

A STATUS REPORT ON PERSONNEL DEMONSTRATION PROJECTS IN THE FEDERAL GOVERNMENT

Working for America



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Foreword

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Over the past 25 years, personnel demonstration projects have become valuable tools, providing the Federal Government extensive experience in improving key systems critical to the strategic management of human capital. Under chapter 47 of title 5, United States Code, the Office of Personnel Management (OPM) is authorized to establish and evaluate personnel demonstration projects. This report summarizes the Government's experience with the currently active demonstration projects and provides an update on their progress. The material in this report should prove useful for those who want to gain a more in-depth appreciation of the use of alternative personnel systems in the Federal Government and the Government's opportunities for future human capital transformation.

In October 2005, OPM published *Alternative Personnel Systems in Practice and a Guide to the Future*. Whereas the Alternative Personnel Systems (APS) report broadly covered alternative pay systems of three types (demonstration projects, independent systems, and Governmentwide executive pay), this report focuses on currently active demonstration projects and their interventions. Many of the findings in this report echo those of the APS report as later data continue to support earlier conclusions.

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Executive Summary

Under chapter 47 of title 5, United States Code, the Office of Personnel Management (OPM) is authorized to establish and evaluate personnel demonstration projects. These projects provide agencies a means to propose, develop, test, and evaluate interventions – changes in personnel management policies or procedures – for their human resources management systems. The demonstration projects do not permit waivers of law in areas of employee leave, employee benefits, equal employment opportunity, political activity, merit system principles, or prohibited personnel practices.

OPM has explored the results of various personnel demonstration projects and identified interventions that have desirable impacts on human resources management and should be considered for application Governmentwide.

In 1980, the Department of the Navy worked with OPM to develop and implement the first personnel demonstration project. This early project, commonly referred to as China Lake, provides data over a longer period of time than any other personnel demonstration project, and the results achieved in terms of employee support, perceived fairness, and other measures are considered the benchmark for other alternative personnel systems to attain.

The information summarized in this report comes largely from evaluations of currently active demonstration projects. Two of the active demonstration projects, one within the Department of Commerce (Commerce Demo) and the other covering the Department of Defense (DoD) Acquisition Workforce (AcqDemo), were established under OPM's authority. Another eight personnel demonstration projects, known collectively as the DoD Science and Technology (S&T) Laboratory Demonstration Program (Lab Demos), are now conducted under DoD's authority but were originally created under a joint authority with OPM.

Although each personnel demonstration project is unique, most projects employ two key interventions:

- Broadbanding, also referred to as pay banding or grade banding, consolidates two or more General Schedule pay grades into a few broad bands, typically four or five. The main purpose of broadbanding is to simplify job classification, broaden pay ranges, and permit performance-oriented pay setting and adjustment.
- Performance-based pay, making performance-sensitive adjustments within a pay range inherently requires performance assessment systems that make meaningful distinctions in levels of performance.

Results of past personnel demonstration projects provide guidance for future applications, particularly with respect to establishing and increasing employee support and acceptance. Key success factors include:

- Communication, including ongoing two-way communication and feedback
- Training

- Early employee involvement and buy-in
- An executive champion
- An integrated management structure
- Thorough planning

Beneficial Results

Rigorous evaluations of demonstration projects show the interventions employed have produced beneficial results.

- The agency's results-oriented performance culture improves
- The ability to recruit and retain a high-quality workforce increases
- Personnel processes improve; employees and supervisors adapt to them

Protecting Employees and Controlling Costs

The demonstration projects have not had a negative impact on other human capital measures.

- Payroll costs can be controlled
- Merit system principles are upheld
- Prohibited personnel practices are avoided
- Equal employment opportunity is protected
- Veterans' preference rights are safeguarded

Introduction

Purpose of the Report

The purpose of this report is to provide an update on the status of personnel demonstration projects in the Federal Government. The report provides:

- An overview of the demonstration project program
- Profiles of current demonstration projects
- An overview of implementation considerations and impacts
- Key results from tested interventions under the currently active projects

Sources for the Report

The information contained in this report is derived chiefly from evaluation reports and other analyses of personnel demonstration projects active as of December 2006. Key sources include:

- U.S. Department of Commerce Demonstration Project: *Department of Commerce Personnel Management Demonstration Project Evaluation Year Seven Report*, December 2006.
- Department of Defense (DoD) Civilian Acquisition Workforce Demonstration Project (AcqDemo): *DoD Civilian Acquisition Workforce Personnel Demonstration Project Interim Evaluation Report*, July 2003.
- DoD Science and Technology (S&T) Reinvention Laboratory Demonstration Program (Lab Demos): *DoD S&T Reinvention Laboratory Demonstration Program Summative Evaluation 2002*, August 2002; *Interim Results 2004-2005 Pulse Survey*, 2005; and agency survey data for the years 2003-2005. (OPM evaluations)
- Demonstration Project Benchmarking Results (OPM analysis of survey data for the years 1996-2005).

More detailed information from these sources, including further information about demonstration project interventions (i.e., changes in personnel policies or procedures), implementation, and results, is available from the Center for Human Capital Innovations and Assessment in OPM's Human Capital Leadership and Merit System Accountability Division.

In addition, this report incorporates information from *Federal Register* notices and cross-project analyses performed by OPM's Human Resources Products and Services Division (HRPS).

Demonstration Projects Overview

The demonstration project process allows agencies greater flexibility to innovate while maintaining laws and protecting rights. Title VI of the Civil Service Reform Act of 1978, codified in chapter 47 of title 5, United States Code (U.S.C.), authorized OPM to establish and evaluate personnel demonstration projects, either directly or through agreement with one or more Federal agencies and other public and private organizations. Chapter 47 defines a demonstration project as “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.”¹ The original intent of this law was to provide a defined process by which policy enhancements affecting personnel systems could be implemented in limited scope, evaluated, and if successful, proposed for Governmentwide application.

Over time, Congress enacted variations of this basic approach including making some demonstration projects permanent and granting the Secretary of Defense authority to establish the DoD S&T Laboratory Demonstration Program, which applies basic chapter 47 requirements.

To conduct a demonstration project, a Federal agency obtains authority from OPM to waive existing title 5 Federal human resources management law and regulations. Examples of laws and regulations that may be waived include:

- Qualification requirements, recruitment, and appointment to positions
- Classification and compensation
- Assignment, reassignment, or promotions
- Disciplinary actions
- Providing incentives
- Establishing hours of work
- Involving employees and labor organizations in personnel decisions
- Reducing overall agency staff and grade levels

In addition, chapter 47 provides that conducting a demonstration project need not be limited by any lack of specific authority. However, no waivers of law or establishment of new authorities are permitted in areas of employee leave, employee benefits, equal employment opportunity, political activity, merit system principles, or prohibited personnel practices.

The requirements governing chapter 47 personnel demonstration projects include:

- Project length is limited to 5 years (with possible extensions to permit further evaluation)
- There can be no more than 5,000 employees per project
- OPM can oversee no more than 10 active demonstration projects at one time
- The agency must consult and negotiate with affected employees and unions
- The agency must submit a formal project plan
- Congress and affected employees must be notified
- The demonstration project must be evaluated

¹ Section 4701 of title 5, United States Code.

Demonstration Project History

Since 1980, OPM has approved 17 demonstration projects (demos): 4 were completed, 3 were made permanent based on successful evaluation results, and the Commerce Demo, AcqDemo and the eight Lab Demos are currently active.²

Completed Demonstration Projects

- Federal Aviation Administration (FAA) Airway Science Curriculum: The FAA Airway Science Curriculum Demo ended in March 1991.
- Federal Bureau of Investigation (FBI) New York Office:³ The FBI Demo expired in October 1993.
- Pacer Share: The Pacer Share Demo expired in February 1993.
- Federal Aviation Administration: The FAA Demo expired in June 1994.

Permanent Demonstration Projects

- Navy China Lake: In 1994, the expiration date for the Navy China Lake Demo was removed by section 342 of Public Law (P.L.) 103-337.
- National Institute of Standards and Technology (NIST): In 1996, the NIST Demo was extended indefinitely by section 10 of P.L. 104-113.
- U.S. Department of Agriculture: In 1998, section 749 of P.L. 105-277 permitted the Agriculture Demo to continue indefinitely.

The permanent demos are managed independently by their respective agencies. Therefore, they no longer count toward the ten-project limit for demos supervised by OPM.

Active Demonstration Projects

OPM supervises two active demonstration projects (Commerce Demo and AcqDemo), and DoD manages the S&T Laboratory Demonstration Program, which encompasses eight separate projects.⁴ In October 2000, the Secretary of Defense was given sole responsibility for approving and conducting the Lab Demos.⁵ The Lab Demos do not count toward OPM's ten-project limit.

² "Completed" refers to demonstration projects that have ended. "Permanent" projects have been permanently implemented as a result of legislation. "Active" projects are ongoing and have not been permanently implemented.

³ The FBI Demo was not a chapter 47 demonstration project but was authorized by the Intelligence Authorization Act for Fiscal Year 1988 (P.L. 100-178). This legislation required FBI and OPM to "conduct a study to ascertain the effect on recruitment, retention, and operations of employees of the New York Field Division of the FBI caused by the usual living expenses associated with such employment."

⁴ OPM approved eight of the S&T Lab Demo projects, two of which were later merged to form one project. Since October 2000, DoD has approved one project.

⁵ Section 1114 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001 (P.L. 106-398) removed OPM's responsibility for approving and conducting S&T Lab Demonstration Projects and transferred it to the Secretary of Defense.

Future Demonstration Projects

Agencies continue to express interest in conducting demonstration projects that feature robust pay-for-performance systems. Recently some agencies have been working with OPM to develop demonstration project plans for performance-based alternative pay systems. These systems would be supported by senior agency leadership with a commitment to train managers and hold them accountable for effective performance management. Consistent with the standard for the Results-Oriented Performance Culture System -- part of the Human Capital Accountability and Assessment Framework (HCAAF) established pursuant to requirements of the Chief Human Capital Officers Act of 2002 (codified at 5 U.S.C. 1104(c)),⁶ -- such projects would also align group, team, and individual goals with agency strategic goals and make meaningful distinctions among levels of employee performance. As these projects feature pay-for-performance elements, they must also meet criteria set forth in section 1126 of the National Defense Authorization Act for Fiscal Year 2004 (P.L. 108-136).⁷

Demonstration Project Profiles

The active and permanent demonstration projects that feature performance-based alternative pay systems cover over 57,000 Federal employees, a roughly 9 percent increase over the October 2005 employment total of 52,892.⁸

Table 1 profiles demonstration projects that feature alternative pay systems⁹ and shows the largest number of employees is represented by the DoD S&T Lab Demonstration Program.

⁶ The HCAAF Systems, Standards, and Metrics are available at http://www.opm.gov/hcaaf_resource_center/

⁷ SEC. 1126. DESIGN ELEMENTS OF PAY-FOR-PERFORMANCE SYSTEMS IN DEMONSTRATION PROJECTS.

A pay-for-performance system may not be initiated under chapter 47 of title 5, United States Code, after the date of the enactment of this Act, unless it incorporates the following elements:

- (1) Adherence to merit principles set forth in section 2301.
- (2) A fair, credible, and transparent employee performance appraisal system.
- (3) A link between elements of the pay-for-performance system, the employee performance appraisal system, and the agency's strategic plan.
- (4) A means for ensuring employee involvement in the design and implementation of the system.
- (5) Adequate training and retraining for supervisors, managers, and employees in the implementation and operation of the pay-for-performance system.
- (6) A process for ensuring ongoing performance feedback and dialogue between supervisors, managers, and employees throughout the appraisal period, and setting timetables for review.
- (7) Effective safeguards to ensure that the management of the system is fair and equitable and based on employee performance.
- (8) A means for ensuring that adequate agency resources are allocated for the design, implementation, and administration of the pay-for-performance system.

⁸ *Alternative Personnel Systems in Practice and a Guide to the Future*, October 2005, 2.

⁹ The Agriculture Demo did not test an alternative pay system. It featured several interventions to support effective employment practices, many of which are now available for use Governmentwide.

Table 1. Alternative Pay System Demonstration Project Profiles

Agency	Start Date	Total Number of Employees Covered ¹⁰	Types of Employees Covered		
			Bargaining Unit Employees	Non-Supervisory/Non-Bargaining Unit Employees	Managers
Demonstration Projects		57,632			
Navy China Lake	1980	10,659	X	X	X
National Institute of Standards and Technology (NIST)	1988	2,641	X	X	X
Department of Commerce (Commerce Demo)	1998	7,327	X	X	X
DoD Civilian Acquisition Workforce (AcqDemo)	1999	11,450	X	X	X
DoD S&T Laboratory Demonstration Program (Lab Demos)		25,555			
– Air Force Research Laboratory (AFRL)	1997	2,510	X	X	X
– Army Aviation and Missile R/D/E Center (AMRDEC)	1997	2,577	X	X	X
– Army Research Laboratory (ARL)	1998	1,951	X	X	X
– Army Medical Research & Materiel Command (MRMC)	1998	1,090	X	X	X
– Naval Sea Systems Command Warfare Centers (NAVSEA)	1998	12,083	X	X	X
– Army Engineer R/D Center (ERDC)	1998	1,589	X	X	X
– Naval Research Laboratory (NRL)	1999	2,492	X	X	X
– Communications-Electronics Command (CECOM)	2002	1,263		X	X

Source: OPM Analysis, November 2006.

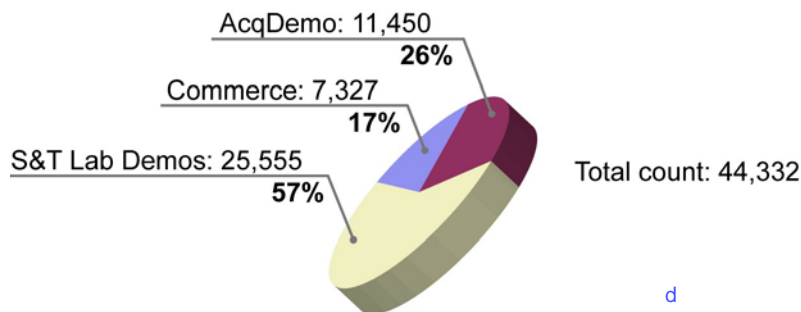
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¹⁰ Sources for number of employees covered: NIST, Navy “China Lake,” and AcqDemo - OPM’s Central Personnel Data File, June 2006; Commerce - National Finance Center, November 2006; S&T Lab Demos - DoD Civilian Personnel Management Service, September 2006.

Active Demonstration Projects

Active demonstration projects (i.e., projects that are ongoing but have not been permanently implemented) cover more than 44,000 Federal employees (see Figure 1). Highlights of active demonstration projects are presented here. Detailed fact sheets with more information about the Commerce Demo, AcqDemo, and S&T Lab Demos, as well as other demonstration projects, are available on the OPM website at <http://www.opm.gov/demos/Demofact.asp>. Specific information about the interventions the active demonstration projects tested is available at <http://www.opm.gov/demos>. In addition, the Center for Human Capital Innovation and Assessment in OPM's Human Capital Leadership and Merit System Oversight Division has extensive descriptive information available about the interventions implemented in each project.

Figure 1. Employees in Active Demonstration Projects



Commerce

In March 1998, the Department of Commerce implemented a 5-year personnel demonstration project largely based on the original NIST Demonstration Project. It is designed to test whether the interventions of the NIST Project can be implemented successfully across specified occupations in Commerce environments with different missions and different organizational hierarchies.

The Commerce Demo supports three key objectives:¹¹

- Simplify the classification system for greater flexibility in classifying work and paying employees
- Establish a performance management and rewards system for improving individual and organizational performance
- Improve recruitment and retention to attract highly qualified candidates

¹¹ *Federal Register* Vol. 62, No. 247, 67438 (December 24, 1997).

The key interventions tested include:¹²

- Increased delegation of personnel management authority and accountability to line managers
- Simplified classification
- Broadbanding
- Pay-for-performance
- Hiring and pay-setting flexibility
- Modified reduction-in-force procedures

At the time of its implementation, the Commerce Demo included employees in four organizations: Technology Administration, Bureau of Economic Analysis, Institute for Telecommunication Sciences, and the National Oceanic and Atmospheric Administration (NOAA).¹³

In 2002, Commerce requested OPM approval to extend the expiration date of its demo and expand the number of participants covered. OPM granted the request and extended the Commerce Demo for an additional 5 years until March 2008, allowing Commerce to complete the validation of the large number of interventions implemented and providing time to test and evaluate underutilized interventions, especially in the staffing area. OPM also permitted the Commerce Demo to expand coverage to additional organizations and to increase the number of participants up to the legal maximum of 5,000. As a result of the expansion authority, Commerce added six components of its Office of the Chief Financial Officer/Assistant Secretary for Administration and additional NOAA components.¹⁴

In 2004 and 2005, OPM received authority for an additional expansion of the Commerce Demo through legislation, title II of the Consolidated Appropriations Act, 2005 (P.L. 108-447) and title II of the Department of Commerce and Related Agencies Appropriations Act of 2006 (P.L. 109-108). This law permits the Commerce Demo to add up to 3,500 additional NOAA employees, increasing the total number of NOAA employees to 6,925, as well as additional NOAA organizations and locations. In August 2006, OPM published a *Federal Register* notice announcing the expansion, which allows the Commerce Demo to include up to 8,500 employees.¹⁵

AcqDemo

Section 4308 of the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106), as amended by section 845 of the National Defense Authorization Act for Fiscal Year 1998 (P.L. 105-85), permits DoD, with the approval of OPM, to conduct a personnel demonstration project covering the Department's civilian acquisition workforce and supporting personnel.

¹² *Federal Register* Vol. 64, No. 189, 52810 (September 30, 1999).

¹³ *Federal Register* Vol. 62, No. 247, 67440 (December 24, 1997).

¹⁴ *Federal Register* Vol. 68, No. 180, 54506 (September 17, 2003) and Vol. 70, No. 127, 38732 (July 5, 2005).

¹⁵ *Federal Register* Vol. 71, No. 166, 50950 (August 28, 2006).

In September 1996, the Secretary of Defense delegated authority to direct this program to the Under Secretary of Defense for Acquisition and Technology, working in coordination with the Under Secretary of Defense for Personnel and Readiness. A Process Action Team was created to develop the demonstration project plan, with participation and review by DoD and OPM.¹⁶ The final demonstration project plan was announced in the *Federal Register* on January 8, 1999, and phased implementation of the Demo began in February 1999.¹⁷

AcqDemo is a wide-ranging personnel demonstration project in terms of the locations covered. It includes employees from the Office of the Secretary of Defense and its components as well as the Departments of the Army, the Navy, and the Air Force. It is subject to most requirements of chapter 47 of title 5; however, there are a few exceptions, including raising the ceiling on employee coverage from 5,000 to 95,000. It currently includes over 11,000 employees. Future expansion will be determined by the outcome and direction of the current DoD initiative to establish a the National Security Personnel System, as described below.¹⁸

The objective of AcqDemo is to further enhance the quality, professionalism, and management of the DoD acquisition workforce through improvements in the efficiency and effectiveness of the human resources management system. In support of that objective, the Contribution-based Compensation and Appraisal System (CCAS), the system used to evaluate employees under AcqDemo, addresses four important goals:

- Promote increased fairness and consistency in the appraisal process
- Improve ability to compensate and reward employees in a timely manner commensurate with their contributions to the organization
- Convey to employees the key factors associated with advancement in their job category
- Focus attention on measurable contributions and productivity

The key interventions tested include:¹⁹

- Streamlined hiring processes
- Broadbanding
- Simplified job classification
- A contribution-based compensation and appraisal system
- Revised reduction-in-force procedures
- Expanded training opportunities
- Sabbaticals

Through these interventions, AcqDemo seeks to show how the effectiveness of DoD acquisition can be enhanced by allowing greater managerial control over personnel processes and functions

¹⁶ *Federal Register* Vol. 64, No. 5, 1431 (January 8, 1999).

¹⁷ “DoD Civilian Acquisition Workforce Personnel Demonstration Project Baseline/Implementation Report,” August 2000, A-2-3.

¹⁸ DoD Civilian Acquisition Workforce Personnel Demonstration Project Interim Evaluation Report, July 2003, I-2.

¹⁹ *Federal Register* Vol. 64, No. 5, 1426 (January 8, 1999).

and, at the same time, by expanding opportunities available to employees through a more responsive and flexible personnel system.²⁰

On December 2, 2002, the deadline for AcqDemo was extended to September 30, 2012, by section 813 of the Bob Stump National Defense Authorization Act for Fiscal Year 2003 (P.L. 107-314). In November 2003, Congress enacted the National Defense Authorization Act for Fiscal Year 2004, which gave the Secretary of Defense authority to establish, under regulations issued jointly with the Director of OPM, the National Security Personnel System (NSPS), a new human resources management system for some or all of DoD's organizational or functional units.²¹ NSPS is a key pillar in DoD's transformation—a new way to manage its civilian workforce—and is essential to its efforts to create an environment in which the Total Force (military personnel, civilian employees, and contractors) thinks and operates as one cohesive unit.²² In many respects, NSPS represents a further evolution of thinking and practice that stemmed from the demonstration project experience, and its key elements include pay banding, performance-based pay, streamlined hiring, simplified classification, and a performance management system that aligns performance expectations with DoD's goals and mission.

AcqDemo employees are eligible for coverage under NSPS, and DoD has begun the transition of these employees into the new human resources management system. OPM recently approved an amendment to the demonstration project plan to facilitate the transition of AcqDemo employees to NSPS. This amendment, announced in the *Federal Register* on October 4, 2006, provides authorization for an out-of-cycle payout under the project's CCAS prior to transition to NSPS and addresses procedures for conversion of employees from this demonstration project to NSPS.²³

DoD S&T Lab Demos

The DoD S&T Lab Demonstration Program (Lab Demos) was authorized by section 342 of the National Defense Authorization Act for Fiscal Year 1995 (P.L. 103-337). This legislation enabled DoD, with the approval of OPM, to conduct personnel demonstration projects “generally similar in nature to the China Lake Demonstration Project” at DoD S&T reinvention laboratories.

The purpose of the Lab Demos is to improve the effectiveness of the DoD laboratories through a more flexible and responsive personnel system. The demonstration program was part of DoD's Laboratory Quality Improvement Program.

As previously mentioned, the Lab Demos program includes eight individual demonstration projects. These projects follow most of the requirements of chapter 47 of title 5, United States Code, but section 342 of P.L. 103-337 removed any mandatory expiration date, removed the

²⁰ *Federal Register* Vol. 64, No. 5, 1431 (January 8, 1999).

²¹ NSPS is authorized by section 1101 of the National Defense Authorization Act for Fiscal Year 2004 (P.L. 108-136, November 24, 2003) and is codified at 5 U.S.C. 9902.

²² *Federal Register* Vol. 70, No. 210, 66117 (November 1, 2005).

²³ *Federal Register* Vol. 71, No. 192, 58638 (October 4, 2006).

limitation on the number of employees covered, and removed the limitation on the number of lab demonstration projects that can be in effect at one time. Although there is no mandatory expiration date, DoD committed to evaluating the Lab Demos during the first 5 years after implementation. OPM continues to track the Lab Demos in order to maintain a base of longitudinal data.

The S&T Lab Demonstration Program is designed to achieve the following key objectives:

- Improve the effectiveness of DoD laboratories through a more flexible, responsive personnel system
- Increase line management authority over human resource management
- Recruit, develop, motivate and retain a high quality workforce
- Adjust workforce levels to meet strategic program and organizational needs

The key interventions tested include:²⁴

- Simplified job classification
- Broadbanding
- Pay-for-performance or contribution-based pay
- Enhanced recruitment and staffing (e.g., categorical rating, extended probationary period, and modified term appointments)
- Enhanced training and development
- Modified reduction-in-force

The Secretary of Defense is solely responsible for approving and conducting these projects as a result of legislation passed in October 2000 (section 1114 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, P.L. 106-398).

Although DoD plans to convert many of its civilian employees to NSPS, DoD Lab Demo employees are excluded from coverage until October 1, 2008. After that date, they will be converted to NSPS only if the Secretary of Defense determines that the flexibilities provided under NSPS are greater than those provided under the Lab Demos.²⁵

In this report, Lab Demos results are often reported by waves rather than by individual demonstration project. Wave 1 included labs where the project was implemented prior to 1999, and Wave 2 included the remainder.

²⁴ *Demonstration Projects and Alternative Personnel Systems: HR Flexibilities and Lessons Learned*, Appendix, U.S. Office of Personnel Management.

²⁵ 5 U.S.C. 9902(c).

Implementation Considerations

The success of a personnel demonstration project is influenced not only by the selection and design of interventions but also by thoughtful and well-planned implementation. While many factors affect implementation, OPM analysis shows that communication, training, early employee involvement, and cost control were keys to success at the Commerce Demo, AcqDemo, and DoD S&T Lab Demos. Based on the evaluation reports and ongoing coordination with demonstration project managers, OPM monitors the best practices and lessons learned about effective implementation practices and shares them with agencies considering or undertaking demonstration projects.

Communication and Training

Years of demonstration project evaluation have identified ongoing two-way communication, including feedback, as critical to the effectiveness of demonstration projects. Systems such as pay banding need to be explained in plain language so employees understand how the change affects them on an individual basis. In addition, initial and ongoing training for managers, employees and human resources (HR) specialists helps them keep the systems operating as designed. Communication also helps coworkers, who may not be covered, understand the project.

The authorizing legislation for personnel demonstration projects (chapter 47 of title 5 U.S.C.) requires notification to Congress, affected employees, unions and other stakeholders, and the public prior to implementation. Each agency wishing to conduct a project must develop a formal plan, coordinate an initial *Federal Register* notice for publication and comment, hold public hearings for employees and other interested parties, review the comments, and revise the plan as necessary. A final notice is also published in the *Federal Register*, as well as additional notices if changes are subsequently made to the demo.

Recognizing the importance of ongoing communication between demo participants and their supervisors, the Commerce Demo project team developed a communication plan to guide the presentation of information to demonstration project personnel. The plan included: (1) an extensive training and briefing agenda for managers, supervisors, employees, and human resources staff, (2) project newsletters issued on a quarterly basis, and (3) the establishment of a demonstration project website. Additionally, consistent communication about job performance provided employees a better understanding of how they were performing and enabled them to perform their jobs better.

The AcqDemo components used a broad variety of communications to employees, supervisors and managers. The AcqDemo Implementation Report (August 2000), stated that in addition to the frequently-used commanders' calls and briefings, email played a large role in sending fast, brief messages updating potential participants and responding to issues raised by employees. The integration of communication and training materials was a particularly effective step taken by managers and supervisors. A three-phase training approach – Orientation, Implementation, and Sustainment – was designed to provide project information through the employee life cycle.

The elements covered in the orientation portion of this training included: (1) a description of the personnel system; (2) how employees are converted into and out of the system; (3) the pay adjustment and/or bonus process; (4) the new position requirements document; (5) the new classification system; and (6) the Contribution-based Compensation and Appraisal System (CCAS).²⁶ From distributing copies of the *Federal Register* notice to allowing training time for web-based tutorials, many managers planned and executed well-crafted campaigns to inform and train employees and supervisors.

Leaders of the DoD S&T Lab Demos recognized the importance of communication when a change program is implemented and undertook extensive efforts to inform employees about the demonstration projects. DoD employed a wide range of communication vehicles: briefings, brochures, town meetings, newsletters, websites, email boxes, and employee handbooks. Employees were also provided individual copies of *Federal Register* notices.

Early Employee Involvement and Buy-in

Past experience has shown that personnel demonstration projects require involvement of employees and their representatives from the beginning. Without early consultation with employee organizations, buy-in is virtually impossible. Under chapter 47 of title 5, United States Code, and its implementing regulations, bargaining unit employees and their representatives must be consulted prior to inclusion in a project because existing bargaining agreements may require modification. In the absence of union agreement, some demonstration project sites have implemented their project for non-bargaining unit employees only.

Demonstration project evaluation reports have made clear that early and extensive involvement of employees and their representatives is critical to establish the employee trust that is essential for effective development, implementation and acceptance of the personnel system changes the interventions bring about.

Demonstration projects that are not supported by affected employees and supervisors stand little chance of bringing about long-lasting improvements in human resources management systems. Evaluations of active demonstration projects show support for the projects increased over time and that such support is strongly affected by effective implementation.

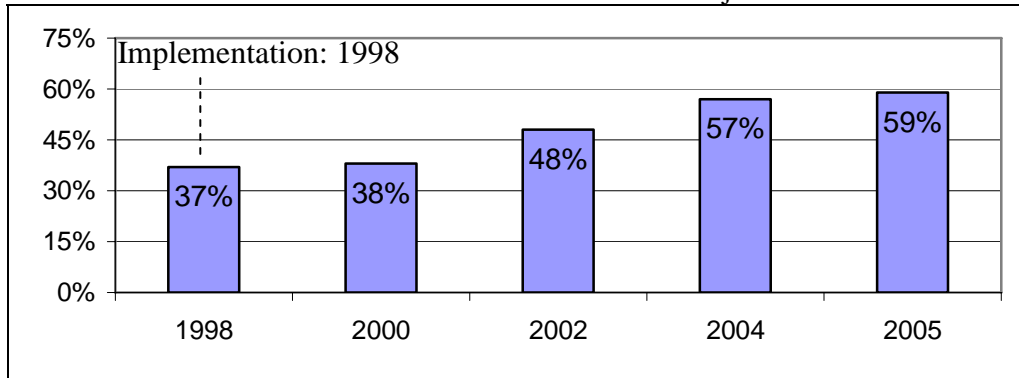
Historic data for past demonstration projects including the early project at China Lake show support grows slowly over time and that it takes at least 5 years to gain the support of two-thirds of the participating employees. Typically, support stabilizes at the two-thirds level, and that level is considered a benchmark with respect to the change efforts these demonstration projects represent.²⁷

In fact, the Commerce Year Seven Report indicates that employee attitudes about the Demo grew more favorable over time. Figure 2 shows how these favorable attitudes are still on the rise.

²⁶ *Federal Register* Notice, Vol. 64, No. 5, 1483 (January 8, 1999).

²⁷ DoD S&T Reinvention Laboratory Demonstration Program, Summative Evaluation 2002, 5.

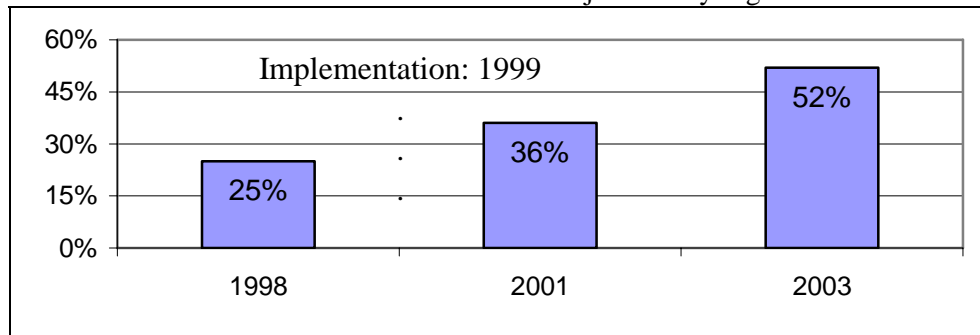
Figure 2. Demonstration Project Support at Commerce
I am in favor of the Demonstration Project.



Source: OPM Analysis, November 2006.

In AcqDemo, the data from employee surveys as shown in Figure 3 show an increase in workforce satisfaction with the personnel system. The percentage of employees in favor of the project stood at 36% 2 years after implementation and rose to 52% 4 years after implementation.

Figure 3. Demonstration Project Support at AcqDemo
I am in favor of the Demonstration Project for my organization.

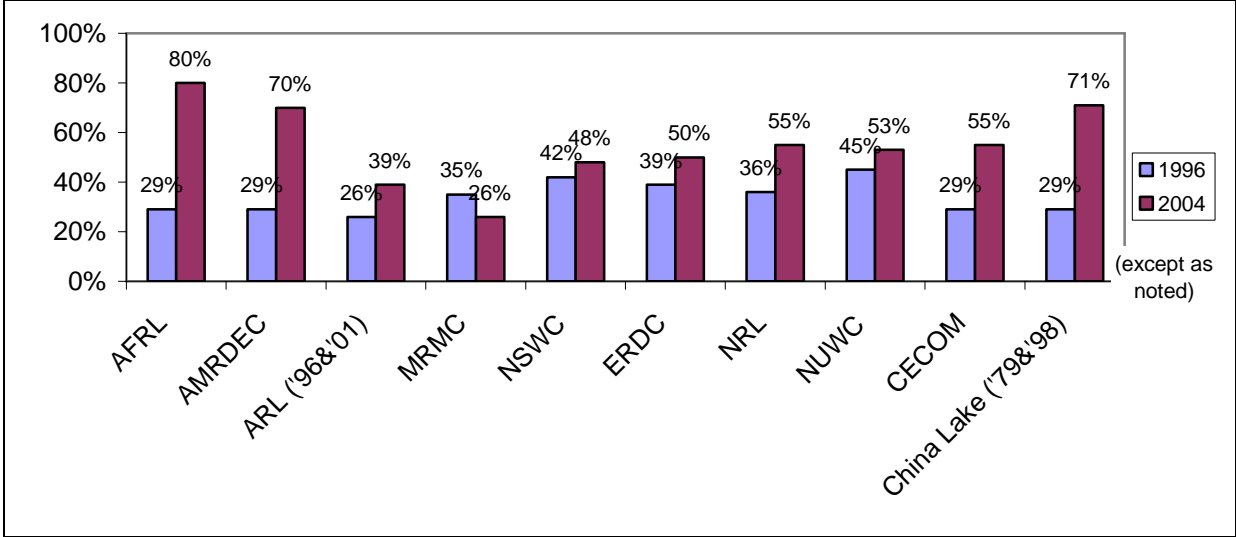


Source: OPM Analysis, November 2006.

The Lab Demos Summative Evaluation 2002 showed support for the demonstration project was highest among employees of Wave 1 laboratories at 55.2% with 22.3% not sure. More current data in Figure 4 shows two of the labs, AFRL and AMRDEC, met or exceeded the two-thirds benchmark.

Figure 4. Demonstration Support at Lab Demos: Baseline and after Implementation

Are you in favor of the S&T Reinvention Laboratory Demonstration project for your organization?

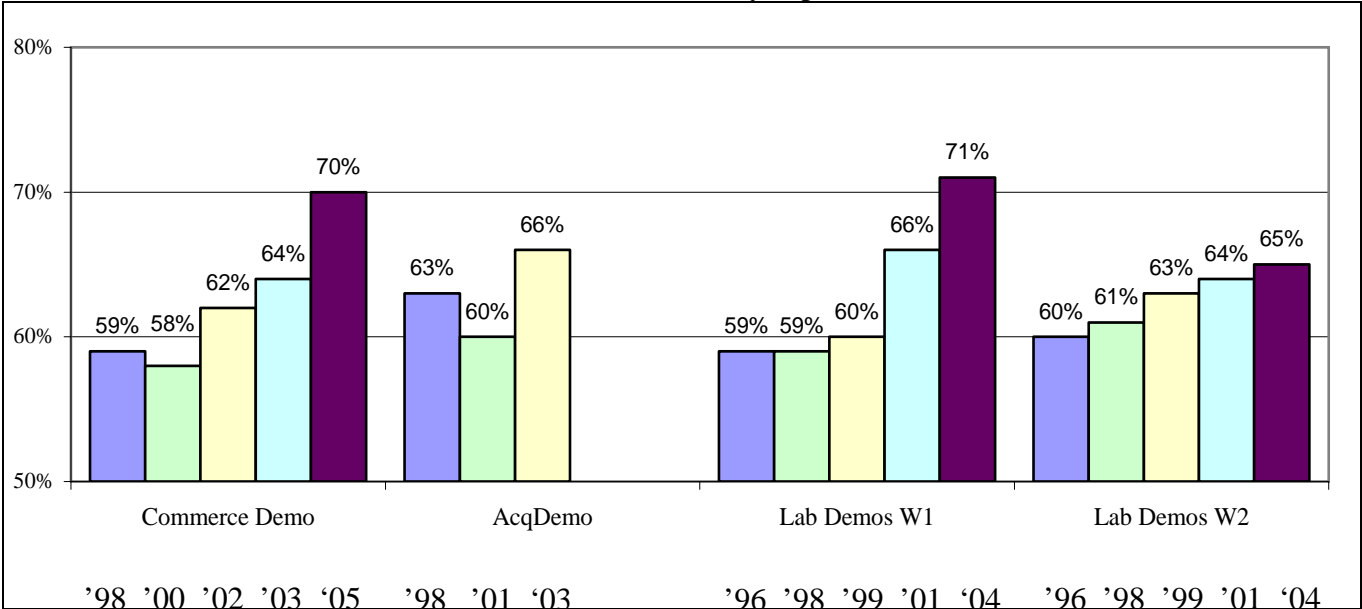


Source: OPM Analysis, November 2006.

One particularly noteworthy and encouraging finding for most of the demonstration projects has been the rise in trust following implementation of the changes. As shown in Figure 9, trust levels (“I have trust and confidence in my supervisor”) increased at Commerce Demo, AcqDemo and the Lab Demos.

Figure 5. Trust in Supervisor at Demonstration Projects

I have trust and confidence in my supervisor.



Source: OPM Analysis, November 2006

Implementation Costs

As with all demonstration projects, the results achieved in the currently active demonstration projects are greatly influenced by the effectiveness of the implementation, which, in turn, is a direct result of the extent to which agencies provide appropriate authority, staffing and budget to manage demonstration projects. Congress recognized this important nexus in establishing the final criterion for pay-for-performance demonstration projects: Agencies must ensure that adequate resources are allocated for the design, implementation, and administration of the pay-for-performance system.

The current active projects have differed with respect to demo costs and whether they are viewed as new obligations or part of normal maintenance and upgrading. Some agencies also recognized that after initial implementation, demo-related training for managers, employees, and human resources staffs is properly considered a recurring cost due to turnover. They budgeted accordingly without considering the expenses to be exceptional.

Cost variations across demonstration projects are also driven by the number of project participants, by diverse methodologies for implementation and by different approaches to accounting for demonstration-associated costs. At a minimum, demonstration projects, particularly those involving pay-for-performance features, typically required both information technology and human resources support to convert employees to the new systems and supply the necessary training and administrative infrastructure. OPM analysis of active demonstration projects show training costs ranging from \$30,000 to under \$300,000 and automation costs ranging from \$100,000 to more than \$1,000,000 per project. External evaluation costs ranged from \$75,000 to \$500,000²⁸ annually depending on the size of the project.

Other Considerations

While the above factors were key to the success of the active demonstration projects, other considerations proved crucial during the demos' implementation phases. In particular, having an executive champion, establishing an integrated management structure and thorough planning all contributed to the projects' overall success.

An Executive Champion is a Key to Success²⁹

An executive champion is needed to promote, defend and support the initiative. Such a champion is in a unique position to maintain focus on the rationale for the change initiative and the bottom-line results.

To achieve leadership support up front, knowledge of the demonstration project and its interventions is essential. Leadership and management must understand both the benefits for and

²⁸ The average annual external evaluation cost for all Lab Demos. Costs were shared by the laboratories and ranged from an annual cost per lab of \$14,000 to \$84,000.

²⁹ DoD, <http://www.acq.osd.mil/dpap/policy/acqdemo/attachments/Perspectives-Implementing-Pay-for-Performance-System.pdf>, 2.

potential negative impacts on the organization and the workforce and be capable of communicating effectively about the project. They must also be capable of operating the system in such a way as to achieve organizational goals while fairly and equitably managing the workforce. The evaluation reports provide clear evidence that support for the demonstration projects can be tied to effective leadership practices while opposition stems more from ineffective leadership than poor design.

An Integrated Management Structure Provides Greater Oversight and Flexibility³⁰

For the demonstration projects that covered employees in different units of a larger department, successful implementation clearly benefited from using pre-established coordination and oversight mechanisms. For example, AcqDemo combined a large workforce that was nearly homogeneous in terms of occupations represented but diverse in terms of spanning all DoD components. To ensure its breadth did not become a hindrance, AcqDemo was designed to provide managers, at the lowest practical level, the authority, control, and flexibility they need to manage their workforce. The key to managing this flexibility in AcqDemo was the early establishment of a permanent, integrated management structure to facilitate consistency in decision making, training, and procedure development. The flow of information up and down this management structure allows issues to be identified and corrected at the proper level.

Successful Implementation Begins with Thorough Planning³¹

Development and approval of a personnel demonstration project follow a formal process consistent with chapter 47 of title 5, United States Code. The active demonstration projects typically used individual project managers with general coordination by departmental staff and as needed consultation by OPM staff and external evaluation teams. Experience to date suggests these planning and coordination efforts increased the likelihood of a successful implementation.

³⁰ Under Secretary of Defense letter January 18, 2005, "Perspectives on Implementing a Pay-for-Performance System".

³¹ OPM, <http://www.opm.gov/publications/AlternativePersonnelSystemsOct2005.pdf>, 11.

Results

Evaluation reports of the Commerce Demo, AcqDemo and the DoD Lab Demos surface significant positive findings in four specific areas that impact the strategic management of human capital in particularly important ways:

- Results-oriented performance culture
- Ability to recruit and retain a high-quality workforce
- Personnel processes
- Payroll costs

Organizational performance is, and should be, a primary focus when implementing the kinds of strategic human capital management interventions tested in personnel demonstration projects. The evaluation efforts demonstration projects undertake continue to develop primarily indirect evidence of improvements in organizational performance, with the exception of indications of increased customer satisfaction. Evaluations of the active demonstration projects show the interventions employed have had positive impact on intermediate measures of organizational performance such as workforce quality and personnel processes. Nonetheless, proving a direct link between interventions and agency-wide mission accomplishment is a difficult challenge.

Previous published evaluations of the demonstration projects do not explicitly document a direct cause and effect relationship between interventions and organizational outcomes. Yet each evaluation shows the associated demonstration project clearly made an impact in terms of intermediate accomplishments that in turn advanced the agency's ability to achieve its mission.

Results-oriented performance culture improves

One of the principal reasons agencies pursue alternative pay system demonstration projects is to introduce more effective ways to reward performance and focus on results. The entire Federal Government has been working to increase a performance and results emphasis even as it continues to apply pay systems where differences in performance have very little impact.³² One means of increasing this performance emphasis is included in the Human Capital Accountability and Assessment Framework (HCAAF).

A central human capital management system within the HCAAF is called the Results-Oriented Performance Culture System (described at http://www.opm.gov/hcaaf_resource_center/5-6.asp). That System's Critical Success Factor for Pay-for-Performance uses the following effectiveness indicators:

- The pay-for-performance system, where authorized by law and regulation, is results-driven, producing a distribution of pay adjustments and bonuses based on individual contribution, organizational performance, and/or team performance.

³² "A Fresh Start for Federal Pay: The Case for Modernization, A White Paper" April 2002,17.

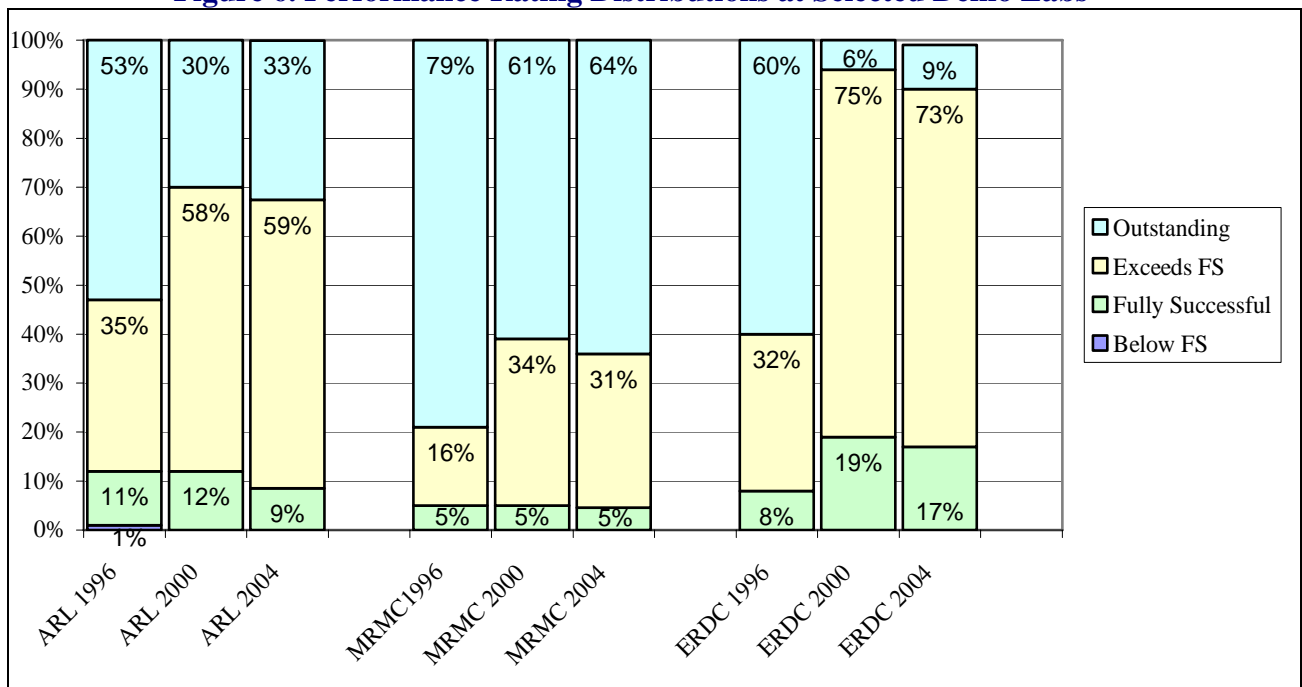
- The pay-for-performance system, where authorized by law and regulation, ensures employee and supervisory accountability with respect to individual performance and organizational results.
- Employees' pay is linked to their performance ratings.
- Supervisors and managers make meaningful distinctions in performance ratings.

Analysis of demonstration projects results reveals significant improvements, as both perceptual and outcomes-based evidence shows increased distinctions being made among levels of performance and an increased linkage between pay and performance.

Survey results over many years of personnel demonstration projects show it is typical in the early years of implementation for fewer than half of demonstration project participants to agree that pay depends on performance or contribution. Surveys show that over time the proportion improves to nearly two-thirds who agree pay is linked to performance. This is in stark contrast to perceptions of that linkage under the traditional title 5 pay systems. Prior to implementation of the Lab Demos, baseline survey data revealed that at most, one-third of respondents agreed that pay raises depended on performance or contribution.

Pay-for-performance systems require meaningful distinctions in performance. Figure 6 shows rating distributions after implementation of pay-for-performance systems generally exhibit more dispersion, and thus more distinction in performance, than before implementation.

Figure 6. Performance Rating Distributions at Selected Demo Labs

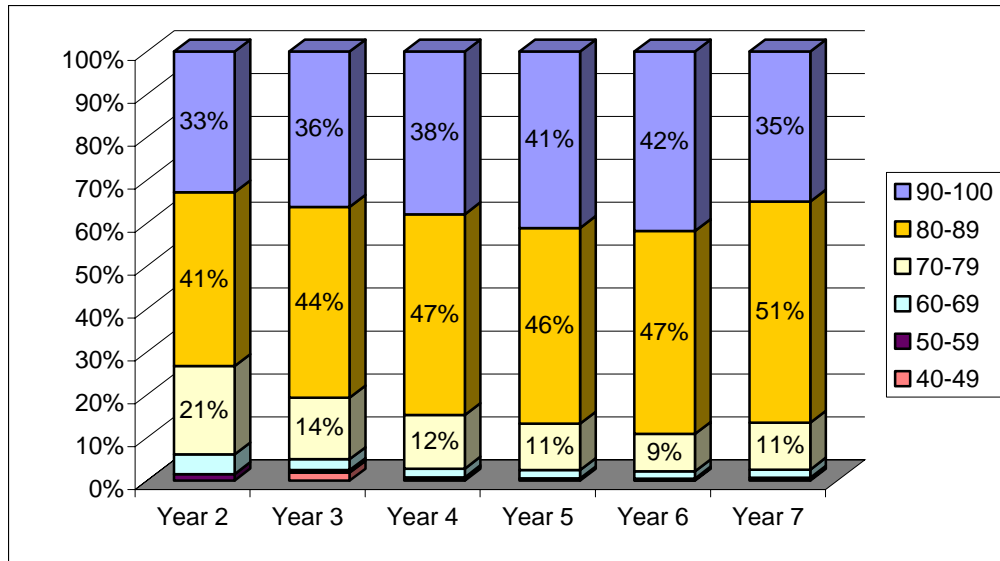


Note on implementation dates: 1998 – ARL, MRMC and ERDC
 Source: Data for 1996 and 2000 are from the Lab Demos Summative Evaluation 2002. The 2004 data were collected by OPM from the Lab Demos.

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The Commerce Demo exhibited a positive link between pay and performance. Its pay-for-performance system drove a greater differentiation between high and low performers and provided greater rewards to high performers. Figure 7 shows the distribution of performance scores at Commerce beginning 2 years after implementation. Beyond distinguishing levels of performance, Commerce Demo implemented a series of interventions to improve the relationship between high performance and financial reward. These interventions included performance-based pay increases, performance bonuses, more flexible pay increases upon promotion, and supervisory performance pay.

Figure 7. Performance Score Distribution at Commerce Demo



Note: Only employees with valid performance scores were included in this analysis.

Source: Data are taken from the Commerce Year Seven Report.

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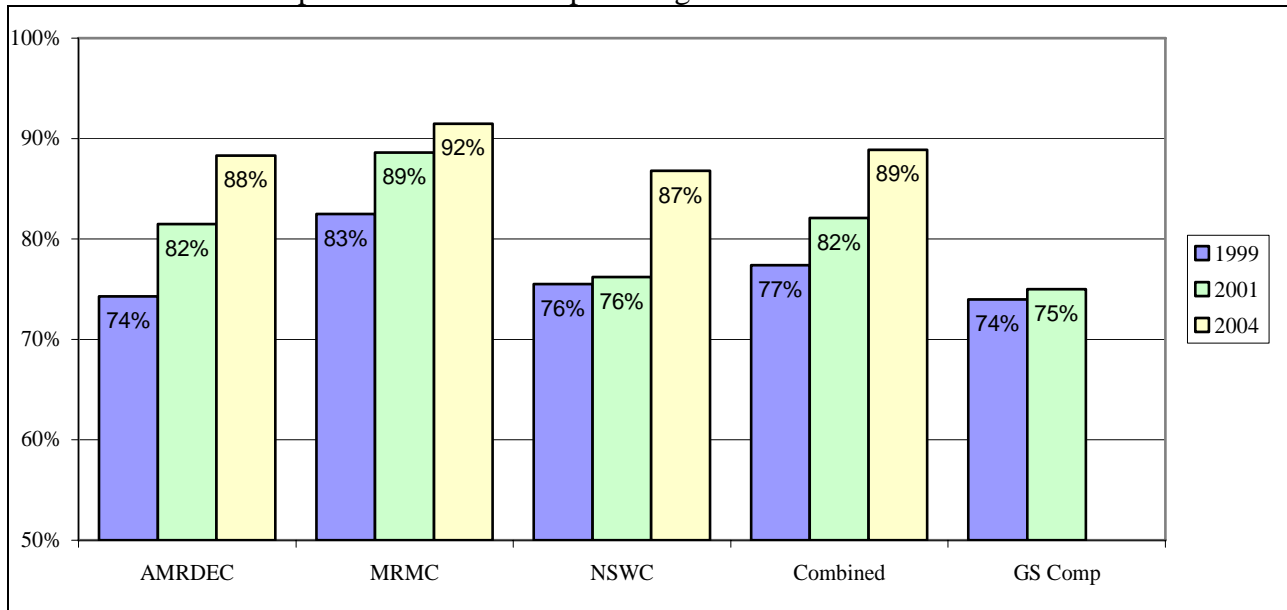
The Commerce Demonstration Project Year Seven report highlights the following:

- Demonstration group participants received larger average performance-based pay increases than did comparison group participants; i.e., performance ratings were correlated to pay increase size more strongly for the demonstration group.
- Demonstration group participants received larger performance-based bonuses/awards than did comparison group participants; i.e., performance ratings were correlated to award size more strongly for the demonstration group.
- Based on a regression analysis, performance score was a consistent predictor of pay increases, since payout formulas were linked to ratings.

Pay-for-performance systems are designed to motivate employees to put forth additional effort. In the Lab Demos, there has been a statistically significant increase in the percentage of employees willing to expend “a great deal of effort beyond that normally expected” as shown in Figure 8.

Figure 8. Motivation at Selected Demo Labs

I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.



Source: OPM Analysis, November 2006

The link between pay and performance is strong in terms of both statistical and perceptual data. Results of regression analyses show performance is becoming an increasingly significant predictor of pay progression in each of the Lab Demos. Conversely, the effect of performance on pay was small to non-existent in the GS comparison group. Perceptually, the link between pay and performance has become substantially stronger under the Lab Demos. In Wave 1 laboratories, agreement that pay depends on how well an employee performs rose from 26% in 1996 to 65% in 2004. Similarly, the link between pay and contribution to mission increased from 22% to 63% in all Wave 1 laboratories. For non-implemented laboratories, only 29% of employees believe their pay reflected their contribution to the organization's mission in 2001.

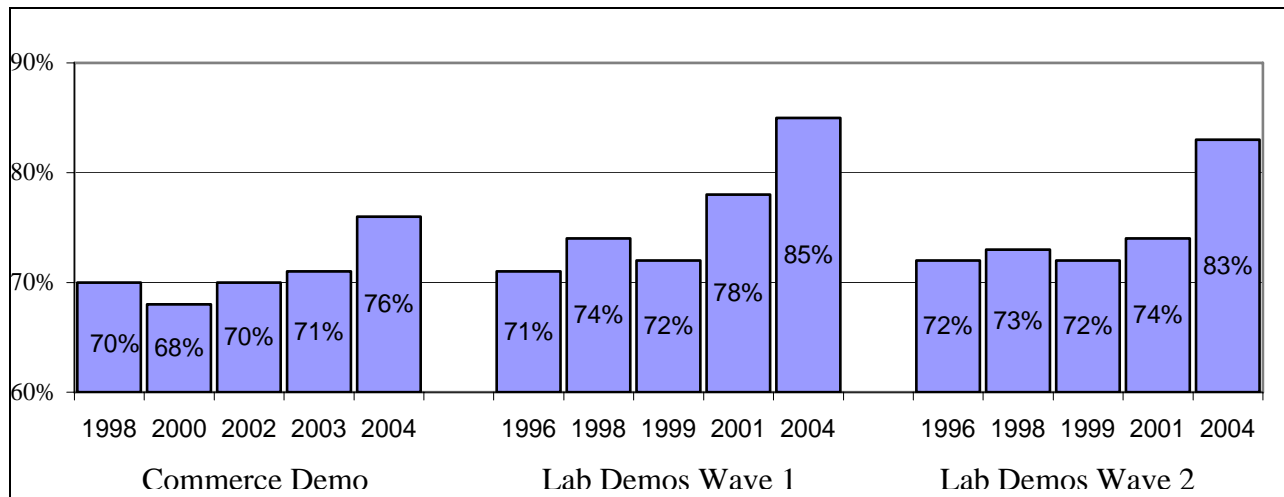
The ability to recruit and retain a high quality workforce increases

A key intended outcome of demonstration projects is to increase the quality of the workforce. Demonstration project interventions that improve an organization's ability to recruit, hire, and retain a high quality workforce make a positive contribution to organizational effectiveness.

As shown in Figure 9, the Commerce Demo and Lab Demos have had a positive impact on job satisfaction – a key factor in retaining high-quality employees.

Figure 9. Job Satisfaction at Commerce Demo and Lab Demos

In general, I am satisfied with my job.



Source: OPM Analysis, November 2006.

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The Commerce Year Seven Report states recruitment and staffing interventions enacted under the Commerce Demo are working well. For example, flexible entry salaries and the ability to re-negotiate job offers provided managers the latitude to attract competitive candidates. Additional interventions intended to attract high quality candidates and speed up the recruiting and examining process included agency-based staffing, local authority for recruitment payments, and flexible paid advertising. Perceptual data suggested Commerce Demo participants believe it is reasonable to use these types of interventions, and others, to attract the best candidates.

Survey data and objective data show Commerce Demo supervisors are taking advantage of their ability to exercise flexibility with entry salaries and to re-negotiate job offers, which gives them the tools to attract and obtain competitive candidates. In survey responses, demonstration group participants indicated the quality is improving. Objective data reveal a slightly higher average performance score for employees hired during the demonstration period than more tenured employees. Yet, it is unclear whether this improvement is resulting from the demonstration project interventions themselves given that similar improvements were also noted in the comparison group. It should be noted that owing to the success shown in demonstration projects, Congress authorized a number of recruitment tools for use Governmentwide, and those may be accounting for the success in the comparison group to some extent.

The Commerce Year Seven Report asserts many of the Commerce retention interventions are motivating employees to stay. The interventions intended to have an impact on retention included the broadband classification system, performance-based pay increases, performance-based bonuses, local authority for retention payments, supervisory performance pay, and more flexible pay increase upon promotion. These interventions offer a structure (i.e., broadbanding) and incentive for high performers to stay. Objective data presented in Table 2 show lower performing employees separated at higher rates than did higher performing employees.

Table 2. Commerce Demo Turnover Rates by Level of Performance³³

PERFORMANCE SCORE CATEGORY	NUMBER OF EMPLOYEES	NUMBER OF SEPARATED EMPLOYEES	TURNOVER RATE
90-100	1,392	30	2.2%
80-89	2,049	59	3.0%
70-79	435	23	5.3%
60-69	75	10	13.3%
50-59	18	3	16.7%
40-49	10	5	50.0%

Note: Only employees with valid performance scores for Year Seven were included in this analysis.

Source: *Commerce Year Seven Report*

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The flexible pay increase upon promotion intervention was also effective according to the Year Seven Report. It enabled higher rewards for high performing employees and encouraged their retention by making their salaries more competitive with the public and private sectors. Survey data show Commerce Demo participants perceive the interventions have improved retention.

Commerce Demo participants continue to see greater potential for career progression than do the comparison group participants. Survey data continue to show Commerce Demo participants are more optimistic about their potential for career progression than comparison group participants. They are more optimistic about their advancement opportunities and recognize the impact of the job classification system on their career progression. Moreover, Commerce Demo participants' perceptions continue to improve over time.

In AcqDemo, an increase in the quality of the acquisition workforce, strongly supported by the combined weight of survey results, focus groups, and objective retention data, was documented in the AcqDemo Interim Evaluation Report. Furthermore, the report states AcqDemo led to higher retention rates of excellent contributors and higher separation rates of poor contributors. The project succeeded in rewarding and retaining higher contributors; it provided higher overall average salaries than the General Schedule; and did so without damaging employees' overall sense of fairness.

The DoD S&T Labs Summative Evaluation 2002 examined workforce quality by using as one of the measures the percentage of scientists and engineers with advanced degrees and observed a slight increase for Wave 1 and Wave 2 laboratories while non-implemented laboratories decreased slightly.

With regard to hiring, pay banding enabled the Lab Demos to offer higher, more competitive starting salaries than possible under the GS system. Starting salaries of scientists and engineers were highest in Wave 1 laboratories, and higher in Wave 2 laboratories than in non-implemented laboratories. Survey results indicated managers in the Lab Demos were significantly more satisfied with the competence of newly hired scientists and engineers, and were more likely to agree they were able to attract high-quality candidates and that newly hired candidates were a good match for the job.

³³ Commerce Year Seven Report, 4-77.

Retention is highly correlated with job satisfaction and organizational commitment. In the Lab Demos, these morale dimensions were generally higher in Wave 1 laboratories. Organizational commitment was found to be influenced by overall job satisfaction, pay satisfaction, perceived fairness of performance appraisal assessment, perceived link between pay and performance, and perceived quality of supervision. Analysis showed pay satisfaction depends on both the amount of rewards and procedures used to determine them. Satisfaction with opportunities for advancement increased across all laboratories, but was slightly higher in Wave 1 laboratories.

Declines in pay satisfaction and perceptions of fair pay administration can have a negative impact on motivation and retention. The perception that pay is administered fairly, i.e., demonstrates procedural and distributive justice, increased slightly across years, at a proportional amount for all waves, with a slight decrease immediately following demonstration project implementation. There is no significant difference between Wave 1 laboratories and non-implemented laboratories under the GS system. Satisfaction with pay also increased from 1996 to 2004 and was highest in Wave 1 laboratories.

The goal of category rating, one of the interventions applied in the Lab Demos, is to increase flexibility in selecting high quality candidates. Attitude survey results indicate more respondents agree than disagree that category rating provides a larger number of qualified candidates per job announcement than the old “rule of three” process.

Personnel processes improve; employees and supervisors adapt to them

A common goal of several demonstration project interventions is to streamline personnel processes such as classification and hiring in order to make them more efficient and possibly more effective, while remaining compliant with merit system principles and protecting employees and the public from prohibited personnel practices.

According to the Year Seven Report, Commerce Demo participants are adapting to the classification system and supervisors are adapting to their responsibilities as part of the classification process. For Commerce Demo participants, comparable occupations that could be treated similarly for classification, pay, and other purposes were aggregated into career paths. The change to career paths, along with broadbands and departmental broadband standards, helped simplify, speed up, and improve the quality and flexibility of classification.

The delegated classification authority to managers and automated broadband classification system interventions were introduced to streamline and improve the efficiency of the classification process. The delegated classification authority is intended to give managers more control over classifying the work they supervise. The purpose of the automated broadband classification system is to make the classification process easier and more expedient and to minimize the resources needed for classification. The Year Seven findings indicated that Commerce Demo respondents, both supervisory and non-supervisory employees, reacted more positively to their classification system than their counterparts in the comparison group. Rating officials also indicated an increasing ease with the classification system and a desire to learn

more. Furthermore, perceptual data indicate understanding and acceptance of the new performance appraisal system continues to improve.

In commenting on the new performance appraisal system implemented as part of the Commerce Demo, the Year Seven Report notes participants seemed to struggle initially with understanding and accepting the new process. In year five, data suggested participants continued to grow more comfortable with the performance appraisal system. Although progress continues to be made with the process, data suggest that there are still opportunities for improvement, particularly in the areas of ongoing performance feedback and greater transparency.

The Year Seven Report also assesses human resources management in terms of effectiveness and efficiency.

Results suggest that human resources management is becoming more effective, as certain activities are delegated to line management. Delegated classification authority has increased the supervisor's role in the classification process, which appears to be working well, although this is no longer necessarily unique to the (Commerce Demo). Delegated pay authority ... has been a learning experience for supervisors at all levels and seems to be appreciated given the improved (Commerce Demo) favorability ratings over the seven years.

The Automated Classification System (ACS) was a critical component in making human resources management more efficient. Some evidence speaks for its success; for example, data show that the (Commerce Demo) was faster than the comparison group in regards to both the average amount of time needed to produce and classify a position and the average amount of time needed to process a classification action.

Recruiting time (i.e., the average number of calendar days required to fill a position from initial posting of vacancy to selection) did not differ greatly between the (Commerce Demo) and the Comparison Group; however, the rates were a sizable improvement from earlier in the Demonstration Project. This suggests that there may in fact be changes both specific to the (Commerce Demo) as well as inherent in the GS system that has improved processing times.

At AcqDemo, timeliness of key personnel processes has increased. The AcqDemo Interim Evaluation Report concludes that improvements in classification timeliness are at least in part attributable to the project. Experience at Air Force indicates fully implemented AcqDemo procedures can significantly improve hiring timeliness.

Broadbanding, as applied in AcqDemo allows greater flexibility in personnel utilization by omitting the requirement for a detailed job description change and/or a formal personnel action each time a new set of duties is assigned.

According to the Lab Demos Summative Evaluation 2002, personnel processes were improved at Lab Demos as they streamlined the classification and compensation system through broadbanding, reducing paper-work involved in classification and promotions, and reducing the number and length of position descriptions. Furthermore, the writing of position descriptions was automated.

Classification timeliness did improve (shortened overall by 3 weeks) across most Lab Demos. The number of position descriptions that a laboratory has to produce has decreased in all Lab Demos. For example, prior to implementation, AMRDEC used between 1,800 and 2,300 position descriptions. Under the demonstration, AMRDEC now has only 24 benchmark positions. ERDC has reduced approximately 1,400 individual job descriptions down to just 32 generic level descriptors under the project. The NAVSEA Warfare Centers reported similar results with their project, relying on approximately 46 generic one-page descriptors supplemented by a one-page addendum to cover work accomplished by their entire workforce.

Focus groups with personnel from several of the Lab Demos suggest the new system has improved the timeliness of employment offers to candidates.

Payroll costs can be controlled

By changing the basis for pay progression from longevity to performance, high performing employees covered by a demonstration project can increase their pay more quickly and poorly performing employees may progress more slowly than their counterparts under the General Schedule (GS) system.

Pay and Bonus Pools

OPM research has identified six factors that influence the cost of pay banding and pay-for-performance systems:³⁴

- Method of conversion to bands, i.e., whether buy-ins were granted to employees at conversion in the form of a lump sum or base pay increase
- Size of salary and bonus budgets (historic rate of 2.1% to 2.4% have been used most frequently)
- Policy on starting salaries (e.g., higher rate within band or recruitment bonus with lower starting rate)
- Performance management system and pay increase guidelines for movement within bands based on performance
- Choice of full-performance level band (cost increases if full performance level is defined at too high a level)
- Position management (distribution of entry/developmental, full-performance and senior expert positions as well as appropriate mix of professional and support positions)

The ‘size and mix of salary and bonus budgets’ factor is the most important cost-control factor in performance-based alternative pay systems. Experience from the demonstration projects shows that using a predetermined percentage of payroll for performance-based pay increases is the most

³⁴ Schay, Simons, Guerra and Caldwell, 1992; Schay 1996

effective way to control costs.³⁵ Alternative pay system demonstration projects generally continue to provide the general rate range increase, at least to employees whose performance is Fully Successful or better.

Data from the Lab Demos Summative Evaluation 2002 and subsequent analysis of AcqDemo payroll information by OPM indicate using a finite budget with a fixed percentage of payroll for base pay increases can result in overall pay progression comparable to the GS system. The difference of course is that in the demonstration sites, the actual pay adjustments are performance-sensitive. The percentage used most frequently is 2.4% of payroll. Bonus budgets in demonstration projects were also comparable to the GS population and averaged about 1% of payroll.

Salary Progression

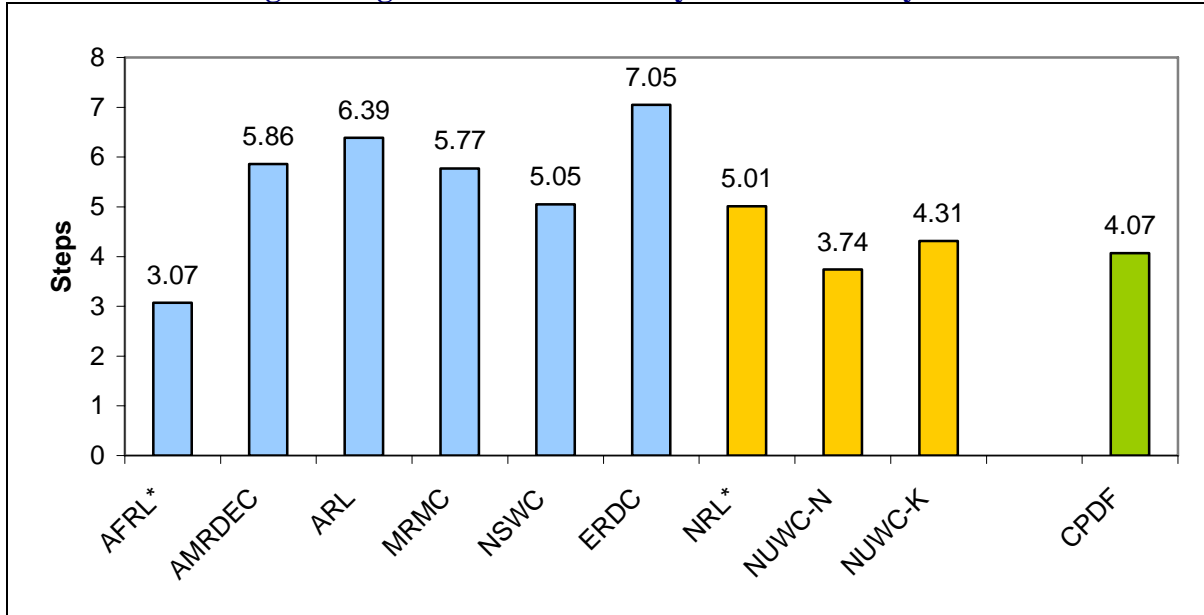
The Commerce Year Seven Report includes an analysis using compounded annual growth rate³⁶ (CAGR), excluding the general increase, to account for salary costs over years. Average annual salary was computed for each year and each group. The CAGR was nearly the same for both the Commerce Demo group (4.56 percent) and the comparison group (4.88 percent) over time. The same report stated that the gap in average per person salary costs between Commerce Demo groups and comparison groups remained constant over time.

The evaluation of the Lab Demos analyzed a cohort group of project participants in terms of salary progression from 1997 forward. Similarly, a CPDF cohort group comprised of comparable agencies under the GS system was also tracked. The cohort pay progression analysis was recently updated to include 2004 data. The average annual base pay salaries were converted to GS grades and steps. Figure 10 compares the number of steps advanced during the Lab Demo time period to the GS cohort during the same period. Wave 1 is AFRL through ERDC and Wave 2 is NRL through NUWC-K.

³⁵ Alternative Personnel Systems in Practice and a Guide to the Future, Office of Personnel Management, October, 2005, 4.

³⁶ $CAGR = ((\text{Ending Value} / \text{Starting Value}) ^ {1 / \# \text{ years}}) - 1.$

Figure 10. Pay Progression Equivalent in Steps for DoD Lab Demo Scientific and Engineering Career Path January 1998 to January 2005



* Contribution-based systems; Professionals only

Note: NUWC and some NSWC divisions use less than 2% to fund their base pay pools

Source: OPM Analysis, November 2006.

Of all the Lab Demos, two were below the number of steps moved for the CPDF comparison during the period of January 1998 to January 2005. Overall, the average of the Lab Demos was only 1.07 steps above the CPDF comparison group.

If the compounded annual growth rate (CAGR) method is used for Lab Demos (but including the general increase which the Commerce analysis removed) the results appear as shown in Table 3. Since the Lab Demos implemented at different times, the appropriate baselines were used for each lab or group with a matching GS comparison. For simplicity, all Lab Demo comparisons are also shown for the 1999 to 2004 comparison, yielding an average CAGR of 3.69 compared to 3.27 for CPDF. All comparisons indicate banding is costing slightly more than the GS system.

Table 3. Compounded Annual Growth Rate for Lab Demos

	1996 - 2004	1997 - 2004	1998 - 2004	1999 - 2004
CPDF	3.32	3.39	3.03	3.27
AFRL	3.57			3.42
MRMC		3.63		4.04
RDECOM (ARL & AMRDEC)		3.82		3.83
ERDC			4.01	4.32
NRL			3.02	3.21
NAVSEA (NSWC & NUWC)			3.05	3.61
All labs				3.69

Note: Salary data are basic pay, including the general increase.

Source: OPM Analysis, November 2006.

Unlike in the cohort method, the differences between demonstration and GS groups shown in Table 5 are less pronounced because new employees are added into the mix, reducing average salary cost. Nevertheless, the trends are the same and indicate slightly higher costs for banding than for GS. The Lab Demo program used many different banding schemes, and there was no indication one scheme was more or less costly than another because pay progression and promotion policies still influenced movement with and between bands.

Other impacts

Merit system principles and prohibited personnel practices

The Commerce Year Seven Report asserts the Commerce Demo was administered in line with the nine Merit Systems Principles and avoided the twelve Prohibited Personnel Practices. Survey data from the report indicates attitudes about how the Merit System Principles were upheld sparked fairly consistent responses across the Demonstration Group and Comparison Group.³⁷ In both cases, the most common response was that there were no issues with how they were upheld.

In the AcqDemo project, the proportion of grievances and appeals filed was used as a measure of employees' views of the personnel system and its administration by managers and supervisors. Data show AcqDemo employees are no more likely to file grievances, formal complaints or appeals than persons in non-AcqDemo organizations. Even with an initial surge of grievances after the first Contribution-based Compensation and Appraisal System payout in 2000, AcqDemo grievance rates are comparable to, or even lower, than those of a comparable organization.³⁸

The Lab Demos Summative Evaluation 2002 reported that among all the data available on adverse actions and grievances, there are no consistent trends across the laboratories. It appears that following implementation, grievances increased in some of the laboratories. The trend is similar for adverse actions. While implementation of pay-for-performance systems may be associated with temporary increases in grievance activity, there is no evidence that the demonstration projects failed to uphold merit system principles and to avoid prohibited personnel practices.

In addition, 5-year regression analyses were conducted for the Wave 1 labs to determine potential adverse impact over time. The analyses included all the factors that are likely to contribute to increases in pay (e.g., salary, performance ratings, payband level), as well as non-performance factors, such as gender, race, age, and veteran status.

³⁷ Commerce Year Seven Report, December 2006, 4-96.

³⁸ It should be noted that the frequency of grievances, complaints, or appeals is not, without context, a meaningful metric of whether a personnel system's management and administration comport with merit system principles and are free of prohibited personnel practices. The context would include empirical review of whether the underlying facts of grievances, complaints, or appeals that are adjudicated to finality or settled indicate any agency mistake or wrongdoing.

Equal Employment Opportunity (EEO) and veteran status

The personnel demonstration projects were conducted with careful consideration of Equal Employment Opportunity standards.

According to the Commerce Year Seven Report, objective and subjective data indicated the Commerce Demo did not have a negative impact based on race, gender, or veteran status. Survey findings provide employee opinions that the Commerce Demo interventions did not impact how these groups are compensated, recruited or retained. Objective data also provided evidence that the pay-for-performance system did not reward participants differently based on race, gender, or veteran status. Rather, any differential findings across subgroups appeared to mirror differential findings in the comparison group.

The Year Seven Report concludes the Commerce Demo interventions had no negative impact on minorities, women, and veterans. Survey findings suggested no evidence of unfair treatment based on race, gender, or veteran status in the areas of compensation, recruitment, or retention. Objective data across all 7 years show that the pay-for-performance system did not reward participants differently based on race, gender, or veteran status in terms of average performance-based pay increases or bonuses.

The AcqDemo Interim Evaluation Report, using 1998, 2001 and 2003 survey responses, found AcqDemo participants' views of fairness on a variety of dimensions remained the same or increased slightly over the life of AcqDemo. Of particular interest here, the percentage of AcqDemo participants who agreed or strongly agreed with the statement, "CCAS is administered without regard to gender, ethnic origin, or age" increased from 52% in 2001 to 62% in 2003.

Turnover rates – separations from the Federal workforce – that differ by demographic group may indicate potential problems with fairness or with satisfaction with the personnel system. There were a negligible number of involuntary separations (terminations during probationary period and separations for cause) at AcqDemo. An examination of voluntary separation rates for both minorities and women indicates that, for both groups, separation rates were significantly higher in the comparison group than for AcqDemo participating organizations.

In order to explore the possibility of any perceived bias against women or minorities, statistical tests on survey data were run on the basis of gender and race/ethnicity. Comparisons of women's and minorities' responses to fairness-related questions showed no significant differences from those of men and non-minorities. In addition, there was a positive difference in favor of both women and minorities in their responses to questions regarding links between pay/awards and contribution.

The Lab Demos were implemented with the assumption that none of the interventions would adversely affect employees. Several survey items assess perceptions regarding fair treatment of employees. Overall perceptions of fair treatment (regardless of gender, race, national origin, religion, cultural background, age or disability) became more favorable over time for all groups. The perception gap between minority and majority respondents narrowed somewhat under the Lab Demos but was unchanged in the non-implemented labs. A similar trend was found for

perceptions of advancement opportunities for highly qualified individuals, regardless of differences. The perception gap persisted, but perceptions improved at about the same rate for minority and non-minority respondents.

The evaluation of Lab Demos examined hiring under categorical rating to determine whether the percentage of veterans hired was affected. The results show that the laboratories are doing either as well or oftentimes better than the comparison group in terms of hiring veterans. Thus, no negative impact on veterans was found.

References

Federal Register

- Vol. 62, No. 247, December 24, 1997.
- Vol. 64, No. 5, January 8, 1999.
- Vol. 64, No. 189, September 30, 1999.
- Vol. 68, No. 180, September 17, 2003.
- Vol. 70, No. 127, July 5, 2005.
- Vol. 71, No. 166, August 28, 2006.
- Vol. 71, No. 192, October 4, 2006.

Schay, Brigitte W, K.C. Simons, E. Guerra, and J. Caldwell, *Broadbanding in the Federal Government*, Technical Report. Washington, DC: Office of Personnel Management, December, 1992.

U.S. Department of Commerce. *Department of Commerce Personnel Management Demonstration Project Evaluation, Year Seven Report*. Washington, DC: Booz Allen Hamilton Inc., May, 2006.

U.S. Department of Defense. *DoD Civilian Acquisition Workforce Personnel Demonstration Project: Interim Evaluation Report*. Alexandria, Virginia: AcqDemo Program Office, July, 2003.

U.S. Department of Defense. *DoD Science and Technology (S&T) Reinvention Laboratory Demonstration Program: Summative Evaluation 2002*. Washington DC, August 2002.

U.S. Department of Defense. *DoD Civilian Acquisition Workforce Personnel Demonstration Project Baseline/Implementation Report*. Washington, DC, August, 2000.

U.S. Department of Defense. *Memorandum: Perspectives on Implementing A Pay For Performance System*. <http://www.acq.osd.mil/dpap/policy/acqdemo/attachments/Perspectives-Implementing-Pay-for-Performance-System.pdf>.

U.S. Office of Personnel Management. *Alternative Personnel Systems in Practice and a Guide to the Future*. Washington, DC: OPM, 2005.

U.S. Office of Personnel Management. *Demonstration Projects and Alternative Personnel Systems: HR Flexibilities and Lessons Learned*, Appendix. Washington, DC.

US Office of Personnel Management. "A Fresh Start for Federal Pay: The Case for Modernization, A White Paper" Washington, DC: April, 2002.