

APPENDIX D-1

**ANALYSES OF THE LINKAGE BETWEEN PAY
AND PERFORMANCE:
METHODS FOR STATISTICAL ANALYSES**

YEAR SEVEN

ANALYSES OF THE LINKAGE BETWEEN PAY AND PERFORMANCE: METHODS FOR STATISTICAL ANALYSES

As in previous years, the body of this report contains results from statistical analyses performed on the objective data pertaining to the Demonstration and Comparison Group participants. In this technical appendix, we provide more detail on the statistical analyses from which the results were derived as well as other methodological issues of relevance to the study design. The following information is provided:

- Use of sample versus census data analysis techniques
- Results of the regression analysis
- Scatterplot displaying the performance score-bonus correlation in the Demonstration Group
- Results of the analysis of covariance (ANCOVA).

Use of Sample Versus Census Data Analysis Techniques

The database of Demonstration Group participants represents the entire universe of DoC employees who are receiving the human resource interventions as part of this Demonstration Project. By definition this group is a population rather than a sample. The most widely used inferential statistics, and those used as part of this evaluation (Analysis of Covariance), were designed to be applied to sample data. Despite this theoretical hurdle, it has become common practice among researchers to use these inferential statistics in the absence of a better method.

To most accurately describe the population in question, Booz Allen produced effect size estimates along with significance levels. By producing these additional data, Booz Allen hopes to mitigate the theoretical concerns of applying data analysis techniques developed for samples on data derived from a population.

Results of the Regression Analysis

Our regression analysis in Year Seven, as in Years Four-Six, is based on the analysis performed for the NIST Demonstration Project where the relationship between pay and performance is estimated considering additional factors that may also influence pay.¹ By assessing the relationship between performance score and performance-based pay increase we are able to more accurately answer the questions, “how strongly related are performance scores and pay increases when additional factors are considered in the same analysis?” and “does race/national origin, gender, or veteran status have a significant impact on pay increases, beyond other factors?”

The following factors were considered in Year Seven as they relate to performance-based pay increase: Initial Year Seven Salary (salary prior to pay increases, in dollars), pay band as of September 2004, interval as of September 2004, whether or not one was promoted in Year

¹ Due to statistical factors associated with the relationship between Initial Year salary and End of Year salary, this analysis was altered from Year Five onward to assess the effects of performance score on Performance-based Pay Increase (rather than on End of Year salary as was considered in Year Four).

Seven, supervisory status (supervisor/non-supervisor), length of service, performance score, age, organization, race/national origin, gender, and veteran status. The regression analysis looks at the degree to which these factors are related to performance-based pay increase in Year Seven. Analyses were conducted separately for each career path.

The results of the overall regression analysis are displayed in Tables 1-4. Statistically speaking, the factors included in this analysis account for 56% (ZP), 44% (ZT), 43% (ZA), and 49% (ZS) of the variance in performance-based pay increases for these four career paths. The tables provide more detail as to which variables account for the variance in performance-based pay increases. Only variables listed in these tables have a significant effect on performance-based pay increases.

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

The results also showed that interval and promotion were consistent predictors of performance-based pay increase in all four career paths in Year Seven. Higher performance-based pay increases tended to be associated with being at a lower interval, which is consistent with the design of the system in which those in lower intervals within their bands are eligible for greater salary increases. Higher performance-based pay increases tended to be associated with not being promoted; this finding likely reflects how the increase due to promotion is not calculated in the performance-based pay increase and the fact that individuals who received recent promotions were not eligible for performance-based pay increases. No other variables (aside from performance score, interval, and promotion) were consistent predictors across all four career paths.

Three variables – tenure, supervisory status, and organization – were predictors in three of the four career paths. One, tenure is related to pay increases in ZP, such that higher performance-based pay increases tended to be associated with fewer years of service. And, tenure is related to pay increases in ZT and ZS, such that higher performance-based pay increases tended to be associated with more years of service. Two, supervisory status is related to pay increases in ZP, ZA, and ZS, such that higher performance-based pay increases tended to be associated with being a supervisor. This finding simply reflects how supervisor salaries tend to be higher than non-supervisor salaries; therefore, supervisors receive higher increases in absolute dollars. (However, non-supervisors receive higher performance-based pay increases *percentages* – relative to their salaries – than do supervisors.) Three, organization is related to pay increases in ZP, ZA, and ZS. The difference in pay increases across organizations likely results from the fact that organizations operate under different pay pools that were built from different historical data.

Finally, given the emphasis on examining the impact of the pay-for-performance system on minorities, women, and veterans, we included these demographic variables in the regression analysis. None of these were found to be significant predictors of performance-based pay increase, beyond what was predicted by the variables discussed above.

Table 1: Results of Regression Analysis – ZP Career Path
ZP Career Path

Variables	B	Beta	R	Adjusted R-squared
Performance Score	115.09	.39	.75	.56
Interval	-757.78	-.39		
Length of Service	-138.89	-.23		
Promotion	-1586.13	-.21		
Supervisory Status	-679.97	-.14		
Age	-14.61	-.08		
Organization	*	*		

Notes:

1. *Other variables that were tested but which did not significantly increase the prediction of performance-based pay increase at $p < .05$ are: Initial Year Seven salary (prior to increases), Band as of September 2005, race, gender, and veteran status. This analysis was conducted in SPSS using “enter” regression and with the primary variables tested in the first model and race, gender, and veteran status tested in the second model.*
 2. *Results are presented in descending order, by Beta weights, to demonstrate the decreasing strength of their relationships with performance-based pay increase.*
 3. *Supervisory Status was coded as 0 for supervisors and 1 for non-supervisors.*
 4. *Promotion in Year Seven was coded as 0 for not promoted and 1 for promoted.*
- * *The categorical variable “Organization” was dummy coded. The results showed that the difference between at least two organizations was significant. Differences due to organization likely reflect differences in practices and/or the size of pay pools.*

Table 2: Results of Regression Analysis – ZT Career Path

ZT Career Path				
Variables	B	Beta	R	Adjusted R-squared
Length of Service	694.52	2.64	.69	.44
Interval	-976.44	-1.00		
Performance Score	45.52	.35		
Promotion	-723.06	-.19		

Notes:

1. Other variables that were tested but which did not significantly increase the prediction of performance-based pay increase at $p < .05$ are: Initial Year Seven salary (prior to increases), Band as of September 2005, Supervisor Status, age, organization, race, gender, and veteran status. This analysis was conducted in SPSS using “enter” regression and with the primary variables tested in the first model and race, gender, and veteran status tested in the second model.
2. Results are presented in descending order, by Beta weights, to demonstrate the decreasing strength of their relationships with performance-based pay increase.
3. Supervisory Status was coded as 0 for supervisors and 1 for non-supervisors.
4. Promotion in Year Seven was coded as 0 for not promoted and 1 for promoted.

Table 3: Results of Regression Analysis – ZA Career Path

ZA Career Path				
Variables	B	Beta	R	Adjusted R-squared
Performance Score	109.67	.45	.66	.43
Interval	-786.54	-.39		
Initial Salary in Year Seven	.03	.33		
Promotion	-1586.58	-.26		
Age	-23.11	-.12		
Supervisor Status	-490.12	-.09		
Organization	*	*		

Notes:

1. Other variables that were tested but which did not significantly increase the prediction of performance-based pay increase at $p < .05$ are: Band as of September 2005, length of service, race, gender, and veteran status. This analysis was conducted in SPSS using “enter” regression and with the primary variables tested in the first model and race, gender, and veteran status tested in the second model.
 2. Results are presented in descending order, by Beta weights, to demonstrate the decreasing strength of their relationships with performance-based pay increase.
 3. Supervisory Status was coded as 0 for supervisors and 1 for non-supervisors.
 4. Promotion in Year Seven was coded as 0 for not promoted and 1 for promoted.
- * The categorical variable “Organization” was dummy coded. The results showed that the difference between at least two organizations was significant. Differences due to organization likely reflect differences in practices and/or the size of pay pools.

Table 4: Results of Regression Analysis – ZS Career Path

ZS Career Path				
Variables	B	Beta	R	Adjusted R-squared
Length of Service	218.92	.80	.71	.49
Interval	-661.04	-.70		
Performance Score	36.89	.49		
Promotion	-384.18	-.15		
Supervisory Status	-907.772	-.11		
Organization	*	*		

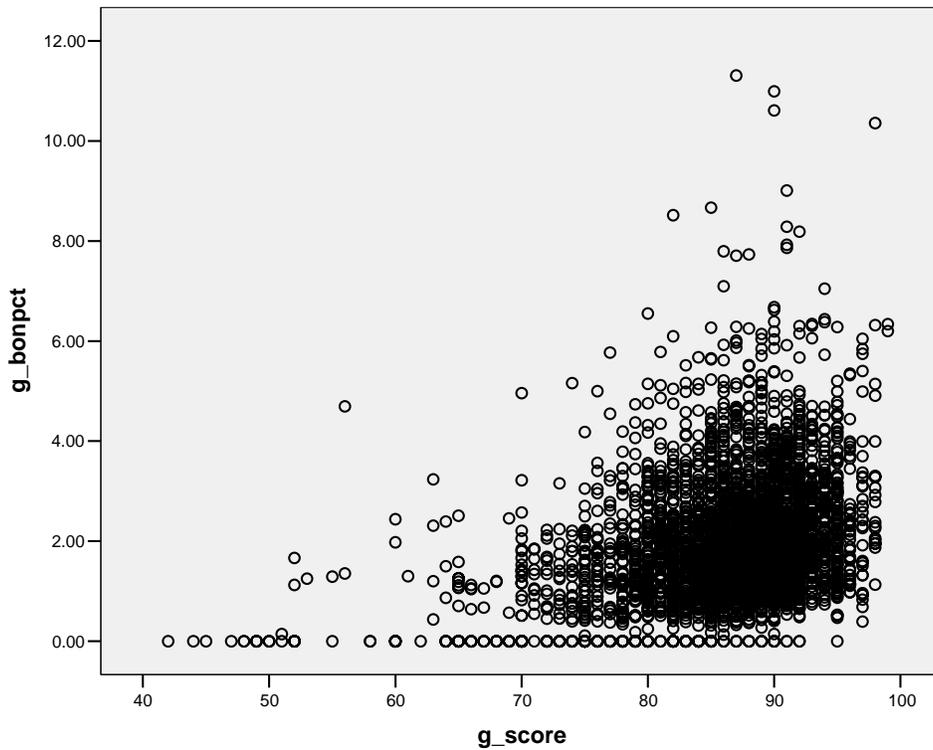
Notes:

1. Other variables that were tested but which did not significantly increase the prediction of performance-based pay increase at $p < .05$ are: Initial Year Seven salary (prior to increases), Band as of September 2005, age, race, gender, and veteran status. This analysis was conducted in SPSS using “enter” regression and with the primary variables tested in the first model and race, gender, and veteran status tested in the second model.
 2. Results are presented in descending order, by Beta weights, to demonstrate the decreasing strength of their relationships with performance-based pay increase.
 3. Supervisory Status was coded as 0 for supervisors and 1 for non-supervisors.
 4. Promotion in Year Seven was coded as 0 for not promoted and 1 for promoted.
- * The categorical variable “Organization” was dummy coded. The results showed that the difference between at least two organizations was significant. Differences due to organization likely reflect differences in practices and/or the size of pay pools.

Scatterplot Displaying the Performance Score-Bonus Correlation in the Demonstration Group

Figure 1 displays a scatterplot showing the relationship between performance scores and bonuses (as a percentage of base salary) in the Demonstration Group. Correlational analyses revealed a correlation of $r = .34$ ($p < .01$). The scatterplot below suggests two findings consistent with a pay-for-performance system: employees receiving low performance scores were unlikely to receive a large bonus and employees who did receive a large bonus were more likely to have received a high performance score. This scatterplot also shows that there were a number of employees who received high performance scores who received smaller bonuses.

Figure 1. Bonus Percent by Performance Score



Results of the Analysis of Covariance (ANCOVA)

Analysis of variance (ANOVA) involves determining whether the difference between two or more means is statistically significant. Analysis of covariance (ANCOVA, also referred to as ANACOVA) builds one more level of complexity. With ANCOVA, those differences between the means are examined while also *controlling* for the effects that another variable or variables may have on the relationship. That is, the question becomes "what is the effect of something when we take into account something else?" (Will G. Hopkins, A New View of Statistics).

When performing ANCOVAs, the output produces means that account for the presence of other specified variables. These means are known as "adjusted means;" they allow closer examination of the relationship between two variables of interest while removing the impact that other variables may have on the relationship.

Using a standard statistical software, the Statistical Package for the Social Sciences (SPSS), Booz Allen ran ANCOVA analyses to assess any differences in pay outcomes for EEO groups and veterans within the Demonstration Project. Separate ANCOVA analyses were run for each demographic subgroup (i.e., race/national origin groups, women, and veterans) to test whether the new pay-for-performance system adversely affected subgroups. In essence, the ANCOVA analyses indicate whether differences for subgroups in average pay increases or bonuses/awards were significant. We examined, for example, differences in average pay increases for females and males. In this example we sought to determine whether 1) there was a statistically significant difference in average pay increases between females and males and 2) whether the size of the effect of gender on average pay increases was large enough to be meaningful.

Separate ANCOVAs were run for several independent variables whose categories were:

1. Race/national origin groups
2. Female/male
3. Veteran/non-veteran.

Separate ANCOVAs for each of these subgroups were performed for each of the two dependent variables of interest:

1. Percent Increase in Salary (amount of the performance-based pay increase expressed as a percent of salary from the beginning of the performance year)
2. Percent Bonus/Award (amount of bonus/award expressed as a percent of salary from the beginning of the performance year).

ANCOVAs were calculated using four covariates: Performance Score, Career Path, Time in Service, and Organization. The ANCOVA analyses were used to address the question of how much impact gender, for example, had on differences in Percent Increase in Salary once the effects of Performance Score, Career Path, Time in Service, and Organization were statistically accounted for.

In these analyses, values less than .01 in the column labeled “Significance” were considered significant. Due to the large number of cases in the data set, it was not unexpected to find that many relationships were statistically significant. Because so many of these relationships were statistically significant, it is important to also consider the Eta squared value.

The column labeled “Eta Squared” is the estimate of the size of the effect that each independent variable had on the dependent variable of interest (Percent Increase in Salary or Percent Bonus/Award). For these data, values greater than .05 were considered to be of interest. However, consistent with past years, none of the subgroup variables’ (i.e., the values of RNO Group, Female/Male, Veteran/Non-Veteran in the charts) eta squared values in any of the analyses reached this level.

For each ANCOVA analysis, raw and estimated marginal means are presented. The raw measures are labeled “Unadjusted Means.” The estimated marginal means are means that have been adjusted for the covariates and are labeled “Adjusted Means.”

In summary, the findings presented in Table 5 and Table 6 indicate that while some of the relationships between the independent variables and the dependent variables were statistically significant (due to the large sample size), none had an effect on the distribution of pay increases or bonuses/awards large enough to be meaningful.

Table 5: Results of ANCOVA Analysis – Demonstration Group Data

Dependent Variable = Percent Increase in Salary Independent Variable Categories = RNO Group			DEMO GROUP
Group	Unadjusted Means	Standard Deviation	N
White (not of Hispanic origin)	3.35	2.83	3118
Black (not of Hispanic origin)	2.54	2.27	508
Hispanic	3.03	2.66	117
Asian or Pacific Islander	3.48	2.97	209
American Indian or Alaskan Native	1.58	1.58	15
ANCOVA Results		Significance	Eta Squared
Performance Score		.00	.18
Time in Service		.00	.23
Career path – ZP (versus ZA)		.00	.02
Career path – ZS (versus ZA)		.98	.00
Career path – ZT (versus ZA)		.03	.00
Organization – NESDIS (versus BEA)		.15	.00
Organization – NMF (versus BEA)		.00	.09
Organization – NTIA/ITS (versus BEA)		.18	.00
Organization – NWS (versus BEA)		.63	.00
Organization – OAR (versus BEA)		.61	.00
Organization – OSASA (versus BEA)		.00	.04
Organization – TA (versus BEA)		.01	.00
RNO Group		.01	.00
Group	Adjusted Means	Standard Error	
White (not of Hispanic origin)	3.27	.04	
Black (not of Hispanic origin)	3.13	.10	
Hispanic	3.08	.19	
Asian or Pacific Islander	3.22	.15	
American Indian or Alaskan Native	1.32	.54	

Dependent Variable = Percent Increase in Salary Independent Variable Categories = Female/Male			DEMO GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Female	3.54	2.85	1632	
Male	3.02	2.71	2335	
ANCOVA Results		Significance	Eta Squared	
Performance Score		.00	.18	
Time in Service		.00	.22	
Career path – ZP (versus ZA)		.00	.02	
Career path – ZS (versus ZA)		.39	.00	
Career path – ZT (versus ZA)		.05	.00	
Organization – NESDIS (versus BEA)		.10	.00	
Organization – NMF (versus BEA)		.00	.09	
Organization – NTIA/ITS (versus BEA)		.14	.00	
Organization – NWS (versus BEA)		.64	.00	
Organization – OAR (versus BEA)		.76	.00	
Organization – OSASA (versus BEA)		.00	.04	
Organization – TA (versus BEA)		.01	.00	
Female/Male		.02	.00	
Group	Adjusted Means	Standard Error		
Female	3.34	.06		
Male	3.16	.05		

Dependent Variable = Percent Increase in Salary Independent Variable Categories = Veteran/Non-Veteran			DEMO GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Veteran	2.26	2.23	481	
Non-Veteran	3.37	2.82	3486	
ANCOVA Results		Significance	Eta Squared	
Performance Score		.00	.18	
Time in Service		.00	.23	
Career path – ZP (versus ZA)		.00	.02	
Career path – ZS (versus ZA)		.60	.00	
Career path – ZT (versus ZA)		.05	.00	
Organization – NESDIS (versus BEA)		.07	.00	
Organization – NMF (versus BEA)		.00	.09	
Organization – NTIA/ITS (versus BEA)		.17	.00	
Organization – NWS (versus BEA)		.57	.00	
Organization – OAR (versus BEA)		.68	.00	
Organization – OSASA (versus BEA)		.00	.04	
Organization – TA (versus BEA)		.01	.00	
Veteran/Non-Veteran		.00	.00	
Group	Adjusted Means	Standard Error		
Veteran	2.95	.10		
Non-Veteran	3.28	.04		

Dependent Variable = Percent Bonus Independent Variable Categories = RNO Group			DEMO GROUP
Group	Unadjusted Means	Standard Deviation	N
White (not of Hispanic origin)	1.93	1.19	3118
Black (not of Hispanic origin)	1.85	1.46	508
Hispanic	2.09	1.36	117
Asian or Pacific Islander	1.99	1.57	209
American Indian or Alaskan Native	2.02	1.33	15
ANCOVA Results	Significance	Eta Squared	
Performance Score	.00	.25	
Time in Service	.00	.02	
Career path – ZP (versus ZA)	.00	.01	
Career path – ZS (versus ZA)	.00	.07	
Career path – ZT (versus ZA)	.07	.00	
Organization – NESDIS (versus BEA)	.00	.01	
Organization – NMF (versus BEA)	.00	.10	
Organization – NTIA/ITS (versus BEA)	.00	.00	
Organization – NWS (versus BEA)	.00	.01	
Organization – OAR (versus BEA)	.00	.03	
Organization – OSASA (versus BEA)	.00	.09	
Organization – TA (versus BEA)	.00	.02	
RNO Group	.00	.00	
Group	Adjusted Means	Standard Error	
White (not of Hispanic origin)	1.95	.02	
Black (not of Hispanic origin)	1.77	.05	
Hispanic	2.03	.09	
Asian or Pacific Islander	2.03	.07	
American Indian or Alaskan Native	1.52	.26	

Dependent Variable = Percent Bonus Independent Variable Categories = Female/Male			DEMO GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Female	2.20	1.46	1632	
Male	1.74	1.05	2335	
ANCOVA Results		Significance	Eta Squared	
Performance Score		.00	.25	
Time in Service		.00	.02	
Career path – ZP (versus ZA)		.00	.00	
Career path – ZS (versus ZA)		.00	.07	
Career path – ZT (versus ZA)		.06	.00	
Organization – NESDIS (versus BEA)		.00	.01	
Organization – NMF (versus BEA)		.00	.11	
Organization – NTIA/ITS (versus BEA)		.00	.00	
Organization – NWS (versus BEA)		.00	.02	
Organization – OAR (versus BEA)		.00	.03	
Organization – OSASA (versus BEA)		.00	.09	
Organization – TA (versus BEA)		.00	.02	
Female/Male		.18	.00	
Group	Adjusted Means	Standard Error		
Female	1.96	.03		
Male	1.91	.02		

Dependent Variable = Percent Bonus Independent Variable Categories = Veteran/Non-Veteran			DEMO GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Veteran	1.69	1.22	481	
Non-Veteran	1.96	1.26	3486	
ANCOVA Results		Significance	Eta Squared	
Performance Score		.00	.25	
Time in Service		.00	.02	
Career path – ZP (versus ZA)		.00	.01	
Career path – ZS (versus ZA)		.00	.07	
Career path – ZT (versus ZA)		.09	.00	
Organization – NESDIS (versus BEA)		.00	.01	
Organization – NMF (versus BEA)		.00	.11	
Organization – NTIA/ITS (versus BEA)		.00	.00	
Organization – NWS (versus BEA)		.00	.02	
Organization – OAR (versus BEA)		.00	.03	
Organization – OSASA (versus BEA)		.00	.09	
Organization – TA (versus BEA)		.00	.02	
Veteran/Non-Veteran		.99	.00	
Group	Adjusted Means	Standard Error		
Veteran	1.93	.05		
Non-Veteran	1.93	.02		

Table 6: Results of ANCOVA Analysis – Comparison Group Data

Dependent Variable = Percent Increase in Salary Independent Variable Categories = RNO Group			COMP GROUP
Group	Unadjusted Means	Standard Deviation	N
White (not of Hispanic origin)	2.62	4.09	1551
Black (not of Hispanic origin)	2.69	3.97	163
Hispanic	3.34	3.84	33
Asian or Pacific Islander	3.00	4.87	77
American Indian or Alaskan Native	3.06	5.10	8
ANCOVA Results		Significance	Eta Squared
Performance Score		*	.00
Time in Service		.00	.06
Career path – ZP (versus ZA)		.36	.00
Career path – ZS (versus ZA)		.04	.00
Career path – ZT (versus ZA)		.21	.00
Organization – NESDIS (versus ESA)		.02	.00
Organization – NMF (versus ESA)		.00	.01
Organization – NOS (versus ESA)		.03	.00
Organization – OAR (versus ESA)		.00	.01
RNO Group		.73	.00
Group	Adjusted Means	Standard Error	
White (not of Hispanic origin)	2.65	.10	
Black (not of Hispanic origin)	2.41	.33	
Hispanic	3.39	.69	
Asian or Pacific Islander	2.92	.45	
American Indian or Alaskan Native	2.96	1.41	

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.

Dependent Variable = Percent Increase in Salary Independent Variable Categories = Female/Male			COMP GROUP
Group	Unadjusted Means	Standard Deviation	N
Female	3.06	4.58	708
Male	2.40	3.78	1124
ANCOVA Results		Significance	Eta Squared
Performance Score		*	.00
Time in Service		.00	.05
Career path – ZP (versus ZA)		.13	.00
Career path – ZS (versus ZA)		.01	.00
Career path – ZT (versus ZA)		.45	.00
Organization – NESDIS (versus ESA)		.03	.00
Organization – NMF (versus ESA)		.00	.01
Organization – NOS (versus ESA)		.03	.00
Organization – OAR (versus ESA)		.00	.01
Female/Male		.02	.00
Group	Adjusted Means	Standard Error	
Female	2.96	.16	
Male	2.46	.12	

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.

Dependent Variable = Percent Increase in Salary Independent Variable Categories = Veteran/Non-Veteran			COMP GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Veteran	2.11	3.16	213	
Non-Veteran	2.73	4.22	1619	
ANCOVA Results		Significance	Eta Squared	
Performance Score		*	.00	
Time in Service		.00	.06	
Career path – ZP (versus ZA)		.35	.00	
Career path – ZS (versus ZA)		.02	.00	
Career path – ZT (versus ZA)		.24	.00	
Organization – NESDIS (versus ESA)		.03	.00	
Organization – NMF (versus ESA)		.00	.01	
Organization – NOS (versus ESA)		.03	.00	
Organization – OAR (versus ESA)		.00	.01	
Veteran/Non-Veteran		.24	.00	
Group	Adjusted Means	Standard Error		
Veteran	2.34	.28		
Non-Veteran	2.70	.10		

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.

Dependent Variable = Percent Bonus Independent Variable Categories = RNO Group			COMP GROUP	
Group	Unadjusted Means	Standard Deviation	N	
White (not of Hispanic origin)	1.89	2.04	1551	
Black (not of Hispanic origin)	1.75	2.31	163	
Hispanic	2.07	2.14	33	
Asian or Pacific Islander	1.30	1.47	77	
American Indian or Alaskan Native	0.89	1.27	8	
ANCOVA Results		Significance	Eta Squared	
Performance Score		*	.00	
Time in Service		.85	.00	
Career path – ZP (versus ZA)		.00	.05	
Career path – ZS (versus ZA)		.00	.00	
Career path – ZT (versus ZA)		.00	.05	
Organization – NESDIS (versus ESA)		.09	.00	
Organization – NMF (versus ESA)		.05	.00	
Organization – NOS (versus ESA)		.04	.00	
Organization – OAR (versus ESA)		.99	.00	
RNO Group		.03	.01	
Group	Adjusted Means	Standard Error		
White (not of Hispanic origin)	1.90	.05		
Black (not of Hispanic origin)	1.56	.16		
Hispanic	2.10	.35		
Asian or Pacific Islander	1.38	.23		
American Indian or Alaskan Native	0.83	.70		

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.

Dependent Variable = Percent Bonus Independent Variable Categories = Female/Male			COMP GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Female	2.20	2.44	708	
Male	1.63	1.73	1124	
ANCOVA Results		Significance	Eta Squared	
Performance Score		*	.00	
Time in Service		.31	.00	
Career path – ZP (versus ZA)		.00	.04	
Career path – ZS (versus ZA)		.00	.01	
Career path – ZT (versus ZA)		.00	.04	
Organization – NESDIS (versus ESA)		.03	.00	
Organization – NMF (versus ESA)		.02	.00	
Organization – NOS (versus ESA)		.01	.00	
Organization – OAR (versus ESA)		.66	.00	
Female/Male		.00	.01	
Group	Adjusted Means	Standard Error		
Female	2.04	.08		
Male	1.73	.06		

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.

Dependent Variable = Percent Bonus Independent Variable Categories = Veteran/Non-Veteran			COMP GROUP	
Group	Unadjusted Means	Standard Deviation	N	
Veteran	1.43	1.70	213	
Non-Veteran	1.90	2.08	1619	
ANCOVA Results		Significance	Eta Squared	
Performance Score		*	.00	
Time in Service		.51	.00	
Career path – ZP (versus ZA)		.00	.05	
Career path – ZS (versus ZA)		.00	.01	
Career path – ZT (versus ZA)		.00	.05	
Organization – NESDIS (versus ESA)		.02	.00	
Organization – NMF (versus ESA)		.02	.00	
Organization – NOS (versus ESA)		.02	.00	
Organization – OAR (versus ESA)		.74	.00	
Veteran/Non-Veteran		.02	.00	
Group	Adjusted Means	Standard Error		
Veteran	1.53	.14		
Non-Veteran	1.89	.05		

* Comparison Group employees included in this analysis all received a rating of “passing” in Year Seven.