



# **NATIONAL ACADEMY OF PUBLIC ADMINISTRATION**

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**Panel on NASA Multisector Workforce**

**Before the**

**Subcommittee on Space and Aeronautics**

**Committee on Science and Technology**

**U. S. House of Representatives**

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Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to testify today. I represent a Panel of the National Academy of Public Administration that recently completed, a comprehensive study of the workforce challenges facing the National Aeronautics and Space Administration (NASA). That study was done at the request of the Senate Appropriations Committee. As the former staff director of the Senate Science, Technology, and Space Subcommittee, I recognize the importance this committee attaches to addressing critical aeronautics and space issues.

Also, as a former member of the NASA Aerospace Safety Advisory Panel, I strongly believe NASA's mission to advance space exploration, scientific discoveries, and aeronautics research is critical to our nation. Thirty-eight years after the Apollo 11 mission, NASA remains the only organization in the world to have landed a person on the Moon. Now, with the Congressionally-authorized Vision for Space Exploration, NASA is tasked with expanding our presence in the solar system and establishing a permanent human outpost on the Moon.

Our Panel was asked to examine several critical questions:

- How should NASA decide whether to obtain the services and products from a contractor or hire a civil servant?
- If NASA decides to hire a civil servant, what kind of appointment should it use (tenured permanent or multi-year term)?
- What is a healthy center? How should NASA measure it?

In responding, we primarily focused on issues facing NASA as it transitions from the Shuttle program to the *Vision*. The Panel had six major conclusions and recommendations.

**First, NASA should make greater use of strategic planning mechanisms to position itself for programmatic and schedule changes.**

The agency needs to adopt a longer-range, risk-based planning strategy to anticipate and respond effectively to future program needs, budget shortfalls, and schedule revisions for its total multisector workforce. Despite declining overall budgets for aeronautics, as well as reductions in some scientific programs, NASA has retained most of its aeronautics and scientific workforce. Although many of these individuals can continue working on existing aeronautics and scientific programs or the transition to new programs, it is unrealistic to expect that all will be able to do so. Essentially, NASA needs to determine the number and type of employees that would constitute a critical mass for its aeronautics and scientific responsibilities.

**Second, NASA must broaden its workforce planning to encompass its multisector workforce.**

This process should inventory the key competencies and skills available for both civil servants and contractor organizations. Although contractors constitute approximately two-thirds of NASA's total workforce of 58,000 employees, the agency's April 2006 Workforce Strategy focused solely on its 18,000 civil servants. Many of the contractors—and particularly the up to 26,000 on-site contractors—have competencies that mirror those of NASA civil servants. A broader workforce planning process would allow NASA to maximize organizational flexibility and fully leverage its workforce to meet changing demands.

**Third, NASA must integrate its acquisition and human capital planning processes.**

Contracts provide surge and long-term support capacity as well as the ability to shift people and competencies as the mission dictates. NASA has made a good start at establishing a new acquisition process that begins with a strategic discussion of whether and how to contract for major programs and projects. But, this should be further developed. NASA needs to factor in how cost, safety, facility availability, existing expertise, and scheduling will impact agency work. Such integration will help NASA better understand the workforce implications of contracting decisions. To help facilitate this process, the Panel designed tools to help managers focus on critical common factors to consider in making civil service vs. contractor decisions.

**Fourth, NASA should strengthen its human capital function and use a formal process to decide when to hire a permanent civil servant or a term employee.**

As one of NASA's most critical internal support capabilities, human capital needs to be a full participant in all agency decisions with important workforce implications, including high-level planning for the total workforce. And, to be effective, human capital professionals must have the ability to identify skill mismatches, promote the effective use of existing flexibilities, and collaborate with others to craft other needed flexibilities.

In addition, NASA needs to be more strategic in how it makes civil service hiring and conversion decisions. While the agency uses many short-tenure employees, each center currently has discretion to make its own decisions about which type of civil servant to hire, and conversion to permanent employment is the predominant practice for most NASA term hires. The Panel developed a tool to assist NASA's decision-making in these areas.

**Fifth, the Panel has concerns about the long-term health of NASA's research centers and believes that the agency should use a more comprehensive framework to evaluate them.**

The Panel found NASA's approach to healthy centers to be people focused with an emphasis on fully funding civil servants. To assist NASA in this area, the Panel developed a detailed twelve-factor framework covering such areas as the center's mission, program performance, civil service and contractor workforce, and organizational structure. This framework should help NASA balance changing mission requirements and budget constraints. The Panel believes the ultimate test of the ten-healthy centers approach is whether it leads to a *healthy NASA*.

**Sixth, NASA must make maximum use of existing human capital flexibilities while seeking new authorizations for other necessary reforms.**

NASA has acknowledged that the significant programmatic changes over the past few years have created a major imbalance between the work the agency plans to do and the existing workforce. In the Panel's view, this imbalance is NASA's most serious workforce challenge. While the

agency's mission and allocation of resources have been changing substantially, the civil service workforce has not. The Panel found that NASA could be more proactive in using currently available flexibilities by establishing a more innovative recruitment program and encouraging the outplacement of blocks of employees with competencies no longer needed.

Also, the Panel believes that NASA should be provided a package of additional flexibilities. Clearly, Administrator Griffin's recent request for legislative authority to pay an allowance to civil servants who voluntarily convert to a time-limited appointment recognizes the significant challenges facing NASA. Among other things, the Panel believes that Congress should increase the monetary cap on buyouts and establish a new Reduction-in-Force (RIF) framework for NASA modeled on the National Institute of Science and Technology's Alternative Personnel Management System. This new framework would allow the agency to retain its highest-performing employees in critical occupations by enhancing the weight given to performance, narrowing the definition of "competitive area," and preventing employees from "bumping" or "retreating" into positions for which they are poorly suited. The Panel also believes that OPM should grant blanket authority to NASA to conduct buyouts over the next five years and to waive salary offsets when recruiting reemployed federal annuitants for critical areas.

More controversially, the Panel believes that Congress should provide NASA with limited emergency authority to invoke a fully eligible individual's retirement to meet work restructuring needs if some or all of the following criteria are met:

- The employee's skills are no longer required for mission accomplishment.
- The employee's skills are outdated or unnecessary, and management determines that retraining would not be practical, or the employee is unwilling to update skills.
- Funding for the employee's existing work is not available.
- The employee's skills are not easily transferred to other work

Retiring employees should be compensated fairly by being given severance pay in addition to earned annuities. While NASA would not likely use this emergency statutory authority on a broad basis, its availability would provide the means to secure the expertise required for its highly complex mission, protecting the safety and integrity of the space program.

I want to emphasize that these statutory and regulatory recommendations cannot be implemented by NASA alone. They require action by Congress and OPM in the face of likely political resistance. However, by providing NASA with the tools to reshape its workforce, Congress could more easily hold NASA accountable for meeting program milestones in a cost-effective, timely way.

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Mr. Chairman, underlying the Panel's recommendations is the belief that NASA's institutional health depends on a knowledge-based, data-driven approach to workforce utilization and management. For NASA to develop an optimally-sized, appropriately skilled workforce that is flexible and scalable, it will need to make human capital decisions based on the rigorous collection and analysis of data widely shared with stakeholders. From our work, we believe that NASA understands the nature of this problem. It has taken some initial steps, but more significant changes are needed. We believe NASA could adopt most of our recommendations without significant additional resources. And, the Panel's recommended approach would not only provide a stronger basis for internal agency decisions, but would also ensure that you, as Members of Congress, have better information decisions about annual appropriations and the human capital flexibilities needed to accomplish NASA's mission.

Mr. Chairman, that concludes my prepared statement, and I would be pleased to answer any questions you or the Subcommittee members may have.