

**DEPARTMENT OF COMMERCE  
PERSONNEL MANAGEMENT  
DEMONSTRATION PROJECT EVALUATION**

**YEAR SEVEN REPORT**



Washington, DC  
December 12, 2006

**FINAL REPORT**

Booz | Allen | Hamilton



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## EXECUTIVE SUMMARY

This report presents Booz Allen Hamilton Inc.'s (Booz Allen) assessment of Year Seven<sup>1</sup> of the Department of Commerce Personnel Management Demonstration Project. This Executive Summary provides a summary of the purpose of the Demonstration Project, the status of the personnel innovations after seven years, and recommendations for future actions.

### **ES.1. The Department of Commerce has completed seven years of the Personnel Management Demonstration Project, designed to test and evaluate a series of alternative personnel practices and to determine the generalizability of these interventions elsewhere**

In March 1998, Department of Commerce (DoC) initiated a five-year Personnel Management Demonstration Project (hereafter referred to as the Demonstration Project) as a means of testing and evaluating a series of personnel interventions. This effort was undertaken to determine whether alternative personnel practices are more successful in helping to achieve agency goals than traditional personnel practices. The success of these interventions during the Demonstration Project would help to determine whether any or all of the interventions can be beneficially implemented elsewhere within DoC as well as government-wide.

In 2003, DoC requested and received permission from the Office of Personnel Management (OPM) to both extend and expand the Demonstration Project (the extension was approved through an administrative letter from OPM, dated February 14, 2003; the expansion was announced in a *Federal Register* notice (see Appendix A-4) dated September 17, 2003). The extension permitted DoC to continue operating the Demonstration Project for an additional five years, ending in March 2008 (Years Six through Ten). The expansion permitted DoC, as of October 5, 2003, to expand the coverage of the Demonstration Project to additional organizations within DoC and to increase the number of participants up to the legal maximum of 5,000 participants.

The Demonstration Project was originally designed to apply some of the human resource interventions from an earlier DoC Demonstration Project at the National Institute of Standards and Technology (NIST). The NIST Project achieved highly successful results and, at its conclusion, the interventions were made permanent. The current Demonstration Project seeks to build on the success of the NIST Project and determine whether or not these interventions can be successfully implemented within DoC to a wider range of occupational areas and within organizations with different missions.

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<sup>1</sup> Year Seven covers the time period of April 1, 2004 to March 31, 2005.

ES.1.1. The general objectives of this 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 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 performing 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
- Better human resources systems to facilitate organizational mission and excellence
- Continued support for goals in recruiting, rewarding, and retaining minorities, women, and veterans
- Continued provision of opportunities for a diverse workforce
- Maximization of the contributions of all employees.

ES.1.2. As the evaluators of the Demonstration Project, Booz Allen conducted the Year Seven evaluation to determine the impact of the interventions in Year Seven and over the seven-year period

All Demonstration Projects under 5 USC 47 must be evaluated, by statute, for the life of the project. OPM requires that every Demonstration Project be rigorously evaluated by an outside evaluator. OPM clearly defines processes for evaluating Demonstration Projects. Following OPM guidelines, evaluators submit formal assessment reports at specified time intervals over the course of a Demonstration Project. As the evaluator of the DoC's Demonstration Project, Booz Allen Hamilton Inc. (Booz Allen) submitted an Implementation Year Report, Operational Year Report, and Summative Year Report that assessed the implementation and operation of the Demonstration Project during Year One, Year Three, and Year Five, respectively. In addition, Booz Allen submitted reports in Year Two and Year Four that were designed to serve as mid-course checks. During Years Six through Ten, Booz Allen will continue to conduct annual evaluations to monitor and evaluate the effectiveness of these personnel interventions put in place by DoC.

Multiple data collection methods were used to gather the information needed for Booz Allen's assessment of the effectiveness of the Demonstration Project interventions. These methods included interviews with key program staff and managers, focus groups, a survey, a review of objective data obtained from the National Finance Center (NFC) Payroll/ Personnel System and the Demonstration Project's Performance Payout System (PPS), a review of human resources (HR) summary data, site historian logs, and salary cost data.

In 2003, DoC extended the Demonstration Project for an additional five years and also expanded it to include additional members, some representing organizations new to the Demonstration Project. With the extension and expansion, there are essentially five subsets of participants in the Demonstration Group and Comparison Group. The Demonstration Group is comprised of:

- Participants whose organizations were new to the Demonstration Project in Years Six-Ten and were added to the Demonstration Group (hereafter, referred to as "New Demo," as needed, and included in "Demo Group Wave 2")
- Participants whose organizations were in the original Demonstration Group (i.e., Years One-Five) and who remained in the Demonstration Group in Years Six-Ten (hereafter, referred to as "Original Demo," as needed, and included in "Demo Group Wave 1")
- Participants whose organizations were in the original Comparison Group in Years One-Five and who were transferred to the Demonstration Group for Years Six-Ten (hereafter, referred to as "Comp to Demo," as needed, and included in "Demo Group Wave 2").

The Comparison Group is comprised of:

- Participants whose organizations were in the original Comparison Group (i.e., Years One-Five) and who remained in the Comparison Group in Years Six-Ten (hereafter, referred to as "Original Comp")
- Participants whose organizations were new to the Demonstration Project in Years Six-Ten and were added to the Comparison Group (hereafter, referred to as "New Comp").

The reference to "waves" in these definitions addresses the fact that the expansion changed the composition of the Demonstration Group, to include both individuals who have been in the Demonstration Project for five years (Wave 1) and those who are new to it (Wave 2). Therefore, it is important to consider that they may have different experiences. For this reason, as appropriate, some analyses that are conducted on Demonstration Group data will also be then broken out by Wave 1 and Wave 2. This will provide a means of looking at both the shorter term and longer term impact of the interventions.

The overall purpose of the Year Seven evaluation was to assess the Demonstration Project's seventh year of operation, April 2004 to March 2005 and to consider the impact of the interventions over the seven-year period. Table ES-1 shows OPM research questions and answers based on the data collected during Year Seven.

**Table ES-1. Answers to OPM Research Questions**

<b>OPM Research Questions</b>	<b>Answers</b>	<b>Where To Locate Additional Information</b>
1. Did the project accomplish the intended purpose and goals? If not, why not?	Over the years, the Demonstration Project has been meeting its purpose and many of its goals. Many of the interventions have shown evidence of success. For example, success has been shown in the ability to: 1) use more flexible entry salaries to attract candidates, 2) retain high performers and turn over low performers, 3) link pay and performance, 4) make human resources management more effective and efficient, and 5) support EEO/diversity. Efforts continue to find ways to measure the quality of new hires and organizational performance, to determine whether these goals have also been met.	Introduction Chapter 4 – Findings and Conclusions
2. Was the project implemented and operated appropriately and accurately?	The Demonstration Project was implemented and operated appropriately. The Boards and project team provided ongoing leadership and oversight that guided the Demonstration Project. In addition, technological and other resources were dedicated to the Demonstration Project. Having a defined infrastructure in place appears to have made the process of extending and expanding the Demonstration Project easier.	Chapter 4 – Findings and Conclusions
3. What was the cost of the project?	In Year Seven, salary costs were examined. Two key findings emerged. 1) The compounded average annual growth rate (CAGR) was nearly the same for the Demonstration Group and the Comparison Group, providing evidence that the Demonstration Project has met its goal to be budget neutral and 2) The gap in average per person salary costs between the Demonstration Group and the Comparison Group remained constant over the years. While these findings indicate that the total salary costs have been controlled, compositional differences between the Comparison Group and the Demonstration Group make it difficult to draw more specific conclusions about the effectiveness of salary cost control under the project. OPM reviewers raised concerns about the amount of the average salary increases in the Demonstration Group, especially in Year Seven. Additional scrutiny should be given to how salary increase costs are being controlled. Also, further study is required to explore what factors, beyond the composition differences between the Demonstration Group and the Comparison Group, explain why the average salary increases for the Demonstration Group so significantly exceed average salary increases for the Comparison Group and other Demonstration Projects.	Chapter 5 – Cost Analysis



OPM Research Questions	Answers	Where To Locate Additional Information
4. What was the impact on veterans and other EEO groups?	<p>Consistent with past years, in Year Seven of the Demonstration Project, objective and subjective data indicate that the Demonstration Project has not had a negative impact based on race, gender, or veteran status.</p> <p>Survey findings provide employee opinions that the Demonstration Project interventions have not impacted how these groups are compensated, recruited, or retained.</p> <p>Objective data also provide evidence that the pay for performance system did not reward participants differently based on race, gender, or veteran status. Rather, any differential findings across subgroups appear to mirror what is occurring in the Comparison Group.</p>	<p>Section 4.11 – Findings on the Interventions and Race, Gender, and Veteran Status</p> <p>Appendix D-1 – Analyses of the Linkage between Pay and Performance</p>
5. Were Merit Systems Principles adhered to and Prohibited Personnel Practices avoided?	<p>Implementation of the Demonstration Project’s personnel interventions has not impacted the organization’s adherence to the nine Merit System Principles and avoidance of the 12 Prohibited Personnel Practices. Booz Allen’s findings in Year Seven provide additional support that the administration of the Demonstration Project continues to be in line with these personnel guidelines.</p>	<p>Section 4.10 – Findings on the Merit System Principles and Prohibited Personnel Practices</p>
6. Can the project or portions thereof be generalized to other agencies or government-wide?	<p>Based on the findings over the seven years, it appears that the Demonstration Project has had successes that may have broader potential and appeal elsewhere in DoC or in the Federal Government. The expansion of the Demonstration Project in Year Six to include additional organizations provides evidence for generalizability: while there were some to-be-expected differences in results across Wave 1 and Wave 2, the reasonable similarities suggest that it was possible to apply these interventions in different types of organizational settings. Furthermore, the experiences of pay for performance in the Demonstration Project provides tangible data and lessons learned that can be applied elsewhere in the government, particularly as the Department of Defense and the Department of Homeland Security move forward with their pay for performance based systems. Finally, as noted above in item #3, the Demo Project may provide lessons learned regarding salary cost control as further study of this issue is undertaken.</p>	<p>Chapter 4 – Findings and Conclusions</p>

**ES.2. At the conclusion of seven years, evidence exists that a number of the interventions are having the desired effects**

Results of the Year Seven assessment showed success with a number of the interventions. Many of the interventions that had been effective in past years, such as pay for performance, flexible entry salaries, and more flexible pay increase upon promotion, continued to be effective even with the addition of new organizations as part of the Demonstration Project expansion.

**ES.2.1. Employee satisfaction with the work environment and jobs has not been hindered by the Demonstration Project and, in fact, favorability toward the Demonstration Project itself has continued to increase over time**

Multiple survey questions designed to assess the impact of the Demonstration Project on employee satisfaction were asked of participants from the Demonstration Group and the Comparison Group. Overall, results from Year Seven were consistent with the findings from previous years. For example, Demonstration Group participants and Comparison Group participants reported similar levels of satisfaction with their work environment and their jobs, and supervisory employees perceived both their work environment and their jobs more favorably than did non-supervisory employees. In addition, trend analyses across the years demonstrated that work environment satisfaction and job satisfaction have remained relatively stable. Favorability toward the Demonstration Project continued to increase, among both Demonstration Group and Comparison Group participants.

**ES.2.2. Demonstration Group participants continued to view greater potential for career progression than do the Comparison Group participants**

For Demonstration Group participants in the Demonstration Project, comparable occupations that could be treated similarly for classification, pay, and other purposes were aggregated into career paths. The change to career paths, along with broadbands and Departmental broadband standards, were expected to simplify, speed up, and improve the quality and flexibility of classification.

Survey data continued to show that Demonstration Group participants are more optimistic about their potential for career progression than Comparison Group participants. They are more optimistic about their advancement opportunities and recognized the impact of the job classification system on their career progression. Moreover, Demonstration Group participants' perceptions have continued to improve over time.

ES.2.3. Demonstration Group participants are adapting to the classification system and Demonstration Group supervisors are adapting to their responsibilities as part of the classification process

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

ES.2.4. Understanding and acceptance of the new performance appraisal system continues to improve

DoC implemented a new performance appraisal system as part of the Demonstration Project. Initially, Demonstration Group participants seemed to struggle with understanding and accepting the new process. In Year Five, data suggested that Demonstration Group participants were growing more comfortable with the performance appraisal system. Although progress continues to be made with the process, the Year Seven data suggested that there are still opportunities for improvement, particularly in the areas of ongoing performance feedback and greater transparency.

ES.2.5. The pay for performance system continues to exhibit a positive link between pay and performance

A series of interventions were implemented during the Demonstration Project to improve the relationship between high performance and financial reward. These interventions include performance-based pay increases, performance bonuses, more flexible pay increases upon promotion, and supervisory performance pay. Year Seven analyses highlight the following:

- Demonstration Group participants received larger average performance-based pay increases than did Comparison Group participants (3.23 percent of salary<sup>2</sup> versus 2.65 percent of salary)
- Among the four career paths<sup>3</sup>, ZP and ZA fared best for performance-based pay increases and ZS fared best for performance-based bonuses
- Demonstration Group participants received larger performance-based bonuses/awards than did Comparison Group participants (1.93 percent versus 1.85 percent)

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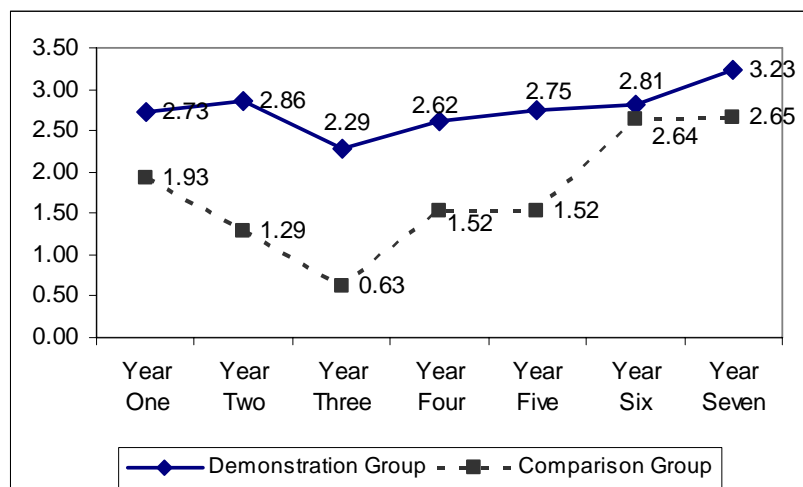
<sup>2</sup> Unless stated otherwise, references in this document to “percent of salary” or “pay increase percentage” pertain to performance-based pay increases from the beginning to the end of Year Seven; this concept is not intended to be synonymous with the “percent of percent” concept often discussed in the context of the Demonstration Project.

<sup>3</sup> Under the Demonstration Project, Demonstration Group occupations are grouped into four broad career paths: ZP – Scientific and Engineering, ZT – Scientific and Engineering Technician, ZA –Administrative, and ZS – Support.

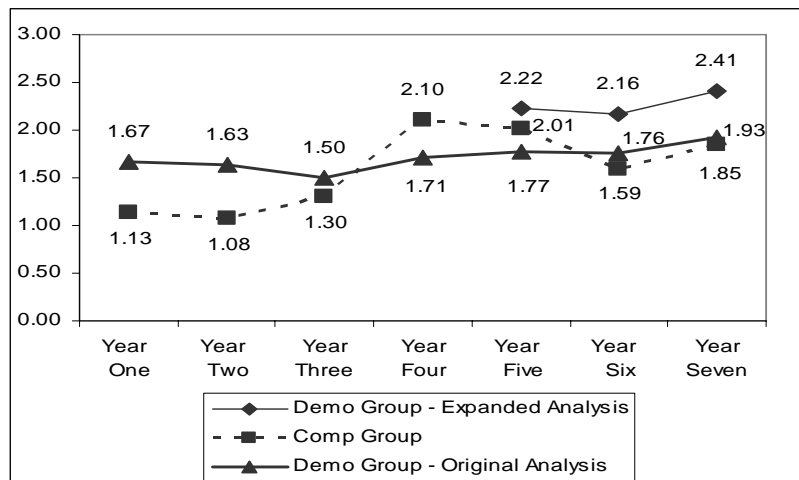
- The average performance score dipped after steadily increasing over the life of the Demonstration Project (in Year Seven, the average score was 85.9 points and the median score was 87.0 points); this decrease may be partially explained by the gap in average performance appraisal scores between Wave 1 (87.2 points) and Wave 2 (83.0 points) participants
- Based on a regression analysis, performance score was a consistent predictor of performance-based pay increase, across all career paths, providing support for a pay and performance linkage. Other consistent predictors across career paths were interval and promotion, such that higher performance-based pay increases were associated with being at lower intervals and not being promoted
- The flexible pay upon promotion intervention continues to be successful
- The supervisory performance pay intervention continued to reward supervisors who had reached the top of their pay bands (many of whom were performing reasonably well); however, it did not (by design) necessarily reward all high performing supervisors.

Figure ES-1 displays trends for average performance-based pay increases over Years One through Seven of the Demonstration Project. This figure depicts how Demonstration Group average performance-based pay increases have varied from 2.29 to 3.23 percent and have always been higher than the Comparison Group. Figure ES-2 displays trends for average bonuses/awards over Years One through Seven of the Demonstration Project. Over time, average bonus percentages in the Demonstration Group have remained relatively constant, with a slight upward trend in the past few years. Meanwhile, average award percentages in the Comparison Group have fluctuated over the years. Regardless of whether the original or expanded bonus analysis is used as a comparison point, the Demonstration Group average bonus percentages were higher in Year Seven than the Comparison Group average award percentages.

**Figure ES-1. Trend Analysis of Average Percent Salary Increases**



*Note: The Comparison Group Year Two data point was revised in Year Three to reflect a correction in the formula used to calculate average percent salary increase.*

**Figure ES-2. Trend Analysis of Average Bonus/Award Percentages**

ES.2.6. Most of the Demonstration Group scientists and engineers who had time left in their three-year probationary periods were kept on probation, which gave managers a longer timeframe to evaluate performance

The three-year probationary period for scientists and engineers intervention was designed to allow supervisors the ability to make permanent hiring decisions for research and development (R&D) positions based on employees' demonstrated capabilities in the full R&D cycle. This intervention provides these supervisors with the ability to terminate poor performing employees any time during the three-year period rather than being limited to the typical one-year probationary period. In Year Seven, only a small number of individuals were taken off probation (i.e., made permanent) in their first or second year, indicating that managers are making use of this option to allow employees to remain in probationary status for a longer period of time, thus giving employees a longer time horizon in which to demonstrate their skills.

ES.2.7. While many of the recruitment and staffing interventions under the Demonstration Project are no longer unique, those that are being enacted are working well

The recruitment and staffing interventions are intended to attract high quality candidates and speed up the recruiting and examining process. These interventions include delegated examining authority<sup>4</sup>, local authority for recruitment payments, flexible entry salaries, and flexible paid advertising. In Year Seven, our findings suggested that the Demonstration Project is having success with some of the unique recruitment and staffing interventions. For example, flexible entry salaries and the ability to re-negotiate job offers provided managers the latitude to attract competitive candidates. Moreover, perceptual data suggested that Demonstration Group participants believe that it is reasonable to use these types of interventions, and others, to attract the best candidates. One place where the evidence is less clear about the impact of the Demonstration Project interventions is the ability to attract

<sup>4</sup> This was originally referred to as "agency-based staffing" in the Demonstration Project.

higher quality candidates. While Demonstration Group participants indicated that the quality is improving, and this perception is validated by objective data, it is unclear whether this improvement is resulting from the Demonstration project interventions themselves given that similar improvements were also noted in the Comparison Group.

ES.2.8. Many of the retention interventions are having the desired effect as employee motivators

The series of retention interventions available to the Demonstration Project have the potential to motivate and retain high performing employees. The interventions that were intended to impact retention include the broadband classification system, performance-based pay increases, performance-based bonuses, local authority for retention payments, supervisory performance pay, and more flexible pay increase upon promotion. The intent was that these interventions would offer a structure (i.e., broadbanding) and incentive to motivate high performers to stay. In Year Seven, it appears that many of these interventions are having the desired effect. Objective data analyses show that turnover is greater among lower performers and that managers are taking advantage of being able to offer flexible pay increases upon promotion. Subjective data analyses show that Demonstration Group participants perceived that the interventions have been motivating and improve retention efforts.

ES.2.9. Organizational performance has improved in some ways, but not others; while individual performance has not improved substantially, certain aspects of workforce quality have improved

Other Demonstration Projects have addressed the challenges inherent in measuring organizational performance in the context of a multi-organization Demonstration Project by using proxy measures. Consistent with this approach, we identified proxies that could serve as indirect measures of the organizational performance of the Demonstration Project. These proxies are: the aggregation of individual performance improvement and perceived quality of the workforce. By examining these measures, it is possible to describe outcomes of the Demonstration Project and their hypothesized affect on organizational outcomes. In Year Seven, employee performance was viewed as having either stayed the same or slightly improved since the beginning of the Demonstration Project; it has not declined as a result of implementation of the Demonstration Project. In addition, there was some evidence that the Demonstration Project has improved certain aspects of workforce quality.

ES.2.10. The Demonstration Project's interventions have not impacted DoC's adherence to the Merit System Principles or avoidance of the Prohibited Personnel Practices

Implementation of the Demonstration Project's personnel interventions has not impacted the organization's adherence to the nine Merit System Principles and avoidance of the 12 Prohibited Personnel Practices. Booz Allen's findings in Year Seven provide additional support that the administration of the Demonstration Project continues to be in line with these personnel guidelines.

ES.2.11. The Demonstration Project interventions continue to reflect a system in which there is no evidence of unfair treatment based on race, gender, or veteran status

Consistent with previous years, analyses suggest that the Demonstration Project has not been detrimental to the recruitment, compensation, or retention of minorities, women, or veterans. In Year Seven, the proportion of minority, women, and veteran new hires to the Demonstration Group was nearly consistent with their representation in the employee population overall. As occurred in previous years, data also 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. Rather, any differences in performance-based pay increases and bonuses between groups (e.g., veterans and non-veterans) appear to be consistent with the Comparison Group. In Year Seven, there was a small range in turnover rates in the Demonstration Group based on race/national origin groups. Minority groups turned over at slightly higher rates than Whites (not of Hispanic origin), although the differences were not great.

### **ES.3. Recommendations are offered to help focus the Demonstration Project as it moves forward**

The Year Seven findings suggest that the Demonstration Project is operating effectively and has experienced success with a number of the interventions such as the ability to link pay and performance, retain high performers and turn over low performers, and use more pay flexibility to attract candidates and promote employees. A series of recommendations are offered to enhance aspects of the Demonstration Project based on Year Seven findings as well as trend analyses covering the past seven years.

ES.3.1. DoC should examine the impact of being salary capped in a pay for performance system

In the past two years, we have been able to determine the number of individuals impacted by salary capping, that is, Demonstration Group participants who had eligible performance ratings but whose salaries are at the maximums for their pay bands. In Year Seven, nearly 19 percent were either at the maximum or near the maximum. While having individuals reach toward the maximum is a natural function of nearly any pay system, DoC may wish to examine further the movement of these individuals given the impact of this issue on perceptions of the pay for performance system.

It may be that some of these individuals are in positions where there is no further upward movement due to the nature of their jobs. In these cases, the question becomes whether individuals are satisfied in their current state *or* would prefer cross-training to be eligible for positions with more upward growth. It may be that other individuals are in positions where there is upward growth but might require additional coaching and mentoring in order to prepare them for promotion into the next band.

Another aspect of this issue that may warrant further analysis is whether turnover rates differ for individuals who have reached the maximums versus others. In Year Eight, with available turnover data, the program evaluators could examine whether the Year Eight turnover rates differ for these individuals versus others. Assuming so, this could provide a starting point for DoC to examine the underlying issues – to parse out what types of solutions are needed based on the motivations of the affected individuals.

**ES.3.2. DoC may want to revamp its communication efforts around performance bonuses and awards**

Based on data from the survey and focus groups, employees are generally not clear about the criteria used for distributing performance bonuses and awards. This concern is not unique to the Demonstration Group; however, the confusion about performance bonuses and awards in the Demonstration Group appears to be impacting their potential to be motivators. Given that performance bonuses are a fundamental component of the pay for performance system, and one that helps to distinguish it from the GS system, DoC should make the most of this intervention.

Several factors appear to be impacting the confusion. One, the distinction between performance bonuses and awards – that is, the usage of one versus the other – is not entirely clear. Two, there appears to be much variance across pay pools in how performance bonuses are distributed, with some Pay Pool Managers implementing a strategy where nearly everyone gets a small-valued performance bonus and other Pay Pool Managers using a strategy where only a few outstanding individuals receive performance bonuses of greater value. Three, the fact that some work units choose to use performance bonuses to compensate for pay increases (e.g., in cases where individuals are at the maximums of their pay bands) provides a total compensation solution but also can diminish the intent of the performance bonus as a reward for achievement in instances where performance bonuses are provided to employees whose performance does not warrant such recognition.

We recommend that DoC take a close look at how information about performance bonuses is communicated and consider creating a few simple promotional materials for employees and job aids for supervisors to be used to communicate a single voice about the intent and use of performance bonuses.

**ES.3.3. DoC should consider closer examination of the benefits and disadvantages of the three-year probationary period intervention**

The three-year probationary period for scientists and engineers intervention was designed to enable supervisors to make permanent hiring decisions for research and development (R&D) positions based on employees' demonstrated capabilities in the full R&D cycle. This intervention provides these supervisors with the ability to terminate poor performing employees any time during the three-year period rather than being limited to the typical one-year probationary period.



This is an intervention that has appeared to receive less attention over the years, likely because it impacts only a small percentage of individuals. However, if it is successful in achieving its goals as designed, it can serve as a model for similar adjustments to probationary periods in other scientific settings elsewhere in the government. As such, we recommend that DoC consider conducting a mini-study that can explore issues beyond that which can be captured by quantitative data. We recommend capturing qualitative data from at least three groups of individuals: those who already spent three years on probation and have not been hired out of it, those currently in the three year probation (and of varying performance levels, as judged by their supervisors), and supervisors of individuals on the three-year probation. It may be worth exploring issues such as whether supervisors feel that it has been beneficial in their ability to evaluate performance, whether employees in probation understand its value, and whether it is motivating versus de-motivating to employees.

#### ES.3.4. DoC should explore alternative ways of motivating supervisory performance

Based on the original objectives of the Demonstration Project, the supervisory performance pay intervention was expected to extend their pay potential, thereby encouraging retention and performance. Consistent with this, our analyses showed that this intervention was used to reward supervisors who had reached the top of their pay bands, many of whom were performing reasonably well. However, the intervention was not designed to reward *high performing* supervisors, as was confirmed by the data. This finding, combined with the mixed qualitative findings, showed that the supervisory performance pay has not necessarily been effective as a motivational tool since it is not used to reward high performance.

As a complement, not necessarily a replacement for supervisory performance pay, we recommend that DoC explore alternative ways of motivating supervisory performance, be that through rewards, recognition, stretch opportunities, and/or specific people development responsibilities. The objective should be to find ways to reward supervisors for effectively performing their supervisory responsibilities (beyond their technical responsibilities) so as to recognize contributions and inspire a new cadre of managers. Employing methods such as these to recognize and reward individuals for carrying supervisory responsibilities will be particularly important given the projected losses (governmentwide) of leaders as the federal workforce ages. Creative incentives and retention tools may help to prolong the employment of high performing supervisors, thus benefiting the organization, as well as building the next generation of leaders.

#### ES.3.5. DoC may want to take a process-reengineering approach to determine if greater efficiencies can be gained in the recruitment process

As in some past years, there were limited differences between the Demonstration Group and the Comparison Group in regards to the amount of time required to fill a position (from initial posting of vacancy to selection). Some efficiencies seem to have occurred since this was first measured in Year Three, suggesting that efficiencies may have been put in place that aided both processes; however, the expected gap between the Demonstration Group and the Comparison Group has never quite emerged. Meanwhile, the Demonstration Group reported faster times for two classification activities: 1) the average amount of time needed

to produce and classify a position and 2) the average amount of time needed to process a classification action. However, efficiencies gained in the Demonstration Project's classification process do not seem to be translating into a more efficient recruitment process overall since the total time between the Demonstration Group and the Comparison Group is so similar.

We recommend taking a process-reengineering approach to determine if greater efficiencies can be gained in the recruitment process. This would entail breaking down the elements of the process and examining roles, activity sequencing, interdependencies, extraneous factors, and the like. By doing so, it may be possible to identify opportunities for process improvements that could make recruitment both more effective and more efficient, both in support of Demonstration Project goals.

**ES.3.6. Continue to dedicate resources toward the management of Demonstration Project data**

Given the increasing complexities of the Demonstration Project data, as a greater number of employees are included and as analyses become increasingly more sophisticated, DoC should continue to dedicate resources to the Demonstration Project data. The accuracy of the analyses is predicated on the quality of the data and therefore data management is paramount. This emphasis on data quality should extend beyond data management at the headquarters level and should also include ensuring that the proper training, tools, and mechanisms are in place to ensure that data are accurately and consistently managed at the participating organization level.

**ES.3.7. DoC should conduct additional analyses of cost management with a focus on management of costs associated with salary increases**

Given questions raised by OPM reviewers, DoC should conduct additional analyses with regard to the management of costs associated with salary increases. DoC should seek to identify the reasons why average salary increases in the Demonstration Group are higher than those in the Comparison Group and in other Demonstration Projects and, in particular, why Year Seven average salary increases were significantly higher. As part of this effort, DoC should review the methodologies used to determine the amount of salary increase pay pools.

Also, DoC should seek to determine whether average starting salaries for entry/developmental employees are higher (in constant dollars) under the Demonstration Project than during the 3-year historical base period and, if so, assess whether this should be taken into account in determining the amount of salary increase pay pools. Historical funding for promotions between grades that are banded under the Demonstration Project were considered to be available for use in the salary increase pay pool. However, if DoC has used project flexibilities to provide higher average starting salaries, those higher starting salaries are, in effect, using funds that previously were used in providing promotion increases. If so, this might argue for offsetting the historical promotion funding amounts that are used to set the amount of salary increase pay pools.

## 1. INTRODUCTION

This chapter presents a brief background on the Department of Commerce Personnel Management Demonstration Project as well as the purpose and structure of this report.

### **1.1. The Department of Commerce has completed seven years of the Personnel Management Demonstration Project, designed to test and evaluate a series of alternative personnel practices and to determine the generalizability of these interventions elsewhere**

In March 1998, the Department of Commerce (DoC) initiated a five-year Personnel Management Demonstration Project (hereafter referred to as the Demonstration Project) as a means of testing and evaluating a series of personnel interventions. This effort was undertaken to determine whether alternative personnel practices are more successful in helping to achieve agency goals than traditional personnel practices. The success of these interventions during the Demonstration Project would help to determine whether any or all of the interventions can be beneficially implemented elsewhere within DoC as well as government-wide.

In 2003, DoC requested and received permission from the Office of Personnel Management (OPM) to both extend and expand the Demonstration Project (the extension was approved through an administrative letter from OPM, dated February 14, 2003; the expansion was announced in a *Federal Register* notice (see Appendix A-4) dated September 17, 2003). The extension permitted DoC to continue operating the Demonstration Project for an additional five years, ending in March 2008 (Years Six through Ten). The expansion permitted DoC, as of October 5, 2003, to expand the coverage of the Demonstration Project to additional organizations within DoC and to increase the number of participants up to the legal maximum of 5,000 participants.

The Demonstration Project was originally designed to apply some of the human resource interventions from an earlier DoC Demonstration Project at the National Institute of Standards and Technology (NIST). The NIST Project achieved highly successful results and, at its conclusion, 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 within DoC to a wider range of occupational areas and within organizations with different missions.

OPM clearly defines processes for evaluating Demonstration Projects. Following OPM guidelines, evaluators submit formal assessment reports at specified time intervals over the course of a Demonstration Project. As the evaluator of the DoC's Demonstration Project, Booz Allen Hamilton Inc. (Booz Allen) submitted an Implementation Year Report, Operational Year Report, and Summative Year Report that assessed the implementation and operation of the Demonstration Project during Year One, Year Three, and Year Five, respectively. In addition, Booz Allen submitted reports in Year Two and Year Four that were designed to serve as mid-course checks. During Years Six through Ten, Booz Allen

will continue to conduct annual evaluations to monitor and evaluate the effectiveness of these personnel interventions put in place by DoC.

- 1.1.1. The benefits of a pay for performance system over the longer term are evident as high-performing Demonstration Group participants outpace all others over time

To examine more fully the link between performance and pay, we analyzed the salary progression of a subset of the Demonstration Project participants. Specifically, we examined performance-based pay increases and bonuses/awards over seven years (increases due to promotions were not included because insufficient data were available from the earlier years). Employees in the ZP career path, pay band 4, and interval 1 (or the Comparison Group equivalent) in Year One were selected for examination because they are the most populous group in the Demonstration Project's ZP career path. We identified these individuals in the Year One data file and then tracked the same individuals in the Year Two, Three, Four, Five, Six, and Seven data files to determine their progression.

We selected this one subset to serve as an example and therefore caution the reader about generalizing findings more broadly. However, given that the same decision rules regarding compensation apply across career paths and pay bands, we would expect that similar outcomes would result if a different subset of the Demonstration Project were selected.

## **1.2. This report provides an assessment of Year Seven of the DoC Personnel Management Demonstration Project**

This Year Seven Report assesses the Demonstration Project's seventh year of operation, April 2004 to March 2005. The intended audience for this report is DoC managers, employees, and key stakeholders who may be interested in keeping abreast of the current state of the Demonstration Project and tracking trends as the personnel interventions take effect. DoC uses the report to provide an update to OPM on the impact the Demonstration Project is having on ensuring protection for, or adherence to, equal employment opportunity, veterans, Merit Systems Principles, and Prohibited Personnel Practices. Interwoven throughout this report, Booz Allen presents:

- A brief review of the Demonstration Project
- An analysis of both objective data and perceptual/attitudinal data on the seventh performance year
- Trend data across performance years, where appropriate
- An assessment of the impact of the Demonstration Project on mission and organizational outcomes
- An assessment of the impact of the Demonstration Project on equal employment opportunity, veterans, Merit System Principles, and Prohibited Personnel Practices
- An assessment of the costs associated with operating the Demonstration Project
- Organizational context based on site historian accounts of critical events occurring during Year Seven
- Conclusions on the efficacy of the personnel interventions and the Demonstration Project

- Recommendations for improving the personnel interventions and the Demonstration Project overall.

### **1.3. The structure of this report parallels the previous reports; it evaluates each personnel intervention and recommends actions for continued operation**

This Year Seven Report represents the seventh in a series of ten reports that Booz Allen will prepare that assesses the Demonstration Project. Each report builds on data and findings from previous reports, thereby permitting trend analyses over the course of the Demonstration Project. To facilitate cross-comparisons of reports by those who are reading the reports annually, this and subsequent reports will follow a similar structure. This report contains the following chapters:

Chapter 2 of this report, titled “DoC Demonstration Project and its Evaluation,” begins with a brief description of the Demonstration Project, including 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, “Data Collection and Analyses,” contains descriptive and methodological information on the data collection procedures used during the project evaluation. This chapter covers the use of interviews, focus groups, a survey, objective personnel data, summary human resources (HR) data, site historian logs, and cost data.

Chapter 4, “Findings and Conclusions,” focuses on the major interventions that are being tested during the Demonstration Project. Each section is dedicated to a set of interventions. Each conclusion is explained and then followed by findings that are supported by interview themes, focus group themes, survey results, objective data, and/or summary HR data. Data are presented in table format, when appropriate, to facilitate understanding.

Chapter 5, “Cost Analysis,” details the costs associated with implementing and operating the Demonstration Project over the seven years.

Chapter 6, “Answers to Research Questions,” gives explicit answers to each research question from both the OPM Demonstration Projects’ Evaluation Handbook and the DoC Demonstration Project Evaluation Model. The questions and our responses are presented in table form.

Chapter 7, “Recommendations,” contains recommendations for the interventions, as appropriate. We also provide general recommendations that may not pertain to a specific intervention, but address organizational issues that affect the Demonstration Project.

A series of appendices accompany this report, providing various reference and citation data, including results from the survey and objective data analyses.

Booz Allen wrote this report and the conclusions stated within represent our professional expertise and judgment based on the evidence collected as part of the evaluation.

## 2. DoC DEMONSTRATION PROJECT AND ITS EVALUATION

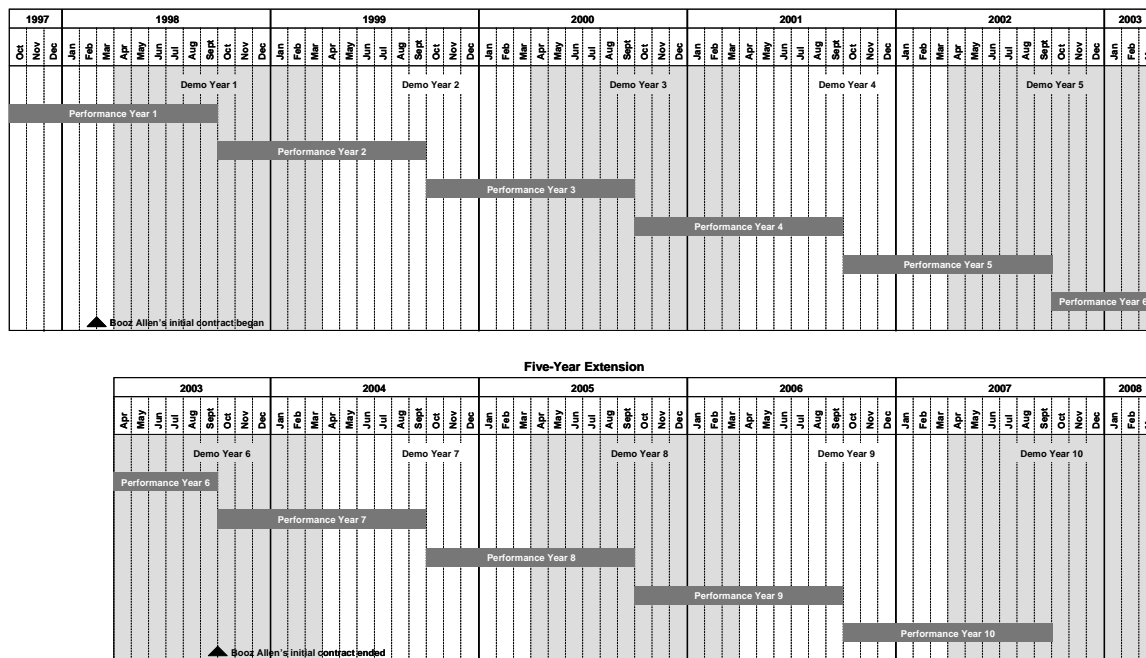
This chapter, which follows the same format as earlier reports with only minor revisions, presents background information concerning the Demonstration Project, including its objectives, scope, and evaluation. In addition, it provides information on the expansion and extension of the Demonstration Project.

### 2.1. The Demonstration Project is being conducted to test the effects of innovative human resources practices in different organizations with a variety of occupational groups

The original DoC Personnel Management Demonstration Project began on March 29, 1998, and was scheduled to last five years (March 2003) as shown in the first half of Figure 2-1. It was designed to apply several of the human resource interventions from an earlier DoC Demonstration Project at the National Institute of Standards and Technology (NIST). The NIST Project achieved highly successful results and, at its conclusion, the interventions were made permanent. The original Demonstration Project sought to build on the success of the NIST Project and determine whether or not these interventions can be successfully implemented within DoC to a wider range of occupational areas and within organizations with different missions. With some exceptions, the interventions that comprised the original Demonstration Project were similar to the interventions made permanent at NIST. Included as part of this Demonstration Project were simplified recruiting, classification, and examining processes, as well as a shift to a pay for performance system within a pay-banding framework.

In 2003, the Demonstration Project was extended for an additional five years, through March 2008, to enhance the evaluation of the interventions introduced under the original Demonstration Project. The new timeline for the Demonstration Project can be seen in Figure 2-1. In 2003, it was also decided to expand the Demonstration Project to allow additional organizations to participate. The mission and objectives of Years Six-Ten of the Demonstration Project remain the same as in Years One-Five.

Figure 2-1. DoC Personnel Management Demonstration Project Timeline



**2.2. The general objectives of this 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 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 performing 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
- Better human resources systems to facilitate organizational mission and excellence
- Continued support for EEO/diversity goals<sup>5</sup> in recruiting, rewarding, and retaining minorities, women, and veterans
- Continued provision of opportunities for a diverse workforce
- Maximization of the contributions of all employees.

<sup>5</sup> Here and elsewhere in this document, the reference to “support for EEO/diversity goals” pertains to the desire to build and maintain a workforce that draws on the strength of America’s diversity; it does not pertain to specific numeric targets.



### **2.3. The Demonstration Project includes DoC organizations with a wide range of missions and occupations**

The Demonstration Project is designed to include other organizations within DoC where the personnel interventions adopted at NIST might prove successful. DoC originally selected a number of DoC organizations, with a range of missions and occupational groups, to participate in the current Demonstration Project. Some of these organizations (collectively referred to as the Demonstration Group) received the new personnel interventions. In an effort to determine whether Demonstration Project changes were actually effective, the results obtained from the Demonstration Group are compared with those results from a Comparison Group.

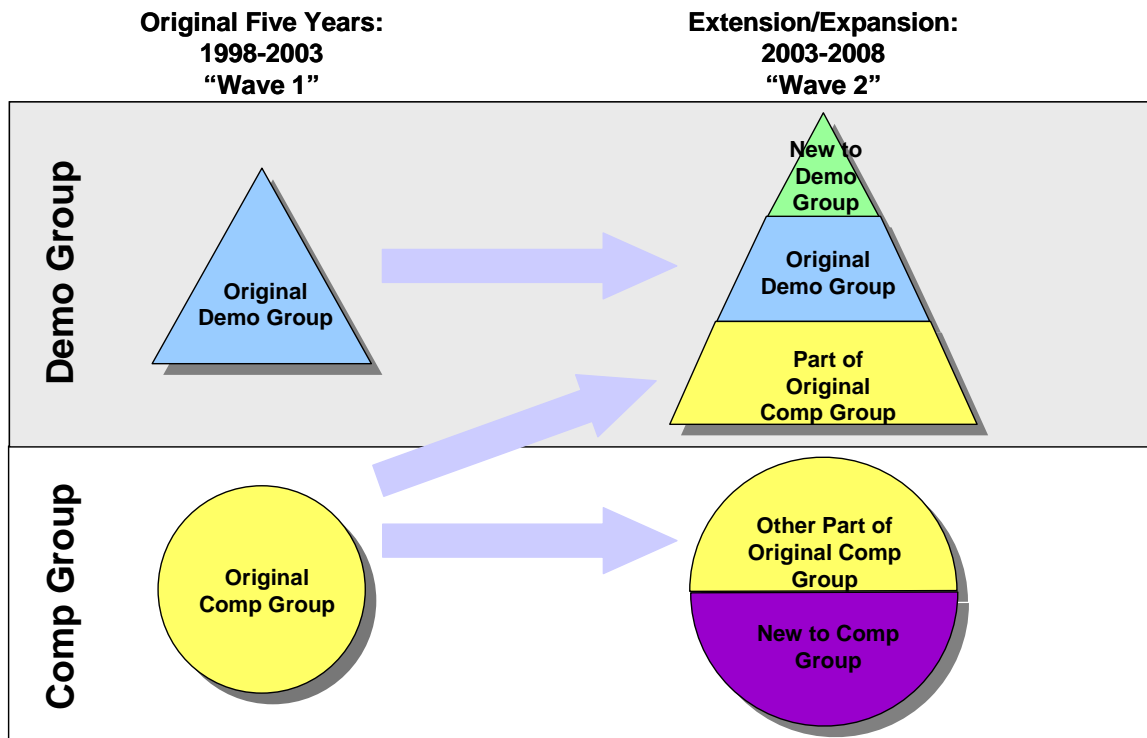
In 2003, DoC extended the Demonstration Project for an additional five years and also expanded it to include additional members, some representing organizations new to the Demonstration Project. As displayed in Figure 2-2, in the initial five years of the Demonstration Project, participants fell into one of two groups: the Demonstration Group (who experienced the tested alternative personnel interventions) and the Comparison Group (who did not). With the extension and expansion, there are essentially five subsets to the Demonstration Group and the Comparison Group. The Demonstration Group is comprised of:

- Participants whose organizations were new to the Demonstration Project in Years Six-Ten and were added to the Demonstration Group (hereafter, referred to as “New Demo,” as needed, and included in “Demo Group Wave 2”)
- Participants whose organizations were in the original Demonstration Group (i.e., Years One-Five) and who remained in the Demonstration Group in Years Six-Ten (hereafter, referred to as “Original Demo,” as needed, and included in “Demo Group Wave 1”)
- Participants whose organizations were in the original Comparison Group in Years One-Five and who were transferred to the Demonstration Group for Years Six-Ten (hereafter, referred to as “Comp to Demo,” as needed, and included in “Demo Group Wave 2”).

The Comparison Group is comprised of:

- Participants whose organizations were in the original Comparison Group (i.e., Years One-Five) and who remained in the Comparison Group in Years Six-Ten (hereafter, referred to as “Original Comp”)
- Participants whose organizations were new to the Demonstration Project in Years Six-Ten and were added to the Comparison Group (hereafter, referred to as “New Comp”).

Figure 2-2. Expansion and Extension of the Demonstration Project



Note: graphic is conceptual and therefore does not depict accurate proportionality of groups

The reference to “waves” in these definitions addresses the fact that the expansion changed the composition of the Demonstration Group, to include both individuals who have been in the Demonstration Project for five years (Wave 1) and those who are new to it (Wave 2). Therefore, it is important to consider that they may have different experiences. For this reason, as appropriate, some analyses that are conducted on Demonstration Group data will also be then broken out by Wave 1 and Wave 2. This will provide a means of looking at both the shorter term and longer term impact of the interventions.

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

The Demonstration Group consisted of nine organizations encompassing a wide range of occupations. With expansion, two new organizations – NOAA’s Program Planning and Integration Office and six offices within the Office of the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) – were added to the Demonstration Group (as well as the addition and reorganization of members in some of the original seven organizations). Table 2-1 presents the organizations participating in the Demonstration Group, along with a statement of the mission for each. The two organizations that are new to the Demonstration Group are identified as such in the table.

**Table 2-1. Participating Demonstration Group Organizations and Their Missions**

Organization	Mission
<b>Technology Administration (TA)</b>	TA works to maximize technology's contribution to America's economic growth.
<ul style="list-style-type: none"> <li>• Office of the Under Secretary</li> </ul>	<ul style="list-style-type: none"> <li>• The Office of the Under Secretary is responsible for the management of TA agencies.</li> </ul>
<ul style="list-style-type: none"> <li>• Office of Technology Policy (OTP)</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>Economics and Statistics Administration (ESA)</b>	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 ESA.
<ul style="list-style-type: none"> <li>• Bureau of Economic Analysis (BEA)</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<b>National Telecommunications and Information Administration (NTIA)</b>	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.
<ul style="list-style-type: none"> <li>• Institute for Telecommunication Sciences (ITS)</li> </ul>	<ul style="list-style-type: none"> <li>• 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 U.S., 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.</li> </ul>

Organization	Mission
<b>National Oceanic and Atmospheric Administration (NOAA)</b>	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.
<ul style="list-style-type: none"> <li>• Units of the Office of Oceanic and Atmospheric Research (OAR)</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<ul style="list-style-type: none"> <li>• Units of the National Environmental Satellite, Data, and Information Service (NESDIS)</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<ul style="list-style-type: none"> <li>• Units of the National Marine Fisheries Service (NMFS)</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
<ul style="list-style-type: none"> <li>• Unit of the National Weather Service (NWS)</li> </ul>	<ul style="list-style-type: none"> <li>• NWS' Space Environment Center is one of the nine National Centers for Environmental Prediction and provides real-time monitoring and forecasting of solar and geophysical events, conducts research in solar-terrestrial physics, and develops techniques for forecasting solar and geophysical disturbances.</li> </ul>
<ul style="list-style-type: none"> <li>• Program Planning and Integration Office (PPI) -- New</li> </ul>	<ul style="list-style-type: none"> <li>• PPI is responsible for developing and maintaining NOAA's strategic plan. In addition, PPI manages various programs under a matrix management system and promotes the integration of human capital, resources and capacity across NOAA in support of developing effective programs.</li> </ul>
<b>DoC Headquarters</b> <ul style="list-style-type: none"> <li>• Units of the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) -- New</li> </ul>	<p>The CFO/ASA establishes and monitors DoC policies and procedures for administrative functions, including a range of financial and human resources. This CFO/ASA is also responsible for coordinating reform initiatives called for by the President's Management Agenda, including improving financial management, strategic management of human capital, competitive sourcing, budget and performance integration, and expanding electronic government. The CFO/ASA is also charged with managing the DoC's headquarters facilities. Six of the nine offices within the CFO/ASA are participating in the Demonstration Project: Office of Human Resources Management, Office of Administrative Services, Office of Financial Management, Office of Acquisition Management, Office of Management and Organization, and Office of Security.</p>

Table 2-2 shows an updated list of the major locations and occupations of the employees now included in the Demonstration Group. Locations that are new to the Demonstration Project are marked with an asterisk (\*). Locations that switched from the Comparison Group to the Demonstration Group are marked with two asterisks (\*\*).

Table 2-2. Major Locations and Occupations in the Demonstration Group

Organization	Major Location(s)	Major Occupations
<b>TA</b> <ul style="list-style-type: none"> <li>Office of the Under Secretary</li> <li>Office of Technology Policy (OTP)</li> </ul>	Washington, DC	General Administration, Management Analyst, and Technology Policy Analyst
<b>ESA</b> <ul style="list-style-type: none"> <li>Bureau of Economic Analysis (BEA)</li> </ul>	Washington, DC	Economist, Accountant, Financial Administrator, Computer Specialist, Statistician, and Statistical Assistant
<b>NTIA</b> <ul style="list-style-type: none"> <li>Institute for Telecommunication Sciences (ITS)</li> </ul>	Boulder, CO	Electronics Engineer, Mathematician, Computer Scientist, and Engineering Technician
<b>NOAA</b> <ul style="list-style-type: none"> <li>Office of Oceanic and Atmospheric Research (OAR)</li> </ul>	Silver Spring, MD, Boulder, CO, Miami, FL, Princeton, NJ**	Meteorologist, Physical Scientist, Physicist, Electronics Engineer, Computer Specialist, Electronics Technician, Physical Science Technician, and Mathematician
<ul style="list-style-type: none"> <li>National Environmental Satellite, Data, and Information Service (NESDIS)</li> </ul>	Suitland, MD, Silver Spring, MD, Asheville, NC, Boulder, CO, Camp Springs, MD, Wallops Island, VA**	Physical Scientist, Meteorologist, Computer Specialist, Oceanographer, Physical Science Technician, Electronics Engineer, Engineering Technician, Geophysicist, and Mathematician
<ul style="list-style-type: none"> <li>National Marine Fisheries Service (NMFS)</li> </ul>	Gloucester, MA, Long Beach, CA, Juneau, AK, Silver Spring, MD, Seattle, WA, Honolulu, HI*, Woods Hole, MA**, Narragansett, RI*, Milford, CT*, Sandy Hook, NJ*, Washington, DC*, St. Petersburg, FL*, Miami, FL**, Panama City, FL*, Pascagoula, MS*, Bay St. Louis, MS*, Galveston, TX*, La Jolla, CA**, Santa Cruz, CA*, Pacific Grove, CA*, Newport, OR*, Hammond, OR*, Manchester, WA*, Pasco, WA*, Mukilteo, WA*	Fish Biologist, Fish Administrator, Biologist, Microbiologist, Biology Technician, Chemist, Oceanographer, Wildlife Biologist, Computer Specialist, and General Business Specialist
<ul style="list-style-type: none"> <li>National Weather Service (NWS)</li> </ul>	Boulder, CO	Meteorologist
<ul style="list-style-type: none"> <li>Program Planning and Integration Office</li> </ul>	Silver Spring, MD*	Policy and Program Analyst, Oceanographer, Policy Analyst, Secretary, Program Support Specialist, Budget Analyst, Management and Program Analyst, Environmental Protection Specialist
<b>DoC HEADQUARTERS</b> <ul style="list-style-type: none"> <li>Units of the Office of the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA)</li> </ul>	Washington, DC*	Security Specialist, Human Resources Specialist/Assistant, Program/Management Analyst, Accountant, Budget Analyst, Contract/Procurement Specialist

2.3.2. The Comparison Group consists of members of five organizations that are reasonably similar to the organizations in the Demonstration Group

In order to separate the impacts of the interventions from other influences, DoC identified organizations to be included in the original 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 point of comparison when analyzing the impact of interventions on the Demonstration 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.

With expansion of the Demonstration Project, several groups from the original Comparison Group moved into the Demonstration Group, and one organization was added to the Comparison Group (i.e., the National Ocean Service). Table 2-3 presents the current Comparison Group organizations, along with their major locations and major occupations.

**Table 2-3. Major Locations and Occupations in the Comparison Group**

Organization	Major Location(s)	Major Occupation(s)
<b>ESA</b> • Headquarters	Washington, DC	General Administration
<b>NOAA</b>		
• Office of Oceanic and Atmospheric Research (OAR)	Ann Arbor, MI 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)	Miami, FL Seattle, WA	Fish Biologist, Biologist, Microbiologist, and Biology Technician (primary). Chemist, Oceanographer, Wildlife Biologist, Computer Specialist, and General Business Specialist
• National Ocean Service (NOS)	Silver Spring, MD Seattle, WA Charleston, SC	Cartographer, Geodesist, Physical Scientist, Oceanographer, Cartographic Technician, Physical Science Technician, Geodetic Technician, various administrative positions

## **2.4. The Demonstration Project encompasses 6,721 employees in both the 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) are not covered.

Table 2-4, Table 2-5, and Table 2-6 provide information on the participants in the Demonstration Project in Year Seven, including the number of participants and basic demographic data, such as career path, and pay band, race/national origin, veteran status, gender, and supervisory status. One table each is used to characterize the Wave 1 Demonstration Group, the Wave 2 Demonstration Group, and the Comparison Group (although this detail is provided here, most of the analyses in this report combine Wave 1 and Wave 2).

There was a total of 6,721 participants in the Demonstration Project: 4,608 Demonstration Group participants and 2,113 Comparison Group participants. (Of the 4,608 Demonstration Group participants, 2,960 are categorized as Wave 1 and 1,301 are categorized as Wave 2; there were 347 others for whom Wave could not be determined in the database and are therefore not included in these tables). These demographic data illustrate the general similarity in the demographic characteristics of participants in the Demonstration and Comparison Groups, which is important for establishing the validity of the Comparison Group used in this evaluation. There are some minor differences between the groups; these will be addressed in the report in any cases where the differences between the Demonstration and Comparison Groups may be impacting how findings are interpreted.

Table 2-4. Characteristics of Demonstration Group Participants by Agency – Wave 1

DEMONSTRATION GROUP – WAVE 1																
ORIGINAL DEMO (groups that started in the Demo Group in March 1998 and remain in the Demo Group)													TOTALS			
# Participants	ESA-BEA		NTIA		NOAA-NESDIS		NOAA-NMFS		NOAA-OAR		NOAA-NWS <sup>6</sup>		TA		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
# Participants	473	16%	78	3%	746	25%	988	33%	605	20%	42	1%	28	1%	2960	100%
<b>Career Path (or the equivalent)</b>																
ZA	95	20%	5	6%	111	15%	247	25%	95	16%	3	7%	23	82%	579	20%
ZP	338	72%	58	74%	440	59%	588	60%	409	68%	36	86%	0	0%	1869	63%
ZS	30	6%	7	9%	76	10%	140	14%	62	10%	3	7%	5	18%	323	11%
ZT	9	2%	8	10%	116	16%	9	1%	37	6%	0	0%	0	0%	179	6%
<b>Pay Band (or the equivalent)</b>																
1	5	1%	5	6%	1	0%	20	2%	15	2%	0	0%	0	0%	46	2%
2	74	16%	7	9%	47	6%	142	14%	38	6%	10	24%	0	0%	318	11%
3	185	39%	25	32%	209	28%	376	38%	150	25%	6	14%	5	18%	956	32%
4	168	36%	33	42%	386	52%	361	37%	300	50%	22	52%	12	43%	1282	43%
5	40	8%	8	10%	100	14%	85	9%	100	17%	4	10%	11	39%	348	12%
<b>Race</b>																
American Indian	0	0%	1	1%	0	0%	7	1%	4	1%	1	2%	0	0%	13	1%
Asian	34	7%	4	5%	33	4%	42	4%	31	5%	1	2%	3	11%	148	5%
Black	117	25%	0	0%	123	17%	71	7%	41	7%	0	0%	7	25%	359	12%
Hispanic	18	4%	2	3%	14	2%	26	3%	31	5%	1	2%	1	3%	93	3%
White	304	64%	71	91%	576	77%	842	85%	498	82%	39	93%	17	61%	2347	79%
<b>Veteran</b>																
Yes	36	8%	7	9%	153	20%	100	10%	62	10%	9	21%	2	7%	369	12%
No	437	92%	71	91%	593	80%	888	90%	543	90%	33	79%	26	93%	2591	88%
<b>Gender</b>																
Male	252	53%	56	72%	473	63%	526	53%	384	64%	27	64%	9	32%	1727	58%
Female	221	47%	22	28%	273	37%	462	47%	221	36%	15	36%	19	68%	1233	42%
<b>Supervisor</b>																
Yes	60	13%	4	5%	83	11%	116	12%	59	10%	3	7%	2	7%	327	11%
No	413	87%	74	95%	663	89%	872	88%	546	90%	39	93%	26	93%	2633	89%

## Notes:

1. Career Path and Pay Band data are reported for the 2,950 of the 2,960 participants for whom career path and pay band data were available.
2. Percentages may not add to 100 due to rounding.
3. Source: These figures are based upon the objective data provided by DoC (as of March 31, 2005) and represent the composition of the Demonstration Group during Year Seven.

<sup>6</sup> Pursuant to a recent Federal Register Notice dated July 5, 2005 (see Appendix A-5), employees of the Space Environment Center who were already participating in the Demonstration Project were organizationally realigned from OAR to the National Weather Service. Given that they are now part of a separate component of NOAA, they are identified separately.



Table 2-5. Characteristics of Demonstration Group Participants by Agency – Wave 2

	DEMONSTRATION GROUP – WAVE 2													
	COMP TO DEMO (groups that started in the Comp Group in March 1998 and transferred to the Demo Group in October 2003)						NEW DEMO (groups that started in the Demo Group in October 2003)					TOTALS		
	NOAA-NESDIS		NOAA-NMFS		NOAA-OAR		NOAA-NMFS		NOAA-PPI		CFO/ASA <sup>7</sup>			
#	%	#	%	#	%	#	%	#	%	#	%	#	%	
# Participants	16	1%	804	62%	82	6%	23	2%	14	1%	362	28%	1301	100%
<b>Career Path (or the equivalent)</b>														
ZA	1	6%	80	10%	6	7%	4	18%	5	42%	259	73%	355	28%
ZP	12	75%	602	75%	56	68%	11	50%	4	33%	28	8%	713	55%
ZS	1	6%	60	8%	9	11%	7	32%	3	25%	69	19%	149	12%
ZT	2	13%	59	7%	11	13%	0	0%	0	0%	0	0%	72	6%
<b>Pay Band (or the equivalent)</b>														
1	0	0%	4	0%	1	1%	3	14%	0	0%	1	0%	9	1%
2	0	0%	118	15%	10	12%	2	9%	1	8%	20	6%	151	12%
3	7	44%	330	41%	18	22%	0	0%	0	0%	90	25%	445	35%
4	6	37%	292	37%	45	55%	11	50%	8	67%	193	54%	555	43%
5	3	19%	57	7%	8	10%	6	27%	3	25%	52	15%	129	10%
<b>Race</b>														
American Indian	0	0%	3	0%	0	0%	0	0%	1	7%	1	0%	5	0%
Asian	0	0%	59	7%	6	7%	1	4%	0	0%	14	4%	80	6%
Black	1	6%	35	4%	4	5%	1	4%	3	21%	146	40%	190	15%
Hispanic	0	0%	21	3%	1	1%	1	4%	0	0%	11	3%	34	3%
White	15	94%	686	85%	71	87%	20	87%	10	71%	190	53%	992	76%
<b>Veteran</b>														
Yes	8	50%	78	10%	6	7%	6	26%	1	7%	62	17%	161	12%
No	8	50%	726	90%	76	93%	17	74%	13	93%	300	83%	1140	88%
<b>Gender</b>														
Male	15	94%	522	65%	68	83%	12	52%	6	43%	136	38%	759	58%
Female	1	6%	282	35%	14	17%	11	48%	8	57%	226	62%	542	42%
<b>Supervisor</b>														
Yes	11	69%	175	22%	8	10%	16	70%	0	0%	60	17%	270	21%
No	5	31%	629	78%	74	90%	7	30%	14	100%	302	83%	1031	79%

**Notes:**

1. Career Path and Pay Band data are reported for the 1,289 the 1,301 participants for whom career path and pay band data were available.
2. Percentages may not add to 100 due to rounding.
3. Source: These figures are based upon the objective data provided by DoC (as of March 31, 2005) and represent the composition of the Demonstration Group during Year Seven.

<sup>7</sup> Pursuant to a recent Federal Register Notice dated July 5, 2005 (see Appendix A-5), employees of two bargaining units (Washington Printing and Graphic Communications Union, Local 1-C of the Graphics Communications International Union, AFL-CIO and the American Federation of Government Employees, Local 2186, AFL-CIO) within CFO/ASA have been added to the Demonstration Project and are included in this total.

Table 2-6. Characteristics of Comparison Group Participants by Agency

	COMPARISON GROUP										TOTALS	
	ORIGINAL COMP (groups that started in March 1998 and remain in the Comp Group)								NEW COMP (groups that started in the Comp Group in October 2003)			
	HQ ESA		NOAA-NESDIS		NOAA-NMF		NOAA-OAR		NOAA-NOS		#	%
# Participants	39	2%	62	3%	647	31%	136	6%	1229	58%	2113	100%
<b>Career Path (or the equivalent)</b>												
ZA	12	31%	3	5%	57	9%	18	13%	327	27%	417	20%
ZP	23	59%	14	23%	502	77%	92	68%	689	56%	1320	62%
ZS	4	10%	5	8%	39	6%	12	9%	102	8%	162	8%
ZT	0	0%	40	64%	49	8%	14	10%	111	9%	214	10%
<b>Pay Band (or the equivalent)</b>												
1	1	2%	0	0%	13	2%	2	1%	9	1%	25	1%
2	3	8%	3	5%	158	24%	7	5%	149	12%	320	15%
3	6	15%	20	32%	346	53%	52	38%	429	35%	853	40%
4	19	49%	39	63%	128	20%	53	39%	561	46%	800	38%
5	10	26%	0	0%	2	0%	22	16%	81	6%	115	5%
<b>Race</b>												
American Indian	0	0%	0	0%	5	1%	1	1%	6	0%	12	1%
Asian	4	10%	1	2%	38	6%	7	5%	43	3%	93	4%
Black	11	28%	6	9%	16	2%	3	2%	148	12%	184	9%
Hispanic	3	8%	1	2%	18	3%	3	2%	12	1%	37	2%
White	21	54%	54	87%	570	88%	122	90%	1020	83%	1787	85%
<b>Veteran</b>												
Yes	1	3%	33	53%	64	10%	16	12%	131	11%	245	12%
No	38	97%	29	47%	583	90%	120	88%	1098	89%	1868	88%
<b>Gender</b>												
Male	16	41%	53	85%	387	60%	95	70%	727	59%	1278	60%
Female	23	59%	9	15%	260	40%	41	30%	502	41%	835	40%
<b>Supervisor</b>												
Yes	3	8%	1	2%	0	0%	14	10%	114	9%	132	6%
No	36	92%	61	98%	647	100%	122	90%	1115	91%	1981	94%

## Notes:

1. Percentages may not add to 100 due to rounding.
2. Source: These figures are based upon the objective data provided by DoC (as of March 31, 2005) and represent the composition of the Comparison Group during Year Seven.

## 2.5. A broad range of interventions has been implemented under the Demonstration Project

The interventions implemented in the Demonstration Group focus on classification, pay, recruitment, retention, and an expanded probationary period. The fifteen interventions, listed below, are described in the following sections. Appendix A-1 displays the *Federal Register* notice on the Demonstration Project and its interventions (and Appendices A-2 and A-3 display modifications to the *Federal Register* notice).

1. Career paths
  2. Pay bands (Broadbanding), in conjunction with flexible entry salaries
  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. Delegated examining authority<sup>8</sup>
  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 research and development (R&D) activities)
- 2.5.1. Four career paths have been established that group occupations according to similar career patterns

Under the Demonstration Project, Demonstration Group occupations have been grouped 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, under the GS system, occupations are grouped by similarities in content. 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.

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<sup>8</sup> This was originally referred to as “agency-based staffing” in the Demonstration Project.

- **Administrative (ZA).** Consisting of positions in such fields as finance, procurement, human resources, 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 provide increased flexibility to support organizational changes.

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 broader ranges (i.e., pay bands). Figure 2-3 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 (with the exception of ZP and ZA); therefore, the band ranges differ by career path. Only the ZP and ZA career paths have pay bands that correspond to the full spectrum of GS grades. One to six GS grades are consolidated into any given pay band, depending on the career path and level of the band.

Figure 2-3. Career Paths and Bands for Demonstration Group Participants

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

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

Pay bands are intended to add flexibility in pay setting for attracting job candidates and rewarding 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 based on their performance.

Together, career paths and pay bands are intended to simplify classification and accelerate pay progression, 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 the annual comparability increase (ACI), an adjustment to basic pay that is based on the annual general increase and locality pay approved by Congress and the President each year. 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, Demonstration Group participants are eligible for pay increases each year since there is no waiting period under the Demonstration Project.

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, is meant to improve performance and retain high quality employees.

At the onset, DoC created an automated Performance Payout System (PPS) to manage the performance data, annual payout/ACI process, and pay table updates. This was later upgraded from a DOS-based to a web-based system. As of Year Five, there have been many improvements to the PPS. Site historians report that DoC staff, along with contractors, has been making significant strides in improving the software and reports.

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 also adopted a new performance appraisal system, independent of the Demonstration Project. Table 2-7 outlines some of the major differences between the traditional, the new NOAA, and the Demonstration Project performance appraisal systems.

Table 2-7. Performance Appraisal Systems

<b>TRADITIONAL SYSTEM (Comparison Group)</b>	<b>NEW NOAA SYSTEM (Comparison Group)</b>	<b>DEMO PROJECT SYSTEM (Demonstration Group)</b>
<ul style="list-style-type: none"> <li>Individual performance plans</li> </ul>	<ul style="list-style-type: none"> <li>Individual performance plans</li> </ul>	<ul style="list-style-type: none"> <li>Individual performance plans</li> </ul>
<ul style="list-style-type: none"> <li>Performance improvement plans</li> </ul>	<ul style="list-style-type: none"> <li>Performance improvement plans</li> </ul>	<ul style="list-style-type: none"> <li>Performance improvement plans</li> </ul>
<ul style="list-style-type: none"> <li>500-point system</li> </ul>	<ul style="list-style-type: none"> <li>Two-tier system</li> </ul>	<ul style="list-style-type: none"> <li>100-point, two-tier system</li> </ul>
<ul style="list-style-type: none"> <li>Critical and non-critical elements included</li> </ul>	<ul style="list-style-type: none"> <li>Critical elements included; non-critical elements not included</li> </ul>	<ul style="list-style-type: none"> <li>Critical elements included; non-critical elements not included</li> </ul>

Each employee in the Demonstration Project has an individual performance plan that 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. These employees must be put on a performance improvement plan and given a chance to improve before a final rating is put on record. Employees deemed unsatisfactory are not eligible for pay for performance increases, bonuses, or annual adjustments to basic pay. Demonstration Group participants who are not performing unsatisfactorily on any of the performance elements are evaluated using the 100-point scoring system. Supervisors provide recommended scores to the Pay Pool Manager who arrays the data in score order to maintain the linkage between scores and pay actions.

In Year Three, an additional factor that may have impacted pay, but is not directly linked to performance, was a government-wide special pay rate for information technology (IT) employees. This action took effect on the first pay period that began on or after January 1, 2001, and applied to IT professionals in certain occupations at GS-5, 7, 9, 11, and 12. In addition to increasing the pay of IT workers in the Demonstration Project, this event may have favorably impacted the recruitment and retention of IT workers in the Demonstration Project, and elsewhere in the government.

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

Supervisors in all career paths are eligible for supervisory performance pay when their salaries reach the maximum for their pay band. In each pay band that includes supervisory positions, there is a corresponding supervisory band (as shown in Figure 2-4). The supervisory bands have the same minimum levels as do the non-supervisory bands. The only difference is that the supervisory bands extend up to 6 percent 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 (up to 6 percent 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 supervisors to more competitive levels, thus improving retention.

Figure 2-4. Pay Bands for Supervisory Employees

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

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 restrictive nature of pay bands, an employee’s salary, upon promotion, can be set anywhere within a band (and with a minimum increase of six percent) 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 private sector.

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 performance score of 40 or above). Pay Pool Managers make decisions based on supervisor recommendations and the amount in the bonus pool. The maximum bonus amount that can be given is \$10,000 (greater amounts can be granted with the Departmental Personnel Management Board’s approval as well as with OPM’s review and approval, per 5 CFR 451.107). Bonuses are meant to reward high performers, increasing their retention. Bonuses are also meant to act as a performance incentive to the workforce.

Performance bonuses can also be awarded to DoC employees who entered the Demonstration Project too late to receive a performance rating, but who have received a DoC performance rating of record of at least “satisfactory” within the previous 13 months. In these situations, bonuses can be used to remove the disincentive of not receiving a pay increase. Performance bonuses can also be used as a tool to reward high performing employees who are pay capped.

2.5.7. For limited positions, direct examination allows DoC to hire candidates directly without using the normal ranking and selection procedures, thereby decreasing time to hire

Direct examination, a recruitment intervention, allows DoC 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. While direct examination can expedite the hiring process, a search of the operating unit applicant supply file is still required and veterans’ 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 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
- 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. Delegated examining authority, which can be used for positions not covered by direct examination, gives DoC the ability to certify its own candidates; this is expected to decrease time to hire

Delegated examining authority, another recruitment intervention, is used to fill vacancies not covered by direct examination. At a minimum, positions eligible for delegated examining authority will be advertised through OPM's automated employment information system. Delegated examining authority gives DoC the ability to examine and certify its own candidates instead of having OPM certify them. It allows DoC to create its own candidate registers, and to rate and rank the candidates independent of OPM. Delegated examining authority, in conjunction with flexible paid advertising, 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 delegated examining authority.

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

Flexible paid advertising is an intervention that allows DoC 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 recruitment sources.

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

During the time period for which this evaluation was conducted, local authority for recruitment payments allowed operating units to independently grant recruitment payments in an amount not to exceed the greater of \$10,000 or 25 percent of base pay. Recruitment payments could only be made to non-federal applicants. Payments were 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 were eligible. The main purpose for the recruitment payment was to increase the quality of the workforce by attracting high quality performers.

This Demonstration Project modeled many of the features of the NIST Demonstration Project, which began in 1988, and thereby adopted “local authority for recruitment payments” as an intervention. However, under 5 U.S.C. 5753 recruitment incentives are also available elsewhere in the federal government. The title 5 recruitment incentive authority was significantly enhanced in May 2005 by the Federal Workforce Flexibility Act of 2004 (Public Law 108-411). Under this authority, recruitment incentives may be paid up to 25 percent of an employee’s annual rate of basic pay times the number of years in the service agreement, not to exceed 4 years. On May 1, 2006, the demonstration project plan was modified to rescind its independent authority to pay recruitment payments (See 71 FR 25615.) DoC may now use the title 5 recruitment incentive authority under 5 U.S.C. 5753 and 5 CFR part 575, subpart A, for Demonstration Project employees.<sup>9</sup>

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

Similar to local authority for recruitment payments, during the time period in which this evaluation was conducted, local authority for retention payments allowed operating units to grant retention payments not to exceed the greater of \$10,000 or 25 percent of base pay. Retention payments could only be made to employees who are retiring or going to private industry. These payments also were based on market factors. All scientific, engineering, and hard-to-fill positions were eligible. The main purpose for the retention payments was to increase the quality of the workforce by retaining high quality performers who are retiring or are leaving for a position in private industry.

Under 5 U.S.C. 5754, other Federal agencies may pay retention incentives up to 25 percent of an employee’s rate of basic pay.. Similar to the recruitment payment intervention, while the current Demonstration Project modeled this intervention after the NIST Demonstration Project, retention payments are now also available elsewhere in the federal government. The title 5 retention incentive authority was significantly enhanced in May 2005 by the Federal Workforce Flexibility Act of 2004 (Public Law 108-411). On May 1, 2006, the Demonstration Project plan was modified to rescind its independent authority to pay retention payments (See 71 FR 25615.) DoC may now use the title 5 retention incentive authority under 5 U.S.C. 5754 and 5 CFR part 575, subpart C, for Demonstration Project employees.<sup>10</sup>

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<sup>9</sup> *At the time the Year Seven evaluation was conducted, the changes made by the Federal Workforce Flexibility Act of 2004 had not yet been codified into 5 U.S.C. 5753 and, as such, the changes cited here in regards to recruitment payments were not yet in effect. However, as of the time this report is being finalized, the changes were codified and the Demonstration Project plan was modified to rescind its independent authority to pay recruitment payments.*

<sup>10</sup> *Similarly, at the time the Year Seven evaluation was conducted, the Federal Workforce Flexibility Act of 2004 had not yet been codified into 5 U.S.C. 5754 and, as such, the changes cited here in regards to retention payments were not yet in effect. However, as of the time this report is being finalized, the Demonstration Project plan was modified to rescind its independent authority to pay retention payments.*

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 was originally built for these purposes. In Year Three, efforts were underway to transition to a web-based system that is expected to be a major improvement by making the process far more user-friendly. In Year Seven, the automated classification system (ACS) was fully web-based and was accessible to all supervisors. 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
- 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 with the managers

Delegated classification authority gives line managers the authority to classify positions. Each operating unit's Operating Personnel Management Board has the responsibility for overseeing the delegation of classification authority. Human resources staff has the responsibility to monitor and review classification decisions. Delegated classification authority is meant to give managers more control over classifying the work they supervise. Managers must understand their operating unit's mission and the work they supervise to be effective classifiers.

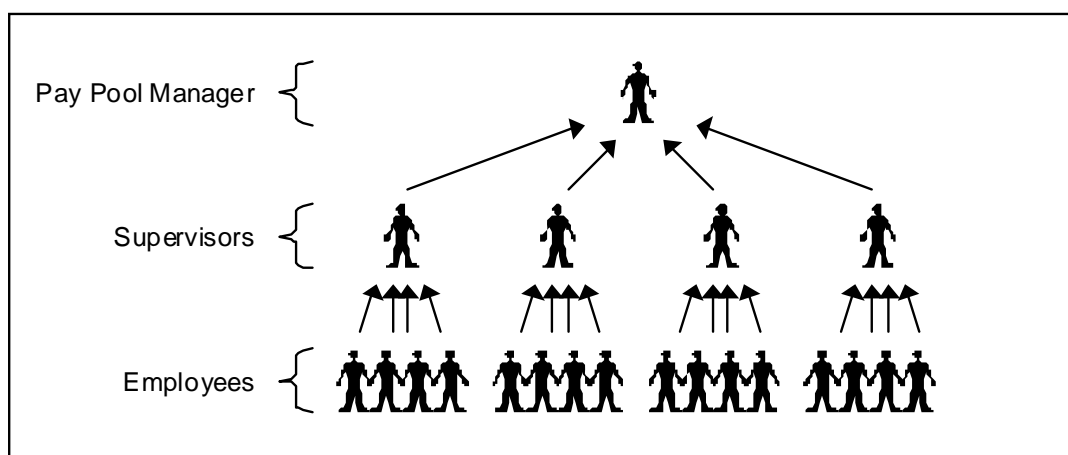
2.5.14. Delegated pay authority allows line managers to direct and administer pay functions

Delegated pay authority gives line managers the authority to direct and administer pay procedures. Under the GS system, 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 performance-based pay increases and/or bonuses. The Pay Pool Manager, however, makes the final decisions

regarding the performance scores and dollar amounts for both performance-based pay 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 2-5 displays the delegated pay authority relationship within the Demonstration Group. 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 procedures.

**Figure 2-5. 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

Under the three-year probationary period intervention, employees in the scientific and engineering (ZP) career path who perform research and development (R&D) work are subject to a three-year probationary period.<sup>11</sup> Managers 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 decides 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 these 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.

<sup>11</sup> Other employees in the Demonstration Project serve the same one-year probationary period as employees throughout the government.

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

All Demonstration Projects under 5 USC 47 must be evaluated, by statute, for the life of the project. OPM requires that every Demonstration Project be rigorously evaluated by an outside evaluator. The purpose of the DoC Demonstration Project evaluation is to determine if the Demonstration Project's 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 (Batten, Goehrig, and Jorgenson, 1998) states that the research questions that must be answered will differ from project to project. However, six general research questions (presented in Table 2-8) must be answered for every Demonstration Project.

**Table 2-8. Research Questions from OPM Demonstration Project Handbook**

OPM Research Questions	Timing of Answer
1) Did the project accomplish the intended purpose and goals? If not, why not?	Years 3, 5, 7, 9, & 10
2) Was the project implemented and operated appropriately and accurately?	All Years
3) What was the cost of the project?	Year 5 and 10
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 and 10

In addition, research questions are based on six objectives specific to the DoC Demonstration Project. These objectives stem from major concerns within DoC in regards to hiring restrictions, a complex job classification system, and poor tools for rewarding and motivating employees. The Demonstration Project was implemented to address these types of issues. Accordingly, the evaluation also seeks to address the six additional research questions specified in Table 2-9.

**Table 2-9. Research Questions Related to DoC Demonstration Project Objectives**

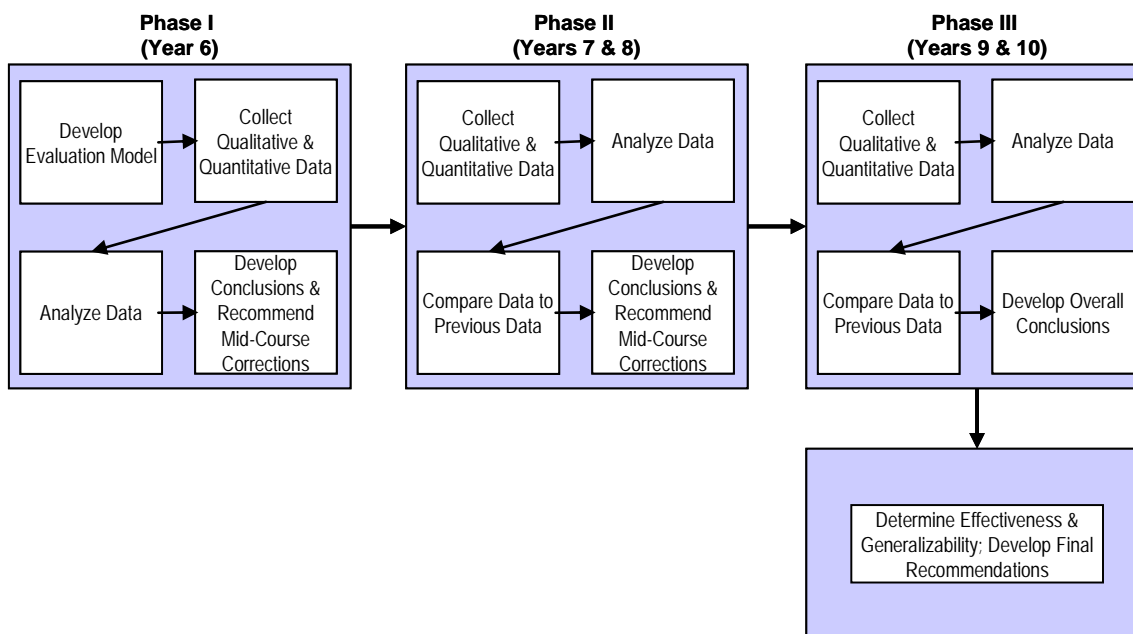
DoC-Specific Research Questions	Timing of Answer
1) Has the quality of new hires increased; has there been an improved fit between position requirements and individual qualifications; has there been a greater likelihood of getting a highly qualified candidate?	Years 3, 5, 7, 9, & 10
2) Has retention of good performers increased?	Years 3, 5, 7, 9, & 10
3) Has individual and organizational performance improved?	Years 3, 5, 7, 9, & 10
4) Is human resources management more effective?	Years 3, 5, 7, 9, & 10
5) Is human resources management more efficient?	Years 3, 5, 7, 9, & 10
6) Is there improved support for EEO/diversity goals in recruiting, rewarding, paying, and retaining minorities; are opportunities for a diverse workforce being provided; are the contributions of all employees being maximized?	All Years

The 12 research questions above were tracked during all three phases of the Demonstration Project evaluation and are the ultimate questions to be answered by this evaluation. Chapter 5 of this report provides a high-level summary addressing these questions based on data available after seven years of operation (which are presented throughout Chapter 4).

2.6.2. The 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 other factors that may have an impact by tracking a Comparison Group that is reasonably similar (though not necessarily identical) to the experimental (Demonstration) group. The DoC Demonstration Project evaluation is being conducted in three phases, shown in Figure 2-6, and will compare the Demonstration Group to the Comparison Group across time.

Figure 2-6. DoC Demonstration Project Evaluation Model Phase



In general, the three phases of the evaluation focus on project implementation and project effectiveness, but to varying degrees. The evaluation also serves to produce recommendations for mid-course corrections as the project progresses. The three phases differ slightly in their focus, but were designed to complement each other.

This Year Seven Report compares data across the life of the Demonstration Project. It presents data on the state of the Demonstration Project in Year Seven and also, importantly, provides trend analyses to examine changes that have occurred over time by examining data from Years One through Seven.





### 3. DATA COLLECTION AND ANALYSES

Multiple data collection methods were used to gather the information needed for Booz Allen's assessment of the effectiveness of the Demonstration Project interventions. These methods included interviews with key program staff and managers, focus groups, a survey, a review of objective data obtained from the National Finance Center (NFC) Payroll/Personnel System and the Demonstration Project's Performance Payout System (PPS), a review of human resources (HR) summary data, site historian logs, and cost data. Each data collection method is described in detail below.

#### 3.1. Booz Allen conducted 19 interviews with staff in the DoC organizations participating in the Demonstration Group to determine their perceptions of the project

Booz Allen conducted individual, face-to-face interviews with senior managers and human resources staff from agencies operating under the Demonstration Project's personnel interventions. Interviewees were selected based on the relevance of their roles and/or positions in the Demonstration Project. The intent of the interviews was to acquire more detailed information about processes and procedures than can be gained from documentation. Furthermore, Booz Allen was interested in obtaining the perspectives of employees who are in some way involved with administering and/or monitoring the Demonstration Project interventions.

Interviews were conducted using a structured interview format, with questions tailored to the individual's area of expertise. The responses to the interview questions were then analyzed to identify themes, trends, and discrepancies. (See Appendix B-1 for the interview protocol; a summary of the interview results has been provided to DoC under separate cover.) In total, 19 interviews were conducted (see Table 3-1).

**Table 3-1. Interviews Conducted**

INTERVIEW TYPE	NUMBER OF SESSIONS
Directors and Administrative Officers	6
Pay Pool Managers	8*
Rating Officials	5
Human Resources and EEO Staff	5
Total	19

*\*Five of the eight Pay Pool Managers also served as Directors; both interview protocols were used in these cases*

Given the limited number of interviews conducted, themes and conclusions based on these data are not meant to be *statistically* valid. Rather, the interview data were intended to add richer context to the survey results and objective data collected to evaluate the Demo Project.

### 3.2. A total of 22 focus groups were conducted with employees from the Demonstration and Comparison Groups to help assess the Demonstration Project's impact

Focus groups were conducted to obtain in-depth perceptual data from employees in the Demonstration and Comparison Groups. Several key purposes drove our decision to use focus groups as a source of data. Focus groups:

- Provide a means of capturing rich, qualitative data on employee perspectives of the Demonstration Project
- Trigger ideas or research questions that can then be analyzed with our survey or objective data
- Convey to Demonstration Project participants our interest in hearing their opinions.

Booz Allen-trained facilitators used four structured focus group protocols to guide the focus group sessions. Separate protocols were used for Demonstration and Comparison Groups, and for non-supervisor and supervisor groups. Prior to presenting the focus group questions for discussion, Booz Allen facilitators provided introductory information including the purpose of the session, how individuals were selected to participate, and how focus group responses would be used. Table 3-2 lists the topics that were covered by the focus group protocols.

**Table 3-2. Focus Group Topics**

• Performance Management	• Employee Retention
• Career Progression	• Quality of the Workforce
• Classification	• Organizational Excellence and Workforce Diversity
• Hiring/Recruitment	• Minority/Gender Issues
• Employee Turnover	

Prior to recruiting participants, Booz Allen worked with DoC to identify locations in which the focus groups and interviews would be held. Site visit locations were determined by considering a number of criteria:

- Balance of Comparison and Demonstration Group participants
- Balance of Wave 1 and Wave 2 participants
- Inclusion of all participating organizations
- Consideration for which site locations had been visited for previous evaluations
- Input from the DoC's Demo Project Manager
- Budget constraints.

The majority of the focus groups (17 out of 22) were structured as supervisory or non-supervisory groups; there were also five all-minority groups. The all-minority groups allowed Booz Allen to assess whether certain categories of employees felt differentially impacted by the Demonstration Project interventions. The breakdown of the 22 focus groups

is presented in Table 3-3. Similar to the interviews, themes and conclusions based on focus group data are not meant to be *statistically* valid given the limited number of focus groups conducted. Rather, the focus group data were intended to add richer context to the survey results and objective data collected to evaluate the Demo Project.

**Table 3-3. Focus Groups Conducted**

<b>FOCUS GROUP TYPE</b>	<b>NUMBER OF SESSIONS</b>
Demonstration Group supervisory groups Original Demonstration Group (2 sessions) New Demonstration Group (expansion/extension) (2 sessions)	4
Demonstration Group non-supervisory groups Original Demonstration Group (6 sessions) New Demonstration Group (expansion/extension) (2 sessions)	8
Demonstration Group all-minority groups	5
Comparison Group supervisory groups	2
Comparison Group non-supervisory groups	3
Total	22

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 Spring 2005. The data from the focus groups were organized and analyzed to identify trends, themes, and discrepancies. (Appendix B-2 contains the focus group protocols; a complete summary of focus group results has been provided to DoC under separate cover. Appendix B-3 lists the focus group sites by location, focus group type, and organization).

### **3.3. A survey of Demonstration and Comparison Group participants provided a key data source for our assessment**

The survey garnered opinions from Demonstration Group and Comparison Group participants on a wide range of human resources issues and practices relevant to the Demonstration Project. The Year Seven Survey went through changes from its predecessors, the Summative Year Survey (administered during Year Five), Operational Year Survey (administered during Year Three) and the Implementation Year Survey (administered during Year One). The biggest change from the Year Five survey to Year Seven survey pertains to the reduction of items in the survey instrument. The survey was shortened in an effort to address concerns about the length of the instrument and hopefully encourage participation. The current survey contained 133 items, in comparison to 155 items in the previous version of the survey. In addition to removing some items from the survey instrument, some items were refined to improve item clarity and survey flow.

In addition to the refinement and deletion of items, several new items were added to the Year Seven survey, most notably:

- Are you at the salary ceiling (cap) at the top of your pay band? (Demonstration Group only)
- The quality of the feedback that I receive from my supervisor is good.

And finally, in an attempt to have an item that delineated the time period that respondents entered the Demonstration Project, an additional item was included during the current survey administration. The item and its response options are:

- Which statement best describes your participation in the Demo Project?
  - Between March 1998 and September 2003, I entered the Demo Project as a Demonstration group participant. Today, I remain in this group.
  - Between March 1998 and September 2003, I entered the Demo Project as a Comparison group participant. Today, I remain in this group.
  - Between October 2003 and March 2005, I entered the Demo Project as a Demonstration group participant.
  - Between October 2003 and March 2005, I entered the Demo Project as a Comparison group participant.
  - Between March 1998 and September 2003, I entered the Demo Project as a Comparison group participant. However, in October 2003, I became a Demonstration group participant.
  - None of these statements describe my participation in the Demo Project.

All other 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 a change in the survey instrument.

Like its previous administration in Year Five, the survey was administered in an electronic format. The survey was programmed in a web-based format. The use of electronic survey programming allowed us to automatically assign respondents to either the Demonstration Group or Comparison Group according to their answer to item 4 (“What is your pay category?”). Each group was then guided through the electronic survey program to answer the appropriate questions based upon their group designation. The same procedure was used to differentiate between supervisors and non-supervisors based on individual’s responses to item 10 (“What is your supervisory status?”).

Booz Allen hosted the survey on one of its servers and distributed an email message with a hot link to the web site to all Demonstration Project participants. Employees were asked to complete the survey within three weeks of receiving the email message. A reminder email was sent midway through the administration period. Booz Allen analyzed the survey data and only reported out survey results in the aggregate. (See Appendix C for survey materials.)

One advantage of survey data is that they provide information on employee attitudes and opinions that can be generalized to all Demonstration Group and Comparison Group participants. This generalization is possible due to the large number of surveys returned by each group. In total, 2,820 Demonstration Project participants returned the Year Seven survey, for an overall (across both groups) response rate of 42 percent. This response rate is consistent with Year Five and better than all other survey administrations as shown in Table 3-4. The increase in the response rate in Year Five and Year Seven is likely attributable to the conversion to a web-based survey administration method.

**Table 3-4. Survey Response Rates**

	Overall Response Rate	Demonstration Group		Comparison Group	
		Participants	Responses	Participants	Responses
Year Seven Survey	42%	4,608	1,853 (40%)	2,113	967 (46%)
Summative Year (i.e., Year Five)	43%	2,914	1,261 (43%)	1,805	777 (43%)
Operational Year (i.e., Year Three)	38%	2,781	1,112 (40%)	1,808	609 (34%)
Implementation Year (i.e., Year One)	33%	2,697	935 (35%)	1,707	503 (29%)
Baseline Year	36%	2,649	1,024 (39%)	1,633	512 (31%)

3.3.1. Demonstration Group and Comparison Group survey respondents were reasonably similar to the groups that they represent

The strength of the survey data is also determined based on the degree to which the survey respondents are reasonably similar to the overall populations of Demonstration Project employees that they represent. As displayed in Table 3-5, there is a basic similarity, for both the Demonstration Group and the Comparison Group, between the demographic profiles of those who responded to the survey and the group overall. One place of some divergence is the ratio of non-supervisors to supervisors; in both the Demonstration Group and the Comparison Group, supervisors comprised a greater percentage among the survey respondents than they do among the participant group. However, this may be complicated by the fact that a greater number of individuals were identified as supervisors in the survey than were coded as such in the objective datafile, perhaps resulting from one or both of the following factors: 1) the self-report nature of the survey and/or 2) the broader definition of supervisor used in the survey compared to the objective datafile.

This table also provides a means for comparing the Demonstration Group and Comparison Group participants to discern whether they are reasonably similar in regards to basic demographic profiles, which is important for establishing the validity of the Comparison Group used in this evaluation. Again, the results show that they are reasonably similar, with the one point of some divergence being the representation of supervisors.

Table 3-5. Comparison of Survey Respondents to All Participants

	Demonstration Group		Comparison Group	
	Participants	Respondents	Participants	Respondents
<b>OVERALL</b>	4,608	1,853 (40%)	2,113	967 (46%)
<b>GENDER</b>				
Male	2,649 (57%)	1,016 (56%)	1,278 (60%)	535 (56%)
Female	1,959 (43%)	813 (45%)	835 (40%)	424 (44%)
<b>RACE/ETHNICITY</b>				
White	3,576 (78%)	1,503 (81%)	1,787 (84%)	825 (84%)
Black	602 (13%)	164 (9%)	184 (9%)	72 (7%)
Asian, Native Hawaiian, or Other Pacific Islander	266 (6%)	113 (6%)	93 (4%)	47 (5%)
Hispanic	145 (3%)	NA	37 (2%)	NA
American Indian or Alaska Native	19 (0%)	28 (2%)	12 (1%)	15 (2%)
Other	NA	52 (3%)	NA	26 (3%)
<b>HISPANIC ORIGIN</b>				
Hispanic origin	NA	78 (5%)	NA	31 (3%)
Non-Hispanic origin	NA	1,669 (96%)	NA	879 (97%)
<b>SUPERVISORY STATUS</b>				
Non-Supervisory Employee	3,991 (87%)	1,186 (64%)	1,981 (94%)	697 (72%)
Supervisory Employee	617 (13%)	667 (36%)	132 (6%)	270 (28%)
<b>PAY GRADE – GS &amp; GM SCHEDULE</b>				
1			3 (0%)	0 (0%)
2			4 (0%)	1 (0%)
3			11 (1%)	3 (0%)
4			35 (2%)	5 (1%)
5			18 (1%)	11 (1%)
6			37 (2%)	18 (2%)
7			147 (7%)	63 (7%)
8			37 (2%)	18 (2%)
9			208 (10%)	85 (9%)
10			21 (1%)	8 (1%)
11			369 (18%)	139 (15%)
12			478 (23%)	213 (23%)
13			420 (20%)	213 (23%)
14			220 (10%)	108 (12%)
15			105 (5%)	41 (4%)

**Table 3-5. Comparison of Survey Respondents to All Participants (continued)**

	Demonstration Group		Comparison Group	
	Participants	Respondents	Participants	Respondents
ZP	2,674 (60%)	1,114 (61%)		
ZT	270 (6%)	83 (5%)		
ZA	981 (22%)	456 (25%)		
ZS	519 (12%)	169 (9%)		
<b>PAY BAND</b>				
I	84 (2%)	44 (2%)		
II	550 (12%)	221 (12%)		
III	1,441 (32%)	652 (36%)		
IV	1,882 (42%)	720 (40%)		
V	487 (11%)	174 (10%)		

*Notes:*

1. Due to missing data in the objective data file and voluntary non-response to some survey questions, the total for any demographic may be less than the total overall.
2. The categorization of race/ethnicity differed between the survey and the objective datafile. As a result, this table indicates NA where data were not collected on a given categorization. In addition, Asian, Native Hawaiian, or Other Pacific Islander were collapsed into a single category to remedy the differences in the categorizations.
3. For race/ethnicity, survey respondents were able to select more than one option. Given this, the total across the response options may exceed the total number of survey respondents.
4. The discrepancy between the number of individuals in both the Demonstration Group and the Comparison Group who were coded as supervisors in the objective datafile versus the number identified in the survey is likely due to one or both of the following factors: 1) the self-report nature of the survey and/or 2) the broader definition of supervisor used in the survey compared to the objective datafile.

### 3.3.2. Survey results are presented throughout the report, highlighting between group and across time findings

In the “Findings and Conclusions” section, Year Seven survey data are presented in table format to facilitate understanding. These tables show the percentage breakdown of responses from Demonstration and Comparison Group survey respondents, with a column indicating whether there is a statistically significant difference in their responses. In addition, responses of supervisory and non-supervisory employees are reported separately where there are statistically significant differences between them.

For the preliminary data analyses, Booz Allen generated cross-tabulations and performed statistical tests (e.g., t-tests) to determine whether differences between groups (Demonstration Group versus Comparison Group, supervisors versus non-supervisors) were statistically different. This information is presented in table format throughout the report.

For selected survey items, Booz Allen performed trend analyses, which are displayed as line charts in the appropriate sections of the “Findings and Conclusions.” The items that are presented in this fashion are the same items for which trend analyses were performed in previous years.

### **3.4. Booz Allen used objective personnel data to measure the impact of the Demonstration Project's interventions**

Objective data analyses played a major role in the assessment. Whereas interview, focus group, and survey data provided a wealth of information about perceptions, we relied on the objective data analyses for more factual information. To maintain consistency, nearly the same data elements and data analyses were used as in past years.

#### **3.4.1. Personnel data, including performance, compensation, and demographic data, were collected**

For the Year Seven Report, Booz Allen collected and analyzed objective data contained in a data file provided by DoC, which relied upon data from the NFC's Payroll/ Personnel System. The personnel data pertained to performance, compensation, and demographics for the time period April 2004 to March 2005 for both the Demonstration Group and the Comparison Group. Table 3-6 shows the objective data elements that were included in the analyses.



Table 3-6. Objective Data Elements

Objective Data Elements	
<ul style="list-style-type: none"> <li>• Social Security Number</li> <li>• Gender</li> <li>• Race</li> <li>• Birth date</li> <li>• Veteran status</li> <li>• Education</li> <li>• Organization/Unit</li> <li>• Grade (Comparison Group)</li> <li>• Step (Comparison Group)</li> <li>• Hire date into DoC</li> <li>• Hire code</li> <li>• Date entered Demonstration Project (Demonstration Group)</li> <li>• Career path (or equivalent for Comparison Group)</li> <li>• Pay band (or equivalent for Comparison Group)</li> <li>• Interval (or equivalent for Comparison Group)</li> <li>• Supervisory status (supervisory employee/ non-supervisory employee)</li> <li>• Salary as of 9/30/04 (Demonstration Group)</li> <li>• Salary as of 11/30/04, after performance increases (Demonstration Group)</li> <li>• Salary as of 3/31/05, after ACI (Demonstration Group)</li> <li>• Salary as of 4/01/04 (Comparison Group)</li> <li>• Salary as of 3/31/05 (Comparison Group)</li> <li>• Performance-based bonus</li> <li>• Performance-based bonus date</li> <li>• Special act award</li> <li>• Special act award date</li> <li>• Other award</li> <li>• Other award date</li> <li>• Eligibility for performance score in Year Seven (Demonstration Group)</li> <li>• Eligibility for performance rating in Year Seven (Comparison Group)</li> <li>• Performance appraisal score (Demonstration Group)</li> <li>• Performance rating (Comparison Group)</li> </ul>	<ul style="list-style-type: none"> <li>• Intended salary increase percent</li> <li>• Actual salary increase percent</li> <li>• Percent received of total possible increase percent</li> <li>• Pay band maximum</li> <li>• Pay interval maximum</li> <li>• Step increase (Comparison Group)</li> <li>• Quality step increase (Comparison Group)</li> <li>• Increase for promotion to grade within band (Comparison Group)</li> <li>• Retention payment amount</li> <li>• Retention payment date</li> <li>• Recruitment payment amount</li> <li>• Recruitment payment date</li> <li>• Eligibility for 3-year probation</li> <li>• 3-year probation begin date</li> <li>• 3-year probation end date</li> <li>• Hired during or at end of 3-year probation</li> <li>• Promotion during Year Seven</li> <li>• Promotion amount</li> <li>• Promotion date</li> <li>• Career path after promotion (or equivalent for Comparison Group)</li> <li>• Pay band after promotion (or equivalent for Comparison Group)</li> <li>• Interval after promotion (or equivalent for Comparison Group)</li> <li>• New hire salary</li> <li>• Date of separation</li> <li>• Type of separation</li> <li>• Salary at separation</li> <li>• Switched career paths during Year Seven (or equivalent for Comparison Group)</li> <li>• Demonstration Project wave</li> </ul>

3.4.2. In the Demonstration Group, 4,001 participants were eligible for performance ratings; some of the analyses were based on this subset of the database

Where possible (e.g., analysis of turnover data, counts of new hires), the full dataset of 4,608 was used for analyses. However, some analyses required performance data and were therefore based on the 3,979 of the 4,001 Demonstration Group participants who were not only eligible for a performance rating but also had available performance score, pay increase percent data, and bonus increase percent data. These numbers are sufficiently large to provide for robust analyses.

In Year Seven, 435 of the 4,608 Demonstration Group participants were ineligible for performance ratings. This included individuals who were ineligible for performance ratings for a variety of reasons: people who were recently hired (or received pay adjustments within 120 days of the end of the performance cycle), employees on performance improvement plans, employees who separated from the Demonstration Project during the performance year (i.e., prior to receiving a rating), and individuals in employment categories not eligible to be rated (e.g., students). In addition, there were an additional 172 individuals for whom eligibility data were not available in the database. Table 3-7 shows a breakdown of the Demonstration Group participants.

**Table 3-7. Demonstration Group Participants in the Database**

Eligible, with performance scores of 40 or above	3,860
Eligible for performance rating but not for salary increase due to promotion or pay adjustment within last 120 days of the rating cycle	137
Eligible but with no performance score	4
<b>Total Eligible</b>	<b>4,001</b>
Not eligible due to recent new hire	144
Not eligible due to being on a performance improvement plan	5
Left prior to receiving rating***	194
Not eligible due to status as a temporary student / faculty/coop designation	84
None of the above****	8
<b>Total Ineligible</b>	<b>435</b>
<b>Missing Data on Eligibility</b>	<b>172</b>
<b>Total Demo Group Participants in Database</b>	<b>4,608</b>

*Notes:*

1. The total for "Not eligible due to recent new hire" differs from the number of new hires reported elsewhere because some of the new hires are included in the eligible count because they were hired early enough in the year to receive a rating.
2. Twenty-five of the 219 cases initially coded as "Left prior to receiving rating" were found to have performance scores and were therefore moved to the "eligible, with performance scores of 40 or above" category.
3. One of the 9 cases initially coded as "none of the above" was found to have a performance score and was therefore moved to the "eligible, with performance scores of 40 or above" category.

- 3.4.3. In the Comparison Group, 1,916 participants were eligible for performance ratings; some of the analyses were based on this subset of the database

In Year Seven, 1,916 of the 2,113 Comparison Group participants were eligible for a performance rating. The remainder was ineligible for performance ratings for a variety of reasons: recent promotion, new hire, student/faculty/co-op status, or left prior to receiving a performance rating. Table 3-8 shows a breakdown of the Comparison Group participants.

**Table 3-8. Comparison Group Participants in the Database**

Eligible	1,916
<b>Total Eligible (with performance rating)</b>	<b>1,916</b>
Ineligible – recently promoted	67
Ineligible – new hire	21
Ineligible – student/faculty/co-op status	60
Ineligible – on a performance improvement plan	0
Ineligible – left prior to receiving rating	49
<b>Total Ineligible</b>	<b>197</b>
<b>Total Comp Group Participants in Database</b>	<b>2,113</b>

- 3.4.4. Both descriptive and inferential statistics were used to analyze the Demonstration Project's objective data

Descriptive and inferential statistics were used to analyze the objective personnel data. Descriptive statistics (e.g., frequencies, cross-tabulations, and means) were used to present information about performance scores, pay increases, and bonuses. Inferential statistics (e.g., t-tests, correlations, regression analyses) were used to test the statistical significance of relationships (e.g., between performance scores and pay increases). Inferential statistics were also used to test differences in mean performance payouts to members of protected classes (minorities, females, and veterans). The specific inferential statistics used were ANOVA (analysis of variance—used to test differences in means) and ANCOVA (analysis of covariance—used to test differences in means while controlling for other factors). Appendix D-1 presents a full description of the ANCOVA process and results as they relate to protected classes.

### **3.5. Booz Allen collected HR summary data from the participating organizations as an additional means of tracking and analyzing data on the use of the Demonstration Project interventions**

Booz Allen collected summary level HR data from the participating organizations as an additional source of information regarding the use of the Demonstration Project interventions. Each participating organization in the Demonstration Group and the Comparison Group was asked to submit data pertaining to classification actions, performance rating grievances, and hiring methods used.

### **3.6. Booz Allen collected site historian logs, which provide context for the experiences and perceptions of Demonstration Project participants**

Site historians were designated in all the Demonstration Group and Comparison Group organizations. The site historians provided information on events that occurred during the specified timeframe (April 1, 2004 to March 31, 2005) that may have impacted the interventions implemented under the Demonstration Project. Appendix E provides a summary of the information reported by site historians during Year Seven.

When performing analyses, we considered how the information conveyed in the site historian logs may impact findings. For example, site historian logs provided information on hiring restrictions, supervisor training, and budgetary matters.

### **3.7. Booz Allen collected cost data to determine the extent of salary costs in the Demonstration Project**

In Year Seven, Booz Allen collected cost data to address the OPM research question, “What was the cost of the project?” In Year Seven, we specifically targeted salary costs. More specifically, two analyses were used to examine the variance, if any, between the Demonstration Group and the Comparison Group. The first analysis calculated the compounded average annual salary growth rate (CAGR) for the two groups. The second analysis estimated the annual average salary, per person, for each group to assess the salary cost per person.

## 4. FINDINGS AND CONCLUSIONS

This chapter presents Booz Allen's findings and conclusions regarding the major interventions that are being tested during the Demonstration Project. Each section is dedicated to a set of interventions. Each conclusion is explained and then followed by findings that are supported by interview themes, focus group themes, survey results, objective data analyses, and/or summary HR data analyses.

### **4.1. Employee satisfaction with the work environment and jobs has not been hindered by the Demonstration Project and, in fact, favorability toward the Demonstration Project itself has continued to increase over time**

Multiple survey questions designed to assess the impact of the Demonstration Project on employee satisfaction were asked of participants from the Demonstration Group and the Comparison Group. Overall, results from Year Seven were consistent with the findings from previous years. For example, Demonstration Group participants and Comparison Group participants reported similar levels of satisfaction with their work environment and their jobs, and supervisory employees perceived both their work environment and their jobs more favorably than did non-supervisory employees. In addition, trend analyses across the years demonstrated that work environment satisfaction and job satisfaction have remained relatively stable. Favorability toward the Demonstration Project is still on the rise, especially among Comparison Group participants. The findings below detail how the Demonstration Project has had an impact on employee perceptions of their work environments.

- 4.1.1. The majority of participants in both the Demonstration Group and Comparison Group are satisfied with their work environment; however, supervisory employees tend to report higher levels of satisfaction compared to non-supervisory employees

Demonstration Group and Comparison Group participants were asked a series of questions related to satisfaction with the work environment including questions related to job satisfaction, supervisor trust, person-job fit, fairness in job competition, and effects of organizational change. Overall, satisfaction in these areas has increased for both Demonstration Group and Comparison Group participants in Year Seven.

As displayed in Table 4-1, differences exist between the Demonstration Group and the Comparison Group on three survey items. One, a higher percentage of Demonstration Group participants believe that job competition is fair. Two, fewer participants from the Demonstration Group believe that employees lose out when organizational changes occur. And three, Demonstration Group and Comparison Group participants differed in their views of the Demonstration Project. One area in which the Demonstration Group and Comparison Group respondents differed was favorability toward the Demonstration Project. Fifty-nine percent of the Demonstration Group participants compared to 42 percent of the Comparison Group participants were in favor of the Demonstration Project. Although finding a

difference is consistent with previous years, the favorability of Comparison Group participants increased considerably from Year Five.

Consistent with past years, supervisors and non-supervisors responded differently to nearly all of these survey items. For each item, supervisors in both the Demonstration Group and the Comparison Group reported higher satisfaction than non-supervisors.

**Table 4-1. Survey Results – Employee Opinions of the Work Environment<sup>12</sup>**

		Demo. Group			Comp. Group			Demo. vs. Comp. <sup>13</sup>
		Total	(N)	(S)	Total	(N)	(S)	
93. In general, I am satisfied with my job.	<i>Disagree</i>	12%	14%	9%	11%	13%	7%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	11%	11%	10%	10%	11%	8%	
	<i>Agree</i>	77%	74%	81%	79%	76%	85%	
94. I trust my supervisor.	<i>Disagree</i>	15%	<i>No significant difference</i>		15%	16%	12%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	15%		16%	18%	13%		
	<i>Agree</i>	70%		69%	66%	75%		
95. My job is a good match for my skills and training.	<i>Disagree</i>	9%	11%	6%	10%	11%	7%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	9%	10%	6%	8%	9%	5%	
	<i>Agree</i>	82%	79%	88%	82%	80%	88%	
98. Competition for jobs here is fair and open.	<i>Disagree</i>	21%	23%	17%	23%	25%	18%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	24%	26%	21%	24%	24%	23%	
	<i>Agree</i>	55%	51%	63%	53%	51%	59%	
99. When changes are made at my organization, the employees usually lose out in the end.	<i>Disagree</i>	34%	31%	41%	29%	25%	41%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	41%	42%	38%	44%	47%	36%	
	<i>Agree</i>	25%	28%	21%	27%	29%	21%	
100. I am in favor of the Demonstration Project.	<i>Disagree</i>	18%	20%	13%	25%	28%	17%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	23%	26%	19%	33%	34%	32%	
	<i>Agree</i>	59%	54%	68%	42%	39%	51%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding

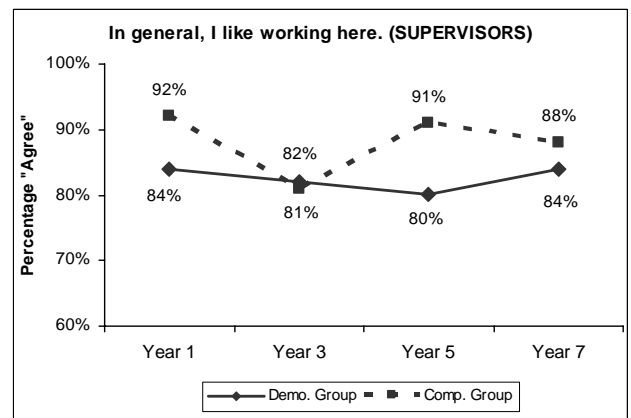
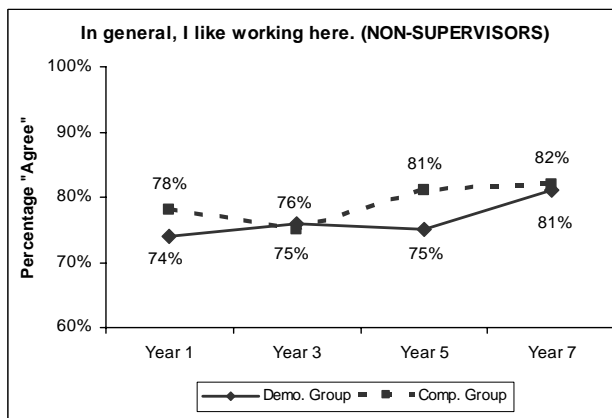
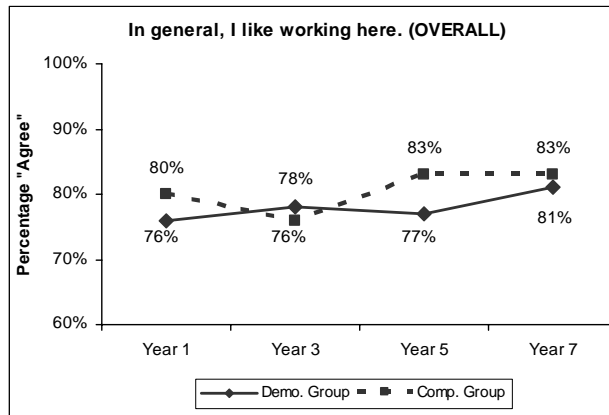
4.1.2. Over time, Demonstration Group participants' satisfaction with their work environment and jobs has remained stable

As displayed in Table 4-2, both Demonstration Group and Comparison Group survey respondents reported relatively high satisfaction with the work environment, which has remained fairly constant over the years. Satisfaction reached its highest point yet for Demonstration Group survey respondents. Although the Comparison Group participants have reported slightly higher levels of satisfaction over time, data from Year Seven show an increase in Demonstration Group participant satisfaction, bringing the levels of satisfaction of the two groups closer together.

<sup>12</sup> In this table and those that follow, non-supervisory (N) and supervisory (S) percentages are shown only when differences in the distribution of responses between these two groups were found to be statistically significant at the p<.05 level. (This means that, with 95 percent confidence, these differences are real and not due to chance.)

<sup>13</sup> In this table and those that follow, this column reports whether there was a statistically significant difference between the total responses of the Demonstration Group and the total responses of the Comparison Group. Respondents who selected the "Don't know/Not applicable" response option to an item were removed from significance testing for the examined item. The customary p≤.05 levels was used to test for a statistically significant difference. "Significant Difference" indicates that we can be reasonably certain that a difference exists between the two groups.

**Table 4-2. Change Over Time – Employee Satisfaction with the Work Environment<sup>14</sup>**



	Demo. Group		Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)
96. In general, I like working here.	<b>YEAR SEVEN</b>					
	Disagree	7%	8%	7%	7%	4%
	Neither disagree nor agree	11%	12%	10%	10%	8%
	Agree	81%	81%	84%	83%	88%
	<b>YEAR FIVE</b>					
	Disagree	9%	10%	8%	6%	3%
	Neither disagree nor agree	14%	15%	13%	11%	6%
	Agree	77%	75%	80%	83%	91%
	<b>YEAR THREE</b>					
	Disagree	10%	10%	8%	11%	11%
	Neither disagree nor agree	13%	13%	10%	13%	9%
	Agree	78%	76%	82%	76%	81%
<b>YEAR ONE</b>						
Disagree	10%	11%	7%	10%	4%	
Neither disagree nor agree	14%	15%	9%	10%	4%	
Agree	76%	74%	84%	80%	92%	
<b>BASELINE</b>						
Disagree	9%			8%		
Neither disagree nor agree	14%	NA		14%	NA	
Agree	77%			79%		

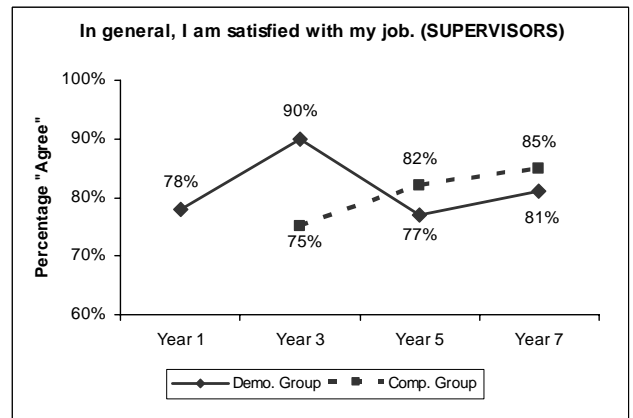
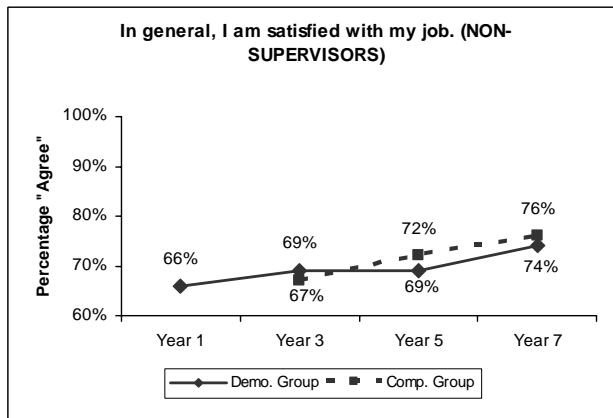
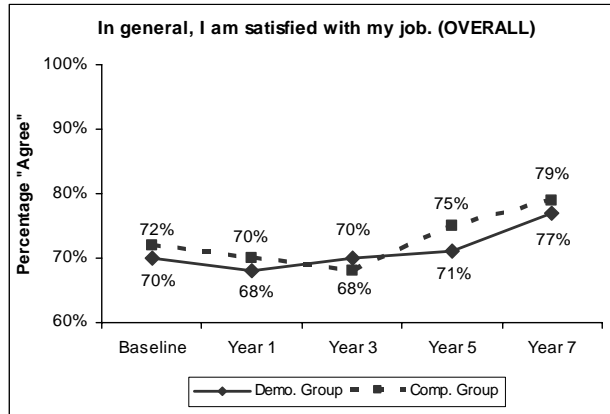
(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding

<sup>14</sup> In this table and those that follow in which multi-year data are presented, every effort has been made to ensure consistency in data reporting. Minor inconsistencies may have occurred as a result of standard data management and cleaning procedures; however, we do not believe that any changes have had a meaningful impact on the results.

As displayed in Table 4-3, overall job satisfaction among Demonstration Group participants and Comparison Group participants has been very similar over time. Moreover, for both groups, job satisfaction has been increasing over the years, with over three-quarters of respondents reported that they are satisfied with their jobs. In addition, supervisory job satisfaction has been consistently higher than non-supervisory job satisfaction over the years.



**Table 4-3. Change Over Time – Job Satisfaction**



	Demo. Group			Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)	
93. In general, I am satisfied with my job.	<b>YEAR SEVEN</b>						
	Disagree	12%	14%	9%	11%	13%	7%
	Neither disagree nor agree	11%	11%	10%	10%	11%	8%
	Agree	77%	74%	81%	79%	76%	85%
	<b>YEAR FIVE</b>						
	Disagree	13%	14%	10%	10%	11%	7%
	Neither disagree nor agree	16%	17%	13%	15%	17%	11%
	Agree	71%	69%	77%	75%	72%	82%
	<b>YEAR THREE</b>						
	Disagree	15%	16%	6%	19%	20%	16%
	Neither disagree nor agree	15%	15%	5%	13%	14%	10%
	Agree	70%	69%	90%	68%	67%	75%
<b>YEAR ONE</b>							
Disagree	18%	19%	10%	17%			
Neither disagree nor agree	14%	15%	12%	13%		NA	
Agree	68%	66%	78%	70%			
<b>BASELINE</b>							
Disagree	15%			15%			
Neither disagree nor agree	15%	NA		13%		NA	
Agree	70%			72%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor; Year One data were not available broken out by supervisor and non-supervisor for the Comparison Group  
 Percentages may not add to 100 due to rounding

The results on job satisfaction were further examined by looking at responses based on race/national origin. As shown in Table 4-4, some differences exist in the perceptions of each race/national origin group when compared across the Demonstration Group and Comparison Group. Multiracial respondents in the Demonstration Group tended to have lower job satisfaction ratings than those in the Comparison Group. The opposite was observed for Hispanic participants; Hispanic respondents in the Demonstration Group tended to report greater job satisfaction than those in the Comparison Group. No significant pattern of response was detected for other race/national origin groups.

**Table 4-4. RNO Comparisons – Job Satisfaction**

		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
93. In general, I am satisfied with my job.	Disagree	8%	16%	12%	10%	29%	7%	19%	11%	13%	0%
	Neither disagree nor agree	14%	22%	10%	3%	19%	15%	14%	9%	9%	13%
	Agree	78%	61%	78%	86%	52%	78%	67%	80%	78%	88%

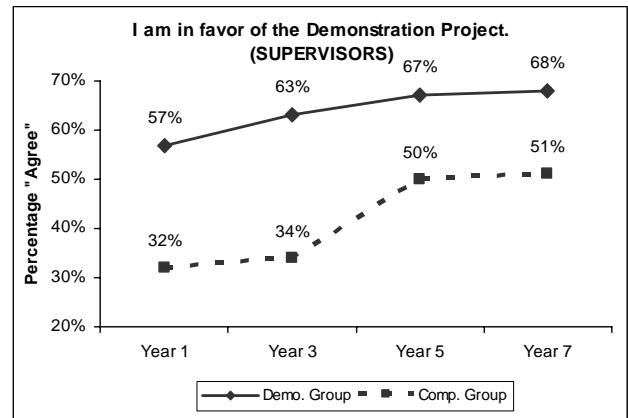
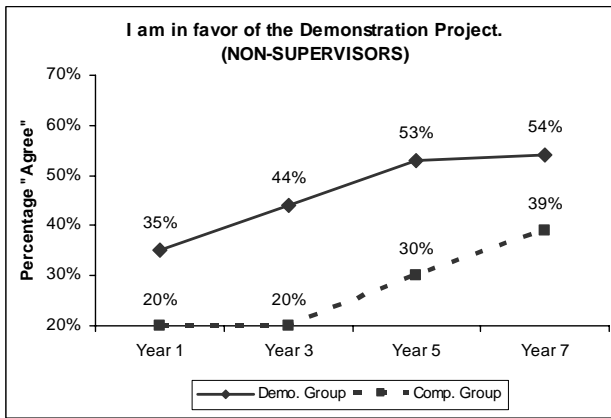
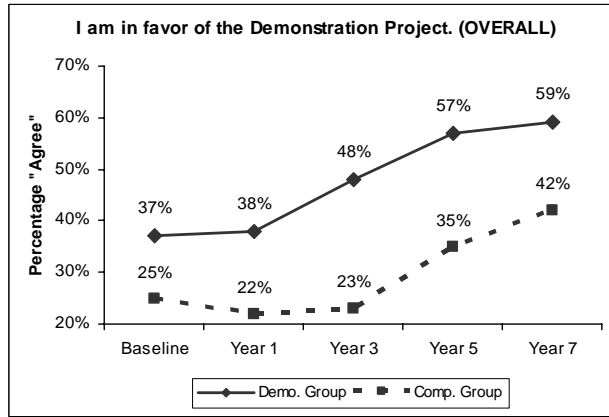
*Note: Responses are provided for five of the seven groups from whom survey data were collected: Asian (AS); Black or African American, not of Hispanic origin (AA); White, not of Hispanic origin (WH); Hispanic (HI); and Multiracial (MU). Data are not reported for the remaining two groups, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander, because the small number of respondents in these categories necessitates preserving their anonymity.*

#### 4.1.3. Demonstration Group and Comparison Group respondents have reported increasing levels of favorability toward the Demonstration Project

As displayed in Table 4-5, Demonstration Group participants have felt increasingly favorable over time toward the Demonstration Project. In Year Seven, 59 percent reported that they are in favor of the Demonstration Project. This 59 percent favorability level is close to the favorability benchmark set by previous Demonstration Projects, such as China Lake and NIST, which tended to achieve (and level out at) favorability ratings of 66-70 percent after five or six years<sup>15</sup>. Similar to previous satisfaction questions, supervisory employees continue to report higher levels of favorability than non-supervisory employees. Although the Comparison Group respondents' ratings of favorability have remained less favorable in contrast to the ratings provided by Demonstration Group respondents, their ratings have increased at a rate faster than the Demonstration Group, thus bringing the two closer together over time.

<sup>15</sup> Source: DoD S&T Reinvention, Laboratory Demonstration Project, Summative Evaluation 2002, page xiii.

Table 4-5. Change Over Time – Favorability Toward the Demonstration Project



	Demo. Group			Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)	
100. I am in favor of the Demonstration Project.	<b>YEAR SEVEN</b>						
	Disagree	18%	20%	13%	25%	28%	17%
	Neither disagree nor agree	23%	26%	19%	33%	34%	32%
	Agree	59%	54%	68%	42%	39%	51%
	<b>YEAR FIVE</b>						
	Disagree	20%	21%	17%	25%	26%	20%
	Neither disagree nor agree	23%	25%	16%	40%	44%	31%
	Agree	57%	53%	67%	35%	30%	50%
	<b>YEAR THREE</b>						
	Disagree	29%	30%	23%	24%	24%	25%
Neither disagree nor agree	24%	26%	14%	53%	56%	42%	
Agree	48%	44%	63%	23%	20%	34%	
<b>YEAR ONE</b>							
Disagree	32%	34%	18%	17%	16%	20%	
Neither disagree nor agree	30%	31%	25%	61%	63%	47%	
Agree	38%	35%	57%	22%	20%	32%	
<b>BASELINE</b>							
Disagree	26%			13%			
Neither disagree nor agree	37%	NA		63%	NA		
Agree	37%			25%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding

The results on favorability toward the Demonstration Project were further examined by looking at responses based on race/national origin. As shown in Table 4-6, some differences exist in the perceptions of each race/national origin group when compared across the Demonstration Group and Comparison Group. For all race/national origin groups except Blacks or African Americans, not of Hispanic origin (AA), favorability was higher in the Demonstration Group than in the Comparison Group. The results also showed that there was a range of perspectives across the race/national origin groups in the Demonstration Project, with favorability ranging from a low of 38 percent to a high of 66 percent.

**Table 4-6. RNO Comparisons – Favorability Toward the Demonstration Project**

		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
100. I am in favor of the Demonstration Project.	Disagree	16%	29%	16%	18%	26%	9%	17%	26%	26%	17%
	Neither disagree nor agree	18%	33%	23%	20%	21%	41%	37%	34%	16%	42%
	Agree	66%	38%	61%	62%	53%	50%	46%	41%	58%	42%

*Note: Responses are provided for five of the seven groups from whom survey data were collected: Asian (AS); Black or African American, not of Hispanic origin (AA); White, not of Hispanic origin (WH); Hispanic (HI); and Multiracial (MU). Data are not reported for the remaining two groups, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander, because the small number of respondents in these categories necessitates preserving their anonymity.*

#### **4.2. Demonstration Group participants continued to view greater potential for career progression than do the Comparison Group participants**

For Demonstration Group participants in the Demonstration Project, comparable occupations that could be treated similarly for classification, pay, and other purposes were aggregated into career paths. The change to career paths, along with broadbands and Departmental broadband standards, were expected to simplify, speed up, and improve the quality and flexibility of classification.

Survey data continued to show that Demonstration Group participants feel more positively about their potential for career progression than Comparison Group participants. They are more optimistic about their advancement opportunities and recognize the impact of the job classification system on their career progression. Moreover, Demonstration Group participants' perceptions have continued to improve over time.

#### 4.2.1. Demonstration Group participants are more optimistic about their advancement opportunities

As presented in Table 4-7, survey results showed differences between the Demonstration Group and Comparison Group respondents' outlooks regarding career progression. Demonstration Group respondents were generally more optimistic about promotion opportunities than Comparison Group respondents. In addition, a higher percentage of Demonstration Group respondents, compared to Comparison Group respondents, perceived that the job classification system has enhanced their career progression.

**Table 4-7. Survey Results – Career Progression/Career Paths**

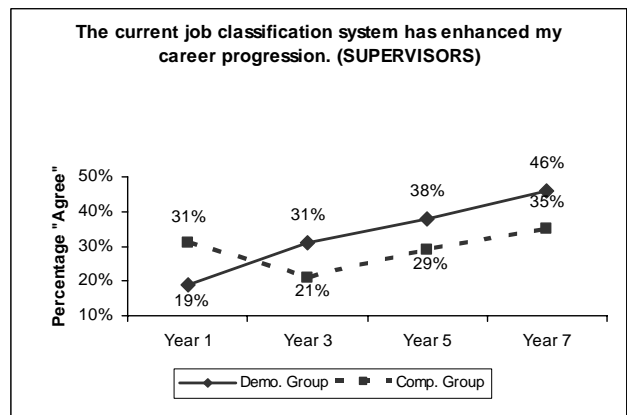
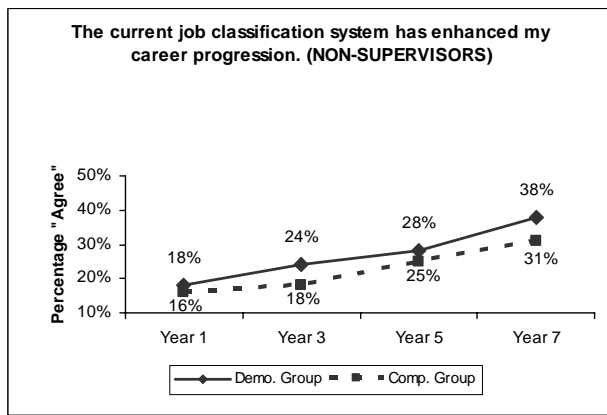
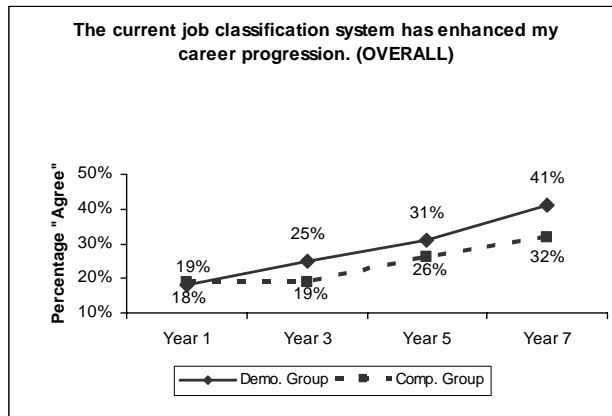
		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
22. I am satisfied with my chances of getting a promotion.	<i>Disagree</i>	36%	40%	30%	43%	47%	35%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	17%	17%	17%	15%	16%	13%	
	<i>Agree</i>	47%	43%	53%	42%	38%	52%	
23. The current job classification system has enhanced my career progression.	<i>Disagree</i>	26%	29%	21%	34%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	33%	33%	33%	34%			
	<i>Agree</i>	41%	38%	46%	32%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

#### 4.2.2. Demonstration Group participants' perceptions of the impact of the job classification system on their career progression have continued to improve over time

A comparison of survey data across the Demonstration Project years indicated a continuing positive trend in Demonstration Group participants' perceptions (among both non-supervisory and supervisory employees) about the favorable impact of the classification system on their career progression. The gain was quite considerable; whereas only 19 percent believed that the classification system enhanced their career progression in Year One, this figure has climbed to 41 percent in Year Seven. Comparison Group participants' perceptions (both non-supervisory and supervisory employees) of their own classification system's impact on their career progression also continued on an upward trend, although at lower levels than the Demonstration Group (see Table 4-8).

**Table 4-8. Change Over Time – Impact of Classification System on Career Progression**



	Demo. Group			Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)	
23. The current job classification has enhanced my career progression.	<b>YEAR SEVEN</b>						
	Disagree	26%	29%	21%	34%	36%	29%
	Neither disagree nor agree	33%	33%	33%	34%	33%	36%
	Agree	41%	38%	46%	32%	31%	35%
	<b>YEAR FIVE</b>						
	Disagree	28%	31%	21%	32%	35%	25%
	Neither disagree nor agree	41%	41%	41%	41%	40%	46%
	Agree	31%	28%	38%	26%	25%	29%
	<b>YEAR THREE</b>						
	Disagree	30%	32%	20%	41%	42%	38%
	Neither disagree nor agree	45%	45%	50%	41%	40%	41%
	Agree	25%	24%	31%	19%	18%	21%
<b>YEAR ONE</b>							
Disagree	35%	36%	28%	42%	44%	30%	
Neither disagree nor agree	47%	45%	53%	39%	40%	38%	
Agree	18%	18%	19%	19%	16%	31%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding  
 This item was not on the baseline survey

### **4.3. Demonstration Group participants are adapting to the classification system and Demonstration Group supervisors are adapting to their responsibilities as part of the classification process**

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

#### **4.3.1. In Year Seven, the Demonstration Group respondents reacted more positively to their classification system than Comparison Group respondents**

As displayed in Table 4-9, Demonstration Group respondents reacted more favorably toward their classification system than did Comparison Group respondents. The majority of non-supervisory and supervisory employees alike reported satisfied with the position classifications used in their organization. Among supervisors, there is more support in the Demonstration Group, compared to the Comparison Group, that they have enough authority to influence classification decisions and less concern that the classification process is adversarial and time consuming. While reactions are more positive among Demonstration Group supervisors than Comparison Group supervisors, it is worth noting that opinions are very split in the Demonstration Group in regards to whether it is time consuming to get classification decisions made.

**Table 4-9. Survey Results – Classification**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
24. All in all, I am satisfied with the position classifications used in my organization.	<i>Disagree</i>	23%	26%	19%	29%	30%	26%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	24%	25%	22%	28%	30%	24%	
	<i>Agree</i>	53%	49%	59%	43%	40%	50%	
104. I have enough authority to influence classification decisions.	<i>Disagree</i>			24%			32%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			27%			27%	
	<i>Agree</i>			49%			41%	
105. Getting a position description approved tends to be an adversarial process.	<i>Disagree</i>			51%			31%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			34%			43%	
	<i>Agree</i>			15%			27%	
106. I have to devote too much time to position classification.	<i>Disagree</i>			53%			33%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			35%			39%	
	<i>Agree</i>			13%			28%	
107. It takes too long to get classification decisions made in my organization.	<i>Disagree</i>			30%			12%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			40%			33%	
	<i>Agree</i>			30%			55%	
108. All in all, I am satisfied with the position classification procedures used in my organization.	<i>Disagree</i>			18%			34%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			41%			45%	
	<i>Agree</i>			42%			20%	

*(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined*

*Percentages may not add to 100 due to rounding*

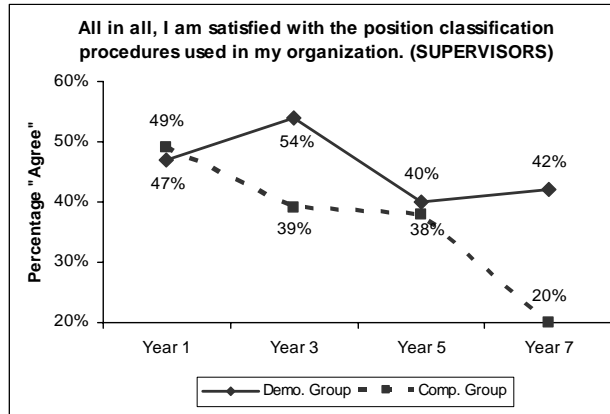
*Items 124-155 were addressed of supervisory employees only*

**4.3.2. Over time, satisfaction with classification procedures has fluctuated, both for the Demonstration Group and Comparison Group**

Over time, Demonstration Group supervisory employees’ perceptions of the classification procedures have varied, showing a recent small upward trend, after having declined between Year Three and Year Five. The dip in satisfaction noted in Year Five may be attributed to the implementation of the web-based Automated Classification System and the learning curve and technical kinks associated with the roll-out of the system. In Year Seven, satisfaction levels stabilized and began to move slightly upward. Consistently, Demonstration Group perspectives have been more positive than Comparison Group perspectives, although in some years their perceptions have closely converged.



**Table 4-10. Change Over Time – Satisfaction With Classification Procedures**



		Demo. Group	Comp. Group
		<b>YEAR SEVEN</b>	
<i>Disagree</i>		18%	34%
<i>Neither disagree nor agree</i>		41%	45%
<i>Agree</i>		42%	20%
		<b>YEAR FIVE</b>	
<i>Disagree</i>		20%	23%
<i>Neither disagree nor agree</i>		40%	39%
<i>Agree</i>		40%	38%
		<b>YEAR THREE</b>	
<i>Disagree</i>		16%	32%
<i>Neither disagree nor agree</i>		31%	29%
<i>Agree</i>		54%	39%
		<b>YEAR ONE</b>	
<i>Disagree</i>		20%	25%
<i>Neither disagree nor agree</i>		33%	26%
<i>Agree</i>		47%	49%

*This item was addressed by supervisory employees only*  
*Percentages may not add to 100 due to rounding*  
*This item was not on the baseline survey*

4.3.3. Rating Officials' reactions to the classification system demonstrated an increasing ease with the system and a desire to learn more

DoC's web-based ACS intended to improve the functionality of the system and further increase the efficiency of the process. Year Seven interviews with Rating Officials revealed an increasing comfort level with the ACS. Interviewees reported that the system was easy to use and flexible, but would like to have more training on it.

**Table 4-11. Interview Results – "To what degree is the classification system easy to use?"**

<b>DEMONSTRATION GROUP</b>
<b>Rating Officials</b>
<ul style="list-style-type: none"> <li>• It is easy to use</li> <li>• It gives supervisors more flexibility; in the past the HR staff would usually determine classification actions without input from supervisors</li> <li>• There should be more training with the automated system in order for people to be able to use it effectively</li> <li>• Do not know how to use the web-based system</li> </ul>

**4.4. Understanding and acceptance of the new performance appraisal system continues to improve**

DoC implemented a new performance appraisal system as part of the Demonstration Project. Initially, Demonstration Group participants seemed to struggle with understanding and accepting the new process. In Year Five, data suggested that Demonstration Group participants continue to grow more comfortable with the performance appraisal system. Although progress continues to be made with the process, data suggest that there are still opportunities for improvement, particularly in the areas of ongoing performance feedback and greater transparency.

#### 4.4.1. Consistent with Year Five results, Demonstration Project participants responded positively about the performance appraisal system

Overall, the majority of Demonstration Group and Comparison Group survey respondents responded positively to several aspects of the performance appraisal system. In some areas, there were noticeable differences between Demonstration Group and Comparison Group responses. Demonstration Group respondents expressed more agreement that their performance scores reflect their performance and take into account the important aspects of their jobs. Comparison Group respondents expressed more agreement that they understand their performance appraisal system. Some differences also existed between non-supervisory and supervisory employees' responses, with supervisory employees responding more positively than the non-supervisory employees.

**Table 4-12. Survey Results – Performance Appraisal System**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
25. On my job I know exactly what is expected of me.	<i>Disagree</i>	14%	15%	12%	12%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	11%	12%	9%	11%			
	<i>Agree</i>	75%	73%	79%	77%			
26. My supervisor gives me adequate information on how well I am performing.	<i>Disagree</i>	17%	<i>No significant difference</i>		18%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	13%			12%			
	<i>Agree</i>	70%			70%			
27. I understand the performance appraisal system currently being used.	<i>Disagree</i>	16%	18%	13%	12%	10%	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	11%	13%	8%	11%	13%		
	<i>Agree</i>	73%	70%	79%	77%	75%		
28. My performance rating provides an accurate picture of my performance.	<i>Disagree</i>	22%	24%	19%	29%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	17%	18%	16%	19%			
	<i>Agree</i>	61%	58%	65%	52%			
29. My performance appraisal takes into account the most important parts of my job.	<i>Disagree</i>	14%	16%	12%	18%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	15%	16%	13%	16%			
	<i>Agree</i>	70%	68%	75%	66%			
30. My supervisor and I agree on what "good performance" on my job means.	<i>Disagree</i>	13%	<i>No significant difference</i>		10%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	18%			18%			
	<i>Agree</i>	70%			72%			
31. My supervisor evaluates my performance on things not related to my job.	<i>Disagree</i>	58%	56%	63%	60%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	24%	24%	23%	23%			
	<i>Agree</i>	18%	20%	14%	17%			
36. My supervisor tends to <i>inflate</i> the performance ratings of the employees he/she supervises.	<i>Disagree</i>	56%	<i>No significant difference</i>		63%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	38%			31%			
	<i>Agree</i>	6%			6%			
37. My supervisor tends to <i>deflate</i> the performance ratings of the employees he/she supervises.	<i>Disagree</i>	52%	<i>No significant difference</i>		57%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	34%			38%			
	<i>Agree</i>	14%			6%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

4.4.2. Consistent with Year Five results, ongoing performance-related feedback has not increased significantly under the Demonstration Project

As demonstrated in Table 4-13, there has been a minimal change in responses from Year One to Year Seven in perceptions about performance feedback. The majority of respondents for both groups indicate that they sometimes receive informal feedback from their supervisor. Although performance-related feedback is strongly encouraged under the Demonstration Project and is considered to be a cornerstone of the new performance appraisal system, these survey results suggest that employees are either not getting more feedback (compared to the past and compared to the Comparison Group) or do not perceive it as such.

**Table 4-13. Change Over Time – Performance Feedback**

		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
		<b>YEAR SEVEN</b>					
	<i>Never</i>	11%	12%	10%	10%	11%	8%
	<i>Rarely</i>	25%	25%	25%	24%	24%	24%
	<i>Sometimes</i>	35%	34%	37%	35%	38%	29%
	<i>Often</i>	23%	23%	23%	24%	21%	31%
	<i>Continually</i>	5%	5%	6%	7%	6%	8%
		<b>YEAR FIVE</b>					
	<i>Never</i>	7%	8%	5%	6%	7%	4%
	<i>Rarely</i>	25%	24%	27%	22%	22%	22%
	<i>Sometimes</i>	41%	42%	38%	43%	42%	46%
	<i>Often</i>	23%	22%	26%	24%	23%	25%
	<i>Always</i>	4%	4%	4%	5%	6%	4%
		<b>YEAR THREE</b>					
	<i>Never</i>	9%	10%	5%	10%	11%	9%
	<i>Rarely</i>	29%	30%	28%	29%	30%	22%
	<i>Sometimes</i>	39%	38%	43%	38%	38%	40%
	<i>Often</i>	21%	21%	22%	21%	20%	25%
	<i>Always</i>	2%	2%	2%	2%	2%	4%
		<b>YEAR ONE</b>					
	<i>Never</i>	7%	8%	4%	10%	10%	7%
	<i>Rarely</i>	32%	32%	29%	30%	31%	25%
	<i>Sometimes</i>	39%	37%	50%	36%	36%	37%
	<i>Often</i>	19%	20%	15%	21%	19%	29%
	<i>Always</i>	3%	3%	3%	3%	3%	3%
		<b>BASELINE</b>					
	<i>Never</i>	10%			8%		
	<i>Rarely</i>	28%			30%		
	<i>Sometimes</i>	41%	NA		36%	NA	
	<i>Often</i>	19%			22%		
	<i>Always</i>	3%			4%		

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding

- 4.4.3. However, the majority of Demonstration Group participants indicated that they do receive feedback at their annual performance appraisals

While opinions were decidedly mixed on whether Demonstration Group participants received feedback throughout the year, the results clearly showed that they are receiving feedback at the time of their performance appraisals. The Demonstration Group responded slightly more positively to this item than did the Comparison Group.

**Table 4-14. Survey Results – Explanation About Performance Score**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
93. At my last performance appraisal, I was given an explanation about the reasons for my performance rating/score.	<i>Disagree</i>	15%	16%	14%	16%	17%	15%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	10%	11%	10%	15%	16%	11%	
	<i>Agree</i>	74%	73%	76%	69%	67%	74%	

These results were further examined, looking at responses by race/national origin groups. As shown in Table 4-15, some minor differences exist in the perception of feedback given about performance scores among groups. However, the majority of Asians, Blacks (not of Hispanic origin), Whites (not of Hispanic Origin), and Hispanics in the Demonstration Group tended to agree that they receive an explanation regarding their performance scores at the time of their performance appraisals.

**Table 4-15. RNO Comparisons – Explanation About Performance Score**

		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
93. At my last performance appraisal, I was given an explanation about the reasons for my performance rating/score.	<i>Disagree</i>	11%	19%	15%	9%	26%	7%	20%	16%	19%	19%
	<i>Neither disagree nor agree</i>	8%	11%	10%	11%	26%	15%	12%	15%	14%	0%
	<i>Agree</i>	82%	70%	75%	80%	47%	78%	68%	69%	67%	81%

*Note: Responses are provided for five of the seven groups from whom survey data were collected: Asian (AS); Black or African American, not of Hispanic origin (AA); White, not of Hispanic origin (WH); Hispanic (HI); and Multiracial (MU). Data are not reported for the remaining two groups, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander, because the small number of respondents in these categories necessitates preserving their anonymity.*

- 4.4.4. Consistent with the survey data, in focus groups respondents indicated that feedback occurs at annual reviews but more ongoing performance feedback is less common

As shown in Table 4-16, focus group findings support the distinction that was gathered from the survey results between ongoing performance feedback and feedback at formal intervals. Focus group respondents indicated that feedback does occur mid-year and annually, but ongoing feedback is less common and more supervisor-dependent.

**Table 4-16. Focus Group Results – Feedback and Performance – “How often do you receive formal or informal feedback from your supervisor? How often does that feedback help you improve your performance?” (Demo Group) OR "Does the current performance appraisal process create an opportunity for you to provide your employee with relevant feedback regarding their performance? If yes, how so? If not, what is missing?" (Comp Group)**

DEMONSTRATION GROUP	COMPARISON GROUP
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• The frequency of feedback is dependent upon one’s supervisor</li> <li>• There is formal feedback given at the mid-year and annual reviews</li> <li>• Informal feedback throughout the year is rarely given</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, feedback is helpful if given to employees at least twice a year</li> <li>• The current system encourages better communication between a supervisor and subordinate</li> <li>• The feedback discussion is the most helpful part of the appraisal process</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• The frequency of feedback is dependent upon one’s supervisor</li> <li>• The feedback given is not directive in nature</li> <li>• Informal feedback tends to be “hit or miss”</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• The feedback discussion is the most helpful part of the appraisal process</li> </ul>

When asked in interviews about the mechanisms that are in place for providing employees with performance-based feedback, Pay Pool Managers and Rating Officials referred to mid-year meetings, end-of-year meetings, and ongoing feedback (see Table 4-17). These findings suggest that some individuals in a position to provide feedback are doing so but, given the results of the survey and focus group sessions, their responses may not be characteristic of all supervisors.

**Table 4-17. Interview Results – Feedback and Input Mechanisms Utilized – "What mechanisms are in place to provide employees with performance feedback or otherwise involve them in the performance management process?"**

DEMONSTRATION GROUP
<p><b>Pay Pool Managers and Rating Officials</b></p> <ul style="list-style-type: none"> <li>• Mid-year and end-of-year meetings</li> <li>• Hold meetings with staff before the assessment and after assessment; give performance feedback throughout the year</li> </ul>

4.4.5. Consistent with Year Five results, Pay Pool Managers and Rating Officials worked together to achieve consistency in performance scores

As indicated in Table 4-18, Pay Pool Managers and Rating Officials use a variety of approaches to strive for consistency in employee scores. Pay Pool Managers and Rating Officials meet to ensure scores are consistent with set benchmarks and will work within the pay pool funding.

**Table 4-18. Interview Results – Mechanisms to Avoid Inconsistent Performance Scores - "Are there mechanisms in place to ensure consistency in performance scores across Rating Officials? If yes, how are they working?"**

<b>DEMONSTRATION GROUP</b>	
<b>Pay Pool Managers and Rating Officials</b>	
<ul style="list-style-type: none"> <li>Rating Officials give the Pay Pool Manager their employees' scores, then the Pay Pool Manager (and sometimes the Deputy Director) adjusts the scores based on the available pay pool and discusses changes with Rating Officials</li> <li>Pay Pool Managers set benchmarks around ratings and have one-on-one or group meetings to gain agreement with Rating Officials</li> <li>Hold mid-year and end-of-year reviews and other occasional meetings throughout the year</li> </ul>	

As displayed in Table 4-19, Demonstration Group and Comparison Group supervisory employees differed in some of their perceptions about the performance appraisal system. A much greater percentage of Demonstration Group supervisory employees (compared to Comparison Group supervisory employees) reported that their performance appraisal system allows them to distinguish between good and poor performers, which is one indication that the Demonstration Project's performance appraisal system has been effective. Also in Year Seven, the majority of Demonstration Group supervisory employees indicated that Rating Officials and Pay Pool Managers are working on ensuring consistency across performance scores.

**Table 4-19. Survey Results – Performance Appraisal System (Supervisors)**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
101. The performance appraisal system allows me to identify good and poor performers.	<i>Disagree</i>			14%			45%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			14%			20%	
	<i>Agree</i>			72%			35%	
102. The performance appraisal system is easy for me as a supervisor to use.	<i>Disagree</i>			24%			18%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>			20%			20%	
	<i>Agree</i>			56%			62%	
103. I have met with other supervisors and/or our Pay Pool Manager to ensure consistency in performance ratings.	<i>Disagree</i>			24%			43%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			18%			27%	
	<i>Agree</i>			58%			30%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined

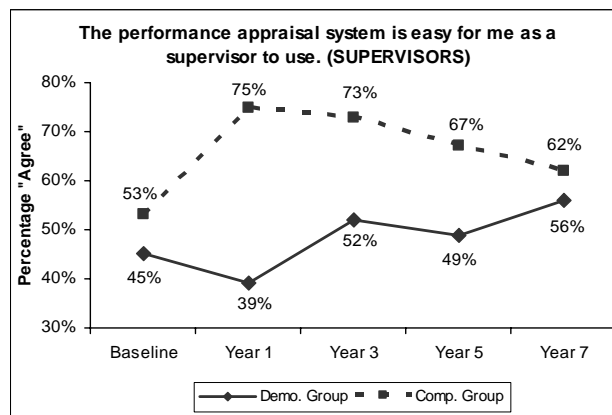
Percentages may not add to 100 due to rounding

These items were addressed of supervisory employees only

4.4.6. Ease of use of the performance appraisal system has declined over the years and understanding of the performance appraisal system has increased

In Year Seven, perceptions between Demonstration Group supervisors and Comparison Group supervisors about the ease of their respective performance appraisal systems began to converge as the Demonstration Group’s perceptions of ease increased. In fact, Demonstration Group supervisors’ ease of use of the performance appraisal system is likely to increase even higher over time, given that these results include Wave 2 supervisors who were new to the system.

Table 4-20. Change Over Time – Ease of Use of the Performance Appraisal System



		Demo. Group (S)	Comp. Group (S)
<b>YEAR SEVEN</b>			
<i>Disagree</i>		24%	18%
<i>Neither disagree nor agree</i>		20%	20%
<i>Agree</i>		56%	62%
<b>YEAR FIVE</b>			
<i>Disagree</i>		18%	14%
<i>Neither disagree nor agree</i>		33%	19%
<i>Agree</i>		49%	67%
<b>YEAR THREE</b>			
<i>Disagree</i>		33%	14%
<i>Neither disagree nor agree</i>		15%	13%
<i>Agree</i>		52%	73%
<b>YEAR ONE</b>			
<i>Disagree</i>		35%	17%
<i>Neither disagree nor agree</i>		26%	8%
<i>Agree</i>		39%	75%
<b>BASELINE</b>			
<i>Disagree</i>		33%	22%
<i>Neither disagree nor agree</i>		22%	24%
<i>Agree</i>		45%	53%

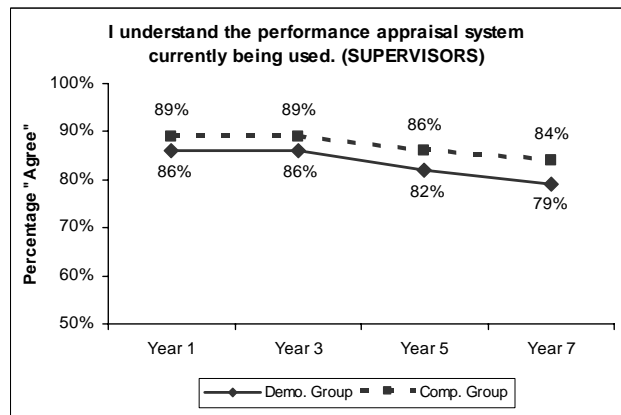
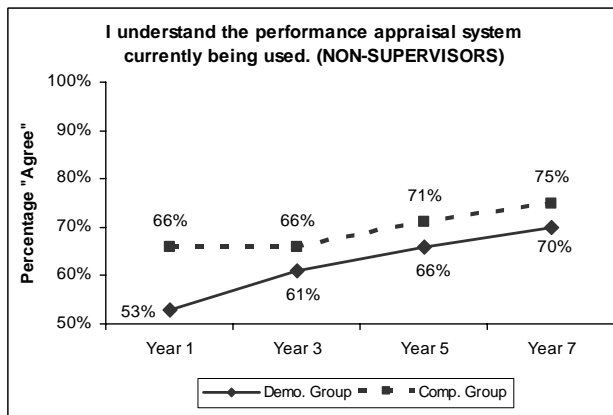
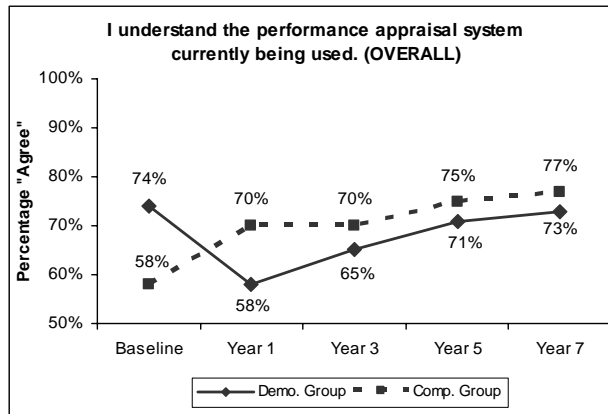
102. The performance appraisal system is easy for me as a supervisor to use.

*This item was addressed by supervisory employees only  
Percentages may not add to 100 due to rounding*



Overall, levels of understanding about their respective performance appraisal systems have steadily increased over the years for both Demonstration Group and Comparison Group respondents (see Table 4-21). However, when examined at the non-supervisory versus supervisory level, different patterns emerge. Understanding has increased among non-supervisors yet decreased among supervisors. Yet, these patterns are consistent with the Comparison Group, suggesting that there are external factors (beyond the particular performance appraisal systems) that are affecting perceptions.

**Table 4-21. Change Over Time – Understanding of the Performance Appraisal System**



	Demo. Group		Comp. Group		
	Total	(N)	Total	(N)	
27. I understand the performance appraisal system currently being used.	<b>YEAR SEVEN</b>				
	Disagree	16%	18%	13%	12%
	Neither disagree nor agree	11%	13%	8%	11%
	Agree	73%	70%	79%	77%
	<b>YEAR FIVE</b>				
	Disagree	16%	19%	9%	12%
	Neither disagree nor agree	13%	15%	9%	13%
	Agree	71%	66%	82%	75%
	<b>YEAR THREE</b>				
	Disagree	20%	23%	8%	14%
	Neither disagree nor agree	15%	17%	6%	16%
	Agree	65%	61%	86%	70%
<b>YEAR ONE</b>					
Disagree	25%	29%	8%	14%	
Neither disagree nor agree	16%	19%	6%	17%	
Agree	58%	53%	86%	70%	
<b>BASELINE</b>					
Disagree	11%			21%	
Neither disagree nor agree	15%	NA		21%	
Agree	74%			58%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding

As shown in Table 4-22, when asked about improvements to the current performance appraisal system, non-supervisory employees suggested improvements around standardization and transparency.

**Table 4-22. Focus Group Results –Performance Appraisal System Improvements – "If you could modify aspects of the current performance appraisal system to better meet your needs, what changes would you make?"**

<b>DEMONSTRATION GROUP</b>
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Ensure a standardized implementation of the system (from region to region, work unit to work unit)</li> <li>• Make the system more transparent to help employees understand how performance scores are being determined</li> <li>• Show employees where they rank among their peers</li> <li>• Eliminate favoritism</li> </ul>

#### **4.5. As occurred in all previous years, the pay for performance system continues to exhibit a positive link between pay and performance**

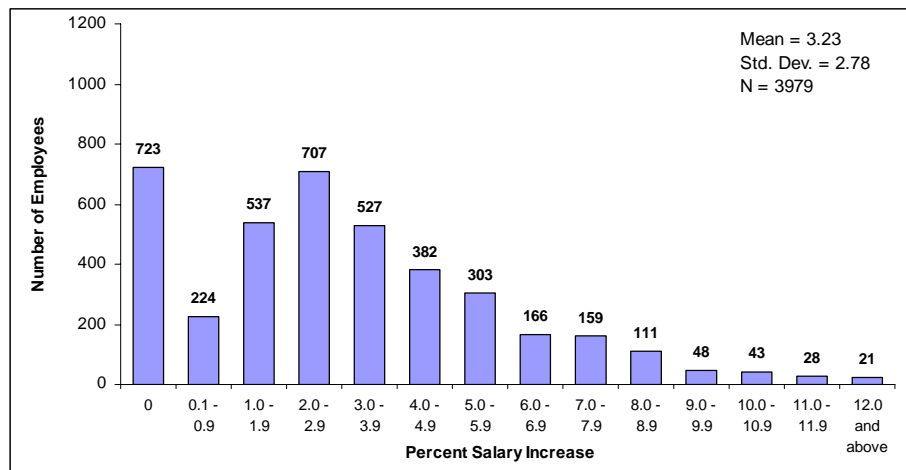
A series of interventions were implemented during the Demonstration Project to improve the relationship between high performance and financial reward. These interventions include performance-based pay increases, performance bonuses, more flexible pay increases upon promotion, and supervisory performance pay.

Both the areas of strength and the areas needing improvement were consistent in Year Seven with previous years. For example, Demonstration Group participants continued to fare better than Comparison Group participants in performance-based pay increases. Demonstration Group participants also fared better overall, when pay increases and bonuses/awards were combined. The link between pay and performance was evident, in regards to both performance-based pay increases and performance bonuses. And, the flexible pay increase upon promotion intervention was successful in providing managers with greater latitude. One intervention that continues to require monitoring is the supervisory performance pay intervention. The supervisory performance pay intervention continued to reward supervisors who had reached the top of their pay bands (many of whom were performing reasonably well); however, it did not (by design) necessarily reward all high performing supervisors. Therefore, whether this intervention is motivational to supervisors remains uncertain.

4.5.1. The distribution of performance-based pay increases differs in the Demonstration Group and the Comparison Group, with increase amounts more dispersed in the Demonstration Group

Objective data showed that Demonstration Group participants received salary increases based on performance ranging from 0.0 percent to 19.9 percent, with an average performance-based pay of 3.2 percent (shown in Figure 4-1). Similar to previous years, the majority of employees (68 percent) received increases between 0 percent and 4 percent. At the high end, fourteen percent of Demonstration Group participants received salary increases of 6 percent or above, providing some indication that managers are taking advantage of their flexibility to award high percentage increases to higher performing employees. At the low end, eighteen percent of Demonstration Group participants did not receive a salary increase; the majority of these (424 of the 723) were employees who were at, or near, the top of their pay bands (i.e., capped employees with acceptable performance).

**Figure 4-1. Range of Percent Salary Increases for Demonstration Group Participants**

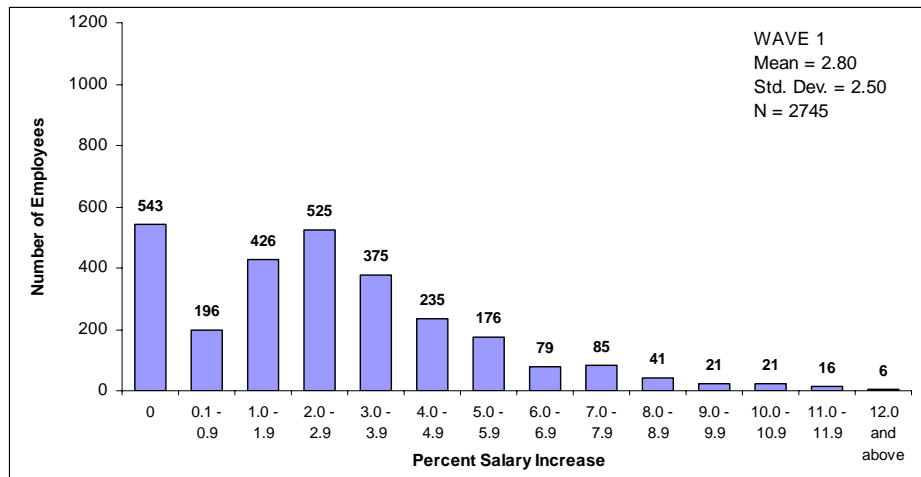


*Note: This analysis is based on 3,979 of the 4,608 Demonstration Group participants who had eligible performance ratings<sup>16</sup> and for whom salary data were available.*

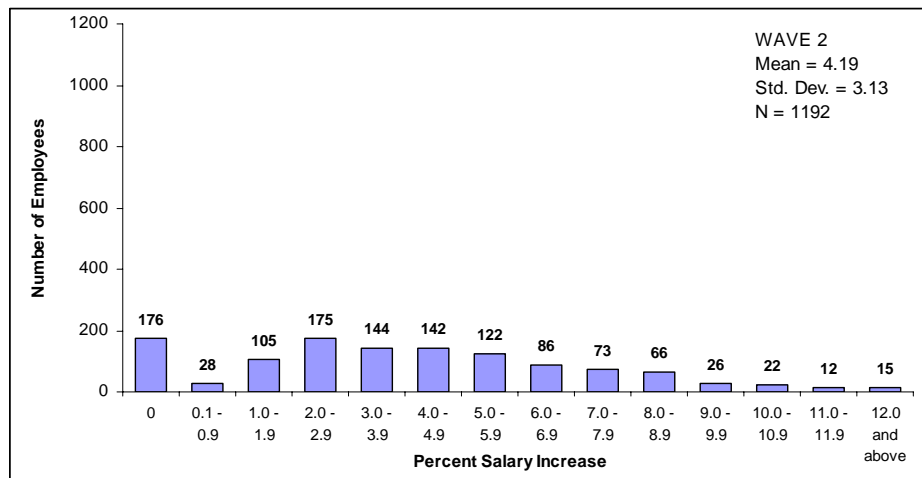
<sup>16</sup> For this analysis and those to follow, the term eligible performance rating refers to the definition provided in Section 3.4.2.

Performance-based pay increases differed for Wave 1 versus Wave 2<sup>17</sup> Demonstration Group participants. Figure 4-2 and Figure 4-3 displays these results. As shown, the average performance-based pay increase for Wave 1 was 2.8 percent, which is reasonably consistent with the average across the first five years of the Demonstration Project. The average performance-based pay increase for Wave 2 was 4.2 percent (which influenced the upward trend in this year’s overall average of 3.2 percent). One factor that may have influenced this gap is that Wave 1 and Wave 2 differed in regards to the percentage of each group that was employees who were at, or near, the top of their pay bands (i.e., capped). In Wave 1, 14 percent were capped whereas in Wave 2, only four percent were capped. It is also feasible that the gap may be partially attributable to Wave 2 Rating Officials and Pay Pool Managers adjusting to how the performance appraisal system works. (As explained in Section 7.7, OPM reviewers raised concerns about the size of the average performance-based pay increases, especially in Year Seven, and requested that DoC seek to identify the causative factors.)

**Figure 4-2. Range of Percent Salary Increases for Demonstration Group Participants – Wave 1 Only**



<sup>17</sup> Please see section 2.3 of this report for a description of the Waves.

**Figure 4-3. Range of Percent Salary Increases for Demonstration Group Participants – Wave 2 Only**

There are some important differences in how employees in the Demonstration and Comparison Groups are evaluated and rewarded. Employees in the Demonstration Group are evaluated based on a pay for performance system; hence, their pay increases are based on performance. In contrast, employees in the Comparison Group are under the traditional federal pay system and are under a 2-level performance appraisal system. For the Comparison Group, we identified the following categories of increases that would be comparable to the performance-based increases in the Demonstration Group:

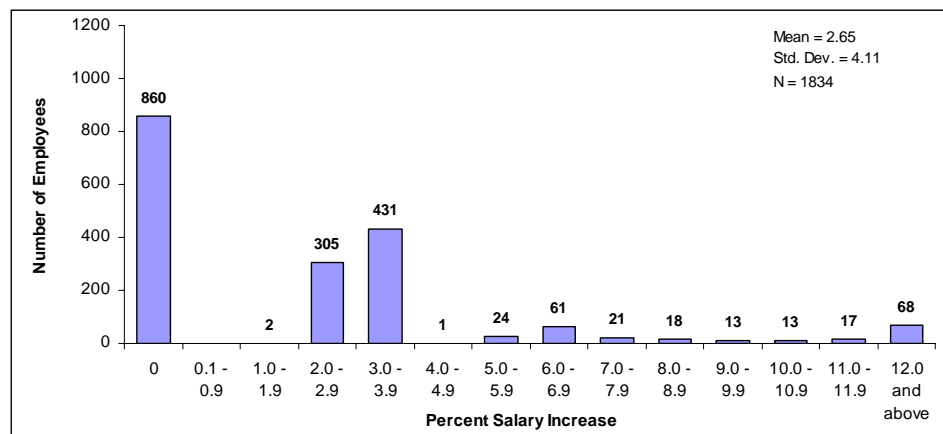
- Step increase
- Quality step increase
- Increase due to promotion to a grade within the equivalent pay band in the Demonstration Group.

The distribution of percent salary increases for the Comparison Group is shown in Figure 4-4. (Similar to the Demonstration Group, employees who were recent hires and therefore not eligible for a step increase during this time period were not included in the analysis.) While percent increases in salary in the Comparison Group are not tied to the GS performance rating system, they are presented in this report to establish a pattern for comparison with percent increases in the Demonstration Group. The percent increases ranged from 0.0 percent to 36.0 percent, a greater range than what was evident for the Demonstration Group. Although the range was greater, the average percent increase in the Comparison Group was 2.7 percent, which is lower than the Demonstration Group average.

Similar to Year Six, a relatively large number of individuals received salary increases at the high end of the range, which is surprising given the constraints of the GS system. This appears to be due to how increases due to promotion to a grade within the equivalent pay band in the Demonstration Group is included in the calculation for the Comparison Group's calculation of average salary increase. In support of this theory, further analysis in Year Seven data revealed that all of the Comparison Group participants in the 7.0-7.9, 8.0-8.9, 9.0-9.9, 10.0-10.9, 11.0-11.9, and 12 and above categories, as well as more than a third of the participants in the 6.0-6.9 category, received promotions to a grade within the equivalent pay band in the Demonstration Group. Therefore, these high salary increases in the Comparison Group are driven by promotion related increases.

Forty-seven percent of the eligible Comparison Group participants did not receive a salary increase in Year Seven, which is likely a function of the GS system wherein employees at the higher steps of a grade wait two to three years between step increases. In comparison, only 18 percent of the eligible Demonstration Group participants did not receive a salary increase in Year Seven.

**Figure 4-4. Range of Percent Salary Increases for Comparison Group Participants**

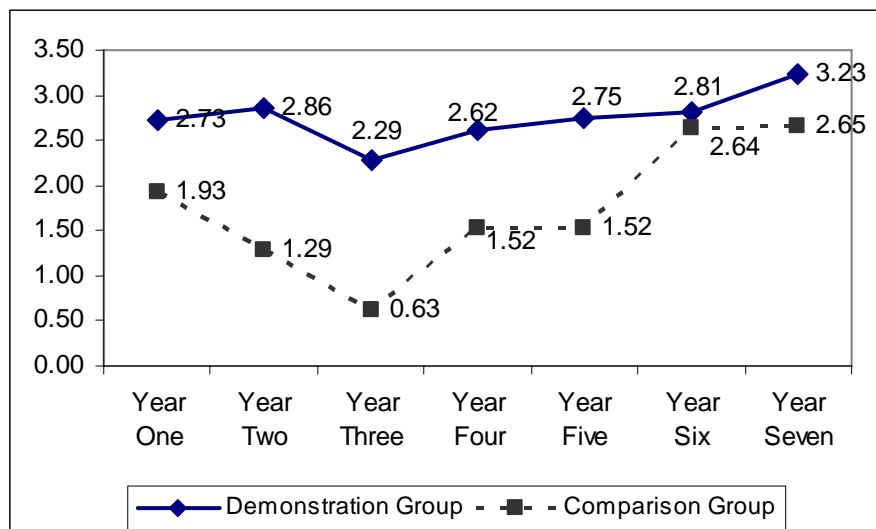


*Note: This analysis is based on 1,834 of the 2,113 Comparison Group participants who had eligible performance ratings and for whom salary data were available.*

- 4.5.2. Over the life of the Demonstration Project, salary increases have been consistently higher in the Demonstration Group than the Comparison Group; this trend continued in Year Seven

Figure 4-5 displays a trend analysis of the average percent salary increases<sup>18</sup> in the Demonstration Group and Comparison Group from Year One through Year Seven. Consistent with previous years, the average performance-based pay increase was higher in the Demonstration Group than in the Comparison Group. In Year Seven, average performance-based pay increases, for both the Demonstration Group and the Comparison Group, reached their highest amounts to date. Differences in the composition of the two groups in terms of occupations, work levels, career ladders, and position in range may account for some of the differences in average performance-based pay increases. OPM reviewers have requested that DoC conduct additional studies regarding this issue (as discussed in Section 7.7).

**Figure 4-5. Trend Analysis of Average Percent Salary Increases**



*Note: The Comparison Group Year Two data point was revised in Year Three to reflect a correction in the formula used to calculate average percent salary increase.*

- 4.5.3. A greater percentage of Demonstration Group participants, compared to Comparison Group participants, received bonuses/awards

Demonstration Group bonuses and Comparison Group awards were also compared. The original intent of this analysis was to only include, for the Comparison Group, those awards that are performance-driven and are therefore comparable to the performance-based bonuses used in the Demonstration Group. However, two key issues arose in regards to performing this type of analysis because it became evident that an appropriate “match” may not exist.

<sup>18</sup> The reader is reminded that here, and elsewhere, references to average performance-based pay increase percentages refer to the performance-based component of pay and do not include the annual comparability increase (ACI) that federal employees also receive.



One issue is that in the NOAA portion of the Comparison Group (which comprises 98 percent of the Comparison Group), awards occur throughout the rating period rather than at the end of the rating period. Thus, Comparison Group participants receive awards for service on specific projects or short periods of performance rather than as recognition for sustained superior performance for an entire rating period. These awards have been coded in the NFC system as “Special Act” awards.

In contrast, “Special Act” awards in the Demonstration Group are supposed to be used for extraordinary service for a specific project and are distinctly different from performance bonuses. “Special Act” awards are intended to recognize unusual circumstances in which an employee went above and beyond assigned duties and responsibilities. As a result, in past evaluations, “Special Act” awards were included in the calculations of average award percentages in the Comparison Group but were not included in the calculations of average bonus percentages in the Demonstration Group.

A second issue is that an additional category of cash awards, “Other Awards,” has customarily been treated differently in the two groups. These categories include on-the-spot awards, special Bureau specific awards, and cash-in your-account awards. Given that these are not considered performance-driven, they have not been included in the calculation of average bonus percentage for Demonstration Group participants; however, they were included in the calculation of average award percentage for Comparison Group participants.

To address these challenges, we performed the analysis comparing awards/bonuses in two separate ways. As depicted in Table 4-23, we first performed the analysis as it has been performed in all previous years (bonus analysis – original) so as to maintain consistency, have comparable trend data, and be as true as possible to the concept of performance-driven bonuses/awards (i.e., not including them in the Demonstration Group calculations). The results of this analysis are used in all other analyses in this evaluation (e.g., progression analysis, turnover analysis) to be consistent with analyses in past years and the original intent of the analyses of performance bonuses. We then analyzed the bonus data for the Demonstration Group again (bonus analysis – expanded), taking into account “Special Act” awards and Other Awards. This analysis presents the overall picture of the bonuses/awards received by Demonstration Group participants and allows inclusion of “Special Act” awards and Other Awards, given that these are being accounted for in the Comparison Group calculation.

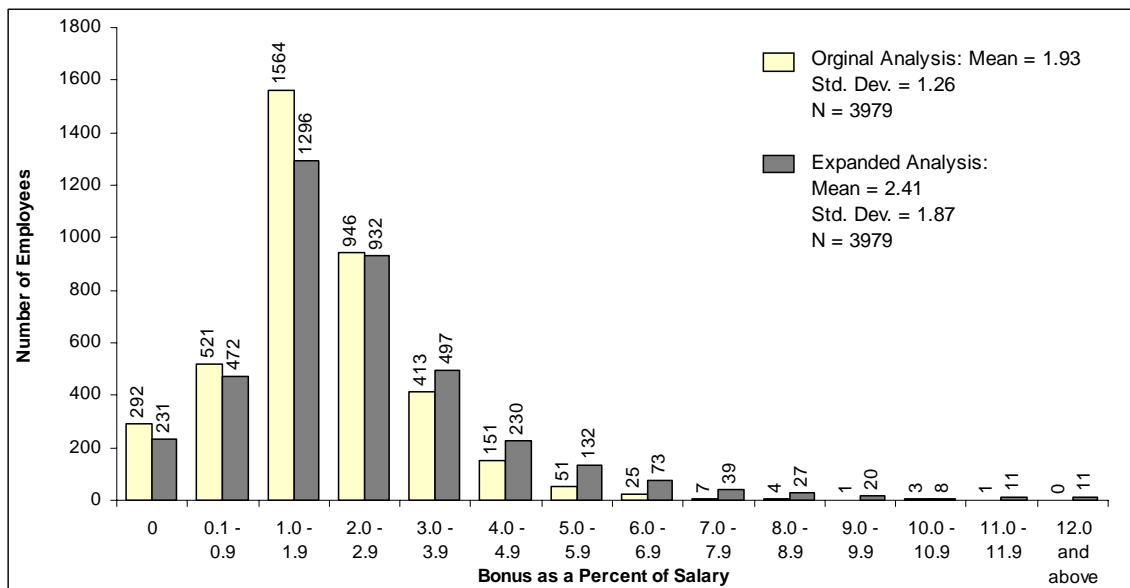
**Table 4-23. Bonus Percent Analyses**

	BONUS ANALYSIS – ORIGINAL		BONUS ANALYSIS – EXPANDED	
	DEMONSTRATION GROUP	COMPARISON GROUP	DEMONSTRATION GROUP	COMPARISON GROUP
Performance Based Bonuses	Included	N/A	Included	N/A
Special Act Awards	Not Included	Included	Included	Included
Other Awards	Not Included	Included	Included	Included

The results of the original bonus analysis show that, in Year Seven, 93 percent of Demonstration Group participants received bonuses (i.e., performance-based bonuses). Bonuses ranged from 0.1 percent to 11.3 percent of salary for employees receiving bonuses, with an average bonus of 1.9 percent. Figure 4-6 displays these results. These data are based solely on performance-based bonuses.

The results of the expanded bonus analysis show that, in Year Seven, 94 percent of Demonstration Group participants received the broader range of bonuses (i.e., performance-based bonuses, Special Act awards, and/or Other Awards). Bonuses ranged from 0.1 percent to 17.2 percent of salary for employees receiving bonuses, with an average bonus of 2.4 percent. Figure 4-6 also displays these results. The results of the expanded bonus analysis show that, when these two additional award categories are included in the Demonstration Group calculations, the average bonus percentage for the Demonstration Group increases from 1.9 percent to 2.4 percent.

**Figure 4-6. Range of Bonus Percentages for Demonstration Group Participants**

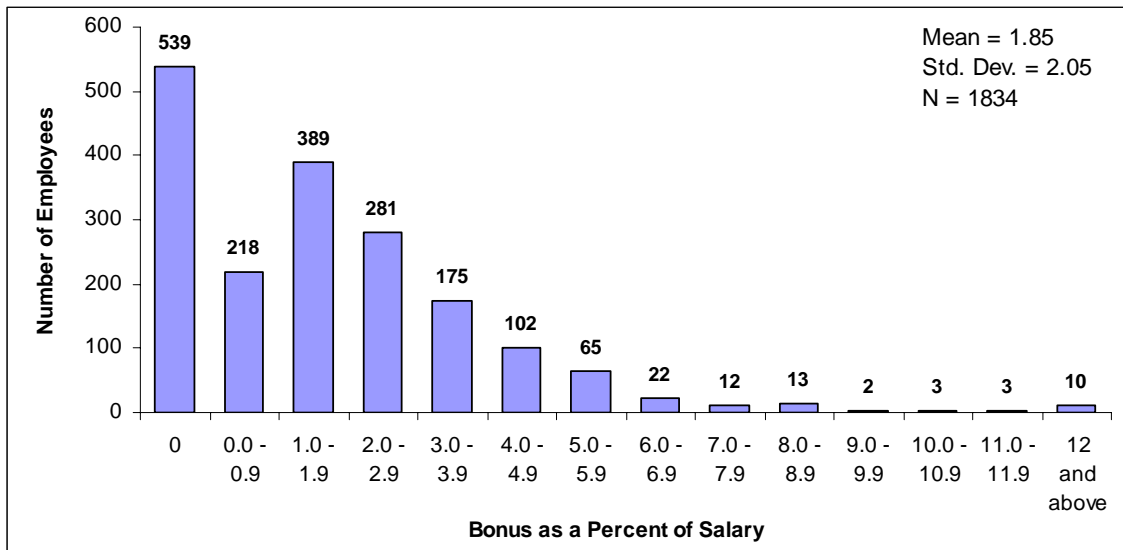


*Notes:*

1. This analysis is based on the 3,979 of the 4,608 Demonstration Group participants for whom bonus data were available.
2. Average bonus percentages are based on actions effective in November 2004, as reported in the Year Seven data file provided by DoC.
3. From Year Five on, the analysis of bonus/award data was addressed in two separate ways for the Demonstration Group. The original analysis was based solely on performance-based bonuses, consistent with previous years. The expanded analysis was based on all bonuses/awards received by Demonstration Group participants and allows inclusion of "Special Act" awards and Other Awards, given that these were accounted for in the Comparison Group calculation.

The Comparison Group's awards were considered comparable to the performance bonuses given in the Demonstration Group. The results of the original bonus analysis show that, in Year Seven, 70 percent of Comparison Group participants received awards. Among those who received awards, awards ranged from 0.2 percent to 13.8 percent of salary, as shown in Figure 4-7, with an average of 1.9 percent. (This is synonymous with the results of the expanded bonus analysis for the Comparison Group.)

**Figure 4-7. Range of Award Percentages for Comparison Group Participants**



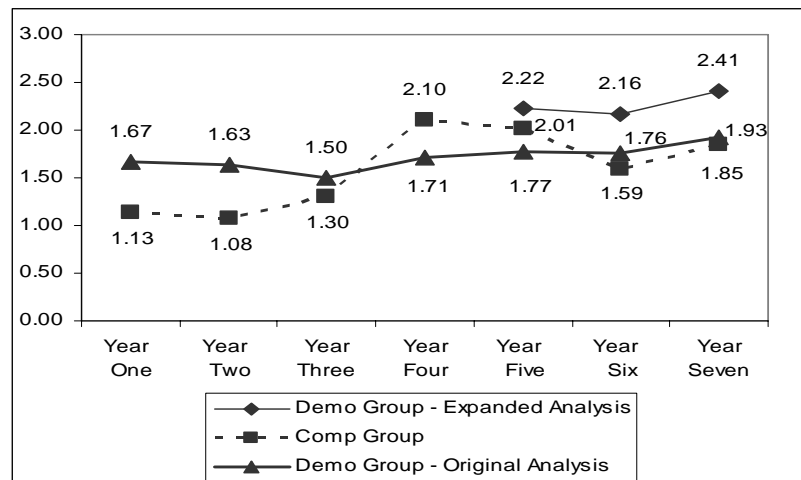
*Note: This analysis is based on 1,834 of the 2,113 Comparison Group participants who had eligible performance ratings and for whom award data were available.*

- 4.5.4. Over the life of the Demonstration Project, average bonus percentages have remained relatively constant (with a slight upward trend in the past few years) among the Demonstration Group

Figure 4-8 displays a trend analysis of the average bonus/award percentages in the Demonstration and Comparison Groups from Year One to Year Seven. Over time, average bonus percentages in the Demonstration Group have remained relatively constant, with a slight upward trend in the past few years. This finding is not surprising given that the intent of the intervention is to differentiate and appropriately reward strong versus weak performance, not necessarily to increase the amounts distributed for bonuses. Figure 4-8 also shows the Year Seven data point (2.4 percent) for the expanded bonus analysis, which we began conducting in Year Five.

Meanwhile, average award percentages in the Comparison Group have fluctuated over the years. The average increase peaked in Year Four, decreased in Years Five and Six, and then increased again in Year Seven. Regardless of whether the original or expanded bonus analysis is used as a comparison, the Demonstration Group average bonus percentages were higher in Year Seven than the Comparison Group average award percentages.

**Figure 4-8. Trend Analysis of Average Bonus/Award Percentages**



4.5.5. Overall, Demonstration Group participants fared better than Comparison Group participants when pay increases and bonuses/awards are combined

One additional way of examining the impact of a pay for performance system is to consider its total impact (pay increases and bonuses) on Demonstration Group participants. As displayed in Table 4-24, Demonstration Group participants received increases and bonuses that were, on average, 5.1 percent of their salary. In comparison, Comparison Group participants received increases and awards that were, on average, 4.6 percent of their salary. These results show that, from a total awards basis, Demonstration Group participants fared better overall than Comparison Group participants.

**Table 4-24. Comparison of Total Awards in Year Seven**

	Demonstration Group	Comparison Group
Average Performance-Based Pay Increase in Year Seven	3.2%	2.7%
Average Bonus/Award in Year Seven	1.9%	1.9%
Average Total Awards (Average Performance-Based Pay Increase Plus Average Bonus/Award Bonus) in Year Seven	5.1%	4.6%

- 4.5.6. The total awards for Demonstration Group participants may even be an underestimation of what they could be, given that these figures do not include individuals whose pay had been capped

Employees' performance-based pay increases may be capped if they are at the top of their pay band, regardless of their performance level. In Year Seven, approximately 11 percent of the Demonstration Group participants who had eligible performance ratings and for whom salary data were available had salaries at the maximums for their pay bands (in Wave 1, 14 percent were capped whereas in Wave 2, four percent were capped). An additional eight percent were nearly capped, with "nearly capped" defined as situations where the gap between the employee's initial salary and the pay band maximum was smaller than the average pay increase in Year Seven, that is, they were somewhat close to the maximums for their pay bands.

As shown in Table 4-25, in Year Seven, the distribution of capped employees across the race/national origin groups closely mirrored their representation in the Demonstration Group overall. The distribution is close, but not quite parallel, among the individuals who are close to being capped. Overall, these results suggest that all groups are similarly affected by capping.

**Table 4-25. Capped Employees by Race/National Origin**

RACE/NATIONAL ORIGIN	REPRESENTATION AMONG CAPPED EMPLOYEES	REPRESENTATION AMONG NEARLY CAPPED EMPLOYEES	OVERALL REPRESENTATION IN THE DEMONSTRATION GROUP
White (not of Hispanic origin)	81%	75%	79%
Black (not of Hispanic origin)	12%	16%	13%
Hispanic	3%	4%	3%
Asian or Pacific Islander	4%	5%	5%
American Indian or Alaskan Native	<1%	0%	<1%

*Notes:*

1. The first two columns are based on the 424 (and 312) Demonstration Group participants who had salaries at the maximums (near the maximums) for their pay bands, had eligible performance ratings, and for whom salary and race/national origin data were available.
2. The third column is based on all Demonstration Group participants in the database for whom race/national origin data were available.

As shown in Table 4-26, in Year Seven, the distribution of capped employees across bands shows differing results based on band. Overall, these results show that, across the bands, capped employees are over-represented among Band 3, that is, more Band 3 employees are capped than is their overall representation. And, these results show that, across the bands, *nearly capped* employees are most over-represented among Band 3 and Band 5; in these two bands, the percentage of employees who are nearly capped exceeds the percentage for their overall representation.

**Table 4-26. Capped Employees by Band**

BAND	REPRESENTATION AMONG CAPPED EMPLOYEES	REPRESENTATION AMONG NEARLY CAPPED EMPLOYEES	OVERALL REPRESENTATION IN THE DEMONSTRATION GROUP
Band 1	0%	1%	<1%
Band 2	4%	12%	11%
Band 3	40%	41%	34%
Band 4	44%	22%	44%
Band 5	13%	23%	11%

Notes:

1. The first two columns are based on the 424 (and 312) Demonstration Group participants who had salaries at the maximums (near the maximums) for their pay bands, had eligible performance ratings, and for whom salary and band data were available.
2. The third column is based on all Demonstration Group participants in the database for whom race/national origin data were available.

As shown in Table 4-27, in Year Seven, the distribution of capped employees across career paths shows differing results based on band. Overall, these results show that, across the career paths, the distribution of capped employees closely mirrored their representation in the Demonstration Group overall. And, these results show that, across the career paths, *nearly capped* employees are most over-represented among ZS, that is, more ZS employees are nearly capped than is their overall representation.

**Table 4-27. Capped Employees by Career Path**

CAREER PATH	REPRESENTATION AMONG CAPPED EMPLOYEES	REPRESENTATION AMONG NEARLY CAPPED EMPLOYEES	OVERALL REPRESENTATION IN THE DEMONSTRATION GROUP
ZP	65%	53%	62%
ZT	7%	6%	6%
ZA	22%	13%	22%
ZS	7%	29%	11%

Notes:

1. The first two columns are based on the 424 (and 312) Demonstration Group participants who had salaries at the maximums (near the maximums) for their pay bands, had eligible performance ratings, and for whom salary and career path data were available.
2. The third column is based on all Demonstration Group participants in the database for whom race/national origin data were available.

Given that salary capping occurs in nearly any pay system, we also examined whether salary capping occurred in reasonably comparable amounts in the Demonstration Group and the Comparison Group. Given the challenges of defining salary capping in the GS system (since the maximum grades vary depending on the position), we performed this analysis on the subset of Demonstration Group participants who are in ZA or ZP, and in Band 4 or Band 5, and the subset of Comparison Group participants who are in the equivalent of ZA or ZP, and in GS 14 (step 10) or GS 15 (step 10). As shown in Table 4-28, in Year Seven, for each of the four groups examined, a higher percentage of employees were impacted by salary capping in the Comparison Group than the Demonstration Group. These results show that pay capping impacts different types of pay systems.

**Table 4-28. Salary Capping in a Subset of the Demonstration Group and Comparison Group**

SUBSET	PERCENTAGE CAPPED	
	DEMONSTRATION GROUP	COMPARISON GROUP
ZA, Band 4 (or, ZA Equivalent, GS 14, Step 10)	12%	15%
ZP, Band 4 (or, ZP Equivalent, GS 14, Step 10)	10%	21%
ZA, Band 5 (or, ZA Equivalent, GS 15, Step 10)	10%	31%
ZP, Band 5 (or, ZP Equivalent, GS 15, Step 10)	12%	34%

*Note: This analysis is based on participants who had salaries at the maximums for their pay bands, had eligible performance ratings, and for whom salary data were available.*

#### 4.5.7. ZP and ZA fared best for performance-based pay increases and ZS fared best for performance-based bonuses

One of the features of the DoC Demonstration Project is to determine whether NIST Demonstration Project interventions can be successfully implemented to a wider range of occupational areas. Therefore, the DoC Demonstration Project was designed to include four career paths: ZP (Scientific and Engineering), ZT (Scientific and Engineering Technician), ZA (Administrative), and ZS (Support). While each of these career paths includes a range of occupations, examining the differences across the career paths provides some indication of the impact of interventions on different occupational groupings.

The Year Seven results showed that the average performance-based pay increase across the Demonstration Project was 3.2 percent; however, the results varied across career paths. These results are displayed in Table 4-29. These findings show that the largest average performance-based pay increases were experienced by, in descending order, those in ZP, ZA, and ZS and ZT (tied). This rank order is somewhat consistent with Year Six (the two exceptions being that, in Year Six, ZA was higher than ZP and ZS was higher than ZT). This rank order is also consistent with the three-year historical pay increase averages obtained prior to the Demonstration Project for individuals in these career paths.

**Table 4-29. Average Performance-Based Pay Increase by Career Path**

CAREER PATH	NUMBER OF EMPLOYEES	AVERAGE PERFORMANCE-BASED PAY INCREASE
ZP	2,469	3.5%
ZT	217	2.3%
ZA	876	3.3%
ZS	417	2.3%
Overall	3,979	3.2%

*Notes:*

1. Average pay increase by career path were computed for 3,979 of the 4,608 Demonstration Group participants for whom career path and salary data were available.
2. Average overall pay increase represents the average across the Demonstration Group; it does not represent a straight average of the averages for each career path.

For average bonus percentage in the Demonstration Group, the results showed that the overall average was 1.9 percent; Table 4-30 displays how the results vary across career paths. These findings show that the largest average bonuses were experienced by, in descending order, those in the ZS, ZA, ZT, and ZP career paths; nearly the same order that occurred in Year Six (only exception being an ordering switch of ZT and ZP). This order is similar to that found for average performance-based pay increases with two exceptions. One, those in the ZS career path received smaller than average performance-based pay increases, but larger than average bonuses. A possible explanation may be that individuals in ZS are more generously awarded with performance-based bonuses to compensate for smaller performance-based pay increases. And two, those in the ZP career path received higher than average performance-based pay increases, but smaller than average bonuses.

**Table 4-30. Average Bonus by Career Path**

CAREER PATH	NUMBER OF EMPLOYEES	AVERAGE BONUS
ZP	2,469	1.7%
ZT	217	1.8%
ZA	876	2.1%
ZS	417	2.8%
Overall	3,979	1.9%

*Notes:*

1. Average pay increase by career path were computed for 3,979 of the 4,608 Demonstration Group participants for whom career path and salary data were available.
2. Average overall pay increase represents the average across the Demonstration Group; it does not represent a straight average of the averages for each career path.



4.5.8. The average performance score dipped after steadily increasing over the life of the Demonstration Project

Employee performance is measured in the Demonstration Group on a weighted 100-point scoring system. These scores are then used as the basis for performance-related decisions for pay and rewards. Table 4-31 displays the average performance appraisal scores in the Demonstration Group over the past seven years. These data show that, after steadily increasing over the years, Year Seven (with an average score of 85.9 points and median score of 87.0 points) was the first year that the average decreased.

This decrease may be partially explained by the gap in average performance appraisal scores between Wave 1 and Wave 2 participants. The average score for Wave 1, 87.2 points, is on par with how performance appraisal scores have been steadily increasing over the years. However, the average score for Wave 2 was 83.0 points, which lowered the overall average score for the Demonstration Project.<sup>19</sup> To note, while Wave 2 had a lower average performance appraisal score than Wave 1, results presented earlier showed that the Wave 2 had a higher average performance-based pay increase.

**Table 4-31. Average Performance Appraisal Scores Across Years**

DEMONSTRATION PROJECT YEAR	AVERAGE PERFORMANCE APPRAISAL SCORES
Year One	82.0 points
Year Two	83.4 points
Year Three	84.3 points
Year Four	85.7 points
Year Five	86.5 points
Year Six	86.9 points
Year Seven	85.9 points

*Notes:*

- 1. Average performance appraisal scores are the average number of points received under the 100-point system.*
- 2. In Year Seven, average performance appraisal score was computed for the 3,979 of the 4,608 Demonstration Group participants for whom performance score data were available.*

<sup>19</sup> *Those for whom Wave is unknown had an average score of 85.4.*

- 4.5.9. The rank order of career paths for average performance scores is consistent with the rank order of career paths for average performance-based pay increases

We also examined average performance appraisal scores in Year Seven by career path. As displayed in Table 4-32, these findings show that the highest performance scores were experienced by, in descending order, those in the ZP, ZA, ZT, and ZS career paths. Consistent with the principles of pay for performance, this is essentially the same order as was found for average performance-based pay increases.

**Table 4-32. Average Year Seven Performance Score by Career Path**

CAREER PATH	NUMBER OF EMPLOYEES	AVERAGE PERFORMANCE APPRAISAL SCORES
ZP	2,469	86.5 points
ZT	217	84.9 points
ZA	876	85.9 points
ZS	417	83.4 points
Overall	3,979	85.9 points

*Notes:*

- Average performance appraisal scores by career path were computed based on the 3,979 of the 4,608 Demonstration Group participants for whom career path and performance score data were available.*
- Average overall performance score was computed for 3,979 of the 4,608 Demonstration Group participants for whom performance score data were available and represents a non-weighted average across the Demonstration Group.*

- 4.5.10. The link between performance and pay remains evident in the Demonstration Group

The link between performance and pay is fundamental to the Demonstration Project. As in previous years, objective data indicated that financial rewards are tied to job performance during Year Seven. In Years One, Two, and Three, Booz Allen used correlation analysis as a broad measure of the relationship between pay and performance score. While this analysis was one of many analyses conducted to better assess the impact of performance on pay, it did not incorporate other factors that could impact pay progression. For this reason, from Year Four on, Booz Allen conducted a regression analysis to replace the correlation analysis.

The results of the regression analysis (presented in Appendix D-1) confirmed that performance score was a consistent predictor of performance-based pay increase across all career paths. This provides support for a pay and performance link within the Demonstration Project by demonstrating that performance score is a key factor influencing pay. These results also show that the Demonstration Project is operating as intended because the system is designed to ensure a high degree of linkage between pay and performance.

The regression analysis results also showed that interval and promotion were consistent predictors of performance-based pay increase in all four career paths in Year Seven. Higher performance-based pay increases tended to be associated with being at a lower interval, which is consistent with the design of the system in which those in lower intervals within

their bands are eligible for greater salary increases. Higher performance-based pay increases tended to be associated with not being promoted; this finding likely reflects how the increase due to promotion is not calculated in the performance-based pay increase and the fact that individuals who received recent promotions were not eligible for performance-based pay increases. Finally, given the emphasis on examining the impact of the pay for performance system on minorities, women, and veterans, we included these demographic variables in the regression analysis. None of these were found to be significant predictors of performance-based pay increase, beyond what was predicted by the variables discussed above.

- 4.5.11. Demonstration Group participants with higher performance scores received larger pay increases than Demonstration Group participants with lower performance scores, demonstrating the link between pay and performance

In addition to the regression analysis, a second analysis was performed to examine the relationship between pay and performance. In theory, under a pay for performance system, better performers should receive higher pay increase percentages. Conversely, lower performers are more likely to receive a lower pay increase percentages or none at all.

Table 4-33 shows additional support that this is continuing to happen in the Demonstration Group. In Year Seven, for the most part, participants with higher performance scores were more likely to receive pay increases than were those with lower performance scores. The finding that not *all* of those in the highest performance score category (i.e., 90-100) received increases is likely due to two factors. One, this group is disproportionately represented among the 11 percent of Demonstration Group participants who were at the maximums for their pay bands (45 percent of capped employees received performance scores in the 90-100 range whereas, overall, only 35 percent of employees received performance scores in the 90-100 range). And two, this includes employees who did not receive a pay increase due to having received a promotion or pay adjustment (within band) within the last 120 days of the rating cycle. Overall, participants with higher performance scores received larger pay increases than those with lower performance scores. This finding is consistent with the tenets of a pay for performance system.

**Table 4-33. Performance Score Category and Performance-Based Pay Increases Among Demonstration Group Participants**

PERFORMANCE SCORE CATEGORY	NUMBER AND PERCENTAGE OF EMPLOYEES	PERCENT OF EMPLOYEES RECEIVING PAY INCREASES	AVERAGE PERFORMANCE-BASED PAY INCREASE PERCENTAGE
90-100	1,392 (35%)	83%	3.5%
80-89	2,049 (52%)	85%	3.5%
70-79	435 (11%)	79%	1.8%
60-69	75 (2%)	24%	0.4%
50-59	18 (<1%)	11%	0.1%
40-49	10 (<1%)	0%	0.0%

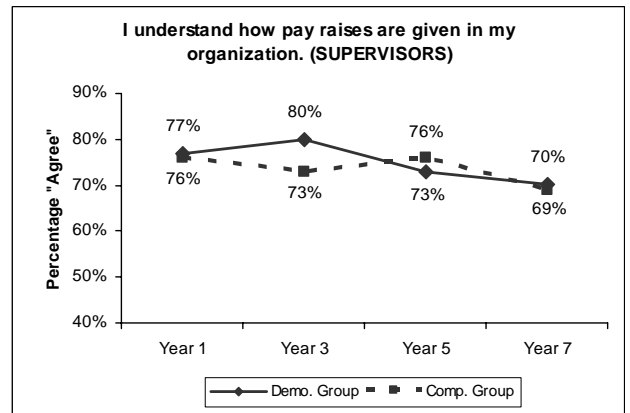
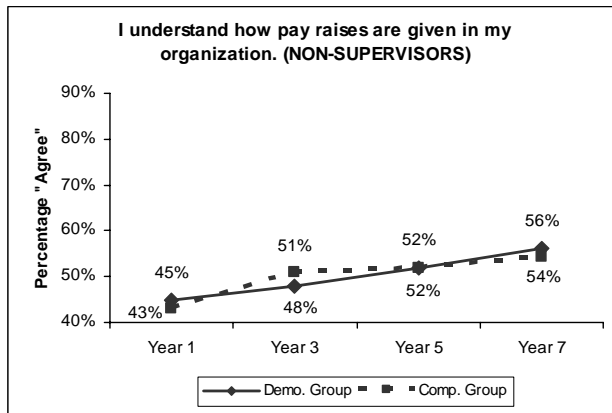
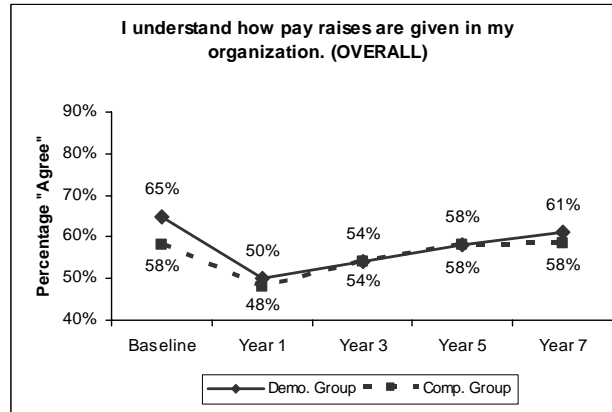
*Note: This analysis is based on the 3,979 employees for whom valid Year Seven performance score and salary data were available.*

*4.5.11.1. Survey data show a moderate, and increasing, level of understanding among Demonstration Group participants about the link between pay and performance*

Over the life of the Demonstration Project, there have been steady improvements in Demonstration Group participants' understanding about how pay increases are given. As shown in Table 4-34, across years, and across both the Demonstration Group and Comparison Group, supervisory employees consistently reported greater understanding than did non-supervisory employees. However, there has been a decline in supervisory ratings with regard to understanding how pay raises are given. While the percentage of supervisory respondents who agreed that they understand how pay raises are given is still high, the downward trend is something to track. It is possible that the downward trend between Year Five and Year Seven is affected by the influx of Wave 2 supervisors who made decisions under the pay for performance system for the first time in Year Seven.

There also was an upward trend in non-supervisory employee understanding of how pay raises are given. This upward trend is movement in the right direction and may reflect efforts to increase communication to employees about how the pay for performance system works. To note, this uptrend among non-supervisors is not incompatible with the downward trend among supervisors; it may reflect a difference between general communication efforts versus the tangible role that supervisors play in implementing the pay for performance system.

**Table 4-34. Change Over Time – Understanding of Pay Raises**



	Demo. Group			Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)	
38. I understand how pay raises are given in my organization.	<b>YEAR SEVEN</b>						
	Disagree	24%	27%	19%	27%	29%	22%
	Neither disagree nor agree	15%	17%	11%	14%	16%	9%
	Agree	61%	56%	70%	58%	54%	69%
	<b>YEAR FIVE</b>						
	Disagree	24%	27%	15%	22%	25%	13%
	Neither disagree nor agree	18%	21%	12%	20%	23%	11%
	Agree	58%	52%	73%	58%	52%	76%
	<b>YEAR THREE</b>						
	Disagree	29%	33%	13%	26%	29%	12%
	Neither disagree nor agree	17%	19%	8%	20%	20%	15%
	Agree	54%	48%	80%	54%	51%	73%
<b>YEAR ONE</b>							
Disagree	31%	35%	12%	32%	36%	15%	
Neither disagree nor agree	19%	20%	11%	20%	22%	9%	
Agree	50%	45%	77%	48%	43%	76%	
<b>BASELINE</b>							
Disagree	18%			26%			
Neither disagree nor agree	17%	NA		15%	NA		
Agree	65%			58%			

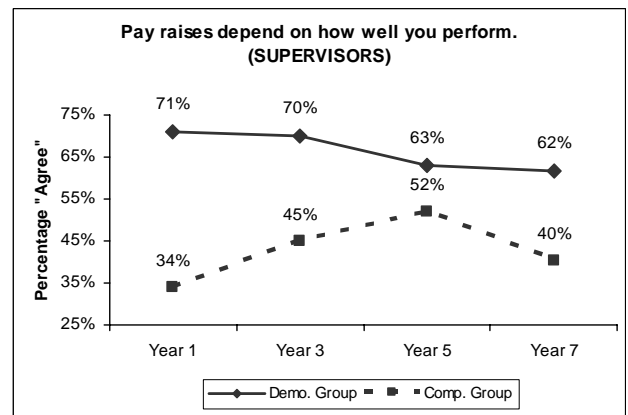
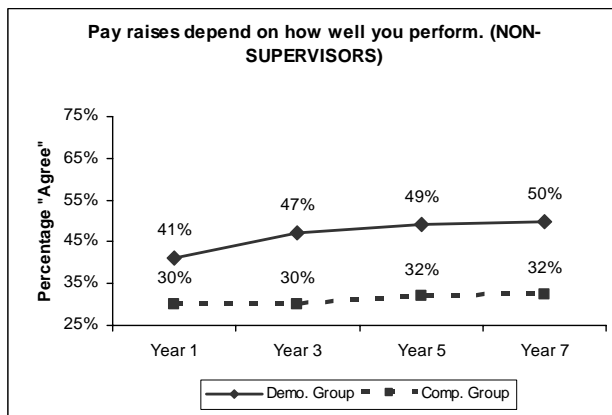
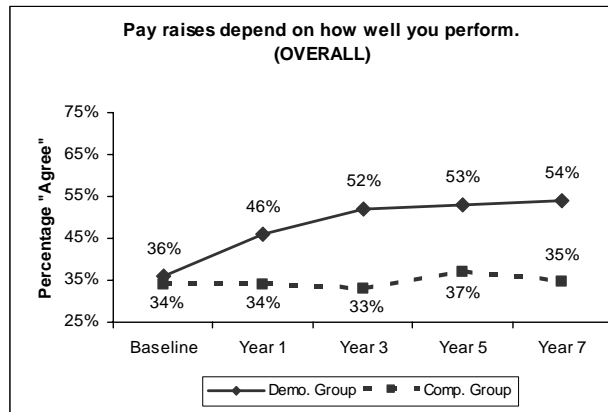
(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined

NA = Baseline data were not available broken out by supervisor and non-supervisor

Percentages may not add to 100 due to rounding

Whereas the previous survey item focused on an understanding of the pay system overall, the next survey item pointedly addressed the direct link between pay and performance. As shown in Table 4-35, Demonstration Group survey respondents reported that pay increases depend on performance more so than Comparison Group survey respondents; the gap in their perceptions noticeably reflects their different pay systems. In both the Demonstration Group and the Comparison Group, supervisory employees reported greater agreement than non-supervisory employees.

Table 4-35. Change Over Time – Pay and Performance



	Demo. Group		Comp. Group				
	Total	(N)	(S)	Total	(N)	(S)	
39. Pay raises depend on how well you perform.	<b>YEAR SEVEN</b>						
	Disagree	25%	27%	22%	42%	43%	42%
	Neither disagree nor agree	21%	23%	17%	23%	25%	18%
	Agree	54%	50%	62%	35%	32%	40%
	<b>YEAR FIVE</b>						
	Disagree	25%	27%	21%	33%	36%	27%
	Neither disagree nor agree	21%	24%	16%	30%	32%	21%
	Agree	53%	49%	63%	37%	32%	52%
	<b>YEAR THREE</b>						
	Disagree	28%	31%	16%	40%	42%	32%
	Neither disagree nor agree	21%	22%	15%	27%	28%	23%
	Agree	52%	47%	70%	33%	30%	45%
	<b>YEAR ONE</b>						
	Disagree	29%	32%	16%	39%	40%	39%
	Neither disagree nor agree	25%	27%	13%	27%	30%	27%
	Agree	46%	41%	71%	34%	30%	34%
	<b>BASELINE</b>						
	Disagree	39%			44%		
Neither disagree nor agree	26%	NA		22%	NA		
Agree	36%			34%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined

NA = Baseline data were not available broken out by supervisor and non-supervisor

Percentages may not add to 100 due to rounding

4.5.11.2. *Opinions vary on whether pay and performance are linked*

In a focus group setting, non-supervisory employees expressed mixed opinions about whether pay and performance are linked (see Table 4-36). Some indicated that it is hard to know whether a link exists because they are not privy to others’ pay information. Others indicated that the link exists. Still others qualified their responses, indicating that other factors (e.g., supervisors, importance of your work, and how managers run the system) influence whether the link exists. In contrast, supervisory employees expressed that the link exists, although some indicated that the difference in increases is not very significant.

**Table 4-36. Focus Group Results – Linkage Between High Performance and Larger Pay Raises -- "Do you believe that larger pay raises are given to people who perform better?" (Non-supervisors) OR "Under the Demo Project, do you believe that larger pay raises are given to employees who perform better?" (Supervisors)**

<b>DEMONSTRATION GROUP</b>	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Don't know – do not know what others get</li> <li>• Nicer raises are given for better performance</li> <li>• Depends on the supervisor</li> <li>• Depends on if your duties are perceived as important</li> <li>• Depends on how managers run the system – some avoid hard decisions and keep everyone in the same range</li> <li>• Better performance does get you more but it is not much more</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, money is distributed according to performance</li> <li>• Yes, but the difference in pay raise is not much, given that COLAs have outweighed the increases</li> </ul>



Some Demonstration Group and Comparison Group non-supervisory employees stressed that as long as supervisors implement the system consistently, then a pay for performance system can motivate employees to perform better. Other Demonstration Group non-supervisors held different perspectives; some believe that performance is independent of pay and others believe that the differences in the pay of high and low performers are too small to be motivating. Table 4-37 displays these results.

**Table 4-37. Focus Group Results – Motivational Value of a Pay for performance System – "Do you think pay for performance is motivating employees to perform better on the job? If yes, why? If no, why not?" (Demo Group) OR "Would a pay for performance system – one in which level of performance drives amount of pay – motivate you to perform better?" (Comp Group)**

<b>DEMONSTRATION GROUP</b>	<b>COMPARISON GROUP</b>
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Pay for performance would be motivating if it were done right, if inconsistencies in implementation were avoided</li> <li>• Pay for performance is motivating, especially for employees lower down in their pay bands</li> <li>• No, it has little impact; if people want to perform well or poorly, they will, regardless of the pay</li> <li>• It depends on the size of the pay increase; there is little differentiation between the top and bottom performers, which is de-motivating</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• It would depend on the supervisor, the person who was making the decisions – inconsistencies would ruin employee motivation</li> <li>• Yes, it would be motivating</li> </ul>

Both Demonstration Group and Comparison Group participants suggested that DoC could improve the link between an employee’s pay and his/her performance by improving supervisors’ abilities to rate employees and by better communicating how the system works and how decisions are made about performance (see Table 4-38). Both supervisory and non-supervisory employees in the Demonstration Group indicated that the consistency of Rating Officials could be improved through training and more specific guidance on making distinctions between closely related scores. In the Comparison Group, a key theme was that the consequences of poor performance must be made clear.

**Table 4-38. Focus Group Results – Improvements to Pay for Performance – "What could DoC do in the future to improve the link between an employee's pay and his/her performance?"**

<b>DEMONSTRATION GROUP</b>	<b>COMPARISON GROUP</b>
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Standardize training for Rating Officials</li> <li>• Need more communication to explain how performance ratings and pay decisions are made</li> <li>• More feedback on performance; better specificity on performance plans</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• More consistency in how Rating Officials make ratings and assign raises</li> <li>• Move away from the 100-point system; it is too linked in people’s minds to a school grading system</li> <li>• Provide more specific definitions of performance to help us distinguish between performance scores that are close together (for example, the difference between an 80 and an 84)</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Help people understand that there are consequences for poor performance</li> <li>• Need good communication strategy to help employees understand why decisions are made</li> <li>• Need to improve managers’ decision-making processes</li> <li>• Need to map out skills needed for the next career move, as well as the training options and financial incentives</li> </ul>

4.5.12. Based on objective data, the link between performance and pay, as measured by bonuses/awards, remains evident in the Demonstration Group

As was found for pay increases, objective data indicate that employee bonuses were tied to performance during Year Seven. Statistics revealed a positive relationship between job performance (as measured by performance scores) and performance bonuses ( $r = .34$ )<sup>20,21</sup> (Appendix D-1 provides a scatterplot of the data). This correlation is significant but slightly lower than previous years (Year Six:  $r = .42$ ; Year Five:  $r = .42$ ; Year Four:  $r = .37$ ; Year Three:  $r = .46$ ; Year Two:  $r = .41$ ; and Year One:  $r = .46$ )<sup>22</sup>. In this context (i.e., the relationship between performance and bonuses), the higher the correlation the better. Given that perfect correlations are rare (and not typically expected) in organizational research, these correlations represent a reasonable degree of relationship between performance and bonuses, particularly given all the extraneous factors known to affect this relationship.

We also examined the relationship between job performance and bonuses in Year Seven by career path. As displayed in Table 4-39, the results suggest that the relationship between performance and bonuses is strongest for, in descending order, those in the ZS, ZA, ZP, and ZT career paths. This order differs from Year Six in which the relationship was strongest for, in descending order, the ZT, ZS, ZP, and ZA career paths.

**Table 4-39. Correlation Between Performance Scores and Bonuses by Career Path**

CAREER PATH	NUMBER OF EMPLOYEES	CORRELATION BETWEEN PERFORMANCE SCORE AND BONUS
ZP	2,469	.37
ZT	217	.30
ZA	876	.38
ZS	417	.49

*Notes:*

1. All results are significant at the  $p \leq .01$  level.
2. Correlation by career path was computed for 3,979 of the 4,608 Demonstration Group participants for whom performance score, bonus data, and career path data were available.

4.5.13. However, *perceptions* about the link between performance and performance bonuses, are mixed; Demonstration Group participants expressed a lack of understanding about how performance bonuses are distributed and whether they are motivational

The link between performance and performance bonuses is evident when the objective data are examined. However, survey and focus group findings show that there is some confusion

<sup>20</sup> This analysis is based on the 3,979 of the 4,408 Demonstration Group participants for whom performance score and bonus data were available.

<sup>21</sup> Correlations explain the degree of a relationship between two variables. Values of Pearson's "r" range from -1.0 to 1.0, where 0 represents no relationship, -1.0 represents a perfect negative relationship, and 1.0 represents a perfect positive relationship.

<sup>22</sup> All of these reported correlations were significant at the  $p \leq .01$  level.

over how performance bonuses are distributed, whether the distribution is perceived to be fair, and whether performance bonuses are motivational.

4.5.13.1. *Demonstration Group participants understand how awards and performance bonuses are given but perceive that the equitable distribution of performance bonuses could be improved*

As displayed in Table 4-40, Demonstration Group and Comparison Group respondents responded similarly to their level of understanding of how cash awards are distributed and their perceptions that cash awards depend on performance. In both groups, more than half of the respondents reported that they have a good understanding. As with other issues related to pay and performance, supervisors expressed more awareness of the link between pay and awards than did non-supervisors.

Demonstration Group participants were also asked to comment on the link between pay and performance bonuses. Their level of understanding of how performance bonuses are given and their understanding of the link between performance bonuses and performance is reasonably similar to their responses about cash awards.

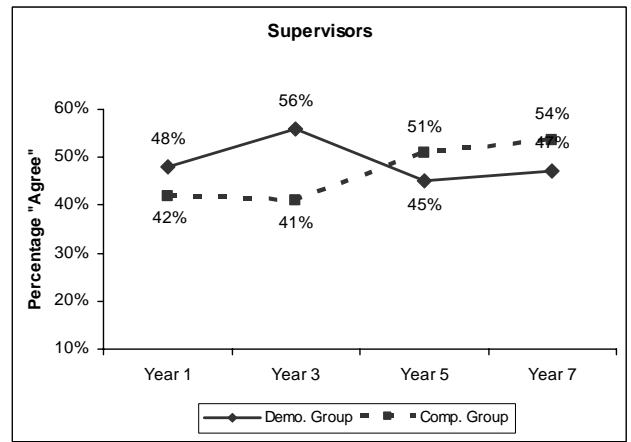
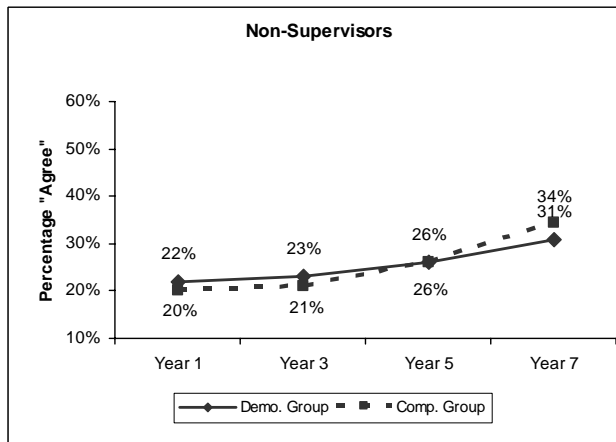
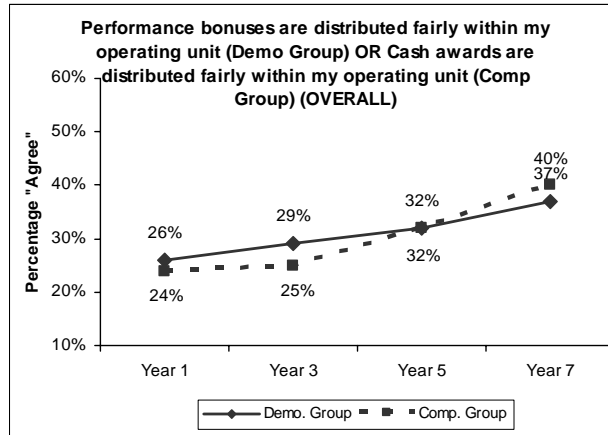
**Table 4-40. Survey Results – Performance and Awards**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
40. I understand how cash awards are given in my organization.	<i>Disagree</i>	25%	29%	20%	25%	29%	20%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	16%	19%	10%	17%	19%	10%	
	<i>Agree</i>	59%	52%	70%	58%	52%	70%	
41. Cash awards depend on how well you perform.	<i>Disagree</i>	25%	27%	21%	25%	26%	23%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	23%	25%	20%	21%	24%	14%	
	<i>Agree</i>	52%	48%	59%	53%	49%	63%	
42. I understand how performance bonuses are given in my organization (Demo Group Only)	<i>Disagree</i>	25%	29%	18%				
	<i>Neither disagree nor agree</i>	17%	19%	14%				
	<i>Agree</i>	58%	52%	69%				
43. Performance bonuses depend on how well you perform (Demo Group Only)	<i>Disagree</i>	24%	25%	22%				
	<i>Neither disagree nor agree</i>	22%	26%	17%				
	<i>Agree</i>	54%	50%	61%				

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

While more than half of the respondents reported that they have a good understanding of the link between awards/performance bonuses and performance, approximately a third of Demonstration Group respondents (and Comparison Group respondents) perceived that performance bonuses/awards are equitably distributed. Over time, perceptions on this topic have increased (see Table 4-41). Responses differed by non-supervisory and supervisory employees, with non-supervisors' perceptions closely mirroring the Comparison Group. However, Demonstration Group supervisory employees' perceptions have varied over the years and are now lower than the Comparison Group supervisory employees' perceptions.

**Table 4-41. Change Over Time – Equitable Distribution of Bonuses/Awards**



	Demo. Group		Comp. Group				
	Total	(N)	(S)	Total	(N)	(S)	
44. Performance bonuses are distributed fairly within my operating unit (Demo Group) OR Cash awards are distributed fairly within my operating unit (Comp Group)  (In Years One-Five, for both Demo Group and Comp Group, this item was worded as "Bonuses for performance are awarded equitably.")	<b>YEAR SEVEN</b>						
	Disagree	31%	34%	26%	29%	31%	25%
	Neither disagree nor agree	32%	35%	27%	31%	34%	21%
	Agree	37%	31%	47%	40%	34%	54%
	<b>YEAR FIVE</b>						
	Disagree	32%	32%	30%	31%	32%	25%
	Neither disagree nor agree	37%	42%	24%	38%	42%	24%
	Agree	32%	26%	45%	32%	26%	51%
	<b>YEAR THREE</b>						
	Disagree	36%	38%	25%	37%	40%	26%
	Neither disagree nor agree	35%	39%	19%	38%	39%	33%
	Agree	29%	23%	56%	25%	21%	41%
<b>YEAR ONE</b>							
Disagree	37%	40%	20%	38%	40%	25%	
Neither disagree nor agree	37%	38%	32%	39%	40%	33%	
Agree	26%	22%	48%	24%	20%	42%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined

NA = Baseline data were not available

Percentages may not add to 100 due to rounding

This item was not on the baseline survey

4.5.13.2. Focus group data showed mixed reactions regarding the motivational power of performance bonuses and awards

Consistent with Year Five, there were mixed reactions among Demonstration Group participants about the ability of performance bonuses to motivate employees to perform better (see Table 4-42). While some participants viewed performance bonuses as motivating, others raised concerns including that they are given inconsistently and/or other means (e.g., recognition) are more effective for motivating performance. There was even more skepticism among Comparison Group participants in regards to the motivational power of awards.

**Table 4-42. Focus Group Results – Effectiveness of Bonuses for Motivating Employees to Perform Better – "Do performance bonuses motivate employees to perform better?" (Demo Group) OR "Do awards motivate employees to perform better?" (Comp Group)**

DEMONSTRATION GROUP	COMPARISON GROUP
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• No, bonuses are not consistent; we do not know the reasons why some employees receive bonuses and others do not</li> <li>• Bonuses tend to be given to salary-capped employees in lieu of a pay raise; it is not a sufficient substitute for a raise</li> <li>• Yes, bonuses are a nice reward for better performers</li> <li>• Sometimes hearing you are doing a good job, some acknowledgement, is more important than getting a bonus</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Bonuses are a good idea; they can substitute for a promotion or a raise, which can be more difficult to obtain</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• No; many people are motivated by things other than money</li> <li>• Maybe at first awards are motivating, until employees see the inequities in how they are distributed</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• No, awards are short-term motivators at best</li> <li>• Awards can raise morale for employees who receive them; they can also lower morale for the rest of the work unit</li> </ul>

4.5.13.3. *Focus group data showed that non-supervisors are unclear as to the decision criteria for distributing performance bonuses and awards*

Focus group participants also addressed the perceived fairness in how performance bonuses and awards are distributed (see Table 4-43). Both Demonstration Group and Comparison Group participants indicated that they are unsure about the decision criteria for distributing performance bonuses or awards. Supervisors in the both the Demonstration Group and the Comparison Group acknowledged that there are different approaches for determining how to distribute performance bonuses and awards.

**Table 4-43. Focus Group Results – Fairness in Distribution of Performance Bonuses – "Are performance bonuses distributed fairly, that is, based on performance? If not, what other factors are considered?" (Demo Group) OR "Are awards distributed fairly, that is, based on performance? If not, what other factors are considered?" (Comp Group)**

DEMONSTRATION GROUP	COMPARISON GROUP
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• It depends on your manager; bonuses are handed out inconsistently</li> <li>• We do not know what other employees receive</li> <li>• We do not know the criteria for receiving a bonus</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• We work hard to be fair</li> <li>• No, bonuses are not consistently applied; they depend on who your manager is</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• We do not know; it is not clear why awards are given</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• We only have one award that is based on performance (QSI); lots of other awards are based on favoritism</li> <li>• It depends on the manager; some give out awards based on performance, others prefer to distribute awards equally among employees</li> </ul>

4.5.14. To some extent, Demonstration Group participants are satisfied with the pay system; however, there is room for improvement

As shown in Table 4-44, Demonstration Group and Comparison Group survey respondents responded similarly to questions about whether pay differences reflect real differences in responsibilities and job difficulty and whether their pay is competitive. For both questions, some employees expressed concern; the level of concern was the same across the Demonstration Group and the Comparison Group indicating that the Demonstration Project has neither aggravated nor improved these issues.

One question on which the difference between the Demonstration Group and the Comparison Group is clear is how pay progression reflects performance. More than half of the Demonstration Group respondents believe that their pay progression does reflect their performance whereas only one-third of the Comparison Group respondents believe this to be the case.

**Table 4-44. Survey Results – Fairness of the Pay System**

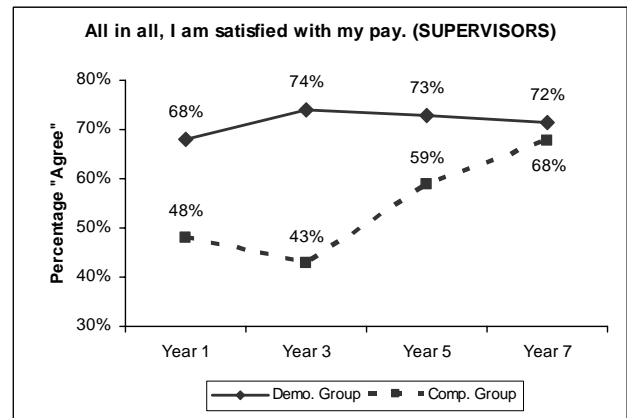
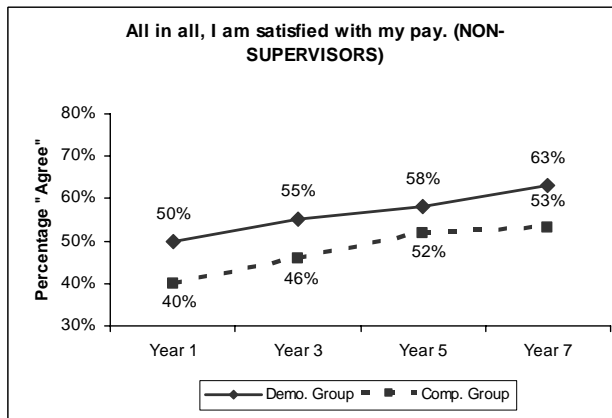
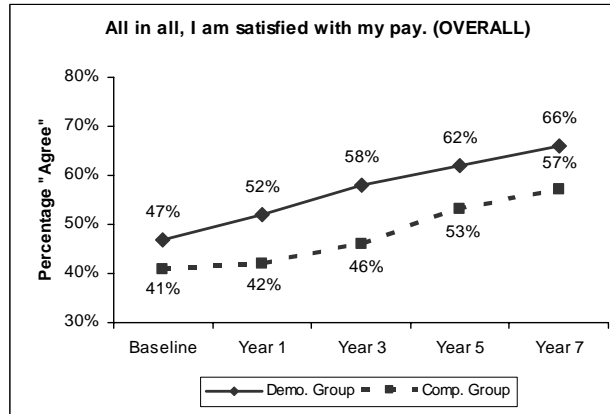
		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
47. Differences in pay at my organization represent real differences in level of responsibility and job difficulty.	<i>Disagree</i>	43%	46%	38%	48%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	21%	24%	19%	21%			
	<i>Agree</i>	36%	31%	44%	31%			
48. Pay progression (the way I move up within my grade/band) is reflective of my performance.	<i>Disagree</i>	25%	28%	19%	41%	44%	35%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	19%	20%	17%	22%	24%	19%	
	<i>Agree</i>	56%	52%	65%	37%	32%	47%	
49. Other employers in this area pay more than the government rate for the kind of work I am doing.	<i>Disagree</i>	19%	<i>No significant difference</i>		19%	19%	19%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	28%			28%	32%	20%	
	<i>Agree</i>	53%			53%	49%	61%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

In addition to fairness of pay, Demonstration Group participants expressed greater satisfaction with their pay than did Comparison Group participants (see Table 4-45). This finding has occurred consistently every year since the start of the Demonstration Project. Initially, pay satisfaction among the Demonstration Group was less than half; it has now climbed to nearly two-thirds. The amount of change in perception has been much more significant for non-supervisors than for supervisors.



**Table 4-45. Change Over Time – Pay Satisfaction**



	Demo. Group			Comp. Group			
	Total	(N)	(S)	Total	(N)	(S)	
46. All in all, I am satisfied with my pay.	<b>YEAR SEVEN</b>						
	Disagree	19%	22%	14%	29%	32%	22%
	Neither disagree nor agree	14%	15%	14%	13%	14%	11%
	Agree	66%	63%	72%	57%	53%	68%
	<b>YEAR FIVE</b>						
	Disagree	22%	26%	14%	29%	31%	23%
	Neither disagree nor agree	15%	16%	13%	18%	17%	18%
	Agree	62%	58%	73%	53%	52%	59%
	<b>YEAR THREE</b>						
	Disagree	30%	32%	19%	41%	41%	39%
	Neither disagree nor agree	13%	14%	7%	14%	13%	18%
	Agree	58%	55%	74%	46%	46%	43%
<b>YEAR ONE</b>							
Disagree	34%	37%	19%	43%	45%	36%	
Neither disagree nor agree	13%	13%	13%	15%	15%	16%	
Agree	52%	50%	68%	42%	40%	48%	
<b>BASELINE</b>							
Disagree	35%			39%			
Neither disagree nor agree	18%	NA		21%	NA		
Agree	47%			41%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding

As shown in Table 4-46, Demonstration Group supervisory employees and Comparison Group supervisory employees reported similar, and high, levels of understanding of their pay systems. However, when asked about the flexibility of the pay system, their responses differ. Sixty-five percent of Demonstration Group supervisory employees believe their pay system is flexible compared to only 22 percent of Comparison Group supervisory employees. This large gap in opinions is consistent with the differences inherent in the two systems.

**Table 4-46. Pay System Flexibility and Understanding**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
116. The current pay system is flexible.	<i>Disagree</i>			16%			56%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			19%			22%	
	<i>Agree</i>			65%			22%	
117. I understand how to use the current pay system.	<i>Disagree</i>			8%			8%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>			16%			22%	
	<i>Agree</i>			76%			69%	

*(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding*

4.5.15. Evidence suggests that the flexible pay increase upon promotion intervention has been successful in providing managers with greater latitude in setting salary upon promotion

The flexible pay increase upon promotion intervention provides managers with the flexibility to offer substantial pay increases when employees are promoted. Because of the less restrictive nature of pay bands, an employee’s salary, upon promotion, can be set anywhere within a band (and with a minimum increase of six percent). This intervention is intended to reward high performing employees and encourage their retention by making their salaries more competitive with the public and private sectors.

Table 4-47 suggests that this intervention continues, as in past years, to be effectively utilized. By subtracting the smallest promotion amount from the largest promotion amount, we calculated the size of the range of pay increases upon promotion. Thus, the size of the range is used as an indicator of flexibility in granting pay increases upon promotion, such that larger ranges are equated with having greater flexibility.

At each level of promotion (e.g., from Band 1 to Band 2), managers in the Demonstration Group used a wider range of pay increases upon promotion than did those in the Comparison Group. For each comparison between the Demonstration Group and the Comparison Group, the wider range in pay increases upon promotion appears in bold.

**Table 4-47. Range of Pay Increases Upon Promotion**

Promotion by Band (or equivalent)	Demonstration Group		Comparison Group	
	Employees	Size of Range of Increase Upon Promotion	Employees	Size of Range of Increase Upon Promotion
Band 2	9	\$15,401	0	0
Band 3	55	<b>\$10,617</b>	16	\$6,083
Band 4	50	<b>\$24,867</b>	57	\$11,651
Band 5	31	<b>\$23,565</b>	11	\$5,162

Notes:

1. Promotions are reported for those cases in which employees were promoted across bands (or the equivalent in the Comparison Group).
2. Size of range was computed by subtracting the smallest promotion amount from the largest promotion amount.

4.5.16. The benefits of a pay for performance system over the longer term are evident as high-performing Demonstration Group participants outpace all others over time

To examine more fully the link between performance and pay, we analyzed the salary progression of a subset of the Demonstration Project participants. Specifically, we examined performance-based pay increases and bonuses/awards over seven years (increases due to promotions were not included because insufficient data were available from the earlier years). Employees in the ZP career path, pay band 4, and interval 1 (or the Comparison Group equivalent) in Year One were selected for examination because they are the most populous group in the Demonstration Project's ZP career path. We identified these individuals in the Year One data file and then tracked the same individuals in the Year Two, Three, Four, Five, Six, and Seven data files to determine their progression.

We selected this one subset to serve as an example and therefore caution the reader about generalizing findings more broadly. However, given that the same decision rules regarding compensation apply across career paths and pay bands, we would expect that similar outcomes would result if a different subset of the Demonstration Project were selected.

Table 4-48 shows that after seven years in the Demonstration Project, high performers in the Demonstration Group in this analysis have experienced, on average, a \$30,891 increase, based on pay increases and bonuses. This amount exceeds the average increase (\$19,535) of others in the Demonstration Group of the same career path, pay band, and interval. This finding supports the hypothesis that higher performance is paying off, both on a year-over-year basis, as well as over the longer term.

**Table 4-48. Progression Analysis – Demonstration Group Participants Who Started in ZP Career Path, Pay Band 4, and Interval 1 in Year One**

		YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR	YEAR FIVE
<b>Demonstration Group With Performance Scores of 90-100 (High Performers)</b>	Average Performance-Based Pay Increase	\$2,757	\$2,996	\$2,833	\$2,949	\$2,822
	Average Bonus Amount	\$1,224	\$1,252	\$1,343	\$1,439	\$1,468
	TOTAL	\$3,981	\$4,248	\$4,176	\$4,388	\$4,290
<b>Demonstration Group With Performance Scores of 40-89</b>	Average Performance-Based Pay Increase	\$1,412	\$1,779	\$1,674	\$1,678	\$2,095
	Average Bonus Amount	\$768	\$813	\$953	\$1,041	\$1,040
	TOTAL	\$2,180	\$2,592	\$2,627	\$2,719	\$3,135

		YEAR SIX	YEAR SEVEN	AFTER SEVEN YEARS
<b>Demonstration Group With Performance Scores of 90-100 (High Performers)</b>	Average Performance-Based Pay Increase	\$3,437	\$3,341	\$21,135
	Average Bonus Amount	\$1,520	\$1,510	\$9,756
	TOTAL	\$4,957	\$4,851	\$30,891
<b>Demonstration Group With Performance Scores of 40-89</b>	Average Performance-Based Pay Increase	\$2,057	\$2,267	\$12,962
	Average Bonus Amount	\$895	\$1,063	\$6,573
	TOTAL	\$2,952	\$3,330	\$19,535

*Notes:*

1. Demonstration Group salary increases are based on valid data for all employees receiving zero or greater salary increases.
2. For this analysis, the number of participants in each group in each year ranged from 56 to 216.
3. These analyses were done in "then year dollars." We considered normalizing the data to "constant year dollars," but decided that the results would not differ to any significant degree.
4. The data reported for Years One, Two, and Three vary slightly from that which was reported in Year Three. This analysis was revised to include only those employees who were in their respective groups for the entire seven years and does not include individuals who left and rejoined the organization.

Similarly, Table 4-49 shows that after seven years in the Demonstration Project, Demonstration Group participants in this analysis have experienced greater salary progression compared to their counterparts in the Comparison Group (of the same career path, pay band, and interval).<sup>23</sup> This finding suggests that the Demonstration Project interventions are resulting in greater salary gains for those within the Demonstration Group. Moreover, the frequency with which participants receive salary increases also affects their progression. Under the GS system, Comparison Group participants do not receive increases every year. Rather, step within grade determines whether they receive increases every year, two years, or three years. In comparison, Demonstration Group participants are eligible to receive increases every year based on performance. This difference in the frequency of increases is accounted for in the analysis because the analysis is based on the average increase in any given year.

**Table 4-49. Progression Analysis – Comparison of Demonstration Group and Comparison Group Participants Who Started in ZP Career Path, Pay Band 4, and Interval 1 in Year One (or the equivalent)**

		YEAR ONE	YEAR TWO	YEAR THREE	YEAR FOUR	YEAR FIVE
<b>Demonstration Group</b>	Average Performance-Based Pay Increase	\$1,771	\$2,218	\$2,129	\$2,243	\$2,401
	Average Bonus Amount	\$889	\$969	\$1,106	\$1,218	\$1,221
	TOTAL	\$2,660	\$3,187	\$3,235	\$3,461	\$3,622
<b>Comparison Group</b>	Average Performance-Based Pay Increase	\$1,186	\$1,501	\$497	\$1,127	\$1,007
	Average Award Amount	\$758	\$882	\$1,017	\$1,572	\$1,418
	TOTAL	\$1,944	\$2,383	\$1,514	\$2,699	\$2,425

		YEAR SIX	YEAR SEVEN	AFTER SEVEN YEARS
<b>Demonstration Group</b>	Average Performance-Based Pay Increase	\$2,716	\$2,762	\$16,240
	Average Bonus Amount	\$1,194	\$1,269	\$7,866
	TOTAL	\$3,910	\$4,031	\$24,106
<b>Comparison Group</b>	Average Performance-Based Pay Increase	\$1,262	\$1,561	\$8,141
	Average Award Amount	\$1,739	\$1,379	\$8,765
	TOTAL	\$3,001	\$2,940	\$16,906

*Notes:*

1. Salary increases are based on valid data for all employees receiving zero or greater salary increases.
2. For this analysis, the number of participants in each group in each year ranged from 33 to 217.
3. These analyses were done in “then year dollars.” We considered normalizing the data to “constant year dollars,” but decided that the results would not differ to any significant degree.
4. The data reported for Years One, Two, and Three vary slightly from that which was reported in Year Three. This analysis was revised to include only those employees who were in their respective groups for the entire seven years and does not include individuals who left and rejoined the organization.

<sup>23</sup> This analysis defined salary increases for the Comparison Group in the same fashion as the other analyses in this report, that is, as Step Increases, Quality Step Increases, and Promotion Increases (when the promotion was equivalent to a transition within a pay band under the Demonstration Project).

4.5.17. Delegated pay authority continued to be an area where Demonstration Group supervisors recognize a noticeable change

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. This is in sharp contrast to the traditional GS system in which employee pay increases are a function of the pay table with no input from line managers. As shown in Table 4-50, more Demonstration Group supervisory employees than Comparison Group supervisory employees agree that they have enough authority to determine their employees’ pay; the difference between response levels is more pronounced than in past years. However, it is worth noting that while Demonstration Group supervisors responded more positively than did Comparison Group supervisors, there is not widespread concurrence among Demonstration Group supervisors that they hold enough authority. This finding may also reflect how only some supervisors, notably Pay Pool Managers, have final pay authority.

**Table 4-50. Survey Results – Delegated Pay Authority**

	Demo. Group			Comp. Group			Demo. vs. Comp.
	Total	(N)	(S)	Total	(N)	(S)	
112. I have enough authority to determine my employees’ pay.			39%			54%	Significant difference
			19%			23%	
			42%			23%	

*(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding  
 This item was addressed of supervisory employees only*

In support of the delegated pay authority, some participating organizations have reported through their site historians that they have increased communications regarding pay setting to their managers. BEA, for example, developed Pay Setting Guidelines, as well as supplemental materials, to assist managers in making pay setting decisions. As a result, BEA reported that their managers are much more aware, and make better use, of the pay setting flexibilities available to them under the Demonstration Project.

Demonstration Group respondents indicated more satisfaction than did Comparison Group respondents with the way management handles pay (see Table 4-51). Additionally, a greater percentage of Demonstration Group respondents believe that management officials are qualified to make pay decisions. To be expected, supervisory employees expressed greater satisfaction than did non-supervisory employees; however, it is worth noting that the level of agreement has increased for both supervisory and non-supervisory employees over the years. This suggests that Demonstration Group participants are becoming more confident in management's ability to operate in a system in which the managers play such a crucial role in making pay decisions.

**Table 4-51. Survey Results – Management of Pay**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
51. I am satisfied with the way management handles pay.	<i>Disagree</i>	28%	31%	23%	33%	34%	29%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	28%	30%	24%	29%	31%	24%	
	<i>Agree</i>	44%	39%	53%	38%	35%	47%	
52. Management officials are qualified to make pay decisions.	<i>Disagree</i>	21%	23%	18%	23%	25%	18%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	28%	31%	22%	31%	32%	27%	
	<i>Agree</i>	52%	46%	60%	46%	42%	55%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

4.5.18. The supervisory performance pay intervention continued to reward supervisors who had reached the top of their pay bands (many of whom were performing reasonably well); however, it did not (by design) necessarily reward all high performing supervisors

The supervisory performance pay intervention facilitates paying supervisors at more competitive levels, with the intended outcome of encouraging retention and motivating higher performance. It serves as a means for extending the pay for supervisors in recognition of the additional responsibilities that they carry. As designed, this intervention is used for supervisors who reach the normal maximum rate for their pay band and therefore are placed in the pay intervals designated as supervisory performance pay (i.e., intervals 4 and 5). Supervisors receive performance scores along with all other employees in the Demonstration Group and are given pay increases appropriate to their scores. Therefore, it is only when the supervisor reaches the top of the pay band that the intervention is enacted.

There were 617 supervisors in the Demonstration Group during Year Seven. Of these 617 supervisors, 107 were eligible for supervisory performance pay and 494 supervisors were not (the remaining 16 supervisors lacked sufficient data to determine whether or not they received supervisory performance pay). Table 4-52 shows a comparison to previous years.

In Year Seven, there was a difference in the average performance scores between those supervisors who were or were not eligible for supervisory performance pay: Supervisors who were eligible for supervisory performance pay had an average score of 90.6 points (with a range of 64 to 98 points) while the average among all other supervisors was 87.5 points (with a range of 63 to 99 points). Both of these average scores are higher than the overall

average for the Demonstration Group (85.9 points). The gap between these scores represents the largest to date (3.1 points). Consistent with the recent downward trend in the overall performance score, these average performance scores are lower than nearly all other previous years.

**Table 4-52. Supervisory Performance Pay and Average Performance Scores**

	Total Number of Supervisors	Eligible for Supervisory Performance Pay		Not Eligible for Supervisory Performance Pay		Average Performance Score Gap
		Number	Average Performance Score	Number	Average Performance Score	
Year Two	218	44	89.9 points	174	88.9 points	1.0 points
Year Three	222	41	91.1 points	181	89.2 points	1.9 points
Year Four	189	50	91.6 points	139	89.2 points	2.4 points
Year Five	276	89	91.3 points	187	90.3 points	1.0 points
Year Six	284	92	92.0 points	192	89.5 points	2.5 points
Year Seven	617	107	90.6 points	494	87.5 points	3.1 points

Notes:

1. Year One data were not available for this analysis.
2. Average performance scores are based upon the number of supervisors for whom performance score data were available, which is less than the number of people reported as being in each group overall.

As shown in Table 4-53, among those eligible for supervisory performance pay, 99 percent had performance scores above 80. A slightly wider distribution of performance scores was evident for those supervisors who were not eligible for supervisory performance pay. This shows that those who are eligible for supervisory performance pay are in fact performing reasonably well (i.e., 80 or above).

**Table 4-53. Supervisory Performance Pay and Distribution of Performance Scores**

PERFORMANCE SCORE CATEGORY	Eligible for Supervisory Performance Pay	Not Eligible for Supervisory Performance Pay
90-100	70%	44%
80-89	29%	49%
70-79	0%	6%
60-69	1%	1%
50-59	0%	0%
40-49	0%	0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Note: This analysis is based on the 561 of the 617 supervisors for whom performance score data were available.

The supervisory performance pay intervention is not designed to reward high performance in all supervisors, per se, which is evident from the data. Table 4-54 shows that some of the top performing supervisors are not eligible for supervisory performance pay. Among the highest performing supervisors (those in the 90-100 performance score category), only 27 percent were eligible for supervisory pay. Similarly, among all the supervisors who were in the 80-89 performance score category, only 12 percent were eligible for supervisory pay. Thus,



supervisory performance pay may be a motivator for supervisors by expanding the future salary growth potential for supervisors (by expanding the pay band maximum by 6 percent), but it does not necessarily serve (by design) as an immediate reward for current high performance. This occurs because eligibility for supervisory performance pay is primarily driven by salary and secondarily by performance. As such, this intervention was designed to reward the highest paid supervisors – but does not necessarily reward the highest performing supervisors.

**Table 4-54. Distribution Across Each Performance Score Category**

<b>PERFORMANCE SCORE CATEGORY</b>	<b>Eligible for Supervisory Performance Pay</b>	<b>Not Eligible for Supervisory Performance Pay</b>	<b>Total</b>
90-100	27%	73%	<b>100%</b>
80-89	12%	88%	<b>100%</b>
70-79	0%	100%	<b>100%</b>
60-69	29%	71%	<b>100%</b>
50-59	-	-	-
40-49	-	-	-

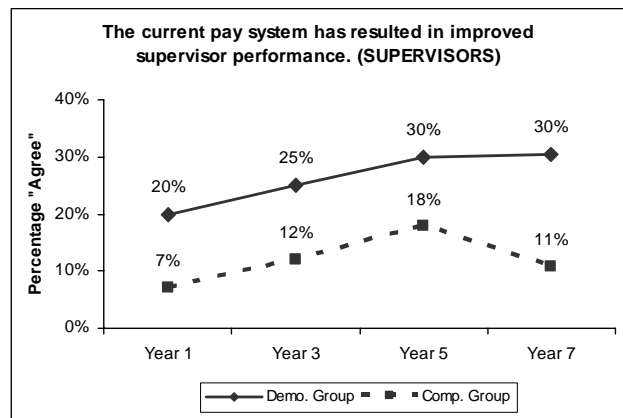
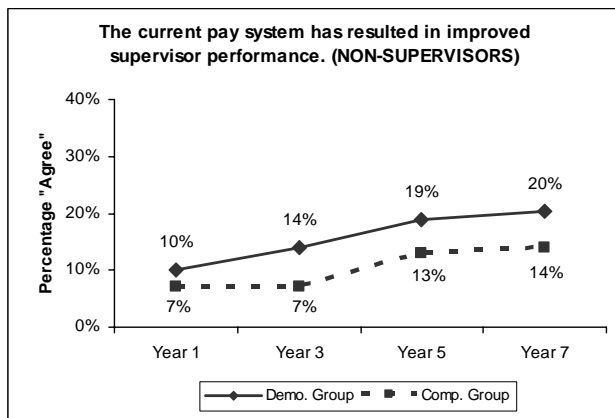
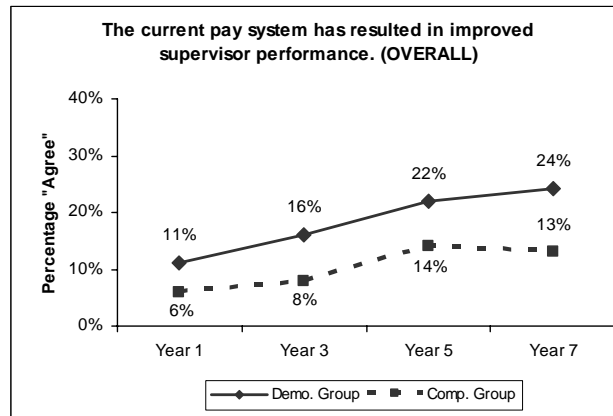
*Note: This analysis is based on the 561 of the 617 supervisors for whom performance score data were available.*

Finally, among each group (those supervisors who were or were not eligible for supervisory performance pay), a relationship was not evident between performance scores and performance-based pay increases. While supervisors who are eligible for supervisory performance pay had higher average performance scores than those supervisors who were not eligible, the supervisors who were eligible had lower average performance-based pay increases (0.6 percent) than those supervisors who were not eligible (3.4 percent). (To note, supervisory performance pay is not factored into the performance-based pay calculations so those who were eligible likely received increases higher than 0.6 percent once their supervisory performance pay was distributed).

**4.5.18.1.** *A small, but increasing, percentage of Demonstration Group survey respondents indicated that the pay system has led to improved supervisory performance*

While only approximately one-quarter of Demonstration Group survey respondents believe that the pay system has led to improved supervisory performance, this concept has gained acceptance over time. Not surprisingly, more supervisory employees than non-supervisory employees hold this view. Additionally, for the Demonstration Group, more respondents tend to neither agree nor disagree that the current pay system has resulted in improved supervisor performance indicating, perhaps, that they are unable to make that determination due to lack of knowledge or exposure. Table 4-55 displays these findings.

**Table 4-55. Change Over Time – Improved Supervisor Performance**



	Demo. Group			Comp. Group		
	Total	(N)	(S)	Total	(N)	(S)
53. The current pay system has resulted in improved supervisor performance.	<b>YEAR SEVEN</b>					
	Disagree	37%	39%	33%	44%	46%
	Neither disagree nor agree	39%	41%	37%	42%	43%
	Agree	24%	20%	30%	13%	11%
	<b>YEAR FIVE</b>					
	Disagree	39%	40%	36%	37%	40%
	Neither disagree nor agree	40%	41%	35%	49%	42%
	Agree	22%	19%	30%	14%	18%
	<b>YEAR THREE</b>					
	Disagree	44%	46%	35%	49%	53%
	Neither disagree nor agree	40%	40%	39%	43%	36%
	Agree	16%	14%	25%	8%	12%
<b>YEAR ONE</b>						
Disagree	47%	49%	39%	44%	53%	
Neither disagree nor agree	42%	42%	42%	50%	40%	
Agree	11%	10%	20%	6%	7%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available  
 Percentages may not add to 100 due to rounding  
 This item was not on the baseline survey

4.5.18.2. *Consistent with Year Five results, focus group and interview data failed to provide strong evidence that supervisory performance pay motivates supervisors to perform better*

In focus groups, Demonstration Group supervisory employees provided mixed responses about whether the supervisory performance pay intervention is a motivator to perform better. The inconsistency in responses may, in itself, reflect the lack of clarity about when and why the intervention is implemented. Responses ranged from the fact that money is not a motivator for some individuals to concerns about eligibility. In interviews, some Pay Pool Managers, Rating Officials, and Directors responded positively to the intervention indicating that it has improved attitudes and performance; others indicated that while it is nice to have, it is not a huge incentive. Table 4-56 and Table 4-57 display these findings.

**Table 4-56. Focus Group Results – Supervisory Performance Pay – "Does the supervisory performance pay intervention motivate supervisors to perform better as supervisors? If yes, how? If no, what would be a better motivator?"**

<b>DEMONSTRATION GROUP</b>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Supervisory performance pay is not motivational because money is not a motivator</li> <li>• Unclear what the supervisory performance pay intervention is</li> <li>• Takes a long time to achieve the top interval and become eligible for it</li> <li>• Would be motivational if supervisors could obtain it regardless of interval</li> </ul>

**Table 4-57. Interview Results – Supervisory Performance Pay – "How have supervisors reacted to the supervisory performance pay intervention?"**

<b>DEMONSTRATION GROUP</b>
<p><b>Pay Pool Managers, Rating Officials, and Directors</b></p> <ul style="list-style-type: none"> <li>• It is good, we all agree; it makes people better at supervising</li> <li>• It has had a positive effect on supervisor attitude and performance</li> <li>• Not implemented here</li> <li>• Makes us happy, but not a huge incentive</li> </ul>

In the Comparison Group, where the supervisory performance pay intervention has not been implemented, supervisory employees in focus groups provided other alternatives for encouraging supervisor performance (see Table 4-58). Some of these options include training and bonuses. Respondents also pointed out that threat of removal was not much of a de-motivator given that it does not seem to happen very often.

**Table 4-58. Focus Group Results – Supervisor Performance – "What techniques are used now to encourage supervisors to improve their performance as supervisors?"**

COMPARISON GROUP
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Supervisory training (e.g., leadership, coaching)</li> <li>• If supervisors do not perform well, they are seldom removed (they just do not get a bonus)</li> <li>• If supervisors do not perform well, there could be a threat of reassignment but this rarely happens because the organization is afraid to lose supervisors</li> </ul>

#### **4.6. Most of the Demonstration Group scientists and engineers who had time left in their three-year probationary periods were kept on probation, which gave managers a longer timeframe to evaluate performance**

The three-year probationary period for scientists and engineers intervention was designed to allow supervisors the ability to make permanent hiring decisions for research and development (R&D) positions based on employees' demonstrated capabilities in the full R&D cycle. This intervention provides these supervisors with the ability to terminate poor performing employees any time during the three-year period rather than being limited to the typical one-year probationary period.

As displayed in Table 4-59, in Year Seven, 149 employees were under the three-year probation, 31 of whom had just started their probation in Year Seven. By the end of Year Seven, 27 employees who had been under the three-year probation had been made permanent: 26 were employees who were made permanent after completing their three years on the three-year probation and one was an employee who was made permanent after completing two years on the three-year probation. The remaining 122 employees remained on the three-year probation going into Year Eight. The low numbers of individuals taken off probation (i.e., made permanent) in their first or second year indicates that managers are making use of this option to allow employees to remain in probationary status for a longer period of time, thus giving employees a longer time horizon in which to demonstrate their skills.

**Table 4-59. Employees on Three-Year Probation**

Year Probation Began	Number on Probation in Year Seven	Number Made Permanent in Year Seven	Number Remaining on Probation at End of Year Seven
Demo Project Year Four	26	26	0
Demo Project Year Five	48	1	47
Demo Project Year Six	44	0	44
Demo Project Year Seven	31	0	31
TOTAL	149	27	122

Another useful metric of this intervention is the number of employees on three-year probation who leave while on three-year probation. This intervention affords managers with greater flexibility to terminate poor performers as well as for individuals to self-select out if they determine that the position is not appropriate for them. In Year Seven, of those currently under the three-year probation, one employee left, due to resignation. This employee was in his/her second year of the three-year probation and had not been made permanent in Year Seven. No employees in the three-year probation were terminated, which could either indicate that all were performing satisfactorily or managers did not take advantage of their ability to terminate poor performers during the three year probationary period.

#### **4.7. While many of the recruitment and staffing interventions under the Demonstration Project are no longer unique, those that are being enacted are working well**

The Demonstration Project implemented a number of interventions aimed to attract high quality candidates and to speed up the recruiting and examining process. These interventions include delegated examining authority, local authority for recruitment payments, flexible entry salaries, and flexible paid advertising. Overall, these recruitment and staffing interventions are designed to attract highly qualified candidates and get new hires on board faster. Delegated examining authority, supported by flexible paid advertising, allows hiring officials to focus on more relevant recruiting sources. Local authority for recruitment payments provides extra incentives for hiring high quality candidates.

It is important to recognize, however, that many of the recruitment and staffing interventions are no longer unique to the Demonstration Project. For example, delegated examining authority and merit assignments are recruitment methods that are available elsewhere. Similarly, flexible paid advertising is not unique. Given this reality, we sought to examine whether the interventions appeared to be working effectively in the Demonstration Group and evidence of improvement over time. We also focused on the intervention that is less available elsewhere: flexible entry salaries. The ability to offer flexible entry salaries is a recruiting tool that gives hiring officials greater flexibility to offer starting salaries to highly qualified candidates that are more competitive with public and private industry.

In Year Seven, our findings suggest that the Demonstration Project is having success with some of the unique recruitment and staffing interventions. For example, flexible entry salaries and the ability to re-negotiate job offers offer managers the latitude to attract competitive candidates. Moreover, perceptual data suggest that Demonstration Group participants believe that it is reasonable to use these types of interventions, and others, to attract the best candidates. One place where the evidence is less clear about the impact of the Demonstration Project interventions is the ability to attract higher quality candidates. While Demonstration Group participants indicated that the quality is improving, and this perception is validated by objective data, it is unclear whether this improvement is resulting from the Demonstration project interventions themselves given that similar improvements were also noted in the Comparison Group.

- 4.7.1. Based on objective data, employees hired during the Demonstration Project years have slightly outperformed the more tenured employees, which is some indication that the quality of new hires is improving

During Year Seven, 394 new hires were brought into the Demonstration Group, as identified in the objective data file. This represents an increase from Year Six, in which 330 new hires were brought into the Demonstration Group. The Comparison Group experienced an increase from 102 new hires in Year Six to 140 new hires in Year Seven.

One of the objectives of the Demonstration Project is to attract and hire more qualified candidates. In order to examine the relationship between hiring interventions and the ability to attract high quality candidates, DoC would need to capture objective measures about not just the new hires, but also on the quality of applicants. It is our understanding that data on applicant pools is not currently captured in such a way to facilitate analyses.

Given the limitations on assessing the quality of applicants, a new analysis was performed beginning in Year Five to examine, as a proxy, whether new hires to the Demonstration Project outperform those who were hired prior to the Demonstration Project's initiation. Positive results would suggest that, on average, new hires are of a higher quality than "tenured" employees; however, in the absence of comparative information on job applicants, the results would not be able to address how the new hires compared to other applicants who applied for the same positions.

To perform this analysis, all Demonstration Group participants who were hired into the Demonstration Project in Years One-Six, and who still remained in the Demonstration Group in Year Seven, were identified. We did not include Year Seven new hires because: one, only some are hired early enough in the performance year to have a performance score, and two, one could argue that new hires experience a learning curve at the beginning of a new job and therefore should be excluded from this type of analysis.

Among the new hires who joined the Demonstration Project during Years One-Six, 1,618 remained in Year Seven. The analysis was then based upon the 1,440 of the 1,618 employees who had eligible performance ratings and performance scores in Year Seven. The results showed that the average performance score for these new hires from across the years was 86.5 points, which was slightly higher than the average performance score for those who were hired prior to the start of the Demonstration Project of 85.6 points. This difference is in the desired direction to add credence on the quality of new hires improving; however, the difference is so slight that it still remains inconclusive. The small magnitude of the difference is also comparable to the results found in Year Five and Year Six.

#### 4.7.2. Hiring ratings varied by organization

As displayed in Table 4-61, the rate of hiring varied across participating organizations. CFO/ASA experienced the most significant increase in staff, followed closely by ESA-BEA. TA experienced the smallest staffing increase; consistent with this, the TA site historian reported that TA was unable to replace departing staff due to budget constraints and expects to further reduce hiring as well as staffing levels in the year to come.

Overall, varying rates of hiring likely reflect a number of factors including the specific functional needs of each organization, availability of qualified applicants in the job market, the need to replace staff that have turned over, and budgetary objectives.

**Table 4-60. New Hires by Organization**

ORGANIZATION	NUMBER OF EMPLOYEES	NUMBER OF NEW HIRES	STAFFING INCREASE
ESA-BEA	538	69	15%
NTIA	86	8	10%
NOAA	3,542	256	8%
TA	28	1	4%
CFO/ASA	414	60	17%
TOTAL	4,608	394	9%

Notes:

1. Staffing increase was computed as the increase from the number of employees minus the new hires to the number of employees.
2. These data are based upon the objective data file.

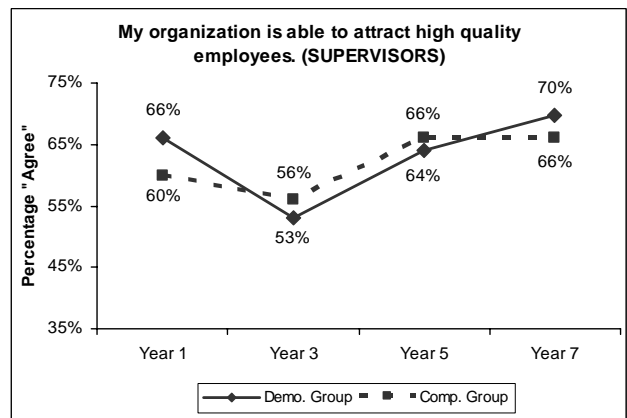
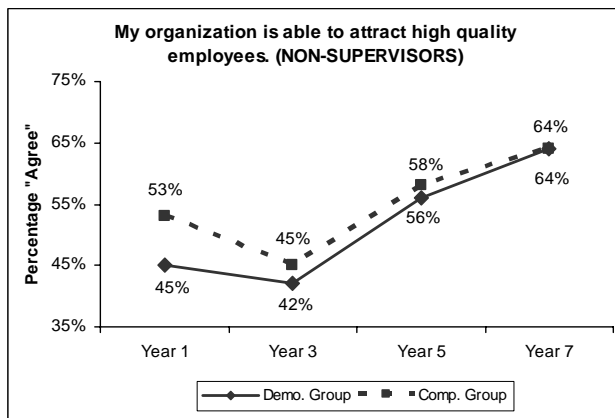
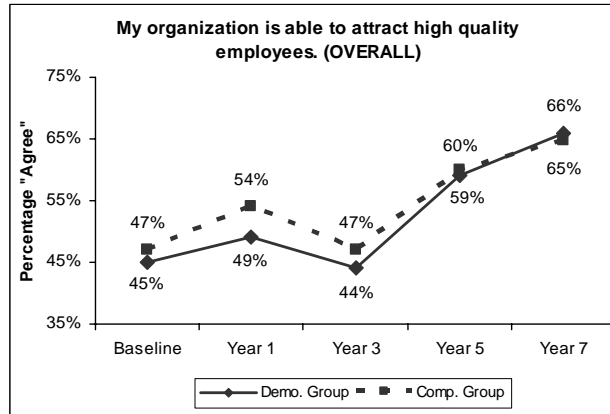
#### 4.7.3. Based on survey data and focus group data, Demonstration Group participants perceived that the Demonstration Project is attracting high-quality applicants; however, it is unclear whether this is attributable to the Demonstration Project interventions

Survey and focus group results showed that Demonstration Group participants perceived that the quality of new hires is improving. However, Comparison Group responses were nearly identical, suggesting that while the Demonstration Group may be attracting higher quality candidates, whether this is attributable to the Demonstration Project interventions per se is unclear.

##### 4.7.3.1. General perceptions about the ability to attract high quality employees increased in Year Seven, although it is not necessarily attributable to Demonstration Project interventions

As displayed in Table 4-61, overall survey respondents' perceptions about the organization's ability to attract high quality employees increased in Year Seven for both the Demonstration Group and the Comparison Group. In fact, perceptions have steadily increased over the years, except for a drop in Year Three. Given the way that the Demonstration Group and Comparison Group responses track so closely, it may be that factors outside of the influence of the Demonstration Project interventions are impacting DoC overall.

**Table 4-61. Change Over Time – Organization’s Ability To Attract High Quality Employees**



	Demo. Group			Comp. Group		
	Total	(N)	(S)	Total	(N)	(S)
97. My organization is able to attract high quality employees.	<b>YEAR SEVEN</b>					
	Disagree	13%	13%	12%	15%	14%
	Neither disagree nor agree	21%	23%	18%	21%	20%
	Agree	66%	64%	70%	65%	66%
	<b>YEAR FIVE</b>					
	Disagree	15%	16%	14%	14%	15%
	Neither disagree nor agree	26%	27%	22%	26%	19%
	Agree	59%	56%	64%	60%	66%
	<b>YEAR THREE</b>					
	Disagree	26%	28%	20%	22%	16%
	Neither disagree nor agree	30%	30%	27%	32%	29%
	Agree	44%	42%	53%	47%	56%
<b>YEAR ONE</b>						
Disagree	21%	22%	15%	20%	16%	
Neither disagree nor agree	30%	33%	19%	26%	24%	
Agree	49%	45%	66%	54%	60%	
<b>BASELINE</b>						
Disagree	24%			25%		
Neither disagree nor agree	31%	NA		28%	NA	
Agree	45%			47%		

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 NA = Baseline data were not available broken out by supervisor and non-supervisor  
 Percentages may not add to 100 due to rounding



4.7.3.2. *Non-supervisory and supervisory employees personally involved with the recruiting process perceived that the quality of new hires is higher than the quality of applicants*

In contrast to the previous survey item that broadly asked survey respondents to think about the organization’s ability to attract high quality employees, a series of survey items were asked of those who have been personally involved in recruiting or hiring of permanent employees from outside of the agency in Year Seven. Their responses are displayed in Table 4-62. There is no significant difference between the perceptions of Demonstration Group and Comparison Group respondents, suggesting that the Comparison Group has kept pace with efforts to increase the quality of new hires in the Demonstration Group.

When asked to focus on the quality of new hires relative to the workforce in general, over two-thirds of Demonstration Group participants indicated that new hires are better than average, with nearly one-third perceiving new hires as in the “Top 10%” or “Top 1%.” Supervisors were even more positive than non-supervisory employees in their perceptions of the quality of new hires.

**Table 4-62. Survey Results – Quality of New Hires**

	Demo. Group		Comp. Group		Demo. vs. Comp.	
	Total	(N)	(S)	Total		(N)
63. Please think about the <u>most recent</u> recruiting effort for a permanent employee in your group in which you were personally involved. What was your assessment of the overall capabilities of all the <u>applicants</u> for that position compared to your workforce?						
<i>Top 1% (world class)</i>	1%			0%		No significant difference
<i>Top 10% (outstanding)</i>	14%			12%		
<i>Top 25% (very good)</i>	42%			45%		
<i>Average</i>	32%			31%		
<i>Below average</i>	7%			5%		
<i>Poor</i>	1%			2%		
<i>I have not been personally involved with recruiting</i>	4%			5%		
64. What was your assessment of the overall capabilities of the <u>person hired</u> compared to the rest of your workforce?						
<i>Top 1% (world class)</i>	3%	5%	2%	2%		No significant difference
<i>Top 10% (outstanding)</i>	26%	16%	30%	26%		
<i>Top 25% (very good)</i>	40%	36%	41%	38%		
<i>Average</i>	20%	27%	16%	21%		
<i>Below average</i>	2%	2%	2%	4%		
<i>Poor</i>	1%	1%	1%	2%		
<i>Too early to tell</i>	3%	6%	2%	1%		
<i>No one was hired</i>	3%	2%	4%	4%		
<i>Don't Know/Not Applicable</i>	3%	6%	2%	3%		

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding

4.7.3.3. *Focus group respondents reported some improvements in being able to attract high quality candidates*

As displayed in Table 4-63, focus group participants from the Demonstration Group reported that although the organization has not been hiring a lot of candidates recently, they have noticed slight changes in the ability to attract and hire high-quality candidates. In general, the responses were positive, suggesting that the Demonstration Project's recruitment interventions, especially salary negotiations, have been beneficial in the recruiting process.

**Table 4-63. Focus Group Results – Perceptions on the Ability to Attract and Hire High Quality Candidates – "Have you noticed any differences in the past seven (two) years in your work unit's ability to attract and hire quality candidates? If yes, to what do you attribute this difference?"**

DEMONSTRATION GROUP	COMPARISON GROUP
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Not much hiring is occurring</li> <li>• Being able to negotiate salaries really helps</li> <li>• It is easier now to compete against the private sector for candidates</li> <li>• There have been some improvements</li> <li>• Hard to notice differences yet (New Demo)</li> <li>• Candidates are concerned that there will be limited promotion potential (New Demo)</li> </ul> <p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Not much hiring is occurring</li> <li>• Being able to negotiate salaries really helps</li> <li>• It is easier now to compete against the private sector for candidates</li> <li>• The applicant pool is bigger but not better</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Tend to hire people as contractors first and see how they perform</li> <li>• When bringing candidates in from private industry, we are asking them to take lower salaries so the salary negotiations are time consuming</li> </ul>

4.7.3.4. *Focus group participants offered strategies to increase hiring of high quality candidates*

When asked to provide suggestions for increasing the hiring of high quality candidates, Demonstration Group focus group participants suggested a range of ideas, some of which may be particular to their specific work unit's hiring situation. Suggestions included removing the current hiring freeze, increasing internship programs, increasing funds, and allowing for more flexibilities. Table 4-64 provides a summary of the suggested strategies.

**Table 4-64. Focus Group Results – Hiring Strategies for High Quality Candidates – "What else could DoC do to attract and hire quality employees?"**

<b>DEMONSTRATION GROUP</b>	
<b>Non-Supervisory Employees</b>	<b>Supervisory Employees</b>
<ul style="list-style-type: none"> <li>• Remove hiring freeze</li> <li>• Increase student/internship programs</li> <li>• Increase resources (funds)</li> <li>• Fix Quick Hire</li> </ul>	<ul style="list-style-type: none"> <li>• Allow for even more flexibilities</li> </ul>

4.7.4. While recruitment payments were used in Year Seven, opinions differed on whether they are a primary incentive; in contrast, widespread support exists for paying more to high quality new hires

Based on the objective datafile, 10 of the 394 (2.5 percent) new hires in the Demonstration Group during Year Seven received a recruitment payment. These payments ranged from approximately \$2,500 to \$15,000. This level of use and size of payment is reasonably comparable to Year Six and previous years. While recruitment payments are also now available under U.S.C. 5753, their usage level was lower in the Comparison Group<sup>24</sup>. In Year Seven, only 2 of the 140 (1.4 percent) new hires in the Comparison Group received a recruitment payment.

Although the Demonstration Group has expanded its use of recruitment payments over the years, only a small percentage of recent new hires (hired during Year Six or Year Seven) who received recruitment payments (23 percent) indicated that recruitment payments were instrumental in their decisions to accept the jobs (see Table 4-65). Rather, it may be that recruitment payments provide a certain incentive but these results suggest that other factors are more critical for candidates.

On a related topic, there was more support among the Demonstration Group than in the Comparison Group that paying more to get high quality new hires is fair. Furthermore, in both groups, supervisory employees were more amenable to this practice than were non-supervisory employees. In fact, the highest level of support was provided from Comparison Group supervisors, perhaps indicative of an interest in being about to adjust starting salaries to the quality of the candidates.

<sup>24</sup> To note, shortly following the timeframe of this evaluation, the Demonstration Project rescinded its independent authority to pay recruitment payments and, as of the date of this report, has the authority to pay recruitment incentives under 5 U.S.C. 5753 and 5 CFR part 575, subpart A. See 71 FR 25615.

A majority of the survey respondents who were hired during Year Six or Year Seven indicated that their starting salaries were the same or better than they would have received from other organizations. However, the responses were similar across the Demonstration Group and Comparison Group survey respondents, suggesting that both Demonstration Group and Comparison Group new hires believed that they obtained competitive salaries.

**Table 4-65. Survey Results – Recruitment Payments and Starting Salaries**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
59. My one-time recruitment payment was instrumental in accepting the job.	<i>Disagree</i>	69%			81%			*
	<i>Neither disagree nor agree</i>	8%	*		0%	*		
	<i>Agree</i>	23%			19%			
56. Paying a high quality new hire more than other new hires is fair.	<i>Disagree</i>	21%	24%	17%	28%	33%	18%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	19%	20%	17%	16%	18%	13%	
	<i>Agree</i>	60%	56%	66%	54%	49%	70%	
60. How do starting salaries for similar positions at other organizations to which you applied compare with your starting salary at your current organization?								
	<i>Much less than (less than 90% of) my starting salary</i>	4%			4%			<i>No significant difference</i>
	<i>Somewhat less than (90% to 95% of) my starting salary</i>	16%			11%			
	<i>About the same as my starting salary</i>	32%	<i>No significant difference</i>		35%	<i>No significant difference</i>		
	<i>Somewhat more than (5% to 10% higher than) my starting salary</i>	17%			18%			
	<i>Much more than (more than 10% higher than) my starting salary</i>	9%			13%			
	<i>I don't know</i>	22%			19%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding

Item 59 was asked only of respondents who indicated that they were hired since March 2003 and received a recruitment payment

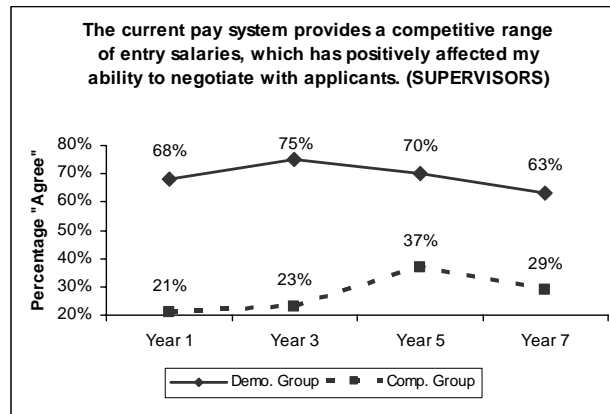
Item 60 was asked only of respondents who indicated that they were hired since March 2003

\* The low number of responses to this question precluded testing the statistical significance of this item

4.7.5. Survey data, objective data, and focus group data all show that Demonstration Group supervisors are taking advantage of their ability to offer more flexible entry salaries

As seen in previous years, noticeably more Demonstration Group supervisory employees, as compared to supervisory employees in the Comparison Group, agreed that the current pay system allows managers to negotiate competitive starting salaries for new hires (see Table 4-66). This difference indicates that the Demonstration Group supervisory employees are familiar with the flexible entry salaries intervention. Although this perception has been widely held over the years by approximately two-thirds of respondents, there has been a downward shift over the last several years. A similar downward shift has occurred in the Comparison Group over the past couple of years, suggesting that there may be extraneous factors that are impacting supervisors’ perceptions, unrelated to being in the Demonstration Project.

**Table 4-66. Change Over Time – Flexible Entry Salaries**



		Demo. Group	Comp. Group	
		<b>YEAR SEVEN</b>		
118. The current pay system provides a competitive range of entry salaries, which has positively affected my ability to negotiate with applicants.  (In Years One-Five, for both Demo Group and Comp Group, this item was worded as “The current pay system provides a competitive range of entry salaries for managers to use in negotiating with applicants.”)	Disagree	11%	37%	
	Neither disagree nor agree	26%	34%	
	Agree	63%	29%	
			<b>YEAR FIVE</b>	
	Disagree	10%	37%	
	Neither disagree nor agree	20%	26%	
	Agree	70%	37%	
			<b>YEAR THREE</b>	
	Disagree	12%	51%	
	Neither disagree nor agree	13%	27%	
	Agree	75%	23%	
			<b>YEAR ONE</b>	
Disagree	7%	62%		
Neither disagree nor agree	25%	17%		
Agree	68%	21%		

*This item was addressed by supervisory employees only  
Percentages may not add to 100 due to rounding  
This item was not on the baseline survey*

Consistent with previous years, objective data also show that managers in the Demonstration Group generally used a wider range of salaries for new hires than in the Comparison Group, as displayed in Table 4-67. Starting salaries were compared by sorting new hires by path and by band (or their equivalents for Comparison Group members). Out of 14 possible comparisons in starting salaries (categories in which both the Demonstration and Comparison Groups had at least two new hires), the range of salaries was wider in the Demonstration Group in thirteen of them (93 percent), which significantly exceeds the results from Year Six (75 percent), Year Five (82 percent), and Year Four (80 percent). For each comparison between the Demonstration Group and the Comparison Group, the wider range in starting salaries appears in bold. It should be noted that while differences in locality pay have not been specifically factored into this analysis, locality payments were included in the starting salaries used in this analysis given that the Demonstration Project pay tables are based on the GS pay tables (which include locality pay).

**Table 4-67. Comparison of Starting Salary Ranges Among New Hires in the Demonstration and Comparison Groups**

	Demonstration Group		Comparison Group	
	Number of New Hires*	Size of Range of Starting Salaries	Number of New Hires	Size of Range of Starting Salaries
<b>ZA</b>				
Band 1	4	\$6,186	N/A	N/A
Band 2	19	<b>\$23,514</b>	7	\$3,270
Band 3	9	<b>\$49,199</b>	18	\$25,668
Band 4	12	<b>\$34,500</b>	6	\$29,141
Band 5	3	\$12,403	2	<b>\$20,049</b>
<b>ZP</b>				
Band 1	2	<b>\$12,399</b>	4	\$8,284
Band 2	42	<b>\$34,179</b>	33	\$13,237
Band 3	24	<b>\$34,690</b>	25	\$34,569
Band 4	19	<b>\$46,537</b>	12	\$41,013
Band 5	5	\$34,731	1	\$0
<b>ZS</b>				
Band 1	11	<b>\$7,632</b>	3	\$3,554
Band 2	14	<b>\$8,256</b>	9	\$3,730
Band 3	6	<b>\$11,529</b>	3	\$3,047
Band 4	13	<b>\$19,216</b>	4	\$3,297
Band 5	2	\$9,000	N/A	N/A
<b>ZT</b>				
Band 1	12	<b>\$8,950</b>	3	\$909
Band 2	6	<b>\$15,552</b>	5	\$14,668
Band 3	1	\$0	4	\$14,645
Band 4	N/A	N/A	1	\$0
Band 5	N/A	N/A	N/A	N/A

*Notes:*

1. The number of cases used in this analysis is based on the number of new hires for whom starting salary, career path, and pay band data were available (i.e., 204 of the 394) new hires in the Demonstration Group) and all 140 new hires in the Comparison Group.
2. Size of range of was computed as by subtracting the smallest starting salary from the largest starting salary.

When survey respondents were asked to name which recruitment interventions have been successfully used, they provided a variety of responses, most of which were named across individuals in varying roles, such as Directors and Administrative Officers, HR Directors and Staff, and Rating Officials. Among all the interventions reported, all three groups named flexible starting salaries before any others. Additional interventions included flexible pay upon promotion and pay for performance. These results are presented in Table 4-68.

**Table 4-68. Interview Results – "Which of the recruitment interventions, if any, have been successful in the past seven (two) years in your organization's efforts to attract and hire high quality candidates?"**

<b>DEMONSTRATION GROUP</b>		
<b>Directors and Administrative Officers</b>	<b>HR Directors and Staff</b>	<b>Rating Officials</b>
<ul style="list-style-type: none"> <li>• Flexible starting salaries</li> <li>• Flexible pay upon promotion</li> <li>• Pay for performance</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible starting salaries</li> <li>• Pay for performance</li> <li>• Flexible pay upon promotion</li> </ul>	<ul style="list-style-type: none"> <li>• Flexible starting salaries</li> <li>• Pay for performance</li> <li>• Flexible pay upon promotion</li> <li>• Do not know – have not used them yet/too soon to tell</li> </ul>

- 4.7.6. While few differences existed between the Demonstration Group and the Comparison Group in the use of available hiring methods, the differential use of salary negotiations demonstrated one of the flexibilities available in the Demonstration Group

Based on data provided by the participating organizations on the use of various methods for hiring, the Demonstration Group used delegated examining authority for 222 candidates and merit assignment for 190 candidates, indicating a higher use of delegated examining authority. The Comparison Group used delegated examining authority for 26 candidates and merit assignment for 14 candidates, also indicating a higher use of delegated examining authority (see Table 4-69). This is in contrast to Year Six, in which merit assignment was more frequently used by both the Demonstration Group and the Comparison Group.

The Demonstration Group had nearly the same level of success with the number of job offers accepted using delegated examining authority (95 percent) and merit assignment (96 percent). In the Comparison Group, greater success was achieved through merit assignment than delegated examining authority.

In the Demonstration Group, approximately 10 percent of job offers were re-negotiated, both with delegated examining authority and merit assignment. In contrast, no Comparison Group job offers were re-negotiated. This demonstrates the greater flexibilities permitted in the hiring process due to the Demonstration Project interventions. In these cases, managers were able to negotiate salaries, thereby increasing their ability to obtain competitive candidates.

The Demonstration Group reported faster times for two classification activities: 1) the average amount of time needed to produce and classify a position and 2) the average amount of time needed to process a classification action. This finding is consistent with Year Six and with the automated classification system intervention, with the intended goal of making the classification system easier to use and more expedient.

The average number of calendar days required to fill a position (from initial posting of vacancy to selection) was nearly the same for the Demonstration Group and the Comparison Group at 52 and 54 days, respectively. While not markedly different from each other, these numbers are an improvement since Year Three (the first year this was assessed) when the average was 68-69 days for both groups. This suggests that there may in fact be changes both specific to the Demonstration Project as well as inherent in the GS system that have improved processing times. One explanation for the lack of more accelerated processing times was expressed by the NESDIS site historian, who indicated that NESDIS has a “hiring and reassignment” process that slows down recruiting and hiring for positions above the ZA and ZP pay band IV (or any position above a GS-12). Moreover, many of their positions require a security clearance before an employee can report for duty, which also tends to slow down the hiring process.

**Table 4-69. Agency Data Request Results – Recruitment Methods**

	DEMONSTRATION GROUP			COMPARISON GROUP TOTAL
	TOTAL	Wave 1	Wave 2	
<b>Delegated examining authority</b>				
Total number of offers made	222	200	22	26
Total number of offers accepted	211	189	22	25
Total number of offers re-negotiated (per candidate)	23	21	2	0
Acceptance rate (offers accepted/offers made)	95%	95%	100%	96%
<b>Merit Assignment</b>				
Total number of offers made	190	145	45	14
Total number of offers accepted	183	138	45	14
Total number of offers re-negotiated (per candidate)	11	11	0	0
Acceptance rate (offers accepted/offers made)	96%	95%	100%	100%
<b>Classification</b>				
Average amount of time needed to produce and classify a position	1 day	1 day	1 day	10 days
Average amount of time needed to process a classification action	1 day	1 day	<1 day	3 days
<b>Time to Fill Positions</b>				
Average number of calendar days required to fill a position (from initial posting of vacancy to selection)	52 days	52 days	51 days	54 days



#### **4.8. Many of the retention interventions are having the desired effect as employee motivators**

The series of retention interventions available to the Demonstration Project have the potential to motivate and retain high performing employees. The interventions that were intended to impact retention include the ACS, performance-based pay increases, performance-based bonuses, local authority for retention payments, supervisory performance pay, and more flexible pay increase upon promotion within a broadband framework. The intent was that these interventions would offer a structure (i.e., broadbanding) and incentive to motivate high performers to stay.

In Year Seven, it appears that many of these interventions are having the desired effect. Objective data analyses show that turnover is greater among lower performers and that managers are taking advantage of being able to offer flexible pay increases upon promotion. Subjective data analyses show that Demonstration Group participants perceive that the interventions have been motivating and improve retention efforts.

##### **4.8.1. In the Demonstration Group, the relationship between turnover and performance scores is in the desired direction**

One goal of the Demonstration Project is to retain higher performing employees. Overall, 341 of the 4,608 Demonstration Group participants (7.4 percent) separated in Year Seven. Ultimately, it is hoped that lower performing employees will separate at higher rates than will higher performing employees. As displayed in Table 4-70, dividing Demonstration Group participants into performance score groupings shows clear evidence of the desired relationship in Year Seven. By looking at the relative turnover rates across different levels of performance, it is clear that turnover is higher among those with lower scores (e.g., 50.0 percent of employees with scores in the 40-49 range turned over) and turnover is lower among those with higher scores (e.g., 2.2 percent of employees with scores in the 90-100 range turned over), results that are even more pronounced than they were in Year Six. (For this analysis, turnover was defined as employees who retired, resigned, terminated, or otherwise separated from the Demonstration Project.)

**Table 4-70. Demonstration Group Turnover Rates by Level of Performance**

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

*Notes:*

- 1. The total number of employees in this analysis is based on the 3,979 employees for whom valid Year Seven performance scores were available.*
- 2. Overall, 341 employees separated during Year Seven. The total number of separated employees in this analysis is based on 130 of the 341 employees who separated in Year Seven for whom valid Year Seven performance scores were available.*
- 3. The overall turnover rate for the Demonstration Group is 7.4 percent, which differs from a weighted average of the rates presented in this table. The reason for this difference is that the overall turnover rate is based on the number of employees who separated during Year Seven based on the total number of employees in the Demonstration Group, regardless of whether performance scores were available.*

#### 4.8.2. Turnover rates in the Demonstration Group and Comparison Group were reasonably similar and consistent with the past few years

Comparing Demonstration Group turnover to Comparison Group turnover can be an indicator of the relative success of retention efforts. However, this analysis has its limitations because, in the Comparison Group, turnover can only be examined in the aggregate and not by performance levels (due to the fact that the Comparison Group is on a pass/fail performance rating system). Without information about performance levels, turnover rates can be interpreted in different ways. For example, lower turnover rates can be interpreted as a positive because more employees were retained. However, higher turnover rates can also be interpreted as a positive because this may suggest that lower performers are leaving, resulting in a stronger workforce overall. Given these limitations, we compare turnover between the groups but recognize that conclusions are difficult to draw absent of meaningful performance data for the Comparison Group.

Turnover was calculated as the number of employees who retired, resigned, terminated, or otherwise separated from the Demonstration Project, divided by the total number of Demonstration or Comparison Group participants. During Year Seven, turnover was 7 percent in the Demonstration Group and 5 percent in the Comparison Group. This represents an increase for the Demonstration Group and status quo for the Comparison Group compared to Year Five and Year Six. Both of these rates represent a significant drop from Years Two-Four, very likely reflective of continuing labor market conditions including a less than hospitable job market that may have discouraged employees from leaving the safety of employment.

When the Year Seven Demonstration Group turnover is examined by wave, those in Wave 1 experienced 7.8 percent turnover and those in Wave 2 experienced 8.4 percent turnover (those for whom Wave was not discernable, all of whom were new hires, experienced less than 1 percent turnover). This gap in turnover rates is not considerable but will be closely monitored in future years in case the turnover rates continue to diverge.

Cumulative turnover rate was calculated as the total number of separations in Years Two through Seven divided by the average number of Demonstration (or Comparison) Group participants (the average number across Years Two through Seven). (In Year One, data were not available on the number of separations and therefore could not be included in this calculation.) Over Years Two through Seven there has been a cumulative turnover rate of 57 percent in the Demonstration Group. In comparison, the cumulative turnover rate in the Comparison Group was 50 percent. Table 4-71 displays these results. The higher cumulative turnover rate in the Demonstration Group may be indicative of progress toward eliminating poor performers, which is supported by the evidence (previously presented) that poor performers are turning over at higher rates than high performers.

**Table 4-71. Turnover Rates by Group**

<b>GROUP</b>	<b>YEAR TWO</b>	<b>YEAR THREE</b>	<b>YEAR FOUR</b>	<b>YEAR FIVE</b>	<b>YEAR SIX</b>	<b>YEAR SEVEN</b>	<b>CUMULATIVE OVER YEARS TWO-SEVEN</b>
<b>Demonstration Group</b>	13%	16%	15%	5%	5%	7%	57%
<b>Comparison Group</b>	10%	11%	15%	4%	5%	5%	50%

4.8.3. The link between turnover and performance levels is also evident when examined by career path

Average turnover rates varied somewhat by career paths in Year Seven, as displayed in Table 4-72. These results show that turnover is greatest among ZS, which is also one of the career paths with lower average performance scores. These results also show that turnover is lowest among ZP, which is the career path with the highest average performance scores in Year Seven. This finding provides further evidence of an appropriate relationship between turnover and performance levels.

**Table 4-72. Average Turnover Rate by Career Path**

CAREER PATH	NUMBER OF EMPLOYEES	NUMBER OF EMPLOYEES WHO TURNED OVER	AVERAGE TURNOVER RATE	OVERALL AVERAGE PERFORMANCE APPRAISAL SCORE
ZP	2674	148	5.5%	86.5 points
ZT	270	29	10.7%	84.9 points
ZA	981	97	9.9%	85.9 points
ZS	519	67	12.9%	83.4 points

*Notes:*

- 1. Average turnover rates were computed based on the 4,444 of the 4,608 Demonstration Group participants for whom career path and turnover data were available.*
- 2. Average performance appraisal scores by career path were computed based on the 3,979 of the 4,608 Demonstration Group participants for whom career path and performance score data were available; these averages are not restricted to the subset of individuals who turned over in Year Seven nor to those for whom turnover data were available.*

4.8.4. Turnover was greatest among CFO/ASA and lowest among the Wave 2 NOAA organizations

Average turnover rates also varied somewhat by organization in Year Seven, as displayed in Table 4-72. Those NOAA organizations that are part of Wave 2 experienced the lowest turnover, at 6.5 percent. The highest turnover was experienced by CFO/ASA, at 13.3 percent. This higher turnover rate in CFO/ASA is consistent with information reported by the CFO/ASA site historian, who indicated that an organizational transformation resulted in a 20 FTE loss due to granting buyouts and early outs. Following the organizational transformation, CFO/ASA resumed hiring and focused on hiring employees with skills sets related to mission critical occupations. This explains why CFO/ASA, which experienced the greatest turnover, is also the organization that experienced the greatest rate of hiring (as discussed in an earlier section).

**Table 4-73. Average Turnover Rate by Organization and Wave**

ORGANIZATION	NUMBER OF EMPLOYEES	NUMBER OF SEPARATED EMPLOYEES	TURNOVER RATE
Wave 1			
ESA-BEA	473	48	10.1%
NTIA	78	6	7.7%
NOAA	2381	175	7.3%
TA	28	2	7.1%
Wave 2			
NOAA	939	61	6.5%
CFO/ASA	362	48	13.3%

*Note: This analysis is based on the 4,261 of the 4,608 of the Demonstration Group participants for whom organization and wave data were available.*

4.8.5. Focus group participants from the Demonstration Group suggest that there is little turnover within their work units

Demonstration Group focus group participants, including supervisory and non-supervisory employees, believe that turnover is fairly low within their organizations (see Table 4-74). This finding is consistent with the reasonably low turnover rates that were identified in the objective datafiles for Year Seven. Although some of the non-supervisory employees reported low turnover, they also noted that turnover rates will soon be affected by an increase in retirements. Some participants reported that employees tend to return to the organization as contractors and still others speculated that people leave for career advancement opportunities. In addition, some supervisory respondents indicated that turnover has occurred due to the environment at headquarters.

**Table 4-74. Focus Group Results – Turnover Within the Work Unit/Organization – "How much turnover is there within your work unit?" (Non-Supervisors) OR "How much turnover is there within your work unit? How has this influenced morale in your work unit?" (Supervisors)**

<b>DEMONSTRATION GROUP</b>	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Very little turnover                             <ul style="list-style-type: none"> <li>– People like working here</li> <li>– There are not a lot of other opportunities in this area</li> <li>– But there will be a lot of retirements soon</li> </ul> </li> <li>• Have seen a number of people leave and come back as contractors</li> <li>• Have lost good people; in this area, it is common for people to leave to advance their careers</li> <li>• Mid to high turnover, depending on the group</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Very little turnover</li> <li>• Have experienced turnover; headquarters is a tough environment</li> </ul>

4.8.6. Individuals who separated had, on average, lower performance-based pay increases, bonuses, and total awards than the individuals who remained

In the Demonstration Group in Year Seven, there was a clear distinction in pay between those who separated and those who remained when total awards are calculated. Those who separated had, on average, lower performance-based pay increases, slightly lower bonuses, and lower total awards (performance-based pay increase plus bonus) than those who remained. (The average for leavers is based on those who left *after* receiving an appraisal and an increase, for whom data were available.) Average performance-based pay increases, bonuses, and total awards, expressed as a percent of salary, appear in Table 4-75. These findings provide additional support that the Demonstration Project is turning over lower performers (who presumably received lower increases).

**Table 4-75. Stayers Versus Leavers: Percent Increases and Bonuses**

Type of Award	Average Award (as a Percentage of Salary)	Average Award (in Dollars)
<b>Performance-Based Pay Increase</b>		
Stayers	3.3%	\$2,287
Leavers	1.9%	\$1,237
<b>Bonus</b>		
Stayers	1.9%	\$1,433
Leavers	1.8%	\$1,378
<b>Total Awards (Performance-Based Pay Increase Plus Bonus)</b>		
Stayers	5.2%	\$3,720
Leavers	3.7%	\$2,615

*Notes:*

1. Average awards were computed for the Demonstration Group participants for whom turnover, salary, and bonus data were available (3,979 for the performance-based pay increase and total awards analysis and 3,979 for the bonus analysis).
2. The difference between performance-based pay increases was statistically significant at the  $p \leq .01$  level. The difference between bonuses was statistically significant at the  $p \leq .05$  level. The difference between total awards was statistically significant at the  $p \leq .01$  level.

4.8.7. In Year Seven, retention payments were once again used; survey respondents also indicated their support for this retention tool

Retention payments are an intervention<sup>25</sup> that has been proposed as a tool for retaining high performing employees, especially those with expertise in critical skill areas. Based on an analysis of objective data, retention payments were not used in Years One-Five of the Demonstration Project. In Year Six, two Demonstration Group participants (and two Comparison Group participants) received retention payments. In Year Seven, the trend continued: three Demonstration Group participants (and three Comparison Group participants) received retention payments.

<sup>25</sup> To note, shortly following the timeframe of this evaluation, the Demonstration Project rescinded its independent authority to pay retention payments and, as of the date of this report, has the authority to pay retention incentives under 5 U.S.C 5754 and 5 CFR part 575, subpart C. See 71 FR 25615.

This recent interest in using retention payments is promising given that retention payments offer managers an additional option for retaining high performers (albeit this option is now available both within and beyond the Demonstration Project). While some use of retention payments is promising, widespread use of retention payments is not expected to occur given the restrictions on when they can be awarded (i.e., retention payments can only be paid to employees leaving the Federal Government, which occurs infrequently, or for employees who are retiring). However, an increased level of usage of retention payments would not be surprising as the percentage of employees who are retirement eligible increases within Commerce, along with the Federal Government overall.

As shown in Table 4-76, survey respondents from both the Demonstration Group and the Comparison Group reported similar support for the use of retention payments as a means to retain employees with critical skills. However, survey respondents were divided when asked if the current efforts toward retention have resulted in a higher quality, higher performing workforce. Specifically, 40 percent of the Demonstration Group participants did not believe that the current efforts have been effective as compared to 24 percent who felt that the efforts were effective. Similar results were reported by Comparison Group respondents.

**Table 4-76. Survey Results – Retention Payments**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
71. Current efforts toward employee retention have produced a higher quality, higher performing workforce.	<i>Disagree</i>	40%	43%	36%	43%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	36%	36%	36%	37%			
	<i>Agree</i>	24%	21%	28%	20%			
74. Giving a retention payment (extra money to keep an employee with critical skills from leaving) is fair.	<i>Disagree</i>	20%	<i>No significant difference</i>		23%	24%	22%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	21%		20%	22%	16%		
	<i>Agree</i>	59%		57%	54%	62%		

*(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding*

4.8.8. In Year Seven, turnover was higher among those that did receive supervisory performance pay compared to those that did not; however, it is worth noting that the results have been inconsistent over the years

As shown in Table 4-77, in Year Seven, turnover among Demonstration Group supervisors (7.5 percent) was consistent with all Demonstration Group participants (7.4 percent) and slightly higher than Comparison Group supervisors (7.0 percent). The turnover rate for Demonstration Group supervisors has fluctuated across the years. As discussed in regards to turnover overall, the moderately low turnover rates across the Demonstration Group and Comparison Group, and across employees and supervisors, were likely driven by labor market conditions including a less than hospitable job market.



In theory, the supervisory performance pay intervention facilitates paying supervisors at more competitive levels, which could result in improved retention. In Year Seven, as mentioned above, turnover was relatively low among supervisors overall. Contrary to Year Six (although consistent with Year Five), turnover was somewhat higher among supervisors who did receive supervisory performance pay (9.3 percent) than those supervisors who did not receive supervisory performance pay (7.1 percent). Retirement was the most common separation reason for supervisors, both for those who did not receive supervisory performance pay (accounted for 53 percent of the separations) and for those who did receive supervisory performance pay (accounted for 80 percent of the separations).

**Table 4-77. Turnover Among Supervisors**

Group	Total Number	Number Who Separated	Turnover Rate
<b>Demonstration Group</b>			
All Employees*	4,608	341	7.4%
All Supervisors	617	46	7.5%
Supervisors Who Did Not Receive Supervisory Performance Pay	494	36	7.3%
Supervisors Who Did Receive Supervisory Performance Pay	107	10	9.3%
<b>Comparison Group</b>			
All Employees	2,113	105	5.0%
All Supervisors	132	9	7.0%

*Notes:*

1. Turnover rate was calculated as the number of individuals who separated divided by the total number of individuals.
2. "All Employees" includes supervisory and non-supervisory employees.
3. The results broken out by supervisors who did or did not receive supervisory performance pay is based on the 601 of the 617 supervisors for whom data were available on whether or not they received supervisory performance pay.

4.8.9. Both Demonstration Group and Comparison Group participants are motivated to stay with the organization because of the work itself and their salaries, and might be enticed to leave if they are treated unfairly, perceive managers as incompetent, or feel career advancement is limited

Participants were asked two separate questions related to drivers of retention and turnover. As displayed in Table 4-78, Demonstration Group survey respondents reported that their primary reason for staying in the organization was the work itself, with salary coming in as a close second. When asked what factors would make them want to leave (see Table 4-79), the top reason was unfair treatment, with lack of competence of management and lack of career advancement coming in second and third.

The Demonstration Group supervisory and non-supervisory respondents reported similar findings. However, supervisors from the Demonstration Group reported lack of competence of management as their primary driver for leaving and non-supervisors reported lack of career advancement as their primary driver for leaving. This might be less important for those in supervisory positions since they have already experienced some form of career advancement.

Consistent with previous years, Demonstration Group and Comparison Group survey respondents provided similar rankings for these questions. Although Year Five and Year Seven both ranked “the work itself” and “salary” as the top two motivators for staying with the organization, Year Seven showed a significant increase in “unfair treatment” as a reason for leaving the organization. This same pattern of results regarding primary drivers for retention and turnover were seen even after examining the results by racial/national origin groups (given the similarities this information is not presented in the tables).

**Table 4-78. Survey Results – Factors For Staying With the Organization**

		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
75. What are the factors that make you want to stay in your organization?	<i>The work itself</i>	<b>65%</b>	61%	72%	<b>69%</b>	67%	75%
	<i>Salary</i>	<b>58%</b>	57%	58%	<b>50%</b>	49%	52%
	<i>Job security</i>	<b>34%</b>	36%	31%	<b>34%</b>	36%	28%
	<i>The people I work with</i>	<b>33%</b>	31%	36%	<b>32%</b>	32%	32%
	<i>Benefits</i>	<b>31%</b>	33%	27%	<b>31%</b>	34%	26%
	<i>Convenient work hours</i>	<b>18%</b>	21%	12%	<b>17%</b>	18%	13%
	<i>The chance for advancement</i>	<b>11%</b>	11%	9%	<b>11%</b>	12%	10%
	<i>Competence of immediate supervisor</i>	<b>10%</b>	10%	10%	<b>10%</b>	9%	14%
	<i>The public reputation of this organization</i>	<b>8%</b>	7%	11%	<b>12%</b>	11%	15%
	<i>Fair treatment</i>	<b>6%</b>	6%	4%	<b>5%</b>	5%	5%
	<i>Other</i>	<b>5%</b>	5%	6%	<b>5%</b>	6%	3%
	<i>Competence of management</i>	<b>3%</b>	3%	4%	<b>3%</b>	2%	5%
	<i>Funding</i>	<b>1%</b>	1%	1%	<b>2%</b>	2%	2%

Notes:

1. For this question, the reported percentages represent the percentage of people, among those who responded to this question, who ranked this factor as one of their three most important. Because respondents were allowed to provide multiple responses, the sum of the percentages exceeds 100 percent.
2. Options are presented in descending order based upon the Demonstration Group Total responses.

**Table 4-79. Survey Results – Factors For Leaving the Organization**

		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
76. What are the factors that would make you want to leave?	<i>Unfair treatment</i>	<b>39%</b>	39%	40%	<b>37%</b>	37%	37%
	<i>Lack of competence of management</i>	<b>38%</b>	34%	45%	<b>37%</b>	36%	40%
	<i>Lack of career advancement</i>	<b>37%</b>	40%	30%	<b>37%</b>	39%	30%
	<i>The work itself</i>	<b>29%</b>	29%	30%	<b>29%</b>	29%	27%
	<i>Salary</i>	<b>28%</b>	31%	23%	<b>30%</b>	32%	26%
	<i>Lack of competence of immediate supervisor</i>	<b>25%</b>	24%	28%	<b>25%</b>	22%	30%
	<i>Funding</i>	<b>16%</b>	14%	20%	<b>17%</b>	16%	20%
	<i>The people I work with</i>	<b>15%</b>	15%	15%	<b>13%</b>	13%	15%
	<i>Other</i>	<b>14%</b>	13%	15%	<b>16%</b>	14%	22%
	<i>Inconvenient work hours</i>	<b>10%</b>	11%	9%	<b>12%</b>	12%	11%
	<i>Job security</i>	<b>9%</b>	10%	6%	<b>8%</b>	8%	8%
	<i>Benefits</i>	<b>8%</b>	8%	6%	<b>8%</b>	8%	7%
	<i>The public reputation of this organization</i>	<b>5%</b>	5%	4%	<b>5%</b>	5%	4%

Notes:

1. For this question, the reported percentages represent the percentage of people, among those who responded to this question, who ranked this factor as one of their three most important. Because respondents were allowed to provide multiple responses, the sum of the percentages exceeds 100 percent.
2. Options are presented in descending order based upon the Demonstration Group Total responses.

4.8.10. Overall, Demonstration Group participants feel that the Demonstration Project interventions have been beneficial in retaining high performers

As displayed in Table 4-80, Demonstration Group participants stated that the personnel interventions have had a positive effect on retention. Both the non-supervisory and supervisory employees agreed that flexible pay upon promotion, pay for performance, and performance bonuses are incentives to remain with their organization. Some non-supervisory employees also noted that the Demonstration Project has encouraged retention of high performers because they have greater latitude before hitting the salary cap. Some focus group participants reported not knowing the effects of the interventions, while an even smaller number of participants do not believe the interventions have had an impact on retention of high performers.

**Table 4-80. Focus Group Results – Personnel Changes That Have Helped Retain High Performing Employees – "Have any of the following personnel changes made as part of the Demo Project (performance-based pay increases, performance-based bonuses, potential for pay increases with promotion) helped DoC retain high performing employees? If so, which ones and how?"**

<b>DEMONSTRATION GROUP</b>	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Flexible pay upon promotion is helpful</li> <li>• Pay for performance and performance bonuses are helpful</li> <li>• Don't know</li> <li>• The Demo Project provides a little extra incentive to stay because the salary cap is pushed off a bit</li> <li>• None has had an impact</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, flexible pay upon promotion, pay for performance, and performance bonuses are helpful</li> <li>• None has had an impact</li> <li>• Retention bonuses are helpful</li> </ul>

Supervisory employees from the Demonstration Group and the Comparison Group were asked what encourages high performers to stay with DoC. They suggested that informal recognition and rewards are beneficial. They also suggested that the use of retention bonuses is an effective incentive. Supervisors from the Comparison Group reported that they provide high performers with interesting assignments and leadership roles, as well as retention bonuses to encourage high performers to stay (see Table 4-81).

**Table 4-81. Focus Group Results – "How are high performing employees encouraged to stay with DoC?" (Demo Group) OR "In what ways have you encouraged high performing employees to stay with DoC?" (Comp Group)**

<b>DEMONSTRATION GROUP</b>	<b>COMPARISON GROUP</b>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Informal recognition and rewards to stronger performers</li> <li>• In theory, we could use a retention bonus but we have never done that</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Provide them with interesting assignments and retention bonuses, and let them lead a project</li> </ul>

When non-supervisory and supervisory participants from the Demonstration Group were asked to provide additional suggestions for retaining high performers, they reported a variety of ideas. Both supervisory and non-supervisory participants suggested that the option to telecommute would increase retention. Other ideas mentioned included standardizing Demonstration Project interventions across managers, establishing clear career paths, and increasing the number of pay bands. These findings are displayed in Table 4-82.

**Table 4-82. Focus Group Results – "What else could DoC do to retain high performing employees?"**

<b>DEMONSTRATION GROUP</b>	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Standardize the use of the Demo Project’s interventions across managers</li> <li>• Establish clear career paths for employees</li> <li>• Offer telecommuting</li> <li>• Eliminate salary capping; help employees into the next band</li> <li>• Offer more employee recognition</li> <li>• Lessen the administrative burden on supervisors</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Having more pay bands would help; could have more promotions available to employees</li> <li>• Nothing; either employees like it here or they don’t</li> <li>• Offer telecommuting</li> </ul>

**4.9. Organizational performance has improved in some ways, but not others; while individual performance has not improved substantially, certain aspects of workforce quality have improved**

Ideally, evaluating organizational performance helps to answer questions such as whether the organization has improved its ability to meet its mission, hire better people, improve retention, maintain institutional knowledge, and improve individual performance, among others. However, a Demonstration Project is not an organization; it is a different type of entity that cannot easily be measured along all of these dimensions. Moreover, within the Demonstration Project, an additional measurement challenge presents itself—the Demonstration Group consists of members from a number of different organizations, each with different missions and goals. Furthermore, not all members of these organizations are part of the Demonstration Project (e.g., some NOAA work units are in the Demonstration Group, some are in the Comparison Group, and some are not involved at all in the Demonstration Project).

Other Demonstration Projects have addressed the challenges inherent in measuring organizational performance in the context of a multi-organization Demonstration Project by using proxy measures. Consistent with this approach, we identified proxies that could serve as indirect measures of the organizational performance of the Demonstration Project. These proxies are: the aggregation of individual performance improvement and perceived quality of the workforce. By examining these measures, it is possible to describe outcomes of the Demonstration Project and their hypothesized affect on organizational outcomes.

- 4.9.1. Employee performance is viewed as having either stayed the same or slightly improved since the beginning of the Demonstration Project; it has not declined as a result of implementation of the Demonstration Project

When asked in focus groups whether individual performance has improved since the Demonstration Project began, most Demonstration Group participants indicated that it had either stayed the same or improved; no participants felt that it had declined because of the Demonstration Project (see Table 4-83). Those who indicated that it has remained the same had perspectives ranging from a belief that performance is already high to concerns that the system lacks sufficient motivators to improve performance. Some of those who indicated that employee performance has improved added caveats such as that improvements have been slight, that higher performance is not sufficiently recognized, and that initial performance improvements have stabilized.

**Table 4-83. Focus Group Results – Employee Performance Since the Beginning of the Demonstration Project – "Thinking about the fact that the Demo Project was designed to improve performance, do you think employee performance has improved, stayed the same, or worsened over the past seven [two] years?"**

<b>DEMONSTRATION GROUP</b>
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Performance stayed the same           <ul style="list-style-type: none"> <li>– Always had a high caliber workforce</li> <li>– There is nothing in the system to motivate good performance</li> <li>– Performance stayed the same but there are fewer people who are doing the work</li> <li>– Employees are happier, but performance has stayed the same</li> <li>– Have always had to work toward deadlines</li> <li>– Those who are not going to perform well will not regardless of the circumstances</li> </ul> </li> <li>• Performance improved           <ul style="list-style-type: none"> <li>– Slight improvement due to motivation under pay for performance</li> <li>– Improved performance but not necessarily due to the Demo Project</li> <li>– Performance has improved but some employee accomplishments are still not recognized</li> <li>– Initially performance improved but then employees gave up when pay for performance was not what they expected</li> </ul> </li> <li>• Performance worsened but not because of the Demo Project (rather, because there is no money to hire good people)</li> </ul>

4.9.2. There is some evidence that the Demonstration Project has improved certain aspects of workforce quality

A number of survey items that pertain to adherence to the Merit System Principles also addressed employee perceptions about the quality of the workforce. As shown in Table 4-84, three of these items did not generate significant differences in the responses of Demonstration Group versus Comparison Group respondents. However, for the remaining three items, differences existed such that Demonstration Group respondents were more positive than were Comparison Group respondents. These results provide some evidence that the Demonstration Project has had a positive impact of workforce quality, specifically in areas related to merit-based recruitment, selection, and advancement; provision of equal pay for equal work, and recognition that the organization rewards excellent performance.

**Table 4-84. Survey Results – Quality of the Workforce**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
79. My organization recruits, selects, and advances employees on the basis of merit.	<i>Disagree</i>	26%	29%	21%	30%	32%	27%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	25%	28%	21%	24%	26%	20%	
	<i>Agree</i>	49%	43%	58%	46%	42%	53%	
81. My organization provides equal pay for equal work.	<i>Disagree</i>	34%	36%	30%	39%	40%	39%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	26%	28%	22%	23%	25%	18%	
	<i>Agree</i>	40%	36%	48%	37%	35%	44%	
82. My organization rewards excellent performance.	<i>Disagree</i>	20%	22%	15%	25%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	22%	25%	18%	23%			
	<i>Agree</i>	58%	53%	67%	52%			
83. My organization maintains high standards of integrity, conduct, and concern for the public interest.	<i>Disagree</i>	12%	12%	12%	10%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	17%	19%	14%	15%			
	<i>Agree</i>	71%	69%	74%	75%			
84. My organization deals effectively with poor performers.	<i>Disagree</i>	65%	<i>No significant difference</i>		69%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	23%			21%			
	<i>Agree</i>	12%			9%			
85. My organization provides training to employees when doing so will result in better organizational or individual performance.	<i>Disagree</i>	20%	22%	15%	16%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	16%	17%	15%	17%			
	<i>Agree</i>	64%	61%	70%	67%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

Demonstration Group supervisory focus group participants were asked to recommend strategies for improving the workforce's performance (see Table 4-85). Recommendations focused on training (both technical and managerial) and provision of incentives, responses that were consistent with Year Five.

**Table 4-85. Focus Group Results – Strategies for Improving the Workforce’s Performance - "How else could DoC improve employee performance?"**

<b>DEMONSTRATION GROUP</b>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Provide more training opportunities, including getting into new technical areas</li> <li>• Provide more management/leadership training</li> <li>• Provide both monetary and non-monetary (e.g., telecommuting) incentives</li> </ul>

#### **4.10. The Demonstration Project’s interventions have not impacted DoC’s adherence to the Merit System Principles or avoidance of the Prohibited Personnel Practices**

Implementation of the Demonstration Project’s personnel interventions has not impacted the organization’s adherence to the nine Merit System Principles and avoidance of the 12 Prohibited Personnel Practices. Booz Allen’s findings in Year Seven provide additional support that the administration of the Demonstration Project continues to be in line with these personnel guidelines.

##### **4.10.1. Survey data suggested that the degree to which DoC follows personnel guidelines has not been impacted by the Demonstration Project’s interventions**

As shown in Table 4-86, a series of survey items addressed the degree to which Demonstration Project participants believe that DoC strives for organizational excellence by adhering to personnel guidelines. The data produced no global indication that DoC has violated any of the Prohibited Personnel Practices or failed to support any of the Merit System Principles by implementing the Demonstration Project’s interventions.

In Year Seven, there were no differences in the responses of the Demonstration Group and Comparison Group participants on most survey items. For a few survey items, there were differences between the Demonstration Group and the Comparison Group such that Demonstration Group participants responded more positively. These items pertained to merit-based recruitment, selection, and advancement; provision of equal pay for equal work, and recognition that the organization rewards excellent performance. On only one item did Demonstration Group participants respond less positively than the Comparison Group; this item pertained to whether the organization protects employees from improper political influence.

Among the Demonstration Group participants, supervisory employees were consistently more favorable than non-supervisory employees about adherence to personnel guidelines. This finding also holds true when comparing supervisory and non-supervisory employees in the Comparison Group.

**Table 4-86. Survey Results – Organizational Excellence**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
79. My organization recruits, selects, and advances employees on the basis of merit.	<i>Disagree</i>	26%	29%	21%	30%	32%	28%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	25%	28%	21%	24%	26%	20%	
	<i>Agree</i>	49%	43%	58%	46%	42%	52%	
81. My organization provides equal pay for equal work.	<i>Disagree</i>	34%	36%	30%	39%	40%	39%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	26%	28%	22%	23%	25%	17%	
	<i>Agree</i>	41%	36%	48%	37%	35%	44%	
82. My organization rewards excellent performance.	<i>Disagree</i>	20%	22%	15%	25%	26%	24%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	22%	25%	18%	23%	23%	22%	
	<i>Agree</i>	58%	53%	67%	52%	51%	54%	
83. My organization maintains high standards of integrity, conduct, and concern for the public interest.	<i>Disagree</i>	12%	13%	12%	10%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	17%	18%	14%	15%			
	<i>Agree</i>	71%	69%	74%	75%			
84. My organization deals effectively with poor performers.	<i>Disagree</i>	65%	<i>No significant difference</i>		69%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	23%		21%				
	<i>Agree</i>	11%		10%				
85. My organization provides training to employees when doing so will result in better organizational or individual performance.	<i>Disagree</i>	20%	22%	15%	16%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	16%	17%	15%	17%			
	<i>Agree</i>	64%	61%	70%	67%			
86. My organization protects employees from improper political influence.	<i>Disagree</i>	13%	14%	11%	9%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	33%	35%	28%	32%			
	<i>Agree</i>	55%	51%	61%	60%			
87. My agency protects employees against reprisal for the lawful disclosure of information in whistle blower situations.	<i>Disagree</i>	15%	20%	9%	14%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	49%	49%	49%	55%			
	<i>Agree</i>	36%	31%	42%	31%			
88. My organization does not solicit or consider improper employment recommendations.	<i>Disagree</i>	9%	11%	7%	10%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	35%	39%	30%	39%			
	<i>Agree</i>	56%	50%	64%	52%			
89. My agency does not obstruct any person's right to compete for, or withdraw from, employment.	<i>Disagree</i>	7%	8%	5%	9%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	19%	22%	14%	16%			
	<i>Agree</i>	74%	70%	81%	73%			
90. My organization does not grant any preference unless authorized by law.	<i>Disagree</i>	16%	19%	13%	20%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	25%	28%	20%	23%			
	<i>Agree</i>	59%	53%	67%	57%			
91. People in my organization engage in employing or promoting their own relatives.	<i>Disagree</i>	71%	67%	77%	70%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	19%	21%	15%	18%			
	<i>Agree</i>	11%	12%	8%	12%			
92. My organization unlawfully discriminates for off-duty conduct.	<i>Disagree</i>	72%	67%	79%	71%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	25%	30%	18%	26%			
	<i>Agree</i>	3%	3%	3%	3%			

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding



4.10.2. Focus group data also suggest that the personnel guidelines are applied in the same manner under the Demonstration Project as they are under the traditional GS system

As shown in Table 4-87, a question about how the Merit System Principles are upheld sparked fairly consistent responses across the Demonstration Group and Comparison Group. In both cases, the most common response was that there were no issues with how they are upheld. The only issue that was raised, by both groups, was a concern for whether equal pay for equal work is enacted. While this may be of concern to DoC, there is no indication that this is an issue particular to the Demonstration Project given that both groups responded similarly.

**Table 4-87. Focus Group Results – Changes in Adherence to the Merit System Principles – "Have there been any changes in how the nine Merit System Principles are followed since the Demo Project began?" (Demo Group) OR "Are the nine Merit System Principles followed in your work units?" (Comp Group)**

DEMONSTRATION GROUP	COMPARISON GROUP
<ul style="list-style-type: none"> <li>No change – the Merit System Principles are still upheld</li> <li>Do not know if everyone is getting equal pay for equal work</li> <li>Don't know</li> </ul>	<ul style="list-style-type: none"> <li>Yes – the Merit System Principles are upheld</li> <li>Somewhat – not sure about equal pay for equal work given that low and high performers are paid the same amount</li> </ul>

Similarly, the majority of Demonstration Group focus group participants reported that the Demonstration Project has not negatively impacted DoC's ability to avoid the Prohibited Personnel Practices. As shown in Table 4-88, they reported that there has been no change in the ways in which these practices are avoided in the Demonstration Project as compared to under the traditional GS system.

**Table 4-88. Focus Group Results – Changes in Avoidance to the Prohibited Personnel Practices – "Have you noticed any changes in how the twelve Prohibited Personnel Practices are addressed since the Demo Project began?" (Demo Group) OR "Are the twelve Prohibited Personnel Practices avoided in your work units?" (Comp Group)**

DEMONSTRATION GROUP	COMPARISON GROUP
<ul style="list-style-type: none"> <li>No difference in how the Prohibited Personnel Practices are avoided in the Demo Project compared to before</li> <li>Have not noticed any changes</li> <li>Because of the Demo Project, we now have a union, which has made these issues more apparent to employees</li> </ul>	<ul style="list-style-type: none"> <li>Yes – the Prohibited Personnel Practices are avoided</li> </ul>

#### 4.11. The Demonstration Project interventions continue to reflect a system in which there is no evidence of unfair treatment based on race, gender, or veteran status

Booz Allen again performed a series of analyses on objective and subjective data pertaining to performance, compensation, and demographics of the Demonstration Project participants. Consistent with previous years, these analyses suggest that the Demonstration Project has not been detrimental to the compensation, recruitment, or retention of minorities, women, or veterans.

- 4.11.1. Survey findings suggest that the Demonstration Project interventions have not generated evidence of unfair treatment based on race, gender, or veteran status in the areas of compensation, recruitment, or retention

Demonstration Group and Comparison Group respondents provided responses to survey items that focused on minority issues, including compensation, recruitment, and retention, as displayed in Table 4-89. No differences existed between the Demonstration Group and the Comparison Group in regards to perceptions about compensation. Differences did exist in regards to recruitment, such that Demonstration Group respondents responded more positively about the ability to hire good minority applicants. Differences also existed between the Demonstration Group and the Comparison Group in regards to how current retention efforts enable managers to retain good minority employees; while most respondents did not have a strong opinion, a greater percentage of Demonstration Group respondents responded positively. Across these topic areas, supervisory employees in both the Demonstration Group and Comparison Group were typically more positive than were non-supervisory employees, with the exception being Comparison Group perspectives about current retention efforts enabling managers to retain good minority employees. Overall, these results suggest that the majority of survey respondents believe that DoC does not discriminate against minorities, women, or veterans based on any institutional policy or practice.

**Table 4-89. Survey Results – Compensation, Recruitment, and Retention of Minorities**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
50. In my operating unit, minority employees get similar pay to non-minority employees doing equivalent work.	<i>Disagree</i>	10%	12%	7%	10%	12%	7%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	22%	26%	15%	20%	23%	15%	
	<i>Agree</i>	69%	62%	78%	69%	65%	78%	
67. Recruitment procedures allow for the opportunity to hire good minority applicants.	<i>Disagree</i>	17%	18%	15%	24%	24%	24%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	31%	32%	29%	28%	29%	26%	
	<i>Agree</i>	52%	50%	56%	48%	47%	50%	
72. Current efforts toward employee retention have enabled managers to retain good minority employees.	<i>Disagree</i>	26%	31%	19%	30%	29%	34%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>	52%	50%	54%	53%	54%	50%	
	<i>Agree</i>	22%	19%	27%	17%	17%	16%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
Percentages may not add to 100 due to rounding

These results were further examined by race/national origin groups. As shown in Table 4-90, some differences exist in the perceptions of each race/national origin group when compared across the Demonstration Group and Comparison Group. In regards to compensation, a greater percentage of African Americans in the Demonstration Group had positive responses than did African Americans in the Comparison Group. Asians in the Demonstration Group, while generally positive, had a greater percentage who were uncertain compared to Asians in the Comparison Group. In regards to recruitment, for each race/national origin group, the responses were more positive among Demonstration Group respondents compared to Comparison Group respondents. In regards to retention, the most striking difference is the much lower percentage of Hispanics in the Demonstration Group, compared to the Comparison Group, who have concerns about current retention efforts.

**Table 4-90. RNO Comparisons – Compensation, Recruitment, and Retention of Minorities**

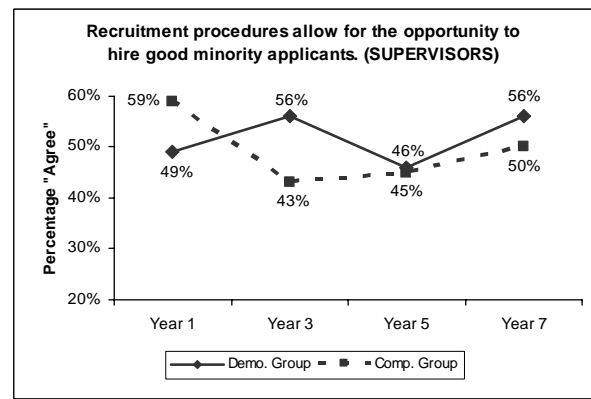
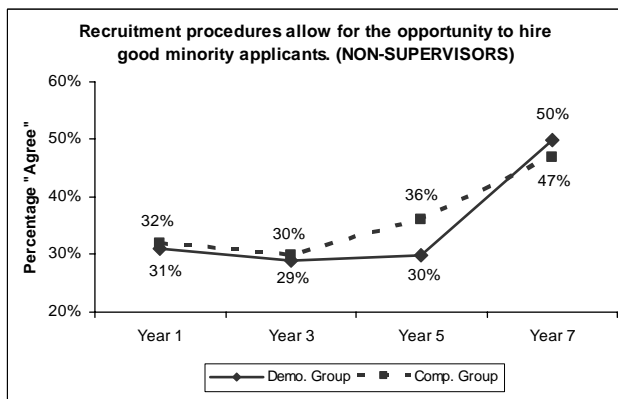
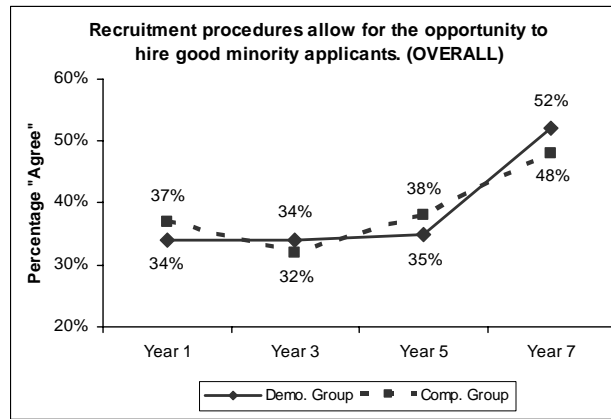
		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
50. In my operating unit, minority employees get similar pay to non-minority employees doing equivalent work.	Disagree	19%	41%	5%	10%	11%	18%	47%	5%	16%	23%
	Neither disagree nor agree	21%	32%	19%	26%	44%	9%	33%	20%	16%	15%
	Agree	60%	27%	75%	64%	44%	73%	20%	75%	68%	62%
67. Recruitment procedures allow for the opportunity to hire good minority applicants.	Strongly disagree	22%	35%	14%	20%	38%	42%	65%	18%	53%	40%
	Agree	39%	41%	30%	23%	25%	42%	22%	29%	24%	20%
	Strongly agree	39%	24%	56%	58%	38%	16%	12%	53%	24%	40%
72. Current efforts toward employee retention have enabled managers to retain good minority employees.	Strongly disagree	23%	54%	22%	15%	33%	26%	62%	25%	50%	62%
	Agree	61%	30%	54%	58%	58%	63%	32%	57%	17%	23%
	Strongly agree	16%	16%	24%	27%	8%	11%	6%	18%	33%	15%

*Note: Responses are provided for five of the seven groups from whom survey data were collected: Asian (AS); Black or African American, not of Hispanic origin (AA); White, not of Hispanic origin (WH); Hispanic (HI); and Multiracial (MU). Data are not reported for the remaining two groups, American Indian or Alaska Native and Native Hawaiian or Other Pacific Islander, because the small number of respondents in these categories necessitates preserving their anonymity.*

4.11.2. Perceptions about the ability of recruitment procedures to facilitate hiring of high quality minority applicants experienced an upward spike this year, a finding that was consistent across both the Demonstration Group and the Comparison Group

As shown in Table 4-91, perceptions about how recruitment procedures facilitate hiring of high quality minority applicants had been generally stable over the years but then demonstrated a significant increase in Year Seven. This was evident among both Demonstration Group and Comparison Group respondents, suggesting that certain factors external to the Demonstration Project likely impacted these improved perceptions.

**Table 4-91. Change Over Time – Recruitment of Minorities**



Demo. Group		Comp. Group	
Total	(N)	Total	(N)

52. Recruitment procedures allow for the opportunity to hire good minority applicants.	<b>YEAR SEVEN</b>					
	<i>Disagree</i>	17%	18%	15%	24%	24%
	<i>Neither disagree nor agree</i>	31%	32%	29%	28%	26%
	<i>Agree</i>	52%	50%	56%	48%	50%
	<b>YEAR FIVE</b>					
	<i>Disagree</i>	16%	16%	15%	15%	13%
	<i>Neither disagree nor agree</i>	49%	53%	38%	47%	51%
	<i>Agree</i>	35%	30%	46%	38%	36%
	<b>YEAR THREE</b>					
	<i>Disagree</i>	16%	17%	13%	18%	21%
	<i>Neither disagree nor agree</i>	50%	54%	31%	49%	52%
	<i>Agree</i>	34%	29%	56%	32%	30%
<b>YEAR ONE</b>						
<i>Disagree</i>	15%	15%	16%	19%	22%	
<i>Neither disagree nor agree</i>	51%	54%	35%	44%	49%	
<i>Agree</i>	34%	31%	49%	37%	32%	

(N) = Non-Supervisors; (S) = Supervisors; Total = Responses of non-supervisory and supervisory employees combined  
 Percentages may not add to 100 due to rounding  
 This item was not on the baseline survey

4.11.3. The Demonstration Project did not negatively impact the hiring of minorities, women, and veterans

Table 4-92 shows that, in Year Seven, the proportion of minority, women, and veteran new hires to the Demonstration Group was nearly consistent with, or greater than, their representation in the employee population overall. This was particularly evident for minorities and women, who had greater representation among new hires than among Demonstration Group participants overall. (Among veterans, the representation among new hires was lower; however, the overall population numbers continue to exceed the baseline numbers established in Year One, which are presented in the third column as a point of comparison.) This pattern of results mirrors Year Six. Overall, these findings suggest that the Demonstration Project interventions are not harming DoC's ability to diversify its employee population. (Importantly, while this analysis demonstrates that there was sufficient diversity of new hires relative to the Demonstration Group population overall, it cannot address the diversity of the applicant pool from which new hires were drawn and the rates of hire per each group.)

**Table 4-92. Diversity of New Hires Compared to the Overall Demonstration Group**

Category	New Hires (N=346)	All Demonstration Group participants (N=4,608) in Year Seven	All Demonstration Group participants (N=2,697) in Year One
<b>Race/National Origin</b>			
White (not of Hispanic origin)	69%	78%	81%
Black (not of Hispanic origin)	15%	13%	12%
Hispanic	5%	3%	3%
Asian or Pacific Islander	11%	6%	4%
American Indian or Alaskan Native	<1%	<1%	<1%
<b>Gender</b>			
Women	53%	43%	39%
Men	47%	58%	61%
<b>Veteran Status</b>			
Veteran	10%	12%	9%
Non-Veteran	90%	88%	91%

*Note: The number of new hires reported here is based on the number of new hires reported in the objective datafile.*

- 4.11.4. Consistent with past years, in Year Seven, the Demonstration Group's pay for performance system did not reward participants differently based on race, gender, or veteran status in terms of average performance-based pay increases or bonuses

As in previous years, we analyzed objective data on the distribution of performance-based pay increase percentages and bonus percentages by minority status, gender, and veteran status. In regards to minority status, beginning in Year Six, the analysis was at the level of race/national origin rather than minority/non-minority. This was done to allow for a finer level of detail on the potentially differential experiences of the various minority subgroups that would otherwise be treated as similar in the general "minority" category.

Given the complexities of interpreting results when there are multiple groups rather than a dichotomous minority/non-minority categorization, the analysis was slightly altered in Year Six (and again used in Year Seven) to improve interpretation. Rather than requiring the reader to infer the linkage between pay and performance based on a side-by-side display of performance scores and average performance-based pay increase percentages and average bonus percentages as was done in the past, we accounted for performance score in the calculation of average performance-based pay increase percentages and performance bonuses to ease readability of the results.

To perform the analysis, we first computed raw averages for the average performance-based pay increase percentages and performance bonus percentages, broken down by race/national origin, gender, and veteran status. However, raw averages fail to account for differences in other factors that affect the calculation of averages. Therefore, we also computed "adjusted averages," which are adjusted for the impact of other factors (i.e., performance score, career path, length of service, and organization) on the relationship and therefore produce a more useful way of examining the data. (See Appendix B-1 for a more detailed description of the ANCOVA process for computing adjusted averages and interpreting the results.)

The rationale for including performance score in the analysis is that it is feasible that performance scores may differ across demographic subgroups. (Average performance scores for Year Seven for the various demographic subgroups are displayed in Table 4-93.) Similarly, we controlled for career path, length of service, and organization because these may also differ across demographic subgroups. In essence, the advantage of examining adjusted averages is that it answers the question: within any career path and any organization, at a given level of length of service, and at a given performance score, is there a difference in performance-based pay increase percentages between subgroups?

**Table 4-93. Average Performance Scores by Group**

	Average Performance Score
White (not of Hispanic origin)	86.3 points
Black (not of Hispanic origin)	83.6 points
Hispanic	86.0 points
Asian or Pacific Islander	86.2 points
American Indian or Alaskan Native	83.9 points
Female	86.1 points
Male	85.9 points
Veteran	84.0 points
Non-Veteran	86.2 points

Table 4-94 presents the raw and adjusted averages (the reader is advised to consider the latter as more meaningful) broken out by demographic subgroups. As depicted, the average performance-based pay increase percentages, after controlling for any differences attributable to performance score, career path, time in service, and organization, ranged from 3.1 percent to 3.3 percent for race/national origin, 3.2 percent to 3.3 percent for gender, and 3.0 percent to 3.3 percent for veteran status. None of the differences between the race/national origin groups were statistically significant<sup>26</sup>. In regards to gender and veteran status, women received higher increases than men, and non-veterans received higher increases than veterans; however, the differences were not of a large enough size to be considered meaningful using standard statistical testing procedures<sup>27</sup>. Similarly, there were few differences in average bonus percentages, by race/national origin, gender, or veteran status after controlling for any differences attributable to performance score, career path, time in service, and organization. Only one difference was statistically significant (the difference between Blacks and each of the other race/national origin groups); however, again the size of the difference was not large enough to be considered meaningful using standard statistical testing procedures.

Overall, the results of this analysis show that there were no meaningful differences in how minorities, women, and veterans fared in terms of pay increase percentages and award percentages. In Year Seven, the Demonstration Group's pay for performance system did not reward participants differently based on race, gender, or veteran status in terms of average performance-based pay increases or bonuses.

<sup>26</sup> Based on statistical significant testing at  $p < .05$ .

<sup>27</sup> Based on eta squared values (an estimate of the size of the effect) greater than .05.

**Table 4-94. Average Pay Increase Percentages (Raw and Adjusted) and Bonus Percentages (Raw and Adjusted) for the Demonstration Group**

	Average Performance-Based Pay Increase Percentage		Average Bonus Percentage	
	Raw	Adjusted	Raw	Adjusted
White (not of Hispanic origin)	3.4%	3.3%	1.9%	1.9%
Black (not of Hispanic origin)	2.5%	3.1%	1.8%	1.8%
Hispanic	3.0%	3.1%	2.1%	2.0%
Asian or Pacific Islander	3.5%	3.2%	2.0%	2.0%
Female	3.5%	3.3%	2.2%	2.0%
Male	3.0%	3.2%	1.7%	1.9%
Veteran	2.3%	3.0%	1.7%	1.9%
Non-Veteran	3.4%	3.3%	2.0%	1.9%

*Notes:*

1. Average performance-based pay increase and bonus percentages are based on appraisals conducted in September 2004 and actions effective in November 2004, as reported in the Year Seven data file provided by DoC.
2. Adjusted averages were computed by statistically controlling for performance score, career path length of service, and organization.
3. Average performance-based pay increase percentages were computed for 3,979 of the 4,608 Demonstration Group participants for whom data were available on pay increases, performance score, career path (or equivalent), length of service, and organization.
4. Average bonus percentages were computed for 3,979 of the 4,608 Demonstration Group participants for whom data were available on bonuses/awards, performance score, career path (or equivalent), length of service, and organization.
5. Average performance scores were computed for 3,979 of the 4,608 Demonstration Group participants for whom performance score data were available.
6. The sample sizes for this analysis ranged from 117 to 3,127.



4.5.3. Similar patterns emerged in how members of different protected classes fared in terms of average performance-based pay increases and bonuses in the Demonstration Group versus the Comparison Group

Booz Allen also examined Comparison Group data on pay increase percentages and award percentages, by demographic subgroups, to evaluate differences between the Demonstration and Comparison Groups during Year Seven. Direct comparisons were not possible due to the differences inherent in the different systems. Table 4-95 displays the data sources used from each group for purposes of comparison.

**Table 4-95. Data from Demonstration and Comparison Groups Used for Comparisons**

<b>Demonstration Group</b>	<b>Comparison Group</b>
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)
Performance-based Bonuses (associated with the Performance Appraisal Cycle)	Awards (not associated with the Performance Appraisal Cycle)

Table 4-96 presents a comparison of the average pay increase percentages and the average performance bonus/award percentages, broken out by demographic subgroups, across the Demonstration and Comparison Groups. Similar to the analysis of the Demonstration Group, the analysis of the Comparison Group also controls for career path, length of service, and organization (thus, this table shows adjusted averages, presented alongside the Demonstration Group's adjusted averages); however, the analysis cannot control for performance score for the Comparison Group given that the Comparison Group is under a pass/fail system in which nearly everyone passes.

Overall, the results showed that there was greater consistency in pay increase percentages and average bonus/award percentages across subgroups in the Demonstration Group than in the Comparison Group. For example, average pay increases across the race/national origin groups had a 0.2 percentage point range in the Demonstration Group and a 1.0 percentage point range in the Comparison Group.

The results can also be examined more closely by race/national origin, gender, and veteran status. In regards to race/national origin, the pattern of results differed between the Demonstration Group and the Comparison Group; however, nearly every race/national origin group fared better in the Demonstration Group than the Comparison Group (one exception is Hispanics, who fared less well in the Demonstration Group, but who also demonstrated the highest pay increase percentages and average bonus/award percentages of all groups in the Comparison Group). In regards to gender, similar patterns emerged in the Demonstration Group and in the Comparison Group in that females received higher pay increase percentages and average bonus/award percentages, on average, compared to males. Similarly, although veterans received lower pay increase percentages and average bonus/award percentages than non-veterans in the Demonstration Group (in line with their lower performance scores), the same was true in the Comparison Group.

**Table 4-96. Comparison of Average Pay Increases and Average Bonuses/Awards Between Demonstration Group and Comparison Group**

	Average Pay Increase Percentage		Average Bonus/ Award Percentage	
	Demo Group	Comp Group	Demo Group	Comp Group
White (not of Hispanic origin)	3.3%	2.7%	1.9%	1.9%
Black (not of Hispanic origin)	3.1%	2.4%	1.8%	1.6%
Hispanic	3.1%	3.4%	2.0%	2.1%
Asian or Pacific Islander	3.2%	2.9%	2.0%	1.4%
Female	3.3%	3.0%	2.0%	2.0%
Male	3.2%	2.5%	1.9%	1.7%
Veteran	3.0%	2.3%	1.9%	1.5%
Non-Veteran	3.3%	2.7%	1.9%	1.9%

*Notes:*

- 1. Demonstration Group average performance-based pay increase and bonus percentages are based on appraisals conducted in September 2004 and actions effective in November 2004, as reported in the Year Seven data file provided by DoC.*
- 2. Average performance-based pay increase and bonus/award percentages are based on actions occurring during the performance evaluation cycle that ended September 30, 2004 and as reported in the Year Seven data file provided by DoC.*
- 3. Average performance-based pay increase and bonus percentages for the Demonstration Group are based on averages that were computed by statistically controlling for performance score, career path, and length of service.*
- 4. Average performance-based pay increase percentages were computed for 3,979 of the 4,608 Demonstration Group participants, and the 1,834 of the 2,113 Comparison Group, for whom data were available on pay increases, performance rating, career path (or equivalent), and length of service.*
- 5. Average bonus percentages were computed for 3,979 of the 4,608 Demonstration Group participants, and the 1,834 of the 2,113 Comparison Group, for whom data were available on bonuses/awards, performance score, career path (or equivalent), and length of service.*
- 6. The sample sizes for this analysis ranged from 117 to 3,127 for the Demonstration Group and 33 to 1,551 for the Comparison Group.*

4.11.5. In the Demonstration Group, there was a small range in turnover rates based on race/national origin groups

In Year Seven, overall turnover in the Demonstration Group was 7.4 percent. As depicted in Table 4-97, the turnover rates, by race/national origin groups, ranged from 7.2 percent to 10.5 percent. At the extremes, the separation rate of American Indian or Alaskan Native was the highest at 10.5 percent, followed closely by Hispanics at 10.3 percent. The separation rate of White (not of Hispanic origin) was the lowest at 7.2 percent, followed by Asians or Pacific Islanders with a turnover rate of 7.5 percent. The rank order of turnover rates for these groups was distinctly different than in Year Six. Also evident is that minority groups turned over at slightly higher rates than Whites (not of Hispanic origin), a finding worth exploring if it emerges in future years.

Among high performers (performance scores of 90–100), Hispanics exhibit the highest turnover rate at 4.7 percent. While it is evident that Hispanics had the highest turnover rate when either all participants or just high performers is considered, this may be a single year anomaly. In comparison, in Year Six, Hispanics had the lowest turnover rates among all groups. Among high performers, there was no clear distinction between the turnover rates of Whites (not of Hispanic origin) versus minority groups.

**Table 4-97. Comparison of Turnover Rates in the Demonstration Group Between All Participants and High Performers, by Race/National Origin**

Group	Demonstration Group All Participants			Demonstration Group High Performers		
	Number	Number Separated	Percent Separated	Number	Number Separated	Percent Separated
White (not of Hispanic origin)	3,576	256	7.2%	1,130	25	2.2%
Black (not of Hispanic origin)	602	48	8.0%	146	2	1.4%
Hispanic	145	15	10.3%	43	2	4.7%
Asian or Pacific Islander	266	20	7.5%	69	1	1.4%
American Indian or Alaskan Native	19	2	10.5%	4	0	0.0%
<b>TOTAL</b>	<b>4,608</b>	<b>341</b>	<b>7.4%</b>	<b>1,392</b>	<b>30</b>	<b>2.1%</b>

Note: "High performers" is defined as performance scores of 90–100.

4.11.6. In comparing the Demonstration Group and the Comparison Group, a different pattern emerges in turnover rates based on race/national origin groups

The Pass/Fail rating system precludes comparing turnover rates of Demonstration Group and Comparison Group participants with consideration for performance level. A comparison of turnover rates, regardless of performance level, shows that the pattern of turnover rates was different among the Comparison Group than the Demonstration Group. Among the Comparison Group participants, Blacks (not of Hispanic origin) experienced the highest turnover at 7.1 percent and Hispanics and American Indian or Alaskan Native experienced the lowest turnover at 0.0 percent. These results are displayed in Table 4-98.

Furthermore, comparisons between Demonstration Group and Comparison Group turnover rates by groups show that in every case turnover was higher in the Demonstration Group than in the Comparison Group. The gap was most noticeable for Hispanics and American Indian or Alaskan Native and least noticeable for Blacks (not of Hispanic origin).

**Table 4-98. Comparison of Turnover Rates in the Demonstration and Comparison Groups, by Race/National Origin**

Group	Demonstration Group All Participants			Comparison Group All Participants		
	Number	Number Separated	Percent Separated	Number	Number Separated	Percent Separated
White (not of Hispanic origin)	3,576	256	7.2%	1,787	88	4.9%
Black (not of Hispanic origin)	602	48	8.0%	184	13	7.1%
Hispanic	145	15	10.3%	37	0	0.0%
Asian or Pacific Islander	266	20	7.5%	93	4	4.3%
American Indian or Alaskan Native	19	2	10.5%	12	0	0.0%
<b>TOTAL</b>	<b>4,608</b>	<b>341</b>	<b>7.4%</b>	<b>2,113</b>	<b>105</b>	<b>5.0%</b>

## 5. COST ANALYSIS

One of OPM's six research questions for Demonstration Projects is "What was the cost of the project?" The intent is to determine the extent of the costs and to inform policymakers on these costs. In Year Seven, the cost analysis focused on a comparative analysis of the salary costs associated with the Demonstration Project.

Two analyses were used to examine the variance, if any, between the Demonstration Group and the Comparison Group. The first analysis calculated the compounded average annual salary growth rate (CAGR) for the two groups. As will be discussed in Section 5.1, the average annual salary growth rate provides a year to year analysis for both groups, thus providing insight into how fast or slow the average annual salaries grew for each group. The second analysis estimated the annual average salary, per person, for each group to assess the salary cost per person. As will be discussed in Section 5.2, the average annual salary per person analysis provides a comparison of the differences in salary costs between the Demonstration Group and the Comparison Group.

To note, other analyses performed for the Year Seven evaluation used subsets of the full database (as noted throughout the report), for example, to include only those individuals with eligible performance ratings. For these cost analyses, we used the entire database given the interest in determining overall costs. The size of the databases varied across groups and across years, given the movement of individuals in and out of the Demonstration Project. In addition, for these analyses, we focused on aggregate level information and therefore did not make distinctions based on career path (or equivalent), pay band (or equivalent), or other characteristics of the Demonstration Group participants.

Finally, these analyses required using data from across all seven years of the Demonstration Project. As can be typical with long-term efforts that require management of significant amounts of data, there was some variance from year to year in the data variables that were collected. As such, every effort was made to be as consistent as possible in the data that was extracted from each year's database. In particular, an effort was made to rely on "ending salary," that is, each Demonstration Project participant's salary after both the annual pay increase and ACI had been applied.

### **5.1. Pay Pool Managers and Rating Officials use a specified process for determining their employees' performance-based pay increases**

Prior to reporting on the cost analyses that were performed, we will first describe the process through which performance-based pay increases are determined in the Demonstration Group. This process is communicated to Pay Pool Managers, Rating Officials, and other relevant parties through training, guidance documents, and other means.

As the first step, as in the traditional GS system, Demonstration Group Rating Officials prepare a performance plan for each employee, with employee input, which contains a series of performance elements. The Rating Official weights each element so that the total weight

is 100 points. However, unlike the traditional GS system, under the Demonstration Project employees are only assessed on critical performance elements. At appraisal time, employees are measured against benchmark performance standards, and any supplemental standards that the Rating Officials may have added, associated with the critical performance elements. The Rating Officials then use the “Element Point Range and Performance Standards” form to assign and calculate performance scores. Based on the per element performance scores, Rating Officials calculate a tentative total score (on the 100-score scale).

The next step is for the Rating Officials to use the Performance Pay Tables to recommend appropriate percent of percent increases. The Rating Officials check the pay table that specifies the range of potential pay increases. This information is organized by career path, band, and interval, each with their own ranges. (As demonstrated in the ranges, a feature of broadbanding is that those lower in the band can get larger increases than those near the top of the band.)

Finally, the Pay Pool Manager interleaves the scores. The Rating Officials submit to their Pay Pool Manager a list of their employees with recommended performance scores and recommended pay increases. The Pay Pool Manager interleaves the scores from different Rating Officials to ensure the appropriate linkage between pay actions and performance scores, and ensuring consistency across all of his/her Rating Officials. This step helps to ensure the underlying premise, under the Demonstration Project, that no employee receives a salary increase (in percentage, not absolute dollars) that is greater than that which someone with a higher performance score received.

When determining pay outs, the Pay Pool Manager works within the pay pool budget. Each pay pool’s budget is established based on three-year historical data on the amount of funds that were traditionally allocated, under the GS system, for within-grade increases, quality step increases, and promotions (from one grade to another when those grades are now in the same band).

## **5.2. The compounded average annual growth rate (CAGR) was nearly the same for the Demonstration Group and the Comparison Group, providing evidence that the Demonstration Project has met its goal to be budget neutral**

To perform this analysis, the average annual salary was computed for each year and for each group. The CAGR, which is the pace at which salary growth increases during a given interval, was then calculated for both the Demonstration Group and the Comparison Group. This calculation was performed with “then-year” dollars so that the rate of growth is depicted accurately.

As shown in Table 5-1, the CAGR was nearly the same for both the Demonstration Group (4.56 percent) and the Comparison Group (4.88 percent) over time. This suggests that the Demonstration Project has been able control total salary costs, which is important to achieving the goal of budget neutrality. While the design of the Demonstration Project allows salary costs to be distributed differently across employees within the tenets of a pay for performance system, the total costs are reasonably consistent with what has occurred in

the GS system. In fact, the salary growth rate was slightly slower for the Demonstration Group than the Comparison Group.

**Table 5-1. CAGR Results**

Group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	CAGR
Demonstration	\$58,606	\$61,793	\$64,767	\$68,416	\$70,613	\$75,898	\$80,075	4.56%
Comparison	\$51,746	\$52,167	\$57,501	\$59,628	\$63,371	\$68,434	\$72,226	4.88%

**5.3. The gap in average per person salary costs between the Demonstration Group and the Comparison Group remained constant over the years, suggesting that the Demonstration Group’s higher salary costs are due to compositional differences not due to increased payouts**

To perform this analysis, average annual salaries were first converted into 2005 dollars by using the Consumer Price Index (CPI) as an inflation factor<sup>28</sup>. By converting average annual salaries into 2005 dollars, dollars are “normalized” so that more accurate comparisons can be made. Once converted, the average annual per person salary cost was calculated by aggregating individual salaries and dividing it by the total number of individuals (within each group and for each year).

As shown in Table 5-2, the Demonstration Group’s average annual per person salary costs ranged between \$68,702 to \$80,313 over the seven years. In contrast, the Comparison Group’s average annual per person salary costs ranged from \$59,165 to \$72,226 over the seven years. (To note, the Comparison Group’s average annual salary cost for Year Two is lower than Year One due to the CPI. The CPI, or the inflation factor, for Year One is higher than Year Two. The Comparison Group’s actual average salary from Year One to Year Two was not high enough to offset the higher inflation factor; thus explaining the Year Two’s lower average annual salary cost.) The percentage difference between the Demonstration Group and the Comparison Group in Year One through Year Four ranged between 13 percent and 18 percent. After Year Four, the percentage difference remained steady at 11 percent, indicating that the percentage difference of average annual per person salary costs between the Demonstration Group and the Comparison Group reached a steady state. Moreover, the results showed that the Year One salary cost to the Year Seven salary cost was approximately \$11,000 for both the Demonstration Group (i.e., \$68,702 to \$80,313) and the Comparison Group (i.e., \$60,660 to \$72,226), indicating that the difference between the two groups has been consistent over the years.

These results show that, while the Demonstration Group had higher average annual salary costs per employee compared to the Comparison Group, this simply reflects the composition of employees who comprise each group. Given that the Demonstration Group and the Comparison Group were not presumed to be a perfect match in regards to the occupations and levels of the individuals within each group, it is not surprising that there is a discrepancy

<sup>28</sup> The CPI is a measure of the average change in consumer prices over time in a fixed market basket of goods and services. It is calculated by the U.S. Bureau of Labor Statistics and it is used frequently to identify periods of inflation or deflation.

in salaries between the two groups. Accordingly, this shows that the Demonstration Group includes, on average, more highly paid employees, *not* that the salary costs of the Demonstration Group are higher than they would have been absent of the Demonstration Project.

**Table 5-2. Average Annual Salary Cost Per Employee**

Group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 7 minus Year 1
Demonstration	\$68,702	\$70,082	\$71,422	\$74,273	\$74,949	\$78,470	\$80,313	<b>\$11,611</b>
Comparison	\$60,660	\$59,165	\$63,410	\$64,732	\$67,263	\$70,752	\$72,226	<b>\$11,566</b>
% Difference	13%	18%	13%	15%	11%	11%	11%	<b>0%</b>



## 6. 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 how well the Demonstration Project has been operating over its seven years.

As described earlier in this report, the Demonstration Project evaluation is designed to answer research questions identified by OPM as well as DoC. Table 6-1 and Table 6-3 display, for each key research question, a response based on the data collected. Table 6-1 also indicates where, within this report, additional information about each research question has been discussed.

### **6.1. Responses to OPM's research questions show that the Demonstration Project has operated effectively and has demonstrable evidence of the success of key objectives**

OPM specifies six research questions that should be answered in each evaluation phase of OPM-sponsored Demonstration Projects. These six questions address whether or not the interventions are better than traditional human resources practices. As shown in Table 6-1, the Year Seven evaluation indicates that the Demonstration Project has operated effectively and has demonstrable evidence of the success of key objectives.

**Table 6-1. Answers to OPM Research Questions**

<b>OPM Research Questions</b>	<b>Answers</b>	<b>Where To Locate Additional Information</b>
1. Did the project accomplish the intended purpose and goals? If not, why not?	Over the years, the Demonstration Project has been meeting its purpose and many of its goals. Many of the interventions have shown evidence of success. For example, success has been shown in the ability to: 1) use more flexible entry salaries to attract candidates, 2) retain high performers and turn over low performers, 3) link pay and performance, 4) make human resources management more effective and efficient, and 5) support EEO/diversity. Efforts continue to find ways to measure the quality of new hires and organizational performance, to determine whether these goals have also been met.	Introduction Chapter 4 – Findings and Conclusions
2. Was the project implemented and operated appropriately and accurately?	The Demonstration Project was implemented and operated appropriately. The Boards and project team provided ongoing leadership and oversight that guided the Demonstration Project. In addition, technological and other resources were dedicated to the Demonstration Project. Having a defined infrastructure in place appears to have made the process of extending and expanding the Demonstration Project easier.	Chapter 4 – Findings and Conclusions
3. What was the cost of the project?	In Year Seven, salary costs were examined. Two key findings emerged. 1) The compounded average annual growth rate (CAGR) was nearly the same for the Demonstration Group and the Comparison Group, providing evidence that the Demonstration Project has met its goal to be budget neutral and 2) The gap in average per person salary costs between the Demonstration Group and the Comparison Group remained constant over the years. While these findings indicate that the total salary costs have been controlled, compositional differences between the Comparison Group and the Demonstration Group make it difficult to draw more specific conclusions about the effectiveness of salary cost control under the project. OPM reviewers raised concerns about the amount of the average salary increases in the Demonstration Group, especially in Year Seven. Additional scrutiny should be given to how salary increase costs are being controlled. Also, further study is required to explore what factors, beyond the composition differences between the Demonstration Group and the Comparison Group, explain why the average salary increases for the Demonstration Group so significantly exceed average salary increases for the Comparison Group and other Demonstration Projects.	Chapter 5 – Cost Analysis

**Table 6-2. Answers to OPM Research Questions (cont.)**

OPM Research Questions	Answers	Where To Locate Additional Information
4. What was the impact on veterans and other EEO groups?	<p>Consistent with past years, in Year Seven of the Demonstration Project, objective and subjective data indicate that the Demonstration Project has not had a negative impact based on race, gender, or veteran status.</p> <p>Survey findings provide employee opinions that the Demonstration Project interventions have not impacted how these groups are compensated, recruited, or retained.</p> <p>Objective data also provide evidence that the pay for performance system did not reward participants differently based on race, gender, or veteran status. Rather, any differential findings across subgroups appear to mirror what is occurring in the Comparison Group.</p>	<p>Section 4.11 – Findings on the Interventions and Race, Gender, and Veteran Status</p> <p>Appendix D-1 – Analyses of the Linkage between Pay and Performance</p>
5. Were Merit Systems Principles adhered to and Prohibited Personnel Practices avoided?	<p>Implementation of the Demonstration Project's personnel interventions has not impacted the organization's adherence to the nine Merit System Principles and avoidance of the 12 Prohibited Personnel Practices. Booz Allen's findings in Year Seven provide additional support that the administration of the Demonstration Project continues to be in line with these personnel guidelines.</p>	<p>Section 4.10 – Findings on the Merit System Principles and Prohibited Personnel Practices</p>
6. Can the project or portions thereof be generalized to other agencies or government-wide?	<p>Based on the findings over the seven years, it appears that the Demonstration Project has had successes that may have broader potential and appeal elsewhere in DoC or in the Federal Government. The expansion of the Demonstration Project in Year Six to include additional organizations provides evidence for generalizability: while there were some to-be-expected differences in results across Wave 1 and Wave 2, the reasonable similarities suggest that it was possible to apply these interventions in different types of organizational settings. Furthermore, the experiences of pay for performance in the Demonstration Project provides tangible data and lessons learned that can be applied elsewhere in the government, particularly as the Department of Defense and the Department of Homeland Security move forward with their pay for performance based systems. Finally, as noted above in item #3, the Demo Project may provide lessons learned regarding salary cost control as further study of this issue is undertaken.</p>	<p>Chapter 4 – Findings and Conclusions</p>

## **6.2. The Year Seven evaluation provides evidence that DoC has met many of its objectives for the Demonstration Project**

DoC also defined a set of research questions to be answered in each evaluation phase of the Demonstration Project that are aligned with the objectives it hopes to achieve. As shown in Table 6-3, the Year Seven evaluation indicates that many interventions that are unique to the Demonstration Project have proven successful.

Table 6-3. Answers to Evaluation Model Research Questions

Research Questions From DoC Expanded Evaluation Model	Answers
<p>1. Has the quality of new hires increased?</p> <p>Has there been an improved fit between position requirements and individual qualifications?</p> <p>Has there been a greater likelihood of getting a highly qualified candidate?</p>	<p>The results regarding recruitment and staffing are consistent with past years. While issues have been acknowledged with the challenges of measuring the quality of applicants and new hires, there is some indication that progress is being made in attracting high quality candidates. Based on objective data, employees hired during the Demonstration Project years slightly outperformed the more tenured employees, which suggests that the quality of new hires has increased. In addition, both survey data and objective data show that Demonstration Group supervisors are taking advantage of their ability to exercise flexibility with entry salaries and to re-negotiate job offers, which gives them the tools to attract and obtain competitive candidates.</p>
<p>2. Has retention of good performers increased?</p>	<p>At the end of seven years, there is clear evidence that the Demonstration Project has had a positive effect on retaining good performers. Subjective data analyses show that Demonstration Group participants perceive that the interventions have been motivating and improve retention efforts. Objective data show that lower performing employees separate at higher rates than do higher performing employees. The flexible pay increase upon promotion intervention has also been effective, which contributes to rewarding high performing employees and encouraging their retention by making their salaries more competitive with the public and private sectors. One intervention that has been less successful as a retention tool is supervisory performance pay – Year Seven results showed greater turnover among those supervisors who received supervisory performance pay.</p>
<p>3. Has individual and organizational performance improved?</p>	<p>The pay for performance system is clearly contributing to greater differentiation of high and low performers, with provision of greater rewards to the former. Moreover, the system has been an improvement over the traditional system, as evidenced by the fact that Demonstration Group participants fared better than Comparison Group participants in pay increases and bonuses/awards. Demonstration Group supervisors are also taking advantage of their ability to exercise flexibility with pay increases upon promotion, which gives them a tool to motivate high performers.</p> <p>Measuring organizational performance at a more global level remains elusive, given that the Demonstration Project consists of portions of multiple organizations, each with different organizational missions and performance goals. Consistent with other Demonstration Projects, organizational performance proxies were used. These results showed that employee performance was viewed as having either stayed the same or slightly improved since the beginning of the Demonstration Project; it has not declined as a result of implementation of the Demonstration Project. In addition, there was some evidence that the Demonstration Project has improved certain aspects of workforce quality.</p>
<p>4. Is human resources management more effective?</p>	<p>Results suggest that human resources management is becoming more effective, as certain activities are delegated to line management. Delegated classification authority has increased the supervisor's role in the classification process, which appears to be working well, although this is no longer necessarily unique to the Demonstration Project. Delegated pay authority continues to be a unique feature of the Demonstration Project and, while it has been a learning experience for supervisors of all levels, seems to be appreciated given the improved Demonstration Project favorability ratings over the seven years.</p>

**Table 6-4. Answers to Evaluation Model Research Questions (cont.)**

<b>Research Questions From DoC Expanded Evaluation Model</b>	<b>Answers</b>
<p>5. Is human resources management more efficient?</p>	<p>The Automated Classification System (ACS) was a critical component in making human resources management more efficient. Some evidence speaks for its success; for example, data show that the Demonstration Group was faster than the Comparison Group in regards to both the average amount of time needed to produce and classify a position and the average amount of time needed to process a classification action.</p> <p>Recruiting time (i.e., the average number of calendar days required to fill a position from initial posting of vacancy to selection) did not differ greatly between the Demonstration Group and the Comparison Group; however, the rates were a sizable improvement from earlier in the Demonstration Project. This suggests that there may in fact be changes both specific to the Demonstration Project as well as inherent in the GS system that have improved processing times.</p>
<p>6. Is there improved support for EEO/diversity goals in recruiting, rewarding, paying, and retaining minorities?</p> <p>Are opportunities for a diverse workforce being provided?</p> <p>Are the contributions of all employees being maximized?</p>	<p>Results indicate that the Demonstration Project interventions have had no negative impact on minorities, women, and veterans. Survey findings suggest no evidence of unfair treatment based on race, gender, or veteran status in the areas of compensation, recruitment, or retention. Objective data across all seven years show that the Demonstration Group's pay for performance system did not reward participants differently based on race, gender, or veteran status in terms of average performance-based pay increases or bonuses.</p>



## 7. RECOMMENDATIONS

This chapter presents Booz Allen's recommendations as DoC continues to operate the Demonstration Project. These recommendations are intended to enhance aspects of the Demonstration Project based on Year Seven findings as well as trend analyses covering the past seven years.

### 7.1. DoC should examine the impact of being salary capped in a pay for performance system

In the past two years, we have been able to determine the number of individuals impacted by salary capping, that is, Demonstration Group participants who had eligible performance ratings but whose salaries are at the maximums for their pay bands. In Year Seven, nearly 19 percent were either at the maximum or near the maximum. While having individuals reach toward the maximum is a natural function of nearly any pay system, DoC may wish to examine further the movement of these individuals given the impact of this issue on perceptions of the pay for performance system.

It may be that some of these individuals are in positions where there is no further upward movement due to the nature of their jobs. In these cases, the question becomes whether individuals are satisfied in their current state *or* would prefer cross-training to be eligible for positions with more upward growth. It may be that other individuals are in positions where there is upward growth but might require additional coaching and mentoring in order to prepare them for promotion into the next band.

Another aspect of this issue that may warrant further analysis is whether turnover rates differ for individuals who have reached the maximums versus others. In Year Eight, with available turnover data, the program evaluators could examine whether the Year Eight turnover rates differ for these individuals versus others. Assuming so, this could provide a starting point for DoC to examine the underlying issues – to parse out what types of solutions are needed based on the motivations of the affected individuals.

### 7.2. DoC may want to revamp its communication efforts around performance bonuses and awards

Based on data from the survey and focus groups, employees are generally not clear about the criteria used for distributing performance bonuses and awards. This concern is not unique to the Demonstration Group; however, the confusion about performance bonuses and awards in the Demonstration Group appears to be impacting their potential to be motivators. Given that performance bonuses are a fundamental component of the pay for performance system, and one that helps to distinguish it from the GS system, DoC should make the most of this intervention.

Several factors appear to be impacting the confusion. One, the distinction between performance bonuses and awards – that is, the usage of one versus the other – is not entirely clear. Two, there appears to be much variance across pay pools in how performance bonuses

are distributed, with some Pay Pool Managers implementing a strategy where nearly everyone gets a small-valued performance bonus and other Pay Pool Managers using a strategy where only a few outstanding individuals receive performance bonuses of greater value. Three, the fact that some work units choose to use performance bonuses to compensate for pay increases (e.g., in cases where individuals are at the maximums of their pay bands) provides a total compensation solution but can also diminish the intent of the performance bonus as a reward for achievement in instances where performance bonuses are provided to employees whose performance does not warrant such recognition.

We recommend that DoC take a close look at how information about performance bonuses is communicated and consider creating a few simple promotional materials for employees and job aids for supervisors to be used to communicate a single voice about the intent and use of performance bonuses.

### **7.3. DoC should consider closer examination of the benefits and disadvantages of the three-year probationary period intervention**

The three-year probationary period for scientists and engineers intervention was designed to enable supervisors to make permanent hiring decisions for research and development (R&D) positions based on employees' demonstrated capabilities in the full R&D cycle. This intervention provides these supervisors with the ability to terminate poor performing employees any time during the three-year period rather than being limited to the typical one-year probationary period.

This is an intervention that has appeared to receive less attention over the years, likely because it impacts only a small percentage of individuals. However, if it is successful in achieving its goals as designed, it can serve as a model for similar adjustments to probationary periods in other scientific settings elsewhere in the government. As such, we recommend that DoC consider conducting a mini-study, that can explore issues beyond that which can be captured by quantitative data. We recommend capturing qualitative data from at least three groups of individuals: those who already spent three years on probation and have not been hired out of it, those currently in the three year probation (and of varying performance levels, as judged by their supervisors), and supervisors of individuals on the three-year probation. It may be worth exploring issues such as whether supervisors feel that it has been beneficial in their ability to evaluate performance, whether employees in probation understand its value, and whether it is motivating versus de-motivating to employees.

### **7.4. DoC should explore alternative ways of motivating supervisory performance**

Based on the original objectives of the Demonstration Project, the supervisory performance pay intervention was expected to extend their pay potential, thereby encouraging retention and performance. Consistent with this, our analyses showed that this intervention was used to reward supervisors who had reached the top of their pay bands, many of whom were performing reasonably well. However, the intervention was not designed to reward *high performing* supervisors, as was confirmed by the data. This finding, combined with the



mixed qualitative findings, showed that the supervisory performance pay has not necessarily been effective as a motivational tool since it is not used to reward high performance.

As a complement, not necessarily a replacement for supervisory performance pay, we recommend that DoC explore alternative ways of motivating supervisory performance, be that through rewards, recognition, stretch opportunities, and/or specific people development responsibilities. The objective should be to find ways to reward supervisors for effectively performing their supervisory responsibilities (beyond their technical responsibilities) so as to recognize contributions and inspire a new cadre of managers. Employing methods such as these to recognize and reward individuals for carrying supervisory responsibilities will be particularly important given the projected losses (governmentwide) of leaders as the federal workforce ages. Creative incentives and retention tools may help to prolong the employment of high performing supervisors, thus benefiting the organization, as well as building the next generation of leaders.

#### **7.5. DoC may want to take a process-reengineering approach to determine if greater efficiencies can be gained in the recruitment process**

As in some past years, there were limited differences between the Demonstration Group and the Comparison Group in regards to the amount of time required to fill a position (from initial posting of vacancy to selection). Some efficiencies seem to have occurred since this was first measured in Year Three, suggesting that efficiencies may have been put in place that aided both processes; however, the expected gap between the Demonstration Group and the Comparison Group has never quite emerged. Meanwhile, the Demonstration Group reported faster times for two classification activities: 1) the average amount of time needed to produce and classify a position and 2) the average amount of time needed to process a classification action. However, efficiencies gained in the Demonstration Project's classification process do not seem to be translating into a more efficient recruitment process overall since the total time between the Demonstration Group and the Comparison Group is so similar.

We recommend taking a process-reengineering approach to determine if greater efficiencies can be gained in the recruitment process. This would entail breaking down the elements of the process and examining roles, activity sequencing, interdependencies, extraneous factors, and the like. By doing so, it may be possible to identify opportunities for process improvements that could make recruitment both more effective and more efficient, both in support of Demonstration Project goals.

**7.6. Continue to dedicate resources toward the management of Demonstration Project data**

Given the increasing complexities of the Demonstration Project data, as a greater number of employees are included and as analyses become increasingly more sophisticated, DoC should continue to dedicate resources to the Demonstration Project data. The accuracy of the analyses is predicated on the quality of the data and therefore data management is paramount. This emphasis on data quality should extend beyond data management at the headquarters level and should also include ensuring that the proper training, tools, and mechanisms are in place to ensure that data are accurately and consistently managed at the participating organization level.

**7.7. DoC should conduct additional analyses of cost management with a focus on management of costs associated with salary increases**

Given questions raised by OPM reviewers, DoC should conduct additional analyses of study with regard to the management of costs associated with salary increases. DoC should seek to identify the reasons why average salary increases in the Demonstration Group are higher than those in the Comparison Group and in other Demonstration Projects and, in particular, why Year Seven average salary increases were significantly higher. As part of this effort, DoC should review the methodologies used to determine the amount of salary increase pay pools.

Also, DoC should seek to determine whether average starting salaries for entry/developmental employees are higher (in constant dollars) under the Demonstration Project than during the 3-year historical base period and, if so, assess whether this should be taken into account in determining the amount of salary increase pay pools. Historical funding for promotions between grades that are banded under the Demonstration Project were considered to be available for use in the salary increase pay pool. However, if DoC has used project flexibilities to provide higher average starting salaries, those higher starting salaries are, in effect, using funds that previously were used in providing promotion increases. If so, this might argue for offsetting the historical promotion funding amounts that are used to set the amount of salary increase pay pools.