DEPARTMENT OF COMMERCE PERSONNEL MANAGEMENT DEMONSTRATION PROJECT EVALUATION IMPLEMENTATION REPORT



Washington, DC June 5, 2000

TABLE OF CONTENTS

EX	KECU	TIVE SUMMARY	1
1.	INT	RODUCTION	1-1
	1.1.	This Implementation Report provides an assessment of the first year of the DoC Personnel Management Demonstration Project	1-1
	1.2.	This report is organized to address each personnel intervention and then to recommend actions for continued operation.	1-1
2.		ARTMENT OF COMMERCE PERSONNEL MANAGEMENT MONSTRATION PROJECT AND ITS EVALUATION	2-1
	2.1.	The Department of Commerce (DoC) Personnel Management Demonstration Project is being conducted to test the effects of innovative human resources practices in different organizations with a variety of occupational groups	2-1
	2.2.	The general objectives of the Department of Commerce Personnel Management Demonstration Project emphasize the development of a higher performing workforce, as well as greater efficiency and flexibility of personnel processes.	2-2
	2.3.	Department of Commerce organizations with a wide range of missions and occupations are included in the current Demonstration Project	2-2
	2.4.	The Demonstration Project encompasses over 4,000 employees in both Demonstration and Comparison Groups.	2-5
	2.5.	A broad range of interventions have been implemented at DoC for the purpose of developing a higher performing workforce	2-6
	2.6.	A valid evaluation of the Demonstration Project is critical in determining whether to continue the nontraditional personnel practices and whether to make them a part of other government organizations	2-15
3.	EVA	ALUATION DATA SOURCES	3-1
	3.1.	We conducted 42 interviews with staff in the DoC organizations participating in the Demonstration Group to determine their perceptions of the project.	3-1
	3.2.	A total of 32 focus groups were conducted with employees from the Demonstration and Comparison Groups to help assess the Demonstration Project's impact	3-1
	3.3.	An implementation survey of Demonstration and Comparison Group employees provided a key data source for our assessment.	3-2
	3.4.	We used objective personnel data to profile the employees participating in the Demonstration and Comparison Groups and to study the Demonstration Project's impact on the distribution of monetary rewards.	3-6

ŀ.	FIN	DINGS AND CONCLUSIONS	4-1
	4.1.	The Demonstration Project represents a large agency-wide change; after the first year, this change has not resulted in different employee perceptions of their work environment.	4-1
	4.2.	Sufficient information is not yet available to assess the impact of career paths.	4-3
	4.3.	The pay for performance system, as implemented in the Demonstration Group, has achieved several of its expected results; however, there is still a substantial number of employees who are unaware of the link between pay and performance.	4-6
	4.4.	DoC has not fully utilized the recruitment and retention interventions available as part of the Demonstration Project to improve workforce quality or reduce the time to hire	4-20
	4.5.	While employees expressed positive expectations about the three-year probationary period for R&D positions, the one year of experience provides no data.	4-23
	4.6.	The Demonstration Project interventions have not adversely affected the nine Merit System Principles or the twelve Prohibited Personnel Practices	4-24
	4.7.	The Demonstration Project implementation emphasized the pay for performance interventions; additional actions are needed to achieve the objectives of hiring and retaining higher performing employees.	4-31
5.	ANS	WERS TO RESEARCH QUESTIONS	5-1
	5.1.	The six areas that are critical in evaluating the success of OPM-sponsored Demonstration Projects focus on whether or not the interventions are better than traditional human resources practices. The evaluation of the implementation year indicates that the project has started effectively, but results are not yet evident.	5-1
	5.2.	The Department of Commerce has high expectations for the results of the Demonstration Project, with its research questions focused on creating improved organizational and individual performance. The evaluation of the implementation year indicates that DoC has tied pay to performance but has not yet fully implemented the hiring and retention interventions that could affect the quality of the workforce.	5-3
ó.	REC	COMMENDATIONS	6-1
	6.1.	DoC should provide information about the results of the pay for performance system so that employees understand the link that has been established between performance and rewards	6-1

	6.2.	DoC must work with Demonstration Project managers and Human Resources staffs to fully implement and use the recruitment and retention interventions as a strategic tool for achieving a higher performing	
		workforce.	.6-2
	6.3.	DoC needs to articulate, coach, and reward the role of a supervisor under the pay for performance system.	.6-3
	6.4.	More information must be provided to employees and supervisors so they understand the new career paths	.6-4
	6.5.	DoC needs to review the extended probationary period intervention to determine whether it can be evaluated during this Demonstration Project	.6-4
	6.6.	DoC needs to remain diligent in monitoring the project for disparate impacts on minorities, women, and veterans	.6-5
	6.7.	Demonstration Project managers need to identify and collect additional data in order to better track the performance of the Demonstration Project	.6-5
AI	PPEN	DICES	
	Appe	endix A. Survey Materials	
		 A-1. Implementation Survey A-2. Implementation Survey Analysis A-3. Crosswalk of Questions on Baseline and Implementation Surveys A-4. Baseline Survey A-5. Baseline Survey Analysis 	
	Anne	endix B. Interview and Focus Group Materials	
	7 1 PP	B-1. Interview Protocol	
		B-2. Focus Group ProtocolB-2. Focus Group Selection Information	
	Appe	endix C. Objective Data	
	11	C-1. Objective Data Elements List	
		C-2. Analyses of the Linkage Between Pay and Performance	
	Appe	endix D. Evaluation Planning Documents	
		D-1. Project Plan	
		D-2. Data Sources D-3. Participating Administrations and Occupations	
		D-4. Final Federal Register Notice	
	Appe	endix E. Implementation Documents	
		E-1. Notification of Employee Briefings	
		E-2. Employee Training Plan E-3. Dec Demonstration Project Training for Managers	
		E-3. DoC Demonstration Project Training for Managers	

LIST OF FIGURES

Figure 1. DoC Personnel Management Demonstration Project Timeline	2-1
Figure 2. Career Paths and Bands for Demonstration Project Employees	
Figure 3. Pay Bands for Supervisory Employees	2-10
Figure 4. Pay Authority Relationship	
Figure 5. DoC Demonstration Project Evaluation Model	2-17
Figure 6. Range of Percent Salary Increases for Demonstration Group Employees	4-12
Figure 7. Range of Percent Salary Increases for Comparison Group Employees	4-13
Figure 8. Range of Bonus Percentages for Demonstration Group Employees	4-13
Figure 9. Range of Award Percentages for Comparison Group Employees	4-14
LIST OF TABLES	
Table 1. Research Questions and Answers	2
Table 2. Utilization of DoC Demonstration Project Interventions	
Table 2-1. Participating Organizations and Their Missions	
Table 2-2. Major Occupations in the Demonstration Group	2-4
Table 2-3. Comparison Group Participants	
Table 2-4. Characteristics of Demonstration Project Participants by	
Agency/Comparison Group	2-6
Table 2-5. Performance Appraisal Systems	
Table 2-6. Research Questions from OPM Demonstration Project Handbook	2-15
Table 2-7. Research Questions Related to DoC Demonstration Project Objectives	
Table 3-1. Interviews Conducted	
Table 3-2. Focus Group Topics	3-2
Table 3-3. Demographic Characteristics of Implementation Survey Respondents and	
All Demonstration and Comparison Group Participants	
Table 3-4. Survey Response Rates	
Table 3-5. Objective Data Elements	
Table 4-1. Employee Opinions of the Work Environment	4-2
Table 4-2. Overall Satisfaction Reported on Baseline and Implementation Year	
Surveys	4-2
Table 4-3. Demonstration Group Focus Group Results – Career Paths	
Table 4-4. Survey Responses to Job Classification Questions	
Table 4-5. Survey Responses to Supervisory Questions on Classification	
Table 4-6. Demonstration Group Focus Group Results – Classification Decisions	
Table 4-7. Performance Appraisal System	
Table 4-8. Demonstration Group Focus Group Results – Performance Appraisal	
Table 4-9. Survey Responses to Performance Appraisal Feedback Questions	
Table 4-10. Survey Responses to Current Pay System Questions	
Table 4-11. Ability to Reward Good Performers	
Table 4-12. Demonstration Group Focus Group Results – Perceptions of Pay Bands	
Table 4-13. Survey Responses to Pay System Questions	4-15

Table 4-14. Survey Responses to Delegated Pay Authority Questions	4-16
Table 4-15. Survey Responses to Pay for Performance Questions	4-17
Table 4-16. Demonstration Group Focus Group Results – Perceptions of Pay for	
Performance	4-17
Table 4-17. Survey Responses to Bonuses and Rewards Questions	4-18
Table 4-18. Demonstration Group Focus Group Results – Perceptions of	
Performance Bonuses	4-19
Table 4-19. Improved Supervisor Performance	4-19
Table 4-20. Demonstration Group Focus Group Results – Perceptions of Supervisory	
Pay	4-20
Table 4-21. Demonstration Group Focus Group Results – Perceptions of	
Recruitment and Retention Strategies	4-21
Table 4-22. High-Quality New Hires	4-22
Table 4-23. Survey Responses to Salary Question	4-22
Table 4-24. Demonstration Group Focus Group Results – Perceptions of	
Probationary Periods	4-23
Table 4-25. Survey Responses to Three-Year Probationary Period Questions	4-24
Table 4-26. Survey Responses to Discharge During Probationary Period Questions	4-24
Table 4-27. Survey Responses to Impact on Minorities Questions	4-25
Table 4-28. Survey Responses to Organizational Excellence Questions	4-26
Table 4-29. Focus Group Results – Minority/Gender Issue (Non-Supervisory	
Employees)	4-27
Table 4-30. Average Performance Appraisal Scores (Raw), Pay Increase Percentages	
(Raw and Adjusted), and Bonus Percentages (Raw and Adjusted) for the	
Demonstration Group	4-28
Table 4-31. Data from Demonstration and Comparison Groups Used for Comparisons	4-29
Table 4-32. Comparison of Performance Appraisal Scores (Raw), Average Pay	
Increases (Adjusted), and Average Bonuses/Awards (Adjusted)	4-30
Table 5-1. Answers to OPM Research Questions	5-1
Table 5-2. Answers to Evaluation Model Research Questions	5-3

EXECUTIVE SUMMARY

This report presents Booz-Allen & Hamilton's assessment of the implementation year of the Department of Commerce Personnel Management Demonstration Project. The Executive Summary provides a summary of the purpose of the Demonstration Project, the status of implementing the personnel innovations, and recommendations for actions needed to continue operating the Demonstration Project to determine whether it meets the objectives of increased organizational and individual performance.

1. The Department of Commerce (DoC) Personnel Management Demonstration Project is being conducted to test the effects of innovative human resources practices on a variety of occupational groups.

This Demonstration Project was implemented on March 29, 1998 and is scheduled to last five years (March 2003). It was designed to apply several of the human resource interventions from an earlier Demonstration Project within DoC to a wider range of occupational areas within organizations with different missions. The first Demonstration Project at DoC involved employees at the National Institute of Standards and Technology (NIST). The NIST Project was highly successful. The current project seeks to build on and duplicate that success. A broad goal of this current project is to determine whether or not these interventions can be successfully implemented at other organizations within the Department of Commerce, that employ different occupational groups to produce a different kind of work product.

1.1 The general objectives of the project emphasize the development of a higher performing workforce as well as greater efficiency and flexibility of personnel processes.

This Demonstration Project is designed to foster improved organizational and individual performance. This is to be done by recognizing high quality performance and recruiting and retaining high performers. The stated project objectives are:

- Increased quality of new hires
- Improved fit between position requirements and individual qualifications
- Greater likelihood of getting a highly qualified candidate
- Increased recruitment and retention of high performance employees
- Improved individual and/or organizational performance
- More effective human resources management
- More efficient human resources management
- Increased delegation of authority and accountability to managers

- Human Resources systems that better facilitate organizational mission and excellence
- Support for equal employment opportunity and diversity goals in recruiting, rewarding, paying, and retaining minorities, women and veterans
- Provision of opportunities for a diverse work force
- Maximization of the contributions of all employees.
- 1.2 Booz-Allen & Hamilton conducted the evaluation of the implementation and will conduct the five-year evaluation of the project. This report covers the implementation of the Demonstration Project.

A valid evaluation of the five-year Demonstration Project is critical to measuring the success of the project and the Office of Personnel Management (OPM) requires that every Demonstration Project be rigorously evaluated. The purpose of the evaluation is to determine if the Demonstration Project's objectives were met. The evaluation is also designed to determine what, if any, mid-course revisions should be made to the Demonstration Project's implementation, and whether the project interventions can be applied in other federal government organizations.

The evaluation of the DoC Personnel Management Demonstration Project will attempt to answer the research questions identified by OPM as well as determine whether the project accomplished the specific objectives established by DoC. Table 1 shows the OPM research questions, and answers based on the data collected for this implementation year.

Table 1. Research Questions and Answers

OPM Research Questions	Answers	Where To Locate Additional Information
 Did the project accomplish the intended purpose and goals? If not, why not? 	It is too early in the project to assess the success of the project against long-term, ultimate outcomes. The goals of the Implementation Phase were to implement all of the proposed interventions. The classification, career paths, pay banding, performance appraisal, and pay for performance components were implemented.	The Summative Report (at the end of the fifth year) will provide this evaluation. The Operational Report (at the end of the third year) will assess progress toward goals.
	Recruitment, hiring, and retention interventions were not fully utilized due to demands on managers and supervisors to implement the performance management components and because some of the objectives of the recruitment interventions were achieved through use of the pay tools.	Introduction Chapter 4 – Findings and Conclusions

OPM Research Questions	Answers	Where To Locate Additional Information
Was the project implemented and operated	Many interventions of the project were implemented. Others were not implemented during the first year but will be during the second year.	Chapter 4 – Findings and Conclusions Section 4.3. – Pay for
appropriately and accurately?	The performance management system is being operated as a pay for performance system.	Performance System
	There must be additional information and training provided to Demonstration Group personnel in order to make interventions such as the performance appraisal system more effective.	Several parts of Chapter 4 address the need for information and training for Demonstration Group employees
	There needs to be a major emphasis placed on using the recruiting and retention interventions strategically to achieve the workforce objectives.	Section 4.4 – Recruitment and Retention interventions
3. What was the cost of the project?	Not required for the Implementation Report.	
What was the impact on veterans and other EEO groups?	Results from the Implementation Year indicate that the project has not adversely affected veterans, women, or minorities.	Section 4.6 – Merit System Principles and Prohibited Personnel Practices
	The consensus of interviews and focus groups is that there have not been any changes in how these groups are treated. These opinions are supported by objective data.	Appendix A – descriptive statistics for all survey questions
	Survey results indicate the organizations participating in the Demonstration Project are already operating fairly toward veterans and EEO groups.	Appendix C-2 – Analyses of the Linkage between Pay and Performance
5. Were Merit Systems Principles adhered to and Prohibited Personnel Practices avoided?	Focus group results indicate that there have been no changes in either adherence to Merit System Principles or avoidance of Prohibited Personnel Practices since the Demonstration Project was implemented in March 1998.	Section 4.6 – Merit System Principles and Prohibited Personnel Practices
	Survey results confirm the focus group feedback.	
Can the project or portions thereof be generalized to other	It is too early in the life span of the Demonstration Project to assess the generalizability of the outcomes of interventions.	Recommendations for limited or government-wide expansion are not expected
agencies or government-wide?	agencies or government-wide? Despite organizational differences in implementing and operating project interventions, at the end of the Implementation Year the project is achieving similar results in all of the organizations participating in the Demonstration Group. The same training was provided in all organizations. All organizations are using the same performance appraisal forms.	until the Summative Report which is due at the end of the project
		Section 4.3.4. – Performance Bonuses
		Section 4.3.2. and 4.3.3. – Pay for Performance System
	Most importantly, the pay for performance intervention was implemented and is operating as such in all participating organizations, demonstrated by a positive relationship between performance ratings and rewards.	Appendix F – Implementation Documents

2. During this first year of the project, DoC focused on implementing the interventions.

The project was implemented after more than two years of planning and preparation. The Demonstration Project Team was established, operating procedures formalized, training was conducted for all managers and Human Resources staff, and a communication plan was developed and used to educate all project participants. The organizations participating in the Demonstration Group instituted the new personnel procedures associated with the classification, pay administration, and pay for performance interventions.

2.1 The Demonstration Project Team established a sound infrastructure to implement and manage the project.

DoC established a Project Manager and a management team. Together they:

- Conducted briefings for all employees
- Developed an operating procedures manual to standardize and guide operations within the participating organizations
- Trained all managers and Human Resources staff on specific aspects of the project
- Developed a communication plan to guide the presentation of information
- Developed an automated classification system
- Developed the performance payout system.

The Operating Personnel Management Boards (OPMBs) and the Departmental Personnel Management Board (DPMB) have monitored the implementation of the project and made important changes in operating procedures as a result of feedback received during this year.

2.2 The implementation emphasized the pay for performance interventions while the recruitment and retention interventions are not being fully utilized.

Table 2 below organizes the project interventions according to the extent of utilization at the end of the first year of the project. It is primarily the pay and pay for performance interventions that have been implemented and utilized during this year. In addition, DoC implemented the Automated Classification System, along with delegating classification authority to managers. The operating units used the Delegated Pay Authority intervention as a mechanism for attracting new hires.

Utilized Interventions Under-Utilized Interventions Can't Yet Determine Career Paths Agency Based Staffing Supervisory Performance Pay Pay Bands Direct Examination • 3 Year Probationary Period Automated Classification • More Flexible Paid for Scientists and Engineers System Advertising (ZP Employees) Performing Delegated Classification Local Authority for R&D Duties Authority to Managers Recruitment Payments • More Flexible Pay Increase Local Authority for **Upon Promotion** Retention Payments Performance Based Pav Increases Performance Bonuses Delegated Pay Authority to Managers

Table 2. Utilization of DoC Demonstration Project Interventions

The under-utilized interventions are associated with recruiting and hiring highly qualified applicants. This area will need attention as the project progresses.

The use of the intervention called Supervisory Performance Pay needs to be tracked differently (data for supervisors in the Supervisory Pay Band need to be tracked separately from that for other supervisors) since this intervention only applies to supervisors at the top of the pay band. These employees can be identified by the Special Employment Code of 10 or 12. The three-year probationary period intervention also needs special tracking since it only applies to new hires into R&D positions (this will require identifying those R&D positions with functional codes of 11 and 13, with employees hired since March 1998 who remain on probationary status).

2.3 The pay for performance system has achieved several of its expected results; the most notable is a positive link between performance ratings and rewards.

Objective data indicate that financial rewards were tied to performance during this year's appraisal process. Statistics reveal a positive relationship between job performance (measured through performance appraisal rating scores) and both pay increases (r = .54, p < .001) and performance bonuses (r = .46, p < .001).

Additionally, the new performance appraisal system has the potential to raise the pay of good performers more rapidly, but additional performance appraisal cycles are necessary before employees fully understand the relationship between pay and job performance.

Delegated pay authority allows supervisors to influence pay decisions based on their observation of employee performance. The Pay Pool system did reward employees for differences in performance through differences in pay increases and performance bonuses. The goal of achieving higher individual and organizational performance still needs to be measured.

3. DoC needs to take additional actions in order to proceed in determining whether the Demonstration Project interventions are increasing organizational and individual performance.

While lessons learned from this implementation year are helpful to continued operation and to generalizability, the project has had a successful start and should continue. Recommendations for specific actions focus on making a stronger link between pay and performance, and using the recruitment and hiring interventions as a strategic tool.

3.1 Going forward, DoC should provide information about the results of the pay for performance system so that employees understand the link that has been established between performance and rewards.

All employees in the Demonstration Group need both feedback on the current results and an explanation of what this link means for the remainder of the project.

3.1.1 Follow-up communication and training should be provided to employees to enable them to better understand the performance appraisal process.

Demonstration Group employees are willing to participate in the new appraisal process, but they are taking a wait and see approach. Supervisors say that the new appraisal system enables them to identify top performers, but non-supervisory employees want to see how the system will be used and are concerned about favoritism entering into the process.

3.1.2 There must be ongoing communication between supervisors and their subordinates on job performance.

This ongoing communication between supervisors and non-supervisory employees is critical to the success of any pay for performance system. Where communication about job performance is ongoing rather than occasional, employees know how they are performing and receive constructive feedback which will enable them to better perform their jobs.

3.1.3 For continuing the operation of the project, DoC managers need to consider how the level of funding for the pay pools will affect the operation of the pay for performance system.

A critical issue for continuing the pay for performance system is that project participants perceive the link between pay and performance, and that the rewards are large enough to motivate increasingly higher levels of job performance. Providing the funding is relatively easy in the recent economic cycle. However, funding, and the success of the project, could become issues with an economic downturn; the tendency would be to divide the funding among all staff which would allow little differentiation for high performers. DoC managers need to start considering how to maintain the commitment to pay for performance during times of small funding increases.

3.2 DoC must also work with Demonstration Project managers and Human Resource staffs to fully implement and use the recruitment and retention interventions as a strategic tool for achieving a higher performing workforce.

The recruitment, hiring, and retention functions are operating much as they did before the project began. This may be due to the Federal Employees Pay Comparability Act of 1990 (FEPCA), which provides incentives that are much the same as those offered in the Demonstration Project, including direct examination authority and retention and recruitment payments. The potential benefit for this Demonstration Project is that the interventions can be authorized at a lower level in the organization than with FEPCA, making them easier to use for managers who have identified highly qualified applicants.

3.2.1 DoC needs to establish a comprehensive strategic approach to recruiting higher quality candidates.

To be effective within the Demonstration Project, the recruitment and hiring interventions must be formed into a comprehensive strategy with the objective of filling all vacancies with recruits that will meet the definition of "higher quality candidates." The interventions of paid advertising, Agency-Based Staffing, Direct Examination, recruitment payments, and flexible starting salaries, should be discussed between hiring managers and Human Resources professionals and formed into a comprehensive strategy for each position being filled.

3.2.2 Ensure that recruitment and retention payments are used effectively by tracking their use and linking payments to the quality of new hires.

These payments were used sparingly during the first year (3 recruitment payments for 324 new hires, and no retention payments). They should be used more often if they are critical to the recruitment of high quality personnel. The payments should also be linked to measures of the quality of new hires to determine whether the interventions are effective.

3.3 DoC needs to articulate, coach, and reward the role of a supervisor under the pay for performance system.

To ensure optimal supervisory performance, supervisors need to understand their roles in the context of the broader organizational mission. This requires that supervisors have a clear understanding of the performance expectations for their staff in relation to the expectations for staff in other pay pools. The performance of one supervisor's employees needs to be viewed in relation to achievement of overall organizational goals.

3.3.1 The Demonstration Project needs to develop a performance appraisal process that reduces variation in ratings among supervisors.

Employees and supervisors both reported that some pay pool managers changed the ratings assigned by supervisors, and that some supervisors are "hard" raters and some are "easy" raters. These perceptions do not engender trust in the pay for performance system. It should be possible for the Demonstration Group organizations to institute a procedure whereby each

supervisor's ratings are reviewed for consistency with the ratings of other supervisors (and modified if necessary) before they are provided to the employees. To some extent, pay pool managers are already working to ensure this consistency.

3.3.2 The Demonstration Project needs to develop a direct link between supervisory performance and monetary rewards in order to attract employees into supervisory positions.

The skills of supervision need to be trained, evaluated, and rewarded similarly to technical and business skills. The Demonstration Project needs clear evidence that supervisors are receiving pay for performance in accordance with their supervisory skills (even when the supervisor's salary has not reached the level to be labeled Supervisory Performance Pay). Some supervisors perform their function more effectively than others; those who are better at the supervisory role should be recognized through the performance increases and bonuses. Recognizing high performing supervisors (while at the same time recognizing high performing technical staff) will encourage employees who have supervisory skills to seek supervisory positions. Since many technical staff prefer to perform work in their discipline, and since technical performance will be rewarded without the need to assume supervisory responsibilities, DoC will need a systematic way to identify and attract employees who will perform well in supervisory roles.

3.4 Demonstration Project managers need to identify and collect additional data in order to better track the performance of the Demonstration Project.

The Demonstration Project is currently tracking much of the data needed to monitor and evaluate the success of the individual interventions and the impacts overall. There are, however, additional data that need to be collected in order to determine whether the interventions are successful. Over the next years, DoC should be tracking:

- The number of supervisors who receive increases beyond the top of their pay band
- Employees designated as eligible for RIF credit (to determine impact on Merit System Principles)
- The number of positions classified during the year
- The number of positions reclassified during the year
- The number of position classification appeals
- Amount of time spent on classification
- Accuracy of classification decisions
- The number of requests for reconsideration of ratings, scores, and pay increases
- The number of grievances over ratings, scores, and pay increases
- Data on the quality of both applicants and new hires

- Reasons for employees leaving organizations that are participating in the Demonstration Project
- Specific R&D positions affected by the three-year probationary period
- Amount of elapsed time between listing and filling a position.
- Reasons given by applicants who decline position offers.

* * * * *

The Department of Commerce has successfully implemented its Personnel Management Demonstration Project. While there are additional activities to be performed before all of the changes are completely institutionalized, the implementation year laid a good foundation for the innovative personnel practices that are being tested.

The full report provides additional information as well as more detailed information about the project and the results of this implementation year.

1. INTRODUCTION

This chapter presents the purpose of this report and describes the structure of the report.

1.1. This Implementation Report provides an assessment of the first year of the DoC Personnel Management Demonstration Project.

This report is the first of three designed to assess the implementation and operation of the Department of Commerce (DoC) Personnel Management Demonstration Project initiated in March 1998 and to recommend whether the personnel interventions demonstrated can be generalized to the federal government. The Demonstration Project is being conducted to determine whether alternative personnel practices are more successful in helping to achieve agency goals than traditional personnel practices.

This Implementation Report assesses the first year that the Demonstration Project has been in operation, from March 1998 to March 1999. During this time, DoC has established the infrastructure necessary to manage and operate the new approaches to human resources management that are being demonstrated. DoC also trained staff and operated according to the new procedures.

1.2. This report is organized to address each personnel intervention and then to recommend actions for continued operation.

Chapter 2 of this report titled "Demonstration Project and its Evaluation" begins with a description of the Department of Commerce Personnel Management Demonstration Project, including a discussion of the objectives guiding the project, the organizations and types of employees included, and the project interventions. The second half of Chapter 2 describes the Demonstration Project evaluation. The research questions relevant to the project are covered, followed by a discussion of the project evaluation phases.

Chapter 3, "Evaluation Data Sources," contains descriptive and methodological information on the data collection procedures used during the project evaluation. This chapter begins with a discussion of the interviews conducted. Focus groups are then discussed, followed by a discussion of the implementation survey. Objective data used during the evaluation are also described.

Chapter 4, "Findings and Conclusions," is divided into seven sections focused on the major interventions. Each of the sections is then further divided according to the number of interventions contained within. Each conclusion is explained and then followed by "Findings" statements. The findings are supported by data from focus groups, interviews, the employee survey, and objective data. When relevant, the data from these sources are presented in table format. Survey responses are reported as totals (including both supervisory and non-supervisory employees). In addition, the responses of supervisors and non-supervisors are reported separately when there is a large difference between them. Some supervisory employee responses reflect their responses to general questions (supervisors

responding as employees), and some reflect their responses to supervisor-only questions. The distinction is made in each relevant table and in the accompanying text.

Chapter 5, "Answers to Research Questions," gives explicit answers to each research question from both the OPM Demonstration Projects Evaluation Handbook and the Department of Commerce Demonstration Project Evaluation Model. The questions are presented in table form with answers to each in the next column. Some of the research questions cannot be answered at this point in the project and must be answered in later years.

Chapter 6, "Recommendations," contains detailed recommendations for each intervention where appropriate. General recommendations are also given. The general recommendations are not written to any specific intervention, but may address organizational issues that affect the Demonstration Project.

Five appendices accompany this report, providing various reference and citation data, including results from the implementation survey and objective data analyses.

This report was written by Booz-Allen & Hamilton and the conclusions stated within are from Booz-Allen & Hamilton's perspective. The Department of Commerce Demonstration Project Manager and operating staff provided the implementation information. The Department of Commerce will also provide site historian information in future reports. Site historian information will be included where there are extraordinary events that may affect the outcome of the Project. No such events occurred to date.

2. DEPARTMENT OF COMMERCE PERSONNEL MANAGEMENT DEMONSTRATION PROJECT AND ITS EVALUATION

This chapter presents background information concerning the Department of Commerce (DoC) Personnel Management Demonstration Project, including its objectives, scope, and evaluation.

2.1. The Department of Commerce (DoC) Personnel Management
Demonstration Project is being conducted to test the effects of
innovative human resources practices in different organizations with a
variety of occupational groups.

The current Department of Commerce Personnel Management Demonstration Project was implemented on March 29, 1998, and is scheduled to last five years (March, 2003) as shown in Figure 1. It was designed to apply several of the human resource interventions from an earlier Demonstration Project within DoC to a wider range of occupational areas within organizations with different missions.

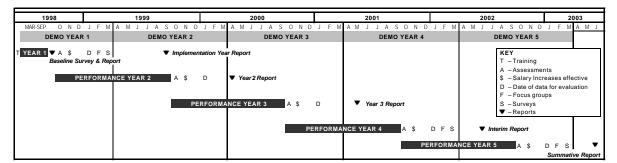


Figure 1. DoC Personnel Management Demonstration Project Timeline

The first Demonstration Project at DoC involved employees at the National Institute of Standards and Technology (NIST). The NIST Project achieved highly successful results, and at the conclusion of the first Demonstration Project, the interventions were made permanent. The current project seeks to build on the success of the NIST Project and determine whether or not these interventions can be successfully implemented at other organizations within the Department of Commerce that employ different occupational groups to produce a different kind of work product.

With a few revisions, the interventions that comprise the current Demonstration Project are similar to the interventions made permanent at NIST. Included as part of this Demonstration Project are simplified recruiting, classification, and examining processes, as well as a shift to a pay for performance system within a pay-banding framework.

2.2. The general objectives of the Department of Commerce Personnel Management Demonstration Project emphasize the development of a higher performing workforce, as well as greater efficiency and flexibility of personnel processes.

This Demonstration Project is designed to foster improved organizational and individual quality. This is to be done by recognizing high quality performance and recruiting and retaining high performers. The stated project objectives are:

- Increased quality of new hires
- Improved fit between position requirements and individual qualifications
- Greater likelihood of getting a highly qualified candidate
- Increased recruitment and retention of high performance employees
- Improved individual and/or organizational performance
- More effective human resources management
- More efficient human resources management
- Increased delegation of authority and accountability to managers
- Human Resource (HR) systems that better facilitate organizational mission and excellence
- Support for EEO/diversity goals in recruiting, rewarding, paying, and retaining minorities, women, and veterans
- Provision of opportunities for a diverse work force
- Maximization of the contributions of all employees.

2.3. Department of Commerce organizations with a wide range of missions and occupations are included in the current Demonstration Project.

The current Demonstration Project is designed to identify other organizations within the Department of Commerce where the human resources interventions adopted at NIST might prove successful. In order to determine what organizational variables (e.g., mission, occupational groups, etc.) influence the success of these interventions, the Department of Commerce selected seven DoC organizations to participate in the current Demonstration Project. Some of these organizations (collectively referred to as the Demonstration Group) received the new human resources interventions. In an effort to determine whether Demonstration Project changes were actually effective, the results obtained from the Demonstration Group will be compared with those results from a control group (the Comparison Group). The Demonstration and Comparison Groups are described below.

2.3.1. The Demonstration Group consists of seven organizations encompassing occupations in business, management, economics, computer science, statistics, physical science, and natural science.

Employees in the Demonstration Group organizations have been affected by the human resources interventions which are part of the current Demonstration Project. The impact these changes have within these organizations will be studied over the five-year period. Table 2-1 presents the organizations participating in the Demonstration Group, along with a statement of mission. Table 2-2 shows the major occupations and locations of the employees affected by the Demonstration Project's interventions. Appendix D-3 provides additional descriptions.

Table 2-1. Participating Organizations and Their Missions

Organization	Mission	
Technology Administration (TA)	TA is the only federal agency working to maximize technology's contribution to America's economic growth.	
Office of the Under Secretary	The Office of the Under Secretary is responsible for management of TA agencies.	
Office of Technology Policy (OTP)	OTP is the only office in the federal government with the explicit mission of developing and advocating national policies that use technology to build America's economic strength.	
Economics and Statistics Administration (ESA)	Much of the statistical, economic, and demographic information collected by the federal government is made available to the public through the bureaus and offices of the Department of Commerce that are known collectively as the Economics and Statistics Administration (ESA).	
Bureau of Economic Analysis (BEA)	BEA is the Nation's accountant, integrating and interpreting a tremendous volume of data to draw a complete and consistent picture of the U.S. economy. BEA's economic accounts—national, regional, and international—provide information on such key issues as economic growth, regional development, and the Nation's position in the world economy.	
National Telecommunications and Information Administration (NTIA)	NTIA is the Executive Branch's principal voice on domestic and international telecommunications and information technology issues. NTIA works to spur innovation, encourage competition, help create jobs, and provide consumers with more choices and better quality telecommunications products and services at lower prices. In fulfilling this responsibility, NTIA is providing greater access for all Americans, championing greater foreign market access, and creating new opportunities with technology.	
Institute for Telecommunication Sciences (ITS)	ITS is the chief research and engineering arm of NTIA. ITS supports such NTIA telecommunications objectives as promotion of advanced telecommunications and information infrastructure development in the United States, enhancement of domestic competitiveness, improvement of foreign trade opportunities for U.S. telecommunications firms, and facilitation of more efficient and effective use of the radio spectrum.	
National Oceanic and Atmospheric Administration (NOAA)	NOAA's mission is to describe and predict changes in the earth's environment and to conserve and manage wisely the Nation's coastal and marine resources.	
Units of the Office of Oceanic and Atmospheric Research (OAR)	OAR, the primary research arm of NOAA, conducts and directs research in atmospheric, coastal, marine, and space sciences through its own laboratories and programs, and through networks of university-based programs.	

Organization	Mission
Units of the National Environmental Satellite, Data, and Information Service (NESDIS)	NESDIS operates NOAA's satellites and ground facilities; collects, processes and distributes remotely sensed data; conducts studies, plans new systems, and carries out the engineering required to develop and implement new or modified satellite systems; carries out research and development on satellite products and services; provides ocean data management and services to researchers and other users; and acquires, stores, and disseminates worldwide data related to solid earth geophysics, solar terrestrial physics, and marine geology and geophysics.
Units of the National Marine Fisheries Service (NMFS)	NMFS administers NOAA's programs which support the domestic and international conservation and management of living marine resources. NMFS provides services and products to support domestic and international fisheries management operations, fisheries development, trade and industry assistance activities, law enforcement, protected species and habitat conservation operations, and the scientific and technical aspects of NOAA's marine fisheries program.

Table 2-2. Major Occupations in the Demonstration Group

Organization	Location(s)	Major Occupations				
TA						
Office of the Under Secretary	Washington, DC	General Administration, Management Analyst,				
Office of Technology Policy (OTP)		and General Business Specialist				
ESA						
Bureau of Economic Analysis (BEA)	Washington, DC	Economist, Accountant, Financial Administrator, Computer Specialist, Statistician, and Statistical Assistant				
NTIA						
Institute for Telecommunication Sciences (ITS)	Boulder, CO	Electronics Engineer and Mathematician				
NOAA						
Office of Oceanic and Atmospheric Research (OAR) and Environmental Research Laboratories (ERL)	Silver Spring, MD; Boulder, CO; Miami, FL; San Diego, CA; Seattle, WA; Barrow, AK; (selected sites)	Meteorologist, Physical Scientist, Physicist, Electronics Engineer, Computer Specialist, Electronics Technician, Physical Science Technician, and Mathematician				
National Environmental Satellite, Data, and Information Service (NESDIS)	Suitland, MD; Fairbanks, AK; Asheville, NC	Physical Scientist, Meteorologist, Computer Specialist, Oceanographer, Physical Science Technician, Electronics Engineer, Engineering Technician, Geophysicist, and Mathematician				
National Marine Fisheries Service (NMFS)	Gloucester, MA; Long Beach, CA; Juneau, AK; Silver Spring, MD; Seattle, WA	Fish Biologist, Fish Administrator, Biologist, Microbiologist, Biology Technician, Chemist, Oceanographer, Wildlife Biologist, Computer Specialist, and General Business Specialist				

2.3.2. The interventions were not implemented within Comparison Group organizations, and this group will be used as a point of comparison for the Demonstration Group.

In order to separate the impacts of the interventions from other influences, DoC identified four organizations to be included in the Demonstration Project as a Comparison Group. The Comparison Group organizations did not receive the interventions implemented in the Demonstration Group and were chosen because of their similarity to the organizations in the Demonstration Group. The purpose of the Comparison Group is to serve as a control group. If differences are seen between Demonstration and Comparison Groups, then the assumption that the interventions have made an impact can be made more confidently. The Comparison Group will provide a valuable source of information throughout the course of the Demonstration Project regarding the impact of the interventions. Table 2-1 presents the major occupations for units included in the Demonstration Project as a Comparison Group. Appendix D-3 provides additional information.

Organization	Location(s)	Major Occupations				
NOAA						
Office of Oceanic and Atmospheric Research (OAR) and Environmental Research Laboratories (ERL)	Ann Arbor, MI; Princeton, NJ; Seattle, WA	Meteorologist (primary). Physical Scientist, Physicist, Electronics Engineer, Computer Specialist, Electronics Technician, Physical Science Technician, and Mathematician				
National Environmental Satellite, Data, and Information Service (NESDIS)	Wallops Island, VA	Physical Scientist, Meteorologist, Computer Specialist, Oceanographer, Physical Science Technician, Electronics Engineer, Engineering Technician, Geophysicist, and Mathematician				
National Marine Fisheries Service (NMFS)	Woods Hole, MA; Miami, FL; Seattle, WA; La Jolla, CA	Fish Biologist, Biologist, Microbiologist, and Biology Technician (primary). Chemist, Oceanographer, Wildlife Biologist, Computer Specialist, and General Business Specialist				
ESA						
Headquarters	Washington, DC	General Administration				

Table 2-1. Comparison Group Participants

2.4. The Demonstration Project encompasses over 4,000 employees in both Demonstration and Comparison Groups.

All positions that would be classified as GS or GM positions are covered under the Demonstration Project. Positions that are classified as Senior Executive Service (SES) or Federal Wage System (FWS) were not covered.

Table 2-1 displays the number of Demonstration and Comparison Group employees involved in the project.

Table 2-1. Characteristics of Demonstration Project Participants by Agency/Comparison Group

	T/	-	ESA	/BEA	NTI	A/ITS	NOA	A/OAR		AA/ SDIS		AA/ //FS	TOTAL			MP. OUP
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
# Participants	39		425		74		645		733		781		2697		1707	
Career Path																
ZA	30	76.9	74	17.4	6	8.1	69	10.7	60	8.2	225	28.8	464	17.2		
ZP	0	0.0	300	70.6	56	75.7	458	71.0	436	59.5	395	50.6	1645	61.0		
ZS	9	23.1	32	7.5	7	9.5	79	12.2	98	13.4	143	18.3	368	13.6		
ZT	0	0.0	19	4.5	5	6.8	39	6.0	139	19.0	18	2.3	220	8.2		
Pay Band									_		_					
1	1	2.6	2	0.5	3	4.1	13	2.0	7	1.0	8	1.0	34	1.3		
2	8	20.5	77	18.1	7	9.5	41	6.4	64	8.7	107	13.7	304	11.3		
3	5	12.8 35.9	181	42.6 31.8	27	36.5 35.1	181	28.1	222	30.3	326	41.7 36.6	942	34.9 42.9		
4	14		135	l.	26		327		369		286		1157			
5 Grade*	11	28.2	30	7.1	11	14.9	83	12.9	71	9.7	54	6.9	260	9.6		
Grade Not Available	20	51.3	41	9.6	3	4.1	72	11.2	59	8.0	161	20.6	356	13.2	0	0.0
1	0	0.0	1	0.2	0	0.0	2	0.3	1	0.1	2	0.3	6	0.2	1	0.0
2	0	0.0	2	0.5	2	2.7	0	0.0	4	0.1	1	0.3	9	0.2	3	0.1
3	0	0.0	2	0.5	0	0.0	1	0.2	6	0.8	1	0.1	10	0.4	4	0.2
4	0	0.0	1	0.2	1	1.4	2	0.3	2	0.3	9	1.2	15	0.6	19	1.1
5	0	0.0	3	0.7	3	4.1	10	1.6	10	1.4	23	2.9	49	1.8	40	2.3
6	0	0.0	8	1.9	2	2.7	20	3.1	42	5.7	32	4.1	104	3.9	77	4.5
7	1	2.6	32	7.5	3	4.1	39	6.0	39	5.3	51	6.5	165	6.1	171	10.0
8	2	5.1	6	1.4	0	0.0	16	2.5	16	2.2	12	1.5	52	1.9	34	2.0
9	6	15.4	27	6.4	4	5.4	20	3.1	47	6.4	49	6.3	153	5.7	225	13.2
10	0	0.0	3	0.7	2	2.7	3	0.5	3	0.4	0	0.0	11	0.4	11	0.6
11	1	2.6	41	9.6	9	12.2	60	9.3	67	9.1	86	11.0	264	9.8	342	20.0
12	2	5.1	128	30.1	10	13.5	101	15.7	138	18.8	125	16.0	504	18.7	295	17.3
13	1	2.6	59	13.9	17	23.0	132	20.5	160	21.8	110	14.1	479	17.8	247	14.5
14 15	2	5.1	78 23	11.3 5.4	10	10.8	101	15.7	88 51	12.0	78 41	10.0	325 195	12.1	155 83	9.1 4.9
Race	4	10.3	23	5.4	10	13.5	66	10.2	31	7.0	41	5.2	195	7.2	83	4.9
American Indian	0	0.0	0	0.0	0	0.0	5	0.8	1	0.1	3	0.4	9	0.3	6	0.4
Asian	5	12.8	29	6.8	5	6.8	22	3.4	19	2.6	28	3.6	108	4.0	80	4.7
Black	6	15.4	112	26.4	0	0.0	32	5.0	102	13.9	75	9.6	327	12.1	81	4.7
Hispanic	1	2.6	12	2.8	2	2.7	28	4.3	13	1.8	17	2.2	73	2.7	34	2.0
White	27	69.2	272	64.0	67	90.5	558	86.5	598	81.6	658	84.3	2180	80.8	1506	88.2
Veteran											l					
Yes	1	2.6	27	6.4	7	9.5	56	8.7	101	13.8	57	7.3	249	9.2	140	8.2
No	38	97.4	398	93.6	67	90.5	589	91.3	632	86.2	724	92.7	2448	90.8	1567	91.8
Gender																
Male	15	38.5	231	54.4	55	74.3	437	67.8	490	66.8	416	53.3	1644	61.0	1101	64.5
Female	24	61.5	194	45.6	19	25.7	208	32.2	243	33.2	365	46.7	1053	39.0	606	35.5
Supervisor				44.0.1		10.0							0 :=		4 :-	
Yes	1	2.6	48	11.3	8	10.8	51	7.9	65	8.9	72	9.2	245	9.1	145	8.5
No	38	97.4	377	88.7	66	89.2	594	92.1	668	91.1	709	90.8	2452	90.9	1562	91.5

Note: Demonstration Group – grade at conversion (March 1998); Comparison Group – grade as of January 1999

2.5. A broad range of interventions have been implemented at DoC for the purpose of developing a higher performing workforce.

The interventions (changes) implemented in the Demonstration Group focus on classification, pay, recruitment, retention, and an expanded probationary period. The fifteen interventions are listed, then described below:

- 1. Career paths
- 2. Pay bands (Broadbanding)
- 3. Performance-based pay increases (pay for performance)
- 4. Supervisory performance pay
- 5. More flexible pay increase upon promotion
- 6. Performance bonuses
- 7. Direct Examination
- 8. Agency-Based Staffing
- 9. More flexible paid advertising
- 10. Local authority for recruitment payments
- 11. Local authority for retention payments
- 12. Automated broadband classification system
- 13. Delegated classification authority to managers
- 14. Delegated pay authority to managers
- 15. Three-year probationary period for scientists and engineers (ZP employees performing R&D duties).

See Appendix D-4 for a copy of the *Federal Register* notice describing the Demonstration Project.

2.5.1. Four career paths have been established, grouping occupations according to similar career patterns for human resources administration purposes.

Under the Demonstration Project, Demonstration Group occupations have been reclassified into four broad career paths. Each career path consists of occupations that have similar career patterns and therefore can be treated similarly for classification, pay, and other personnel purposes. In contrast, occupations are grouped by similarities in content under the GS system. The career paths developed for the Demonstration Group are:

- Scientific and Engineering (ZP). Consisting of professional technical positions in the physical, engineering, biological, mathematical, computer, and social science occupations; and student trainee positions in these fields.
- Scientific and Engineering Technician (ZT). Consisting of positions that support scientific and engineering activities through the use of skills in electrical, mechanical, physical science, biological, mathematical, and computer fields; and student trainee positions in these fields.
- Administrative (ZA). Consisting of positions in such fields as finance, procurement, personnel, program and management analysis, public information and librarianship; and student trainee positions in these fields.
- **Support** (**ZS**). Consisting of positions that provide administrative support, through the use of clerical, typing, secretarial, assistant, and other similar skills; and student trainee positions in these fields.

The career paths are intended to make classification simpler, more understandable, and easier to automate.

2.5.2. Pay bands are composed of one or more GS grades and allow for flexibility in pay setting.

The change from the GS system to pay bands (broadbanding) is one of the major Demonstration Project interventions. The pay bands were created by collapsing the traditional GS salary grades (including locality rates) into five broad groups with much larger ranges (i.e., pay bands). Figure 2 shows the four career paths, their corresponding pay bands, and GS system equivalents. The maximum rate of a pay band is equivalent to step 10 of the highest GS grade used to create that band. Each career path collapses GS grades into bands differently; therefore, the band ranges differ by career path. Only the ZP and ZA career paths have pay bands that correspond identically to GS grades. One to six GS grades are consolidated into any given pay band, depending on the career path and level of the band.

CAREER PATHS BANDS Scientific and Ι \mathbf{V} II Ш IVEngineering (ZP) Scientific and \mathbf{V} Engineering I II Ш \mathbf{IV} Technician (ZT) Administrative Ι II \mathbf{V} Ш IV(ZA) Support (ZS) Ι \mathbf{II} Ш \mathbf{IV} \mathbf{V} 1 5 7 9 10 2 3 4 6 8 11 12 13 15 **GS Grades** 14

Figure 2. Career Paths and Bands for Demonstration Project Employees

Source: Federal Register Notice: Personnel Demonstration Project; Alternative Personnel Management System for the U.S. Department of Commerce (December 24, 1997).

Pay bands are intended to add flexibility in pay setting for attracting job candidates and high performing employees. Pay bands were also put in place to provide larger, more flexible classification ranges, aiding in the delegation of classification and pay authority to line managers. Pay bands are also meant to facilitate the provision of performance incentives for employees, in that they give employees the opportunity to receive raises more quickly.

The career paths and pay bands together are intended to simplify and accelerate the classification and pay processes, as well as facilitate pay for performance.

2.5.3. Pay for performance is a system meant to link pay increases directly to performance, resulting in a more competitively paid, higher quality workforce.

Another major intervention is the establishment of a pay for performance system. Pay for performance links pay raises directly to job performance. Under the Demonstration Project, three components were subsumed by pay for performance. The first component is an annual adjustment to basic pay, which includes an annual general increase and a locality pay increase approved by Congress and the President. The second component is an annual performance-based pay increase. Bonuses constitute the third component. Funds that were applied to within-grade increases, quality step increases, and promotions (from one grade to another when those grades are in the same band) are now being applied to performance-based pay increases. In contrast to the GS system, there is no one-to-three year waiting period between pay increases, and the pay increase amounts are potentially higher.

Pay for performance is meant to govern employee progression through the pay bands. Pay for performance is, of course, meant to tie pay raises to performance, in contrast to the GS system, which ties pay raises mostly to tenure. Its goal is to give higher pay raises to those whose performance is high. Because of the flexibility that the bands allow, the performance-based pay raises can, in theory, be substantial. The pay for performance system, along with the pay bands, are meant to improve performance and retain quality employees.

Implementation of the pay for performance system also included the implementation of a new performance appraisal system. It is important to note that NOAA units outside of the Demonstration Group have adopted a new performance appraisal system, independent of the Demonstration Project. Table 2-1 below outlines some of the major differences between the traditional, the new NOAA, and the Demonstration Project performance appraisal systems.

TRADITIONAL SYSTEM (Comparison Group)	NEW NOAA SYSTEM (Comparison Group)	DEMONSTRATION PROJECT SYSTEM (Demonstration Group)			
Individual performance plans	Individual performance plans	Individual performance plans			
Performance improvement plans	Performance improvement plans	Performance improvement plans			
500-point system	Two-tier system	100-point, two-tier system			
Critical and non-critical elements included	Non-critical elements not included	Non-critical elements not included			

Table 2-1. Performance Appraisal Systems

Each employee under the Demonstration Project has an individual performance plan which is composed of several critical performance elements. Under this performance appraisal system, all of the performance elements are critical; if an employee gets an unsatisfactory rating on one element, there is no performance score and that person is deemed "unsatisfactory." Employees who are deemed unsatisfactory are not eligible for pay for performance increases, bonuses, or annual adjustments to basic pay. These employees must be put on a performance improvement plan and given a chance to improve before a final

rating is put on record. Demonstration Group employees who are not performing unsatisfactorily on any of the performance elements are rated using the 100 point scoring system. Supervisory employees report scores to the Pay Pool Manager (see section 2.5.14), who puts the scores in rank order for all employees in the pay pool for administration of salary actions. Because many employees feel that the assignment of numerical rankings creates a competitive environment, DoC has implemented actions needed to maintain the linkage between scores and pay actions without assigning a numerical rank.

2.5.4. Supervisory performance pay is meant to help retain supervisors by giving them a higher pay potential for high supervisory performance.

Supervisors in all career paths are eligible for supervisory performance pay. In each pay band that includes supervisory positions, there is a corresponding supervisory band (as shown in Figure 3). The supervisory bands have the same minimum levels as do the non-supervisory bands. The only difference is that the supervisory bands extend 6% above the maximum point of the corresponding non-supervisory band. The amount that a supervisor is paid above the maximum rate of his/her pay band constitutes supervisory performance pay. The range constituting supervisory performance pay (6% above the maximum) can be reached only through pay for performance increases gained through the regular performance appraisal process. Supervisory performance pay is meant to give the ability to raise the pay of high performing supervisors to more competitive levels, thus improving retention.

CAREER PATHS BANDS Scientific and I II Ш IV Engineering (ZP) Scientific and Ι II Ш IVEngineering Technician (ZT) Administrative Ι II Ш IV (ZA) \mathbf{V} Support (ZS) Ι II Ш IV **GS Grades** 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Figure 3. Pay Bands for Supervisory Employees

2.5.5. Flexible pay increases upon promotion are intended to allow supervisors to tie pay to employee performance and to substantially reward excellent performance.

One intervention related to pay bands (broadbanding) and pay for performance is flexible pay increases upon promotion. High performing employees now have the potential to receive substantial pay increases when they are promoted. Because of the less restricting nature of pay bands, an employee's salary, upon promotion, can be set anywhere within a band without being restricted by the small steps characteristic of the GS system. This intervention is meant to encourage the retention of high performers by making their salaries more competitive with the public and private sectors.

2.5.6. Performance bonuses are payments meant to reward and encourage employee performance and improve retention.

Performance bonuses are cash awards given following a performance appraisal cycle, in conjunction with performance pay decisions. Pay pool managers can award a bonus to any employee with an Eligible performance rating (i.e., individuals who have a satisfactory or better rating on all performance elements). Pay pool managers make the decisions based on supervisor recommendations and the amount in the bonus pool. The maximum bonus amount that can be given is \$10,000. Bonuses are meant to reward high performers, increasing their retention. Bonuses are also meant to act as a performance incentive to the workforce.

2.5.7. For limited positions, Direct Examination allows DoC to hire candidates directly without using the OPM job register, thereby decreasing time to hire.

Direct Examination allows Commerce to immediately hire candidates who present specific credentials, provided an open announcement exists. Direct Examination can be used for shortage categories only. Direct Examination gives managers the ability to hire individuals with shortage skills as they find them. Occupations covered by Direct Examination will usually be filled through direct recruiting by hiring officials. A search of the operating unit applicant supply file is required, and veteran's preference must still be taken into account for these positions.

The Demonstration Project incorporates two Direct Examination authorities. The first is Direct Examination for critical shortage occupations, and the second is Direct Examination for critical shortage highly qualified candidates. Direct Examination for critical shortage occupations is used for occupations requiring skills in short supply. These include occupations for which there is a special rate under the General Schedule (GS) system, and some occupations at band three and above in the ZP career path. Direct Examination for critical shortage highly qualified candidates is used for positions where there is a shortage of highly qualified candidates. An example of a critical shortage highly qualified candidate is a person qualified for band one or two of the ZP career path who has:

- A bachelor's degree and at least a 2.9 GPA in a job-related major, or
- A master's degree in a job related field.

Since January 1996, all federal government agencies have had Direct Examination authority. No critical shortage occupations have been identified under the Demonstration Project.

2.5.8. Agency-Based Staffing can be used for positions not covered by Direct Examination, and gives Commerce the ability to certify its own candidates; this should lead to decreased hiring times.

Agency-Based Staffing is used to fill vacancies not covered by Direct Examination. At a minimum, positions staffed by Agency-Based Staffing will be advertised through OPM's automated employment information system. Agency-Based Staffing gives Commerce the ability to examine and certify its own candidates instead of having OPM certify them. It allows Commerce to create its own candidate registers, and rate and rank the candidates, independent of OPM. Agency-Based Staffing in conjunction with paid advertisement was meant to be used to help hiring officials focus on more relevant recruiting sources and to accelerate the hiring process.

Since January 1996, all federal government agencies have had Agency-Based Staffing authority. It is used in several Commerce Bureaus.

2.5.9. Flexible paid advertising allows Commerce to use more specialized advertising sources to attract highly qualified candidates.

Paid advertising is an intervention that allows Commerce to utilize paid advertising sources as a first step in recruiting, without having to utilize unpaid sources first. Hiring officials can now use a wider scope of advertising sources, as well as concentrate on more specialized sources. More flexible paid advertising is meant to allow hiring officials to make greater use of alternative advertising sources.

2.5.10. Local authority for recruitment payments allows Commerce units to grant payments for the purpose of recruiting high quality candidates.

Local authority for recruitment payments allows operating units to independently grant recruitment payments, in an amount not to exceed the greater of \$10,000 or 25% of base pay. Payments are based on market factors such as salary comparability, turnover rate, salary offer issues, relocation issues, programmatic urgency, special qualifications, shortage categories, or scarcity of positions. All scientific, engineering, and hard-to-fill positions are eligible. The main purpose for the recruitment payment is to increase the quality of the workforce by attracting excellent performers.

The Federal Employees Pay Comparability Act of 1990 (FEPCA) affects the entire federal government. This act allows recruitment bonuses to be paid in a lump-sum up to 25% of an employee's base pay. A one-year service commitment is required. Since the current Demonstration Project clones many of the features of the NIST Demonstration Project, which began in 1988, it adopted "local authority for recruitment payments" as an intervention. This intervention had limited use during the implementation year.

2.5.11. Local authority for retention payments allows Commerce units to grant payments for the purpose of retaining high quality candidates.

Like local authority for recruitment payments, local authority for retention payments allows units to grant retention payments not to exceed the greater of \$10,000 or 25% of base pay. They also are based on market factors. All scientific, engineering, and hard-to-fill positions are eligible. The main purpose for the retention payments is to increase the quality of the workforce by retaining excellent performers.

The Federal Employees Pay Comparability Act of 1990 (FEPCA) allows retention payments up to 25% of an employee's base pay, to be paid along with an employee's salary. The current Demonstration Project adopted "local authority for retention payments" as an intervention because it was a part of the NIST Demonstration Project. This intervention had limited use during the implementation year.

2.5.12. The classification system was automated to make the classification process easier to use and more efficient.

Under the Demonstration Project, the classification system has been automated. Position descriptions can be created, accessed, classified and altered electronically. A DOS-based software program is used for these purposes. Specifically, supervisors can use the system to:

- Create a new position description
- Create a new position description based on another
- Delete a position description
- Edit an unofficial position description
- Print a position description
- Review a position description
- Run queries
- Delete, edit, print or view a position description by action number
- Export a position description
- Import a position description
- Maintain the position description system.

The purpose of the automation is to make the classification system easier to use and more expedient. Automation of the system is also meant to minimize the resources needed for operation, and to minimize the classification decisions that need to be made.

2.5.13. Delegated classification authority places classification responsibility in the hands of managers.

Delegated classification authority gives line managers the authority to classify positions. Each agency's Operating Personnel Management Board (OPMB) has the responsibility for overseeing the delegation of classification authority. Human resources personnel have the responsibility to monitor and review classification decisions. Delegated classification authority is meant to give managers more control over classifying the work they supervise.

2-13

Managers must understand their organization's mission and the work they supervise to be effective classifiers.

2.5.14. Delegated pay authority allows managers to directly control and administer pay functions.

Delegated pay authority gives line managers the authority to direct and administer pay procedures. Under the General Schedule, federal employees receive increases in salary in accordance with their grade and step. Under the Demonstration Project, supervisors evaluate the performance of their subordinates and communicate their recommendations to the pay pool manager. Supervisors may also make recommendations for pay for performance increases and/or bonuses. The pay pool manager, however, makes the final decisions regarding the dollar amounts for both pay for performance increases and bonuses.

The purpose of delegated pay authority is to improve the effectiveness of human resources management by having line managers more involved as managers of the human resources in their units. Managers have a first hand view of employee performance and therefore can make the most effective pay recommendations. Line managers' involvement is increased significantly under the Demonstration Project because they now have responsibility and authority for managing pay and making pay decisions. Figure 4 displays the delegated pay authority relationship within the Demonstration Group. However, these newly delegated authorities are subject to oversight by the Operating Personnel Management Boards at the local level, and by the Departmental Personnel Management Board which ensures adherence to Departmental policy and procedure.

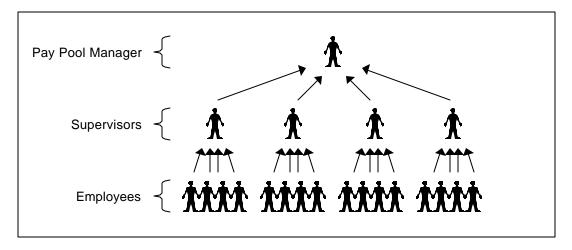


Figure 4. Pay Authority Relationship

2.5.15. The three-year probationary period gives managers more of an opportunity to observe ZP employees performing R&D duties for the full R&D cycle.

The three-year probationary period is an intervention that applies only to employees performing R&D work within the scientific and engineering (ZP) career path. In essence, ZP employees performing R&D work will be subject to a three-year probationary period. Other employees within the Demonstration Project will serve the same one-year probationary

period that employees throughout the government serve. Managers will have the authority to end the three-year probationary period of an R&D subordinate at any time after a year. Near the end of the first year of probation, a manager has to decide whether to 1) change the employee to non-probationary status, 2) remove the employee, or 3) keep the employee on probationary status. If the employee remains on probationary status, then the manager must choose between the above three options near the end of the second year. If the employee remains on probation into the third year, then the manager must make a final decision on whether to remove or keep the employee.

2.6. A valid evaluation of the Demonstration Project is critical in determining whether to continue the nontraditional personnel practices and whether to make them a part of other government organizations.

OPM requires that every Demonstration Project be rigorously evaluated. The purpose of the DoC Demonstration Project evaluation is to determine if its Demonstration Project objectives were met. The evaluation's purpose is also to determine what, if any, mid-course revisions should be made to the Demonstration Project implementation, and whether the project interventions can be applied in other federal government organizations. The Demonstration Project evaluation is driven by a number of research questions.

2.6.1. The research questions for the Demonstration Project were derived from both the OPM Demonstration Projects Evaluation Handbook and the DoC Demonstration Project objectives.

Evaluation of the Demonstration Project interventions seeks ultimately to answer several research questions. The OPM Demonstration Projects Evaluation Handbook states that the research questions that must be answered will differ from project to project. However, six general research questions must be answered for every Demonstration Project. Table 2-1 below outlines the six general questions taken from the OPM Demonstration Projects Evaluation Handbook (Batten, Goehrig, & Jorgenson, 1998).

Table 2-1. Research Questions from OPM Demonstration Project Handbook

OPM's Research Questions				
1)	Did the project accomplish the intended purpose and goals? If not, why not?	Years 3 & 5		
2)	Was the project implemented and operated appropriately and accurately?	All years		
3)	What was the cost of the project?	Year 5		
4)	What was the impact on veterans and other EEO groups?	All years		
5)	Were Merit Systems Principles adhered to and Prohibited Personnel Practices avoided?	All years		
6)	Can the project or portions thereof be generalized to other agencies or government-wide?	Year 5		

Six additional questions stem from the fact that three major concerns within the Department of Commerce are: 1) hiring restrictions, 2) a complex job classification system, and 3) poor tools for rewarding and motivating employees (*Federal Register* notice, December 1997). The Demonstration Project was implemented to address the above issues and each of the six additional research questions is based on the DoC Demonstration Project objectives. The additional research questions are outlined in Table 2-2 below.

Table 2-2. Research Questions Related to DoC Demonstration Project Objectives

DoC-specific Research Questions					
1)	Has the quality of new hires increased; Has there been an improved fit between position requirements and individual qualifications; Has there been a greater				
	likelihood of getting a highly qualified candidate?	Years 3 & 5			
2)	Has retention of good performers increased?	Years 3 & 5			
3)	Has individual and organizational performance improved?	Years 3 & 5			
4)	Is Human Resources management more effective?	Years 3 & 5			
5)	Is Human Resources management more efficient?	Years 3 & 5			
6)	Is there improved support for EEO/diversity goals in recruiting, rewarding, paying, and retaining minorities; Are opportunities for a diverse workforce being provided;	All Magra			
	Are the contributions of all employees being maximized?	All Years			

The 12 research questions above will be tracked during all three phases of the Demonstration Project evaluation, and are the ultimate questions to be answered by the evaluation. Chapter 5 of this report addresses these questions based on data available after one year of implementation.

2.6.2. The Department of Commerce Personnel Management Demonstration Project evaluation is being conducted in three phases and compares a Demonstration Group to a Comparison Group, across time.

A non-equivalent comparison group, quasi-experimental, research design is being used to evaluate the Demonstration Project. Quasi-experimental design is used when it is not possible to control for all variables, or when it is not possible or practical to randomly assign subjects to equivalent groups. The non-equivalent comparison group design seeks to control for confounding variables by tracking a Comparison Group that is as similar to the experimental (Demonstration) group as possible. The DoC Demonstration Project evaluation is being conducted in three phases, shown in Figure 5, and will compare the Demonstration Group (experimental group) to the Comparison Group (control group) across time.

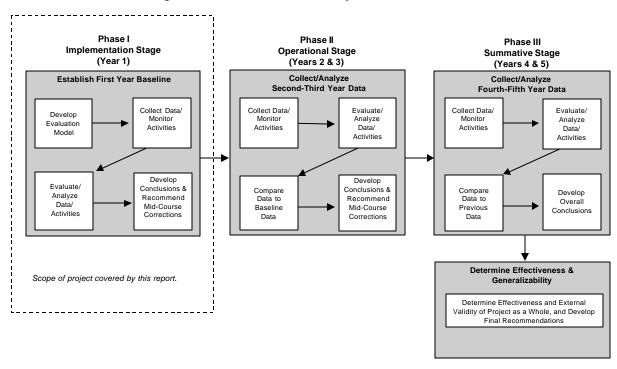


Figure 5. DoC Demonstration Project Evaluation Model

In general, the three phases of the evaluation will focus on both project implementation and project effectiveness, but to different degrees. The evaluation will also serve to produce mid-course correction recommendations as the project progresses. The three phases will differ slightly in their focus and will complement each other. An evaluation report will be produced at the end of each of the three phases. A more detailed explanation of each evaluation phase is outlined in Appendix D-1.

This Implementation Report presents initial data points related to the interventions. As data are collected in subsequent years, trend analyses will also be conducted in order to examine any changes that occur over time.

3. EVALUATION DATA SOURCES

Four data collection methods were used to gather the information needed for Booz-Allen's assessment of the implementation and effectiveness of the Demonstration Project initiatives. These methods included interviews with key program staff and managers, focus groups, a survey, and a review of objective data from the National Finance Center (NFC) Payroll/Personnel System. Each data collection method is described in detail below.

3.1. We conducted 42 interviews with staff in the DoC organizations participating in the Demonstration Group to determine their perceptions of the project.

Booz-Allen conducted individual interviews with upper level managers, human resources officials, and union officials from each agency operating under the Demonstration Project's personnel interventions. Using carefully developed interview protocols, these key individuals were asked for their perceptions and recommendations regarding the Demonstration Project and DoC's human resource practices in general. The responses to the interview questions were then analyzed to identify themes, trends, and discrepancies. (See Appendix B for the interview protocol; a summary of the interview results has been provided to DoC under separate cover.) In total, 42 interviews were conducted (see Table 3-1).

IntervieweesNumberSenior managers27Human Resources officials7Union officials8

Table 3-1. Interviews Conducted

3.2. A total of 32 focus groups were conducted with employees from the Demonstration and Comparison Groups to help assess the Demonstration Project's impact.

Focus groups were conducted around the country to obtain in-depth perceptual data from employees in the Demonstration and Comparison Groups. Booz-Allen developed the protocols for these focus groups using the findings from the interviews described above and incorporating the research questions that form the basis of the evaluation model. Table 3-1 lists the topics that were covered by the focus group protocol.

Table 3-1. Focus Group Topics

Focus Group Topics Covered Training • Employee Turnover • Career Progression • Extent of Regulation Performance Appraisal Organizational Excellence and Workforce Diversity • Employee Retention Minority/Gender Issues Hiring/Recruitment Assessment of Overall Quality of the Workforce Implementation of **Demonstration Project** Probationary Periods

Prior to recruiting participants, Booz-Allen worked with DoC to draw up a list of locations in which the focus groups would be held. This list was designed to optimize the representation of each DoC agency participating in the Demonstration Project, the number of people available in each location, and the number of supervisory employees and non-supervisory employees who participated. The majority of the focus groups (24 out of 32) were structured as supervisory or non-supervisory groups; there were also 3 all-female groups, 3 non-white groups, and 2 ZP career path groups. The latter groups allowed Booz-Allen to assess whether certain categories of employees felt differentially impacted by the Demonstration Project interventions. The breakdown of the 32 focus groups conducted was:

- 7 Demonstration Group supervisory groups
- 9 Demonstration Group non-supervisory groups
- 4 Comparison Group supervisory groups
- 4 Comparison Group non-supervisory groups
- 3 All-female groups, (2 demonstration, 1 comparison)
- 3 Non-white groups (2 demonstration, 1 comparison)
- 2 Demonstration Group ZP career path groups.

Once the locations and composition of the focus groups were established, employees were randomly selected to participate. Lists of alternates were drawn and used in those cases where a selected individual could not attend.

Focus groups were conducted during the first two weeks of March 1999. The data from the focus groups were organized and analyzed to identify trends, themes, discrepancies, and findings relevant to both DoC as a whole and to specific agencies. (Appendix B contains the focus group protocol; a complete summary of focus group results has been provided to DoC under separate cover).

3.3. An implementation survey of Demonstration and Comparison Group employees provided a key data source for our assessment.

The implementation survey collected data from over 1,400 Demonstration and Comparison Group employees and garnered opinions on a wide range of human resources practices

relevant to the Demonstration Project. The items included in the survey included all the items from the baseline survey administered in 1998 by Research Applications, Inc. In addition, the survey included new items linked directly to the Demonstration Project's goals and the evaluation model for the project. The baseline survey items were retained from the original survey without modification to allow for comparisons over time. This consistency helps ensure that any differences that may appear are attributable to changes in opinion or perception rather than the rewording of questions.

After the survey instrument was developed and formatted, copies were disseminated to all DoC employees in the Demonstration Project. Employees were asked to return the survey within 2 weeks of receiving it, and they were sent reminder post cards to help increase the response rate. Completed surveys were returned to Booz·Allen, entered into a database, and then analyzed. (See Appendix A for survey materials.) In total, 1,445 employees returned surveys for a response rate of 33%; 1,438 surveys were usable (seven respondents failed to indicate whether they were part of the Demonstration or Comparison Group).

Table 3-1 illustrates the similarity in the demographic characteristics of survey respondents in the Demonstration and Comparison Groups. The demographic characteristics considered include gender, race/ethnicity, supervisory status, and pay grade or pay band. The table confirms the basic similarity in the demographic profiles of the Demonstration and Comparison Groups, which is important for establishing the validity of the Comparison Group used in this evaluation.

3-3

Table 3-1. Demographic Characteristics of Implementation Survey Respondents and All Demonstration and Comparison Group Participants

	Demonstra	ation Group	Comparison Group		
	Participants	Respondents	Participants	Respondents	
OVERALL	2,697 ¹	935 (35%)	1,707	503 (29%)	
GENDER					
Male	1644 (61%)	560 (60%)	1057 (65%)	314 (63%)	
Female	1053 (39%)	372 (40%)	569 (35%)	181 (37%)	
RACE/ETHNICITY					
White	2180 (81%)	759 (83%)	1435 (88%)	416 (85%)	
Black	327 (12%)	75 (8%)	72 (4%)	20 (4%)	
Asian	108 (4%)	35 (4%)	80 (5%)	20 (4%)	
Native American	9 (.3%) ²	18 (2%) ²	5 (.3%) ²	12 (3%) ²	
Hispanic	73 (3%)	28 (3%)	34 (2%)	20 (4%)	
SUPERVISORY STATUS					
Non-Supervisory Employee	2452 (91%)	776 (83%)	1488 (92%)	416 (84%)	
Supervisory Employee	245 (9%)	155 (17%)	138 (8%)	80 (16%)	
PAY GRADE - GS & GM SCHED	JLE				
1	7		1 (0%)	0 (0%)	
2			3 (0%)	1 (0%)	
3			4 (0%)	1 (0%)	
4			16 (1%)	5 (1%)	
5			40 (2%)	16 (3%)	
6			64 (4%)	18 (4%)	
7			167 (10%)	39 (8%)	
8			29 (2%)	7 (1%)	
9			212 (13%)	49 (10%)	
10			9 (1%)	4 (1%)	
11			335 (21%)	103 (21%)	
12			284 (18%)	90 (19%)	
13			235 (14%)	66 (14%)	
14			147 (9%)	49 (10%)	
15			80 (5%)	38 (8%)	
CAREER PATH					
ZP	1645 (61%)	564 (64%)			
ZT	220 (8%)	74 (8%)			
ZA	464 (17%)	170 (19%)			
ZS	368 (14%)	82 (9%)			
PAY BAND					
l .	34 (1%)	20 (2%)			
II	304 (11%)	101 (12%)			
III	942 (35%)	269 (32%)			
IV	1157 (43%)	366 (43%)			
V	260 (10%)	95 (11%)			

¹ January 1999 data.

3-4 Implementation Report

² These data are self-reported. In addition, the objective data provided by DoC contained 75 observations that are not associated with ethnic identity. These reasons may account for fewer participants than survey respondents.

The majority of the data tables that appear in this report are based on survey responses. Many of the tables compare the responses of Demonstration Group and Comparison Group employees. Where there are statistically significant differences between the survey responses of supervisory employees and non-supervisory employees within the Demonstration Group, these data appear in the tables; if the differences were not significant, the figures in the Total column are relevant to both supervisors and non-supervisors.

The strength of the survey data is that they provide information on employee attitudes and opinions that can be generalized to all Demonstration and Comparison Group employees. This generalization is possible due to the large number of surveys returned (1,438) and the close similarity between survey respondents and the population of DoC Demonstration Project employees. The response rates were high for both the baseline survey and the implementation survey, as shown in Table 3-2.

Baseline Survey Implementation Survey Demo. Group Comp. Group Demo. Group Comp. Group **Participants** Responses **Participants** Participants **Participants** Responses Responses Responses 1,024 512 503 2,649 1,633 2,697 1,707 (39%)(31%) (35%) (29%)

Table 3-2. Survey Response Rates

We also considered whether there were differences in responses across the organizations participating in the Demonstration Group. The statistical analyses indicated no differences; therefore, the data are presented for the Demonstration Group as a whole.

We analyzed the baseline data against the data from the implementation survey and found a similar "pattern of results." The responses from the baseline survey and the implementation survey are arrayed in Appendix A-3. The descriptive statistics demonstrate a similar "pattern of results" between the Comparison and Demonstration Groups for both the baseline survey and the implementation survey. As a result, the answers for specific questions from the baseline survey are not typically presented in the text of this report.

There are four questions (implementation survey #123, 124, 127, and 133) where differences appear between the baseline and the implementation surveys. These should be treated as indicators of potential change and reviewed during the evaluation of the operating years.

The similarity between the baseline and implementation survey data is consistent with the subjective data (interviews and focus groups) which suggested that it is too early to expect significant changes in Demonstration Group perceptions. As a result of this analysis, this report focuses on determining differences between the Demonstration and Comparison Groups, resulting from the implementation of the project.

3.4. We used objective personnel data to profile the employees participating in the Demonstration and Comparison Groups and to study the Demonstration Project's impact on the distribution of monetary rewards.

The objective data collected and analyzed for this Implementation Report came from the NFC's Payroll/Personnel System as of January 1999. Analysis of this data provides quantifiable evidence of Demonstration Project performance. Table 3-1 shows the objective data elements that were included in the analysis.

Table 3-1. Objective Data Elements

Objective Data Elements

- Social Security Number
- Gender
- Race
- Age
- Veteran status
- Organization/Unit
- Demonstration/Comparison Group identifier
- Occupational series (Demonstration Group prior to conversion)
- Career path (Demonstration Group)
- Pay band (Demonstration Group)
- Pay plan (Comparison Group)
- Current grade (Comparison Group)
- Current step (Comparison Group)
- Supervisory status (supervisory employee/ non-supervisory employee)

- Grade and step for all personnel immediately prior to the start of the project
- Current base pay/Salary
- Salary prior to conversion
- Performance appraisal score (rating) (Demonstration Group)
- Performance-based pay increase (Demonstration Group)
- Step increase (Comparison Group)
- Quality step increase (Comparison Group)
- Increase for promotion to grade within band (Comparison Group)
- Performance bonus date (month and year)
- · Performance bonus amount
- Retention payment amount
- Recruitment payment amount
- Hire date (starting date with DoC unit)

For this Implementation Report, the objective data set was used most often to generate descriptive data, such as frequencies and cross-tabulations. These data provide aggregate profiles of the individuals in the Demonstration and Comparison Groups. For the Demonstration Group, the objective data also indicate the proportion of employees who received "eligible" performance scores and the proportion who received pay for performance increases and performance bonuses. For these data, correlation analysis was used to draw a statistical link between elements of the Demonstration Project and performance outcomes. See Appendix C for a technical discussion of the statistical analyses.

It should be noted that the analyses of pay for performance use the performance-based pay increases; the increases associated with the Annual Comparability Increase (ACI) and increases in locality pay are in addition to the performance-based increase.

4. FINDINGS AND CONCLUSIONS

This chapter presents Booz-Allen's conclusions concerning the results DoC has achieved after one year of implementing its Personnel Management Demonstration Project. Each conclusion is supported by findings from the various sources of data (i.e., interviews, survey, focus groups, and objective data.)

4.1. The Demonstration Project represents a large agency-wide change; after the first year, this change has not resulted in different employee perceptions of their work environment.

Included in the employee survey were several questions designed to provide a "snapshot" of the current work environment. These questions are related to the Demonstration Project as a method for evaluating the impact of organizational change. These questions will be included in each iteration of the employee survey throughout the life of the Demonstration Project and will serve to evaluate any general discontent. As described in the findings below, the Demonstration Project has not yet had a significant impact on employee perceptions. (The comparison between the baseline and implementation survey results is presented in Appendix A-3.)

4.1.1. There are no significant differences between the Demonstration Group's responses and the Comparison Group's responses regarding their perceptions of the general work environment.

In reviewing the survey results shown in Table 4-1, the response patterns of the Demonstration and Comparison Groups are very similar. Statistical analysis of this data produced no significant difference between these two groups at the .05 level. This suggests that the demonstration interventions adopted at several DoC work units have not created significantly different levels of satisfaction or dissatisfaction than at other work units that experienced no changes as a result of the Demonstration Project. Additionally, a majority of employees in both the Demonstration and Comparison Groups indicated they were satisfied with their jobs.

Within the Demonstration Group, supervisory employees and non-supervisory employees hold different opinions, with supervisors generally being more positive about the work environment. This pattern is similar for the Comparison Group supervisory employees and non-supervisory employees, thus supporting the conclusion that the first year of the Demonstration Project has not resulted in any changes in perceptions.

One exception is Question 118, where Demonstration Group supervisory employees are more positive about attracting high quality employees than supervisory employees in the Comparison Group. This result needs to be tracked over time, as an indication of the effect of the Demonstration Project.

Table 4-1. Employee Opinions of the Work Environment

			Der	no. Gro	up	Cor	np. Gro	up
			Total	(N)	(S)	Total	(N)	(S)
114. I have trust and confide	ence in my	Disagree	24% _{No}		21%	No		
supervisor.	,	Neither disagree nor agree	18%	Signif	icant	17%	Significant Difference*	
•		Agree	58%	Differe	nce* ³	61%		
115. In general, I am satisfie	ed with my job.	Disagree	18%	19%	10%	17%	N	0
g a sa, sa san s	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Neither disagree nor agree	14%	15%	12%	13%	Signif	
		Agree	68%	66%	78%	70%	Differe	ence*
116. My job is a good match	for my skills	Disagree	14%	16%	6%	15%	N	o
and training.	•	Neither disagree nor agree	11%	12%	4%	11%	Signif	
		Agree	75%	72%	90%	74%	Difference*	
117. In general, I like worki	ing here.	Disagree	10%	11%	7%	10%	11%	4%
,		Neither disagree nor agree	14%	15%	9%	10%	12%	4%
		Agree	76%	74%	84%	80%	78%	92%
118. My organization is able	to attract high	Disagree	21%	22%	15%	20%	No Significant	
quality employees.	J	Neither disagree nor agree	30%	33%	18%	26%		
		Agree	49%	45%	67%	54%	Differe	ence^
119. Competition for jobs he	ere is fair and	Disagree	22%	24%	9%	25%	27%	16%
open.		Neither disagree nor agree	29%	31%	16%	28%	30%	14%
		Agree	49%	44%	75%	47%	43%	70%
120. When changes are ma	de at my	Disagree	30%	25%	52%	28%	25%	42%
organization, the emplo		Neither disagree nor agree	42%	44%	32%	44%	44%	43%
lose out in the end.		Agree	28%	31%	16%	28%	31%	15%
121. I am in favor of the Der	nonstration	Disagree	32%	34%	18%	17%	16%	20%
Project.			30%	31%	25%	61%	63%	47%
-		Agree	38%	35%	57%	22%	20%	32%

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

These opinions from the implementation survey are consistent with the opinions expressed in the baseline survey. On two overall questions about satisfaction with the work environment, the responses were essentially the same (see Table 4-2).

Table 4-2. Overall Satisfaction Reported on Baseline and Implementation Year Surveys

			Baseline				Implementation Year						
		Dem	Demo. Group			Comp. Group		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)	Total	(N)	(S)	Total	(N)	(S)
115. In general, I am	Disagree	15%	16%	13%	15%	15%	11%	18%	19%	10%	17%		
satisfied with my job.	Neither disagree nor agree	15%	16%	5%	13%	13%	11%	14%	15%	12%	13%	No Significant Difference*	
	Agree	70%	68%	83%	72%	72%	78%	68%	66%	78%	70%		
121. I am in favor of the	Disagree	26%	28%	17%	12%	12%	14%	32%	34%	18%	17%	16%	20%
Demonstration Project.	Neither disagree nor agree	37%	39%	28%	63%	64%	59%	30%	31%	25%	61%	63%	47%
	Agree	37%	33%	55%	25%	24%	27%	38%	35%	57%	22%	20%	32%

 $^{{\}color{blue}*} \textit{ The total column represents the responses of both supervisory and non-supervisory employees in this Group.}$

4-2 Implementation Report

In this table and those that follow, supervisory (S) and non-supervisory (N) percentages are shownonly when differences in the distribution of responses between these two groups in the Demonstration Group were found to be statistically significant at the p<.05 level. (This means that, with 95% confidence, these differences are real and not due to chance.) For these items only, supervisory and non-supervisory differences were calculated for the Comparison Group; where there were differences between supervisory and non-supervisory percentages, the data are presented. Percentages may not add to 100 due to rounding.

4.1.2. Within the Demonstration Group, non-supervisory employees have a more negative view of the work environment than do supervisory employees.

When survey results were further analyzed to include a comparison of supervisory employee responses versus non-supervisory employees responses, a significant difference was found (see Table 4-1). On several questions, non-supervisory employees had a much less favorable opinion of the current work environment. Although a majority of supervisory employees reported that they were in favor of the Demonstration Project (57%), only 35% of the non-supervisory employees were in favor of the Demonstration Project (see Table 4-1, Question #121).

Overall, non-supervisory employees were twice as likely to report that when changes are made within their organization the employees usually lose out in the end. This negative view toward change and the Demonstration Project have certainly influenced non-supervisory employees' perceptions of the work environment and are likely to influence their perceptions of the interventions proposed as part of the Demonstration Project. Although such attitudes will often accompany such a large scale organizational change, employee concerns must still be addressed.

4.2. Sufficient information is not yet available to assess the impact of career paths.

More time is required to evaluate the impact of switching from the GS occupational grouping system to the more expansive career paths adopted under the current Demonstration Project. As the findings in this section will attest, DoC employees do not yet perceive any impact of the new career paths. With added time, employees will likely become more familiar with the new career paths and will be better able to assess their impact.

4.2.1. Employees reported that they are aware of the new career paths but do not completely understand how they were developed or how they would affect their careers.

During focus group discussions related to career paths, most employees knew what career path they were placed in, but several expressed concern about how occupations were grouped in each career path. Some employees felt that their position would be more appropriately placed in a different career path which more closely matched their skills. Other employees, who felt that their position was correctly assigned to a career path, did not understand the rationale for including other positions within their career path. Overall, many employees felt that the career paths created an unfair comparison of dissimilar positions (in relation to performance) which ultimately determined pay. Themes from the focus groups relating to career paths are presented in Table 4-1.

Table 4-1. Demonstration Group Focus Group Results – Career Paths

Supervisory	Non-Supervisory
Groups are appropriate	Do not understand the career path system
Some employees believe they would be better served in another career path	Jobs within career paths are different and are being compared
Occupations within paths are too varied for comparison	Too soon to tell if the system is accurate

Note: Themes presented in this table are based on majority of participant responses. They do not represent all comments or themes produced from the focus groups. A complete listing of focus group comments has been provided to DoC under separate cover.

As indicated in Table 4-1, several of the non-supervisory focus group participants felt that it was too soon to measure the impact of career paths. They felt that it was too soon to respond to this question.

4.2.2. Employees in the Demonstration Group share many of the same perceptions of the occupational grouping method and classification process available to their work unit as employees in the Comparison Group.

Data obtained via the employee survey indicate no significant differences between Comparison Group and Demonstration Group employees regarding their perceptions of the occupational grouping and classification procedures used at their organizations. However, some differences were noted between the responses of supervisory employees in relation to non-supervisory employees. Supervisory employees were more willing to respond favorably to questions pertaining to the classification system than non-supervisory employees. This positive response pattern can likely be attributed to their increased awareness of the system as a result of their enhanced role in the classification process. Non-supervisory employees who continue to have a limited role in the classification of positions did not indicate an increased acceptance or awareness of classification decisions made under the Demonstration Project. Table 4-1 provides a side by side comparison of Demonstration Group and Comparison Groups responses to survey questions relating to job classification. This table also highlights supervisory employee responses where they are significantly different than the non-supervisory employee responses.

			Dei	mo. Gro	up	Cor	mp. Group		
			Total	(N)	(S)	Total	(N)	(S)	
22. The position description for my job is		Disagree	21%	N	0	21%	No		
ļ	clear and accurate.	Neither disagree nor agree	18%	Signif		12%	Signif		
	0.000. 0.100 0.000. 0.100	Agree	61%	Differe	ence*	67%	Difference*		
23.	The current classification system at	Disagree	43%	38%	64%	38%	34%	58%	
	my organization has limited my career	Neither disagree nor agree	27%	30%	19%	24%	26%	16%	
progression.	Agree	30%	32%	17%	38%	40%	26%		
24.	The current job classification system	Disagree	35%	No		42%	No		
	at my organization has enhanced my	Neither disagree nor agree	47%	Signif		39%		Significant	
	career progression.	Agree	18%	Differe	ence*	19%	Differe	ence*	
26.	In my organization, jobs are classified	Disagree	29%	31%	19%	35%	36%	29%	
	fairly and accurately.	Neither disagree nor agree	35%	37%	24%	34%	37%	19%	
	ianiy ana accarately.	Agree	36%	32%	57%	31%	26%	52%	
27.	All in all, I am satisfied with the	Disagree	31%	33%	22%	36%	38%	29%	
	position classifications used in my	Neither disagree nor agree	28%	31%	15%	27%	29%	16%	
	organization.	Agree	41%	36%	63%	37%	34%	55%	

Table 4-1. Survey Responses to Job Classification Questions

4.2.3. Supervisors perceive that the automated classification system has improved the classification process.

Supervisors from the Demonstration Group did not feel that the new automated classification system was a drastic change from the old system. However, supervisors did indicate that the new system offered them more control over the classification process. Supervisors agreed that this was an important step in providing more autonomy for their work unit. Table 4-1 and Table 4-2 provide summary data for relevant survey questions posed to supervisors, as well as supervisors' responses to classification issues during the focus groups.

Table 4-1. Survey Responses to Supervisory Questions on Classification

			Dei	mo. Groι	ıp	Coi	mp. Grou	qı
			Total	(N)	(S)	Total	(N)	(S)
149.	The current pay system requires few	Disagree		*	18%		*	24%
	classification decisions.	Neither disagree nor agree			45%			44%
		Agree			37%			32%
124.	I have enough authority to influence	Disagree			16%			25%
	classification decisions.	Neither disagree nor agree			23%			28%
		Agree			61%			47%
125. Getting a position description	Getting a position description	Disagree			57%			54%
	approved tends to be an adversarial process.	Neither disagree nor agree			35%			24%
		Agree			8%			22%
126.	I have to devote too much time to	Disagree			53%			42%
	position classification.	Neither disagree nor agree			33%			41%
	1	Agree			14%			17%
127.	It takes too long to get classification	Disagree			48%			42%
	decisions made in my organization.	Neither disagree nor agree			40%			39%
		Agree			12%			19%
128.	All in all, I am satisfied with the	Disagree			20%			25%
	position classification procedures	Neither disagree nor agree			33%			26%
	used in my organization.	Agree			47%			49%

^{*} These questions were asked of supervisory employees only.

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

Focus group data suggest that the new automated classification system does not improve upon the classification decisions but instead improves the process of classification. By allowing managers to perform this role, managers can reduce the required interaction with the Human Resources Offices, although this seems not to be an obstacle to the process for the Comparison Group supervisory employees (see Table 4-1, Question 125).

Few positions required classification actions during the implementation year; thus, there is no objective data to evaluate concerning the contribution of the new automated classification system. In future years, DoC should track the amount of time spent on a classification action, and whether classification decisions are accurate.

Table 4-2. Demonstration Group Focus Group Results – Classification Decisions

Supervisory Employees

- Position descriptions developed by the automated classification system are too general
- Managers have the authority to make classification decisions
- · Classification system is inflexible

Note: Themes presented in this table are based on majority of participant responses. They do not represent all comments or themes produced from the focus groups.

4.3. The pay for performance system, as implemented in the Demonstration Group, has achieved several of its expected results; however, there is still a substantial number of employees who are unaware of the link between pay and performance.

During the first year of implementation, the Department of Commerce has experienced several positive results that support the use of a pay for performance system within different organizational units at DoC. Objective data indicate that financial rewards are tied to performance; statistics reveal a positive relationship between job performance (measured through performance appraisal rating scores) and both percentage pay increases (r = .54, p < .001) and performance bonuses (r = .46, p < .001). See Appendix C-2 for a scatterplot of the data. Employees understand and accept the theory of a pay for performance system, but are still unaware of how it is operating within their work unit. In conjunction with pay bands, the new performance appraisal system has the potential to raise the pay of good performers more rapidly, but additional performance appraisal cycles are necessary before this connection becomes salient to employees. Delegated pay authority allows supervisors to influence pay decisions based on their observation of employee performance. With salary increases and performance bonuses, supervisors can reward and motivate employee performance. Additionally, the new pay for performance system includes the opportunity to reward high performing supervisors through supervisory performance pay.

4.3.1. The new performance appraisal tool adequately functions as the link between employee performance and pay.

Based on our focus groups and survey findings, the new two-tier 100 point rating system developed for the Demonstration Project has had little effect on employee attitudes toward the performance appraisal process. However, the system does allow rating officials to compare employee performance by providing a continuum on which performance is evaluated (40-100). This rating tool enables DoC to rank-order employees' scores and therefore base pay on performance. According to survey results, rating officials perceived that the new performance appraisal system did a better job of identifying good and poor performers by a 2-to-1 margin over their Comparison Group counterparts (Table 4-1, Question 122). Employees accept this new tool as much as they did the previous version. This conclusion is supported by the two findings that follow.

4.3.1.1. Demonstration Group employees perceive the new performance appraisal system to be just as accurate as the other systems in use.

There are no appreciable differences between Demonstration and Comparison Group respondents on their perceptions of the accuracy of the performance appraisal systems. Table 4-1 shows that both groups are generally positive regarding performance appraisal ratings. Both sets of employees (Demonstration and Comparison Groups) believe their performance appraisal systems are fair, accurate, and take into account the important parts of their respective jobs. It is interesting to note, however, that supervisors in the Demonstration Project say that the new system better enables them to identify both good and poor performers (Question 122). Overall, there were no major differences between responses in the Demonstration and Comparison Groups.

Total (N) (S) Total 47% 47% Disagree 52% 45% 32. My supervisor tends to inflate the 42% 44% 33% 45% Neither disagree nor agree performance ratings of the employees he/she supervises. Agree 10% 9% 15% 10% Disagree 42% 44% 33. My supervisor tends to deflate the No 45% Significant 47% Neither disagree nor agree performance ratings of the employees Difference* 13% 9% he/she supervises.

34. My performance rating represents a

35. My performance appraisal takes into

122. (supervisors only) The performance

good and poor performers.

37. My supervisor evaluates my

performance.

my job.

my job.

fair and accurate picture of my actual

account the most important parts of

performance on things not related to

appraisal system allows me to identify

Table 4-1. Performance Appraisal System

Disagree

Agree

Agree

Agree

Agree

Disagree

Disagree

Disagree

Neither disagree nor agree

Neither disagree nor agree

Neither disagree nor agree

Neither disagree nor agree

23%

24%

53%

18%

17%

65%

58%

27%

15%

Demo. Group

24%

25%

51%

57%

27%

16%

Nο

Significant

Difference*

16%

21%

64%

64%

28%

8%

9%

7%

84%

20%

21%

59%

13%

18%

68%

62%

26%

12%

Comp. Group

(N)

41%

48%

11%

21%

22%

56%

59%

28%

12%

No

Significant

Difference*

Nο

Significant

Difference*

(S)

61%

32%

8%

15%

11%

73%

76%

16%

7%

39%

17%

44%

Implementation Report	4-7

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

Throughout the focus groups, Demonstration Group employees commented that the performance appraisal tool was accurately capturing their work performance, but they protested the ranking process. They felt there was no need to rank employees against each other and that this process promoted unhealthy internal competition (see Table 4-2).

Table 4-2. Demonstration Group Focus Group Results – Performance Appraisal

Supervisory		Non-Supervisory
new performance rating process is erstood	•	The new performance rating process is understood
ranking process is problematic and using	•	Jobs are so different that it is unfair to compare them through the ranking process
nsistencies among raters is a challenge n it comes to the ranking process	•	The new system forces coworkers to compete for limited financial rewards

Another source of confusion that Demonstration Group focus group participants noted was the rating scale used for the new performance appraisal tool. Employees recognized the 40-100 point rating scale as the same system used in most academic settings. Many expressed concern that it was hard to accept a rating below 70 because of the association with the academic grading scale. As a result many employees misunderstood the meaning of their performance appraisal rating.

4.3.1.2. The Demonstration Group employee perceptions about the new performance appraisal tool's informational value are not significantly different from Comparison Group perceptions about their current system. Both groups indicated that the tools are not as effective as they could be because supervisors are overworked.

There were no appreciable differences between the Demonstration and Comparison Group responses on survey questions related to providing job-related information as part of the appraisal process. Demonstration Group personnel were more likely to agree that it is important for them to know where they rank among their co-workers, but this is more likely a function of the ranking being required for pay for performance increase purposes than a need to know their relative standing. Within both groups, supervisors agreed more often than non-supervisors that they understood the current appraisal system (see Table 4-1, Question 30). The fact that 29% of non-supervisory employees do not understand the performance appraisal system indicates the need for more communication about the system.

	•				1		
		Dei	mo. Gro	up	Con	np. Gro	up
		Total	(N)	(S)	Total	(N)	(S)
28. On my job I know exactly what is	Disagree	21%	22%	12%	17%	N	2
expected of me.	Neither disagree nor agree	11%	12%	6%	15%	15% Significant	
expected of file.	Agree	69%	66%	82%	69%	Differe	ence*
29. My supervisor gives me adequate	Disagree	25%	No)	24%	N)
information on how well I am performing.	Neither disagree nor agree	17%	Signifi		18%	Signif	
information of flow well rain performing.	Agree	58%	Differe	nce*	58%	Difference*	
30. I understand the performance appraisal	Disagree	25%	29%	8%	14%	15%	6%
system currently being used.	Neither disagree nor agree	16%	19%	6%	17%	19%	5%
System currently being used.	Agree	58%	53%	86%	70%	66%	89%
31. It is important for me to know where I	Disagree	25%	23%	35% 27%		N)
rank among my co-workers.	Neither disagree nor agree	24%	25%	23%	34%	Signif	
Tank among my co workers.	Agree	50%	52%	42%	39%	Differe	ence*
36. My supervisor and I agree on what "good	Disagree	18%	No	2	14%	N)
performance" on my job means.	Neither disagree nor agree	22%	Signifi		26%	Signif	
performance on my job means.	Agree	60%	Differe	ence*	60%	Differe	ence*
00 Harristan da con constitut for all a all forms	Never	7%			10%		
38. How often do you receive feedback from	Rarely	32%	No	-	30%	N	
our supervisor that helps you improve	Sometimes	39%	Signifi		36%	Significant	
your performance?	Often	19%	Differe	ence*	21% Differen		ence*
	Always	3%			4%		

Table 4-1. Survey Responses to Performance Appraisal Feedback Questions

During focus groups, employees agreed that the new performance appraisal tool provides an adequate amount of information regarding job performance, but many employees added that this has more to do with the supervisor than it does with the performance appraisal tool. Many employees also voiced the opinion that the process (with whatever tool was being used) was not as successful as it could be because supervisors were overworked and could not spend the required time to provide relevant feedback and follow-up. It will be important to compare this perception of supervisors being overworked with the focus group results in year three of the evaluation. During implementation, supervisors had a large amount of work to do in a very short time; training, implementation, and the first rating cycle were done in rapid-fire succession. With the implementation accomplished, supervisors should be able to devote more time to managing employee performance.

There were no significant differences between the Demonstration and Comparison Groups on the survey question regarding the frequency of feedback received from supervisors (Question 38). Both Comparison Group members and Demonstration Group participants felt that they could benefit from more feedback and a greater depth of discussion relating to their work performance. However, focus groups agreed that this was unlikely because the supervisors were too busy to provide this level of attention to the performance appraisal process.

4.3.2. The Department of Commerce has exercised the flexibility inherent in pay bands to increase the pay of high performers.

Employees within DoC perceive the benefits arising from the increased flexibility provided by pay bands, an intervention used within the Demonstration Group. Pay bands offer a tool for DoC hiring officials to use when seeking highly qualified and competitive candidates. The broad pay ranges associated with most pay bands will also allow high performers to receive financial rewards.

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

4.3.2.1. Employees and managers perceive that pay bands offer flexibility in setting salaries.

Employees believe that pay bands provide a tool whereby DoC can be more competitive with other agencies within the federal government as well as public sector companies. By increasing a hiring official's flexibility in establishing a new employee's base pay, DoC can attract candidates that would have otherwise taken a position elsewhere.

Supervisors in the Demonstration Group agreed more frequently that their pay system is more flexible than did Comparison Group participants. This data is presented in Table 4-1. Additionally, information from interviews with pay pool managers indicates a new flexibility previously unavailable to them. Pay pool managers stated that the new pay bands are easy to use and understand. They perceive that the flexibility they provide helps their organization to establish competitive starting salaries. Pay pool managers state that this system has already made a difference to their organizations. The ability to start a highly qualified candidate at a higher rate than he/she would have under the old system increases the likelihood of hiring a sought-after candidate.

Table 4-1. Survey Responses to Current Pay System Questions

		Demo. Group		Comp. Group		
		Total	(N) (S)	Total	(N)	(S)
440 TI	Disagree		35%			39%
146. The current pay system is flex easy to use, and understand.			22%			33%
easy to use, and understand.	Agree		43%			28%
4.47 7	Disagree		7%			62%
147. The current pay system provid competitive range of salaries.			25%			17%
Compensive range of salaries.	Agree		68%			21%

Note: These questions were asked of supervisory employees only.

Survey results support the perceptions of pay pool managers. Question 147 shows supervisor responses when asked if the current system provide a competitive range of salaries. In contrast to the Comparison Group, the Demonstration Group believed that their current system offered a competitive range of salaries.

4.3.2.2. Respondents perceive that pay bands provide an opportunity to raise the pay of good performers.

Demonstration Group supervisors agreed to a greater extent than did the Comparison Group respondents that their pay system would provide the ability to reward good performers (see Table 4-1). Demonstration Group supervisors indicated on the survey that they believed the new system provides a means to reward good performers. This confidence in the pay system was not present in the Comparison Group.

Table 4-1. Ability to Reward Good Performers

		Dei	mo. Group	Comp. Group		
		Total	(N) (S)	Total	(N)	(S)
	Disagree		22%			38%
148. The pay system gives the ability to	Neither disagree nor agree		21%			28%
raise the pay of good performers.	Agree		57%			34%

Focus group data support the idea that Demonstration Group employees believe the new system provides a better method for rewarding high performers in comparison to the old system. Table 4-2 includes a list of themes identified during the Demonstration Group supervisory and the non-supervisory employee focus groups.

Table 4-2. Demonstration Group Focus Group Results – Perceptions of Pay Bands

Supervisory	Non-Supervisory
Favoritism of any kind is not an issue when distributing pay raises	You can get a higher raise, but it is a percent of a percentage
 Pay is generally linked to performance and larger pay raises are given to those who perform better 	 In the old system performance didn't matter Pay is not a strong indicator of
Pay for performance encouraged equitable ratings and raises	performance

Analysis of objective data obtained from the NFC's Payroll/Personnel System indicates that high-rated employees are indeed receiving higher pay raises and bonuses under the new system. This positive relationship indicates that as performance increases, so does salary percent (r = .54, p < .001) received. These results provide evidence that the pay band structure provides the flexibility to reward high performers with financial gains.

Objective data show that Demonstration Group employees received salary increases ranging from 0.0% to 12.2% based on performance. The range of percent salary increases for Demonstration Group employees is shown in Figure 6. There were 385 employees who were ineligible to receive a performance increase due to being in the position for fewer than 120 days; these employees were not included in this analysis.

The figure indicates that the average increase was 2.73%, that almost two-thirds received increases of less than 3%, and that almost 12% did not receive a salary increase. The figure also shows that the percent salary increases given to employees spanned a wide range (0-12%). The fact that almost 8% of Demonstration Group employees received percent salary increases of 6% or above (linked to the prior finding that percent increases were directly related to performance scores) indicates that DoC managers are making use of the higher percentages available to reward higher performing employees. This 8% represents a clear distinction of the relatively higher performing employees; if the percentage were higher, this distinction would be less clear.

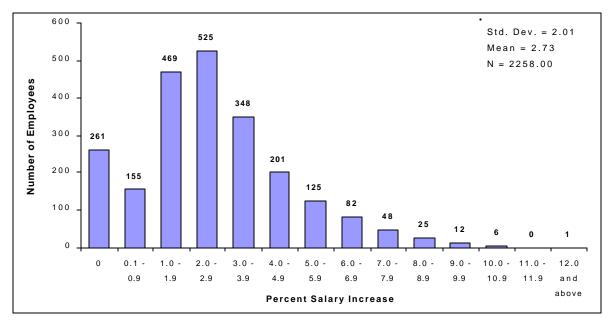


Figure 6. Range of Percent Salary Increases for Demonstration Group Employees

For the Comparison Group, we identified the following categories of increases that would be comparable to the performance-based increases in the Demonstration Group:

- Step increase
- Quality step increase
- Increase due to promotion to a grade within the related pay band in the Demonstration Group (see Figure 2 on page 2-8).

Calculating the sum of these increases per employee resulted in the distribution of percent salary increases as shown in Figure 7. Similar to the Demonstration Group, employees who were recent hires and not eligible for a step increase during this time period where not included in the analysis.

While percent increases in salary in the Comparison Group are not tied to the performance rating system, they are presented in this report to establish a pattern for comparison with percent increases in the Demonstration Group. Additional analyses (such as the time value of money) will be performed for the Operating Year report.

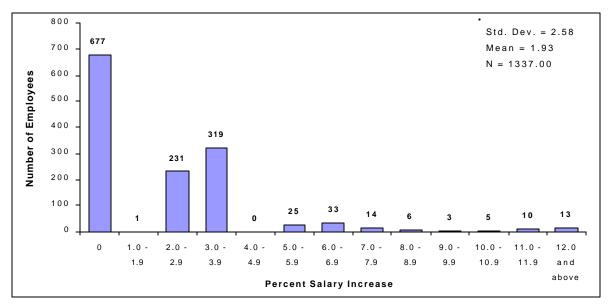


Figure 7. Range of Percent Salary Increases for Comparison Group Employees

The percent increases ranged from 0.0% to 23.3%. The highest percent increases were for employees who were promoted from GS-7 to GS-9 or from GS-5 to GS-7. The average percent increase was 1.93%, and 68% received increases of less than 3%. The fact that 51% of the employees did not receive a salary increase (although they received a passing performance rating) is a function of the salary structure where employees at the higher steps of a grade wait two to three years between step increases.

Bonus percentages also spanned a range (Figure 8) although most bonuses were clustered at 1 to 2%.

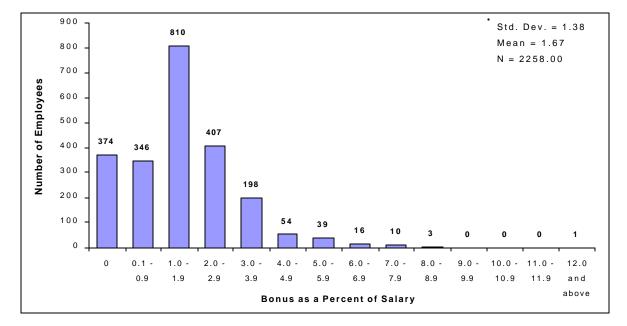


Figure 8. Range of Bonus Percentages for Demonstration Group Employees

For the Comparison Group, 56% of the employees received performance awards comparable to the bonuses provided under the Demonstration Project. The award percentages ranged from 0.0% to 10.8%, as shown in Figure 9.

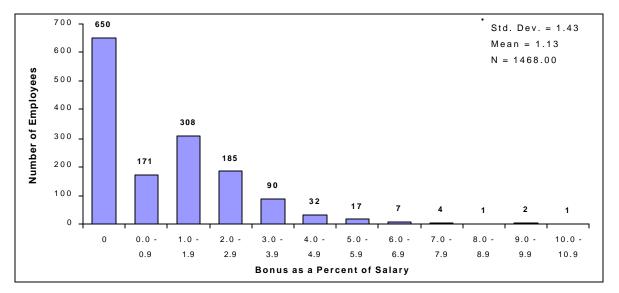


Figure 9. Range of Award Percentages for Comparison Group Employees

The analysis of the objective data indicates that more employees in the Demonstration Group received salary increases (88%) than in the Comparison Group (49%) during this time period. A similar result occurred with the bonuses – 83% of employees in the Demonstration Group received a bonus, whereas 56% of employees in the Comparison Group received a performance award.

Although much of the evidence from Demonstration Group participants supports the influence of pay bands, this has not produced a wider acceptance of pay levels throughout the organization. When Demonstration Group responses are compared to Comparison Group responses to several high level questions on pay, the response pattern is similar (see Table 4-3). For both groups, supervisors were more likely than non-supervisors to agree that their pay is fair (Question 106) and that differences in pay reflect differences in jobs (Question 105). For the remainder of questions related to the pay system, however, supervisory/non-supervisory differences existed only in the Demonstration Group.

			Der	no. Gro	up	Cor	np. Gro	up
			Total	(N)	(S)	Total	(N)	(S)
104.	All in all, I am satisfied with my pay.	Disagree	34%	37%	19%	43%	N	0
	· · · · · · · · · · · · · · · · · · ·	Neither disagree nor agree	13%	13%	13%	15%	Signif	
		Agree	52%	50%	68%	42%	Differe	ence*
105.	Differences in pay at my organization	Disagree	47%	49%	36%	50%	51%	44%
	represent real differences in level of	Neither disagree nor agree	24%	24%	23%	22%	23%	15%
	responsibility and job difficulty.	Agree	29%	26%	41%	28%	26%	41%
106.	My pay is fair considering what other	Disagree	36%	38%	23%	38%	39%	32%
	people in my organization are paid.	Neither disagree nor agree	24%	25%	17%	23%	25%	15%
	propro many organization of param	Agree	40%	36%	60%	38%	36%	52%
107.	Pay progression is fair.	Disagree	35%	37%	22%	32%	N	o
	. a) progression is iam	Neither disagree nor agree	27%	28%	19%	26%	Signif	
		Agree	39%	35%	59%	42%	Differe	ence*
108.	Other employers in this area pay more	Disagree	13%	13%	9%	11%	N	0
	than the government does for the kind of	Neither disagree nor agree	35%	36%	30%	34%	Signif	
	work I am doing.	Agree	52%	50%	61%	56%	Differe	ence*

Table 4-3. Survey Responses to Pay System Questions

4.3.3. Delegated pay authority has provided a method for DoC to establish a link between employee performance and pay.

Delegated pay authority has been an important component of the new pay for performance system. The link between pay and performance is supported by the Demonstration Project requirement that the immediate supervisor continue to provide recommendations on performance ratings. The line managers should be most qualified to make performance ratings based on their knowledge of individuals and of the work required. As described in the findings below, DoC is following this requirement.

4.3.3.1. Line managers (supervisors and pay pool managers) are making pay decisions.

The rationale behind delegated pay authority is that line managers are in a better position to understand labor market forces and therefore are more effective in making salary decisions than the system that provides structured step increases. Under the Demonstration Project, supervisors are making performance ratings, which ultimately determine an employee's pay increase.

According to interviews and focus groups with managers in the Demonstration Group, their input is the determining factor for establishing pay increases and bonuses. This is in sharp contrast to the traditional system whereby employee pay increases are a function of the pay table with no input from line managers.

Supervisors in the Demonstration Group were more likely to respond favorably to the statement "I have enough authority to determine my employees' pay" than were Comparison Group supervisory employees (see Table 4-1). When employees were asked about their satisfaction with management's handling of pay and management's qualifications to determine pay, there were no significant differences between Demonstration Group responses and Comparison Group responses.

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

Predictably, supervisors were more inclined to respond favorably to these questions. As a result of their increased participation in the determination of pay, first line supervisors will likely have more knowledge and awareness of their role within the process. However, non-supervisory employees do not have the same level of understanding and may be more hesitant to respond favorably. In the focus groups, non-supervisory employees expressed some level of confusion about the process. Employees were confused by the process whereby their immediate supervisor's rating of their performance was reviewed and at times amended by the pay pool manager. This indicates that supervisors told employees the ratings before they were blended with the ratings of other employees in the pay pool. The majority of employees felt that they would know more as the Demonstration Project continued.

Demo. Group Comp. Group (N) Total Total (S) (N) (S) 40% 43% 37% 38% 27% 30% Disagree 110. I am satisfied with the way 33% 27% 28% 21% 32% 26% Neither disagree nor agree management handles pay. 32% 29% 33% 29% 51% 44% Agree 28% 30% 17% 26% Disagree No Significant 111. Management officials are qualified to 34% 16% 39% Neither disagree nor agree 31% make pay decisions. Difference* Agree 41% 36% 66% 35% 51% Disagree 39% 130. I have enough authority to determine Neither disagree nor agree 12% 21% my employee's pay. 49% 28%

Table 4-1. Survey Responses to Delegated Pay Authority Questions

4.3.3.2. Pay increases (effective 11/98) were tied to employee performance ratings.

As mentioned earlier in this report (page 4.3.2.2), when correlations were used to determine the relationships between employee performance appraisal ratings and financial rewards, they indicated a positive relationship between the two variables under the Demonstration Project. This relationship supports the idea that first line supervisors impact the distribution of pay.

4.3.3.3. Supervisory employees indicated greater knowledge of the link between pay and performance than did non-supervisory employees.

Supervisors should be the most accurate source of information regarding employee performance. By revising the performance appraisal tool and using supervisor ratings to determine pay, DoC has taken a large step toward its goal of a pay for performance system. Supervisors are more likely to see this connection than non-supervisory employees, as evidenced by the responses to survey questions presented in Table 4-1.

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

Table 4-1. Survey Responses to Pay for Performance Questions

			Demo. Group		up	Cor	np. Gro	p. Group	
			Total	(N)	(S)	Total	(N)	(S)	
41.	Under the present system, financial	Disagree	48%	43%	73%	44%	39%	68%	
	rewards are seldom related to	Neither disagree nor agree	28%	31%	15%	29%	31%	19%	
	employee performance.	Agree	24%	26%	12%	27%	30%	13%	
42.	I understand how pay raises are given	Disagree	31%	35%	12%	32%	36%	15%	
	in my organization.	Neither disagree nor agree	19%	20%	11%	20%	22%	9%	
		Agree	50%	45%	77%	48%	43%	76%	
43.	Pay raises depend on how well you	Disagree	29%	32%	16%	39%	40%	39%	
	perform.	Neither disagree nor agree	25%	27%	13%	27%	30%	27%	
		Agree	46%	41%	71%	34%	30%	34%	
44.	I understand how awards are given in	Disagree	33%	37%	14%	30%	33%	10%	
	my organization.	Neither disagree nor agree	23%	25%	16%	23%	25%	18%	
		Agree	44%	38%	70%	47%	42%	72%	
45.	Cash awards depend on how well you	Disagree	28%	30%	15%	24%	27%	11%	
	perform.	Neither disagree nor agree	27%	29%	14%	29%	30%	22%	
		Agree	46%	41%	71%	47%	43%	66%	

This pattern was also evident during focus groups with Demonstration Project participants. Overall, the supervisory employees appeared to be better educated about the process and more optimistic that it would produce the expected results (see Table 4-2).

Table 4-2. Demonstration Group Focus Group Results – Perceptions of Pay for Performance

Supervisory	Non-Supervisory					
Pay for performance is effective in improving employee performance	In theory pay for performance might work, but not as practiced here					
Pay for performance does not reward undesired behaviors	Pay for performance does not improve employee performance					
 Under the new system, pay is a strong indicator of performance in this organization This system fosters discussion on what 	Do not understand how pay groups can be comprised of individuals from work sites across the nation					
constitutes high performance	The process is too subjective and reliant upon manager opinion					

4.3.4. Currently, the bonus system rewards good performance; however, in order to motivate/encourage performance, employees must become more aware of the link between bonuses and performance.

Objective data indicate a positive relationship between bonus distribution and employee performance in the Demonstration Group (r = .46, p < .001). This suggests that DoC has provided financial rewards for those employees who are recognized as high performers. This step is essential to motivate high performance. However, Demonstration Group employees are not aware of the relationship between performance and bonuses, reducing the potential of bonuses as a motivator. If managers continue to consistently reward high performers, they will better establish this link between bonuses and performance. As employees begin to

recognize and accept this link, the financial reward can become an incentive for high performance rather than just a reward.

4.3.4.1. While there is objective evidence that bonuses are tied to performance, employees do not perceive this relationship.

There is considerable evidence that the performance management system of the Demonstration Project is being administered as a pay for performance system. With respect to the awarding of performance bonuses, evidence of a pay for performance system exists from the significant correlation (r = .46, p < .001) between performance appraisal rating scores and performance bonuses (calculated as a percentage of salary). (See Appendix C-2 for a scatterplot of the data.)

Additionally, information from manager interviews also suggests that bonuses are being used to reward high performance. Managers repeatedly said that the bonuses provide an opportunity for positive reinforcement that did not exist in the old system. They also said that bonuses were often given as a reward for a specific event during the year.

However, employees appear to be uncertain about the linkage between rewards and performance, as seen in both the employee survey and the focus groups. The results shown in Table 4-1 indicate that the pay for performance system has not improved employee perceptions about bonuses. As shown, the perceptions of the Demonstration Group were not significantly more positive than those of the Comparison Group. Only 26% of respondents in the Demonstration Group agreed that bonuses are awarded equitably, yet 48% disagreed with the statement "financial rewards are seldom related to performance." Supervisors, however, expressed more positive perceptions about bonuses than did non-supervisors.

Table 4-1. Survey Responses to Bonuses and Rewards Questions

			Demo. Group		Comp. Group			
			Total	(N)	(S)	Total	(N)	(S)
46.	Panusas for parformanas are awarded	Disagree	37%	40%	20%	38%	40%	25%
40.	 Bonuses for performance are awarded equitably. 	Neither disagree nor agree	37%	38%	32%	39%	40%	33%
	oquitably.	Agree	26%	22%	48%	24%	20%	42%
41.	Financial rewards are seldom related	Disagree	48%	43%	73%	44%	39%	68%
41.	to performance.	Neither disagree nor agree	28%	31%	14%	29%	31%	19%
	to portormanoo.	Agree	24%	26%	12%	27%	30%	13%

Confusion was also expressed during focus groups by employees who stated that most of the time bonuses are distributed equitably, but that the process is subjective and could be abused. No focus group participants were aware of any actual instance where bonuses were distributed unfairly, but the underlying assumption was that they could be and the employees would never know (see focus group results in Table 4-2).

Table 4-2. Demonstration Group Focus Group Results – Perceptions of Performance Bonuses

Non-Supervisory Employees

- Don't know how bonuses are determined or distributed
- Not sure if bonuses were given to reward good work
- Don't know if bonuses were distributed fairly because no one wants to talk about it if they got one
- Don't think the bonuses are awarded with bias against any group

4.3.5. Confusion about supervisory performance pay has limited the impact it has had on supervisory performance.

Under the current project, the supervisory performance pay intervention is only available for supervisors who are at the top of their pay band. Under the NIST Demonstration Project and as originally proposed for this current Demonstration Project, supervisors in the ZP Career Path received an automatic increase in their base salary of 3% to 6% depending on their supervisory level. The late changes to this intervention have caused some confusion among Demonstration Group employees, which was apparent during focus groups conducted at DoC work sites. The system is designed to provide an incentive for supervisors to continue working hard after they have reached the top of their pay bands, but the confusion caused by the modification to the supervisory pay plan has left many supervisory and non-supervisory employees unaware of any link between supervisory pay and performance.

4.3.5.1. Demonstration Group supervisory and non-supervisory employees do not believe that the current pay system offers an incentive for improved supervisory performance.

Feedback from the employee survey suggests that supervisory performance pay has had little effect on supervisor performance (see Table 4-1). These data are consistent with interview feedback and focus group results.

Table 4-1. Improved Supervisor Performance

		Der	no. Gro	up	Comp. Gro		oup
		Total	(N)	(S)	Total	(N)	(S)
112. The current pay system has resulted	Disagree	47%	49%	39%	44%		No
in improved supervisor performance.	Neither disagree nor agree	42%	42%	42%	50%	Sign	nificant
	Agree	11%	10%	20%	6%	Diffe	rence*

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group.

Supervisors who participated in focus groups offered little support for the supervisor pay intervention. Many felt the 6% offered beyond the top of the pay band was too little for the additional work required and that the limited definition of "supervisor" excluded persons who acted as supervisors. Table 4-2 presents the results from the supervisory focus groups conducted with Demonstration Project participants.

Table 4-2. Demonstration Group Focus Group Results - Perceptions of Supervisory Pay

Supervisory Employees

- Many people act as supervisors but do not meet the rigid definition established by Commerce
- Commerce does not have relevant strategies to motivate quality supervisors
- The new system does not motivate supervisors to work harder
- The small amount of extra pay is not an incentive to do the additional work
- 4.3.5.2. Supervisors did receive pay increases that placed them in the supervisory performance pay range on the pay band, but it is too soon to determine whether there is an effect on retention.

Objective data indicate that 49 supervisors received salary increases in November 1998 that placed them above the maximum of pay for the pay band and into the pay range designated as supervisory performance pay. The evaluations performed in future years of the Demonstration Project will need to assess whether this additional pay has any effect on retention.

4.4. DoC has not fully utilized the recruitment and retention interventions available as part of the Demonstration Project to improve workforce quality or reduce the time to hire.

Many of the recruitment and retention strategies within the Demonstration Project had minimal utilization either because of the low turnover rate and the low number of new full-time hires or because the pay flexibilities may have lessened the need to rely on recruitment or retention payments. Discussion of these interventions during focus groups and interviews provided little additional information. Many employees stated that they were unaware of many of these interventions or they indicated that the interventions were already in use prior to the implementation of the Demonstration Project. Objective data indicate that several of these interventions were not used at all during this implementation year of the Demonstration Project. These unused interventions include retention payments and Direct Examination. Table 4-1 provides a summary of some themes from focus groups relating to recruitment and retention strategies.

Table 4-1. Demonstration Group Focus Group Results – Perceptions of Recruitment and Retention Strategies

Supervisory	Non-Supervisory
Pay bands provide more flexibility in establishing starting salaries	Demonstration Project offers more flexibility in setting starting salaries
Demonstration Project has not influenced hiring practices/policies	The quality of new hires has not changed as a result of the Demonstration Project
Agency-Based Staffing circumvents the longer	Recruitment bonuses are sometimes used
OPM process	Recruitment and hiring practices have not
There is not much hiring activity – most new hires are contractual	changed
Direct Examination is not used because there are no "hard to fill" positions	

4.4.1. Recruitment payments were used infrequently.

Employees at DoC agreed that recruitment payments are both fair and a reasonable method for attracting a highly qualified candidate to the organization. However, since the implementation of the Demonstration Project, recruitment payments have been used too infrequently to have had an impact on the overall workforce. Objective data from the NFC's Payroll/Personnel System indicate that, of the 324 employees hired by DoC in the first year of the Project, only three received recruitment payments.

4.4.2. Retention payments have not been utilized.

Objective data indicate that there have been no retention payments made under the Demonstration Project. In future years, it will be possible to determine if highly rated employees have left, indicating a potential opportunity for the use of retention payments.

4.4.3. Employees believe that flexible starting salaries can and have helped improve the quality of new hires.

Focus group participants from the Demonstration Group agreed that pay bands offer hiring officials the opportunity to bring qualified employees in at a higher starting salary than would have been allowed under the GS system (see Table 4-1). Several employees (supervisory and non-supervisory) commented during the focus groups that they were aware of one or two instances in which this flexibility was a major contributor to successfully employing a highly qualified candidate.

Table 4-1 shows that Demonstration Group employees favor this idea more than employees from the Comparison Group. Specifically, 58% of all Demonstration Groups respondents felt that this practice was fair, compared with 49% of Comparison Group respondents. In both groups, supervisory employees were more likely to accept flexible starting salaries than were non-supervisory employees.

Table 4-1. High-Quality New Hires

			Den	no. Gro	up	Cor	np. Gro	qı
			Total	(N)	(S)	Total	(N)	(S)
55.	Paying a high quality now hire more	Disagree	21%	23%	11%	29%	31%	18%
55.	55. Paying a high quality new hire more than other new hires is fair.	Neither disagree nor agree	22%	24%	10%	22%	24%	10%
	than other new filles is fall.	Agree	58%	53%	78%	49%	45%	72%

However, survey data shown in Table 4-2 do not support the idea that flexible starting salaries have improved DoC's ability to be competitive with outside organizations. Demonstration Group and Comparison Group employees were equal in their responses to this question.

Table 4-2. Survey Responses to Salary Question

	Den	Demo. Group			Comp. Group		
	Total	(N)	(S)	Total	(N)	(S)	
59. How do starting salaries for similar positions at other organizations you applied to compare with your starting salary at your current organization?							
Much less than my starting salary (less than 90%) Somewhat less than my starting salary (90% – 95% less) About the same as my starting salary Somewhat more than my starting salary (5% - 10%) Much more than my starting salary (more than 10% higher) Don't know	14% 29%	Signi	lo ificant rence*	6% 11% 40% 9% 9% 25%	Sign	Vo ificant rence*	

^{*} The total column represents the responses of both supervisory and non-supervisory employees in this Group. Note: This question was asked of new hires only.

4.4.3.1. Direct Examination has not been used during this first year of the Demonstration Project.

Supervisory employees stated in focus groups that Direct Examination could be a tremendous asset if it were available to them. However, supervisory employees indicated that none of the current job vacancies were included on the "hard-to-fill" list.

4.4.3.2. Employees believe that flexible pay increases upon promotion can improve retention efforts.

Demonstration Group participants indicate that the flexibility to increase an employee's salary following a promotion would offer a good opportunity to keep more employees who would otherwise leave. However, like many of the other strategies in this section, there was little awareness of it actually being used.

4.4.3.3. Flexible paid advertising has been used prior to implementation of the Demonstration Project.

A few employees from the Demonstration Group focus groups indicated that they were aware of flexible paid advertising, yet they stated that this was not new to the organization. In fact, this was the standard and preferred method for advertising job vacancies in conjunction with listing the position through OPM.

4.4.3.4. Employees reported that Agency-Based Staffing has been used infrequently; when it is used it helps reduce the time to hire.

As with many of the other recruitment and retention strategies, DoC employees in our focus groups were largely unaware of Agency-Based Staffing. When discussed in greater detail, employees felt that this would be a welcome relief to the long multi-stage process of filling a vacancy through OPM. A few supervisory employees who were familiar with the process agreed that it had increased the speed with which new hires are hired.

4.5. While employees expressed positive expectations about the three-year probationary period for R&D positions, the one year of experience provides no data.

As discussed in Section 2.5.15, the extended probationary period intervention is only applicable to ZP employees conducting research and development work. Organization-wide, DoC has experienced very little hiring activity involving these types of positions since the implementation of the Demonstration Project. Since the probationary period only applies to new employees, a small number would be affected by the intervention. Because the numbers are so small and the timeframe since implementation is so short, this intervention cannot be assessed at this time. As more ZP employees are hired into R&D positions, and as their time in the probationary period increases, an assessment can be made. In the meantime, employee attitudes toward an extended probationary period are all that is available. As shown in Table 4-1, employees in focus groups expressed mixed opinions about the extended probationary period.

Table 4-1. Demonstration Group Focus Group Results – Perceptions of Probationary Periods

Supervisory	Non-Supervisory
The ZP pay band includes a three year probationary period but no one has been hired	Three years is too long for a probationary period
under this system	All new hires have a one year probationary
The length of the probationary period does not matter	period
	Have not seen anyone separated during the
One year is too short	probationary period

4.5.1. Supervisors are not clear about the appropriate length of a probationary period for R&D positions.

Some supervisors support the use of an extended probationary period as indicated by focus group results and survey data. When supervisors were asked in the survey about the need for an extended probationary period for ZP employees conducting R&D work, the responses indicated that many supported the three-year period, and many felt that it was not necessary.

Table 4-1. Survey Responses to Three-Year Probationary Period Questions

		De	Demo. Group		ZP Pay Band		
		Total	(N) (S	5)	Total	(N)	(S)
139. It is necessary to have a 3-year probation-	Disagree		2	7%			30%
ary period for ZP employees performing	Neither disagree nor agree		3	5%			30%
research and development work.	Agree		38	3%			40%

Note: This question was asked of supervisors only.

The supervisors of R&D employees (supervisors in the ZP pay band) also expressed a wide range of opinions about the length of the probationary period. Table 4-1 shows that 30% of ZP supervisors had no opinion about the need for a three-year probationary period.

These results indicate the need for attention to the use of this intervention as new R&D employees are hired.

4.5.2. Non-supervisory employees believe that the one-year probationary period applies to all employees, but feel that these probationary periods are rarely enforced.

Non-supervisory employees in our focus groups were unaware of the extended three-year probationary period for R&D employees. Overall, employees reported that all new employees were subject to the same one-year probationary period. These non-supervisory employees added that the probationary periods were little more than a formality; they noted that only a small percentage of employees were ever let go during their probationary period. Data from the supervisor section of the employee survey support the non-supervisory employees' belief that few employees are terminated during the probationary period (see Table 4-1). As this intervention only applies to a small number of employees at DoC, it is not surprising that most employees had no knowledge of the new policy.

Table 4-1. Survey Responses to Discharge During Probationary Period Questions

		Demo. Group		Coi	Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
136. Have you ever encouraged an employee to leave	Yes			14%			10%
voluntarily during the probation period?	No			86%			90%
137. Have you ever officially terminated a new employee	Yes			11%			13%
during the probation period?	No			89%			87%

Note: These questions were asked of supervisors only.

4.6. The Demonstration Project interventions have not adversely affected the nine Merit System Principles or the twelve Prohibited Personnel Practices.

The recent changes made to DoC work units' human resource policies and practices have continued to abide by the nine Merit System Principles and to avoid the 12 Prohibited Personnel Practices. Based on the importance of these issues within DoC, it will be important to monitor their effect via employee perceptions and objective data throughout the course of the Demonstration Project.

4.6.1. Employees do not perceive any bias in hiring or compensation strategies as a result of the current Demonstration Project.

Table 4-1 shows a pattern of similar results between the Demonstration and Comparison Groups on a number of survey questions that focus on minority issues, including recruitment, retention, pay, and discrimination. Overall, employees within DoC believe that the organization is not discriminating against minorities, gender groups, or veterans based on any institutional policy or practice. Supervisory employees in both the Demonstration and Comparison Groups are more positive about the impact on minorities than are non-supervisory employees. Our findings suggest that the interventions unique to the Demonstration Project are no better or worse than the practices they replaced in terms of assuring equality. Survey data support this assertion as well as data collected during employee focus groups.

Table 4-1. Survey Responses to Impact on Minorities Questions

			Demo. Group			Comp. Group			
			Total	(N)	(S)	Total	(N)	(S)	
51.	Current efforts toward employee retention have enabled managers to retain good minority employees.	Disagree Neither disagree nor agree Agree	22% 70% 8%	No Significant Difference*		18% 76% 5%	Signif	No Significant Difference*	
53.	Recruitment procedures allow for the opportunity to hire good minority applicants.	Disagree Neither disagree nor agree Agree	15% 51% 34%	15% 54% 31%	16% 35% 49%	19% 44% 37%	19% 49% 32%	22% 19% 59%	
95.	My organization does not discriminate on the basis of race, color, religion, sex, na- tional origin, age, handicapping condition, marital status, or political affiliation.	Disagree Neither disagree nor agree Agree	13% 21% 66%	14% 24% 62%	4% 7% 89%	10% 22% 68%	9% 25% 66%	11% 11% 77%	
109.	Minority employees get paid at competitive levels in my unit.	Disagree Neither disagree nor agree Agree	7% 43% 49%	9% 47% 44%	2% 22% 76%	6% 43% 51%	6% 47% 47%	5% 21% 73%	

 $^{{\}color{blue}*} \textit{ The total column represents the responses of both supervisory and non-supervisory employees in this Group.}$

Additional survey items addressed the Prohibited Personnel Practices and Merit System Principles. As shown in Table 4-2, analysis of the results produced no indication that DoC has violated any of the Prohibited Personnel Practices or failed to support any of the Merit System Principles.

Table 4-2. Survey Responses to Organizational Excellence Questions

85. My orga 86. My orga 87. My orga 88. My orga 89. My orga and con	nization recruits, selects and advances employees on s of merit. nization treats employees fairly and equitably. nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Disagree Neither disagree nor agree Agree Neither disagree nor agree Agree Neither disagree nor agree Agree	Total 25% 30% 45% 29% 25% 47% 13% 40% 47% 39% 28% 33% 24%	28% 32% 40% 32% 26% 42% 15% 44% 41%	9% 19% 72% 10% 17% 73% 4% 16% 80% 24%	Total 31% 27% 42% 32% 22% 46% 17% 37% 47%	(N) 33% 30% 38% 34% 23% 43% 18% 41%	(S) 22% 12% 65% 23% 16% 61% 9%
85. My orga 86. My orga 87. My orga 88. My orga 89. My orga and con 90. My orga	nization treats employees fairly and equitably. nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Neither disagree nor agree Agree Disagree Neither disagree nor agree	30% 45% 29% 25% 47% 13% 40% 47% 39% 28% 33%	28% 32% 40% 32% 26% 42% 15% 44% 41% 42% 29%	9% 19% 72% 10% 17% 73% 4% 16% 80%	27% 42% 32% 22% 46% 17% 37% 47%	33% 30% 38% 34% 23% 43% 18% 41%	22% 12% 65% 23% 16% 61% 9% 15%
85. My orga 86. My orga 87. My orga 88. My orga 89. My orga and con 90. My orga	nization treats employees fairly and equitably. nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Agree Disagree Neither disagree nor agree	45% 29% 25% 47% 13% 40% 47% 39% 28% 33%	40% 32% 26% 42% 15% 44% 41% 42% 29%	72% 10% 17% 73% 4% 16% 80% 24%	42% 32% 22% 46% 17% 37% 47%	38% 34% 23% 43% 18% 41% 41%	65% 23% 16% 61% 9% 15%
85. My orga 86. My orga 87. My orga 88. My orga 89. My orga and con 90. My orga	nization treats employees fairly and equitably. nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Disagree Neither disagree nor agree Agree Disagree Neither disagree nor agree	29% 25% 47% 13% 40% 47% 39% 28% 33%	32% 26% 42% 15% 44% 41% 42% 29%	10% 17% 73% 4% 16% 80% 24%	32% 22% 46% 17% 37% 47%	34% 23% 43% 18% 41% 41%	23% 16% 61% 9% 15%
86. My orga 87. My orga 88. My orga 89. My orga and con 90. My orga	nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Neither disagree nor agree Agree Disagree Neither disagree nor agree	25% 47% 13% 40% 47% 39% 28% 33%	26% 42% 15% 44% 41% 42% 29%	17% 73% 4% 16% 80% 24%	22% 46% 17% 37% 47% 43%	23% 43% 18% 41% 41%	16% 61% 9% 15%
86. My orga 87. My orga 88. My orga 89. My orga and con 90. My orga	nization treats applicants fairly and equitably. nization provides equal pay for equal work. nization rewards excellent performance.	Agree Disagree Neither disagree nor agree	47% 13% 40% 47% 39% 28% 33%	42% 15% 44% 41% 42% 29%	73% 4% 16% 80% 24%	46% 17% 37% 47% 43%	43% 18% 41% 41%	61% 9% 15%
87. My orga 88. My orga 89. My orga and con 90. My orga	nization provides equal pay for equal work. nization rewards excellent performance.	Disagree Neither disagree nor agree Agree Disagree Neither disagree nor agree Agree Disagree Noisagree Neither disagree nor agree Neither disagree nor agree	13% 40% 47% 39% 28% 33%	15% 44% 41% 42% 29%	4% 16% 80% 24%	17% 37% 47% 43%	18% 41% 41%	9% 15%
87. My orga 88. My orga 89. My orga and con 90. My orga	nization provides equal pay for equal work. nization rewards excellent performance.	Neither disagree nor agree Agree Disagree Neither disagree nor agree Agree Disagree Neither disagree nor agree	40% 47% 39% 28% 33%	44% 41% 42% 29%	16% 80% 24%	37% 47% 43%	41% 41%	15%
87. My orga 88. My orga 89. My orga and con 90. My orga	nization provides equal pay for equal work. nization rewards excellent performance.	Agree Disagree Neither disagree nor agree Agree Disagree Neither disagree nor agree	47% 39% 28% 33%	41% 42% 29%	80% 24%	47% 43%	41%	
88. My orga 89. My orga and con 90. My orga	nization rewards excellent performance.	Disagree Neither disagree nor agree Agree Disagree Neither disagree nor agree	39% 28% 33%	42% 29%	24%	43%		
88. My orga 89. My orga and con 90. My orga	nization rewards excellent performance.	Neither disagree nor agree Agree Disagree Neither disagree nor agree	28% 33%	29%				76%
88. My orga 89. My orga and con 90. My orga	nization rewards excellent performance.	Agree Disagree Neither disagree nor agree	33%		220/		45%	32%
89. My orga and con	<u>'</u>	Disagree Neither disagree nor agree			23%	28%	29%	20%
89. My orga and con	<u>'</u>	Neither disagree nor agree	24%	30%	53%	30%	26%	47%
and con 90. My orga	nization maintains high standards of integrity, conduct	0 0		27%	12%	26%	27%	16%
and con 90. My orga	nization maintains high standards of integrity, conduct	Aaree	25%	27%	15%	27%	29%	19%
and con 90. My orga	nization maintains high standards of integrity, conduct		50%	46%	73%	47%	43%	65%
90. My orga		Disagree	12%	14%	4%	14%	16%	5%
	cern for the public interest.	Neither disagree nor agree	21%	23%	12%	22%	23%	18%
		Agree	66%	63%	83%	64%	61%	77%
effective	nization manages employees efficiently and	Disagree	45%	49%	29%	50%	53%	39%
	ely.	Neither disagree nor agree	30%	29%	36%	28%	28%	28%
		Agree	24%	22%	35%	22%	19%	34%
	nization retains or separates employees on the basis	Disagree	42%	43%	36%	48%	No.	
of their	performance.	Neither disagree nor agree	40%	42%	34%	39%	Signif Differe	
		Agree	18%	15%	30%	13%		
	nization educates and trains employees when doing	Disagree	26%	28%	16%	27%	N.	
	esult in better organizational or individual	Neither disagree nor agree	23%	23%	20%	22%	Signif Differe	
performa	ance.	Agree	51%	49%	64%	51%	Dillere	nce
93. My orga	nization protects employees from improper political	Disagree	11%	13%	4%	8%	N	
influence	2.	Neither disagree nor agree	47%	50%	35%	52%	Signif	
		Agree	41%	37%	60%	41%	Differe	
94. My orga	nization protects employees against reprisal for the	Disagree	7%	8%	3%	5%	5%	5%
lawful di	sclosure of information.	Neither disagree nor agree	64%	67%	51%	66%	69%	52%
		Agree	29%	26%	47%	29%	26%	42%
95. My orga	inization does not discriminate on the basis of race,	Disagree	13%	14%	4%	10%	9%	11%
color, re	ligion, sex, national origin, age, handicapping	Neither disagree nor agree	21%	24%	7%	22%	25%	11%
condition	n, marital status, or political affiliation.	Agree	66%	62%	89%	68%	66%	77%
96. My orga	nization does not solicit or consider any personal	Disagree	9%	10%	3%	10%	10%	10%
	endation or statement not based on personal	Neither disagree nor agree	52%	56%	34%	47%	49%	34%
knowled	ge or records of performance, ability, aptitude, qualifications, character, loyalty, or suitability.	Agree	38%	33%	63%	43%	41%	55%
97. My orga	nization does not coerce employees' political activity.	Disagree	2%	2%	1%	1%	N	
J - 3-	· · · · · · · · · · · · · · · · · · ·	Neither disagree nor agree	19%	22%	8%	21%	Signif	
		Agree	78%	76%	91%	78%	Differe	
98. My orga	nization does not deceive or obstruct any person with	Disagree	8%	9%	3%	9%	10%	8%
	to such person's right to compete for employment.	Neither disagree nor agree	27%	30%	13%	26%	29%	11%
		Agree	65%	61%	84%	64%	61%	81%
99 My orga	nization does not influence a person to withdraw from	Disagree	5%	6%	2%	5%	6%	3%
competi		Neither disagree nor agree	34%	38%	16%	32%	35%	19%
		Agree	61%	56%	83%	62%	59%	79%
100. My ord	panization does not grant any preference or advantage	Disagree	12%	13%	5%	12%	12%	10%
	thorized by law, regulation, or rule.	Neither disagree nor agree	37%	41%	16%	32%	35%	15%
	and the second of the second o	Agree	52%	46%	79%	56%	52%	75%
101. Pennle	e in my organization do not engage in employing or	Disagree	12%	14%	6%	12%	13%	8%
	ting relatives.	Neither disagree nor agree	29%	32%	15%	25%	27%	15%
F. 5.110	 	Agree	59%	53%	79%	63%	60%	77%
102. My ord	anization does not retaliate against whistleblowers,	Disagree	11%	12%	5%	9%	10%	7%
	er they are employees or applicants.	Neither disagree nor agree	59%	63%	39%	60%	65%	39%
	2 1 2 1 1 mm - 1 mm	Agree	30%	24%	57%	30%	26%	54%
103. My oro	panization does not discriminate based on actions not	Disagree	12%	13%	5%	13%	14%	4%
	ely affecting performance.	Neither disagree nor agree	47%	50%	32%	46%	49%	28%
	<i>y</i>	Agree	41%	36%	64%	42%	37%	68%

st The total column represents the responses of both supervisory and non-supervisory employees in this Group.

4-26 Implementation Report

In an effort to collect additional data on the subject, Booz-Allen conducted several types of focus groups. The majority of these groups were with randomly selected employees; however, additional groups were run where the participants were selected based on their race and/or gender. These groups were designed to give both minority employees and female employees a direct forum to address any concerns unique to their group. Data from these groups, as well as the remaining randomly selected groups, do not indicate any perception of institutional bias as a result of any of DoC's human resources management practices (Demonstration Project interventions or standard practices). When discussing discrimination against any group (minorities, women, veterans), employees felt that it was more likely to occur as the result of an individual employee's behavior as opposed to an institutional policy. Table 4-3 presents some of the relevant themes from the focus groups.

Demonstration Group	Comparison Group	"Special" Minority/ Gender Groups
The outcome is the	Do not feel HR practices have had	Too soon to tell
same as beforeNo opinion	a negative impact on	There are several female
	minority/gender groups	employees at this facility
There is a possibility but that is present with any	HR practices do not have a positive impact	There has not been a negative impact as a result
system	Don't know what impact they have	of Demonstration Project
	Everyone is affected equally	interventions

Table 4-3. Focus Group Results – Minority/Gender Issue (Non-Supervisory Employees)

4.6.2. Objective data indicate no support for the idea that any of the Demonstration Project interventions created adverse impact for veterans or other EEO groups during the Implementation Year.

Booz-Allen obtained objective data pertaining to the distribution of performance appraisal scores, performance increase percentages, and bonus percentages for all participants in the Demonstration Project. These data were used to establish a link between pay and performance via regression analysis (See Section 4.3 starting on page 4-6 regarding the linkage). When Booz-Allen controlled for ethnicity and gender, the results demonstrated equal strength in the link between pay and performance for these groups. Table 4-1 provides average performance ratings, merit increase percents, and performance bonus percents for different groups. The results show no discriminatory impact on veterans or other EEO groups.

4.6.2.1. In the Demonstration Group, there is no support to indicate that protected classes are treated unfairly in regards to pay increase percentages and bonus percentages, relative to performance scores.

Building further on these findings, Booz Allen examined whether the link between pay and performance is also apparent when looking at different protected classes within the Demonstration Group. To do this, Booz Allen used analysis of covariance (ANCOVA) to determine if differences between, for example, average pay increases for minorities and non-minorities were the same or significantly different.

ANCOVA analyses were used because this technique allows us to account for factors expected to affect average increases and bonuses. Prior to calculating and comparing means across groups (e.g., minorities versus non-minorities) we controlled for performance rating, length of service, and career path, factors which could affect average pay increases or bonuses within a group. Once the three covariates (performance rating, length of service, and occupational group) were entered into each ANCOVA analysis, "adjusted" means were generated. These adjusted means were then compared for each of the protected classes investigated (minorities, females, and veterans).

Table 4-1 presents raw data on average performance appraisal scores, raw data on average pay increases and bonuses, and the adjusted means produced by the ANCOVA analyses. The table is broken down by protected class. These data suggest that, in most cases, the performance-pay link is evident within protected classes (i.e., the subgroup with the higher performance rating had a higher average increase while the subgroup with the lower performance rating had a lower increase).

Table 4-1. Average Performance Appraisal Scores (Raw), Pay Increase Percentages (Raw and Adjuste	d)
, and Bonus Percentages (Raw and Adjusted) for the Demonstration Group	

Subgroup	Performance Appraisal Scores	Average Pa Perce	ay Increase ntage	Average Bonus Percentage		
	Appraisar ocores	Raw	Adjusted	Raw	Adjusted	
Minority	80.34 points	2.73%	2.70%	1.46%	1.50%	
Non-Minority	82.33 points	2.73%	2.74%	1.72%	1.71%	
Female	82.64 points	3.10%	2.76%	1.95%	1.88%	
Male	81.53 points	2.50%	2.71%	1.50%	1.54%	
Veteran	79.38 points	2.26%	2.67%	1.49%	1.63%	
Non-Veteran	82.22 points	2.78%	2.74%	1.69%	1.67%	
Total	81.95 points	2.73%		1.67%		

Notes:

- 1. The average performance appraisal score for each Demonstration Group subgroup is the average number of points received under the 100-point system. Performance data for Demonstration Group employees are based on appraisals conducted in September 1998, and as reported in the January 1999 data file provided by DoC. Average increase and bonus percentages are based on actions effective in November 1998, as reported in the January 1999 data file provided by DoC.
- 2. The minority group includes all non-White personnel.
- 3. Adjusted averages were computed by statistically controlling for performance rating, career path, and length of service.

Overall, these results suggest that the pay for performance system did not reward participants differently based on race, gender, or veteran status in terms of average performance increases or bonuses. These data will be tracked throughout subsequent years of the Demonstration Project to monitor for potential differential impacts at future points in time.

4.6.2.2. Similar patterns emerge in how members of protected classes fare in the Demonstration Group versus the Comparison Group.

Booz Allen examined Comparison Group data on performance appraisal scores, pay increase percentages, and bonus/award percentages to develop baseline data of differences between the Demonstration and Comparison Groups during the Implementation Year. (In subsequent years, trend data also will be examined.) Direct comparisons were not always possible due to the differences inherent in the different systems. Table 4-1 displays the data sources used from each group for purposes of comparison.

Demonstration Group	Comparison Group
Scores on a 100-point performance appraisal system	Scores on a 2-level performance appraisal system
Performance Increase	Step Increase
	Quality Step Increase
	Promotion Increase (when the promotion was equivalent to transition within a pay band under the Demonstration Project)
Bonus	Performance Awards

Table 4-1. Data from Demonstration and Comparison Groups Used for Comparisons

A direct comparison between the two groups for performance appraisal scores was not feasible since different performance appraisal systems are used. Demonstration Group participants were evaluated on a 100-point performance appraisal system. As described in Section 2.5.3, there were two performance appraisal systems being used by organizations in the Comparison Group; ESA (with 64 employees in the Comparison Group) used the traditional 5-level performance appraisal system, whereas NOAA (with 1,643 employees in the Comparison Group ⁴) used a 2-level performance appraisal system (i.e., pass/fail) that is being studied for effectiveness. Because most of the Comparison Group participants were evaluated on the 2-level system, the scores of the remaining employees in the Comparison Group were converted to the two-level system⁵ for purposes of composing a group average for the entire Comparison Group. Table 4-2 displays the results, broken out by protected subgroups.

⁴ There was a total of 1,707 participants in the Comparison Group as of January 31, 1999 (64 from ESA and 1,643 from NOAA).

⁵ Scores from the 5-level system were converted to the 2-level system as follows: Levels 1 (unacceptable) and 2 (marginal) were converted to "fail." Levels 3 (fully successful), 4 (level between fully successful and outstanding), and 5 (outstanding) were converted to "pass."

Table 4-2. Comparison of Performance Appraisal Scores (Raw), Average Pay Increases (Adjusted), and Average Bonuses/Awards (Adjusted)

	Performance Appraisal Scores		Average Pay Increase Percentage		Average Bonus/Award Percentage	
Subgroup	Demonstration Group	Comparison Group	Demonstration Group	Comparison Group	Demonstration Group	Comparison Group
Minority	80.34 points	100% Pass; 0% Fail	2.70%	1.94%	1.50%	1.28%
Non-Minority	82.33 points	100% Pass; 0% Fail	2.74%	1.92%	1.71%	1.11%
Female	82.64 points	100% Pass; 0% Fail	2.76%	1.93%	1.88%	1.22%
Male	81.53 points	100% Pass; 0% Fail	2.71%	1.92%	1.54%	1.09%
Veteran	79.38 points	100% Pass; 0% Fail	2.67%	1.72%	1.63%	0.70%
Non-Veteran	82.22 points	100% Pass; 0% Fail	2.74%	1.94%	1.67%	1.17%

Notes:

- 1. The average performance appraisal score presented for each Demonstration Group subgroup is the average number of points received under the 100-point system. The numbers presented for the Comparison Group subgroups are the percentages of employees who received "Pass" or "Fail" under the 2-level system. Performance data for Demonstration Group employees are based on appraisals conducted in September 1998, and as reported in the January 1999 data file provided by DoC. Performance data for Comparison Group employees are based on appraisals occurring between March 28, 1998 and January 31, 1999 and as reported in the January 1999 data file provided by DoC.
- 2. Average pay increase and bonus/award percentages are based on actions occurring between March 28, 1998 and January 31, 1999 as reported in the January 1999 data files provided by DoC.

Some comparisons can be made between the two groups in regards to pay increases and bonuses/awards. Employees in the Demonstration Group were evaluated based on a pay-for-performance system; hence, their pay increases were based on performance. In contrast, employees in the Comparison Group are under the traditional federal pay system. They received the traditional salary increases including step increases (as appropriate), quality step increases (as awarded), and increases related to promotions. In addition, some employees received performance awards; these award amounts did not affect base salary.

Hence, for purposes of comparison with the Demonstration Group, the Comparison Group's step increases, quality step increases, and promotions (when those promotions are equivalent to a "within band" increase in pay in the Demonstration Group) were considered comparable to the performance increase given in the Demonstration Group. The Comparison Group's awards were considered comparable to the bonuses given in the Demonstration Group.

In addition to the performance appraisal data, Table 4-2 also presents a comparison of the average pay increase and the average bonus/award (presented as percentages of base salary), broken out by protected subgroups, across the Demonstration and Comparison Group. After accounting for performance rating, length of service, and career path in the ANCOVA analyses (thus producing adjusted means), these data suggest that similar patterns emerge in how members of protected subgroups fared in the Demonstration Group and in the

Comparison Group in terms of average pay increase percentages and average bonus/award percentages. For example, although veterans received lower pay increase percentages than non-veterans in the Demonstration Group (in line with their lower performance ratings), the same was true in the Comparison Group.

In order to more closely examine the link between performance and pay in the Comparison Group, DoC would need to gather separate data. We can compare salary increases with the recognition that those increases in the Comparison Group are not linked to differential performance, but rather to satisfactory performance that results in Step Increases over time. For example, NOAA's salary increase decisions are de-linked from the performance appraisal process; therefore, there is no differentiation made in performance rating to equate with the salary increase.

Because Reduction-in-Force (RIF) credit has been a concern of DoC employees in the Demonstration Project, DoC will need to track the employees eligible for RIF credit based on performance. During the implementation year, an employee was eligible for RIF credit if his/her performance score was within the top 20% of scores in the pay pool. The Performance Payout System allows DoC to identify Demonstration Project employees who are eligible for performance-based RIF credit. DoC will also need to identify Comparison Group employees eligible for this credit and analyze the impact of the RIF credit intervention on protected classes.

4.7. The Demonstration Project implementation emphasized the pay for performance interventions; additional actions are needed to achieve the objectives of hiring and retaining higher performing employees.

A general conclusion of the activities during the implementation year is that the interventions associated with the pay for performance system were put into place and are currently being used. These include: the career paths and pay bands, the new performance appraisal system, delegated pay authority, delegated classification authority, and pay increases and performance bonuses based on job performance.

The hiring and retention interventions which are not being fully utilized include: Direct Examination, Agency-Based Staffing, flexible paid advertising, and recruitment and retention payments.

4.7.1. The Demonstration Project Team established a sound infrastructure to implement and manage the project, after two years of planning and preparation.

Focus group feedback, primarily from non-supervisory employees, stated that the project was implemented too quickly. However, this may be a perception due to insufficient information being provided to participants, not inadequate planning and preparation by management. There was actually a huge amount of time and energy devoted to all aspects of the project prior to the actual implementation, from decisions about which interventions to include to the actual conversion of occupations into career paths, and grades and steps into pay bands.

Implementation Report 4-31

4.7.1.1. DoC implemented the key interventions for pay for performance, but not the recruiting and retention interventions.

The evaluation results clearly show that the pay for performance system was implemented and is currently operating accurately. The new performance appraisal system is being used, and there is a link between performance appraisal ratings (the measure of job performance) and both pay increases and performance bonuses.

The focus of the first year was on the pay for performance system. As a result of the amount of time and energy it took to implement that system, the recruiting and retention interventions were not fully implemented in that they were not utilized as much as they could have been. One indication of the lack of utilization is in the use of recruitment payments. While 324 personnel were hired into the Demonstration Group during the past year, there were only three recruitment payments issued.

4.7.1.2. DoC established the management and operational structure needed to implement the project.

DoC established a management structure with the responsibility and authority to implement and manage the Demonstration Project. The daily operations are managed by the Operating Personnel Management Boards (OPMBs), which were established for each organization participating in the Demonstration Group. The OPMBs oversee the project within their respective operating units and provide feedback and make recommendations for changes to the Departmental Personnel Management Board (DPMB). The DPMB is staffed by senior managers from each participating organization and has the authority to make changes in the project plan and operating procedures of the Demonstration Project. Major policy changes proposed by the DPMB require approval from OPM. Accordingly, it is the DPMB, in conjunction with OPM, that has the authority to make corrections in order to enhance the success of the project. A number of changes to the project have already been made.

The Demonstration Project Team developed an operating procedures manual to standardize and guide the operations of the project under the authority delegated by the DPMB.

The procedures included in the manual are based on the policies and procedures contained in the final *Federal Register* notice of December 24, 1997. The manual states that the procedures included apply to all operating units. It also states that the procedures are binding and that major changes to or deviations from the procedures must be approved by the DPMB Chair, based on recommendations from the OPMB Chairs.

The Demonstration Project Team trained all managers and HR staffs on all aspects of the project.

Training was conducted for all managers and Human Resources Management staff participating in the Demonstration Project and included the following sessions:

- Project overview
- Review of operating procedures

- Position classification
- Hands-on training with the automated classification system
- Staffing and reduction-in-force
- Pay administration
- Performance
- Hands-on training with the performance payout system
- Administration of the Demonstration Project.

The Demonstration Project Team developed a communication plan to guide the presentation of information to Demonstration Project personnel.

The communication 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 site on the OHRM Home Page.

The Demonstration Project Team supervised the development of the Automated Classification System and the Performance Payout System.

These two systems are critical to the operation of the project. The Automated Classification System is used by managers to create position descriptions and classify them at the same time. The Performance Payout System is used to determine and record pay increase and bonus amounts using performance appraisal rating scores.

Demonstration Project Team members are also serving as site historians for the project but documented no organizational or economic changes that would have affected the evaluation data collected.

Demonstration Project Team members are in the best positions to serve as site historians since they are involved in the daily operations of their respective organizations. It is critical that the effects of external forces be taken into account when evaluating the effects of the Demonstration Project. Such a change would include an event that took place in a Demonstration Group that had an impact on one or more of the interventions in the project.

4.7.1.3. The DPMB and the Demonstration Project Team monitored the implementation and made important changes in operating procedures during the first year.

Several changes were made by project management during the first year. The most significant change was to remove the ranking of employees within pay pools. The problem was that employees viewed the ranking process as adversarial, pitting employees against each other in competition for performance pay increases. The solution was to use the ordering of performance appraisal scores as the basis for determining pay increases.

A second change was made in allocating RIF credits for the Demonstration Group. The final *Federal Register* notice stated that RIF credit would be given to persons in the top 20% of performance appraisal rating scores. Employees responded in the focus groups that the

Implementation Report 4-33

awarding of RIF credit should be expanded to include a greater percentage of employees. The Demonstration Project Team recommended expanding the RIF credit to persons in the top 30% of rating scores, and the recommendation was approved by the DPMB.

The changes were approved by OPM and announced in the *Federal Register* notice published on September 30, 1999. The changes were effective on October 1, 1999, at the beginning of the third performance year.

The team has also been responsive to the need for changes in the information technology (IT) systems developed for the project. Specifically, DoC has been responsive to the need for changes in the Performance Payout System (PPS).

Both the OPMBs and the DPMB closely monitored the implementation of the project and have been sensitive to suggestions for project improvements.

4.7.2. Lessons learned from this implementation year are helpful, but do not indicate any major flaws in the Demonstration Project.

There were many lessons learned during the first year of the project. Supervisors had to devote much more time than they had anticipated to the performance management process. As a result, several additional interventions were not fully utilized. However, the remaining interventions will be utilized to a greater extent during the second year of the project. It is important to know that data collected from all sources (interview, focus groups, and the survey) support continuing the project. There are no major flaws in the project; only the need to improve on what has been accomplished so far.

4.7.2.1. At the beginning of major changes, employees and supervisors do not understand the implications of the changes; one-time communication and training are not sufficient.

The training and communications programs which were used to present information on the project have already been discussed. The programs were very thorough in their coverage of the program interventions and the operation of the project. However, the information was presented over a very short timeframe and the impacts of the changes were not evident until later in the year. In a project of this size and scope, it is important that training and communication be ongoing.

4.7.2.2. Comparison Group managers need to be kept informed of the activities of the Demonstration Project.

The emphasis during the first year was on the work that needed to be done to get the Demonstration Group functioning and the project operating. This report has documented and discussed all that was accomplished during the first year, and the work that remains to be done. During the first year of operation, the Comparison Group was not kept fully informed or involved in the project. Participants in the Comparison Group focus groups often responded that they did not know anything about the Demonstration Project and were surprised at the questions asked during the focus groups. Managers were surprised that employees in their organizations were being asked to participate in focus groups and survey.

4.7.2.3. Lack of information about overall results of the Demonstration Project left employees to make the worst possible interpretations.

It is important that Demonstration Project participants are given information about both the intent of the interventions, and the results. Otherwise, they are going to draw their own conclusions. For example, many non-supervisory focus groups participants said that supervisors received an automatic 6% pay increase when the project began. They also said that this was unfair since supervisors were already being paid more for being supervisors and should not get an automatic raise. There was no automatic raise for supervisors – supervisors must earn their increases and have them awarded during the normal rating cycle. Non-supervisory employees also did not understand the appraisal process and how performance bonuses were determined; they anticipate that there would be favoritism involved in the process.

4.7.2.4. Supervisor workload increased, which appears not to have been anticipated.

The workload of supervisors and managers increased substantially with the implementation of the project. Managers and supervisors stated that they wanted the flexibilities provided by the project but were surprised at the amount of work that it took to initially implement them and manage the project during the first year. Non-supervisory focus group participants said that the performance appraisal system would have worked better if supervisors had not been so overworked, doing appraisals and doing their own technical work.

Implementation Report 4-35

5. ANSWERS TO RESEARCH QUESTIONS

This section presents the overarching results of our assessment of the Demonstration Project. Multiple methods of data collection were used to answer questions on the effectiveness of the project implementation.

As described in Chapter 2 of this report, the Demonstration Project evaluation will attempt to answer research questions identified by OPM as well as DoC. Tables 5-1 and 5-2 display, for each key research question, a response based on the data collected. Table 5-1 also indicates where, within this report, additional information about each research question has been discussed. As shown below, the Demonstration Project has not been operational long enough to truly assess its effectiveness, and more data are needed in the remaining evaluation years.

5.1. The six areas that are critical in evaluating the success of OPM-sponsored Demonstration Projects focus on whether or not the interventions are better than traditional human resources practices. The evaluation of the implementation year indicates that the project has started effectively, but results are not yet evident.

Table 5-1. Answers to OPM Research Questions

OPM Research Questions	Answers	Where To Locate Additional Information
Did the project accomplish the intended purpose and goals? If not, why not?	It is too early in the project to assess the success of the project against long-term, ultimate outcomes. The goals of the Implementation Phase were to implement all of the proposed interventions. The classification, career paths, pay banding, performance appraisal, and pay for performance components were implemented.	The Summative Report (at the end of the fifth year) will provide this evaluation. The Operational Report (at the end of the third year) will assess progress toward goals.
	Recruitment, hiring, and retention interventions were not fully utilized due to demands on managers and supervisors to implement the performance management components and because some of the objectives of the recruitment interventions were achieved through use of the pay tools.	Introduction Chapter 4 – Findings and Conclusions

Implementation Report 5-1

OPM Research Questions	Answers	Where To Locate Additional Information	
Was the project implemented and operated appropriately and accurately?	Many interventions of the project were implemented. Others were not implemented during the first year but will be during the second year. The performance management system is being operated as a pay for performance system. There must be additional information and training provided to Demonstration Group personnel in order to make interventions such as the performance appraisal system more effective. There needs to be a major emphasis placed on using the recruiting and retention interventions strategically to achieve the workforce objectives.	Chapter 4 – Findings and Conclusions Section 4.3. – Pay for Performance System Several parts of Chapter 4 address the need for information and training for Demonstration Group employees Section 4.4 – Recruitment and Retention interventions	
What was the cost of the project?	Not required for the Implementation Report.		
What was the impact on veterans and other EEO groups?	Results from the Implementation Year indicate that the project has not adversely affected veterans, women, or minorities. The consensus of interviews and focus groups is that there have not been any changes in how these groups are treated. These opinions are supported by objective data. Survey results indicate the organizations participating in the Demonstration Project are already operating fairly toward veterans and EEO groups.	Section 4.6 – Merit System Principles and Prohibited Personnel Practices Appendix A – descriptive statistics for all survey questions Appendix C-2 – Analyses of the Linkage between Pay and Performance	
5. Were Merit Systems Principles adhered to and Prohibited Personnel Practices avoided?	Focus group results indicate that there have been no changes in either adherence to Merit System Principles or avoidance of Prohibited Personnel Practices since the Demonstration Project was implemented in March 1998. Survey results confirm the focus group feedback.	Section 4.6. Merit System Principles and Prohibited Personnel Practices	
6. Can the project or portions thereof be generalized to other agencies or government-wide?	It is too early in the life span of the Demonstration Project to assess the generalizability of the outcomes of interventions. Despite organizational differences in implementing and operating project interventions, at the end of the Implementation Year the project is achieving similar results in all of the organizations participating in the Demonstration Group. The same training was provided in all organizations. All organizations are using the same performance appraisal forms. Most importantly, the pay for performance intervention was implemented and is operating as such in all participating organizations, demonstrated by a positive relationship between performance ratings and rewards.	Recommendations for limited or government-wide expansion are not expected until the Summative Report which is due at the end of the project Section 4.3.4. – Performance Bonuses Section 4.3.2. and 4.3.3. – Pay for Performance System Appendix F – Implementation Documents	

5-2 Implementation Report

5.2. The Department of Commerce has high expectations for the results of the Demonstration Project, with its research questions focused on creating improved organizational and individual performance. The evaluation of the implementation year indicates that DoC has tied pay to performance but has not yet fully implemented the hiring and retention interventions that could affect the quality of the workforce.

Table 5-1. Answers to Evaluation Model Research Questions

	Research Questions From DoC Expanded Evaluation Model	Answers
1.	Has the quality of new hires increased?	The first year of the Demonstration Project focused on implementing the proposed interventions and
	Has there been an improved fit between position requirements and individual qualifications?	managing personnel within the scope of the project. As such, the evaluation of the first year focused on
	Has there been a greater likelihood of getting a highly qualified candidate?	how effectively and accurately the project interventions were implemented. They have not been implemented long enough to determine if these interventions are
2.	Has retention of good performers increased?	having any effect.
3.	Has individual and organizational performance improved?	DoC implemented the pay for performance interventions; it has not yet fully implemented the hiring and retention interventions.
4.	Is Human Resources management more effective?	Managers said that, while they expect the Demonstration Project to achieve all of these results, it
5.	Is Human Resources management more efficient?	is too early to expect any substantial changes.
6.	Is there improved support for EEO/diversity goals in recruiting, rewarding, paying, and retaining	The consensus of focus group feedback is that it is too early in the project to measure success.
	minorities? Are opportunities for a diverse workforce being provided? Are the contributions of all employees being maximized?	Survey results also suggest more time is needed before there will be any changes in perceptions regarding these research questions.

Implementation Report 5-3

6. RECOMMENDATIONS

The DoC Personnel Management Demonstration Project implemented a number of interventions that are designed to increase the efficiency of the personnel system, institute a pay for performance system which links job performance to rewards, delegate greater authority to managers, and improve recruitment and retention of high performers. This chapter presents Booz-Allen's recommendations for continued implementation and operation to allow testing of the effectiveness of the interventions in achieving DoC's organizational objectives.

6.1. DoC should provide information about the results of the pay for performance system so that employees understand the link that has been established between performance and rewards.

Employees responded in both the survey and focus groups that they do not perceive there is a strong link between pay and performance, and they do not understand how bonuses are determined or distributed. However, the analysis of objective data shows a positive link between performance and both pay for performance increases and performance bonuses. All employees in the Demonstration Group need feedback on the current results, as well as an explanation of what this link means for the remainder of the project.

6.1.1. Follow-up communication and training should be provided to employees to enable them to better understand the performance appraisal process.

Both supervisors and non-supervisory employees responded that they are willing to participate in the new appraisal process but they are taking a "wait and see" approach. Supervisors responded in the survey that the new appraisal system enables them to identify good and poor performers. Non-supervisory employees want to see how the system will be used and are concerned that there may be some favoritism in the ratings.

Employee uncertainty and concerns about the new appraisal process may be due to the quick rollout of the system, and the lack of follow-up training and communication about the system implementation. To improve employee understanding and acceptance, DoC should provide employees with updated information about the performance appraisal process.

Communications should cover first-year results of the new pay for performance system (e.g., average frequency and percentages of salary increases, number of performance bonuses provided). In addition, employees should be provided with an opportunity to ask questions and voice their concerns with the new system, based on their experiences.

6.1.2. There must be ongoing communication between supervisors and their subordinates on job performance so that supervisors will not be overburdened immediately before the rating cycle.

The implementation process proceeded quickly during the first year of the project. Supervisors said that they had so much more work to do with implementing and managing

Implementation Report 6-1

the changes, along with doing their technical work. They also said that the first rating cycle came upon them too quickly; and that everything associated with the rating process had to be completed seemingly at once. Additionally, both Demonstration and Comparison Group employees indicated that the performance appraisal tools are not as effective as they could be because supervisors are overworked.

To improve the effectiveness of the new performance appraisal cycle, supervisors need to be trained on its optimal use. Supervisors received initial training on the new appraisal process, completing the new forms, and on the importance of providing ongoing coaching and feedback to employees. Additional follow-up training would benefit employees as well as supervisors, who are currently overburdened by last minute provision of performance feedback. In addition to receiving follow-up training, supervisors should be encouraged to work together to discuss their experiences with the new system and determine solutions to any problems they may have encountered.

6.2. DoC must work with Demonstration Project managers and Human Resources staffs to fully implement and use the recruitment and retention interventions as a strategic tool for achieving a higher performing workforce.

Feedback from both interviews and focus groups was that recruitment, hiring, and retention were operating much as they had before the project began. There are three possible reasons for there being no changes in these areas. The first is that the Federal Employees' Pay Comparability Act of 1990 (FEPCA) provides incentives which are much the same as those offered in the Demonstration Project, including direct examination authority, and retention and recruitment payments. Thus, these interventions are no longer "innovative." The advantage in the Demonstration Project may be that the payments are authorized at a lower level in the organization than with FEPCA. A second reason for under-utilizing these interventions may be that managers focused on putting the performance management system in place. The third reason may be that the pay flexibilities in starting salaries and increases may have lessened the need to rely on recruitment and retention payments. The fact remains, however, that the Demonstration Project has an objective of a higher performing workforce, and all tools should be utilized in a strategic manner.

6.2.1. DoC needs to establish a comprehensive strategic approach to recruiting higher quality candidates.

The individual recruitment interventions are familiar to DoC managers and Human Resources professionals. To be effective within the Demonstration Project, they need to be formed into a comprehensive strategy with the objective of filling all vacancies with recruits that will meet the definition of "higher quality candidates." The interventions of paid advertising, Agency-Based Staffing, Direct Examination, recruitment payments, and flexible starting salaries, should be discussed between hiring managers and Human Resources professionals and combined into a comprehensive strategy for each position being filled.

6.2.2. DoC must ensure that recruitment and retention payments are used effectively by tracking their use and linking payments to the quality of new hires and employees.

The analysis of objective data revealed that recruitment and retention payments were used sparingly during the Demonstration Project's first year (3 recruitment payments for 324 new hires, and no retention payments). These payments should be used more often if they are critical to the recruitment and retention of high quality personnel. It is also important to link these payments to measures of the quality of new hires (e.g., education and experience) and the quality of employees (i.e., performance rating) to determine whether the interventions are effective. Additionally, the performance of new staff who received recruitment payments could be compared with that of other new hires to determine if the recruitment payments do promote high quality personnel. Those who receive retention payments should be tracked to determine if they are retained over the long run.

6.3. DoC needs to articulate, coach, and reward the role of a supervisor under the pay for performance system.

One key success factor in a pay for performance system is for those who are making decisions about the quality of performance to be perceived as knowledgeable and fair. Within the Demonstration Project, supervisors prepare the performance ratings. They reported that the new system requires a lot of additional work, to prepare performance plans with employees and to provide feedback on the rating. This role needs to be emphasized and rewarded, similarly to the role of performing technical work.

To ensure optimal supervisory performance, supervisors need to understand their roles in the context of the broader organizational mission. This requires that supervisors have a clear understanding of the performance expectations for their staff in relation to the expectations for staff in other sections of the pay pool. The performance of one supervisor's employees needs to be viewed in relation to achievement of overall agency goals (as represented by the pay pool).

6.3.1. The Demonstration Project needs to develop a performance appraisal process that reduces variation in ratings among supervisors.

Employees and supervisors both reported that some pay pool managers changed the ratings assigned by supervisors, and that some supervisors are "hard" raters and some are "easy" raters. These perceptions do not engender trust in the pay for performance system. In fact, some pay pool managers and supervisors reported conducting rater training sessions among themselves, although they didn't use the term. Supervisors met and conferred on their performance ratings, recorded rating differences, and established performance standards. This process should be instituted more systematically throughout all Demonstration Group organizations.

6.3.2. The Demonstration Project needs to develop a direct link between supervisory performance and monetary rewards in order to attract employees into supervisory positions.

The skills of supervision need to be trained, evaluated, and rewarded similarly to technical and business skills. The Demonstration Project needs clear evidence that supervisors are receiving pay for performance in accordance with their supervisory skills (even when the supervisor's salary has not reached the level to be labeled Supervisory Performance Pay). Some supervisors perform their supervisory function more effectively than others; those who are better at the supervisory role should be recognized through the performance increases and bonuses. Recognizing high performance supervisors (while at the same time recognizing high performance technical staff) will encourage employees who have supervisory skills to seek supervisory positions. Since many technical staff prefer to perform work in their discipline, and since technical performance will be rewarded without the need to assume supervisory responsibilities, DoC will need a systematic way to identify and attract employees who will perform well in supervisory roles.

6.4. More information must be provided to employees and supervisors so they understand the new career paths.

To enhance employee understanding and acceptance of the new career paths, DoC should provide employees with additional guidance about the purposes of the career paths, and answer any questions or concerns employees may have about assignment of occupations to career paths.

Non-supervisor focus group participants said that they did not understand why such different occupations were placed in the same career path and that they did not understand how classification decisions were made. Additionally, the final *Federal Register* notice (December 24, 1997, p. 67437) stated that questions concerning changes in careers paths could be considered after the first year.

DoC should implement its current plans to review the assignment of series into career paths. Additionally, it should solicit and provide answers to employee questions about the classification procedures.

6.5. DoC needs to review the extended probationary period intervention to determine whether it can be evaluated during this Demonstration Project.

There are two reasons why the three-year probationary period may not be an intervention that can be evaluated in this Demonstration Project. The first reason is that this extended probationary period applies only to ZP employees conducting R&D work; DoC needs to generate a census of positions that are performing R&D work. However, DoC has done very little hiring during the past year and only a small number of new hires would be eligible for this intervention.

The second reason is that supervisors said in their focus groups that the one year probationary period was enough time to determine whether a person could do the work and would fit into the group. This perception implies that supervisors do not see the need to extend the probationary period to be able to observe performance over the full R&D cycle. If they are inclined to take R&D employees off probation after one year, they may not be contributing to the concept of developing "higher performing employees" by not reviewing performance during the entire three year R&D cycle.

While the small number of employees eligible for an extended probationary period may inhibit thorough evaluation of this intervention, it is important that DoC strive to implement this aspect of the Demonstration Project. As learned from the NIST Demonstration Project, supervisors were more likely to accept and use the extended probationary period over time. Indeed, its usefulness can only be seen after the full three-year cycle has been completed. To be implemented effectively within the Demonstration Group organizations, R&D supervisors must be encouraged to extend the probationary periods for new hires. The benefits of the extended period should be communicated to supervisors on a regular basis; lessons learned from NIST should also be shared with supervisors to encourage their acceptance of this intervention. Additionally, when a supervisor decides to take a new hire off probation after one or two years, he/she should be required to document the observations of performance over the full R&D cycle.

6.6. DoC needs to remain diligent in monitoring the project for disparate impacts on minorities, women, and veterans.

Information from different data sources indicate that the Demonstration Project has not had a disparate impact on these groups (see Section 4.6.2). However, focus group respondents said that there is the possibility of a negative impact present in any personnel system. Due to the strength of these perceptions, management will need to provide specific information about the results in order for the results to be accepted.

6.7. Demonstration Project managers need to identify and collect additional data in order to better track the performance of the Demonstration Project.

The Demonstration Project is currently tracking much of the data needed to monitor and evaluate the success of the individual interventions and the impacts overall. There are, however, additional data that need to be collected in order to determine whether the interventions are successful. Over the next years, DoC should be tracking:

- The number of supervisors who receive increases beyond the top of their pay band
- Employees designated as eligible for RIF credit (to determine impact on Merit System Principles)
- The number of positions classified during the year
- The number of positions reclassified during the year

Implementation Report 6-5

- The number of position classification appeals
- Amount of time spent on classification
- Accuracy of classification decisions
- The number of requests for reconsideration of ratings, scores, and pay increases
- The number of grievances over ratings, scores, and pay increases
- Data on the quality of both applicants and new hires
- Reasons for employees leaving organizations that are participating in the Demonstration Project
- Specific R&D positions affected by the three-year probationary period
- Amount of elapsed time between listing and filling a position
- Reasons given by applicants who decline position offers