the proposed alternative personnel system demonstration authority. Also, to identify the risks associated with solely using the demonstration authority would require an assessment of the pros and cons of using such an option, particularly if it means bypassing Congress in creating permanent alternative personnel systems and allowing OPM approval without the need for special legislation as proposed by NASA. However, a number of federal agencies have taken advantage of options provided by Congress to test or implement innovative human capital policies, programs, and practices that operate outside the framework of title 5, United States Code, and regulations under this title, as evidenced by a recent study by

³A demonstration project is a project conducted by OPM, or under its supervision, to determine whether a specified change in personnel management policies or procedures would result in improved federal personnel management (5 U.S.C. 4701(a) (4)). Demonstration projects are conducted directly by OPM or jointly by OPM and the agency or organization. Under title 5, OPM is permitted to waive certain provisions and regulations under this title to enable agencies or organizations to conduct demonstration projects by experimenting with new and innovative systems (5 U.S.C. 4703 (a)).

The Partnership for Public Service.⁴ The study notes that in most cases these innovations have proven successful in improving the agencies' ability to attract, motivate, or retain a highly qualified workforce while still adhering to the basic principles of a merit-based system. Many of the successful practices were developed through the use of OPM demonstration projects. Pay banding is an approach that has been successfully used in a number of federal organizations, including GAO. It provides the flexibility to offer greater competitive starting salaries and rewards to high-performing employees with financial incentives. As I testified before the National Commission on the Public Service in July 2002, Congress may wish to explore the benefits of providing OPM additional flexibility that would enable it to grant governmentwide authority for all agencies to use broadbanding for certain critical occupations and/or allowing agencies to apply to OPM for broadbanding authority for their specific critical occupations. Agencies should be required to demonstrate to OPM's satisfaction that they have modern, effective, and validated performance management systems before they are allowed to use broadbanding. However, the prerogative of congressional oversight must be maintained.

8. Could adopting NASA-specific provisions as opposed to taking a government-wide approach lead to a situation wherein scientific and engineering personnel leave other agencies to take advantage of incentives and flexibilities granted to NASA? If so, what would need to be done to prevent such a situation from developing?

When individual agencies are provided flexibilities to address their own strategic human capital needs, it can create a change in the competitive balance for selected personnel. The significance of any related impact would depend on the nature of the flexibilities granted to the agency. For example, expedited hiring authority or early-out and buy-out authority would not have the same impact as higher compensation level authority. Importantly, most federal workers make their employment decisions based on the nature of the job, the mission of the agency, the difference they can make, and the environment within an agency.

Any potential competitive imbalance could be mitigated by limiting the number, amounts and/or term of certain individual flexibilities. Alternatively, governmentwide flexibility could be provided in certain areas (e.g., limited-term appointment authority for early-out and buy-out authority and additional compensation authority for selected highly skilled and competitive occupations and positions). This would serve to help level the playing field for attracting and retaining top talent among federal agencies.

9. NASA workforce restructuring is being pursued as part of a “results-oriented” management strategy. However, what constitutes a *desired result* typically is a function of the policies being pursued by whatever Administration is in power. The civil service system was established to help insulate the federal workforce from politics. How do we ensure that the proposed NASA legislative provisions don't weaken civil

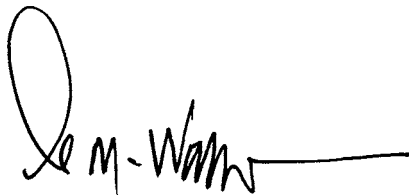
⁴The Partnership for Public Service, *Homeland Security: Winning the War For Talent To Win The War On Terror* (July 31, 2002).

service protections and lead to increased politicization of the workforce?

The federal government's existing human capital policies and procedures are based largely on a workforce and labor market that existed in the 1950s. Much has changed in the past 50 plus years and the federal government's human capital strategies must be modernized if it is to attract, retain, and motivate top talent in the 21st century. This should include basing federal employment decisions more on the skills, knowledge, and performance of individuals rather than the passage of time and the rate of inflation. However, certain policies should be retained in order to prevent the politicization of the career civil service and to promote certain national goals and policies (e.g., veteran's preference, inclusiveness). Importantly, any human capital system should have appropriate transparency and adequate safeguards (e.g., appeal rights for employees) in order to help ensure that it is efficient, effective, credible, and equitable.

We conducted our work in accordance with generally accepted government auditing standards.

We are sending copies of this report to other interested congressional committees. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>. If you have any questions about this report or need additional information, please contact Allen Li, Director, Acquisition and Sourcing Management, at (202) 512-4841. Key contributors to this report were Cristina Chaplain, Jerry Herley, Shirley Johnson, and Edward Stephenson.

A handwritten signature in black ink, appearing to read "D M Walker", with a long horizontal line extending to the right.

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