

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

**YEAR NINE REPORT**



Washington, DC  
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**FINAL REPORT**

Booz | Allen | Hamilton



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## EXECUTIVE SUMMARY

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

### **ES.1. The Department of Commerce has completed nine 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, 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 to include additional organizations, increasing the number of participants.

In 2006, DoC again requested and received OPM's permission to expand the Demonstration Project (the expansion was announced in a *Federal Register* notice (see Appendix A-6) dated August 26, 2006). This expansion permitted DoC to include up to 3,500 additional employees in the National Oceanic and Atmospheric Administration (NOAA).

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.

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<sup>1</sup> Year Nine covers the time period of April 1, 2006 to March 31, 2007.

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 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>2</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.

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

All Demonstration Projects under 5 U.S.C. 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 and 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 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 continues to conduct annual evaluations to monitor and evaluate the effectiveness of these personnel interventions put in place by DoC.

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<sup>2</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.

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.

ES.1.3. The Year Nine evaluation presents results for the Demonstration Project overall as well as results by wave

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 are actually effective, the results obtained from the Demonstration Group are compared with results from a Comparison Group. The Comparison Group comprises DoC organizations that did not receive the interventions implemented in the Demonstration Group, but were chosen because of their approximate similarity to the organizations in the Demonstration Group.

The following nomenclature is used for the original groups of organizations and the groups of organizations included in the extension/expansion of 2003 and the expansion of 2006:

- Wave 1 Demo Group: Organizations that were in the original Demonstration Group (i.e., Years One-Five) and that remained in the Demonstration Group in Years Six-Ten
- Wave 2 Demo Group: Organizations that were new to the Demonstration Group in Year Six, either because they were added directly to the Demonstration Group or because they transferred from the Comparison Group to the Demonstration Group for Years Six-Ten
- Wave 3 Demo Group: Organizations that were new to the Demonstration Group in Year Nine, either because they were added directly to the Demonstration Group or because they transferred from the Comparison Group to the Demonstration Group for Years Nine-Ten
- Comparison Group: Organizations that joined the Demonstration Project in Year One, Year Six, or Year Nine and that remained in the Comparison Group for Years Nine-Ten.

It is important to consider that, with each expansion, the composition of the Demonstration Group changes and experiences may differ by wave. Therefore, as appropriate, the data for the Demonstration Group are analyzed by wave, allowing for assessment of the shorter-, medium-, and longer-term impact of the interventions.

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

Results of the Year Nine 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 upon promotion, continued to demonstrate positive results.

### **ES.2.1. Employee satisfaction with the work environment and jobs remained strong and favorability toward the Demonstration Project continued to increase**

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 Nine were consistent with the findings from previous years: trend analyses across the years demonstrated that work environment satisfaction and job satisfaction have remained strong. 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 jobs more favorably than did non-supervisory employees. Year Nine survey results of favorability toward the Demonstration Project show that favorability improves over time. Wave 1 and Wave 2 organizations reported favorability ratings that are comparable to ratings achieved by other Federal Demonstration Projects. Wave 3 organizations reported favorability ratings consistent with Wave 1 ratings at the onset of the Demonstration Project; further tracking will show if favorability ratings for Wave 3 elevate over time as they did for Wave 1 and Wave 2.

### **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. In Year Nine, survey data showed that some Demonstration Group participants are satisfied with the potential for career progression and recognize the impact of the job classification system on their career progression. Results by wave show that Wave 1 and Wave 2 organizations, which have been in the Demonstration Project longer, are more optimistic about opportunities.

### **ES.2.3. Some Demonstration Group supervisors are experiencing the intended benefits of delegated classification authority and the automated classification system, such as time savings**

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 Nine findings highlighted both similarities and differences in the way that Demonstration and Comparison Group participants view their respective classification systems. The results point to some success with achieving time efficiencies and increasing understanding of classification procedures among the Demonstration Group.

#### ES.2.4. Understanding and acceptance of the Demonstration Project's 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 Nine, data suggested that Demonstration Group participants are getting more comfortable with the performance appraisal system under the Demonstration Project. Demonstration Group Wave 1 and Wave 2 participants responded in a noticeably more positive fashion in regards to their understanding and belief that ratings accurately reflect performance. In addition, a greater percentage of Demonstration Group supervisors (compared to Comparison Group supervisors) reported that the performance appraisal system is easy to use. One area where improvement is still required is informal feedback; Demonstration Group participants reported that feedback occurs at annual reviews but ongoing performance feedback is less common.

#### 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, and supervisory performance pay. Year Nine 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>3</sup> versus 2.96 percent of salary)
- Among the four career paths<sup>4</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 (2.03 percent versus 1.44 percent)
- After steadily increasing over the years, the average performance appraisal score decreased in Year Seven, increased slightly in Year Eight, and remained constant in Year Nine with an average performance appraisal score of 86.2; the average performance appraisal score differed by wave (the Wave 1 average performance

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<sup>3</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 Nine; this concept is not intended to be synonymous with the "percent of percent" concept often discussed in the context of the Demonstration Project.

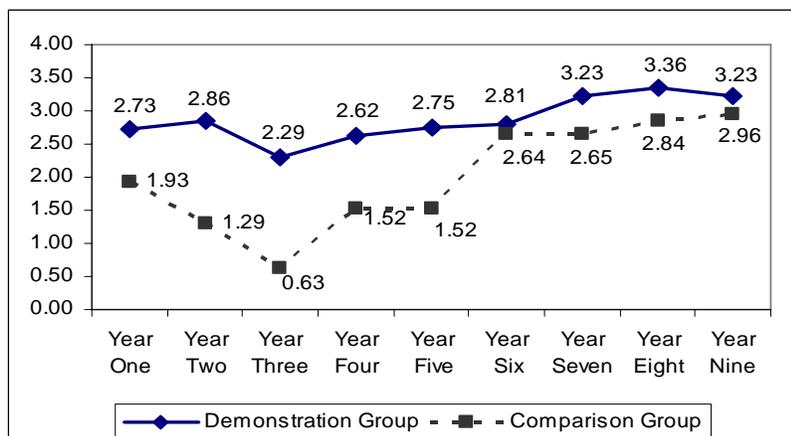
<sup>4</sup> Under the Demonstration Project, Demonstration Group occupations are grouped into four broad career paths: ZP – Scientific and Engineering, ZT – Scientific and Engineering Technician, ZA – Administrative, and ZS – Support.

appraisal score was 86.7 points and the Wave 2 average performance appraisal score was 85.0 points)

- Based on a regression analysis, performance score was a consistent predictor of performance-based pay increase, across all four career paths, providing support for a pay and performance linkage. The only other consistent predictor across all four career paths was organization, such that higher performance-based pay increases were associated with being in certain DoC organizations
- 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 a trend analysis of the average performance-based pay increases in the Demonstration Group and Comparison Group from Year One to Year Nine. Consistent with previous years, the average performance-based pay increase was higher in the Demonstration Group than in the Comparison Group. In Year Nine, average performance-based pay increase for the Comparison Group reached the highest amount to date. The greater difference between the two groups in the earlier years (Year One to Year Five) compared to the more recent years (Year Six to Year Nine) likely reflects the changing composition of the Comparison Group in terms of occupations, work levels, career ladders, and position in range.

**Figure ES-1. Trend Analysis of Average Salary Increase Percentages**

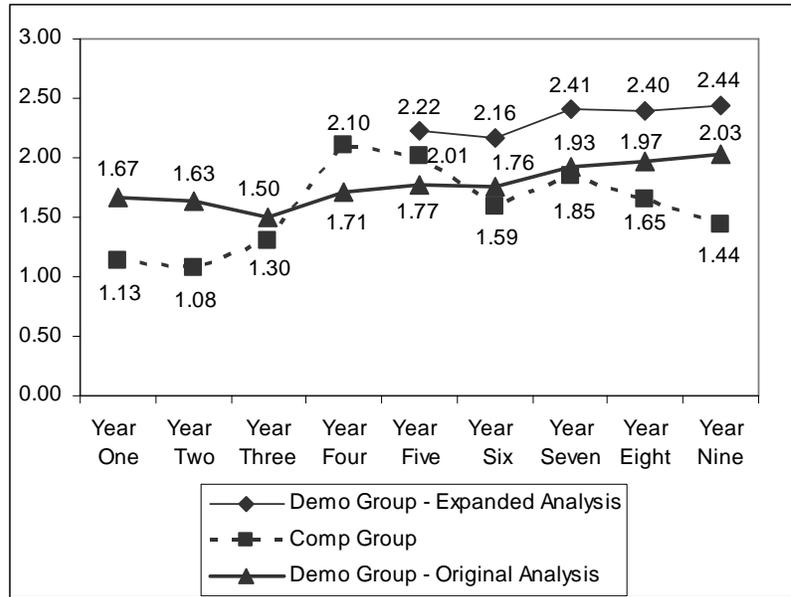


1. The Comparison Group Year Two data point was revised in Year Three to reflect a correction in the formula used to calculate average salary increase percentage.

Figure ES-2 displays a trend analysis of the average bonus/award percentages in the Demonstration and Comparison Groups from Year One to Year Nine. Over time, average bonus percentages in the Demonstration Group have remained relatively constant, with just 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. Regardless of

whether the original or expanded bonus analysis<sup>5</sup> is used as a comparison, the Demonstration Group average bonus percentages were higher in Year Nine than the Comparison Group average award percentages.

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



One additional way of examining the impact of a pay-for-performance system is to consider its total impact on Demonstration Group participants. As displayed in Table ES-1, in Year Nine, Demonstration Group participants received increases and bonuses that were, on average, 5.2 percent of their salary. In comparison, Comparison Group participants received increases and awards that were, on average, 4.4 percent of their salary. These results show that, from a total awards basis (i.e., when pay increases and bonuses/awards are combined), Demonstration Group participants fared better overall than Comparison Group participants.

**Table ES-1. Comparison of Total Awards**

	Demonstration Group	Comparison Group
Average Performance-Based Pay Increase	3.2%	3.0%
Average Bonus/Award	2.0%	1.4%
Average Total Awards (Average Performance-Based Pay Increase Plus Average Bonus/Award Bonus)	5.2%	4.4%

<sup>5</sup> The reader is referred to the body of the report for a full definition of the original and expanded bonus analysis.

- ES.2.6. Many 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 Nine, most employees who were made permanent had completed their three years or were made permanent during their third year. Only a small percentage (8 percent) were taken off probation (i.e., made permanent) in just their first or second year, which indicates that managers are making use of this intervention by allowing 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>6</sup>, local authority for recruitment payments, flexible entry salaries, and flexible paid advertising. In Year Nine, our findings suggested that the Demonstration Project is having success with some of the unique recruitment and staffing interventions. For example, flexible entry salaries provided 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.

- 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 Nine, 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. Perceptual data show that some Demonstration Group participants perceive that some of the interventions have been motivating and improve retention efforts.

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<sup>6</sup> This was originally referred to as "agency-based staffing" in the Demonstration Project.

- 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 Nine, 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 is 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 and how the organization addresses poor performers.

- 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 Nine 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, Year Nine analyses suggest that the Demonstration Project has not been detrimental to the recruitment, compensation, or retention of minorities, women, or veterans. The proportion of minority, women, and veteran new hires to the Demonstration Group was greater than, or equal to, 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. Furthermore, there was greater consistency in pay increase percentages and average bonus/award percentages across each subgroup (i.e., minority, gender, or veteran status) in the Demonstration Group than in the Comparison Group. Finally, in Year Nine, there was some variance in turnover rates in the Demonstration Group based on race/national origin groups; however, the differences were less pronounced among high performers. Perceptual data suggest that the Demonstration Project interventions are not perceived as having a differential affect on the compensation, recruitment, and retention of minorities; perceptions tend to be quite similar across the Demonstration Group and the Comparison Group.

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

The Year Nine 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 Nine findings as well as trend analyses covering the past eight years.

#### **ES.3.1. Strengthen the Demonstration Project's branding and early education efforts**

Aside from being able to test the Demonstration Project interventions with individuals in a broader range of occupations, there are additional benefits of expanding the Demonstration Project at various points in time (i.e., in the three waves). One key advantage is the ability to evaluate whether subsequent waves have similar or dissimilar experiences as do the previous waves. One area where this can be tested is self-reports (via the survey) on favorability toward the Demonstration Project. Traditionally, in Demonstration Projects (e.g., China Lake, NIST), favorability ratings start off moderately low, gain momentum after 2-3 years accelerating upwards, and then plateau in the 60-70 percent range. This pattern held true in this Demonstration Project, as is evidenced by the Wave 1 results. The initial Wave 3 results show that early favorability ratings mirror where Wave 1 was in 1998. While this is to be expected, it is also reasonable to think that improvements in branding and education could accelerate the learning curve for subsequent waves – perhaps meaning early favorability ratings would be even higher than that which was experienced by earlier waves and accelerate faster.

For this reason, DoC should reevaluate and make improvements to its early communications in anticipation of bringing in additional waves. Site historian data shows that organizations actively engaged in pre-communications; however, the focus group data shows that employees did not feel fully informed. DoC should evaluate its: 1) branding (i.e., the image of the program) of the Demonstration Project and 2) early educational efforts that prepare employees for becoming part of the Demonstration Project (as well as for supervisors' shift in responsibilities). In addition, to supplementing the educational/training sessions, DoC should develop "desk guides" as reference materials for employees. Finally, DoC should conduct a periodic review of the Demonstration Project website to determine if the right content is available to employees and in a clearly accessible manner.

#### **ES.3.2. Evaluate and revise, as appropriate, the Demonstration Project's communication strategy**

In addition to the need for greater communication that was expressed by Wave 3 participants, Wave 1 and Wave 2 participants also voiced a need for more communications. DoC should develop and/or revise a formal communication strategy to ensure that information about the Demonstration Project's intent, practices, and performance metrics is best communicated. Moreover, the communication strategy should be designed to meet the needs of multiple, diverse audiences (e.g., supervisor versus non-supervisor, headquarters versus region, small

pay pools versus large pay pools). DoC should fully exploit a full range of communication mechanisms, including posting information on the website, email announcements, speaking notes for supervisors to use in team meetings, job aids for supervisors on their performance management responsibilities, and the like.

### ES.3.3. Create a dashboard to improve transparency

While there has often been a gap between perceptions and the hard data on the linkage between pay and performance, the gap was particularly noticeable this year. The objective data show that the link exists in the Demonstration Project – for example, based on a regression analysis, performance score was a consistent predictor of performance-based pay increase across all four career paths. However, in focus group settings participants raised doubts and on the survey only one-half of the respondents indicated that pay raises depend on how you perform. By increasing transparency around the hard data, DoC may be able to address misperceptions about the linkage between pay and performance.

It is not uncommon for agencies to strive for transparency in their performance management systems; however, the challenge lies in determining how much and in what ways to be transparent. In past years, DoC has wrestled with the transparency issue and has instituted some efforts to improve transparency. Based on the feedback that employees want to know even more, DoC should create a *one-page* dashboard as a succinct, powerful means of communicating key metrics. This dashboard would serve as a snapshot of annual results of the Demonstration Project, focused on information that is appropriate for broad dissemination. Possible content could include: range of performance scores (by organization and/or by pay pool), average performance scores, trend data on performance scores, range of performance-based salary increases percents (not hard dollars), trend data on performance-based salary increases percents, hiring rates, turnover rates, promotion rates, percentage of performance goals met, etc. To be effective, the dashboard should be populated and disseminated as soon as possible after the close of the performance year so that employees see that they are receiving timely information.

### ES.3.4. Develop strategies to prepare, motivate, and recognize supervisor performance that is consistent with desired behaviors

The role of the supervisor is decidedly different in the Demonstration Project compared to the GS system. Activities such as goal-setting with employees, providing effective feedback, and managing marginal performance – while important in any performance management system – are especially critical in a pay-for-performance environment. DoC needs to develop strategies to ensure that it is doing the best it can to prepare, motivate, and recognize supervisors who excel at performing these supervisory functions. To prepare supervisors, DoC should review current training programs and ensure that the training is effectively driving the desired behaviors. DoC should also consider leveraging creative training techniques and/or content; for example, the site historian reported that NOAA-NOS encouraged sharing and transfer of knowledge from long-standing participants to newer participants. Moreover, DoC should review whether supervisors are properly supported on-the-job – that is, whether they have sufficient tools and resources, post-training.

To motivate supervisors, DoC should ensure that supervisors' annual performance assessments measure them on their abilities to effectively manage performance, with behavioral indicators such as effectively providing feedback to employees on an ongoing basis, addressing performance issues in an appropriate manner, engaging the proper resources (e.g., HR professionals) on critical performance matters, and the like. By tying demonstration of the appropriate behaviors to their own performance assessment, supervisors have greater accountability for effectively managing employee performance.

To recognize supervisors, DoC needs to leverage available means to reward and recognize supervisors who excel at these Demonstration Project-specific supervisory functions. As has been discussed in the body of the report, the supervisory performance pay intervention, as designed, does not necessarily serve this purpose. Instead, DoC should develop additional means for identifying and recognizing (if rewarding is not possible) key supervisors. Developing incentives and recognizing supervisors (e.g., through recognition on the Demonstration Project website, through the awards program) who maintain the integrity of the process could improve perceptions. This may also help to improve retention of these high-performing supervisors as well as motivate more junior staff to aspire to supervisory roles.

**ES.3.5. Place sufficient emphasis on performance planning, at the start of the performance year and throughout**

At the core of a pay-for-performance system are the defined goals of the type of performance that merits award. Absent of clearly defined, agreed upon, and targeted goals, supervisors are in the unenviable position of measuring performance against a weak target and employees lose confidence in the value of the system. DoC needs to ensure that effective performance planning is occurring – between every supervisor and employee – so that the “ground rules” for performance expectations are clearly known. Perceptual data suggest that some discussions are occurring but that, in some cases, it is more of a perfunctory exercise rather than a robust discussion. DoC should engage in efforts to ensure that supervisors are prepared for their role and held accountable for doing performance planning with their staff. DoC should also engage in efforts to ensure that employees clearly understand their own accountabilities – their own responsibility for being actively involved in the performance planning process. Finally, supervisors and employees alike must be trained to know when certain occurrences through the year warrant adjusting a performance plan (e.g., if an employee's work focus shifts considerably).

**ES.3.6. Reevaluate the broad bands**

In Year Nine, a number of Demonstration Group participants were affected by salary capping, that is, Demonstration Group participants had eligible performance ratings but their salaries were at the maximums for their pay bands. Overall, in Year Nine, 18 percent of Demonstration Group participants were capped and an additional nine percent were nearly-capped, for a total of 27 percent who are capped or nearly-capped (in Year Eight, 22 percent were capped or nearly-capped). We urge paying attention to how salary capping can impact employee motivation and what actions can be taken, such as developing staff for promotion to the next band (when staff are in positions for which a band promotion is possible) or cross-

training staff who need to first move laterally before progressing upward. While some pay pool managers compensate pay-capped employees through the bonus process, alternate strategies should also be considered.

Having this proportion of employees salary-capped does not, in itself, indicate that the broad bands are out of sync; indeed, any broadbanding system is likely to have a certain proportion of employees at the maximum. However, the presence of this proportion of salary capping does warrant attention. Given this, DoC should look at the salary capping issue from a structural perspective by ensuring that it is periodically reexamining the broadbanding structure. One, DoC should reexamine whether shifts need to occur in the minimum and maximum salary for the band; best practices suggest that shifts in the bands should be based on identifiable shifts in market rates as the driver for change. And two, DoC should reexamine whether the bandwidths need revision, that is, whether the mapping of bands to GS grade levels is still sufficient.

**ES.3.7. Further study salary costs to see what other factors could be driving the Demonstration Group's higher salary costs**

While the size of the gap between the Demonstration Group and the Comparison Group in average per person salary costs was nearly constant across the years, the average salary costs for the Demonstration Group participants has been higher than the Comparison Group. As identified in the report, one potential explanation for the disparity is the compositional differences (i.e., the occupations and levels of the employees who comprise each group); however, the full set of reasons for this difference is not entirely known.

DoC should conduct a study to explore driving factors beyond the compositional differences to explain why the average salary increase for the Demonstration Group exceeds the average salary increase for the Comparison Group and other Demonstration Projects. Variables to explore include demographic data (i.e., average age of workforce, educational background), local market trends and indicators (e.g., bargaining unit membership), the trades or actual work being performed, the number of years work experience, the perceived desirability to be part of the Demonstration Program within the given segments, and the local market population and accessible labor pool.

**ES.3.8. 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.



## 1. INTRODUCTION

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

### **1.1. The Department of Commerce has completed nine 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, 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 to include additional organizations, increasing the number of participants.

In 2006, DoC again requested and received OPM's permission to expand the Demonstration Project (the expansion was announced in a *Federal Register* notice (see Appendix A-6) dated August 26, 2006). This expansion permitted DoC to include up to 3,500 additional employees in the National Oceanic and Atmospheric Administration (NOAA).

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

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

This Year Nine Report assesses the Demonstration Project's ninth year of operation, April 2006 to March 2007. 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. In addition, DoC uses the report to provide an update on the Demonstration Project's impact 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 pertaining to the ninth performance year
- Comparisons of Demonstration and Comparison Groups
- An assessment of the impact of the Demonstration Project on equal employment opportunity and veteran status
- Trend data across performance years, where appropriate
- An assessment of the costs associated with operating the Demonstration Project
- Organizational context based on site historian accounts of critical events occurring during Year Nine
- 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 Nine Report represents the ninth in a series of ten reports that Booz Allen prepares to assess the Demonstration Project. Each report follows a similar structure and builds on data and findings from previous reports, thereby permitting trend analyses and cross-comparisons over the course of the Demonstration Project. In addition to the introduction, this report contains the following chapters:

Chapter 2 of this report, “DoC Demonstration Project and its Evaluation,” begins with a brief description of the Demonstration Project, including the objectives, the organizations and types of employees included, and the personnel interventions. The second half of the chapter presents the research questions relevant to the project and discusses the phases of project evaluation.

Chapter 3, “Data Collection and Analyses,” contains descriptive and methodological information on the data collection procedures used during the project evaluation. The 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 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, where appropriate.

Chapter 5, “Cost Analysis,” details the costs associated with implementing and operating the Demonstration Project over the nine 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 responses are presented in table form.

Chapter 7, “Recommendations,” contains recommendations for the interventions, as appropriate. The chapter also provides general recommendations that may not pertain to a specific intervention, but address organizational or management 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.

The conclusions stated within this report represent Booz Allen’s professional expertise and judgment based on the evidence collected.



## 2. DoC DEMONSTRATION PROJECT AND ITS EVALUATION

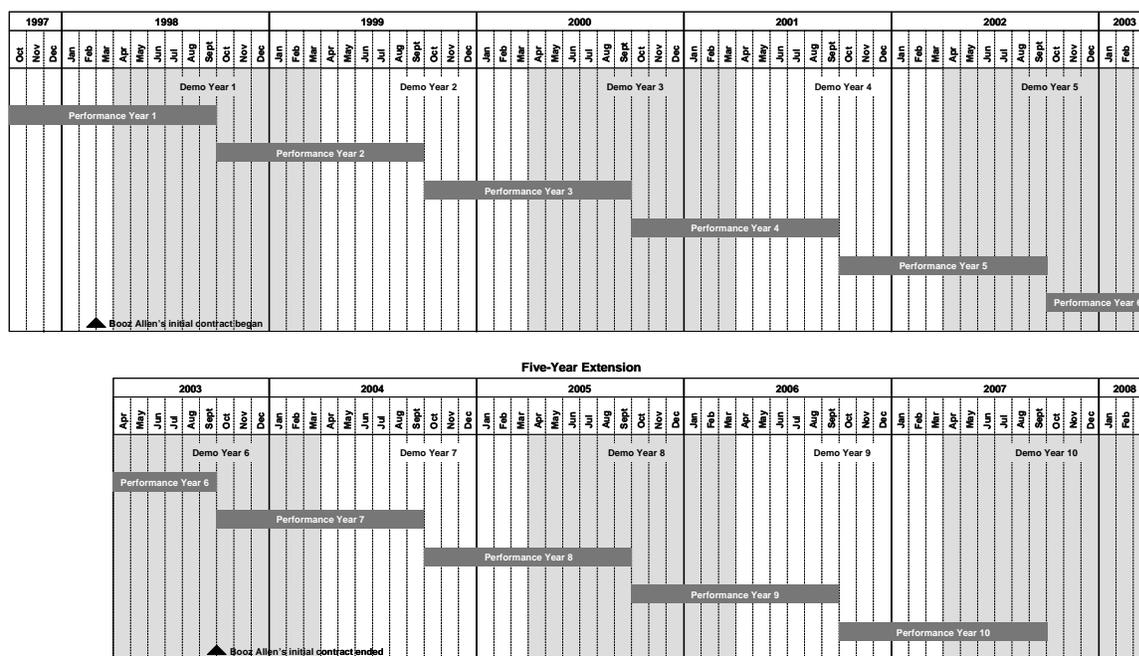
This chapter presents background information about the Demonstration Project, including its objectives, scope, and evaluation. In addition, it provides information on the expansion and extension of the Demonstration Project.

### 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 to Ten of the Demonstration Project remain the same as in Years One to 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 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>7</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>7</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 are actually effective, the results obtained from the Demonstration Group are compared with results from a Comparison Group. The Comparison Group comprises DoC organizations that did not receive the interventions implemented in the Demonstration Group, but were chosen because of their approximate similarity to the organizations in the Demonstration Group.

The following nomenclature is used for the original groups of organizations and the groups of organizations included in the extension/expansion of 2003 and the expansion of 2006:

- Wave 1 Demo Group: Organizations that were in the original Demonstration Group (i.e., Years One-Five) and that remained in the Demonstration Group in Years Six-Ten
- Wave 2 Demo Group: Organizations that were new to the Demonstration Group in Year Six, either because they were added directly to the Demonstration Group or because they transferred from the Comparison Group to the Demonstration Group for Years Six-Ten
- Wave 3 Demo Group: Organizations that were new to the Demonstration Group in Year Nine, either because they were added directly to the Demonstration Group or because they transferred from the Comparison Group to the Demonstration Group for Years Nine-Ten
- Comparison Group: Organizations that joined the Demonstration Project in Year One, Year Six, or Year Nine and that remained in the Comparison Group for Years Nine-Ten.

It is important to consider that, with each expansion, the composition of the Demonstration Group changes and that experiences may differ by wave. Therefore, as appropriate, the data for the Demonstration Group are analyzed by wave, allowing for assessment of the shorter-, medium-, and longer-term impact of the interventions. Moreover, having waves provides an opportunity to see if acclimation into the Demonstration Project occurs at a more rapid rate in later waves, given that more learning has occurred about how best to educate and prepare employees and managers for entry.

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

In Year Nine, the Demonstration Group consisted of seventeen organizations encompassing a wide range of occupations. Seven organizations comprised the original Demonstration Group: TA-Office of the Under Secretary, TA-OTP, ESA-BEA, NTIA-ITS, NOAA-OAR, NOAA-NESDIS, and NOAA-NMFS. With the 2003 expansion, two new organizations – NOAA-PPI and six offices within the Office of the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) – were added to the Demonstration Group (in addition, there was some staff additions to, and reorganizations of, organizations already in the Demonstration Project). The 2003 expansion also included one more NOAA-OAR office – the Space Environment Center located in Boulder, Colorado – which was later realigned from NOAA’s OAR to NOAA’s National Weather Service (NWS) in 2005. With the 2006 expansion, seven additional NOAA organizations joined the Demonstration Group (in addition, there were some staff additions to, and reorganizations of, organizations already in the Demonstration Project). Table 2-1 describes the missions of the organizations participating in the Demonstration Group.

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

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

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

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 in Wave 2</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>
<ul style="list-style-type: none"> <li>NOAA Office of the Under Secretary (UNSEC) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>The Office of the Under Secretary/Administrator manages and directs the overall activity of the Administration. It develops the objectives, formulates the policies, establishes the programs for achieving the objectives, and directs the execution of these programs.</li> </ul>
<ul style="list-style-type: none"> <li>National Ocean Service (NOS) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>NOS works to observe, understand, and manage our nation's coastal and marine resources. Its mission is to provide products, services, and information that promote safe navigation, support coastal communities, sustain marine ecosystems, and mitigate coastal hazards.</li> </ul>
<ul style="list-style-type: none"> <li>NOAA Marine and Aviation Operations (NMAO) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>NMAO's mission is to safely and efficiently operate NOAA ships and aircraft, incorporate emerging data acquisition technologies, and provide a specialized professional team responsive to NOAA programs.</li> </ul>
<ul style="list-style-type: none"> <li>NOAA Office of the Chief Administrative Officer (CAO) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>The CAO provides comprehensive, NOAA-wide technical, programmatic guidance, and staff support to the Office of the Under Secretary in the areas of facilities management; logistics management; Freedom of Information Act, competitive sourcing guidance, and OIG/GAO liaison; safety and environmental compliance programs; Civil Rights and Equal Employment Opportunity programs, NOAA Deemed Export program, and Transition Management Team initiatives; and directives and records management.</li> </ul>

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

Organization	Mission
<ul style="list-style-type: none"> <li>NOAA Chief Financial Officer (CFO) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>The CFO provides policy and staff support in the areas of budget formulation and execution, resource management, financial systems development and operations, and financial accounting to NOAA components and other Department of Commerce bureaus and serves as the liaison with the Office of the Secretary on these matters.</li> </ul>
<ul style="list-style-type: none"> <li>NOAA Workforce Management Office (WFMO) – New in Wave 3</li> </ul>	<ul style="list-style-type: none"> <li>The NOAA Workforce Management Office (WFMO) provides policies, programs, and processes that facilitate the recruitment, hiring, development, and retention of a diverse, highly skilled, motivated, and effective workforce capable of accomplishing the Agency's mission.</li> </ul>
<p><b>DoC Headquarters</b></p> <ul style="list-style-type: none"> <li>Units of the Chief Financial Officer and Assistant Secretary for Administration (CFO/ASA) – New in Wave 2</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>

Table 2-2 shows an updated list of the major locations and occupations of the employees now included in the Demonstration Group.

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

Organization	Major Location(s)	Major Occupation(s)
<p><b>TA</b></p> <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
<p><b>ESA</b></p> <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
<p><b>NTIA</b></p> <ul style="list-style-type: none"> <li>Institute for Telecommunication Sciences (ITS)</li> </ul>	Boulder, CO	Electronics Engineer, Mathematician, Computer Scientist, and Engineering Technician
<p><b>NOAA</b></p> <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

**Table 2-2. Major Locations and Occupations in the Demonstration Group (continued)**

<b>Organization</b>	<b>Major Location(s)</b>	<b>Major Occupation(s)</b>
<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; Portland, OR	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>Program Planning and Integration Office (PPI)</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
<ul style="list-style-type: none"> <li>NOAA, National Weather Service (NWS), Space Environment Center</li> </ul>	Boulder, CO	Physicist, Physical Scientist, IT Specialist
<ul style="list-style-type: none"> <li>NOAA Office of the Under Secretary (UNSEC) – New in Wave 3</li> </ul>	Washington, DC; Silver Spring, MD	Administrative Management Specialist, Budget Analyst, Congressional Affairs Specialist, International Affairs Specialist, Management Analyst, Meteorologist, Program Specialist, Public Affairs Specialist
<ul style="list-style-type: none"> <li>NOAA Marine and Aviation Operations (NMAO) – New in Wave 3</li> </ul>	Norfolk, VA; Seattle, WA; Boston, MA; Silver Spring, MD	General Engineer, Electronics Technician, Electronics Engineer, Engineering Technician, IT Specialist, Management Analyst, Program Analyst, Physical Scientist, Budget Analyst, Financial and Administrative Program Specialist, Financial Management Specialist, Program Support Assistant
<ul style="list-style-type: none"> <li>NOAA Chief Administrative Officer (CAO) – New in Wave 3</li> </ul>	Silver Spring, MD; Washington, DC; Denver, CO; Seattle, WA; Kansas City, MO; Norfolk, VA	Architect, Budget Analyst, Electrical Engineer, Environmental Engineer, Facility Operations Specialist, General Engineer, Inventory Management Specialist, Management Analyst, Program Analyst, Property Management Specialist, Realty Specialist, Safety and Occupational Health Manager, Secretary, IT Specialist, Equal Employment Manager

**Table 2-2. Major Locations and Occupations in the Demonstration Group (continued)**

<b>Organization</b>	<b>Major Location(s)</b>	<b>Major Occupation(s)</b>
<ul style="list-style-type: none"> <li>NOAA Chief Financial Officer (CFO) – New in Wave 3</li> </ul>	Washington, DC; Germantown, MD; Gaithersburg, MD; Norfolk, VA; Kansas City, MO; Boulder, CO; Seattle, WA	Accounting Technician, Accountant, Budget Analyst, Financial Management Specialist, IT Specialist, Management Analyst, Program Analyst, Secretary, Systems Accountant, Staff Accountant
<ul style="list-style-type: none"> <li>NOAA Workforce Management Office (WFMO) – New in Wave 3</li> </ul>	Silver Spring, MD; Boulder, CO; Seattle, WA; Kansas City, MO; Norfolk, VA	Human Resource Specialist, Human Resource Assistant, IT Specialist, Management Analyst, Program Analyst
<ul style="list-style-type: none"> <li>National Ocean Service (NOS) – New in Wave 3</li> </ul>	Beaufort, SC; Charleston, SC; Chesapeake, VA; HI; Key Largo, FL; Monterey, CA; Norfolk, VA; San Francisco, CA; Seattle WA	Oceanographer, Physical Scientist, Physical Science Technician, Biologist, Cartographer, Cartographic Technician, Ecologist, Electronics Engineer, Electronics Technician, Engineering Technician, Environmental Scientist, Geodesist, Chemist, IT Specialist, Management Analyst, Program Analyst, Program Specialist, Administrative Support Assistant, Secretary
<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; Boulder CO; Miami, FL; Gaithersburg, MD; Jeffersonville, IN; Norfolk, VA; Seattle, WA; Silver Spring, MD; Suitland, MD	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

In order to separate the impacts of the interventions from other influences, DoC identified a set of organizations to be included in the Demonstration Project as a Comparison Group. The Comparison Group organizations did not receive the interventions implemented in the Demonstration Group and were chosen because of their approximate 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. Differences observed between the Demonstration and Comparison Groups provide increased confidence in the impact of the interventions.

With expansion of the Demonstration Project in 2003, several groups from the original Comparison Group moved into the Demonstration Group, and one organization—the National Ocean Service—was added to the Comparison Group. With the 2006 expansion, NOS moved into the Demonstration Group as did some components of the other NOAA organizations that had been in the Comparison Group. In addition, in Wave 3, the National Weather Service (NWS) participated in the Comparison Group in a limited capacity by providing objective data (e.g., pay, performance) on NWS employees (NWS did not participate in the site visits or the survey). As a result of these shifts, portions of five organizations comprised the Comparison Group in Year Nine. Table 2-3 provides a list 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	Fish Biologist, Biologist, Microbiologist, Biology Technician (primary), Chemist, Oceanographer, Wildlife Biologist, Computer Specialist, and General Business Specialist
• National Weather Service (NWS)	Anchorage, AK; Oxnard, CA; Boulder, CO; Miami, FL; Peachtree City, GA; Honolulu, HI; Slidell, LA; Camp Springs, MD; Silver Spring, MD; Taunton, MA; Chahassen, MN; Bay St. Louis, MS; Kansas City, MO; Pleasant Hill, MO; Albuquerque, NM; Bohemia, NY; Wilmington, OH; Norman, OK; Tulsa, OK; Portland, OR; State College, PA; Fort Worth, TX; Salt Lake City, UT; Sterling, VA; Seattle, WA	Meteorology; IT Specialist; Meteorological Technician; Electronic Technician; Hydrology; Miscellaneous Clerk and Assistance; General Physical Sciences; Management and Program Analysis; Physical Science Student Trainee; Secretary; Electronics Engineering; Engineering Technician; General Engineering; Budget Analysis; Materials Handling.

#### **2.4. The Demonstration Project encompasses 12,929 employees in both the Demonstration and Comparison Groups**

All positions that would be classified as General Schedule (GS) 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, Table 2-6, Table 2-7, and Table 2-8 provide information on the participants in the Demonstration Project in Year Nine, including the number of participants and basic demographic data, such as career path, pay band, race/national origin, veteran status, gender, and supervisory status. One table each is used to characterize the Demonstration Group overall, Demonstration Group – Wave 1 only, Demonstration Group – Wave 2 only, Demonstration Group – Wave 3 only, and the Comparison Group.

There was a total of 12,929 participants in the Demonstration Project: 7,699 Demonstration Group participants and 5,230 Comparison Group participants. (Of the 7,699 Demonstration Group participants, 3,193 are categorized as Wave 1, 1,444 are categorized as Wave 2, and 3,015 are categorized as Wave 3; in addition, there were 47 for whom wave could not be determined). 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 helpful in interpreting the findings.

**Table 2-4. Characteristics of Demonstration Group Participants by Agency – Overall**

DEMONSTRATION GROUP – OVERALL																													
# Participants	ESA-BEA		NTIA/ITS		NOAA - NESDIS		NOAA - NMFS		NOAA - OAR		NOAA - NWS		TA		NOAA - PPI		OS/ASA		NOAA - NOS		NOAA - NMAO		NOAA - UNSEC		NOAA - STAFF OFFICES		Totals		
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	
	548	7%	90	1%	806	11%	2922	38%	719	9%	48	1%	13	<1%	9	<1%	422	6%	1176	15%	178	2%	121	2%	600	8%	7652	100%	
<b>Career Path (or the equivalent)</b>																													
ZA	122	23%	5	6%	128	17%	704	24%	129	18%	2	4%	13	100%	6	67%	300	74%	330	29%	59	36%	89	82%	417	71%	2304	31%	
ZP	386	72%	54	64%	468	61%	1776	62%	470	67%	43	93%	-	-	2	22%	33	8%	646	57%	50	30%	18	12%	50	8%	3996	54%	
ZS	22	4%	9	11%	66	9%	288	10%	63	9%	1	2%	-	-	1	11%	73	18%	75	7%	21	13%	7	6%	123	21%	749	10%	
ZT	7	1%	17	20%	108	14%	117	4%	43	6%	-	-	-	-	-	-	-	-	92	8%	34	21%	-	-	-	-	418	6%	
<b>Pay Band</b>																													
1	21	4%	14	16%	12	2%	31	1%	10	1%	-	-	-	-	-	-	3	1%	3	<1%	-	-	-	-	1	<1%	95	1%	
2	81	15%	9	11%	41	5%	487	17%	55	8%	11	24%	-	-	-	-	28	7%	103	9%	18	11%	20	12%	31	5%	884	12%	
3	220	41%	23	27%	211	27%	1298	45%	173	25%	8	17%	1	8%	3	33%	126	31%	396	35%	47	28%	19	19%	185	31%	2710	36%	
4	168	31%	33	39%	402	52%	878	30%	359	51%	22	48%	6	46%	4	44%	192	47%	556	49%	78	48%	57	52%	331	56%	3086	41%	
5	46	9%	6	7%	104	14%	191	7%	108	15%	5	11%	6	46%	2	22%	57	14%	85	7%	21	13%	18	17%	42	7%	691	9%	
<b>Race</b>																													
American Indian	1	<1%	1	1%	1	<1%	19	1%	9	1%	1	2%	-	-	-	-	2	<1%	4	<1%	1	1%	-	-	3	1%	42	1%	
Asian	58	11%	3	3%	46	6%	176	6%	41	6%	1	2%	-	-	-	-	19	5%	44	4%	5	3%	1	1%	29	5%	423	6%	
Black	126	23%	1	1%	136	17%	153	5%	45	6%	-	-	2	15%	2	22%	183	43%	133	11%	21	12%	35	29%	194	32%	1031	13%	
Hispanic	17	3%	2	2%	15	2%	88	3%	34	5%	1	2%	-	-	-	-	12	3%	14	1%	2	1%	3	2%	20	3%	208	3%	
White	345	63%	83	92%	608	75%	2486	85%	590	82%	45	94%	11	85%	7	78%	206	49%	981	83%	149	84%	82	68%	354	59%	5947	78%	
<b>Veteran</b>																													
Yes	33	6%	4	4%	149	18%	315	11%	65	9%	11	23%	1	8%	1	11%	95	23%	101	9%	60	34%	12	10%	67	11%	914	12%	
No	515	94%	86	96%	657	82%	2607	89%	654	91%	37	77%	12	92%	8	89%	327	77%	1075	91%	118	66%	109	90%	533	89%	6738	88%	
<b>Gender</b>																													
Male	301	55%	65	72%	511	63%	1709	58%	464	65%	33	69%	6	46%	4	44%	181	43%	690	59%	116	65%	45	37%	177	30%	4302	56%	
Female	247	45%	25	28%	295	37%	1213	42%	255	35%	15	31%	7	54%	5	56%	241	57%	486	41%	62	35%	76	63%	423	71%	3350	44%	
<b>Supervisor</b>																													
Yes	73	14%	4	5%	98	13%	403	14%	67	10%	4	9%	1	8%			63	16%	120	10%	26	16%	10	9%	88	15%	957	13%	
No	464	86%	81	95%	672	87%	2482	86%	638	90%	42	91%	12	92%	9	100%	343	84%	1023	90%	138	84%	104	91%	502	85%	6509	87%	

Notes:

1. Percentages may not add to 100 due to rounding.
2. Career Path, Pay Band, Race, and Supervisor data are reported for 7,467, 7,466, 7,651 and 7,466 (respectively) of the 7,652 participants for whom data were available. Veteran status and gender data were available for all 7,652 participants.
3. These figures are based upon the objective data provided by DoC (as of March 31, 2007) and represent the composition of the Demonstration Group during Year Nine.

Table 2-5. Characteristics of Demonstration Group Participants by Agency – Wave 1

DEMONSTRATION GROUP – WAVE 1																
# Participants	ESA-BEA		NTIA/ITS		NOAA-NESDIS		NOAA-NMFS		NOAA-OAR		NOAA-NWS		TA		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
# Participants	548	17%	90	3%	781	24%	1112	35%	601	19%	48	2%	13	<1%	3193	100%
<b>Career Path (or the equivalent)</b>																
ZA	122	23%	5	6%	126	17%	290	27%	111	19%	2	4%	13	100%	669	22%
ZP	386	72%	54	64%	448	60%	643	59%	396	67%	43	93%	-	-	1970	63%
ZS	22	4%	9	11%	65	9%	144	13%	53	9%	1	2%	-	-	294	9%
ZT	7	1%	17	20%	107	14%	8	1%	32	5%	-	-	-	-	171	6%
<b>Pay Band (or the equivalent)</b>																
1	21	4%	14	16%	12	2%	16	1%	10	2%	-	-	-	-	73	2%
2	81	15%	9	11%	41	5%	159	15%	40	7%	11	24%	-	-	341	11%
3	220	41%	23	27%	196	26%	418	39%	153	26%	8	17%	1	8%	1019	33%
4	168	31%	33	39%	394	53%	384	35%	299	51%	22	48%	6	46%	1306	42%
5	46	9%	6	7%	103	14%	108	10%	90	15%	5	11%	6	46%	364	12%
<b>Race</b>																
American Indian	1	<1%	1	1%	1	<1%	9	1%	6	1%	1	2%	-	-	19	1%
Asian	58	11%	3	3%	46	6%	54	5%	31	5%	1	2%	-	-	193	6%
Black	126	23%	1	1%	135	17%	79	7%	36	6%	-	-	2	15%	379	12%
Hispanic	17	3%	2	2%	15	2%	28	3%	33	5%	1	2%	-	-	96	3%
White	345	63%	83	92%	584	75%	942	85%	495	82%	45	94%	11	85%	2505	78%
<b>Veteran</b>																
Yes	33	6%	4	4%	140	18%	96	9%	60	10%	11	23%	1	8%	345	11%
No	515	94%	86	96%	641	82%	1016	91%	541	90%	37	77%	12	92%	2848	89%
<b>Gender</b>																
Male	301	55%	65	72%	488	62%	567	51%	380	63%	33	69%	6	46%	1840	58%
Female	247	45%	25	28%	293	38%	545	49%	221	37%	15	31%	7	54%	1353	42%
<b>Supervisor</b>																
Yes	73	14%	4	5%	87	12%	159	15%	57	10%	4	9%	1	8%	385	12%
No	463	86%	81	95%	659	88%	926	85%	535	90%	42	91%	12	92%	2718	88%

## Notes:

1. Career Path, Pay Band, Race, and Supervisor data are reported for 3,104, 3,103, 3,192, and 3,103 (respectively) of the 3,193 participants for whom data were available. Veteran status and gender data were available for all 3,193 participants.
2. Percentages may not add to 100 due to rounding.
3. These figures are based upon the objective data provided by DoC (as of March 31, 2007) and represent the composition of the Demonstration Group – Wave 1 during Year Nine.

Table 2-6. Characteristics of Demonstration Group Participants by Agency – Wave 2

DEMONSTRATION GROUP – WAVE 2												
# Participants	NOAA-NESDIS		NOAA-OAR		NOAA-NMFS		NOAA-PPI		OS/ASA		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%
	25	2%	86	6%	902	62%	9	1%	422	29%	1444	100%
<b>Career Path (or the equivalent)</b>												
ZA	2	8%	7	9%	108	12%	6	67%	300	74%	423	30%
ZP	20	83%	56	68%	665	74%	2	22%	33	8%	776	55%
ZS	1	4%	8	10%	67	7%	1	11%	73	18%	150	11%
ZT	1	4%	11	13%	57	6%	-	-	-	-	69	5%
<b>Pay Band (or the equivalent)</b>												
1	-	-	-	0%	9	1%	-	-	3	1%	12	1%
2	-	-	12	15%	148	16%	-	-	28	7%	188	13%
3	15	63%	18	22%	374	42%	3	33%	126	31%	536	38%
4	8	33%	43	52%	304	34%	4	44%	192	47%	551	39%
5	1	4%	9	11%	62	7%	2	22%	57	14%	131	9%
<b>Race</b>												
American Indian	-	-	2	2%	3	0%	-	-	2	<1%	7	0%
Asian	-	-	6	7%	68	8%	-	-	19	5%	93	6%
Black	1	4%	4	5%	40	4%	2	22%	183	43%	230	16%
Hispanic	-	-	1	1%	25	3%	-	-	12	3%	38	3%
White	24	96%	73	85%	766	85%	7	78%	206	49%	1076	75%
<b>Veteran</b>												
Yes	9	36%	4	5%	80	9%	1	11%	95	23%	189	13%
No	16	64%	82	95%	822	91%	8	89%	327	77%	1255	87%
<b>Gender</b>												
Male	23	92%	70	81%	555	62%	4	44%	181	43%	833	58%
Female	2	8%	16	19%	347	38%	5	56%	241	57%	611	42%
<b>Supervisor</b>												
Yes	11	46%	8	10%	185	21%	-	-	63	16%	267	19%
No	13	54%	74	90%	712	79%	9	100%	343	84%	1151	81%

## Notes:

1. Career Path, Pay Band, and Supervisor data are reported for 1,418 of the 1,444 participants for whom data were available. Race, veteran status, and gender data were available for all 1,444 participants.
2. Percentages may not add to 100 due to rounding.
3. These figures are based upon the objective data provided by DoC (as of March 31, 2007) and represent the composition of the Demonstration Group – Wave 2 during Year Nine.

Table 2-7. Characteristics of Demonstration Group Participants by Agency – Wave 3

DEMONSTRATION GROUP – WAVE 3														
# Participants	NOAA-NMFS		NOAA-NOS		NOAA-OAR		NOAA-NMAO		NOAA-UNSEC		NOAA-STAFF OFFICES		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
	908	30%	1176	39%	32	1%	178	6%	121	4%	600	20%	3015	100%
<b>Career Path (or the equivalent)</b>														
ZA	306	34%	330	29%	11	35%	59	36%	89	78%	417	71%	1212	41%
ZP	468	52%	646	57%	18	58%	50	30%	18	16%	50	8%	1250	42%
ZS	77	9%	75	7%	2	6%	21	13%	7	6%	123	21%	305	10%
ZT	52	6%	92	8%	-	-	34	21%	-	-	-	-	178	6%
<b>Pay Band (or the equivalent)</b>														
1	6	1%	3	<1%	0	0%	-	-	-	-	1	<1%	10	0%
2	180	20%	103	9%	3	10%	18	11%	20	18%	31	5%	355	12%
3	506	56%	396	35%	2	6%	47	29%	19	17%	185	31%	1155	39%
4	190	21%	556	49%	17	55%	78	48%	57	50%	331	56%	1229	42%
5	21	2%	85	7%	9	29%	21	13%	18	16%	42	7%	196	7%
<b>Race</b>														
American Indian	7	1%	4	<1%	1	3%	1	1%	-	-	3	1%	16	1%
Asian	54	6%	44	4%	4	13%	5	3%	1	1%	29	5%	137	5%
Black	34	4%	133	11%	5	16%	21	12%	35	29%	194	32%	422	14%
Hispanic	35	4%	14	1%	0	0%	2	1%	3	2%	20	3%	74	2%
White	778	86%	981	83%	22	69%	149	84%	82	68%	354	59%	2366	78%
<b>Veteran</b>														
Yes	139	15%	101	9%	1	3%	60	34%	12	10%	67	11%	380	13%
No	769	85%	1075	91%	31	97%	118	66%	109	90%	533	89%	2635	87%
<b>Gender</b>														
Male	587	65%	690	59%	14	44%	116	65%	45	37%	177	30%	1629	54%
Female	321	35%	486	41%	18	56%	62	35%	76	63%	423	71%	1386	46%
<b>Supervisor</b>														
Yes	59	7%	120	10%	2	6%	26	16%	10	9%	88	15%	305	10%
No	844	93%	1023	90%	29	94%	138	84%	104	91%	502	85%	2640	90%

*Notes:*

1. Career Path, Pay Band, and Supervisor data are reported for 2,945 of the 3,015 participants for whom data were available. Race, veteran status, and gender data were available for all 3,015 participants.
2. Percentages may not add to 100 due to rounding.
3. These figures are based upon the objective data provided by DoC (as of March 31, 2007) and represent the composition of the Demonstration Group – Wave 3 during Year Nine.

**Table 2-8. Characteristics of Comparison Group Participants by Agency**

COMPARISON GROUP												
# Participants	HQ ESA		NOAA-NESDIS		NOAA-NMFS		NOAA-OAR		NWS		TOTALS	
	#	%	#	%	#	%	#	%	#	%	#	%
	30	1%	53	1%	65	1%	136	3%	4946	95%	5230	100%
<b>Career Path (or the equivalent)</b>												
ZA	13	43%	1	2%	5	8%	19	14%	196	4%	234	4%
ZP	16	53%	7	13%	43	66%	93	68%	3555	72%	3714	71%
ZS	1	3%	5	9%	5	8%	10	7%	267	5%	288	6%
ZT	-	-	40	75%	12	18%	14	10%	928	19%	994	19%
<b>Pay Band (or the equivalent)</b>												
1	-	-	-	-	4	6%	1	1%	75	2%	80	2%
2	2	7%	2	4%	16	25%	4	3%	240	5%	264	5%
3	4	13%	13	25%	30	46%	59	43%	1237	25%	1343	26%
4	14	47%	38	72%	15	23%	50	37%	3166	64%	3283	63%
5	10	33%	-	-	-	-	22	16%	228	5%	260	5%
<b>Race</b>												
American Indian	-	-	1	2%	-	-	1	1%	40	1%	42	1%
Asian	3	10%	-	-	3	5%	6	4%	167	3%	179	3%
Black	10	33%	5	9%	3	5%	2	1%	246	5%	266	5%
Hispanic	3	10%	1	2%	2	3%	2	1%	140	3%	148	3%
White	14	47%	46	87%	57	88%	125	92%	4353	88%	4595	88%
<b>Veteran</b>												
Yes	-	-	30	57%	6	9%	13	10%	1332	27%	1381	26%
No	30	100%	23	43%	59	91%	123	90%	3614	73%	3849	74%
<b>Gender</b>												
Male	12	40%	46	87%	37	57%	94	69%	4014	81%	4203	80%
Female	18	60%	7	13%	28	43%	42	31%	932	19%	1027	20%
<b>Supervisor</b>												
Yes	4	13%	-	-	-	-	14	10%	396	8%	414	8%
No	26	87%	53	100%	65	100%	122	90%	4550	92%	4816	92%

**Notes:**

1. Percentages may not add to 100 due to rounding.
2. These figures are based upon the objective data provided by DoC (as of March 31, 2007) and represent the composition of the Comparison Group during Year Nine.

## 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 Appendix A-1, which displays the *Federal Register* notice on the Demonstration Project and its interventions, and in Appendices A-2, A-3, A-4, A-5, and A-6 which 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 are grouped into four broad career paths. Each career path consists of occupations that have comparable 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 groups with much broader ranges (i.e., pay bands). Figure 2-2 shows the four career paths, their corresponding pay bands, and GS system equivalents. The maximum rate of a pay band is equivalent to step 10 of the highest GS grade used to create that band. The band ranges differ by career path. With the exception of ZP and ZA, each career path collapses GS grades into bands differently. 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 2-2. 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 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 be, in theory, 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. DoC began making improvements to the PPS, in Year Five, including improvements to the software and reports.

Implementation of the pay-for-performance system also included the implementation of a new performance appraisal system. Table 2-9 outlines some of the major differences between the 5-level system in effect in part of the Comparison Group, the 2-level system in effect in part of the Comparison Group, and the Demonstration Project performance appraisal systems.

**Table 2-9. Performance Appraisal Systems**

<b>Comparison Group – 5-Level System</b>	<b>Comparison Group – 2-Level System</b>	<b>Demonstration Group – Demo Project System</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 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>	<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 for high supervisory performance

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 2-3). 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. Supervisory performance pay constitutes the amount that a supervisor is paid above the maximum rate of his/her pay band. 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 2-3. 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 constrained 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 score (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, improving their rate of 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 at the top of their pay band and not able to receive an increase in salary.

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 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, is meant 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 intended to allow hiring officials to make greater use of alternative and more relevant 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 candidates.

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. 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

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<sup>9</sup> *At the time the Year Eight evaluation was conducted, changes made by the Federal Workforce Flexibility Act of 2004 was codified into 5 U.S.C. 5753, significantly enhancing the Title 5 recruitment incentive authority. The Demonstration Project plan was modified to rescind its independent authority to pay recruitment payments.*

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>

#### 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, DoC transitioned to a web-based system to make the process more user-friendly. In Year Eight, 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, creating efficiencies.

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<sup>10</sup> Similarly, at the time the Year Eight evaluation was conducted, changes made by the Federal Workforce Flexibility Act of 2004 was codified into 5 U.S.C. 5754. The Demonstration Project plan was modified to rescind its independent authority to pay retention payments.

### 2.5.13. Delegated classification authority places classification responsibility with the managers

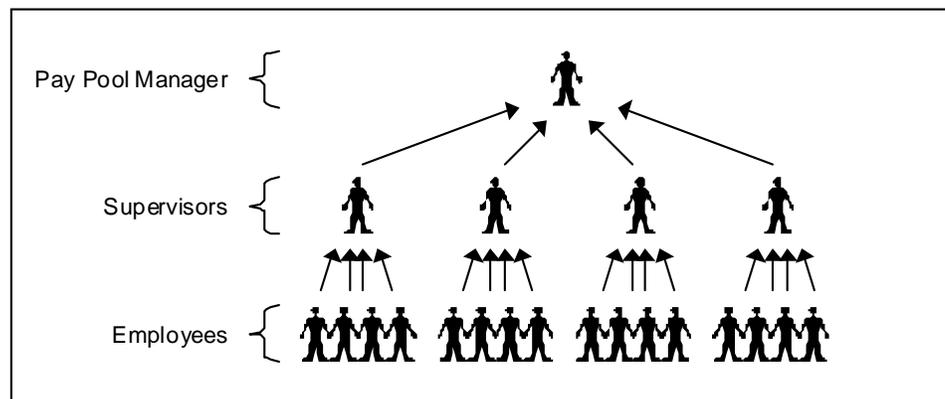
Delegated classification authority gives line managers the authority to classify positions. Each operating unit's Operating Personnel Management Board has the responsibility for overseeing the delegation of classification authority. Human resources staff has the responsibility to monitor and review classification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

### 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 firsthand 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 2-4 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 2-4. Pay Authority Relationship**



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

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> The intent is to allow a longer initial performance period for these employees (compared to the standard probationary period for other employees), given that the full lifecycle of R&D activities can span longer timeframes than other types of work.

With this intervention, 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.

**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 U.S.C. 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 also determines 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 and uses a quasi-experimental, longitudinal research design.

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 2-10) must be answered for every Demonstration Project.

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

**Table 2-10. 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 with respect 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 2-11.

**Table 2-11. 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

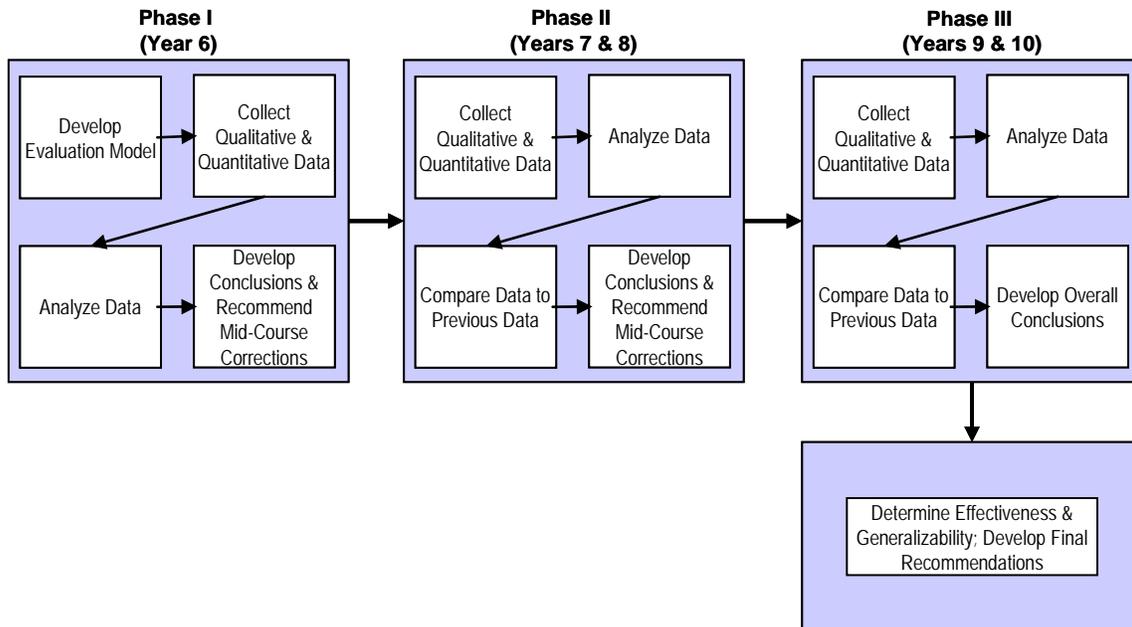
The 12 research questions above were tracked during all phases of the Demonstration Project evaluation and are the ultimate questions to be answered by this evaluation. Chapter 6 of this report provides a high-level summary addressing these questions based on data available after nine years of operation (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 2-5, and will compare the Demonstration Group to the Comparison Group across time.

**Figure 2-5. 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 produces 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 Nine Report compares data across the life of the Demonstration Project. It presents data on the state of the Demonstration Project in Year Nine and also, importantly, provides trend analyses to examine changes that have occurred over time by examining data from Years One through Nine.



### 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 28 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 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, 28 interviews were conducted (see Table 3-1).

**Table 3-1. Interviews Conducted**

Interview Type	Number of Sessions
Directors and Administrative Officers	7
Pay Pool Managers	6
Rating Officials	9
Human Resources and EEO Staff	6
Total	28

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 20 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 the 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, Wave 2, and Wave 3 participants
- Inclusion of as many participating organizations as feasible
- Consideration for which site locations had been visited for previous evaluations
- Input from the DoC's Demo Project Manager
- Budget constraints.

Focus groups were conducted separately with non-supervisors and supervisors so that any noticeable differences in experiences could be obtained. Separate sessions were also held to ensure participants' comfort in talking about personnel issues. In addition, as in past years, minority-only focus groups were held so that Booz Allen could assess whether certain categories of employees felt differentially impacted by the Demonstration Project

interventions. The breakdown of the 20 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**

Focus Group Type	Number of Sessions
Demonstration Group supervisory groups Wave 1 (4 sessions) Wave 3 (1 session)	5
Demonstration Group non-supervisory groups <sup>1</sup> Wave 1 (8 sessions) Wave 2 (3 sessions) Wave 3 (3 sessions)	14
Comparison Group non-supervisory group <sup>2</sup>	1
Total	20

1. Four of the Demonstration Group non-supervisory focus groups were minority only.

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 2007. 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 Nine Survey was consistent with the Year Seven Survey (the last time the survey was administered), with only a few exceptions. One, a new item was created and added to the Year Nine survey (*I ask my supervisor for feedback on my performance*). And two, in the Year Seven Survey an item was added to determine the “wave” in which the individual’s organization entered the Demonstration Project. This item was updated in the Year Nine Survey to reflect the addition of “Wave 3,” with the 2006 expansion of the Demonstration Project. In Year Nine, the survey item and its response options are:

- *How long ago did you enter the Demonstration Group (which was when you switched from the GS pay schedule to the ZA, ZP, ZT, or ZS career paths and broadbanding)?*
  - *Less than 1 year*
  - *1 year to less than 4 years*
  - *4 or more years*
  - *I am not sure when I entered the Demonstration Group*
  - *I am part of the Comparison Group.*

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.

As in Year Five and Year Seven, the survey was programmed in a web-based format and administered electronically. 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?*”). Respondents were 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 individuals’ responses to item 10 (“*What is your supervisory status?*”).

Booz Allen created and hosted the Year Nine Survey on an external vendor’s secure server. We distributed to all Demonstration Project participants an email message containing a hot link to the website, and a unique user identification number to gain access to the survey. The unique user identification number provided the Demonstration Project participants with the flexibility to exit out of the survey and return at a later time to complete the survey, yet also ensured that each participant took the survey only once. Employees were asked to complete the survey within four 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 survey results in the aggregate. (See Appendices C-1 and C-2 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, 3,295 Demonstration Project participants returned surveys for an overall (across both groups) response rate of 45 percent (as shown in Table 3-4).

Table 3-4. Survey Response Rates

	Overall Response Rate	Demonstration Group		Comparison Group	
		Participants	Responses	Participants	Responses
Year Nine Survey	45%	7,000	2,992 (43%)	347	303 (87%)
Year Seven Survey	44%	4,033	1,853 (46%)	2,427	967 (40%)
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; in addition, the two groups were similar, with some exceptions, to each other

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.

This table also provides a means for comparing the Demonstration Group and Comparison Group participants to discern whether they are reasonably similar to each other in regards to basic demographic profiles, which is important for establishing the validity of the Comparison Group used in this evaluation. In Year Nine, the results showed that the participants in the Demonstration Project differed in regards to gender distribution (more females in the Demonstration Group than in the Comparison Group) and, to a lesser extent, the race/ethnicity distribution (more diversity in the Demonstration Group than in the Comparison Group).

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

	Demonstration Group		Comparison Group	
	Participants	Survey Respondents	Participants	Survey Respondents
<b>OVERALL</b>	7,699	2,992 (43%)	5,230	303 (87%)
<b>GENDER</b>				
Male	4,326 (56%)	1,587 (54%)	4,203 (80%)	169 (57%)
Female	3,373 (44%)	1,375 (46%)	1,027 (20%)	126 (43%)
<b>RACE/ETHNICITY</b>				
White	5,983 (78%)	2,302 (79%)	4,595 (88%)	231 (81%)
Black	1,035 (13%)	296 (10%)	266 (5%)	23 (8%)

	Demonstration Group		Comparison Group	
	Participants	Survey Respondents	Participants	Survey Respondents
Asian, Native Hawaiian, or Other Pacific Islander	430 (6%)	155 (6%)	179 (3%)	18 (7%)
Hispanic	210 (3%)	NA	148 (3%)	NA
American Indian or Alaska Native	42 (1%)	15 (1%)	42 (1%)	3 (1%)
Other	NA	162 (6%)	NA	14 (5%)
<b>HISPANIC ORIGIN</b>				
Hispanic origin	NA	124 (5%)	NA	17 (6%)
Non-Hispanic origin	NA	2,656 (96%)	NA	260 (94%)
<b>SUPERVISORY STATUS</b>				
Non-Supervisory Employee	6,518 (87%)	2,195 (73%)	4,816 (92%)	232 (77%)
Supervisory Employee	957 (13%)	796 (27%)	414 (8%)	71 (24%)
<b>PAY GRADE – GS &amp; GM SCHEDULE</b>				
1			2 (0%)	1 (0%)
2			4 (0%)	2 (1%)
3			14 (0%)	3 (1%)
4			33 (1%)	8 (3%)
5			50 (1%)	5 (2%)
6			40 (1%)	7 (2%)
7			288 (6%)	18 (6%)
8			39 (1%)	9 (3%)
9			171 (3%)	17 (6%)
10			72 (1%)	3 (1%)
11			826 (16%)	39 (14%)
12			1,224 (23%)	60 (21%)
13			1,688 (32%)	48 (17%)
14			533 (10%)	41 (14%)
15			246 (5%)	26 (9%)
<b>CAREER PATH</b>				
ZP	3,999 (53%)	1,587 (53%)		
ZT	420 (6%)	146 (5%)		
ZA	2,304 (31%)	996 (33%)		
ZS	752 (10%)	233 (8%)		
<b>PAY BAND</b>				
I	96 (1%)	86 (3%)		
II	889 (12%)	375 (13%)		
III	2,711 (36%)	1,080 (37%)		
IV	3,087 (41%)	1,106 (38%)		
V	692 (9%)	235 (8%)		

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.
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.

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

In the “Findings and Conclusions” section, Year Nine survey data are presented in table format. 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 Nine 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 2006 to March 2007 for both the Demonstration Group and the Comparison Group. Table 3-6 shows the objective data elements that were included in the analyses. Appendix D-2 displays all of the objective data analysis tables from Years One – Nine.

Table 3-6. Objective Data Elements

Objective Data Elements	
<ul style="list-style-type: none"> <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 9/30/06 (Demonstration Group)</li> <li>• Salary as of 11/30/06, after performance increases (Demonstration Group)</li> <li>• Salary as of 3/31/07, after ACI (Demonstration Group)</li> <li>• Salary as of 4/01/06 (Comparison Group)</li> <li>• Salary as of 3/31/07 (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 Nine (Demonstration Group)</li> <li>• Eligibility for performance rating in Year Nine (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 performance-based pay increase percent</li> <li>• Actual performance-based pay 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 Nine</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 Nine (or equivalent for Comparison Group)</li> <li>• Demonstration Project wave</li> </ul>

3.4.2. Demonstration Group analyses are based on either the full set of 7,699 participants or the appropriate subset of participants, depending on the nature of the analyses

Where possible (e.g., analysis of turnover data, counts of new hires), the full dataset of 7,699 was used for analyses. However, some analyses required performance data and were therefore based on the 4,053 of the 7,699 Demonstration Group participants who were not only eligible for a performance score but also had available performance score data, pay increase percent data, and bonus increase percent data. These numbers are sufficiently large to provide for robust analyses.

In Year Nine, 530 of the 7,699 Demonstration Group participants were ineligible for performance ratings and therefore excluded from some of the analyses. This included individuals who were ineligible for performance ratings for a variety of reasons: people who were recently hired (i.e., after the performance cycle) or were hired within 120 days of the end of the performance cycle), employees who separated from the Demonstration Project

during the performance year (i.e., prior to receiving a score), and individuals in employment categories not eligible to be rated (e.g., students). In addition, 2,738 of the 7,699 were not included in some of the analyses because they were Wave 3 participants; Wave 3 was not evaluated under the Demonstration Project interventions during this performance cycle.

And, finally, 371 of the 7,699 were not included in some analyses because they lacked data indicating whether or not they were eligible for a performance score. Table 3-7 shows a breakdown of the Demonstration Group participants.

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

Eligible with performance score of 40 or above	4,053
Eligible (3,991)	
Eligible for performance score but not for performance-based pay increase due to promotion or pay adjustment within last 120 days of the rating cycle (62)	
Eligible with performance score of 40 or above, but no performance score in database	7
Eligible (2)	
Eligible for performance score but not for performance-based pay increase due to promotion or pay adjustment within last 120 days of the rating cycle (5)	
<b>Total Eligible</b>	<b>4,060</b>
Not eligible due to being a recent new hire (hired after performance cycle)	149
Not eligible due to being hired within 120 days of the rating cycle	138
Not eligible due to status as a temporary student/faculty/coop designation	57
Not eligible due to being on a performance improvement plan	2
Left prior to receiving rating	184
<b>Total Ineligible</b>	<b>530</b>
<b>Wave 3 Participants (i.e., have not yet been part of the full performance cycle)</b>	<b>2,738</b>
<b>Missing Data on Eligibility</b>	<b>371</b>
<b>Total Demo Group Participants in Database</b>	<b>7,699</b>

3.4.3. Comparison Group analyses are based on either the full set of 5,230 participants or the appropriate subset of participants, depending on the nature of the analyses

In Year Nine, 4,211 of the 5,230 Comparison Group participants were eligible for a performance rating. The remainder was ineligible for performance ratings due to being on student/faculty/co-op status. Table 3-8 shows a breakdown of the Comparison Group participants.

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

Eligible	4,211
<b>Total Eligible (with performance rating)</b>	<b>4,211</b>
Not eligible due to recent new hire	0
Not eligible due to status as a temporary student/faculty/coop designation	1,019
Not eligible due to being on a performance improvement plan	0
<b>Total Ineligible</b>	<b>1,019</b>
<b>Total Comp Group Participants in Database</b>	<b>5,230</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, 2006 to March 31, 2007) 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 Nine.

When performing analyses, we considered how the information conveyed in the site historian logs may impact findings. For example, site historian logs recognized training initiatives, senior leadership transitions, and constraints (such as hiring restrictions).

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

In Year Nine, Booz Allen collected cost data to address the OPM research question, “What was the cost of the project?” In Year Nine, 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 remained strong and favorability toward the Demonstration Project continued to increase

We asked Demonstration Group and Comparison Group participants multiple survey questions designed to assess the impact of the Demonstration Project on employee satisfaction. Overall, results from Year Nine were consistent with the findings from previous years: trend analyses across the years demonstrated that work environment satisfaction and job satisfaction have remained strong. 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 jobs more favorably than did non-supervisory employees.

Survey results of favorability toward the Demonstration Project show that favorability improves over time. Wave 1 and Wave 2 organizations reported favorability ratings that are comparable to ratings achieved by other Federal Demonstration Projects. Wave 3 organizations reported favorability ratings consistent with Wave 1 ratings at the onset of the Demonstration Project; further tracking will show if favorability ratings for Wave 3 elevate over time as they did for Wave 1 and Wave 2.

#### 4.1.1. The majority of participants in both the Demonstration Group and Comparison Group are satisfied with their work environment

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

As displayed in Table 4-1, differences existed between the Demonstration Group and the Comparison Group on four survey items. One, a greater percentage of Demonstration Group participants trust their supervisors compared to Comparison Group participants. Two, a greater percentage of Demonstration Group participants believe that their jobs are a good match for their skills and training. Three, a greater percentage of Demonstration Group participants believe that job competition is fair. And four, a greater percentage of Demonstration Group participants are in favor of the Demonstration Project compared to Comparison Group employees. In fact, the size of favorability gap is very similar to Year

Seven;<sup>12</sup> in Year Nine, fifty-two percent of the Demonstration Project participants were in favor of the Demonstration Project compared to only thirty-four percent of the Comparison Group participants.

Demonstration Group supervisors and non-supervisors responded differently to nearly all of the survey items. With the exception of supervisory trust, supervisors reported higher satisfaction levels than did non-supervisors. This difference between supervisors and non-supervisors was also evident in Year Seven.

**Table 4-1. Survey Results – Employee Opinions of the Work Environment<sup>13</sup>**

		Demo. Group			Comp. Group			Demo. vs. Comp. <sup>14</sup>
		Total	(N)	(S)	Total	(N)	(S)	
96. In general, I am satisfied with my job.	<i>Disagree</i>	16%	17%	12%	17%	No significant difference	No significant difference	
	<i>Neither disagree nor agree</i>	13%	13%	11%	13%			
	<i>Agree</i>	72%	70%	77%	70%			
97. I trust my supervisor.	<i>Disagree</i>	18%	No significant difference		22%	No significant difference	Significant Difference	
	<i>Neither disagree nor agree</i>	14%			18%			
	<i>Agree</i>	68%			60%			
98. My job is a good match for my skills and training.	<i>Disagree</i>	12%	13%	8%	12%	No significant difference	Significant Difference	
	<i>Neither disagree nor agree</i>	9%	11%	6%	14%			
	<i>Agree</i>	79%	76%	86%	74%			
101. Competition for jobs here is fair and open.	<i>Disagree</i>	22%	24%	15%	28%	No significant difference	Significant Difference	
	<i>Neither disagree nor agree</i>	25%	27%	19%	26%			
	<i>Agree</i>	54%	49%	65%	46%			
102. When changes are made at my organization, the employees usually lose out in the end.	<i>Disagree</i>	32%	27%	44%	27%	No significant difference	No significant difference	
	<i>Neither disagree nor agree</i>	38%	42%	30%	39%			
	<i>Agree</i>	30%	31%	25%	34%			
103. I am in favor of the Demonstration Project.	<i>Disagree</i>	22%	24%	17%	32%	No significant difference	Significant Difference	
	<i>Neither disagree nor agree</i>	26%	28%	23%	34%			
	<i>Agree</i>	52%	49%	60%	34%			

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

<sup>12</sup> Throughout the Findings section, some Year Nine survey, focus group, and/or interview findings are compared to Year Seven because Year Seven was the last time that these evaluation methodologies were used (the Year Eight evaluation is an abbreviated evaluation that relied primarily on objective data).

<sup>13</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.)

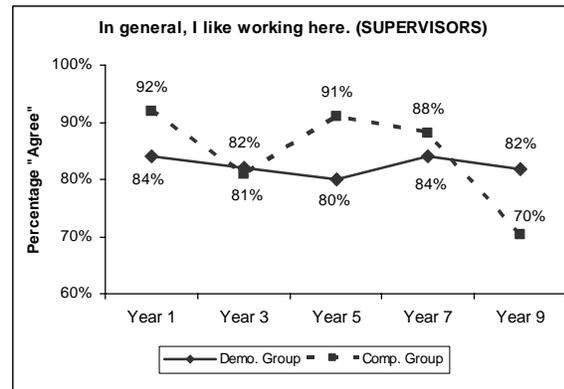
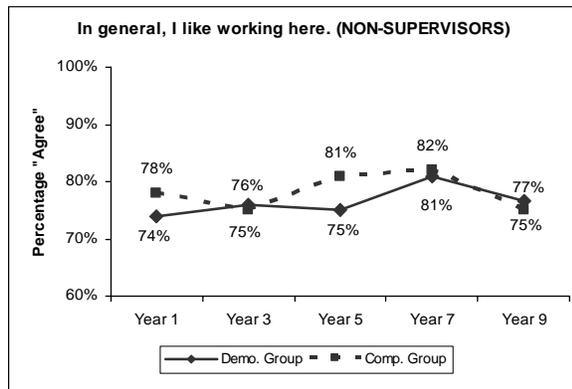
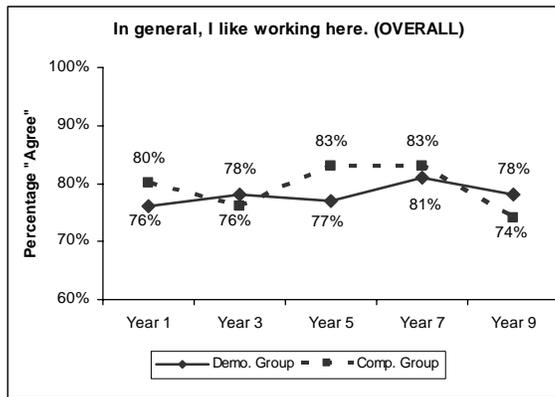
<sup>14</sup> In this table and those that follow, this column reports whether there was a statistically significant difference between the total responses of the Demonstration Group and the total responses of the Comparison Group. Respondents who selected the "Don't know/Not applicable" response option 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.

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

As displayed in Table 4-2, both Demonstration Group and Comparison Group survey respondents reported relatively high satisfaction with their work environment. Demonstration Group satisfaction levels have ranged from 76 percent to 81 percent, and at 78 percent in Year Nine. Comparison Group satisfaction levels have ranged from 74 percent to 83 percent, and at 74 percent (lowest ever) in Year Nine.

As displayed in Table 4-3, overall job satisfaction among Demonstration Group participants and Comparison Group participants has been very similar over time. In Year Nine, job satisfaction for both the Demonstration Group and the Comparison Group participants decreased slightly, although not below levels observed earlier in the Demonstration Project. Over the years, supervisory job satisfaction has been consistently higher than non-supervisory job satisfaction.

**Table 4-2. Change Over Time – Employee Satisfaction with the Work Environment<sup>15</sup>**

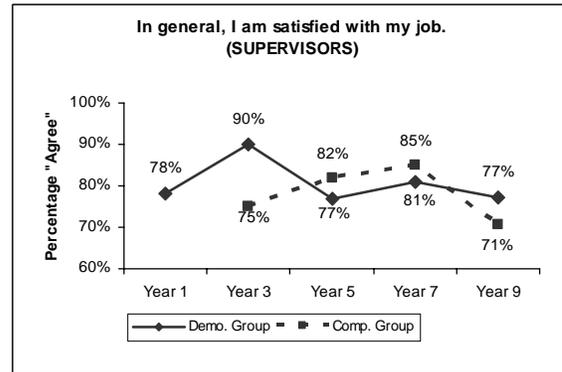
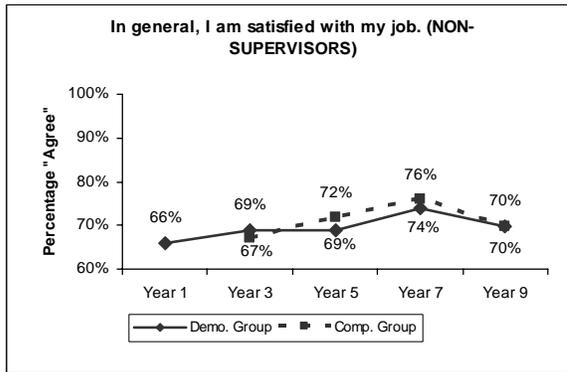
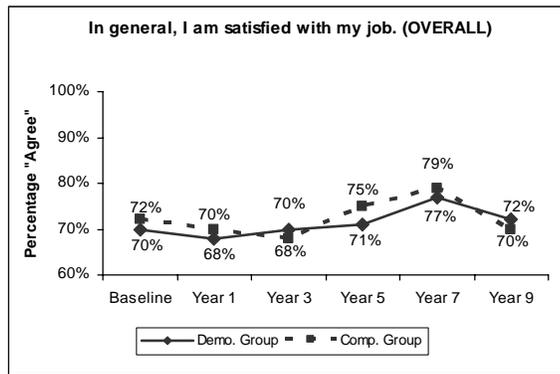


		Demo. Group			Comp. Group				
		Total	(N)	(S)	Total	(N)	(S)		
99. In general, I like working here.	Year Nine	Disagree	10%	10%	7%	9%	7%	13%	
		Neither disagree nor agree	12%	13%	11%	17%	18%	17%	
		Agree	78%	77%	82%	74%	75%	70%	
		Year Seven	Disagree	7%	8%	7%	7%	8%	4%
			Neither disagree nor agree	11%	12%	10%	10%	10%	8%
			Agree	81%	81%	84%	83%	82%	88%
	Year Five		Disagree	9%	10%	8%	6%	7%	3%
			Neither disagree nor agree	14%	15%	13%	11%	12%	6%
			Agree	77%	75%	80%	83%	81%	91%
		Year Three	Disagree	10%	10%	8%	11%	12%	11%
			Neither disagree nor agree	13%	13%	10%	13%	13%	9%
			Agree	78%	76%	82%	76%	75%	81%
	Year One		Disagree	10%	11%	7%	10%	11%	4%
			Neither disagree nor agree	14%	15%	9%	10%	12%	4%
			Agree	76%	74%	84%	80%	78%	92%
		Base-line	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>15</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.

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



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
96. In general, I am satisfied with my job	Year Nine	Disagree	16%	17%	12%	17%	15%	22%
		Neither disagree nor agree	13%	13%	11%	13%	15%	8%
		Agree	72%	70%	77%	70%	70%	71%
	Year Seven	Disagree	12%	14%	9%	11%	13%	7%
		Neither disagree nor agree	11%	11%	10%	10%	11%	8%
		Agree	77%	74%	81%	79%	76%	85%
	Year Five	Disagree	13%	14%	10%	10%	11%	7%
		Neither disagree nor agree	16%	17%	13%	15%	17%	11%
		Agree	71%	69%	77%	75%	72%	82%
	Year Three	Disagree	15%	16%	6%	19%	20%	16%
		Neither disagree nor agree	15%	15%	5%	13%	14%	10%
		Agree	70%	69%	90%	68%	67%	75%
	Year One	Disagree	18%	19%	10%	17%		
		Neither disagree nor agree	14%	15%	12%	13%		NA
		Agree	68%	66%	78%	70%		
	Base-line	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

We further examined the job satisfaction results 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. Hispanic respondents in the Demonstration Group tended to report considerably greater job satisfaction than those in the Comparison Group. The opposite was observed for multi-racial respondents; multi-racial respondents in the Demonstration Group tended to report somewhat lower job satisfaction ratings 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
96. In general, I am satisfied with my job.	Disagree	16%	18%	15%	13%	16%	6%	10%	16%	44%	14%
	Neither disagree nor agree	18%	17%	12%	13%	19%	25%	28%	11%	25%	14%
	Agree	66%	66%	74%	74%	64%	69%	62%	73%	31%	71%

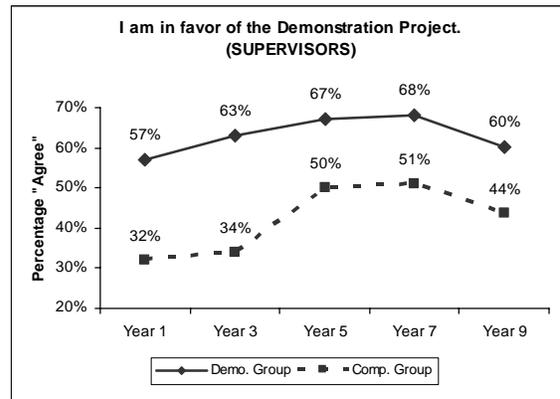
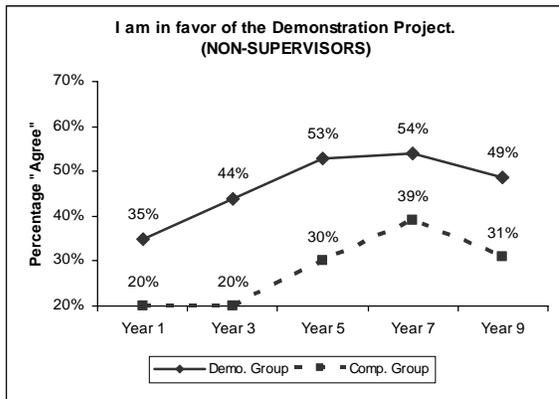
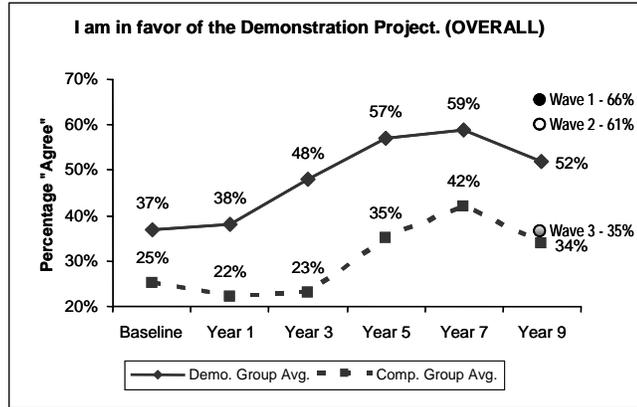
Note:

- 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 respondents' favorability toward the Demonstration Project varied greatly by wave

As displayed in Table 4-5, in Year Nine, Demonstration Group participants continued to demonstrate more favorability toward the Demonstration Project than did Comparison Group participants. Within the Demonstration Group, Wave 1 and Wave 2 participants reported increased levels of favorability from past years. Wave 3 participants' favorability levels were more consistent with the Comparison Group and with levels expressed by Wave 1 participants when they started in the Demonstration Project (in Year One). These results suggest that favorability likely increases over time, as participants become knowledgeable about and more comfortable with the personnel changes.

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



		Demo. Group			Comp. Group			
		Total	(N)	(S)	Total	(N)	(S)	
103. I am in favor of the Demonstration Project.	Year Nine	Disagree	22%	24%	17%	32%	34%	25%
		Neither disagree nor agree	26%	28%	23%	34%	35%	32%
		Agree	52%	49%	60%	34%	31%	44%
	Year Seven	Disagree	18%	20%	13%	25%	28%	17%
		Neither disagree nor agree	23%	26%	19%	33%	34%	32%
		Agree	59%	54%	68%	42%	39%	51%
	Year Five	Disagree	20%	21%	17%	25%	26%	20%
		Neither disagree nor agree	23%	25%	16%	40%	44%	31%
		Agree	57%	53%	67%	35%	30%	50%
	Year Three	Disagree	29%	30%	23%	24%	24%	25%
		Neither disagree nor agree	24%	26%	14%	53%	56%	42%
		Agree	48%	44%	63%	23%	20%	34%
	Year One	Disagree	32%	34%	18%	17%	16%	20%
		Neither disagree nor agree	30%	31%	25%	61%	63%	47%
		Agree	38%	35%	57%	22%	20%	32%
	Base-line	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

We further examined the results on favorability toward the Demonstration Project by looking at responses based on race/national origin. As shown in Table 4-6, some differences existed in the perceptions of each race/national origin group when compared across the Demonstration Group and Comparison Group. For three out of the five race/national origin groups presented, favorability was higher in the Demonstration Group than in the Comparison Group. For Blacks or African Americans, not of Hispanic origin (AA), favorability was lower in the Demonstration Group than the Comparison Group; however, favorability was higher in the Demonstration Group in Year Nine (with 43 percent agreeing) than in Year Seven (with 38 percent agreeing). For Asians, favorability was lower in the Demonstration Group than the Comparison Group and favorability was lower in the Demonstration Group in Year Nine (with 53 percent agreeing) than in Year Seven (with 66 percent agreeing).

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

	Demo. Group					Comp. Group					
	AS	AA	WH	HI	MU	AS	AA	WH	HI	MU	
103. I am in favor of the Demonstration Project.	Disagree	29%	25%	21%	15%	32%	20%	6%	33%	36%	43%
	Neither disagree nor agree	18%	32%	26%	25%	28%	0%	44%	34%	43%	43%
	Agree	53%	43%	53%	60%	40%	80%	50%	33%	21%	14%

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, 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.

In Year Nine, survey data showed that some Demonstration Group participants are satisfied with the potential for career progression and recognize the impact of the job classification system on their career progression. Results by wave show that Wave 1 and Wave 2 organizations, which have been in the Demonstration Project longer, are more optimistic about opportunities.

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

As presented in Table 4-7, survey results showed that there were no differences between the outlook of Demonstration Group and Comparison Group respondents regarding career progression; in both cases, more than one-third is satisfied with their promotion potential. In addition, approximately one-third of respondents across both the Demonstration Group and the Comparison Group believes that the job classification system has enhanced their career progression.

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

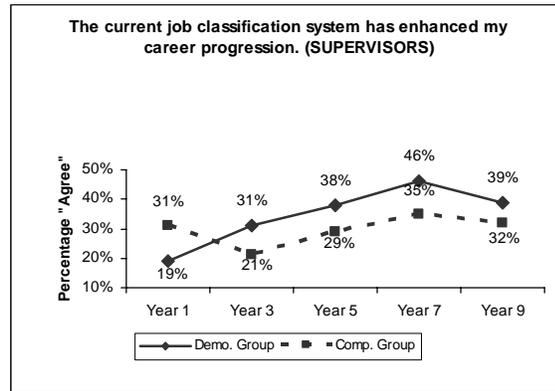
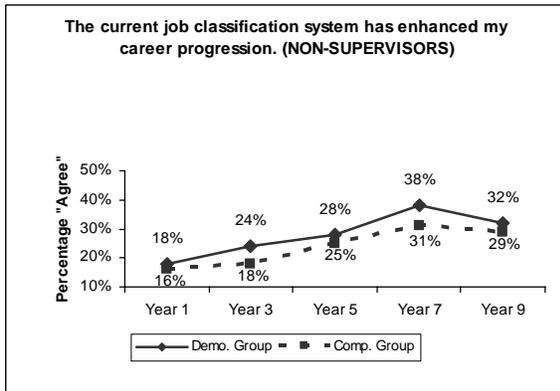
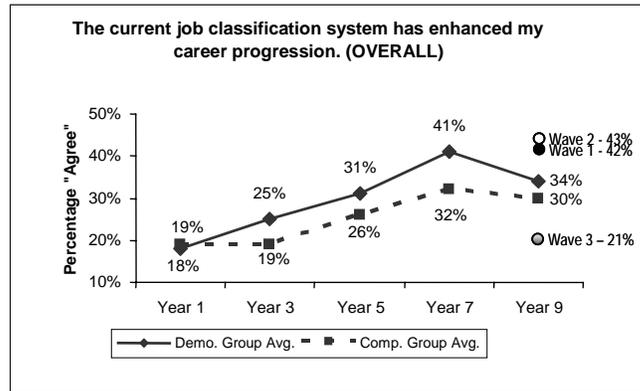
		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
22. I am satisfied with my chances of getting a promotion.	<i>Disagree</i>	41%	44%	32%	46%	49%	35%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	17%	17%	17%	18%	14%	30%	
	<i>Agree</i>	42%	38%	51%	37%	37%	35%	
23. The current job classification system has enhanced my career progression.	<i>Disagree</i>	32%	34%	27%	33%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	34%	34%	35%	37%			
	<i>Agree</i>	34%	32%	39%	30%			

(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. Wave 1 and Wave 2 Demonstration Group participants' perceptions of the impact of the job classification system on their career progression remained constant from Year Seven to Year Nine, after steadily increasing over the years

Overall, Demonstration Group participants' perceptions of their classification system's impact on career progression continued to outpace the perceptions of Comparison Group participants (see Table 4-8). Within the Demonstration Group, Wave 1 and Wave 2 participants' perceptions about the positive impact of the classification system on career progression were very consistent with Year Seven. Wave 3 participants' responses were less positive (which brought down the overall average for the Demonstration Project); however, it is also likely that Wave 3 participants were reacting to their previous job classification system rather than that which was implemented with the Demonstration Project (given that they took the survey before having gone through a performance cycle in the Demonstration Project).

**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.	Year Nine	Disagree	32%	34%	27%	33%	36%	21%
		Neither disagree nor agree	34%	34%	35%	37%	35%	46%
		Agree	34%	32%	39%	30%	29%	32%
	Year Seven	Disagree	26%	29%	21%	34%	36%	29%
		Neither disagree nor agree	33%	33%	33%	34%	33%	36%
		Agree	41%	38%	46%	32%	31%	35%
	Year Five	Disagree	28%	31%	21%	32%	35%	25%
		Neither disagree nor agree	41%	41%	41%	41%	40%	46%
		Agree	31%	28%	38%	26%	25%	29%
	Year Three	Disagree	30%	32%	20%	41%	42%	38%
		Neither disagree nor agree	45%	45%	50%	41%	40%	41%
		Agree	25%	24%	31%	19%	18%	21%
	Year One	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. Some Demonstration Group supervisors are experiencing the intended benefits of delegated classification authority and the automated classification system, such as time savings

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 Nine findings highlighted similarities and differences in the way Demonstration and Comparison Group participants view their respective classification systems. The results point to some success with achieving time efficiencies and increasing understanding of classification procedures among the Demonstration Group.

#### 4.3.1. In Year Nine, there were some similarities and differences in reactions of Demonstration and Comparison Group respondents to their respective classification systems

As displayed in Table 4-9, there were some differences and some similarities between the Demonstration and Comparison Group respondents' reactions toward their respective classification systems. There was no significant difference between the Demonstration and Comparison Groups in employee satisfaction with classification nor were there significant differences in managers' beliefs that they have enough authority to influence classification decisions. However, the Demonstration Group supervisors were less concerned that aspects of the classification process are time consuming and reported greater levels of satisfaction with classification procedures than did the Comparison Group supervisors.

**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>	28%	30%	23%	29%	30%	25%	No significant difference
	<i>Neither disagree nor agree</i>	25%	26%	23%	24%	27%	13%	
	<i>Agree</i>	47%	44%	55%	47%	43%	62%	
107. I have enough authority to influence classification decisions.	<i>Disagree</i>			27%			29%	No significant difference
	<i>Neither disagree nor agree</i>			21%			17%	
	<i>Agree</i>			52%			55%	
108. Getting a position description approved tends to be an adversarial process.	<i>Disagree</i>			49%			32%	No significant difference
	<i>Neither disagree nor agree</i>			28%			36%	
	<i>Agree</i>			24%			32%	
109. I have to devote too much time to position classification.	<i>Disagree</i>			48%			33%	Significant difference
	<i>Neither disagree nor agree</i>			32%			21%	
	<i>Agree</i>			20%			47%	
110. It takes too long to get classification decisions made in my organization.	<i>Disagree</i>			37%			16%	Significant difference
	<i>Neither disagree nor agree</i>			33%			38%	
	<i>Agree</i>			31%			47%	
111. All in all, I am satisfied with the position classification procedures used in my organization.	<i>Disagree</i>			23%			32%	Significant difference
	<i>Neither disagree nor agree</i>			34%			43%	
	<i>Agree</i>			44%			25%	

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

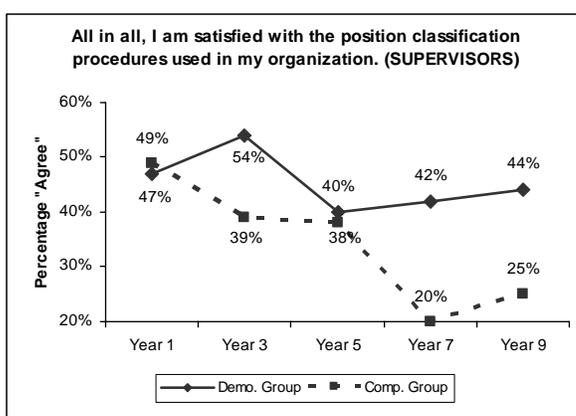
Percentages may not add to 100 due to rounding

Items 104-135 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 (see Table 4-10). 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 Nine, satisfaction levels continued 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
111. All in all, I am satisfied with the position classification procedures used in my organization.	Year Nine	Disagree	23%	32%
		Neither disagree nor agree	34%	43%
		Agree	44%	25%
	Year Seven	Disagree	18%	34%
		Neither disagree nor agree	41%	45%
		Agree	42%	20%
	Year Five	Disagree	20%	23%
		Neither disagree nor agree	40%	39%
		Agree	40%	38%
	Year Three	Disagree	16%	32%
		Neither disagree nor agree	31%	29%
		Agree	54%	39%
Year One	Disagree	20%	25%	
	Neither disagree nor agree	33%	26%	
	Agree	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 increasing ease of using the system

DoC's web-based ACS intended to improve the functionality of the system and further increase the efficiency of the process. For the most part, as shown in Table 4-11, Year Nine interviews with Rating Officials revealed comfort with the ACS, indicating that the system was easy to use and much better than the old system. Two issues noted were the drawbacks of having less detailed position descriptions and the effectiveness of the search feature.

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

Demonstration Group
Rating Officials
<ul style="list-style-type: none"> <li>• Very easy</li> <li>• Have not used it</li> <li>• Easy to put together a brief position description in a short amount of time</li> <li>• Much better than the old system</li> <li>• Easy but not very useful or accurate due to the lack of detail in the position descriptions</li> <li>• Not very easy; the system should have better search tools for easier classification</li> </ul>

#### 4.4. Understanding of the Demonstration Project's 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 Nine, survey and focus group data suggested that Demonstration Group participants are getting more comfortable with the performance appraisal system under the Demonstration Project. In addition, site historians reported a smooth distribution of pay increases and bonuses, with almost no formal grievances and requests for consideration, which provides further evidence of acceptance of the system. Although progress continues to be made, 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 Seven survey results, Year Nine Demonstration Project survey participants responded positively to the performance appraisal system

Overall, the majority of Demonstration Group and Comparison Group survey respondents responded positively to many aspects of the performance appraisal system (see Table 4-12). Unlike the Year Seven survey results, there were no significant differences between Demonstration Group and Comparison Group responses. An analysis of these survey items by wave (not displayed in full here) shows that the convergence of responses is partially due to the mixing of Wave 1, Wave 2, and Wave 3 results into an average Demonstration Group

score. For example, Wave 1 and Wave 2 participants responded in a noticeably more positive fashion to survey items such as:

- I understand the performance appraisal system currently being used (Wave 1 – 76%; Wave 2 – 77%; Wave 3 – 53%)
- My performance rating provides an accurate picture of my performance (Wave 1 – 62%; Wave 2 – 67%; Wave 3 – 39%)
- My performance appraisal takes into account the most important parts of my job (Wave 1 – 72%; Wave 2 – 76%; Wave 3 – 54%).

Given that the Wave 3 participants were likely using their previous performance appraisal system as their frame of reference for many of these questions, it is expected that the results will change in Year Ten.

**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>		15%	16%	12%	16%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		11%	11%	11%	13%			
	<i>Agree</i>		74%	73%	77%	71%			
26. My supervisor gives me adequate information on how well I am performing.	<i>Disagree</i>		18%	19%	15%	17%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		15%	14%	15%	15%			
	<i>Agree</i>		67%	66%	70%	68%			
27. I understand the performance appraisal system currently being used.	<i>Disagree</i>		20%	21%	15%	21%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		14%	15%	11%	16%			
	<i>Agree</i>		67%	64%	75%	63%			
28. My performance rating provides an accurate picture of my performance.	<i>Disagree</i>		24%	26%	20%	22%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>		20%	21%	19%	27%			
	<i>Agree</i>		55%	53%	61%	50%			
29. My performance appraisal takes into account the most important parts of my job.	<i>Disagree</i>		17%	<i>No significant difference</i>		19%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		16%		20%				
	<i>Agree</i>		66%		61%				
30. My supervisor and I agree on what "good performance" on my job means.	<i>Disagree</i>		13%	14%	11%	11%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		19%	20%	16%	22%			
	<i>Agree</i>		68%	66%	73%	67%			
31. My supervisor evaluates my performance on things not related to my job.	<i>Disagree</i>		57%	55%	63%	52%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		23%	25%	19%	30%			
	<i>Agree</i>		20%	21%	19%	18%			
38. My supervisor tends to <i>inflate</i> the performance ratings of the employees he/she supervises.	<i>Disagree</i>		62%	61%	64%	57%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		31%	32%	27%	33%			
	<i>Agree</i>		7%	7%	9%	10%			
39. My supervisor tends to <i>deflate</i> the performance ratings of the employees he/she supervises.	<i>Disagree</i>		54%	51%	59%	50%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		34%	35%	31%	40%			
	<i>Agree</i>		13%	14%	10%	10%			

(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 past results, ongoing performance-related feedback has not increased significantly under the Demonstration Project

As demonstrated in Table 4-13, there has been minimal change in responses from Year One to Year Nine 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)
32. Throughout the year, how often do you receive informal feedback (aside from a mid-year or annual review) from your supervisor that helps improve your performance?  (In Years One-Five, for both Demo Group and Comp Group, this item was worded as "How often do you receive feedback from your supervisor that helps you to improve your performance?")	Year Nine	Never	14%	10%	12%	16%	11%	15%
		Rarely	26%	25%	26%	21%	29%	23%
		Sometimes	36%	37%	36%	37%	34%	36%
		Often	20%	23%	20%	20%	20%	20%
		Continually	5%	6%	5%	6%	6%	6%
	Year Seven	Never	11%	12%	10%	10%	11%	8%
		Rarely	25%	25%	25%	24%	24%	24%
		Sometimes	35%	34%	37%	35%	38%	29%
		Often	23%	23%	23%	24%	21%	31%
		Continually	5%	5%	6%	7%	6%	8%
	Year Five	Never	7%	8%	5%	6%	7%	4%
		Rarely	25%	24%	27%	22%	22%	22%
		Sometimes	41%	42%	38%	43%	42%	46%
		Often	23%	22%	26%	24%	23%	25%
		Always	4%	4%	4%	5%	6%	4%
	Year Three	Never	9%	10%	5%	10%	11%	9%
		Rarely	29%	30%	28%	29%	30%	22%
		Sometimes	39%	38%	43%	38%	38%	40%
		Often	21%	21%	22%	21%	20%	25%
		Always	2%	2%	2%	2%	2%	4%
	Year One	Never	7%	8%	4%	10%	10%	7%
		Rarely	32%	32%	29%	30%	31%	25%
		Sometimes	39%	37%	50%	36%	36%	37%
		Often	19%	20%	15%	21%	19%	29%
Always		3%	3%	3%	3%	3%	3%	
Baseline	Never	10%	NA		8%	NA		
	Rarely	28%	NA		30%	NA		
	Sometimes	41%	NA		36%	NA		
	Often	19%	NA		22%	NA		
	Always	3%	NA		4%	NA		

(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. The majority of Demonstration Group participants indicated that they received explanations about their performance rating/scores feedback at their annual performance appraisals

While opinions were decidedly mixed on whether Demonstration Group participants received feedback throughout the year, the results showed that a strong majority (three-fourths) of respondents reported that their performance ratings/scores were explained to them. As shown in Table 4-14, results were very similar across the Demonstration Group and 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)		
37. At my last performance appraisal, I was given an explanation about the reasons for my performance rating/score.	Disagree	15%			14%			No significant difference	
	Neither disagree nor agree	12%	No significant difference			12%	No significant difference		
	Agree	74%			75%				

Looking at responses by race/national origin groups on getting explanations about performance scores show that, within each race/national origin group, the Demonstration Group participants reacted the same or more positively than their counterparts in the Comparison Group. One exception is for Whites (not of Hispanic origin), though the gap in perceptions between the Demonstration Group and the Comparison Group is small. The results are displayed in Table 4-15.

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

		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
37. At my last performance appraisal, I was given an explanation about the reasons for my performance rating/score.	Disagree	14%	14%	14%	19%	17%	14%	16%	12%	24%	43%
	Neither disagree nor agree	12%	11%	11%	13%	22%	21%	11%	10%	18%	14%
	Agree	74%	75%	75%	68%	61%	64%	74%	78%	59%	43%

*Note: Consistent with the survey data and previous focus group data, focus group respondents indicated that some feedback occurs at annual reviews but ongoing performance feedback is less common*

As shown in Table 4-16 and Table 4-17, focus group findings support the survey results about informal and formal performance feedback. Demonstration Group respondents indicated that feedback does occur mid-year and annually, but ongoing feedback is less common and more supervisor-dependent. Performance feedback continues to be an area needed further development in the Demonstration Project (as in many other performance appraisal systems).

**Table 4-16. Focus Group Results – Feedback and Performance – Focus Group Results – "How often do you receive formal or informal feedback from your supervisor?"**

Demonstration Group	Comparison Group
<b>Non-Supervisory Employees</b> <ul style="list-style-type: none"> <li>Frequency of feedback is dependent upon the employee and one's supervisor</li> <li>Getting feedback is restricted to mid-year and year-end performance reviews</li> </ul>	<b>Non-Supervisory Employees</b> <ul style="list-style-type: none"> <li>Informal feedback is provided on a consistent basis</li> </ul>

**Table 4-17. Focus Group Results – Feedback and Performance – "Does the current performance appraisal process provide you with an appropriate amount of feedback regarding your job performance? If yes, how so? If not, what is missing?"**

Demonstration Group <sup>16</sup>	Comparison Group
<b>Non-Supervisory Employees</b> <ul style="list-style-type: none"> <li>Current process does not provide the appropriate amount of feedback</li> <li>Getting year-round informal feedback throughout the year is rare</li> <li>Experiences in the amount of feedback provided between this process and the previous process are not significant</li> </ul> <b>What's Missing</b> <ul style="list-style-type: none"> <li>Accurate reflection of work is not provided in the current assessment process</li> </ul>	<b>Non-Supervisory Employees</b> <ul style="list-style-type: none"> <li>Delivery of feedback with this performance appraisal process is limited</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 formal communication check points (i.e., mid-year meetings and end-of-year meetings) and spending time to educate employees on the process (see Table 4-18). Similar to Year Seven results, 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.

<sup>16</sup> In this and the Focus Group Results tables to follow, unless specified, the list of themes are aggregated across all Demonstration Group focus groups: non-supervisory, supervisory, and all-minority

**Table 4-18. 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 Project
<p><b>Pay Pool Managers and Rating Officials</b></p> <ul style="list-style-type: none"> <li>• Supervisors conduct mid-term (or quarterly) and annual performance discussions with employees, where they review the performance matrix, list of accomplishments, and pay/bonus awards</li> <li>• Supervisors meet individually with employees when they come on board to create individual development plans</li> <li>• Train employees on how to conduct performance/development conversations with their managers and familiarize themselves with the performance management process</li> <li>• Weekly informal meetings with employees to discuss performance</li> <li>• Mechanisms vary dependent upon the supervisor's preferred method of communication, but they are encouraged to communicate with their staff on a regular basis and provide feedback</li> <li>• Headquarters holds meetings to respond to employee inquiries about the process</li> </ul>

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

As indicated in Table 4-19, Pay Pool Managers and Rating Officials use a variety of approaches and procedures to strive for consistency in employee scores. For the most part, Pay Pool Managers and Rating Officials meet to ensure scores are consistent with set benchmarks and will work within the pay pool funding. However, some are not sure if sufficient formal steps are being taken to ensure consistency in performance scores.

**Table 4-19. Interview Results – "What mechanisms are in place to ensure consistency in scores across Rating Officials?" (Pay Pool Managers) OR "Are there mechanisms in place to ensure consistency in performance scores across Rating Officials? If yes, how are they working?" (Rating Officials)**

Demonstration Project
<p><b>Pay Pool Managers and Rating Officials</b></p> <ul style="list-style-type: none"> <li>• Yes, Pay Pool Managers are effective in ensuring that Rating Officials rate consistently; scores need to be justified before being submitted to Pay Pool Managers</li> <li>• Yes, all Rating Officials and Pay Pool Managers (in separate groups) meet to decide on consistency of ratings, using benchmark performance standards and guidelines</li> <li>• Yes, OPMB meets before ratings are finalized and Pay Pool Managers go around the room and explain their average payout, further explaining outliers</li> <li>• Yes, bring people in at lower scores to prevent inflation</li> <li>• Not sure. Pay Pool Managers do not directly provide feedback on scoring</li> <li>• Don't think so, and this has been a problem across bands</li> </ul>

As displayed in Table 4-20, Demonstration Group and Comparison Group supervisors did not differ in some of their perceptions about the performance appraisal system. One area in which opinions differed was perceived ease of the performance appraisal system. A greater percentage of Demonstration Group supervisors (compared to Comparison Group supervisors) reported that the performance appraisal system is easy to use. A distinguishing aspect of the Demonstration Project – the ability to distinguish between good and poor

performers was not found in the Year Nine survey results. This may be due to the inclusion of Wave 3 participants in this data analysis; these supervisors have not yet rated performance under the new performance appraisal system. For this reason, we performed an additional analysis by wave. This analysis confirmed this theory; there were differences by wave for this survey item such that, whereas the average percent agreement was 73 percent, Wave 1 was 76 percent, Wave 2 was 82 percent, and Wave 3 was 62 percent. Moreover, there were wave differences for the two associated survey items as well:

- The performance appraisal system is easy for me as a supervisor to use (Wave 1 – 59%; Wave 2 – 49%; Wave 3 – 30%)
- I have met with other supervisors and/or our Pay Pool Manager to ensure consistency in performance ratings (Wave 1 – 65%; Wave 2 – 58%; Wave 3 – 39%).

**Table 4-20. Survey Results – Performance Appraisal System (Supervisors)**

			Demo. Group			Comp. Group			Demo. vs. Comp.
			Total	(N)	(S)	Total	(N)	(S)	
104. The performance appraisal system allows me to identify good and poor performers.	<i>Disagree</i>				13%			20%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>				14%			22%	
	<i>Agree</i>				73%			57%	
105. The performance appraisal system is easy for me as a supervisor to use.	<i>Disagree</i>				30%			46%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>				23%			25%	
	<i>Agree</i>				47%			29%	
106. I have met with other supervisors and/or our Pay Pool Manager to ensure consistency in performance ratings.	<i>Disagree</i>				29%			37%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>				16%			17%	
	<i>Agree</i>				55%			46%	

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

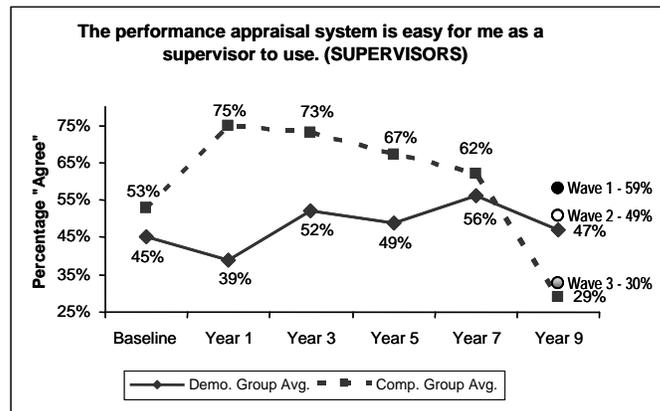
Percentages may not add to 100 due to rounding

These items were addressed of supervisory employees only

**4.4.5. Ease of use of the performance appraisal system and understanding of the performance appraisal system varied considerably by wave**

In Year Nine, supervisors’ perceptions about the ease of their respective performance appraisal systems varied by wave (see Table 4-21). Overall, Demonstration Group supervisors reported greater ease with the system. More specifically, Wave 1 supervisors responded slightly more positively than in Year Seven (and at their highest levels ever) and Wave 2 supervisors responded slightly less positively than in Year Seven. Responses from Wave 3 supervisors were more akin to the Comparison Group supervisors’ responses, likely reflective of the fact that Wave 3 supervisors were reacting to the GS performance appraisal system.

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

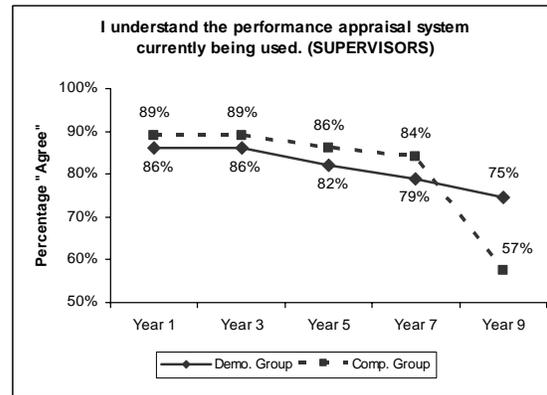
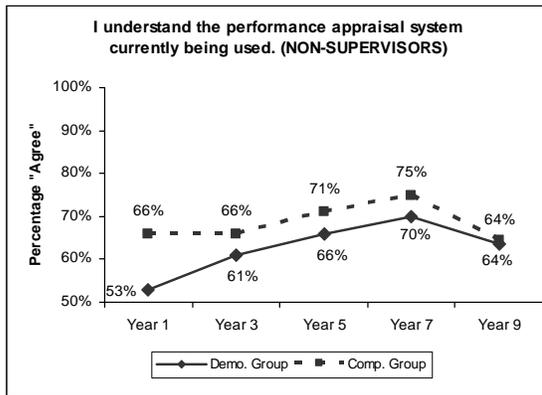
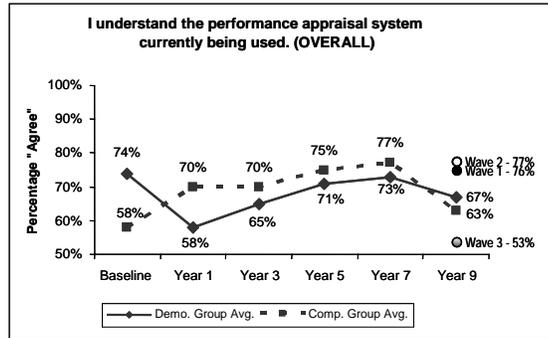


			Demo. Group (S)	Comp. Group (S)
105. The performance appraisal system is easy for me as a supervisor to use.	Year Nine	Disagree	30%	46%
		Neither disagree nor agree	23%	25%
		Agree	47%	29%
	Year Seven	Disagree	24%	18%
		Neither disagree nor agree	20%	20%
		Agree	56%	62%
	Year Five	Disagree	18%	14%
		Neither disagree nor agree	33%	19%
		Agree	49%	67%
	Year Three	Disagree	33%	14%
		Neither disagree nor agree	15%	13%
		Agree	52%	73%
	Year One	Disagree	35%	17%
		Neither disagree nor agree	26%	8%
		Agree	39%	75%
	Base-line	Disagree	33%	22%
		Neither disagree nor agree	22%	24%
		Agree	45%	53%

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

Similarly, in Year Nine, understanding about their respective performance appraisal systems varied by wave (see Table 4-22). Within the Demonstration Group, Wave 1 and Wave 2 respondents reported greater understanding than ever, finally exceeding levels previously associated with the Comparison Group’s understanding of the long-standing GS system. The Comparison Group reported a decrease in the level of understanding (particularly among supervisors); while this is an unusual finding, it may be related to the fact that the composition of the Comparison Group has shifted.

**Table 4-22. Change Over Time – Understanding of the Performance Appraisal System**



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
27. I understand the performance appraisal system currently being used.	Year Nine	Disagree	20%	21%	15%	21%	19%	30%
		Neither disagree nor agree	14%	15%	11%	16%	17%	13%
		Agree	67%	64%	75%	63%	64%	57%
	Year Seven	Disagree	16%	18%	13%	12%	12%	10%
		Neither disagree nor agree	11%	13%	8%	11%	13%	6%
		Agree	73%	70%	79%	77%	75%	84%
	Year Five	Disagree	16%	19%	9%	12%	14%	6%
		Neither disagree nor agree	13%	15%	9%	13%	15%	8%
		Agree	71%	66%	82%	75%	71%	86%
	Year Three	Disagree	20%	23%	8%	14%	16%	4%
		Neither disagree nor agree	15%	17%	6%	16%	18%	8%
		Agree	65%	61%	86%	70%	66%	89%
	Year One	Disagree	25%	29%	8%	14%	15%	6%
		Neither disagree nor agree	16%	19%	6%	17%	19%	5%
		Agree	58%	53%	86%	70%	66%	89%
	Base-line	Disagree	11%			21%		
		Neither disagree nor agree	15%	NA		21%	NA	
		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 4-23, when asked about improvements to the current performance appraisal system, non-supervisory employees suggested improvements around expanding the use of the rating scale and transparency.

**Table 4-23. 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?"**

Demonstration Group
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Remove quotas and/or pre-set criteria that limit range of scores</li> <li>• Provide more transparency of everyone's scores</li> <li>• Manage/monitor favoritism</li> <li>• Provide more communication on how the scores are calculated and how pay is distributed</li> <li>• Reduce the influence of Pay Pool Managers who do not have visibility into the day-to-day job of the employees they are scoring</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.

The findings in Year Nine were consistent 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, with respect 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. 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 and therefore does not necessarily serve as a motivational tool for supervisors.

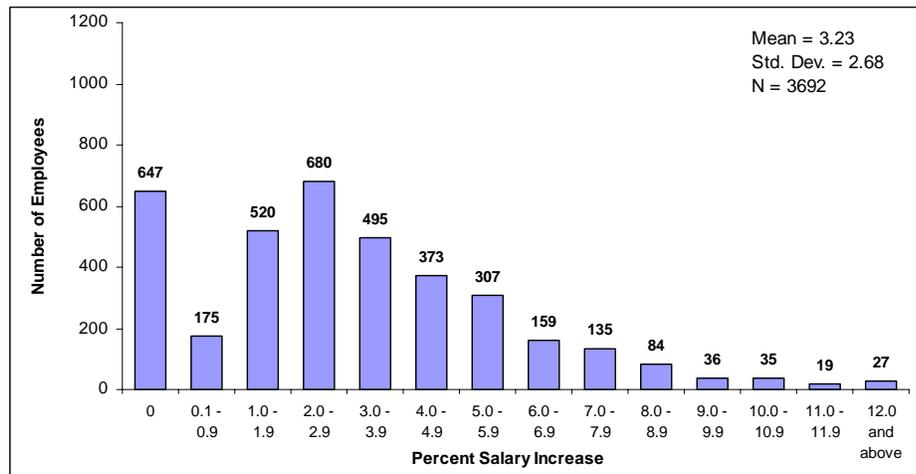
##### **4.5.1. The distribution of performance-based pay increases differs in the Demonstration Group and the Comparison Group, with increase amounts more dispersed in the Demonstration Group**

Objective data showed that Demonstration Group participants received performance-based pay increases<sup>17</sup> ranging from 0.0 percent to 16.6 percent, with an average performance-based

<sup>17</sup> 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.

pay increase of 3.2 percent (shown in Figure 4-1). (Employees who were recent new hires and therefore not eligible for a performance-based pay increase during this time period were not included in the analysis.)

**Figure 4-1. Range of Performance-Based Pay Increase Percentages for Demonstration Group Participants**



1. This analysis is based on 3,692 of the 7,699 Demonstration Group participants who had eligible performance scores<sup>18</sup> and for whom salary data were available. There were an additional 361 Demonstration Group participants who had eligible performance scores but for whom salary data were not available.

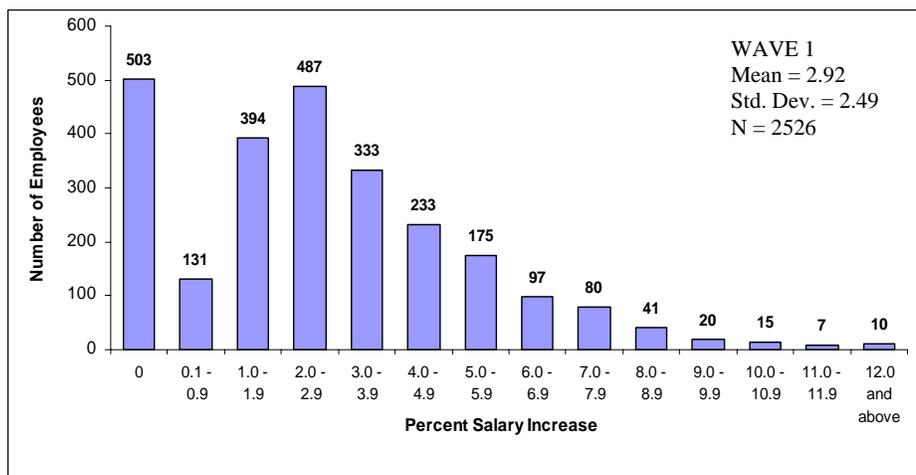
Similar to previous years, the majority of employees (68 percent) received increases between 0 percent and 4 percent. At the high end, thirteen percent of Demonstration Group participants received performance-based pay increases of 6 percent or above, providing some indication that managers are taking advantage of their flexibility to award high percentage increases to higher performing employees. At the low end, 18 percent of Demonstration Group participants (647 employees) did not receive a performance-based pay increase; the majority of these (514<sup>19</sup> of the 647 employees, or 81 percent) were employees who were at, or near, the top of their pay bands (i.e., capped employees with acceptable performance).

Performance-based pay increases differed by wave, with the size of the gap consistent with Year Eight (in Year Eight, the gap between the Wave 1 and Wave 2 average performance-based pay increase was 1.0 percentage point). Figure 4-2 and Figure 4-3 display these results. The average performance-based pay increase for Wave 1 was 2.9 percent and the average performance-based pay increase for Wave 2 was 3.9 percent.

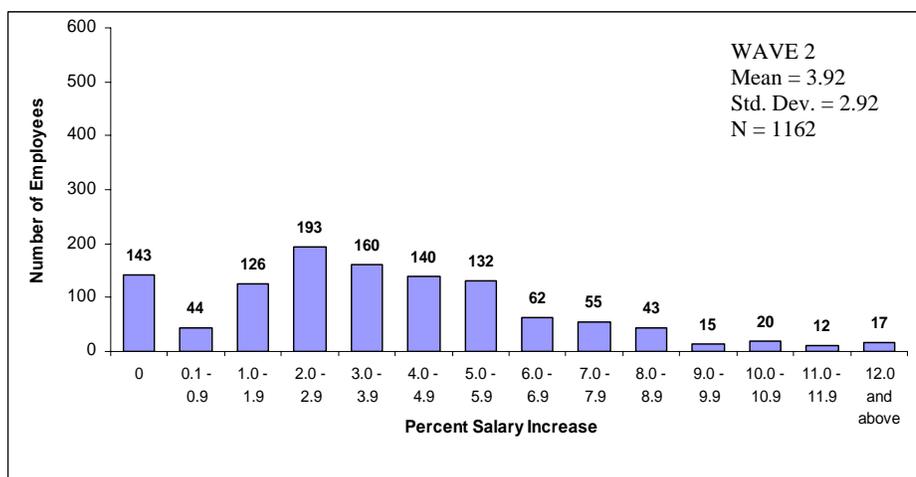
<sup>18</sup> For this analysis and those to follow, the term “eligible performance score” refers to the definition provided in Section 2.5.6.

<sup>19</sup> This calculation is based on the 514 employees who are salary-capped and had performance-based increases of zero in the database. There also are an additional 192 employees who are salary-capped and who were missing performance increase data who, while not included in this calculation, are included in subsequent calculations of capped employees.

**Figure 4-2. Range of Performance-Based Pay Increase Percentages for Demonstration Group Participants – Wave 1 Only**



**Figure 4-3. Range of Performance-Based Pay Increase Percentages for Demonstration Group Participants – Wave 2 Only**



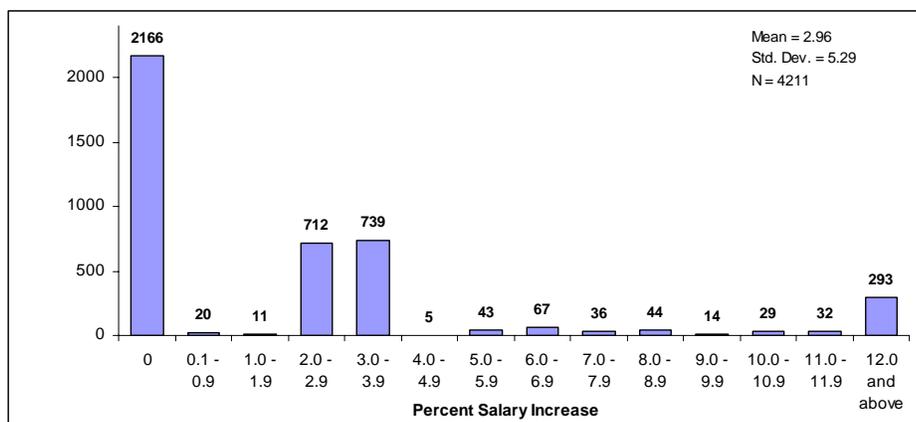
One factor that may influence the difference between Wave 1 and Wave 2 is the percentage of employees who are at, or near, the top of their pay bands (i.e., capped). In Wave 1, 22 percent were capped whereas only eight percent were capped in Wave 2. This may partially explain why the Wave 2 average is higher than the Wave 1 average and higher than the Demonstration Group average has been in past years.

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 or 5-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 salary increase percentages 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 41.8 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 3.0 percent, which is lower than the Demonstration Group average. The distribution of increases is also less disperse than for the Demonstration Group; the majority of the participants either received no increase or increases between 2.0 and 3.9 percent.

**Figure 4-4. Range of Salary Increase Percentages for Comparison Group Participants**



*Note: Over the years, salary increases have been consistently higher in the Demonstration Group than the Comparison Group; this trend continued in Year Nine*

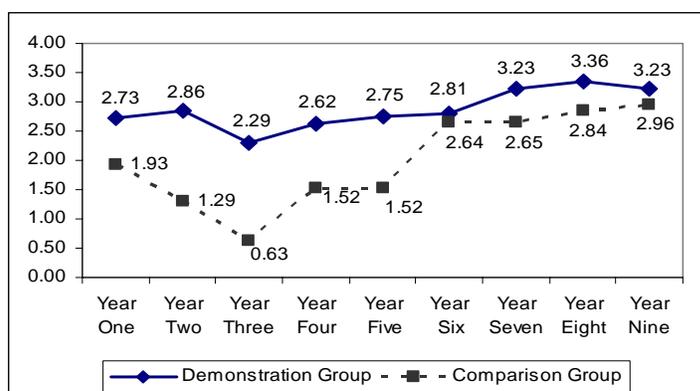
Similar to Year Eight, a number of individuals received salary increases at the high end of the range, which is surprising given the constraints of the GS system. This appears to be due to how increases are included in the Comparison Group's calculation of average salary increase, as a result of promotion to a grade within the equivalent pay band in the Demonstration Group. In support of this theory, further analysis of Year Nine data revealed that all but one of the 182 Comparison Group participants who received increases higher than seven percent did indeed also receive promotions. Therefore, these high salary increases in the Comparison Group are driven by promotion-related increases.

Fifty-one percent of the eligible Comparison Group participants did not receive a salary increase in Year Nine, 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 performance-based pay increase in Year Nine.

Figure 4-5 displays a trend analysis of the average performance-based pay increases in the Demonstration Group and Comparison Group from Year One to Year Nine. Consistent with previous years, the average performance-based pay increase was higher in the Demonstration Group than in the Comparison Group. In Year Nine, average performance-based pay increase for the Comparison Group reached the highest amount to date. The greater difference between the two groups in the earlier years (Year One to Year Five) compared to the more recent years (Year Six to Year Nine) likely reflects the changing composition of the Comparison Group in terms of occupations, work levels, career ladders, and position in range.

**Figure 4-5. Trend Analysis of Average Salary Increase Percentages**



Note:

1. The Comparison Group Year Two data point was revised in Year Three to reflect a correction in the formula used to calculate average salary increase percentage.

#### 4.5.2. 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 with respect to performing this type of analysis and it became evident that an appropriate “match” may not exist.

One issue is that in the NOAA portion of the Comparison Group, which comprises 99 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, beginning in Year Five, we performed the analysis comparing awards/bonuses in two separate ways. As depicted in Table 4-24, 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 program 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.

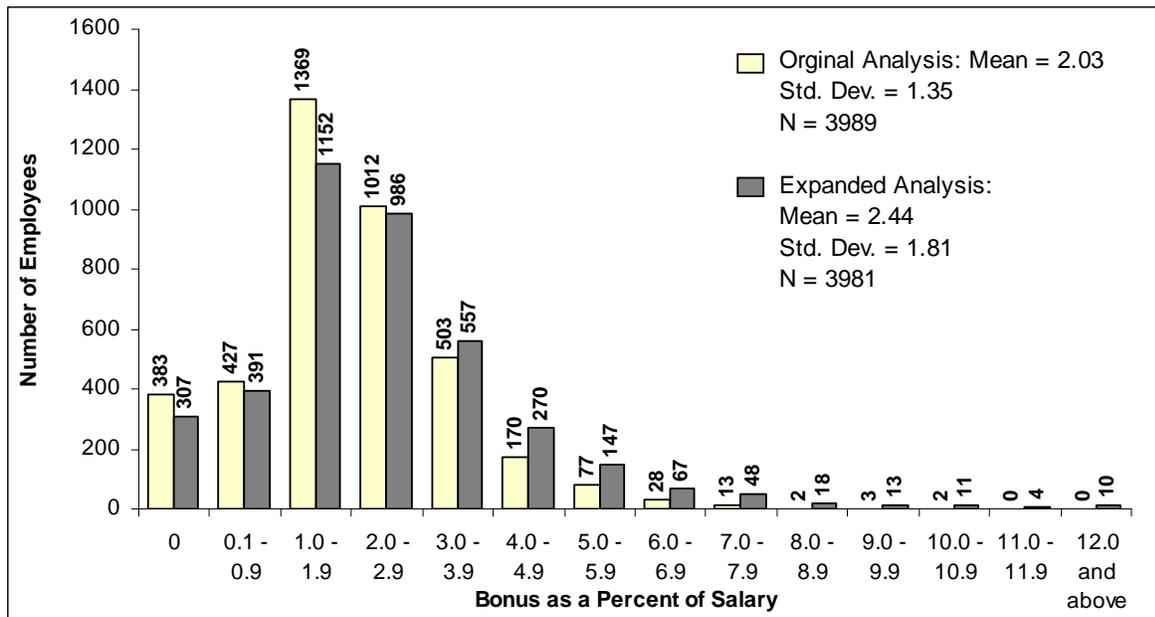
**Table 4-24. Bonus Percent Analyses**

	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

Figure 4-6 displays the results from both analyses. The original bonus analysis results show that, in Year Nine, 90 percent of Demonstration Group participants received performance-based bonuses. Bonuses ranged from 0.1 percent to 10.7 percent of salary for employees receiving bonuses, with an average bonus of 2.0 percent. The expanded bonus analysis results show that, in Year Nine, 92 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 16.8 percent of salary for employees receiving bonuses, with an average bonus of 2.4 percent. 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 2.0 percent to 2.4 percent. The high percentage of Demonstration Group participants who received some form of bonus, as shown in these analyses, likely also reflects how some salary-capped employees are compensated through the bonus program.

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

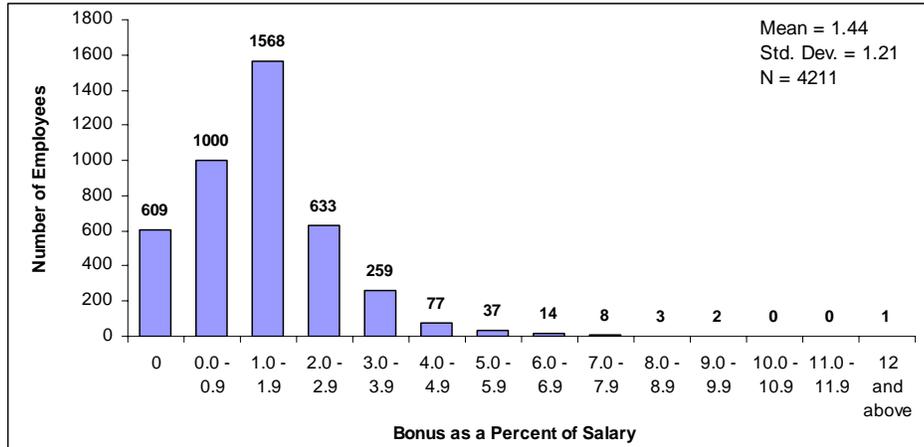


Notes:

- 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 Nine, 86 percent of Comparison Group participants received awards. Among those participants, awards ranged from 0.1 percent to 12.1 percent of salary, as shown in Figure 4-7, with an average of 1.4 percent. (This is synonymous with the results of the expanded bonus analysis for the Comparison Group; therefore, separate analyses are not necessary.)

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



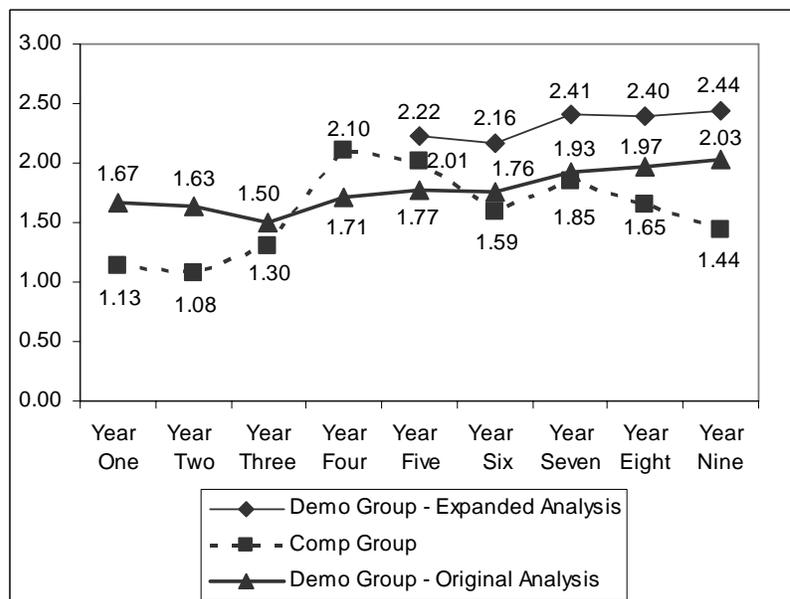
Note:

1. This analysis is based on 4,211 of the 5,230 Comparison Group participants who had eligible performance ratings and for whom award data were available.

4.5.3. Over the life of the Demonstration Project, average bonus percentages have remained relatively constant for the Demonstration Group whereas average award percentages have fluctuated in the Comparison 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 Nine. Over time, average bonus percentages in the Demonstration Group have remained relatively constant, with just 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. Trend Analysis of Average Bonus/Award Percentages**



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, the Demonstration Group average bonus percentages were higher in Year Nine than the Comparison Group average award percentages.

#### 4.5.4. 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 4-25, in Year Nine, Demonstration Group participants received increases and bonuses that were, on average, 5.2 percent of their salary. In comparison, Comparison Group participants received increases and awards that were, on average, 4.4 percent of their salary. These results show that, from a total awards basis, Demonstration Group participants fared better overall than Comparison Group participants.

**Table 4-25. Comparison of Total Awards**

	Demonstration Group	Comparison Group
Average Performance-Based Pay Increase	3.2%	3.0%
Average Bonus/Award	2.0%	1.4%
Average Total Awards (Average Performance-Based Pay Increase Plus Average Bonus/Award Bonus)	5.2%	4.4%

#### 4.5.5. The total awards for Demonstration Group participants may even be an underestimation, given that these figures do not include individuals whose pay has been capped

Employees' performance-based pay increases are capped if they are at the top of their pay band, regardless of their performance level. In Year Nine, approximately 18 percent (up from 15 percent in Year Eight) of the Demonstration Group participants who had eligible performance ratings and for whom salary data were available had salaries at the maximum of their pay bands (22 percent of Wave 1 participants were capped compared to eight percent of Wave 2 participants). An additional nine percent were "nearly-capped," defined as situations where the gap between the employee's salary (at the start of Year Nine) and the pay band maximum was smaller than the average pay increase in Year Nine, that is, they were somewhat close to the maximum of their pay bands.

To determine whether salary capping impacts some individuals more than others, we examined the degree to which Demonstration Group participants are salary-capped based on a number of demographic variables: race/national origin, band, and career path. We also examined whether salary capping is or is not occurring to the same degree in the Demonstration Group and the Comparison Group.

As shown in Table 4-26, in Year Nine, the distribution of salary-capped employees (both capped and nearly-capped) across the race/national origin groups closely mirrored their representation in the Demonstration Group overall, with a slight over-representation of White employees among those who are salary-capped. Overall, these results suggest that all race/national origin groups are similarly affected by salary capping.

**Table 4-26. 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)	84%	76%	78%
Black (not of Hispanic origin)	9%	15%	13%
Hispanic	3%	4%	3%
Asian or Pacific Islander	3%	5%	6%
American Indian or Alaskan Native	0%	1%	1%

Notes:

- 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 Nine the distribution of salary-capped employees shows differing results based on band. Overall, these results show that, across the bands, salary-capped employees are over-represented among Band 3 and Band 5, that is, more Band 3 and Band 5 employees are salary-capped than is their overall representation. And, these results show that salary-capped employees are under-represented among Band 2 and 4. Across the bands, *nearly-capped* employees are also over-represented among Band 3; in this band, the percentage of employees who are nearly-capped exceeds the percentage for their overall representation.

**Table 4-27. Capped Employees by Band**

Band	Representation Among Capped Employees	Representation Among Nearly-Capped Employees	Overall Representation in the Demonstration Group
Band 1	<1%	<1%	1%
Band 2	6%	10%	12%
Band 3	40%	41%	36%
Band 4	34%	39%	41%
Band 5	20%	9%	9%

Notes:

- The third column is based on all Demonstration Group participants in the database for whom band data were available.

As shown in Table 4-28, in Year Nine the distribution of salary-capped employees shows differences based on career path. Overall, these results show that, across the career paths, the distribution of salary-capped employees differs from their representation in the Demonstration Group overall, with an over-representation of ZPs and an under-representation of ZAs among those who are salary-capped. Nearly-capped employees are

over-represented among the ZSs and under-represented across the ZAs compared to their overall representation.

**Table 4-28. Capped Employees by Career Path**

Career Path	Representation Among Capped Employees	Representation Among Nearly-Capped Employees	Overall Representation in the Demonstration Group
ZP	66%	58%	54%
ZT	5%	4%	6%
ZA	19%	15%	31%
ZS	10%	23%	10%

Notes:

2. The third column is based on all Demonstration Group participants in the database for whom career path 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 a sample: 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 4-29, in Year Nine, for three of the four groups examined, a higher percentage of employees was impacted by salary capping in the Demonstration Group than the Comparison Group. These results are considerably different than Year Eight, when the Demonstration Group results were reasonably similar but the Comparison Group results ranged from 20 percent to 37 percent. One explanation may be that salary capping is not as big an issue with the organizations that currently dominate the Comparison Group, as it did for the organizations that comprised it in Year Eight. This identifies an area in which the Demonstration Group and Comparison Group are not well-matched: the Demonstration Group is more affected by salary capping than is the Comparison Group.

**Table 4-29. Comparison of 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)	13%	5%
ZP, Band 4 (or, ZP Equivalent, GS 14, Step 10)	13%	16%
ZA, Band 5 (or, ZA Equivalent, GS 15, Step 10)	19%	12%
ZP, Band 5 (or, ZP Equivalent, GS 15, Step 10)	37%	17%

Note: 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 in a wider range of occupational areas. Therefore, the 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 Nine 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 4-30. The findings show that the largest average performance-based pay increases were experienced by, in descending order, those in the ZA, ZP, ZT, and ZS career paths. This rank order is consistent with Year Eight in that ZA and ZP fared best for performance-based pay increases. This rank order is also consistent with the three-year historical pay increase averages obtained prior to the start of the Demonstration Project for individuals in these career paths.

**Table 4-30. Average Performance-Based Pay Increase by Career Path**

Career Path	Number Of Employees	Average Performance-Based Pay Increase
ZP	2,334	3.3%
ZT	162	2.5%
ZA	856	3.5%
ZS	340	2.3%
Overall	3,692	3.2%

Notes:

1. Average pay increase by career path were computed for 3,692 of the 7,699 Demonstration Group participants for whom career path and salary data were available.
2. The overall average performance-based 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 2.0 percent; Table 4-31 displays how the results vary across career paths.

**Table 4-31. Average Bonus by Career Path**

Career Path	Number of Employees	Average Bonus
ZP	2,507	1.8%
ZT	190	2.1%
ZA	926	2.2%
ZS	366	3.2%
Overall	3,989	2.0%

Notes:

1. Average bonus by career path were computed for 3,989 of the 7,699 Demonstration Group participants for whom career path and salary data were available.
2. The overall average performance-based pay increase represents the average across the Demonstration Group; it does not represent a straight average of the averages for each career path.

These findings show that the largest average bonuses were experienced by, in descending order, those in the ZS, ZA, ZT, and ZP career paths, which is the same order that occurred in Year Eight. However, this order differs from that which occurred for average performance-based pay increases. One noticeable difference is that those in the ZS career path received smaller than average performance-based pay increases, but larger than average bonuses; this finding was noticeable in Year Eight as well. 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.

- 4.5.6. The average performance appraisal score steadily increased over the first six years of the Demonstration Project, dipped in Year Seven, increased slightly in Year Eight and remained constant in Year Nine

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 4-32 displays the average performance appraisal scores in the Demonstration Group over the past nine years. These data show that, after steadily increasing over the years, the average performance appraisal score decreased in Year Seven, and then increased again in Year Eight and remained relatively constant in Year Nine (with an average performance appraisal score of 86.2).

**Table 4-32. 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
Year Eight	86.3 points
Year Nine	86.2 points

Notes:

1. Average performance appraisal scores are the average number of points received under the 100-point system.
2. In Year Nine, average performance appraisal score was computed for the 4,053 of the 7,699 Demonstration Group participants for whom performance score data of 40 and above were available.

The average performance appraisal score differed by wave. The Year Nine Wave 1 average performance appraisal score was 86.7, which is consistent with Year Eight Wave 1 average performance appraisal score of 86.9. The Year Nine Wave 2 average performance appraisal score was 85.0, which is consistent with the Year Eight Wave 2 average performance appraisal score of 85.0. To note, while Wave 2 had lower average performance appraisal scores than Wave 1 in Year Nine, results presented earlier showed that Wave 2 had higher average performance-based pay increases than Wave 1. Similar results for these two waves were also apparent in Year Seven and Year Eight.

4.5.7. The rank order of career paths for average performance scores mirrors the rank order of career paths for average performance-based pay increases

We also examined average performance appraisal scores in Year Nine by career path. As displayed in Table 4-33, these findings show that the highest performance scores were experienced by, in descending order, those in the ZA, ZP, ZT, and ZS career paths. This order reflects that which was found for average performance-based pay increases. Therefore, the career paths with the highest average performance appraisal scores also had the highest average performance-based pay increases.

**Table 4-33. Average Performance Score by Career Path**

Career Path	Number of Employees	Average Performance Appraisal Scores
ZP	2,535	86.2 points
ZT	193	86.0 points
ZA	955	86.9 points
ZS	370	84.3 points
Overall	4,053	86.2 points

*Notes:*

1. Average performance appraisal scores by career path were computed based on the 4,053 of the 7,699 Demonstration Group participants for whom career path and performance score data of 40 and above were available.
2. Average overall performance score was also computed for 4,053 of the 7,699 Demonstration Group participants for whom performance score data of 40 and above were available and represents a non-weighted average across the Demonstration Group.

4.5.8. 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 indicate that financial rewards are tied to job performance during Year Nine. 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 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 instead of the correlation analysis.

The results of the Year Nine 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 and demonstrates 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 organization was a consistent predictor of performance-based pay increase in all four career paths in Year Nine, as it was in Year Eight). The difference in pay increases across organizations likely results from the fact that organizations operate under different pay pools built from different historical data. No other variables (aside from performance score and organization) were consistent predictors across all four career paths.

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 increases, beyond what was predicted by the variables included in the regression analysis (i.e., Initial Year Nine Salary (salary prior to pay increases, in dollars), pay band as of September 2006, interval as of September 2006, whether or not one was promoted in Year Nine, supervisory status, length of service, performance score, age, organization).

4.5.9. 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 should be more likely to receive lower pay increase percentages or none at all.

Table 4-34 shows additional evidence that this is happening in the Demonstration Group. In Year Nine, 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. 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 comprised of the 18 percent of Demonstration Group participants who were at the maximum for their pay bands (40 percent of capped employees are in 90-100 performance score range whereas only 32 percent of employees overall are in the 90-100 performance score range). And two, this group 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.

**Table 4-34. Performance Score Category and Performance-Based Pay Increases Among Demonstration Group Participants**

Performance Score Category	Number and Percentage of Employees	Number and Percent of Employees Receiving Pay Increases	Average Performance-Based Pay Increase Percentage
90-100	1,289 (32%)	953 (84%)	3.6%
80-89	2,355 (58%)	1,859 (85%)	3.3%
70-79	335 (8%)	220 (72%)	1.7%
60-69	58 (1%)	11 (20%)	0.4%
50-59	13 (<1%)	2 (15%)	0.3%
40-49	3 (<1%)	0 (0%)	0.0%
<40	0 (0%)	0 (0%)	0.0%

*Notes:*

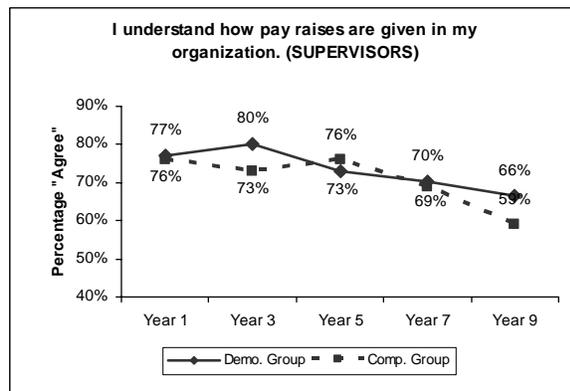
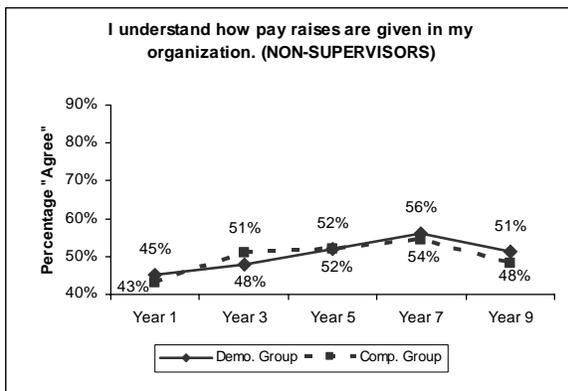
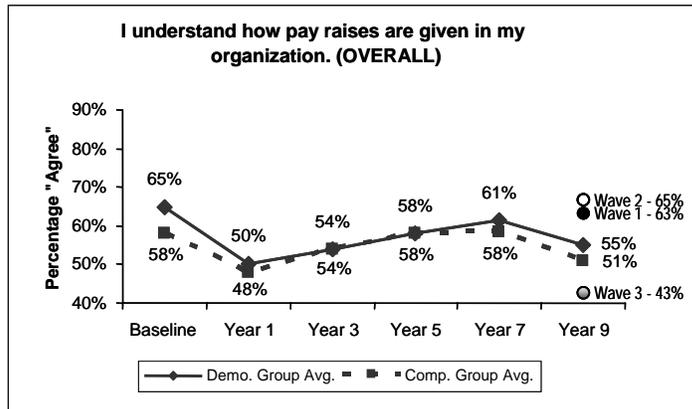
1. The calculation of Number and Percentage of Employees is based on the 4,053 employees for whom valid Year Nine performance scores were available.
2. The calculation of Number and Percentage of Employees Receiving Pay Increases is based on the 3,692 employees for whom valid Year Nine performance scores and salary data were available.

#### 4.5.10. Wave 1 and Wave 2 Demonstration Group participants understanding of how pay raises are given has continued to increased over time

Over the life of the Demonstration Project, there have been steady improvements in Demonstration Group participants' understanding about how pay increases are given. This trend continues in the Wave 1 and Wave 2 results (see Table 4-35). Comparison Group respondents reported slightly lower levels of understanding, which has resulted in an even greater gap in understanding between the Demonstration Group (i.e., Wave 1 and Wave 2) and the Comparison Group.

Whereas the previous survey item focused on an understanding of the pay system overall, another survey item pointedly addressed the direct link between pay and performance. As shown in Table 4-36, Demonstration Group survey respondents reported that pay increases depend on performance more so than Comparison Group survey respondents; the noticeable gap in their perceptions reflects their different pay systems. In both the Demonstration Group and the Comparison Group, supervisors reported greater agreement than non-supervisors, although there has been a decline over the years in supervisors' agreement that pay reflects performance. One possibility is that the drop among Demonstration Group supervisors reflects their increased experience with the pay system and its inherent complexities, such as the challenges of rewarding salary-capped employees.

Table 4-35. Change Over Time – Understanding of Pay Raises



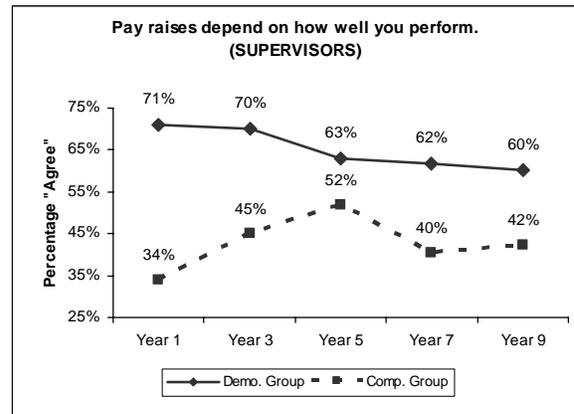
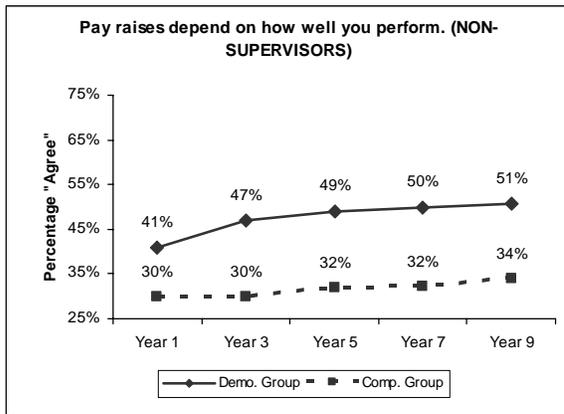
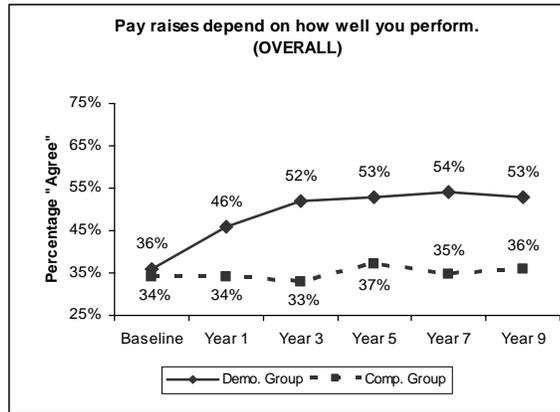
			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
41. I understand how pay raises are given in my organization	Year Nine	Disagree	27%	30%	20%	33%	35%	26%
		Neither disagree nor agree	17%	19%	14%	16%	16%	15%
		Agree	55%	51%	66%	51%	48%	59%
	Year Seven	Disagree	24%	27%	19%	27%	29%	22%
		Neither disagree nor agree	15%	17%	11%	14%	16%	9%
		Agree	61%	56%	70%	58%	54%	69%
	Year Five	Disagree	24%	27%	15%	22%	25%	13%
		Neither disagree nor agree	18%	21%	12%	20%	23%	11%
		Agree	58%	52%	73%	58%	52%	76%
	Year Three	Disagree	29%	33%	13%	26%	29%	12%
		Neither disagree nor agree	17%	19%	8%	20%	20%	15%
		Agree	54%	48%	80%	54%	51%	73%
	Year One	Disagree	31%	35%	12%	32%	36%	15%
		Neither disagree nor agree	19%	20%	11%	20%	22%	9%
		Agree	50%	45%	77%	48%	43%	76%
	Base-line	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

Table 4-36. Change Over Time – Pay and Performance



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
42. Pay raises depend on how well you perform.	Year Nine	Disagree	25%	27%	21%	35%	36%	32%
		Neither disagree nor agree	22%	23%	19%	29%	30%	25%
		Agree	53%	51%	60%	36%	34%	42%
	Year Seven	Disagree	25%	27%	22%	42%	43%	42%
		Neither disagree nor agree	21%	23%	17%	23%	25%	18%
		Agree	54%	50%	62%	35%	32%	40%
	Year Five	Disagree	25%	27%	21%	33%	36%	27%
		Neither disagree nor agree	21%	24%	16%	30%	32%	21%
		Agree	53%	49%	63%	37%	32%	52%
	Year Three	Disagree	28%	31%	16%	40%	42%	32%
		Neither disagree nor agree	21%	22%	15%	27%	28%	23%
		Agree	52%	47%	70%	33%	30%	45%
	Year One	Disagree	29%	32%	16%	39%	40%	39%
		Neither disagree nor agree	25%	27%	13%	27%	30%	27%
		Agree	46%	41%	71%	34%	30%	34%
	Base-line	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. Opinions vary on whether pay and performance are linked

Although more than half of the Demonstration Group participants responded positively via the anonymous survey that pay and performance are linked, in the focus group setting a sample of employees voiced their concerns (see Table 4-37). Some indicated that it is hard to know whether a link exists because they are not privy to others' pay information. Still others expressed that a variety of factors (e.g., perceived favoritism, the inherent nature of the system) influences whether the link exists. Supervisory employees provided mixed responses as well. Supervisors new to the Demonstration Project expect a link between pay and performance but other respondents questioned whether the link between pay and performance exists on a regular basis.

**Table 4-37. Focus Group Results – Linkage Between High Performance and Larger Pay Raises – "Do you believe that larger pay raises are given to employees who perform better? Do you believe that average or lower performers are treated fairly?" (Demo Group) OR "Would a pay-for-performance system – one in which level of performance drives amount of pay – 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>• Don't know. There is no comparative salary data available to tell if there is a correlation between performance and pay raises</li> <li>• No, the system is unfair. Employees may receive raises due to favoritism or familiarity regardless of low/average performance levels</li> <li>• Don't know yet, but hope and expect that it will be a fair system</li> <li>• No, according to hearsay/office chatter</li> <li>• No, the ambiguity of the system leads to bias</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, if clearly defined and laid out</li> <li>• Yes, but it would require more employee education and employee-manager interaction</li> <li>• No, the system is subject to manipulation if issues arise and the employee-supervisor relationship is not strong/positive</li> <li>• Yes, if the performance plan is well-written and reviewed quarterly</li> <li>• Not sure. Need more information</li> </ul>
<p><b>Supervisory Employees</b></p> <p><b>Larger Raises Given to Better Performers?</b></p> <ul style="list-style-type: none"> <li>• Hard to say. Don't see the raise amount until it has already been decided, which makes it harder to use ratings to impact pay</li> <li>• Yes, the Demonstration Project allows for differentiation between high and poor performers via the pay system</li> <li>• Don't know yet, but expect that the system will work that way (Wave 3 respondents)</li> <li>• No, people who are near the top of their band get smaller raises; people near the bottom of the band get larger raises</li> <li>• No, was not always able to give higher performers what they deserved due to limited pay pool money available</li> </ul> <p><b>Average/Poor Performers Treated Fairly?</b></p> <ul style="list-style-type: none"> <li>• Yes, poor performers respond to feedback from supervisors about not getting a raise, so they are motivated to improve their performance</li> <li>• No, poor performers may still get a sizable raise unless termination actions have been initiated against him or her</li> <li>• Not necessarily. Harder to assess rewards for average performers than high or poor performers</li> </ul>	

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’ and Rating Officials’ abilities to rate employees (see Table 4-38). Both supervisory and non-supervisory employees in the Demonstration Group indicated that the link between pay and performance could be improved through supervisor training, allowing employees to see payout information, making the qualitative components more quantitative, and increasing the size of the pay pool. Comparison Group participants recommended transitioning to a pay-for-performance system and mandatory managerial training.

**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?"**

Demonstration Group	Comparison Group
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Make the performance elements more specific, and provide measurable performance goals</li> <li>• Release progress reports/payout information and encourage more dialogue between supervisors and employees</li> <li>• Provide training and detailed guidelines to supervisors so that they can be better prepared to manage the system</li> <li>• Do not use quotas for scores, and determine an equitable way to evaluate scores once they get to the Pay Pool Manager</li> <li>• Have mandatory training and refresher training for Rating Officials; allow them to formally provide and receive feedback</li> <li>• Add more money to the pay pool for fairer distribution of raises</li> <li>• Reduce supervisor workload so that they can devote more time to the assessment process</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Move to a pay-for-performance system</li> <li>• Mandate more training for managers on the pay and performance system</li> <li>• Create standards of performance to improve the linkage between pay and performance</li> <li>• Reconsider the 2-level system because the 5-level system allows for performance evaluation only once a year</li> </ul>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Post comparative employee data so that employees can know how they rank</li> <li>• Encourage more information sharing between supervisors and offer a Demonstration Project orientation to employees</li> <li>• Translate qualitative performance comments into a numerical score and use a combination of examples and statistics to justify scores</li> <li>• Provide guidance to Rating Officials on average score requirements for easier management of the pay pool and better communication of the pay-performance link</li> <li>• Offer more training to help managers write performance plans because salary/bonus decisions are based on the plans</li> <li>• Streamline the process of getting rid of poor performers so that those individuals become ineligible to receive salary increases and/or performance bonuses</li> <li>• Provide more money to the pay pool so that it could be distributed as fairly as possible</li> <li>• Nothing; employees are not motivated by money</li> </ul>	

#### 4.5.12. The link between performance and pay, as measured by bonuses/awards, remains evident in the Demonstration Group

As was found for performance-based pay increases, objective data indicated that employee bonuses were tied to performance during Year Nine. 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 and consistent with Years Seven and Eight but slightly lower than the first six years (Year Eight:  $r = .35$ ; Year Seven:  $r = .34$ ; 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, this correlation represents 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 Nine 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, ZT, and ZP career paths. This order differs from Year Eight in which the relationship was strongest for, in descending order, the ZT, ZA, ZS, and ZP career paths. The most striking difference is apparent for ZS: in Year Eight, the correlation between performance score and bonus was only .29 and in Year Nine the correlation jumped to .51.

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

Career Path	Number of Employees	Correlation Between Performance Score and Bonus
ZP	2,507	.34
ZT	190	.38
ZA	926	.39
ZS	366	.51

Notes:

1. All results are significant at the  $p \leq .01$  level.
2. Correlation by career path was computed for 3,989 of the 7,699 Demonstration Group participants for whom performance score, bonus data, and career path data were available.

<sup>20</sup> This analysis is based on the 3,989 of the 7,699 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.

4.5.13. 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, close to half or more of the respondents reported that they have a good understanding of how cash awards are given. As with other issues related to pay and performance, supervisors have a better understanding of how cash awards are given.

Demonstration Group participants were also asked to comment on the link between pay and the performance bonuses that are unique to the Demonstration Project. Their level of understanding of how performance bonuses are given was slightly lower than their understanding of how cash awards are given.

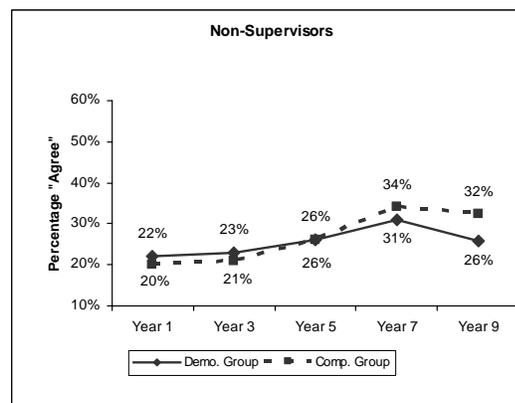
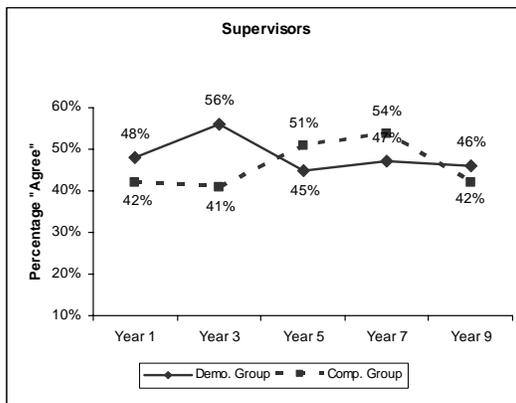
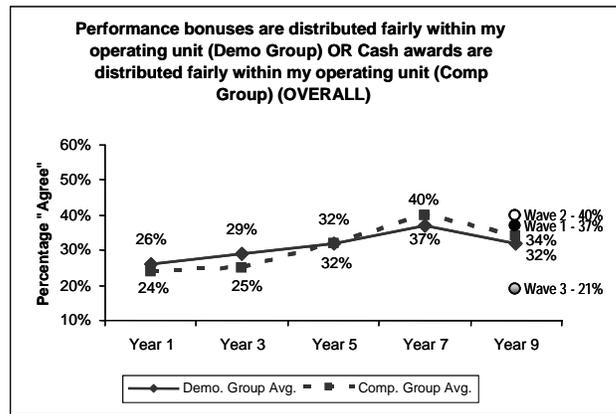
**Table 4-40. Survey Results – Performance and Awards**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
43. I understand how cash awards are given in my organization.	<i>Disagree</i>	28%	32%	18%	27%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	16%	17%	12%	19%			
	<i>Agree</i>	56%	50%	70%	54%			
44. Cash awards depend on how well you perform.	<i>Disagree</i>	25%	27%	19%	28%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	23%	24%	20%	26%			
	<i>Agree</i>	52%	48%	61%	46%			
45. I understand how performance bonuses are given in my organization (Demo Group Only)	<i>Disagree</i>	30%	33%	21%				
	<i>Neither disagree nor agree</i>	17%	18%	13%				
	<i>Agree</i>	53%	48%	65%				
46. Performance bonuses depend on how well you perform (Demo Group Only)	<i>Disagree</i>	24%	26%	20%				
	<i>Neither disagree nor agree</i>	24%	25%	20%				
	<i>Agree</i>	52%	49%	60%				

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

While generally more than half of the survey respondents reported that they have a good understanding of the link between awards/performance bonuses and performance, only a third of the survey respondents reported that they believe that awards/performance bonuses are distributed fairly. Overall, Demonstration Group participants’ perceptions that performance bonuses are distributed fairly, closely mirrored that of Comparison Group participants. (see Table 4-41). Within the Demonstration Group, Wave 1 and Wave 2 participants’ perceptions were equivalent (or slightly better) than Year Seven even though the Demonstration Group average, overall, declined slightly. Wave 3 participants’ responses were less positive (which reduced the overall average for the Demonstration Project); however, it is also likely that Wave 3 participants were reacting to their previous award system rather than that which was implemented with the Demonstration Project. Responses continue to differ by non-supervisory and supervisory employees, with supervisors responding more positively regarding the equitable distribution of bonuses/awards.

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



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
47. 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.")	Year Nine	Disagree	35%	39%	26%	36%	38%	30%
		Neither disagree nor agree	33%	36%	28%	30%	30%	28%
		Agree	32%	26%	46%	34%	32%	42%
	Year Seven	Disagree	31%	34%	26%	29%	31%	25%
		Neither disagree nor agree	32%	35%	27%	31%	34%	21%
		Agree	37%	31%	47%	40%	34%	54%
	Year Five	Disagree	32%	32%	30%	31%	32%	25%
		Neither disagree nor agree	37%	42%	24%	38%	42%	24%
		Agree	32%	26%	45%	32%	26%	51%
	Year Three	Disagree	36%	38%	25%	37%	40%	26%
		Neither disagree nor agree	35%	39%	19%	38%	39%	33%
		Agree	29%	23%	56%	25%	21%	41%
	Year One	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

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

Consistent with Year Seven, there were mixed reactions among Demonstration Group participants about the ability of performance bonuses to motivate employees to perform better (see Table 4-42). Reasons why bonuses are not motivational included concerns with fair distribution, the fact that bonuses do not contribute to retirement benefits, and that bonuses are not sizeable enough to be motivational. Reasons why bonuses are motivational included their being a concrete means of recognizing performance and bonuses being a means of rewarding capped employees who are not able to receive performance-based pay increases. Unlike the Year Seven focus group data, Comparison Group participants believe bonuses motivate employees to perform better.

**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>Supervisory and Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• No, the rules around bonus payouts seem random, inconsistent, and unfair</li> <li>• Yes, people always want more money and recognition, and bonuses are a concrete means of rewarding high performance</li> <li>• No, less motivating for capped employees, whose bonuses do not contribute to their retirement benefits</li> <li>• No, employees do not know the size of the bonuses their colleagues received, nor are the bonus amounts large enough to provide any real incentive to work harder</li> <li>• Maybe, it depends on whether or not the employee gauges their performance by the size of the bonus he or she receives</li> <li>• Yes, it helps those who are capped out and can no longer receive salary increases</li> <li>• No, bonuses are given to people who are already top performers, so average performers may not be motivated by them</li> <li>• Maybe, if an employee is working on a high profile project or an important work assignment, bonuses may be motivating</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, very motivating</li> <li>• Yes, especially when the award comes with a write-up, plaque, or other documentation of the achievement</li> </ul>

4.5.15. Focus group data showed that Demonstration Group participants are unclear as to the decision criteria for distributing performance bonuses and awards

Focus group participants also addressed the perceived fairness in distribution of performance bonuses and awards (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. Responses from both supervisors and non-supervisors in the Demonstration Group suggest that they do not believe bonuses are distributed fairly. Reasons include the use of bonuses for capped employees, perceived preferential treatment, and whether the size of bonuses is sufficient.

**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>Supervisory and Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>No, bonuses are given to those at or near being capped out to compensate for smaller salary increases, and those lower in the band get more of a bonus</li> <li>Don't know; have not gone through the process (Wave 3 respondents)</li> <li>Don't know but does not seem so. Bonus payout amounts are not communicated to staff so no one knows the bonus rationale</li> <li>No, people get preferential treatment from their supervisors/managers or especially if they have high visibility with the Pay Pool Manager</li> <li>No, the size of the bonus depends on the size of the pay pool; different divisions have different bonus budgets</li> <li>No, depends on whether or not the Pay Pool Manager perceives a particular job/role to be of particular value to the organization</li> <li>No, implementing a primarily private sector system into a public sector organization does not mesh that well because budgets are handled differently</li> <li>Yes, people with higher scores get higher bonuses</li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>Don't know; award amounts are not communicated to staff</li> <li>Yes</li> </ul>

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

Similar to Year Seven results, 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 (see Table 4-44). For the first question (question 50), only a third agreed that pay differences reflect real differences in responsibilities and job difficulty; for the second question (question 52), approximately one half agreed that their pay is competitive. Responses were similar

across the Demonstration Group and the Comparison Group indicating that the Demonstration Project has neither aggravated nor improved these issues.

Consistent with Year Seven results, Demonstration Group and the Comparison Group perceptions differed regarding pay progression reflecting performance. Fifty-one percent of Demonstration Group respondents believe that pay progression reflects their performance compared to forty-one percent of Comparison Group respondents who believe this to be the case. This demonstrates a stronger perception of the link between performance and advancement in the Demonstration Group than in the Comparison Group.

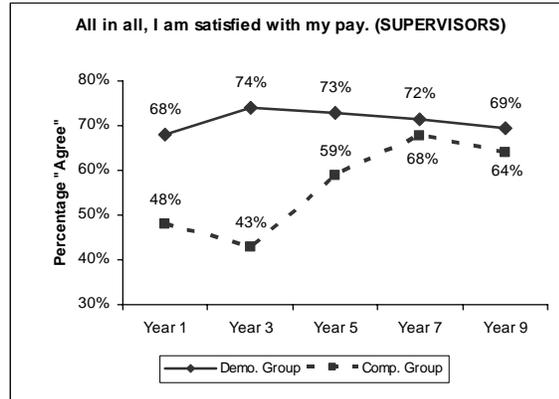
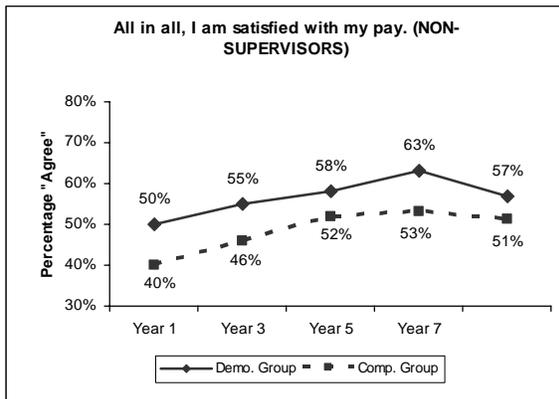
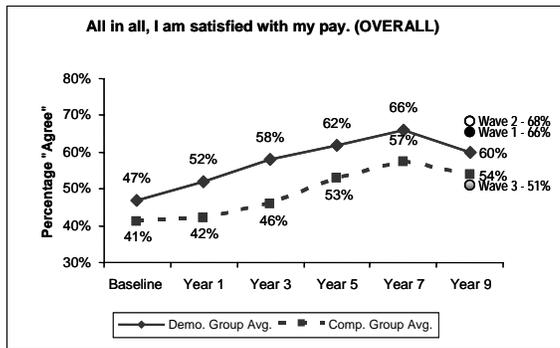
**Table 4-44. Survey Results – Fairness of the Pay System**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
50. Differences in pay at my organization represent real differences in level of responsibility and job difficulty.	<i>Disagree</i>	45%	47%	38%	47%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	23%	24%	20%	21%			
	<i>Agree</i>	33%	29%	42%	33%			
51. Pay progression (the way I move up within my grade/band) is reflective of my performance.	<i>Disagree</i>	27%	29%	21%	36%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	22%	23%	18%	23%			
	<i>Agree</i>	51%	47%	61%	41%			
52. 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>		22%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	28%			32%			
	<i>Agree</i>	53%			46%			

(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, the level of pay satisfaction among the Demonstration Group was less than half; it has now climbed to nearly two-thirds. Within the Demonstration Group, Wave 1 and Wave 2 participants' levels of pay satisfaction were very consistent with Year Seven. Wave 3 participants' responses were less positive (which brought down the overall average for the Demonstration Project); however, it is also likely that Wave 3 participants were reacting to their satisfaction with the previous pay system rather than that which was implemented with the Demonstration Project.

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



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
49. All in all, I am satisfied with my pay.	Year Nine	Disagree	25%	27%	18%	30%	30%	30%
		Neither disagree nor agree	15%	16%	13%	16%	18%	6%
		Agree	60%	57%	69%	54%	51%	64%
	Year Seven	Disagree	19%	22%	14%	29%	32%	22%
		Neither disagree nor agree	14%	15%	14%	13%	14%	11%
		Agree	66%	63%	72%	57%	53%	68%
	Year Five	Disagree	22%	26%	14%	29%	31%	23%
		Neither disagree nor agree	15%	16%	13%	18%	17%	18%
		Agree	62%	58%	73%	53%	52%	59%
	Year Three	Disagree	30%	32%	19%	41%	41%	39%
		Neither disagree nor agree	13%	14%	7%	14%	13%	18%
		Agree	58%	55%	74%	46%	46%	43%
	Year One	Disagree	34%	37%	19%	43%	45%	36%
		Neither disagree nor agree	13%	13%	13%	15%	15%	16%
		Agree	52%	50%	68%	42%	40%	48%
	Base-line	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, significant differences were found in Demonstration Group supervisory employees and Comparison Group supervisory employees regarding level of understanding of their pay systems such that Comparison Group supervisory employees reported a significantly lower level of understanding of their pay system. The difference is even more pronounced when the wave results are considered: Wave 1 respondents reported 82 percent agreement, Wave 2 respondents reported 74 percent agreement, and Wave 3 respondents reported 55 percent agreement.

In both groups, approximately half of the respondents indicated that the pay system is flexible. Here, too, the results are more pronounced when examined by wave: Wave 1 respondents reported 64 percent agreement, Wave 2 respondents reported 56 percent agreement, and Wave 3 respondents reported 45 percent agreement. These results are reasonably comparable to Year Seven, when 65 percent of the Demonstration Group respondents acknowledged the flexibility of the pay system. However, of note, the Comparison Group results differ greatly from Year Seven when there was only 22 percent agreement. This likely reflects the fact the composition of the Comparison Group has shifted, and the participants may be reflecting on different variants of the GS pay system.

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

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
119. The current pay system is flexible.	<i>Disagree</i>			18%			17%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>			27%			38%	
	<i>Agree</i>			55%			45%	
120. I understand how to use the current pay system.	<i>Disagree</i>			12%			8%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>			17%			37%	
	<i>Agree</i>			70%			55%	

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

#### 4.5.17. 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 in Year Nine, as in past years, to be effectively utilized. By subtracting the smallest promotion increase amount from the largest promotion increase 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 all levels of promotion (e.g., from Band 1 to Band 2), managers in the Demonstration Group used a considerably 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	
	Band after promotion	Employees	Size of Range of Increase Upon Promotion	Employees
Band 2	7	<b>\$17,661</b>	0	-
Band 3	72	<b>\$9,096</b>	2	\$568
Band 4	79	<b>\$16,066</b>	20	\$7,747
Band 5	37	<b>\$14,728</b>	9	\$9,381

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.

In addition to the individuals included in this analysis, there were an additional six individuals in the Demonstration Group who were promoted and who changed career paths. These individuals' promotions included changing from the ZS to the ZA career path. In doing so, they switched from ZS Band 4 to ZA Band 2. Although the band number decreased, these were considered promotions.

#### 4.5.18. 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 have been analyzing the salary progression of a subset of the Demonstration Project participants over time. Specifically, we examined performance-based pay increases and bonuses/awards over nine 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, Seven, Eight, and Nine data files to determine their progression.

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

Table 4-48 shows that after nine years in the Demonstration Project, high performers in the Demonstration Group in this analysis have experienced, on average, a \$42,007 increase, based on performance-based pay increases and bonuses. This amount exceeds the average nine-year increase (\$26,711) 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	Year Eight	Year Nine	After Nine Years
<b>Demonstration Group With Performance Scores of 90-100 (High Performers)</b>	Average Performance-Based Pay Increase	\$3,437	\$3,341	\$3,961	\$3,130	\$28,226
	Average Bonus Amount	\$1,520	\$1,510	\$1,965	\$2,060	\$13,781
	TOTAL	\$4,957	\$4,851	\$5,926	\$5,190	\$42,007
<b>Demonstration Group With Performance Scores of 40-89</b>	Average Performance-Based Pay Increase	\$2,057	\$2,267	\$2,409	\$2,292	\$17,663
	Average Bonus Amount	\$895	\$1,063	\$1,192	\$1,283	\$9,048
	TOTAL	\$2,952	\$3,330	\$3,601	\$3,575	\$26,711

*Notes:*

- Demonstration Group performance-based pay increases are based on valid data for all employees receiving zero or greater performance-based pay increases.*
- For this analysis, the number of participants in each group in each year ranged from 91 to 111.*
- These analyses were done in "then year dollars." We considered normalizing the data to "constant year dollars," but determined that the results would not differ to any significant degree.*
- 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 nine years and does not include individuals who left and rejoined the organization.*

Table 4-49 shows that after nine years, the Demonstration Group participants in this analysis experienced greater salary progression compared to their Comparison Group counterparts (of the equivalent career path, pay band, and interval).<sup>23</sup> After nine years in the Demonstration Project, the Demonstration Group participants in this analysis have experienced, on average, a \$32,977 increase, based on performance-based pay increases and bonuses. This amount exceeds the average nine-year increase (\$20,037) of the Comparison Group participants in this analysis.

**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	Year Eight	Year Nine	After Nine Years
<b>Demonstration Group</b>	Average Performance-Based Pay Increase	\$2,716	\$2,762	\$3,046	\$2,677	\$21,963
	Average Bonus Amount	\$1,194	\$1,269	\$1,513	\$1,635	\$11,014
	TOTAL	\$3,910	\$4,031	\$4,559	\$4,312	\$32,977
<b>Comparison Group</b>	Average Performance-Based Pay Increase	\$1,262	\$1,561	\$892	\$459	\$9,492
	Average Award Amount	\$1,739	\$1,379	\$1,219	\$561	\$10,545
	TOTAL	\$3,001	\$2,940	\$2,111	\$1,020	\$20,037

*Notes:*

- Demonstration and Comparison Group performance-based pay increases are based on valid data for all employees receiving zero or greater performance-based pay increases.*
- For this analysis, the number of participants in each group in each year ranged from 20 to 203.*
- 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.*
- The data reported for Years One, Two, and Three vary slightly from that which was reported in the Year Three report. This analysis was revised to include only those employees who were in their respective groups for the entire nine 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).*

Absent of this analysis, one assumption might have been that differences in salary progression between the two groups could be attributable to the frequency with which employees experience salary increases. 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. However, the analysis accounts for this difference in the frequency of increases because it looks at the average increase, across individuals, in any given year. As a result, these findings appear to demonstrate that the Demonstration Project interventions are resulting in greater salary gains over time for those within the Demonstration Group.

4.5.19. Based on survey results, Demonstration Group supervisors are not yet widely accepted for the role they play in managing pay

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. In Year Nine, Demonstration Group and Comparison Group supervisory employees reported reasonably similar levels of agreement (with just above one-third agreeing) that they have enough authority to determine their employees’ pay (see Table 4-50). These findings are a departure from previous years where significant differences existed between these two supervisory groups.

In comparing the results to Year Seven, it is evident that the Demonstration Group results have remained reasonably constant: level of agreement in having sufficient authority to determine employees’ pay was 42 percent in Year Seven compared to 39 percent in Year Nine. In contrast, the Comparison Group results have changed significantly from 23 percent in Year Seven to 38 percent in Year Nine. This likely reflects the fact the composition of the Comparison Group has shifted, and the participants may be reflecting on different variants of the GS pay system.

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

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
115. I have enough authority to determine my employees’ pay.	<i>Disagree</i>			37%			44%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>			24%			18%	
	<i>Agree</i>			39%			38%	

*(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*

For Year Nine, there were no differences between responses from the Demonstration Group and Comparison Group respondents with respect to the way management handles pay (see Table 4-51). Approximately one-third of respondents reporting satisfaction. Here, too, the results are more pronounced when examined by wave: Wave 1 respondents reported 44 percent agreement, Wave 2 respondents reported 49 percent agreement, and Wave 3

respondents reported 31 percent agreement. As expected, supervisory employees expressed greater satisfaction than did non-supervisory employees.

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

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
54. I am satisfied with the way management handles pay.	<i>Disagree</i>	31%	34%	25%	32%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	29%	30%	25%	29%			
	<i>Agree</i>	40%	36%	50%	38%			
55. Management officials are qualified to make pay decisions.	<i>Disagree</i>	21%	24%	15%	26%	27%	23%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	28%	30%	23%	27%	31%	14%	
	<i>Agree</i>	51%	46%	62%	47%	43%	63%	

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

4.5.20. 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 assume. 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 957 supervisors in the Demonstration Group during Year Nine. Of these 957 supervisors, 183 were eligible for supervisory performance pay and 428 supervisors were not (the remaining 346 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 Nine, 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 89.6 points (with a range of 76 to 98 points) while the average among all other supervisors was 88.0 points (with a range of 60 to 98 points). The gap between the two groups (1.6 points) is slightly larger than it was in Year Eight. Both of these average scores are higher than the overall average for the Demonstration Group (86.2 points).

**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
Year Eight	631	148	89.3 points	442	88.1 points	1.2 points
Year Nine	957	183	89.6 points	428	88.0 points	1.6 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, 97 percent (57 percent plus 40 percent) had performance scores above 80. A similar 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), although they are similar to those who were not eligible for supervisory performance pay (95 percent had performance scores above 80).

**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	57%	44%
80-89	40%	51%
70-79	2%	4%
60-69	0%	1%
50-59	0%	0%
40-49	0%	0%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

Note:

1. This analysis is based on the 611 of the 957 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 36 percent were eligible for supervisory pay. Similarly, among all the supervisors who were in the 80-

89 performance score category, only 25 percent were eligible for supervisory pay. Thus, by expanding the future salary growth potential for supervisors (the band maximum has been increased up to 6 per cent) supervisory performance pay may be a motivator for supervisors; however, by design, it does not necessarily serve 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**

Performance Score Category	Eligible For Supervisory Performance Pay	Not Eligible For Supervisory Performance Pay	Total
90-100	36%	64%	100%
80-89	25%	75%	100%
70-79	18%	82%	100%
60-69	0%	100%	100%
50-59	-	-	-
40-49	-	-	-

*Note:*

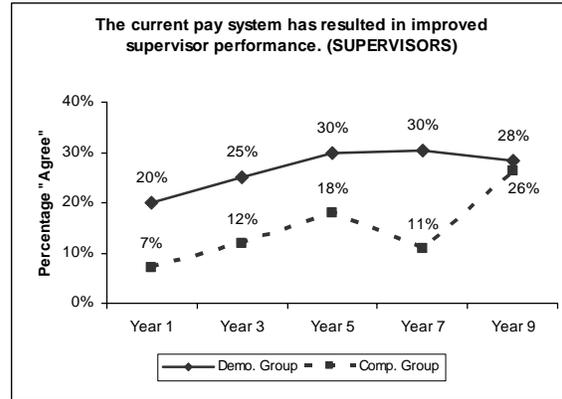
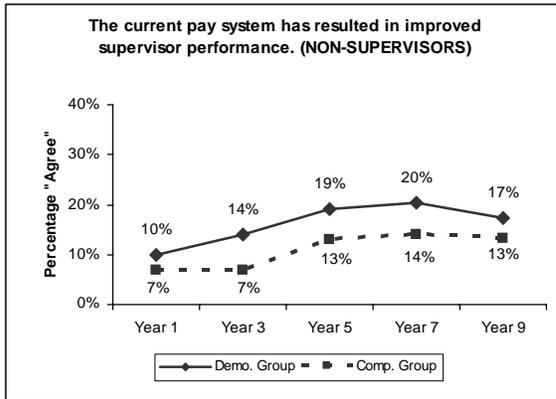
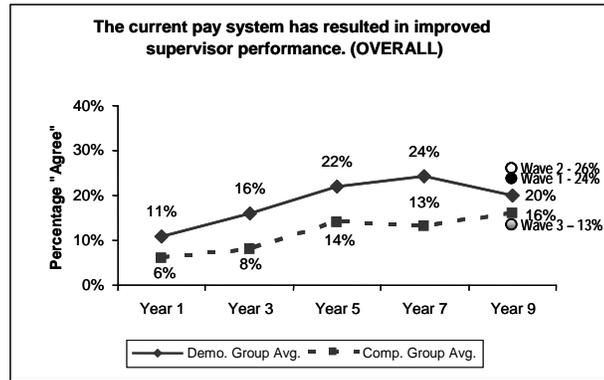
1. This analysis is based on the 611 of the 957 supervisors for whom performance score data were available.

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 (1.1 percent) than those supervisors who were not eligible (3.7 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 1.6 percent once their supervisory performance pay was distributed).

#### 4.5.21. The slight upward trend in perceptions that the pay system will lead to improved supervisory performance continued for Wave 1 and Wave 2 participants

Overall, Demonstration Group participants' perceptions that the pay system will lead to improved supervisory performance has gained acceptance over time (see Table 4-55), albeit only receiving support from a limited percentage of the respondents after nine years. Within the Demonstration Group, Wave 1 and Wave 2 participants' perceptions were very consistent with Year Seven. Wave 3 participants' responses were less positive (which reduced the overall average for the Demonstration Project); however, it is also likely that Wave 3 participants were reacting to their previous pay system rather than that which was implemented with the Demonstration Project. In both the Demonstration Group and the Comparison Group, more supervisory employees than non-supervisory employees felt that the pay system has led to improved supervisory performance.

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



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
56. The current pay system has resulted in improved supervisor performance.	Year Nine	Disagree	41%	43%	35%	39%	41%	33%
		Neither disagree nor agree	39%	40%	37%	45%	46%	40%
		Agree	20%	17%	28%	16%	13%	26%
	Year Seven	Disagree	37%	39%	33%	44%	44%	46%
		Neither disagree nor agree	39%	41%	37%	42%	42%	43%
		Agree	24%	20%	30%	13%	14%	11%
	Year Five	Disagree	39%	40%	36%	37%	36%	40%
		Neither disagree nor agree	40%	41%	35%	49%	51%	42%
		Agree	22%	19%	30%	14%	13%	18%
	Year Three	Disagree	44%	46%	35%	49%	49%	53%
		Neither disagree nor agree	40%	40%	39%	43%	44%	36%
		Agree	16%	14%	25%	8%	7%	12%
	Year One	Disagree	47%	49%	39%	44%	42%	53%
		Neither disagree nor agree	42%	42%	42%	50%	52%	40%
		Agree	11%	10%	20%	6%	7%	7%

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

#### 4.5.22. Focus group and interview data did not provide strong evidence that supervisory performance pay influences supervisors to remain at DoC

In focus groups, Demonstration Group supervisory employees provided mixed responses to the impact of supervisory performance pay. Whereas some reported that it is fair as is, others reported that it has little influence on decisions, for example, to remain at DoC. In interviews, Pay Pool Managers, Rating Officials, and Directors provided similarly mixed responses; they reported that some supervisors appreciate supervisory performance pay whereas it makes no difference to others. Table 4-56 and Table 4-57 display these findings.

**Table 4-56. Focus Group Results – "To what degree does the supervisory performance pay intervention influence your decision to remain at DoC?" "In what ways, if any, could the supervisory performance pay intervention be improved?"**

Demonstration Group
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Supervisory performance pay has no influence on decision to leave DoC</li> <li>• Increasing the pay to 10 percent would be an improvement to the supervisory pay intervention</li> <li>• Not sure how it could be improved</li> <li>• The pay is fair and should not be changed</li> </ul>

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

Demonstration Group
<p><b>Pay Pool Managers, Rating Officials, and Directors</b></p> <ul style="list-style-type: none"> <li>• Supervisors have reacted positively to the supervisory performance pay</li> <li>• Some appreciate the increase and for others it makes no difference</li> <li>• Supervisors are indifferent to supervisory performance pay</li> </ul>

#### 4.6. Many 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 4-58, 193 employees were under the three-year probation, 60 of whom had just started their probation in Year Nine. By the end of Year Nine, 142 employees remained on the three-year probation going into Year Ten.

**Table 4-58. Employees on Three-Year Probation**

Year Probation Began	Number on Probation in Year Nine	Number Made Permanent in Year Nine	Number Remaining on Probation at End of Year Nine	Number Who Resigned
Demo Project Year Five	1	0	1	0
Demo Project Year Six	60	31	26	3
Demo Project Year Seven	41	16	23	2
Demo Project Year Eight	31	4	27	0
Demo Project Year Nine	60	0	60	0
TOTAL	193	51	137	5

Note:

1. These totals include employees who were removed from three-year probation just prior to the start of Year Nine (02/05/06).<sup>24</sup>

By the end of Year Nine, 51 employees who had been under the three-year probation had been made permanent: 31 were employees were made permanent after completing the three-year probation and an additional 16 were made permanent during their third year. The remaining four were released early from the three-year probation: they were in their second year at the time they were made permanent. The relatively low percentage (4 of 51, or 8 percent) of individuals taken off probation (i.e., made permanent) in just their second year indicates that managers are making use of this intervention by allowing 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.

<sup>24</sup> The data provided by DoC suggests that all decisions about keeping or releasing employees from the three-year probation is occurring on a single date each year; for this reason, some individuals are being released (i.e., made permanent) from probation after three full years have expired and some are being released from probation just short of their three years. For purpose of analysis, either of these scenarios will be considered as having served the three-year probationary period.

Another useful metric of this intervention is the number of employees who leave while on three-year probation. The three-year probation 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 Nine, five employees under the three-year probation left, three due to resignation and two due to termination. Three of these employees were in their third year of probation and two were in their second year of probation; none had been made permanent in Year Nine.

#### **4.7. The Demonstration Project recruitment and staffing interventions are working well, although many of the interventions are no longer unique to the Demonstration Project**

The Demonstration Project implemented a number of interventions aimed at attracting high quality candidates and expediting the recruiting and examining process. These interventions include delegated examining authority, local authority for recruitment payments, flexible entry salaries, and flexible paid advertising. 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, over time, the interventions appeared to be working effectively in the Demonstration Group. We also focused on flexible entry salaries, an intervention that is less available elsewhere. The ability to offer flexible entry salaries is a recruiting tool that gives hiring officials greater flexibility to offer highly qualified candidates starting salaries that are more competitive with other public agencies and private industry.

In Year Nine, 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 negotiate higher entry salaries offer managers the latitude to attract competitive candidates. Moreover, perceptual data suggest that Demonstration Group participants believe that it is reasonable to use these and other types of interventions to attract the best candidates.

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

During Year Nine, 532 new hires were brought into the Demonstration Group, as identified in the objective data file. This represents an increase from Year Eight, in which 437 new hires were brought into the Demonstration Group. The Comparison Group experienced an increase from 116 new hires in Year Eight to 248 new hires in Year Nine.

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 are not currently captured in such a way to facilitate this analysis.

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, we identified all Demonstration Group participants who were hired into the Demonstration Project in Years One to Eight, and who still remained in the Demonstration Group in Year Nine. We did not include Year Nine 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 to Eight, 2,551 remained in Year Nine. The analysis was then based upon the 1,897 of the 2,551 employees who had eligible performance ratings and performance scores in Year Nine. The results showed that the average performance score for these new hires from across the years was 86.4 points, which was slightly higher than the average performance score of 86.0 points for those who were hired prior to the start of the Demonstration Project. Although this slight difference is inconclusive, it adds some credence to the impression of improvement in the quality of new hires. The small magnitude of the difference is also comparable to the results found in Year Eight, Year Seven, Year Six, and Year Five.

#### 4.7.2. Hiring rates varied by organization

As displayed in Table 4-59, the rate of hiring varied across participating organizations. The most significant growth occurred at NTIA-ITS, followed by OS-ASA, NOAA-NWS, and ESA-BEA. 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 4-59. New Hires by Organization**

Organization	Number of Employees	Number of New Hires	Staffing Increase
NTIA-ITS	90	17	23.3%
OS-ASA	422	57	15.6%
NOAA-NWS	48	5	11.6%
ESA-BEA	548	55	11.2%
NOAA-NESDIS	806	71	9.7%
NOAA-NMAO	178	14	8.5%
NOAA-UNSEC	121	9	8.0%
NOAA-NMFS	2,969	209	7.6%
NOAA-OAR	719	49	7.3%
NOAA-NOS	1,176	35	3.1%
NOAA-STAFF OFFICES	600	11	1.9%
NOAA-PPI	9	0	0.0%
TA	13	0	0.0%
<b>TOTAL</b>	<b>7,699</b>	<b>532</b>	<b>7.4%</b>

*Notes:*

1. Staffing increase was computed as the increase from the number of employees minus the new hires to the number of new hire (i.e.,  $17/(90-17)$ ).
2. These data are based upon the objective data file.
3. NOAA-Staff Offices includes NOAA's Office of the Chief Administrative Officer (OCAO), Office of the Chief Financial Officer (OCFO), Workforce Management Office (WFMO), and Program Analysis and Evaluation (PA&E).

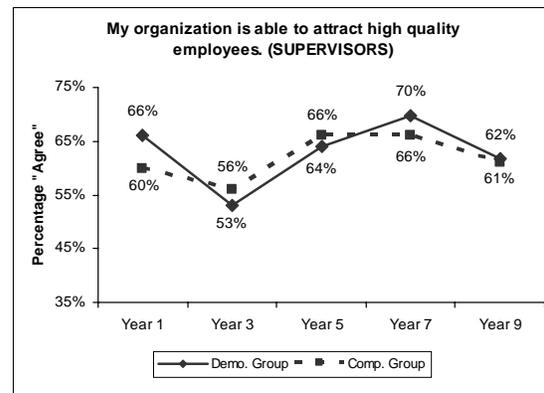
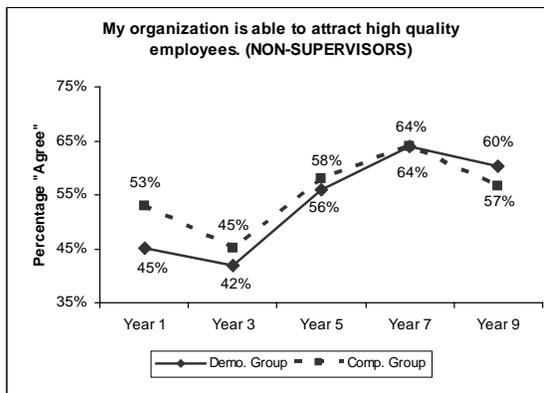
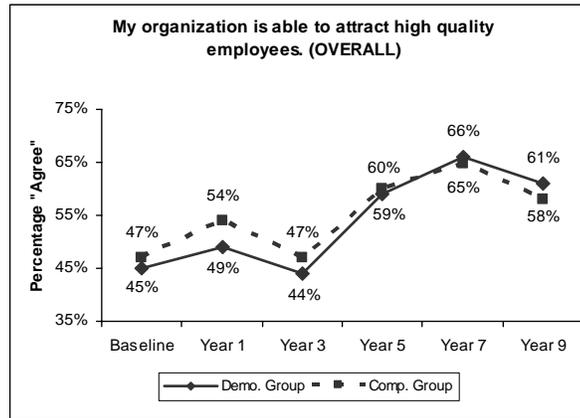
#### 4.7.3. Demonstration Group participants reported that they are having greater success with attracting high-quality employees

Survey and focus group results showed that participants perceived that the Demonstration Project has the ability to attract high quality employees. The results, which closely mirror the Comparison Group, show improvement over the past nine years.

##### 4.7.3.1. General perceptions about the ability to attract high quality employees has been very similar in the Demonstration Group and the Comparison Group over the years

As displayed in Table 4-60, overall survey respondents' perceptions about the organization's ability to attract high quality employees decreased in Year Nine for both the Demonstration Group and the Comparison Group. Given that the Demonstration Group and Comparison Group responses track so closely, it appears that factors other than the Demonstration Project interventions are impacting DoC overall.

**Table 4-60. Change Over Time – Organization’s Ability To Attract High Quality Employees**



			Demo. Group			Comp. Group		
			Total	(N)	(S)	Total	(N)	(S)
100. My organization is able to attract high quality employees.	Year Nine	Disagree	16%	16%	17%	16%	16%	19%
		Neither disagree nor agree	23%	24%	21%	26%	28%	20%
		Agree	61%	60%	62%	58%	57%	61%
	Year Seven	Disagree	13%	13%	12%	15%	15%	14%
		Neither disagree nor agree	21%	23%	18%	21%	21%	20%
		Agree	66%	64%	70%	65%	64%	66%
	Year Five	Disagree	15%	16%	14%	14%	14%	15%
		Neither disagree nor agree	26%	27%	22%	26%	28%	19%
		Agree	59%	56%	64%	60%	58%	66%
	Year Three	Disagree	26%	28%	20%	22%	23%	16%
		Neither disagree nor agree	30%	30%	27%	32%	32%	29%
		Agree	44%	42%	53%	47%	45%	56%
	Year One	Disagree	21%	22%	15%	20%	20%	16%
		Neither disagree nor agree	30%	33%	19%	26%	27%	24%
		Agree	49%	45%	66%	54%	53%	60%
	Base-line	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 only of those who have been personally involved in recruiting or hiring of permanent employees from outside of the agency. Their responses are displayed in Table 4-61. There is no significant difference between the perceptions of Demonstration Group and Comparison Group respondents, suggesting that both groups have kept pace with efforts to increase the quality of new hires.

When asked to focus on the quality of new hires relative to the workforce in general, nearly two-thirds of Demonstration Group participants indicated that new hires are better than average, with over one-quarter perceiving new hires as in the “Top 10%” or “Top 1%.” There was no significant difference between groups or based on supervisory status.

**Table 4-61. Survey Results – Quality of New Hires**

	Demo. Group			Comp. Group			Demo. vs. Comp.
	Total	(N)	(S)	Total	(N)	(S)	
66. 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%	1%	1%	2%			No significant difference
<i>Top 10% (outstanding)</i>	11%	12%	11%	14%			
<i>Top 25% (very good)</i>	39%	36%	42%	37%			
<i>Average</i>	34%	38%	31%	27%	No significant difference		
<i>Below average</i>	7%	5%	8%	16%			
<i>Poor</i>	3%	1%	4%	0%			
<i>I have not been personally involved with recruiting</i>	5%	7%	3%	5%			
67. 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>	2%			3%			No significant difference
<i>Top 10% (outstanding)</i>	25%			24%			
<i>Top 25% (very good)</i>	34%			30%			
<i>Average</i>	25%			24%			
<i>Below average</i>	3%	No significant difference		5%	No significant difference		
<i>Poor</i>	2%			5%			
<i>Too early to tell</i>	2%			3%			
<i>No one was hired</i>	3%			3%			
<i>Don't Know/Not Applicable</i>	5%			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 4-62, focus group participants from the Demonstration Group reported that although the organization has not been hiring a lot of candidates recently, in instances where hiring has occurred, 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 4-62. Focus Group Results – "Have you noticed any differences in the past nine years in your work unit's ability to attract and hire quality candidates? If yes, to what do you attribute this difference? What techniques have worked well for you in attracting high quality candidates?"**

Demonstration Group	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, more flexibility in the ability to offer more money</li> <li>• Don't know, no hiring has occurred</li> <li>• Yes, hiring process is more streamlined</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Don't know, no hiring has occurred</li> <li>• No, cannot determine a difference</li> <li>• Yes, the candidates we are getting now are excellent</li> </ul>

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

When asked to provide suggestions for improving the hiring of high quality candidates, Demonstration Group focus group participants focused on two topics. One, participants suggested that DoC needed to increase its budget to offer more money to high quality candidates. And two, participants suggested numerous strategies for improving the hiring system to ease hiring of high quality candidates. Table 4-63 provides a summary of the suggested strategies.

**Table 4-63. Focus Group Results – Hiring Strategies for High Quality Candidates – Focus Group Results – "What else could DoC do to attract and hire high quality candidates?"**

Demonstration Group	Comparison Group
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Offer more money – need a larger budget</li> <li>• Improve/streamline the hiring process</li> <li>• Improve the hiring system by:                             <ul style="list-style-type: none"> <li>– Improving the skill set of people doing the hiring</li> <li>– Creating a more diverse pool of applicants</li> <li>– Improving applicant screening (need a more stringent review process)</li> </ul> </li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• In our part of DoC, provide oversight to the hiring process to avoid solely hiring political appointees</li> </ul>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Offer more money – need a larger budget</li> <li>• Change the hiring system to improve upon:                             <ul style="list-style-type: none"> <li>– Length of time to hire</li> <li>– Better screening of applicants</li> <li>– Develop better methodology</li> </ul> </li> </ul>	

4.7.4. In Year Nine, recruitment payments were used in the Demonstration Group more so than in the Comparison Group, but not to a great extent overall

Based on the objective datafile, 17 of the 532 (< 1 percent) new hires in the Demonstration Group during Year Nine received a recruitment payment. These payments ranged from approximately \$100 to \$15,000, a range that is broader than it was in Year Eight. While

recruitment payments are also now available under U.S.C. 5753<sup>25</sup>, this usage level is greater than in the Comparison Group where, in Year Nine, 1 new hire received a recruitment payment of \$10,000.

Survey data provide more insights into the use of recruitment payments. Fifty percent of the Demonstration Group new hires (hired during Year Eight or Year Nine) indicated that recruitment payments were instrumental in their decisions to accept the jobs (see Table 4-64), a marked increase from 23 percent in Year Seven. Fifty percent of the Comparison Group new hires also indicated that recruitment payments were instrumental in their decisions to accept the jobs. The similarity in response makes sense given that recruitment payments are now granted under the same authority and in the same way within and beyond the Demonstration Project. On a related topic, there was more support among the Demonstration Group than the Comparison Group that paying more to get high quality new hires is fair.

Over half of the Demonstration Group survey respondents who were hired during Year Eight or Year Nine indicated that their starting salaries were the same or better than the starting salaries they would have received from other organizations. Furthermore, ten percent of Demonstration Group participants indicated that starting salaries at other organizations were much higher than their starting salary at the current organization.

**Table 4-64. Survey Results – Recruitment Payments and Starting Salaries**

			Demo. Group			Comp. Group			Demo. vs. Comp.
			Total	(N)	(S)	Total	(N)	(S)	
62. My one-time recruitment payment was instrumental in accepting the job.	<i>Disagree</i>		30%			50%			*
	<i>Neither disagree nor agree</i>		20%	*		0%	*		
	<i>Agree</i>		50%			50%			
59. Paying a high quality new hire more than other new hires is fair.	<i>Disagree</i>		24%	26%	17%	27%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>		18%	19%	15%	25%			
	<i>Agree</i>		58%	55%	68%	47%			
63. 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>		6%	<i>No significant difference</i>		13%		*	*
	<i>Somewhat less than (90% to 95% of) my starting salary</i>		12%			13%			
	<i>About the same as my starting salary</i>		31%			16%			
	<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>		10%			9%			
	<i>I don't know</i>		23%		31%				

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

Item 62 was asked only of respondents who indicated that they were hired since March 2005 and received a recruitment payment

Item 63 was asked only of respondents who indicated that they were hired since March 2005

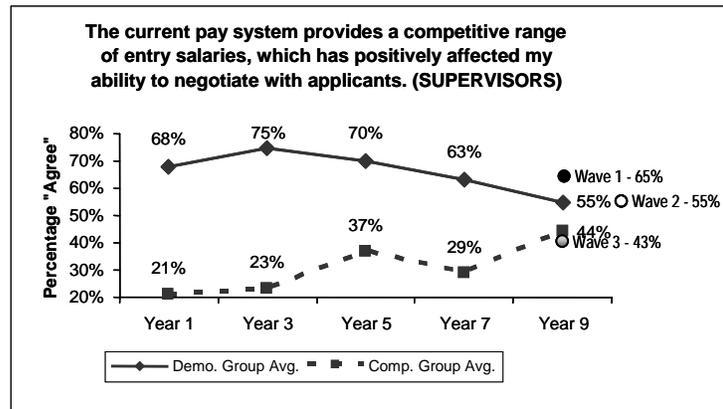
\* The low number of responses to this question precluded testing the statistical significance of this item

<sup>25</sup> The Demonstration Project has rescinded its independent authority to pay recruitment payments and now has the authority to pay recruitment incentives under 5 U.S.C. 5753 and 5 CFR part 575, subpart A. See 71 FR 25615.

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 4-65). 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 among Wave 1 and Wave 2 respondents. Wave 3 respondents responded more similarly to the Comparison Group. The Comparison Group itself has experienced an upward trend, over the years, in their perceptions of flexible entry salaries, a finding that is interesting given that the GS system offers managers little flexibility for setting pay.

Table 4-65. Change Over Time – Flexible Entry Salaries



		Demo. Group	Comp. Group	
121. 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.")	Year Nine	Disagree	14%	22%
		Neither disagree nor agree	31%	34%
		Agree	55%	44%
	Year Seven	Disagree	11%	37%
		Neither disagree nor agree	26%	34%
		Agree	63%	29%
	Year Five	Disagree	10%	37%
		Neither disagree nor agree	20%	26%
		Agree	70%	37%
	Year Three	Disagree	12%	51%
		Neither disagree nor agree	13%	27%
		Agree	75%	23%
	Year One	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 4-66. Starting salaries were compared by sorting new hires by path and by band (or their equivalents for Comparison Group members). Out of 13 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 ten of them (77 percent), which is lower than previous years. 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 4-66. 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	3	\$15,000	0	-
Band 2	17	<b>\$21,200</b>	4	\$5,148
Band 3	25	<b>\$27,722</b>	4	\$0
Band 4	21	<b>\$41,475</b>	3	\$26,614
Band 5	3	\$30,664	0	-
<b>ZP</b>				
Band 1	7	<b>\$16,438</b>	40	\$9,053
Band 2	57	<b>\$29,406</b>	80	\$18,598
Band 3	36	<b>\$40,161</b>	25	\$35,131
Band 4	21	\$34,647	23	<b>\$44,754</b>
Band 5	4	\$23,200	3	<b>\$45,047</b>
<b>ZS</b>				
Band 1	6	<b>\$3,327</b>	3	\$0
Band 2	9	\$8,928	0	-
Band 3	9	<b>\$14,673</b>	9	\$11,337
Band 4	7	\$6,296	19	<b>\$15,440</b>
Band 5	0	-	0	-
<b>ZT</b>				
Band 1	10	<b>\$12,461</b>	2	\$0
Band 2	8	<b>\$22,207</b>	4	\$9,956
Band 3	0	-	12	\$16,474
Band 4	0	-	17	\$29,392
Band 5	0	-	0	-

*Notes:*

- 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., 243 of the 532 new hires in the Demonstration Group and all 248 new hires in the Comparison Group).*
- Size of range of was computed as by subtracting the smallest starting salary from the largest starting salary.*

When interviewees 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. Among all of the interventions reported, all three groups named flexible starting salaries before any others. Additional interventions mentioned were broadbanding and recruitment and retention payments. These results are presented in Table 4-67.

**Table 4-67. Interview Results – "Which of these recruitment interventions (broad-band classification, direct examination, agency-based staffing, flexible entry salaries, more flexible paid advertising and local authority for recruitment and retention payments) if any, have been successful in the past nine [four] years in your organization's efforts to attract and hire high quality candidates?"**

Demonstration Group		
<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>Broadbanding</li> </ul>	<ul style="list-style-type: none"> <li>Flexible starting salaries</li> <li>Retention payments</li> <li>Delegated examining authority</li> </ul>	<ul style="list-style-type: none"> <li>Flexible starting salaries</li> <li>Broadbanding</li> <li>Recruitment payments</li> </ul>

#### 4.7.6. Some differences existed between the Demonstration Group and the Comparison Group in the use of available hiring methods

Based on data provided by the participating organizations on the use of various methods for hiring in Year Nine, the Demonstration Group experienced an increase in the number of offers made across all methods over the previous year. In addition, relative to the Comparison Group, the Demonstration Group extended more offers in Year Nine (even with accounting for the difference in the sizes of the two groups).

As shown in Table 4-68, the Demonstration Group used delegated examining authority for 273 candidates and merit assignment for 284 candidates, representing a shift from Year Eight when more candidates were recruited using delegated examining authority. In contrast, consistent with Year Eight, the Comparison Group reported a higher use of delegated examining authority (73 candidates) compared to merit assignment (65 candidates).

The Demonstration Group had a 94 percent acceptance rate with the number of job offers made using merit assignment, compared to a rate of 92 percent for the delegated examining authority method. The Comparison Group had a perfect acceptance rate for offers made using merit assignment, compared to a 95 percent acceptance rate for offers made through delegated examining authority. This observation is important because in the Comparison Group, the more successful recruitment method was used less frequently.

Of significance is the Demonstration Group's lower overall acceptance rate of 93 percent (averaging 92 and 94 percent) in Year Nine compared to the 97.5 percent (averaging 95 and 100 percent) for the Comparison Group. That result can be attributed in part to the lower acceptance rate across both recruiting methods within Wave 1. Wave 1's overall acceptance rate of 87.5 percent (averaging 85 and 90 percent) represents a drop from its average acceptance rates of 95 percent and 99.5 percent in Years Seven and Eight respectively. In those two years, averages for the Comparison Group were 98 percent and 97 percent

respectively. It is important to note that although a drop in the acceptance rate was evident this year, across the board these are still very acceptable acceptance rates. It may be that the lower acceptance rates simply reflect that Wave 1 organizations are competing with universities, the private sector, and elsewhere in the federal government for highly qualified candidates. Given that Wave 2 and Wave 3 demonstrated higher acceptance rates, it does not appear to be that some aspect of the Demonstration Project itself is deterring candidates.

**Table 4-68. Agency Data Request Results – Recruitment Methods**

	Demo. Group				Comp. Group
	TOTAL	Wave 1	Wave 2	Wave 3	TOTAL
<b>Delegated Examining Authority</b>					
Total number of offers made	273	130	48	65	73
Total number of offers accepted	251	111	47	64	69
Total number of offers re-negotiated (per candidate)	23	15	1	4	11
Acceptance rate (offers accepted/offers made)	92%	85%	98%	98%	95%
<b>Merit Assignment</b>					
Total number of offers made	284	147	45	71	65
Total number of offers accepted	267	132	44	71	65
Total number of offers re-negotiated (per candidate)	11	8	0	2	5
Acceptance rate (offers accepted/offers made)	94%	90%	98%	100%	100%
<b>Classification</b>					
Average amount of time needed to produce and classify a position (in hours)	0.6	0.5	0.5	0.7	21.5
Average amount of time needed to process a classification action (in hours)	0.6	0.5	0.5	0.7	12.2
<b>Time to Fill Positions</b>					
Average number of calendar days required to fill a position (from initial posting of vacancy to selection)	67.5	73.0	49.6	84.7	62.0

Notes:

1. The HR organizations collectively reported bringing 562 new hires into the Demonstration Group during Year Nine; this number varies somewhat from the number of new hires reported in the objective datafile.
2. The breakdown by wave does not include candidates classified as Wave 2/Wave 3 due to incomplete classification information. However, all candidates are included in the totals for the Demonstration Group.

In the Demonstration Group, approximately six percent of job offers were re-negotiated, slightly lower than Year Eight's nine percent. Consistent with Year Eight, twelve percent of offers were re-negotiated in the Comparison Group.

Between the Demonstration Group and Comparison Group, there was a marked difference in the average duration 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. The Demonstration Group reported an average of half an hour for each activity compared to the Comparison Group's average of 21.5 hours and 12.2 hours respectively. This difference is likely attributable to the efficiencies implemented under the

Demonstration Project, including the ACS and the delegated classification authority, which allows a larger share of the work to be done at the managerial level prior to involvement by the human resources professionals.

Of note, the average number of calendar days required to fill a position (from initial posting of vacancy to selection) was faster for the Comparison Group (62 days) than the Demonstration Group (67.5 days). Moreover, the Demonstration Group has recorded a steady increase in its average over the last three years – Year Six (40 days), Year Seven (52 days), and Year Eight (69 days). Within the Demonstration Group, there is a noticeable difference by wave: the average number of days to fill a vacancy in Wave 2 is 49.6 days, well below that of the other two waves and the Comparison Group. The longest timeframes occurred in Wave 3 at 84.7 days, followed by Wave 1 at 73.0 days. The wide variance in the timeframes to fill vacancies, even within the Demonstration Group itself, suggests that there may be differences at a more local level than due to Demonstration Project practices. However, given that this variance is not clearly explainable, and given the increasing timeframe over the years, this issue warrants further attention and, as needed, appropriate action in the future.

#### **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 Nine, and consistent with past years, 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 the ability to offer flexible pay increases upon promotion. Subjective data analyses show that some Demonstration Group participants perceive that some of 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, 430 of the 7,699 Demonstration Group participants (5.6 percent) separated in Year Nine. Ultimately, it is hoped that lower performing employees will separate at higher rates than will higher performing employees. As displayed in Table 4-69, dividing Demonstration Group participants into performance score groupings shows clear evidence of the desired relationship in Year Nine. 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., 33.3

percent of employees with scores in the 40-49 range separated from the organization) and turnover is lower among those with higher scores (e.g., 1.9 percent of employees with scores in the 90-100 range separated), which reflects results that are consistent with past years. (For this analysis, turnover was defined as employees who retired, resigned, terminated, or otherwise separated from the Demonstration Project.)

**Table 4-69. Demonstration Group Turnover Rates by Level of Performance**

Performance Score Category	Number of Employees	Number of Separated Employees	Turnover Rate
90-100	1,289	25	1.9%
80-89	2,355	78	3.3%
70-79	335	28	8.4%
60-69	58	6	10.3%
50-59	13	0	0.0%
40-49	3	1	33.3%

*Notes:*

1. The total number of employees in this analysis is based on the 4,053 employees for whom valid Year Nine performance scores of 40 and above were available.
2. Overall, 430 employees separated during Year Nine. The total number of separated employees in this analysis is based on 138 of the 430 employees who separated in Year Nine for whom valid Year Nine performance scores were available.
3. The overall turnover rate for the Demonstration Group is 5.6 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 Nine from 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 majority of 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 in the absence 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 Nine, turnover was 6 percent in the Demonstration Group and 5 percent in the Comparison Group. This represents a decrease for the Demonstration Group and status quo for the Comparison Group compared to Years Five to Eight.

When the Year Nine Demonstration Group turnover is examined by wave, the results show that Wave 1 experienced 7.2 percent turnover, which was less than Year Eight (7.7 percent). Wave 2 experienced 7.6 percent turnover, which was slightly higher than Year Eight (7.4 percent). Wave 3 experienced 3.0 percent turnover. Overall, the gap in turnover rates is not considerable but will be closely monitored in future years in case the turnover rates diverge further.

The cumulative turnover rate was calculated as the total number of separations in Years Two through Nine divided by the average number of Demonstration (or Comparison) Group participants (the average number across Years Two through Nine). (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 Nine, there has been a cumulative turnover rate of 67 percent in the Demonstration Group. In comparison, the cumulative turnover rate in the Comparison Group was 56 percent. Table 4-70 displays these results. The higher cumulative turnover rate in the Demonstration Group may be indicative of progress toward eliminating lower performers, which is supported by the evidence (previously presented) that lower performers are separating at higher rates than high performers.

**Table 4-70. Turnover Rates by Group**

Group	Year Two	Year Three	Year Four	Year Five	Year Six	Year Seven	Year Eight	Year Nine	Cumulative Over Years Two-Nine
<b>Demo. Group</b>	13%	16%	15%	5%	5%	7%	8%	6%	67%
<b>Comp. Group</b>	10%	11%	15%	4%	5%	5%	5%	5%	56%

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 Nine, as displayed in Table 4-71.

**Table 4-71. 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	3,999	173	4.3%	86.2 points
ZT	420	36	8.6%	86.0 points
ZA	2,304	158	6.9%	86.9 points
ZS	752	62	8.2%	84.3 points

Notes:

1. Average turnover rates were computed based on 7,475 of the 7,699 Demonstration Group participants for whom career path and turnover data were available.
2. Overall average performance appraisal scores by career path were computed based on the 4,053 of the 7,699 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 Nine nor to those for whom turnover data were available.

These results show that turnover is greatest among ZT, which is also the career path with the lowest average performance score. The results also show that turnover is lowest among ZP, which is the career path with the second highest average performance score in Year Nine. This finding provides further evidence of an appropriate and desired relationship between turnover and performance levels.

#### 4.8.4. Turnover was greatest among TA and lowest among the Wave 3 NOAA organizations

Average turnover rates also varied somewhat by organization in Year Nine, as displayed in Table 4-72. Many of the Wave 3 NOAA organizations (i.e., NOS, NMFS, UNSEC, NMAO, and OAR) experienced the lowest turnover, ranging from 0.0 to 2.6 percent. The highest turnover was experienced by TA employees at 53.8 percent, with a distant second being OS-ASA at 14.9 percent.

**Table 4-72. Average Turnover Rate by Organization and Wave**

Wave	Organization	Number of Employees	Number of Separated Employees	Turnover Rate
Wave 1	TA	13	7	53.8%
	NTIA-ITS	90	12	13.3%
	ESA-BEA	547	56	10.2%
	NOAA-OAR	601	42	7.0%
	NOAA-NMFS	1,112	71	6.4%
	NOAA-NWS	48	3	6.3%
	NOAA-NESDIS	781	40	5.1%
Wave 2	OS-ASA	422	63	14.9%
	NOAA-OAR	86	7	8.1%
	NOAA-NESDIS	25	2	8.0%
	NOAA-NMFS	902	37	4.1%
	NOAA-PPI	9	0	0.0%
Wave 3	NOAA-STAFF OFFICES	600	34	5.7%
	NOAA-NOS	1,176	31	2.6%
	NOAA-NMFS	908	21	2.3%
	NOAA-UNSEC	121	2	1.7%
	NOAA-NMAO	178	2	1.1%
	NOAA-OAR	32	0	0.0%

*Notes:*

1. This analysis is based on the 7,651 of the 7,699 of the Demonstration Group participants for whom organization and wave data were available.
2. NOAA-Staff Offices includes NOAA's Office of the Chief Administrative Officer (OCAO), Office of the Chief Financial Officer (OCFO), Workforce Management Office (WFMO), and Program Analysis and Evaluation (PA&E).
3. The number of separated employee reported for Wave 3 only includes part of the year, October 2006 to March 2007, given that October 2006 is when Wave 3 entered the Demonstration Project. Given this, these turnover rates are likely underestimates of the actual turnover rates in the Wave 3 organizations.

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 both supervisory and non-supervisory employees, believe that turnover is fairly low within their organizations (see Table 4-73). This finding is consistent with the reasonably low turnover rates that were identified in the objective data files for Year Nine. Although some of the Demonstration Group participants reported low turnover, they also noted that turnover rates will soon be affected by an increase in retirements. Some non-supervisors reported that when employees leave the organization, it impacts morale because DoC has difficulty filling these positions. Other participants reported that some people leave for career advancement opportunities, especially evident among lower and mid-level employees.

**Table 4-73. Focus Group Results – "How much turnover is there within your work unit? In what ways, if any, has this impacted morale in your work unit?"**

<b>Demonstration Group</b>	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Turnover impacts morale when DoC cannot backfill due to budget issues</li> <li>• Turnover is not an issue – people stay</li> <li>• Turnover is increasing due to the rise in retirement aged employees</li> <li>• Turnover is higher with employees at the lower to mid-level – employees leave to advance their careers (not enough room at the top)</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Very little turnover – people stay because:                             <ul style="list-style-type: none"> <li>– They like the work</li> <li>– They like the environment</li> </ul> </li> <li>• Employees are leaving because:                             <ul style="list-style-type: none"> <li>– Retirement</li> <li>– Pay</li> <li>– Younger generation employees are not staying long</li> </ul> </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 Year Nine, 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 increase, for whom data were available.) The results are presented in Table 4-74. These findings provide additional support that the Demonstration Project is turning over lower performers (who presumably received lower increases).

**Table 4-74. 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%	\$2,541
Leavers	2.0%	\$1,469
<b>Bonus</b>		
Stayers	2.0%	\$1,675
Leavers	1.6%	\$1,266
<b>Total Awards (Performance-Based Pay Increase Plus Bonus)</b>		
Stayers	5.3%	\$4,149
Leavers	3.6%	\$2,721

*Notes:*

1. Average awards were computed for the Demonstration Group participants for whom turnover, salary, and bonus data were available (3,692 for the performance-based pay increase analysis and 3,989 for the bonus analysis).
2. Average awards (in dollars) were computed for the Demonstration Group participants for whom turnover, salary, and bonus data were available (3,757 for the performance-based pay increase and 4,053 for the bonus analysis).
3. The difference between performance-based pay increases for stayers and leavers was statistically significant at the  $p \leq .01$  level. The difference between bonuses was statistically significant at the  $p \leq .01$  level. The difference between total awards was statistically significant at the  $p \leq .01$  level.
4. The average award, in dollars, for the total awards is not a simple sum of the totals reported for performance-based pay increase and bonus because this calculation was based on only those individuals for whom both performance-based pay and bonus data were available.

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

Retention payments are an intervention<sup>26</sup> that can serve as a tool for retaining high performing employees, especially those with expertise in critical skill areas. Analyses showed that 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 and, in Year Seven, the trend continued with three Demonstration Group participants (and three Comparison Group participants) receiving retention payments. The results for Year Eight were comparable: three Demonstration Group participants (and three Comparison Group participants) received retention payments. In Year Nine, two Demonstration participants (and no Comparison Group participants) received retention payments: one participant was in Wave 1 and one participant was in Wave 2.

The interest, in the past few years, to use retention payments is promising given that they 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 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

<sup>26</sup> The Demonstration Project has rescinded its independent authority to pay retention payments and now has the authority to pay retention incentives under 5 U.S.C. 5754 and 5 CFR part 575, subpart C. See 71 FR 25615.

percentage of employees who are retirement-eligible increases within DoC and the Federal Government overall.

As shown in Table 4-75, Demonstration Group survey respondents reported significantly different than Comparison Group survey respondents in terms of their support for the use of retention payments as a means of retaining employees with critical skills, with Demonstration Group respondents demonstrating greater support. Furthermore, Demonstration Group supervisors felt more strongly than non-supervisors that retention payments are fair. In contrast, the Demonstration Group and the Comparison Group reported similarly when asked if the current efforts toward retention have resulted in a higher quality, higher performing workforce.

**Table 4-75. Survey Results – Retention Payments**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
74. Current efforts toward employee retention have produced a higher quality, higher performing workforce.	<i>Disagree</i>	42%	44%	35%	45%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	36%	35%	37%	36%			
	<i>Agree</i>	22%	20%	27%	19%			
77. Giving a retention payment (extra money to keep an employee with critical skills from leaving) is fair.	<i>Disagree</i>	18%	19%	16%	21%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	20%	21%	16%	25%			
	<i>Agree</i>	62%	60%	68%	54%			

(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 Nine, turnover was higher among those who were eligible to receive supervisory performance pay compared to those who were not eligible

As shown in Table 4-76, in Year Nine, turnover among Demonstration Group supervisors (4.7 percent) was slightly lower than the turnover for all Demonstration Group participants (5.6 percent) and lower than Comparison Group supervisors (7.7 percent). As discussed in regards to overall turnover, the moderately low turnover rates across the Demonstration Group and Comparison Group, and across employees and supervisors, were likely driven by labor market conditions.

In theory, the supervisory performance pay intervention facilitates paying supervisors at more competitive levels, which could improve retention. However, in Year Nine (as occurred in Year Eight), turnover was greater among supervisors who were eligible to receive supervisory performance pay (7.8 percent) than among supervisors who were not eligible to receive supervisory performance pay (3.9 percent). One possible explanation for this discrepancy is that individuals on supervisory performance pay may also be closer to retirement age, given that supervisory performance pay is associated with higher salary levels. An analysis confirmed this hypothesis: retirement accounted for 100 percent of the turnover among those eligible for supervisory performance pay and only (relatively speaking) 53 percent of the turnover among those not eligible for supervisory performance pay.

**Table 4-76. Turnover Among Supervisors**

<b>Group</b>	<b>Total Number</b>	<b>Number Who Separated</b>	<b>Turnover Rate</b>
<b>Demonstration Group</b>			
All Employees	7,699	430	5.6%
All Supervisors	957	45	4.7%
<i>Supervisors Who Were Not Eligible to Receive Supervisory Performance Pay</i>	764	30	3.9%
<i>Supervisors Who Were Eligible to Receive Supervisory Performance Pay</i>	193	15	7.8%
<b>Comparison Group</b>			
All Employees	5,230	260	5.0%
All Supervisors	414	32	7.7%

*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.

#### 4.8.9. Turnover was slightly higher among those who are salary-capped than those who are not

As mentioned earlier, approximately 18 percent of the Demonstration Group participants who had eligible performance ratings and for whom salary data were available were salary-capped and an additional nine percent were nearly-capped. While salary capping occurs in many pay systems, it can have an impact on employees' perceptions – and their motivation – within a pay-for-performance system.

Starting in Year Eight, we examined the turnover rates for salary-capped employees compared to others. The analysis was continued in Year Nine, which showed that the turnover rates for those who were capped (6.1 percent) or nearly-capped (5.1 percent) was slightly higher than for those not-capped (4.8 percent). These results were consistent with Year Eight; however, the gap lessened in turnover rates between capped, nearly-capped, and not-capped employees.

#### 4.8.10. 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 feel career advancement is limited, are treated unfairly, or perceive managers as incompetent

Participants were asked two separate questions related to drivers of retention and turnover. As displayed in Table 4-77, Demonstration Group survey respondents reported that their primary reason for staying in the organization was the work itself and, secondarily, salary. When asked what factors would make them want to leave (see Table 4-78), the top reason was lack of career advancement, followed by unfair treatment and lack of competence of management.

**Table 4-77. Survey Results – Factors For Staying With the Organization**

		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
78. What are the factors that make you want to stay in your organization?	<i>The work itself</i>	68%	65%	76%	67%	64%	77%
	<i>Salary</i>	53%	52%	55%	49%	51%	44%
	<i>The people I work with</i>	36%	35%	39%	35%	35%	36%
	<i>Job security</i>	34%	36%	28%	41%	41%	41%
	<i>Benefits</i>	33%	34%	30%	35%	37%	28%
	<i>Convenient work hours</i>	20%	22%	13%	19%	23%	6%
	<i>The chance for advancement</i>	12%	13%	10%	10%	11%	8%
	<i>Competence of immediate supervisor</i>	12%	13%	12%	10%	10%	11%
	<i>The public reputation of this organization</i>	12%	11%	16%	15%	12%	23%
	<i>Other</i>	8%	8%	7%	8%	8%	11%
	<i>Fair treatment</i>	6%	6%	6%	6%	5%	9%
	<i>Competence of management</i>	4%	4%	5%	3%	3%	6%
	<i>Funding</i>	1%	1%	3%	1%	2%	0%

*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 4-78. Survey Results – Factors For Leaving the Organization**

		Demo. Group			Comp. Group		
		Total	(N)	(S)	Total	(N)	(S)
79. What are the factors that would make you want to leave?	<i>Lack of career advancement</i>	51%	54%	43%	55%	59%	43%
	<i>Unfair treatment</i>	41%	41%	39%	40%	40%	39%
	<i>Lack of competence of management</i>	40%	38%	46%	41%	40%	46%
	<i>Salary</i>	31%	32%	26%	33%	33%	36%
	<i>The work itself</i>	27%	26%	28%	21%	19%	28%
	<i>Lack of competence of immediate supervisor</i>	26%	26%	28%	21%	22%	19%
	<i>Funding</i>	19%	17%	22%	20%	19%	22%
	<i>The people I work with</i>	18%	18%	18%	16%	16%	17%
	<i>Other</i>	17%	17%	16%	17%	17%	16%
	<i>Inconvenient work hours</i>	12%	12%	13%	14%	15%	11%
	<i>Job security</i>	8%	7%	8%	12%	12%	11%
	<i>Benefits</i>	6%	6%	6%	6%	7%	6%
	<i>The public reputation of this organization</i>	5%	5%	6%	3%	3%	5%

*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.

The Demonstration Group supervisory and non-supervisory respondents reported similar priorities. However, supervisors from the Demonstration Group reported lack of competence of management as their primary driver for leaving whereas 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 Seven and Year Nine both ranked “the work itself” and “salary” as the top two motivators for staying with the organization, Year Nine results showed a marked increase in “lack of career advancement” as a reason for leaving the organization. This same pattern of results for primary drivers for retention and turnover was seen even after examining the results by racial/national origin groups (given the similarities, this information is not presented in the tables).

4.8.11. Demonstration Group participants expressed mixed reactions about whether the Demonstration Project interventions have been beneficial in retaining high performers

As displayed in Table 4-79, Demonstration Group participants provided a range of opinions about whether the Demonstration Project interventions contribute to retention of high performers. Some non-supervisory employees reported that the Demonstration Project interventions have not had an impact whereas others reported that performance-based pay increases are retention tools. Some supervisors expressed that certain interventions (e.g., performance bonuses, pay increases upon promotion) are helpful retention interventions whereas others reported that the interventions have not affected retention.

**Table 4-79. Focus Group Results – "Have any of the following personnel changes made as part of the Demonstration 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?"**

Demonstration Group	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• No, the personnel changes have not helped the DoC retain high performing employees any more than before the Demonstration Project</li> <li>• Yes, performance-based pay increases</li> <li>• The Demonstration Project has had little impact on retaining high performing employees because the potential for promotions is very small</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Yes, performance-based bonuses</li> <li>• Yes, potential for pay increase with promotion</li> <li>• DoC has not retained any more employees with the Demonstration Project than it did before the Demonstration Project</li> <li>• Yes, performance-based pay increases</li> </ul>

Demonstration Group non-supervisors and supervisors were asked what encourages high performers to stay with DoC. They suggested that the type of work, including special projects and experiential opportunities are beneficial. They also suggested that the use of higher salaries and retention bonuses are effective incentives (see Table 4-80).

**Table 4-80. Focus Group Results – "In what ways are high performing employees encouraged to stay with the DoC?"**

Demonstration Group	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Employees are given the opportunity to work on certain projects</li> <li>• More money – higher salaries</li> <li>• Retention Bonuses</li> <li>• Flexible schedules</li> <li>• Tele-work programs</li> <li>• Promotions</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Type of work:                             <ul style="list-style-type: none"> <li>– Better projects</li> <li>– Challenging work</li> <li>– Experiential opportunities</li> </ul> </li> <li>• Retention bonuses</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. While supervisory participants suggested that high performing employees be rewarded with more time off, non-supervisory participants reported that having good management was critical for retaining high performing employees. These findings are displayed in Table 4-81.

**Table 4-81. Focus Group Results – "What else could DoC do to retain high performing employees?"**

Demonstration Group	
<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Have good management</li> <li>• Tele-work programs</li> <li>• Bonuses (retention and cash-in bonuses)</li> <li>• Good assignments and choice of projects</li> <li>• Flexible work schedules</li> <li>• Higher salaries</li> <li>• Promotions and the opportunity for promotions</li> <li>• Assist with educational and training expenses</li> </ul>	<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Provide more time off as a reward to high performing employees</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 4-82). Those who indicated that it has remained the same had perspectives ranging from a belief that high expectations result in good performance to concerns that the workload has increased due to attrition. Some of those who indicated that employee performance has improved attribute it to factors other than the Demonstration Project, such as an increased focus on teamwork.

**Table 4-82. Focus Group Results – "Thinking about the fact that the Demonstration Project was designed to improve performance, has the quality of work within your work unit improved since the Demonstration Project began? If yes, what impact have new hires had on this improvement?" (Demo Group) "Has the quality of work within your work unit improved over the past nine [four] years? If yes, what impact have new hires had on this environment?" (Comp Group)**

Demonstration Group	Comparison Group
<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>– Employees are expected to do a good job regardless of the Demonstration Project</li> <li>– People are hoarding more work so they can take the credit in their performance reviews</li> <li>– Not able to backfill positions, so there is more work to do with less resources</li> <li>– Motivation decreases when employees are not recognized for the work being completed</li> </ul> </li> <li>• Performance improved                             <ul style="list-style-type: none"> <li>– Improvements are unrelated to the Demonstration Project</li> <li>– People are working more collaboratively and with enthusiasm</li> </ul> </li> </ul>	<p><b>Non-Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Performance stayed the same</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 4-83, five of these items did not generate significant differences in the responses of Demonstration Group versus Comparison Group respondents. However, for the remaining two 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 and how the organization addresses poor performers.

**Table 4-83. Survey Results – Quality of the Workforce**

			Demo. Group			Comp. Group			Demo. vs. Comp.
			Total	(N)	(S)	Total	(N)	(S)	
82. My organization recruits, selects, and advances employees on the basis of merit.	<i>Disagree</i>		26%	29%	19%	33%	36%	25%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>		24%	27%	17%	30%	32%	23%	
	<i>Agree</i>		50%	44%	64%	37%	33%	52%	
83. Employees and applicants receive fair and equitable treatment in all aspects of personnel management in my agency without regard to race, color, religion, sex, national origin, age, handicapping condition, marital status, or political affiliation.	<i>Disagree</i>		17%	20%	12%	22%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		18%	20%	13%	20%			
	<i>Agree</i>		65%	61%	76%	58%			
84. My organization provides equal pay for equal work.	<i>Disagree</i>		34%	36%	28%	36%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		25%	27%	19%	2%			
	<i>Agree</i>		41%	37%	53%	38%			
85. My organization rewards excellent performance.	<i>Disagree</i>		24%	26%	18%	28%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		22%	24%	17%	24%			
	<i>Agree</i>		55%	51%	65%	48%			
86. My organization maintains high standards of integrity, conduct, and concern for the public interest.	<i>Disagree</i>		12%	13%	9%	15%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		17%	18%	14%	17%			
	<i>Agree</i>		71%	69%	77%	68%			
87. My organization deals effectively with poor performers.	<i>Disagree</i>		63%	63%	62%	55%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>		25%	26%	23%	30%			
	<i>Agree</i>		12%	11%	15%	16%			
88. My organization provides training to employees when doing so will result in better organizational or individual performance.	<i>Disagree</i>		22%	23%	21%	25%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>		18%	19%	15%	22%			
	<i>Agree</i>		60%	58%	64%	53%			

(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 4-84). Recommendations included improving IT support, providing better performance management training, and lifting salary caps.

**Table 4-84. Focus Group Results – Strategies for Improving the Workforce’s Performance - "How else could DoC improve employee performance?" (Demo Group) OR "What does DoC do to improve the quality of its workforce?" (Comp Group)**

Demonstration Group	Comparison Group
<p><b>Non Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Better train managers and managers who understand the performance appraisal system</li> <li>• Create no caps on salaries</li> <li>• Allow people to get out of their capped jobs</li> <li>• Update position descriptions to make sure they reflect the job when it is expanded</li> <li>• Recognize the value of scientists and the complexity of the work</li> <li>• Make it easier to terminate poor performers</li> </ul>	<p><b>Non Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Better train managers</li> <li>• Instill more accountability in the performance management process</li> <li>• Place people in the right jobs</li> </ul>
<p><b>Supervisory Employees</b></p> <ul style="list-style-type: none"> <li>• Improve IT support</li> <li>• Relax the post 9/11 security</li> <li>• Add 10 percent for supervisors and time off rewards added to pay for performance</li> <li>• Recognize that NOAA is a science agency – not a business</li> <li>• Provide better working conditions – basic infrastructure</li> <li>• Offer other perks besides money</li> <li>• Move the hiring process along</li> <li>• Move everyone to the Demonstration Project</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 Nine 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**

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.

As show in Table 4-85, in Year Nine, there were no differences in the responses of the Demonstration Group and Comparison Group participants on eight survey items. For five of the remaining six 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 using merit-based recruitment, selection, and advancement; not soliciting improper employment recommendations; not obstructing employment competition; not granting preferences, and not employing or promoting their own relatives. On only one item did Demonstration Group participants respond less positively than the Comparison Group; this item pertained to dealing effectively with poor performers. The results show that this continues to be an issue within (and also beyond) the Demonstration Project.

Among the Demonstration Group participants, for nearly all survey items, supervisory employees were more favorable than non-supervisory employees about adherence to personnel guidelines.

**Table 4-85. Survey Results – Organizational Excellence**

			Demo. Group			Comp. Group			Demo. vs. Comp.
			Total	(N)	(S)	Total	(N)	(S)	
82. My organization recruits, selects, and advances employees on the basis of merit.	<i>Disagree</i>		26%	29%	20%	33%	36%	25%	<i>Significant difference</i>
	<i>Neither disagree nor agree</i>		24%	27%	17%	30%	32%	23%	
	<i>Agree</i>		50%	44%	60%	37%	33%	53%	
83. Employees and applicants receive fair and equitable treatment in all aspects of personnel management in my agency without regard to race, color, religion, sex, national origin, age, handicapping condition, marital status, or political affiliation.	<i>Disagree</i>		17%	20%	12%	22%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		18%	20%	13%	20%	<i>No significant difference</i>		
	<i>Agree</i>		65%	61%	76%	58%			
84. My organization provides equal pay for equal work.	<i>Disagree</i>		34%	36%	28%	36%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		25%	27%	20%	27%	<i>No significant difference</i>		
	<i>Agree</i>		41%	37%	53%	38%			
85. My organization rewards excellent performance.	<i>Disagree</i>		24%	26%	18%	28%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		22%	24%	17%	24%	<i>No significant difference</i>		
	<i>Agree</i>		55%	51%	65%	48%			
86. My organization maintains high standards of integrity, conduct, and concern for the public interest.	<i>Disagree</i>		12%	13%	9%	15%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		17%	18%	14%	17%	<i>No significant difference</i>		
	<i>Agree</i>		71%	69%	77%	68%			
87. My organization deals effectively with poor performers.	<i>Disagree</i>		63%	63%	62%	55%			<i>Significant difference</i>
	<i>Neither disagree nor agree</i>		25%	26%	23%	30%	<i>No significant difference</i>		
	<i>Agree</i>		12%	11%	15%	16%			
88. My organization provides training to employees when doing so will result in better organizational or individual performance.	<i>Disagree</i>		22%	22%	21%	20%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		18%	19%	15%	22%	<i>No significant difference</i>		
	<i>Agree</i>		60%	58%	64%	53%			
89. My organization protects employees from improper political influence.	<i>Disagree</i>		12%	12%	11%	14%			<i>No significant difference</i>
	<i>Neither disagree nor agree</i>		35%	38%	29%	41%	<i>No significant difference</i>		
	<i>Agree</i>		53%	50%	60%	46%			

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
90. My agency protects employees against reprisal for the lawful disclosure of information in whistle blower situations.	<i>Disagree</i>	12%	14%	8%	16%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	42%	44%	36%	45%			
	<i>Agree</i>	46%	42%	56%	39%			
91. My organization does not solicit or consider improper employment recommendations.	<i>Disagree</i>	10%	11%	7%	18%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	31%	35%	24%	37%			
	<i>Agree</i>	59%	54%	69%	46%			
92. My agency does not obstruct any person's right to compete for, or withdraw from, employment.	<i>Disagree</i>	8%	10%	4%	11%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	20%	22%	14%	26%			
	<i>Agree</i>	72%	68%	82%	63%			
93. My organization does not grant any preference unless authorized by law.	<i>Disagree</i>	15%	18%	10%	23%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	26%	29%	20%	31%			
	<i>Agree</i>	59%	54%	70%	47%			
94. People in my organization engage in employing or promoting their own relatives.	<i>Disagree</i>	68%	65%	75%	59%	<i>No significant difference</i>	<i>Significant difference</i>	
	<i>Neither disagree nor agree</i>	21%	24%	14%	25%			
	<i>Agree</i>	11%	11%	10%	15%			
95. My organization unlawfully discriminates for off-duty conduct.	<i>Disagree</i>	69%	66%	75%	65%	<i>No significant difference</i>	<i>No significant difference</i>	
	<i>Neither disagree nor agree</i>	27%	30%	21%	31%			
	<i>Agree</i>	4%	4%	4%	4%			

(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 4-86, a question about how the Merit System Principles are upheld raised no concerns among the Demonstration Group focus group participants. Some participants indicated that there had been no change while others indicated that they did not have an opinion.

**Table 4-86. Focus Group Results – Changes in Adherence to the Merit System Principles – "Have you noticed any changes in how the nine Merit System Principles are followed under the Demonstration Project versus how they are typically followed elsewhere in DoC? If yes, how?" (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 in how the Merit System Principles are followed</li> <li>Don't know</li> </ul>	<ul style="list-style-type: none"> <li>Some are followed and some are not</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 4-87, 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 4-87. 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 change in how the Prohibited Personnel Practices are addressed</li> <li>Violations happen but they are not necessarily related to the Demonstration Project</li> </ul>	<ul style="list-style-type: none"> <li>No change in how the Prohibited Personnel Practices are addressed</li> <li>Some are addressed and some are not</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 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, the Year Nine results 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 related to compensation, recruitment, and retention, as displayed in Table 4-88. Unlike Year Seven, no differences existed between the Demonstration Group and the Comparison Group. Across these topic areas, Demonstration Group supervisory employees were typically more positive than were non-supervisory employees. Overall, these results suggest that the Demonstration Project interventions are not perceived as having a differential effect on the compensation, recruitment, and retention of minorities; perceptions tend to be quite similar across groups.

**Table 4-88. Survey Results – Compensation, Recruitment, and Retention of Minorities**

		Demo. Group			Comp. Group			Demo. vs. Comp.
		Total	(N)	(S)	Total	(N)	(S)	
53. In my operating unit, minority employees get similar pay to non-minority employees doing equivalent work.	<i>Disagree</i>	10%	11%	8%	11%	11%	12%	<i>No significant difference</i>
	<i>Neither disagree nor agree</i>	21%	25%	12%	21%	25%	6%	
	<i>Agree</i>	69%	64%	80%	69%	64%	82%	
70. Recruitment procedures allow for the opportunity to hire good minority applicants.	<i>Disagree</i>	17%	17%	19%	20%	<i>No significant difference</i>		<i>No Significant difference</i>
	<i>Neither disagree nor agree</i>	36%	39%	28%	35%			
	<i>Agree</i>	46%	43%	53%	45%			
75. Current efforts toward employee retention have enabled managers to retain good minority employees.	<i>Disagree</i>	42%	44%	36%	45%	<i>No significant difference</i>		<i>No Significant difference</i>
	<i>Neither disagree nor agree</i>	36%	35%	37%	36%			
	<i>Agree</i>	22%	20%	27%	19%			

(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 4-89, some differences exist in the perceptions of each race/national origin group when compared across the Demonstration Group and Comparison Group. With respect to compensation, a slightly greater percentage of African Americans in the Demonstration Group had positive responses than did African Americans in the Comparison Group. Asians and multiracial participants in the Demonstration Group had less positive responses than did Asians and multiracial participants in the Comparison Group. On the issue of recruitment, for each race/national origin group, the responses were consistently more positive among Demonstration Group respondents compared to Comparison Group respondents. For each race/national origin group, the responses relating to retention were generally more positive among Demonstration Group respondents compared to Comparison Group respondents.

**Table 4-89. RNO Comparisons – Compensation, Recruitment, and Retention of Minorities**

		Demo. Group					Comp. Group				
		AS	AA	WH	HI	MU	AS	AA	WH	HI	MU
53. 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%
70. Recruitment procedures allow for the opportunity to hire good minority applicants.	Disagree	22%	35%	14%	20%	38%	42%	65%	18%	53%	40%
	Neither disagree nor agree	39%	41%	30%	23%	25%	42%	22%	29%	24%	20%
	Agree	39%	24%	56%	58%	38%	16%	12%	53%	24%	40%
75. Current efforts toward employee retention have enabled managers to retain good minority employees.	Disagree	23%	54%	22%	15%	33%	26%	62%	25%	50%	62%
	Neither disagree nor agree	61%	30%	54%	58%	58%	63%	32%	57%	17%	23%
	Agree	16%	16%	24%	27%	8%	11%	6%	18%	33%	15%

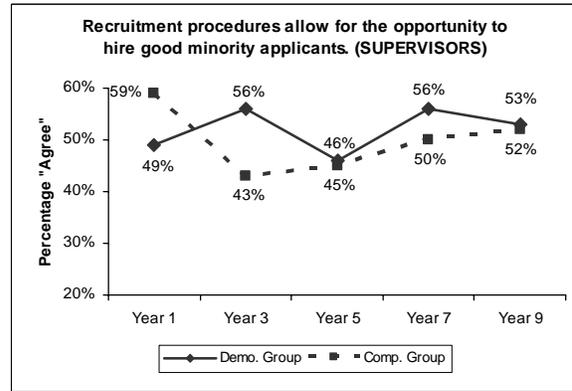
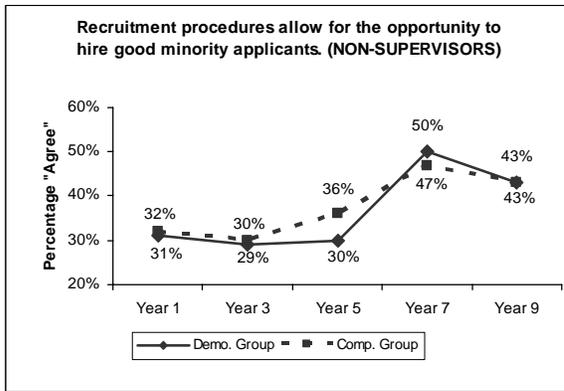
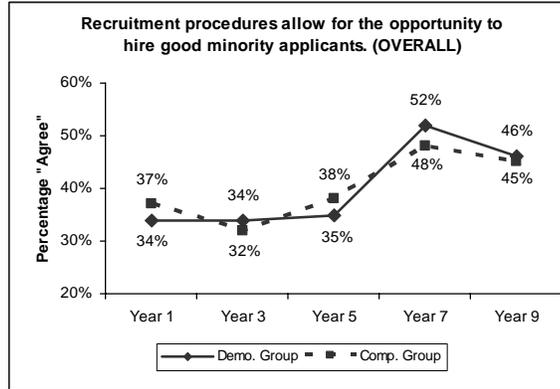
Note:

- 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 has been very similar, across the years, for the Demonstration Group and the Comparison Group

As shown in Table 4-90, 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 followed by a decline in Year Nine. 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 4-90. Change Over Time – Recruitment of Minorities**



			Demo. Group		Comp. Group			
			Total	(N)	Total	(N)		
70. Recruitment procedures allow for the opportunity to hire good minority applicants	Year Nine	Disagree	17%	17%	19%	20%	22%	14%
		Neither disagree nor agree	36%	39%	28%	35%	36%	34%
		Agree	46%	43%	53%	45%	43%	52%
	Year Seven	Disagree	17%	18%	15%	24%	24%	24%
		Neither disagree nor agree	31%	32%	29%	28%	29%	26%
		Agree	52%	50%	56%	48%	47%	50%
	Year Five	Disagree	16%	16%	15%	15%	13%	19%
		Neither disagree nor agree	49%	53%	38%	47%	51%	37%
		Agree	35%	30%	46%	38%	36%	45%
	Year Three	Disagree	16%	17%	13%	18%	18%	21%
		Neither disagree nor agree	50%	54%	31%	49%	52%	35%
		Agree	34%	29%	56%	32%	30%	43%
	Year One	Disagree	15%	15%	16%	19%	19%	22%
		Neither disagree nor agree	51%	54%	35%	44%	49%	19%
		Agree	34%	31%	49%	37%	32%	59%

(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 4-91 shows that, in Year Nine, the proportion of minority, women, and veteran new hires to the Demonstration Group was greater than or equal to their representation in the employee population overall. This pattern of results mirrors past years, and shows continued progress to diversification. 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 4-91. Diversity of New Hires Compared to the Overall Demonstration Group**

Category	New Hires (N=532)	All Demonstration Group participants (N=7,699) in Year Nine	All Demonstration Group participants (N=2,697) in Year One
<b>Race/National Origin</b>			
White (not of Hispanic origin)	71%	78%	81%
Black (not of Hispanic origin)	17%	13%	12%
Hispanic	2%	3%	3%
Asian or Pacific Islander	9%	6%	4%
American Indian or Alaskan Native	2%	1%	<1%
<b>Gender</b>			
Female	46%	44%	39%
Male	54%	56%	61%
<b>Veteran Status</b>			
Veteran	12%	12%	9%
Non-Veteran	88%	88%	91%

Note:

1. The number of new hires reported here for Year Nine is based on the number of new hires reported in the objective datafile.

#### 4.11.4. Consistent with past years, in Year Nine, 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 different 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 used thereon) 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 D-1 for a more detailed description of the ANCOVA process for computing adjusted averages and interpreting the results.)

The rationale for including performance scores in the analysis is that it is feasible that performance scores may differ across demographic subgroups. (Average performance scores for Year Nine for the various demographic subgroups are displayed in Table 4-92.) 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 4-92. Average Performance Score by Group**

	Average Performance Score
White (not of Hispanic origin)	86.3 points
Black (not of Hispanic origin)	85.5 points
Hispanic	86.8 points
Asian or Pacific Islander	86.2 points
American Indian or Alaskan Native	84.5 points
Female	86.4 points
Male	86.0 points
Veteran	84.8 points
Non-Veteran	86.4 points

Table 4-93 presents the raw and adjusted averages (the reader is advised to consider the latter as more meaningful) broken out by demographic subgroups. As depicted, after controlling for any differences attributable to performance score, career path, time in service, and organization, the average performance-based pay increase percentages ranged from 3.0 percent to 3.4 percent for race/national origin, 3.2 percent to 3.3 percent for gender, and was constant at 3.2 percent for veteran status. There were no statistically significant differences for performance-based pay increase percentages with respect to race/national origin, gender, or veteran status.

**Table 4-93. 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)	3.3%	3.2%	2.0%	2.1%
Black (not of Hispanic origin)	2.8%	3.0%	2.0%	1.9%
Hispanic	3.3%	3.4%	2.1%	2.1%
Asian or Pacific Islander	3.6%	3.4%	2.0%	2.1%
Female	3.5%	3.3%	2.3%	2.1%
Male	3.0%	3.2%	1.8%	2.0%
Veteran	2.7%	3.2%	2.0%	2.1%
Non-Veteran	3.3%	3.2%	2.0%	2.0%

*Notes:*

1. Average performance-based pay increase and bonus percentages are based on appraisals conducted in September 2006 and actions effective in November 2006, as reported in the Year Nine 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 3,692 of the 7,699 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 3,989 of the 7,699 Demonstration Group participants for whom data were available on bonuses/awards, performance score, career path (or equivalent), length of service, and organization.
5. The sample sizes for this analysis ranged from 105 to 3,537.

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. As shown, after controlling for any differences attributable to performance score, career path, time in service, and organization, the average bonus percentages, ranged from 1.9 percent to 2.1 percent for race/national origin, 2.0 percent to 2.1 percent for gender, and 2.0 percent to 2.1 percent for veteran status. With respect to race/national origin, the only statistically significant differences<sup>27</sup> were the differences between Black (not of Hispanic origin) and White (not of Hispanic origin), Hispanic, and Asian or Pacific Islander; however, these differences were not sufficiently

<sup>27</sup> Based on statistical significant testing at  $p < .05$ .

large to be considered meaningful using standard statistical testing procedures<sup>28</sup>. With respect to gender, the difference was also statistically significant but not large enough to be considered meaningful. The veteran status difference was not statistically significant.

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 Nine, 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.

#### 4.11.5. 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 Nine. Direct comparisons were not possible due to the differences inherent in the different systems. Table 4-94 displays the data sources used from each group for purposes of comparison.

**Table 4-94. Data from Demonstration and Comparison Groups Used for Comparisons**

Demonstration Group	Comparison Group
Scores on a 100-point performance appraisal system	Scores on a 2-level or 5-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 4-95 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 much of the Comparison Group is under a pass/fail system in which nearly everyone passes.

Overall, the results showed that there was consistency in pay increase percentages and average bonus/award percentages across subgroups in the Demonstration and Comparison Group. For example, average pay increases across the race/national origin groups had a 0.4

<sup>28</sup> Based on eta squared values (an estimate of the size of the effect) greater than .05.

percentage point range in the Demonstration Group and a 0.5 percentage point range in the Comparison Group. For average pay increases across gender and veteran status, the percentage point ranges were greater for the Comparison Group than for the Demonstration Group.

The results can also be examined more closely by race/national origin, gender, and veteran status. With respect to race/national origin, gender, and veteran status, while the pattern of results differed between the Demonstration Group and the Comparison Group; every race/national origin and veteran status group fared better in the Demonstration Group than in the Comparison Group. With respect to gender, females fared better in the Comparison Group than in the Demonstration Group for pay increase percentages. Finally, there was greater consistency in pay increase percentages and average bonus/award percentages across each subgroup (i.e., minority, gender, or veteran status) in the Demonstration Group than in the Comparison Group.

**Table 4-95. 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)	3.2%	3.0%	2.1%	1.5%
Black (not of Hispanic origin)	3.0%	2.7%	1.9%	1.2%
Hispanic	3.4%	2.8%	2.1%	1.5%
Asian or Pacific Islander	3.4%	2.5%	2.1%	1.4%
Female	3.3%	3.7%	2.1%	1.5%
Male	3.2%	2.8%	2.0%	1.4%
Veteran	3.2%	2.4%	2.1%	1.3%
Non-Veteran	3.2%	3.1%	2.0%	1.5%

*Notes:*

1. 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.
2. Average performance-based pay increase percentages were computed for 3,692 of the 7,699 Demonstration Group participants, and the 4,211 of the 5,230 Comparison Group, for whom data were available on pay increases, performance rating, career path (or equivalent), and length of service.
3. Average bonus percentages were computed for 3,989 of the 7,699 Demonstration Group participants, and the 4,211 of the 5,230 Comparison Group, for whom data were available on bonuses/awards, performance score, career path (or equivalent), and length of service.
4. The sample sizes for this analysis ranged from 105 to 3,537 for the Demonstration Group and 122 to 3,711 for the Comparison Group.

#### 4.11.6. In the Demonstration Group, turnover rates varied based on race/national origin group; the differences were less pronounced among high performers

In Year Nine, the overall turnover rate in the Demonstration Group was 5.6 percent. As depicted in Table 4-96, the turnover rates, by race/national origin groups, ranged from 2.4 percent to 8.6 percent. At the extremes, the separation rate of Hispanics was the highest at 8.6 percent, followed closely by Blacks (not of Hispanic origin) at 7.0 percent. The separation rate of American Indian or Alaskan Native was the lowest at 2.4 percent. The rank order of turnover rates for these groups was similar to Year Eight, in that Hispanics and Blacks (not of Hispanic origin) had higher turnover rates than any other race/national origin group. Also evident is that, of the minority groups, Hispanics and Blacks (not of Hispanic origin) turned over at slightly higher rates than Whites (not of Hispanic origin), a finding worth exploring if it continues to emerge in future years.

Among high performers (performance scores of 90–100), Asians or Pacific Islanders exhibited the highest turnover rate at 3.3 percent. In comparison, in Year Eight, Blacks (not of Hispanic origin) had the highest turnover rates among the high performers.

**Table 4-96. Comparison of Turnover Rates in the Demonstration Group Between All Participants and High Performers**

Group	Demonstration Group All Participants			Demonstration Group High Performers		
	Number	Number Separated	Percent Separated	Number	Number Separated	Percent Separated
White (not of Hispanic origin)	5,982	322	5.4%	1,003	18	1.8%
Black (not of Hispanic origin)	1,035	72	7.0%	157	3	1.9%
Hispanic	210	18	8.6%	34	1	2.9%
Asian or Pacific Islander	430	17	4.0%	91	3	3.3%
American Indian or Alaskan Native	42	1	2.4%	4	0	0.0%
<b>TOTAL</b>	<b>7,699</b>	<b>430</b>	<b>5.6%</b>	<b>1,289</b>	<b>25</b>	<b>1.9%</b>

Note:

1. "High performers" is defined as those with performance scores of 90–100.

#### 4.11.7. 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 6.8 percent and Hispanics experienced the lowest turnover at 2.0 percent.

Furthermore, the comparison between the Demonstration Group and the Comparison Group turnover rates by groups shows that in every case, except for American Indian or Alaskan Native, turnover was higher in the Demonstration Group than in the Comparison Group. These results are displayed in Table 4-97.

**Table 4-97. Comparison of Turnover Rates in the Demonstration and Comparison Groups**

Group	Demonstration Group All Participants			Comparison Group All Participants		
	Number	Number Separated	Percent Separated	Number	Number Separated	Percent Separated
White (not of Hispanic origin)	5982	322	5.4%	4595	231	5.0%
Black (not of Hispanic origin)	1035	72	7.0%	266	18	6.8%
Hispanic	210	18	8.6%	148	3	2.0%
Asian or Pacific Islander	430	17	4.0%	179	6	3.4%
American Indian or Alaskan Native	42	1	2.4%	42	2	4.8%
<b>TOTAL</b>	7699	430	5.6%	5230	260	5.0%

## 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 Nine, 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.

As noted throughout the report, other analyses performed for the Year Nine evaluation used subsets of the full database (e.g., 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 Project participants.

Finally, these analyses required using data from across all nine 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 performance 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, with employee input, a performance plan for each employee that 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-point scale).

In the next step, the Performance Pay Tables are used to determine the percent of percent increases (in some pay pools, the Rating Official is engaged in this step; in other pay pools, only the Pay Pool Manager determines percent of percent increases). The Performance Pay Tables are organized by career path, band, and interval, each with their own ranges of potential pay increases. (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 Pay Pool Manager works from the list of 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 to ensure consistency across all of his/her Rating Officials. This step helps to maintain the underlying premise, under the Demonstration Project, that no employee receives a salary increase (in terms of relative percentage of what the employee could have received, not absolute dollars) that is greater than that of someone with a higher performance score.

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 salary growth rate was slower for the Demonstration Group than 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 nominal (then-year) dollars so that the rate of growth is depicted accurately.

As shown in Table 5-1, the CAGR difference was slightly over a percentage point for the Demonstration Group (4.43 percent) and the Comparison Group (5.54 percent). The lower rate for the Demonstration Group suggests that the Demonstration Project has been able to control total salary costs, which are 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 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	Year 8	Year 9	CAGR
Demo. Group	\$58,606	\$61,793	\$64,767	\$68,416	\$70,613	\$75,898	\$80,075	\$83,921	\$82,907	4.43%
Comp. Group	\$51,946	\$52,167	\$57,501	\$59,628	\$63,371	\$68,434	\$72,226	\$75,199	\$79,983	5.54%

**5.3. The size of the gap between the Demonstration Group and the Comparison Group in average per person salary costs was nearly constant across the years, suggesting that the Demonstration Group’s higher salary costs are due to compositional differences and not to increased payouts**

To perform this analysis, average annual salaries were first converted into 2007 dollars by using the Consumer Price Index (CPI) as an inflation factor<sup>29</sup>. This conversion normalizes dollars 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, in each year, the Demonstration Group had higher average annual salary costs per employee than the Comparison Group, a finding which likely reflects the composition of employees in each group. Given that the Demonstration Group and the Comparison Group were not presumed to be a perfect match with respect to the occupations and levels of the individuals within each group, these results demonstrate that the Demonstration Group includes, on average, more highly paid employees.

This analysis also shows that the percentage difference (i.e., the gap) in the average per person salary costs between the Demonstration Group and the Comparison Group remained reasonably constant across years (with the exception of Year Nine). That is, in each year (Year One to Year Eight<sup>30</sup>), the difference in average per person salary cost between the Demonstration Group than the Comparison Group stayed within a narrow range (i.e., between 11 percent and 18 percent). The constancy of this gap from year to year shows that the Demonstration Group did not experience accelerated salary growth over the years, relative to the Comparison Group. This is an indicator that the Demonstration Project has not had a negative impact on budget. (The dip in average per person salary cost for Year Nine is

<sup>29</sup> *The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by urban consumers for a market basket of consumer 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. Note: The U.S. Bureau of Labor Statistics has updated the definition for CPI, removing the term “fixed.”*

<sup>30</sup> *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 Year Two’s lower average annual salary cost.*

also likely attributable to group composition, as different organizational units and individuals flowed into the Demonstration Group with the 2006 expansion).

**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 8	Year 9	Year 9 minus Year 1
Demo Group	\$73,499	\$74,967	\$76,410	\$79,458	\$80,183	\$83,948	\$85,666	\$86,975	\$82,907	\$9,408
Comp Group	\$65,146	\$63,296	\$67,838	\$69,252	\$71,959	\$75,693	\$77,269	\$77,935	\$79,983	\$14,837
% Difference	13%	18%	13%	15%	11%	11%	11%	12%	4%	-37%

## 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 nine years.

As described earlier in this report, the Demonstration Project evaluation is designed to answer research questions identified by OPM as well as DoC. In this section, we provide a response for each key research question based on the data collected. This table 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 Nine 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**

OPM Research Questions	Answers	Where To Locate Additional Information
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, while low performers leave, 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, and successfully managed two expansions (2003 and 2006). 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.	Chapter 4 – Findings and Conclusions

Table 6-1. Answers to OPM Research Questions (continued)

OPM Research Questions	Answers	Where To Locate Additional Information
3. What was the cost of the project?	In Year Nine, salary costs were examined. Two key findings emerged: 1) the salary growth rate was slower for the Demonstration Group than 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 has remained constant over the years, suggesting that the Demonstration Group's higher salary costs are due to compositional differences and not to increased payouts.	Chapter 5 – Cost Analysis
4. What was the impact on veterans and other EEO groups?	<p>Consistent with past years, in Year Nine 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 compensation, recruitment, or retention in these groups.</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?	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 Nine provide additional support that the administration of the Demonstration Project continues to be in line with these personnel guidelines.	Section 4.10 – Findings on the Merit System Principles and Prohibited Personnel Practices
6. Can the project or portions thereof be generalized to other agencies or government-wide?	Based on the findings over the nine 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. Two successful expansions to include additional organizations (in 2003 and 2006) provide evidence for generalizability. 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 Intelligence Community move forward with their pay-for-performance systems.	Chapter 4 – Findings and Conclusions

## 6.2. The Year Nine 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 6-2, the Year Nine evaluation indicates that many interventions that are unique to the Demonstration Project have proven successful.

**Table 6-2. 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 Demonstration Project recruitment and staffing interventions are working well, although many of the interventions are no longer unique to the Demonstration Project. Based on objective data, employees hired during the Demonstration Project years have slightly outperformed more tenured employees, which provides some indication that the quality of new hires is improving. Based on subjective data, Demonstration Group participants reported that they are having greater success attracting high-quality employees; for example, non-supervisory and supervisory employees personally involved with the recruiting process reported that the quality of new hires is higher than the quality of applicants – that is, that they have been able to hire the better candidates from among the applicant pool. Both objective and subjective data have demonstrated that Demonstration Group supervisors are taking advantage of their ability to offer more flexible entry salaries.</p>
<p>2. Has retention of good performers increased?</p>	<p>At the end of nine years, there is clear evidence that the Demonstration Project has had a positive effect on retaining good performers. Objective data show that lower performing employees separate at higher rates than do higher performing employees. Perceptual data show that some Demonstration Group participants perceive that some of the interventions have been motivating and improve retention efforts. For example, the flexible pay increase upon promotion intervention has been well-received as a means of 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 Nine focus group and interview data did not provide strong evidence that supervisory performance pay influences supervisors to remain at DoC.</p>

Table 6-2. Answers to Evaluation Model Research Questions (continued)

Research Questions From DoC Expanded Evaluation Model	Answers
3. Has individual and organizational performance improved?	<p>The pay-for-performance system has been an improvement over the traditional system, as evidenced by the fact that, on average, Demonstration Group participants fared better than Comparison Group participants in pay increases and bonuses/awards. The pay-for-performance system is clearly contributing to greater differentiation of high and low performers, with results clearly demonstrating that high performers receive greater rewards. 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 has presented a challenge 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 implementing the Demonstration Project. In addition, there was some evidence that the Demonstration Project has improved certain aspects of workforce quality, specifically in areas related to merit-based recruitment, selection, and advancement and how the organization addresses poor performers.</p>
4. Is human resources management more effective?	<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 one that requires time to gain acceptance. After nine years, about one-third of supervisors believe that they have enough authority to determine their employees' pay, and about one-third to one-half of employees believe that managers are qualified to make pay decisions and are satisfied with how management handles pay.</p>
5. Is human resources management more efficient?	<p>The Automated Classification System (ACS), combined with delegated classification authority, 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) increased in Year Nine for the Demonstration Group. However, the wide variance across the three waves in recruiting time suggests that the differences may be attributable to factors other than the Demonstration Project practices.</p>
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?	<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 nine 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. Finally, turnover rates of high performers did not vary greatly across race/national origin groups.</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 Nine findings, as well as trend analyses covering the past nine years.

### 7.1. Strengthen the Demonstration Project's branding and early education efforts

Aside from being able to test the Demonstration Project interventions with individuals in a broader range of occupations, there are additional benefits of expanding the Demonstration Project at various points in time (i.e., in the three waves). One key advantage is the ability to evaluate whether subsequent waves have similar or dissimilar experiences as do the previous waves. One area where this can be tested is self-reports (via the survey) on favorability toward the Demonstration Project. Traditionally, in Demonstration Projects (e.g., China Lake, NIST), favorability ratings start off moderately low, gain momentum after 2-3 years accelerating upwards, and then plateau in the 60-70 percent range. This pattern held true in this Demonstration Project, as is evidenced by the Wave 1 results. The initial Wave 3 results show that early favorability ratings mirror where Wave 1 was in 1998. While this is to be expected, it is also reasonable to think that improvements in branding and education could accelerate the learning curve for subsequent waves – perhaps meaning early favorability ratings would be even higher than that which was experienced by earlier waves and accelerate faster.

For this reason, DoC should reevaluate and make improvements to its early communications in anticipation of bringing in additional waves. Site historian data shows that organizations actively engaged in pre-communications; however, the focus group data shows that employees did not feel fully informed. DoC should evaluate its: 1) branding (i.e., the image of the program) of the Demonstration Project and 2) early educational efforts that prepare employees for becoming part of the Demonstration Project (as well as for supervisors' shift in responsibilities). In addition, to supplementing the educational/training sessions, DoC should develop "desk guides" as reference materials for employees. Finally, DoC should conduct a periodic review of the Demonstration Project website to determine if the right content is available to employees and in a clearly accessible manner.

### 7.2. Evaluate and revise, as appropriate, the Demonstration Project's communication strategy

In addition to the need for greater communication that was expressed by Wave 3 participants, Wave 1 and Wave 2 participants also voiced a need for more communications. DoC should develop and/or revise a formal communication strategy to ensure that information about the Demonstration Project's intent, practices, and performance metrics is best communicated. Moreover, the communication strategy should be designed to meet the needs of multiple, diverse audiences (e.g., supervisor versus non-supervisor, headquarters versus region, small

pay pools versus large pay pools). DoC should fully exploit a full range of communication mechanisms, including posting information on the website, email announcements, speaking notes for supervisors to use in team meetings, job aids for supervisors on their performance management responsibilities, and the like.

### **7.3. Create a dashboard to improve transparency**

While there has often been a gap between perceptions and the hard data on the linkage between pay and performance, the gap was particularly noticeable this year. The objective data show that the link exists in the Demonstration Project – for example, based on a regression analysis, performance score was a consistent predictor of performance-based pay increase, across all four career paths. However, in focus group settings participants raised doubts and on the survey only one-half of the respondents indicated that pay raises depend on how you perform. By increasing transparency around the hard data, DoC may be able to address misperceptions about the linkage between pay and performance.

It is not uncommon for agencies to strive for transparency in their performance management systems; however, the challenge lies in determining how much and in what ways to be transparent. In past years, DoC has wrestled with the transparency issue and has instituted some efforts to improve transparency. Based on the feedback that employees want to know even more, DoC should create a *one-page* dashboard as a succinct, powerful means of communicating key metrics. This dashboard would serve as a snapshot of annual results of the Demonstration Project, focused on information that is appropriate for broad dissemination. Possible content could include: range of performance scores (by organization and/or by pay pool), average performance scores, trend data on performance scores, range of performance-based salary increases percents (not hard dollars), trend data on performance-based salary increases percents, hiring rates, turnover rates, promotion rates, percentage of performance goals met, etc. To be effective, the dashboard should be populated and disseminated as soon as possible after the close of the performance year so that employees see that they are receiving timely information.

### **7.4. Develop strategies to prepare, motivate, and recognize supervisor performance that is consistent with desired behaviors**

The role of the supervisor is decidedly different in the Demonstration Project compared to the GS system. Activities such as goal-setting with employees, providing effective feedback, and managing marginal performance – while important in any performance management system – are especially critical in a pay-for-performance environment. DoC needs to develop strategies to ensure that it is doing the best it can to prepare, motivate, and recognize supervisors who excel at performing these supervisory functions. To prepare supervisors, DoC should review current training programs and ensure that the training is effectively driving the desired behaviors. DoC should also consider leveraging creative training techniques and/or content; for example, the site historian reported that NOAA-NOS encouraged sharing and transfer of knowledge from long-standing participants to newer participants. Moreover, DoC should review whether supervisors are properly supported on-the-job – that is, whether they have sufficient tools and resources, post-training.

To motivate supervisors, DoC should ensure that supervisors' annual performance assessments measure them on their abilities to effectively manage performance, with behavioral indicators such as effectively providing feedback to employees on an ongoing basis, addressing performance issues in an appropriate manner, engaging the proper resources (e.g., HR professionals) on critical performance matters, and the like. By tying demonstration of the appropriate behaviors to their own performance assessment, supervisors have greater accountability for effectively managing employee performance.

To recognize supervisors, DoC needs to leverage available means to reward and recognize supervisors who excel at these Demonstration Project-specific supervisory functions. As has been discussed in the body of the report, the supervisory performance pay intervention, as designed, does not necessarily serve this purpose. Instead, DoC should develop additional means for identifying and recognizing (if rewarding is not possible) key supervisors. Developing incentives and recognizing supervisors (e.g., through recognition on the Demonstration Project website, through the awards program) who maintain the integrity of the process could improve perceptions. This may also help to improve retention of these high-performing supervisors as well as motivate more junior staff to aspire to supervisory roles.

#### **7.5. Place sufficient emphasis on performance planning, at the start of the performance year and throughout**

At the core of a pay-for-performance system are the defined goals of the type of performance that merits award. Absent of clearly defined, agreed upon, and targeted goals, supervisors are in the unenviable position of measuring performance against a weak target and employees lose confidence in the value of the system. DoC needs to ensure that effective performance planning is occurring – between every supervisor and employee – so that the “ground rules” for performance expectations are clearly known. Perceptual data suggest that some discussions are occurring but that, in some cases, it is more of a perfunctory exercise rather than a robust discussion. DoC should engage in efforts to ensure that supervisors are prepared for their role and held accountable for doing performance planning with their staff. DoC should also engage in efforts to ensure that employees clearly understand their own accountabilities – their own responsibility for being actively involved in the performance planning process. Finally, supervisors and employees alike must be trained to know when certain occurrences through the year warrant adjusting a performance plan (e.g., if an employee's work focus shifts considerably).

#### **7.6. Reevaluate the broad bands**

In Year Nine, a number of Demonstration Group participants were affected by salary capping, that is, Demonstration Group participants had eligible performance ratings but their salaries were at the maximums for their pay bands. Overall, in Year Nine, 18 percent of Demonstration Group participants were capped and an additional nine percent were nearly-capped, for a total of 27 percent who are capped or nearly-capped (in Year Eight, 22 percent were capped or nearly-capped). We urge paying attention to how salary capping can impact

employee motivation and what actions can be taken, such as developing staff for promotion to the next band (when staff are in positions for which a band promotion is possible) or cross-training staff who need to first move laterally before progressing upward. While some pay pool managers compensate pay-capped employees through the bonus process, alternate strategies should also be considered.

Having this proportion of employees salary-capped does not, in itself, indicate that the broad bands are out of sync; indeed, any broadbanding system is likely to have a certain proportion of employees at the maximum. However, the presence of this proportion of salary capping does warrant attention. Given this, DoC should look at the salary capping issue from a structural perspective by ensuring that it is periodically reexamining the broadbanding structure. One, DoC should reexamine whether shifts need to occur in the minimum and maximum salary for the band; best practices suggest that shifts in the bands should be based on identifiable shifts in market rates as the driver for change. And two, DoC should reexamine whether the bandwidths need revision, that is, whether the mapping of bands to GS grade levels is still sufficient.

#### **7.7. Further study salary costs to see what other factors could be driving the Demonstration Group's higher salary costs**

While the size of the gap between the Demonstration Group and the Comparison Group in average per person salary costs was nearly constant across the years, the average salary costs for the Demonstration Group participants has been higher than the Comparison Group. As identified in the report, one potential explanation for the disparity is the compositional differences (i.e., the occupations and levels of the employees who comprise each group); however, the full set of reasons for this difference is not entirely known.

DoC should conduct a study to explore driving factors beyond the compositional differences to explain why the average salary increase for the Demonstration Group exceeds the average salary increase for the Comparison Group and other Demonstration Projects. Variables to explore include demographic data (i.e., average age of workforce, educational background), local market trends and indicators (e.g., bargaining unit membership), the trades or actual work being performed, the number of years work experience, the perceived desirability to be part of the Demonstration Program within the given segments, and the local market population and accessible labor pool.

#### **7.8. 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.