REPORT OF THE
JOINT LEGISLATIVE AUDIT
AND REVIEW COMMISSION

TECHNICAL REPORT: GENDER PAY EQUITY IN THE VIRGINIA STATE WORKFORCE

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 40

COMMONWEALTH OF VIRGINIA
RICHMOND
1998

Members of the Joint Legislative Audit and Review Commission

Delegate William Tayloe Murphy, Jr.
Chairman

Senator Richard J. Holland
Vice Chairman

Delegate Vincent F. Callahan, Jr.
Delegate J. Paul Councill, Jr.
Delegate Glenn R. Croshaw
Delegate Jay W. DeBoer
Delegate V. Earl Dickinson
Senator Joseph V. Gartlan, Jr.
Delegate Franklin P. Hall
Senator Kevin G. Miller
Delegate Harry J. Parrish
Delegate Lacey E. Putney
Senator Stanley C. Walker
Senator William C. Wampler, Jr.

Mr. Walter J. Kucharski
Ex Officio, Auditor of Public Accounts

Mr. Philip A. Leone
Director

Preface

The difference between salaries earned by men and those earned by women has been articulated as an issue of concern nationwide as well as in Virginia. Because the Commonwealth is one of the largest employers in Virginia, House Joint Resolution No. 491 of the 1997 General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to study gender pay equity in the State workforce. The study mandate also specifically directed JLARC to examine: "(i) which jobs are segregated by gender; (ii) within each pay grade, whether there is a wage gap between the jobs that are dominated by men and the jobs that are dominated by women; (iii) the size of [this wage gap]; and (iv) whether male-dominated and female-dominated job classes at the same grade level have the same or similar qualifications."

In this study, pay equity was defined as having two aspects: (1) equal pay for identical work; and (2) equal pay for work requiring comparable skill, effort, responsibility, and working conditions. The findings of this study are mixed, but generally indicate that these two aspects of pay equity are met. Males and females who held the same type of job and who had comparable years of State service tended to earn similar salaries. Among male-dominated and female-dominated jobs in the same pay grade, the "wage gap" was relatively small, compared to within-group variations in salary level. Qualifications were generally comparable, although in some pay grades there were implicit tradeoffs between required education levels and work environments.

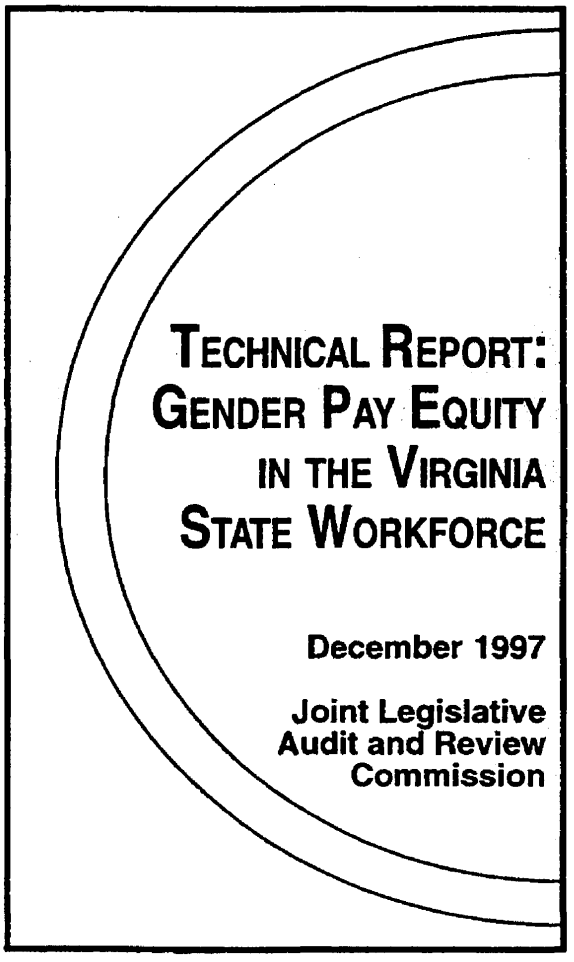
On average across all State full-time classified employees, salaries earned by females were about 84 percent of those earned by males. This difference in average salaries was primarily due to the fact that men and women tended to hold different types of jobs. For example, job classes with the highest numbers of females tended to be in the office services and secretarial support area (with pay grades ranging from Grade 4 to Grade 7). Job classes with the highest numbers of males tended to be in the law enforcement and corrections area (with pay grades ranging from Grade 7 to Grade 10). On average, males were in job classes that were two pay grades higher than females, and the difference in salary between two pay grades was about 16 percent. So, for example, a Grade 7 salary is about 84 percent of a Grade 9 salary. This 84 percent figure compares with a figure from the 1996 U.S. Census data: nationally, women earned about 74 percent of what men earned.

On behalf of JLARC staff, I would like to thank the staff from the Department of Personnel and Training for their cooperation and assistance during the course of this study.

Philip A. Leone
Director

December 22, 1997

JLARC Report Summary



The difference between salaries earned by men and those earned by women has been articulated as an issue of concern nationwide as well as in Virginia. Because the Commonwealth is one of the largest employers in Virginia, the General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to study gender pay equity in the State workforce.

In this study, pay equity was defined as having two aspects: (1) equal pay for identical work; and (2) equal pay for work requiring comparable skill, effort, responsibility, and working conditions. The findings of this study are mixed, but generally indicate that these two aspects of pay equity are met.

- Analysis of State workforce salary data reveals that men and women in identical types of jobs, and with comparable years of State service, tended to earn similar salaries.

- The "wage gap" between male-dominated and female-dominated jobs in the same pay grade was relatively small, compared to within-group variations in salary level. Further, in most pay grades, qualifications of male-dominated and female-dominated jobs were generally comparable, although in some pay grades there were substantial differences (particularly concerning required education levels and work environments). There is a need to examine the placement of job classes in Grades 7 to 11, to see if the "tradeoffs" that are apparently made between factors such as education levels and work environment are fully appropriate.

- On average across all State full-time classified employees, salaries earned by females were about 84 percent of those earned by males. Nationally, females earned about 74 percent of what males earned. This difference in average salaries of State employees was primarily due to the fact that men and women tended to hold different types of jobs. Males, on average, were in job classes that were about two pay grades higher than females. For example, job classes with the highest numbers of females

tended to be in the office services and secretarial support area (with pay grades ranging from Grade 4 to Grade 7). Job classes with the highest numbers of males tended to be in the law enforcement and corrections area (with pay grades ranging from Grade 7 to Grade 10). The difference in salary between two pay grades was about 16 percent, so a Grade 7 salary is about 84 percent of a Grade 9 salary.

Salary Differences Between Men and Women in the Same Jobs Tended to Be Small or Explainable by Years of Service

This study shows that the first aspect of pay equity has generally been achieved. JLARC staff examined Department of Personnel and Training (DPT) data from approximately 65,000 full-time State classified employees in 1,413 job classes as of June 30, 1997. JLARC staff compared the average difference between male salaries and female salaries, for every job class that had both male and female employees.

When considering the difference in average salaries between genders, the variation in salaries among men and among women is also an important factor to take into account at the same time. A measure of variation, like the standard deviation, indicates how much the distributions of male and female salaries may overlap, even when the averages may differ. For example, if males in a job class have an *average* salary that is higher than the female *average* salary, there could be a sizable number of instances in which females are actually earning more than males, especially if there is wide variation in male or female salaries. Such instances occur because the distributions of male salaries and female salaries overlap, rather than having relatively distinct ranges. When this situation occurs, the case that there is a pay equity gap is relatively weak.

JLARC staff found that for the vast majority of job classes with male and female incumbents, either salary differences between the genders were relatively small (compared to typical within-gender variation in each job class), or could be readily explained by other factors such as differences in years of State service. In the remaining job classes (which included about two percent of all State full-time classified employees), about two-thirds had males with substantially larger salaries than females, and one-third had females with substantially larger salaries than males. Thus, there did not appear to be a government-wide pattern of systematic pay discrimination against women who held the same jobs as men.

To provide another perspective, the data were analyzed on the individual agency level as well. Individual agencies that had relatively higher numbers of "potential problem cases" (that is, job classes that had relatively large salary differences between genders that could not be readily explained by differences in years of State service) are identified in this report. While these situations may or may not be due to gender pay discrimination, they cannot be regarded as representative of an individual agency's practice in general, because they consist of such small percentages of job classes in each agency.

Recommendation. *The Department of Personnel and Training should examine further specific agencies and specific agency job classes for gender pay discrimination. These reviews should incorporate qualitative information regarding individual incumbents, such as performance evaluations, education and training, work experience prior to State service, impacts of attrition on job class composition, and market effects (if any) on job class salaries.*

Recommendation. *The Department of Personnel and Training should perform periodic analyses of gender salary differences within job classes at scheduled intervals, such as biennially.*

The "Wage Gap" Between Male-Dominated and Female-Dominated Jobs in the Same Pay Grade Was Relatively Small

The study mandate specifically directed JLARC to examine: "(i) which jobs are segregated by gender; (ii) within each pay grade, whether there is a wage gap between the jobs that are dominated by men and the jobs that are dominated by women; (iii) the size of [this wage gap]; and (iv) whether male-dominated and female-dominated job classes at the same grade level have the same or similar qualifications." Using DPT data, JLARC staff grouped job classes in each pay grade into "female-dominated" (70 percent or more female employees), "male-dominated" (70 percent or more male employees), and "non-dominated" (between 30 and 70 percent male employees) categories. JLARC staff calculated average salaries for each group within each pay grade. Then JLARC staff compared group average salaries to determine "wage gaps," while taking variation in salaries within each group into consideration at the same time. Again, the variation was important to consider, because the spread of salaries in one group may have overlapped considerably with the spread of salaries in another group, even when the average salaries differed.

The analysis showed that there generally was no "wage gap" greater than typical within-group variation in salaries. The specific results of this analysis, however, appear to depend on the pay grade:

- In Grades 1 through 10 (in which 79 percent of full-time State classified employees fell), there appeared to be no substantial wage gap. In fact, there were about as many instances of average salaries in female-dominated job classes being higher than those of male-dominated job classes, as vice-versa.

- In Grades 11 through 17 (in which approximately 20 percent of full-time classified State employees fell), there appeared to be some wage gaps in which male-dominated job classes had a higher average salary than female-dominated job classes. However, these apparent differences between groups were still generally smaller than typical within-group variation.

- In Grades 18 through 23 (in which approximately one percent of full-time classified State employees fell) there were no female-dominated job classes.

Overall, if job classes in the same pay grade are assumed to be sufficiently comparable, the second aspect of pay equity appears to have been achieved as well.

To examine the qualifications and requirements of male-dominated and female-dominated jobs in the same pay grades (as required by the study mandate), JLARC staff examined DPT job classification specifications. These classification specifications included information for each job class regarding: complexity of work; supervision given; supervision received; scope; impact of actions; personal contacts; and knowledge, skills and abilities.

JLARC staff found that there were general differences in the types of jobs dominated by males and females that relate to the eight broad functional areas used by DPT to categorize different kinds of work:

- Office Services, Store Sales, Data Processing;
- General Administration and Finance;
- Education, Information and Planning;
- Human Affairs and Institutional Services;
- Engineering, Applied Sciences, and Technology;
- Trades, Labor and Warehousing;
- Law Enforcement, Public Safety, Corrections; and
- Agriculture, Natural Resources, Environmental Control.

Market forces and available resources appeared to influence compensation levels and pay grade classifications, although quantifying these effects was beyond the scope of this study. Further, in most pay grades, qualifications of male-dominated and female-dominated job classes were generally comparable, although in some pay grades (Grades 7 through 11) there were substantial differences in requirements, particularly concerning required education levels and work environments.

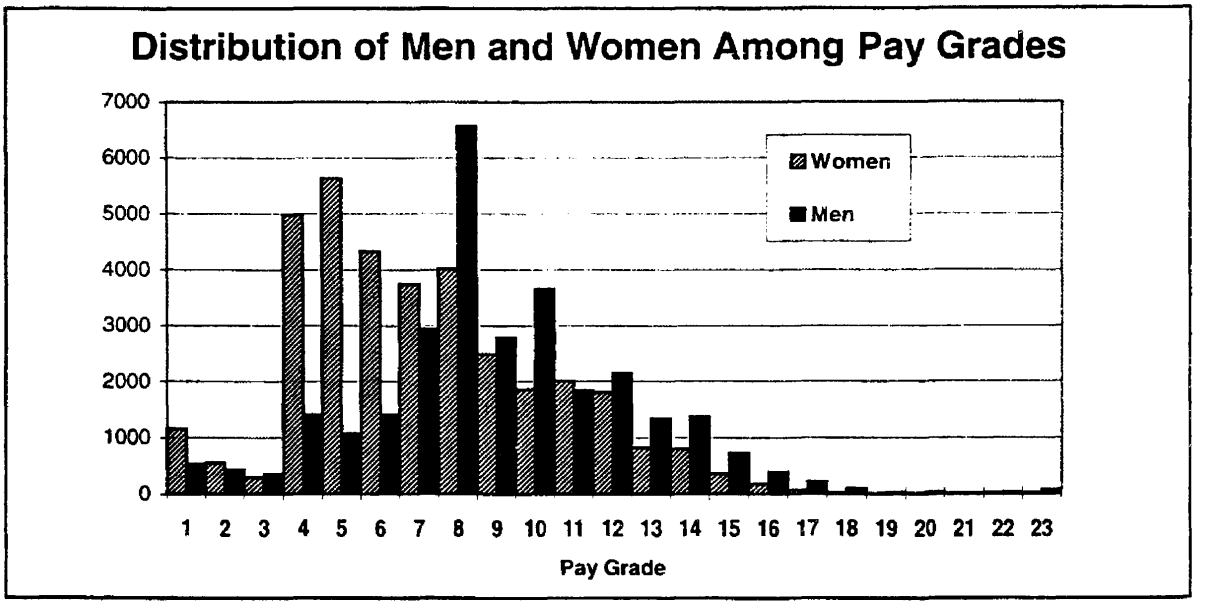
These differences are illustrated by the following pair of job classes. "Hospital Accounts Collector B" is a female-dominated job class at Grade 7 that requires a college degree and involves work in an office environment. "Juvenile Correctional Officer" is a male-dominated position at the same pay grade that does not require a college degree, but involves working in the hazardous environment of a correctional facility. The assignment of such different job classes to the same pay grade may have been based on the different job requirements being assumed to offset each other.

Males Tended to Be in Job Classes that Were Two Pay Grades Higher than Females

When holding job class or pay grade constant, JLARC staff found the resulting gender differences in salary generally to be relatively insubstantial. Yet the average female full-time classified State employee earned a salary that was about 84 percent of the average male's salary. Among all female full-time classified State employees as of June 30, 1997, the average salary was $26,117. Among all male full-time classified State employees, the average salary was $31,265. Some of this difference in average salaries could be attributed to differences in seniority. The average female worker had been in State service for 10.6 years, when the average male worker had been in State service for 11.5 years. This difference in seniority does not fully explain the salary difference.

Therefore, JLARC staff examined the distribution of male and female employees across the different pay grades (see figure on next page). JLARC staff found that males on average were in Grade 9, when females on average were in Grade 7. Further, the salary difference between two pay grades (at the same step in DPT's *Schedule of Standard Rates of Pay*) was approximately 16 percent, so a Grade 7 salary is 84 percent of a Grade 9 salary. This difference in pay grades appears to be primarily due to the fact that women tended to work in different functional areas than men.

Different functional areas have different job classes, which are assigned to different pay grades. For example, women overwhelmingly dominated the non-technical areas of support and services, especially the functional area of "Office Services, Store Sales, Data Processing." In contrast, more job classes in the sciences, law enforcement, and trades were dominated by men. The figure on page VI illustrates the differences in how males and females are dis-



tributed across the main functional areas. Assessment of the qualifications and requirements for male-dominated and female-dominated job classes indicated that, overall, their assignment to specific pay grades appeared reasonable. Further, the process DPT uses in its current job classification system appeared to be a reasonable one.

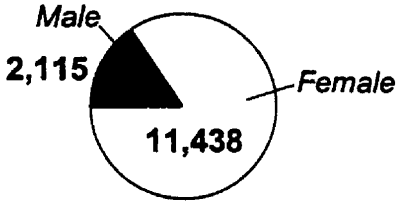
Conclusion

Examining the two aspects of pay equity by observing gender differences in salary data while controlling for job class and pay grade is a logical first step, before questioning whether male-dominated and female-dominated jobs are appropriately valued by the State. When reviewing its job classification system, DPT should focus especially on Grades 7 through 11. In this gray area, female-dominated jobs generally had higher educational requirements than male-dominated jobs, but also tended to be located indoors or in less hazardous environments, and were less likely to require strenuous physical effort. It may be that these characteristics are thought to offset each other, but further study focusing more explicitly on these tradeoffs may determine more definitively whether they are appropriate.

Recommendation. *The Department of Personnel and Training should review and update its job classification system. The analysis should address the placement of job classes in Grades 7 through 11, and assess whether the implicit tradeoffs between different job requirements, such as education and working conditions, are appropriate.*

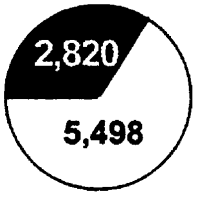
Number of Males and Females in Functional Areas

Office Services, Store Sales, Data Processing

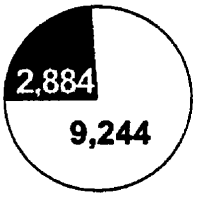


Education, Information and Planning

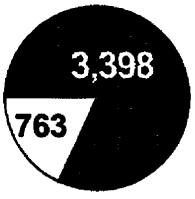
General Administration and Finances



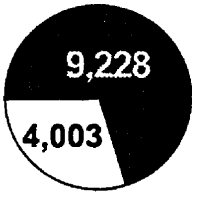
Human Affairs and Institutional Services



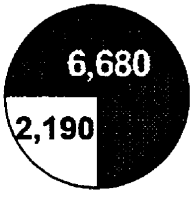
Engineering, Applied Sciences and Technology



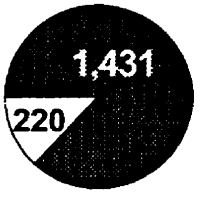
Law Enforcement, Public Safety, and Corrections



Trades, Labor, and Warehousing



Agriculture, Natural Resources, and Environmental Control



Source: JLARC analysis of DPT data.

Table of Contents

I. Introduction

The difference between salaries earned by men and those earned by women has been articulated as an issue of concern nationwide as well as in Virginia. Because the Commonwealth is one of the largest employers in Virginia, the General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to study gender pay equity in the State workforce.

"Pay equity" can be defined in various ways. However, most of the definitions in the literature appear to converge on the concept articulated in *A Report of the Virginia Commission on the Status of Women on Pay Equity* (House Document 5, 1983):

> Simply stated, pay equity involves setting equivalent wage and salary scales for jobs requiring comparable skill, effort, responsibilities, and working conditions....
>
> Pay equity is a concept which has come to encompass both equal pay for identical work and equal pay for work requiring comparable skill, effort and responsibility.

In this study, pay equity is operationally defined as:

- equal pay for identical work; and
- equal pay for work requiring comparable skill, effort, responsibility, and working conditions.

Another term in the literature that has been linked at times with "pay equity" is "comparable worth." According to *A Report of the Secretaries of Administration and Finance on the Status and Implications of Comparable Worth* (House Document No. 3, 1985), comparable worth is an approach to salary determination that provides equal salaries for dissimilar positions of equal value to the employer based on an assessment of levels of effort, responsibility, skills, and working conditions. The comparable worth approach broadens the issue of work and wage equality to maintain that jobs of equivalent overall value to the employer be paid at the same rate, even if the jobs are dissimilar in nature, and even if they command different salaries in the general labor market. This study is not a comparable worth study, although some of the concepts from comparable worth studies are used.

There appears to be widespread agreement in the literature that there has historically been a gap in the wages of working men and women. On average, the full-time annual earnings of women across the United States have been about 60 to 70 percent of the full-time annual earnings of men over the last fifty years. Although there is little agreement about the reasons for the wage gap, one of the most-discussed factors associated with the wage gap has been the overall job concentration of males and females.

Reference is often made in the literature to the concentration of women in relatively few, lower-paying occupations. A frequently-cited statistic is that in 1981, 80 percent of all employed females worked in only 25 percent of the 420 occupational categories listed by the U.S. Department of Labor (in contrast to men, who were scattered throughout many job areas). For example, nearly all secretaries and registered nurses were females, as were 80 percent of all elementary school teachers and librarians. In this way, females composed a substantial majority, or "dominated," these jobs. For the purposes of this study, a "dominated" job class is defined as one in which 70 percent or more of the positions are held by one gender. This definition is consistent with those frequently used in the current literature.

THE DEPARTMENT OF PERSONNEL AND TRAINING JOB CLASSIFICATION SYSTEM

The Virginia Department of Personnel and Training (DPT) uses a classified job system to define pay levels for State employees. The majority of State employees are "classified" employees, meaning that their jobs are defined in the DPT job classification system. There are also "exempt" employees, meaning that their jobs are not defined within the DPT job classification system. The job classification system itself consists of approximately 1,400 job classes.

A job class is the fundamental unit that essentially matches and defines a particular type of job. Individuals in the same job class are assumed to be performing essentially the same kind of work, even if they are in different State agencies. For example, a "Secretary Senior" at the Department of Transportation is in the same job class as a "Secretary Senior" in the Department of Education. These two secretaries are assumed to be performing essentially the same kind of work, even though it may be in different settings.

All job classes are assigned to a pay grade. A pay grade is a wage or salary range for a particular subset of job classes. There are currently 23 pay grades, ranging from Grade 1 ($11,473 to $17,913) to Grade 23 ($81,461 to $127,180). Very different job classes entailing very different kinds of work can be assigned to the same pay grade. For example, "Secretary Senior" and "Highway Equipment Operator B" are both assigned to Grade 5. In a sense, the pay grade assigned to a job class can be interpreted as the value that the State currently attaches to that job class (while attempting to be competitive in hiring and retaining employees in that job class). Further, job classes in the same pay grade can be interpreted as the State assuming them to require comparable levels of skill, effort, responsibility, or working conditions, even if the work itself is very different. The majority of State employees work in the lower nine pay grades.

JLARC REVIEW

House Joint Resolution No. 491 of the 1996 General Assembly Session directed JLARC to study pay equity in the State workforce (Appendix A). JLARC was also directed to examine:

- which jobs are segregated by gender;
- within each pay grade, whether there is a wage gap between the jobs that are dominated by men and the jobs that are dominated by women;
- the size of this wage gap; and
- whether male- and female-dominated job classes at the same grade level have the same or similar qualifications.

This study emphasizes primarily two questions that are central for examining gender pay equity. The first question is whether men and women are receiving equal pay for equal work. The second question is whether men and women are receiving equal pay for work that may not be the same, but that is comparable in terms of skill, effort, responsibility, and working conditions. To address these questions, some choices had to be made at the outset regarding data to be collected and analytic methods to be used.

Data Collection

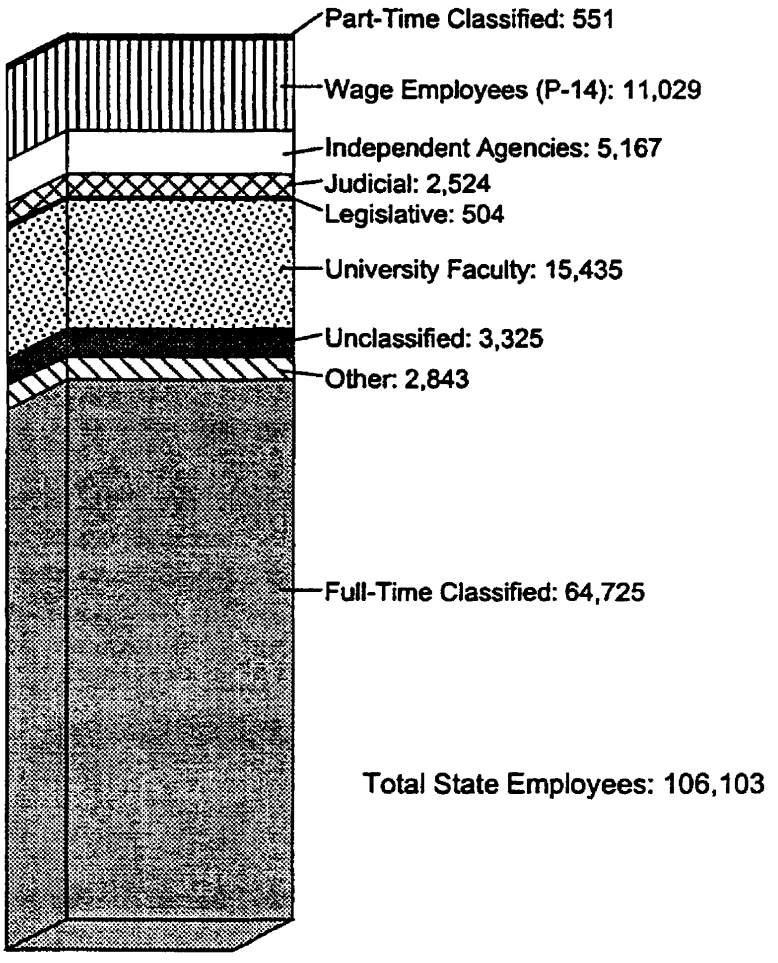
This study relies primarily on two sets of data: (1) data from DPT's Personnel Management Information System (PMIS) on all full-time State classified workers, and (2) DPT job classification specifications for male-dominated and female-dominated job classes.

PMIS Data on Full-Time State Classified Employees. One set of data used for this study includes approximately 65,000 full-time State classified employees, but does not include several categories of other State employees. As shown in Figure 1, there were approximately 106,000 State employees in 1997, but not all of them were full-time State classified employees. Salary data on 551 part-time employees were not examined because part-time wages are not comparable to full-time salaries. Even if part-time wages were converted to "full-time-equivalent" salaries, they would be hypothetical amounts that would not reflect actual differences between what males and females were actually paid.

In addition, there were 11,029 wage (P-14) employees who were working for the State on a temporary basis. These employees were generally short-term employees working on an hourly basis, for a maximum of 1,500 hours per year. They were not

Figure 1

Categories of State Employees in 1997



Source: Department of Personnel and Training (DPT).

included in the analysis because, like part-time classified employees, their part-time wages were not comparable to full-time salaries.

It was determined at an early stage of the study that collecting comparable data on exempt employees was not feasible, given the time and resources available for this study, and was not within the focus of the study mandate. "Exempt employees" refer to employees of State agencies that are not required to conform to the provisions of the Virginia Personnel Act, the principal framework of the State job classification system. These agencies include all independent, judicial, and legislative agencies. Further, broad classes of other State employees are "exempt," such as non-classified college faculty and administrators. As shown in Figure 1, exempt employees number in the thousands.

Several problems with collecting and analyzing data from exempt employees were identified. One is that the study mandate explicitly refers to "pay grades" and "job classes," which apply to classified employees, but not to exempt employees. Therefore, in order to make comparisons required by the study mandate, it would be difficult and highly tenuous to "fit" exempt employees into appropriate pay grades. Further, in contrast to data on classified employees, data on exempt employees are not readily available in any centralized location (such as DPT). Instead, comparable data on exempt employees would have to be collected on the individual agency level. Whether such data exist on the agency level in a format that could be compared with classified employee data was another question. In sum, it was determined that collection of these data would vastly increase the study effort in an area that is outside the focus of the study mandate, and, therefore, was beyond the scope of this study.

Furthermore, there were several job classes which are not assigned to the pay grades. These job classes include those which DPT labels "Ungraded," "Teaching," and "Trainee." Again, because of problems with trying to compare these job classes with those assigned to pay grades, they were not included in the analysis. These job classes included 3,325 incumbents.

Finally, DPT reported to JLARC staff an additional 2,843 salaried executive branch employees who were not in full-time classified positions according to PMIS data. Like the employees in the other categories, these employees were not in classified positions with salaries that could be appropriately compared with those of employees who were. These employees are shown in Figure 1 in the "Other" category.

DPT Job Classification Specification Data. In addition to analyzing PMIS data, JLARC staff also examined DPT job classification specifications. The classification specifications were used to analyze qualifications and requirements for male-dominated and female-dominated job classes. Further details regarding the qualitative information collected from this source are provided in Chapter III.

Analytic Methods

Different approaches for analyzing DPT data were available. These approaches have been characterized in the pay equity literature as falling primarily into one of two categories: the "economic analysis" approach, and the "job content" or "job evaluation" approach. The "economic analysis" approach involves the application of economic theories and models to identify those factors that predict wages, and then to determine the extent to which the factors explain wage differentials between men and women. Regression analysis or some other statistical technique is generally used in studies following the "economic analysis" approach.

The "job content" or "job evaluation" approach focuses on the characteristics of jobs, not the job incumbents or the workplace, as in economic studies. This approach analyzes the value of jobs to an employer, and identifies pay differences between com-

parably-valued male-dominated and female-dominated job classes. Job content studies often use a point factor system, in which a set of factors (such as those reflecting skill, effort, responsibility, and working conditions) are identified, and a point value or "weight" is assigned to each factor. A job is evaluated on each factor and the total number of points becomes its job worth score.

This study employs some of the methods from each of these two approaches, but does not entirely fit into one or the other category. This study focuses on identifying salary differences while controlling for job content and other factors on which data are available. It also examines factors reflecting job requirements and qualifications. But it does not rely extensively on regression analysis. Nor does it involve a point factor system assigning a "job worth score" to various job classes. Likewise, this study is not primarily an evaluation of the job classification system utilized by DPT, because that is not the focus of the study mandate nor of the two primary questions regarding pay equity as defined above. Further discussion of the specific analytical methods used in this study, and why they were selected, is provided in the following chapters.

REPORT ORGANIZATION

The remaining chapters of this report examine different key aspects of pay equity. Chapter II addresses whether men and women receive roughly equal pay for equal work: the salary differences between men and women in the same job class are examined for all 1,413 DPT job classes. Chapter III focuses on whether there is equal pay for comparable work: it assesses the salary differences that can be observed between male-dominated and female-dominated job classes within the same pay grade. It also analyzes the qualifications and requirements of these job classes. Chapter IV further explores the differences in the kinds of work performed by men and by women. It also examines more directly the difference in average salaries between men and women, and how relatively more men are in higher pay-grade level job classes, and relatively more women are in lower pay-grade job classes.

II. Gender Differences in Salary Within Job Class

The study mandate directed JLARC to study pay equity in the State workforce. The first question regarding gender pay equity, as discussed in the previous chapter, is whether there is equal pay for identical work. This question can be rephrased to lend itself better to empirical examination: when men and women are holding the same type of job, are women paid less than men? JLARC staff examined this question using Department of Personnel and Training (DPT) data from all full-time State classified employees as of June 30, 1997.

JLARC staff found that for the vast majority of job classes with male and female incumbents, either salary differences between the genders were relatively small, or could be readily explained by other factors such as differences in years of State service. In the remaining job classes (which included about two percent of all State full-time classified employees), about two-thirds had males with substantially larger salaries than females, and one-third had females with substantially larger salaries than males. Thus, there did not appear to be a broad pattern of government-wide pay discrimination against women who held the same jobs as men. A more detailed discussion follows, including: a description of the data analyzed; the alternative methods used to analyze the data; and the findings and conclusions based on the data analysis.

THE DATA

The data analyzed are DPT PMIS data from all full-time classified employees as of June 30, 1997. There were 1,413 job classes in the 23 pay grades. DPT provided values for the following variables separately for males and for females for each job class:

- average salary
- standard deviation of salaries
- number of incumbents
- average years of State service
- percent in job class with a Northern Virginia cost of competing differential.

To see whether findings from 1997 data were stable, JLARC staff also analyzed DPT data for all full-time classified employees as of June 30, 1996. There were 1,445 job classes in the 23 pay grades at that time. The variables for each job class were the same as those included in the 1997 data.

ALTERNATIVE METHODS FOR DATA ANALYSIS

Two approaches were used for analyzing the data: a regression analysis approach, and an alternative approach which focused directly on the actual salary differences themselves within each individual job class.

Regression Analysis

The regression analysis did not provide support for the contention that females earn less than males when controlling for the effects of occupation level and years of State service (Appendix B). However, there were often large portions of the variation in the dependent variables that were left unexplained by the regression models used in this analysis. The pay equity literature includes much discussion of the inability of regression models to control for all factors that influence wages, especially when data are not available for some of these factors (which is the case with the DPT data used). A major weakness in regression models is that they cannot control very well for job content when estimating parameters that apply across all types of jobs, especially when the unit of analysis is the individual occupation.

Further, as explained in greater detail in Appendix B, the data required a fairly complicated mathematical transformation, and in some instances, the number of observations was too small, for appropriate application of regression analysis. These mathematical artifacts make the interpretation of the results of the regression models less than clear. Because of the inherent complexity of appropriately applying regression analysis to the DPT data, and the lack of clearly interpretable results, a less cumbersome and more straightforward alternative approach to analyzing the data was developed. This approach focuses on the salary differences themselves *by each individual job class*. In this way, the effects of job content could be much better controlled by analyzing the data within each single job class, one job class at a time.

An Alternative Approach Focusing on Salary Difference Within Job Class

The alternative approach analyzes all 1,413 job classes in terms of differences in salary and years of State service between males and females within each job class. The approach can be summarized as a set of decision rules that serve as screens or filters for identifying which job classes show substantial salary differences between males and females that cannot be readily explained by differences in average length of State service. The first set of screens can be characterized in terms of addressing one of two fundamental questions:

- Which job classes have "big" differences in salaries between genders, and therefore merit the greatest scrutiny?

- Can "big" salary differences between genders be readily explained in terms of differences in average years of State service between genders?

The methods used in operationalizing each of these questions is summarized below. However, the rationale behind these methods is discussed in greater detail in Appendix C.

Are Salary Differences Between Genders "Big"? Variation in salaries is known to occur among males and among females within each job class. A key question, then, is whether the average difference between male salaries and female salaries is "big" compared to the variation, on average, among males alone or among females alone in the job class.

When considering the difference in average salaries between genders, the variation in salaries among men and among women is an important factor to take into account. A measure of variation, like the standard deviation, indicates how much the distributions of male and female salaries may overlap, even when the averages may differ. For example, suppose that males in a job class have an *average* salary that is higher than the female *average* salary. But if there is wide variation in male or female salaries, there could be a sizable number of instances in which females are actually earning more than males, despite the difference in the averages. These instances occur because the distributions of male salaries and female salaries overlap so much, rather than having relatively distinct ranges. When this situation occurs, the case that there is a pay equity gap is relatively weak.

Therefore, the decision rule was operationalized as follows:

> *If the difference in average salaries is greater than either the male or the female salary standard deviation, then it was regarded as sufficiently "big" enough to warrant further examination. If the difference was less than either standard deviation, then there was substantial overlap between the two groups in the salaries that were paid, and it was therefore less likely that a gender equity problem existed.*

Can "Big" Salary Differences Be Readily Explained by Years of State Service? The next screen utilizes a fundamental assumption. The assumption is that if a worker has been in State service longer, it is reasonable to expect that the worker may receive a somewhat higher salary for every additional year of State service. The average salary increase across eleven years (the average length of State service among full-time classified State employees) due to proficiency increases (where the worker "meets expectations") is approximately 2.3 percent. This level of 2.3 percent per year of State service can serve as a baseline to screen out job classes, where observed salary differences may be due to more years of State service and corresponding proficiency increases, from those where salary differences may be reflecting pay inequities due to gender discrimination.

FINDINGS

Two sets of findings emerged from this analysis. One set concerns the statewide patterns in how the 1,413 job classes are distributed into different categories, and the implications of this distribution. The other set of findings focuses on the 174 job classes that made it through the screens to warrant further examination.

Distribution of Job Classes

Table 1 shows the distribution of job classes into the four broad categories based on composition and size of the job class. Of the 1,413 job classes examined, 567 (or 40 percent) had either no males or no females, so there was no salary difference between genders to examine in these job classes. For example, there were 128 male Equipment Repair Technicians (Grade 7) but no female incumbents in this job class. (The term "incumbent" in this study refers to a person holding a classified position.) Likewise, there were 24 female Nutritionist Assistants (Grade 5) but no male incumbents in this job class.

The next largest group consisted of 526 "large" job classes (in the sense that these had more than ten incumbents) with both male and female incumbents, which had 37 percent of the 1,413 job classes. The two remaining groups consisted of "smaller" job classes with both male and female incumbents: 284 job classes with three to ten incumbents (20 percent of the total); and 34 job classes with one male and one female incumbent (2 percent).

Distribution of Job Classes with Mix of Genders: The Data. The next three tables focus on the last three groups that have some mix of genders in each job class. Table 2 shows the distribution of "large" job classes. Out of 526 job classes in this group, 131 had gender salary differences that were larger than the typical variation in salaries among men alone and among women alone. Of these 131 job classes, 91 (or 69 percent) had male average salaries exceeding those of females. The remaining 40 job classes (or 31 percent) had female average salaries exceeding those of males. Of the 91 job classes in which average male salaries exceeded female salaries, 42 (or 46 percent) could be readily explained in terms of differences in years of State service and proficiency increases, while the remaining 49 (54 percent) could not. The category that could not be readily explained included 14 cases in which females had more years of State service, and 35 cases in which the annualized salary difference per extra year of State service exceeded 2.3 percent. Of the 40 job classes in which average female salaries exceeded male salaries, 16 (or 40 percent) could be readily explained by differences in years of State service; but 24 (or 60 percent) could not. The latter category included seven cases in which males had more years of State service, and 17 cases in which females earned more than 2.3 percent per additional year of State service.

Similar patterns appear among the two groups of "small" job classes. Table 3 shows the distribution of job classes with three to ten incumbents. Of the 284 job

Table 1

Frequency of Job Classes By Composition and Size

	Number of Job Classes:				
Grade	**Grand Total**	**100% Single Gender**	**> 10 Incumbents**	**3 - 10 Incumbents**	**1 Male, 1 Female Incumbent**
1	5	1	4		
2	16	3	12	1	
3	18	7	9	2	
4	43	13	24	5	
5	31	8	18	5	
6	52	15	29	7	
7	83	26	42	14	1
8	94	25	56	11	2
9	116	35	61	19	1
10	119	49	47	19	4
11	127	43	55	26	3
12	159	61	58	37	3
13	117	46	31	35	5
14	124	51	36	33	4
15	95	51	18	24	2
16	72	36	16	15	5
17	52	30	5	14	3
18	36	26	1	8	1
19	14	10	0	4	
20	16	14	1	1	
21	14	11	0	3	
22	5	3	2		
23	5	3	1	1	
Total	1413	567	526	284	34

Source: JLARC staff analysis of DPT PMIS data.

classes in this group, 150 were identified for further scrutiny because they had sufficiently "large" salary differences. Of these 150 job classes, 95 (or 63 percent) had male average salaries higher than female average salaries, and 55 job classes (or 37 percent) had female average salaries exceeding male average salaries. Of the 95 job classes with males receiving higher salaries, 40 (or 42 percent) could be readily explained in terms of differences in years of State service, while 55 (or 58 percent) could not – 25 had females with more years of State service, and 30 had males earning more than 2.3 percent per year of additional service. Of the 55 job classes in which females had higher salaries on average than males, 23 (or 42 percent) could be readily explained in terms of differences in years of State service, while 32 (or 58 percent) could not – 16 had males with more years of State service, and 16 had females earning more than 2.3 percent per additional year of State service.

Table 2

Pay Differences Between Genders Within Job Class: Job Classes With More than Ten Incumbents

Grade	Total	Small salary diffs btwn sexes	Large salary diffs btwn sexes	Where males have higher salaries: Total	Males more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Females more yrs serv.	Where females have higher salaries: Total	females more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Males more yrs serv.
1	4	4											
2	12	8	4	3	2	1	1	1	1	1		1	
3	9	8	1						1	1	1		
4	24	18	6	4	4	1	3		2	2		2	
5	18	16	2	2	2	1	1						
6	29	23	6	4	4	2	2		2	2		2	
7	42	30	12	6	5	2	3	1	6	6	5	1	
8	56	42	14	7	5	4	1	2	7	7	4	3	
9	61	47	14	11	10	7	3	1	3	2	1	1	1
10	47	38	9	6	4	3	1	2	3	3	1	2	
11	55	37	18	10	10	8	2		8	5	1	4	3
12	58	44	14	10	8	5	3	2	4	3	2	1	1
13	31	23	8	8	5	0	5	3					
14	36	26	10	8	8	3	5		2	1	1		1
15	18	13	5	5	4	2	2	1					
16	16	10	6	5	4	2	2	1	1				1
17	5	4	1	1	1	1							
18	1		1	1	1		1						
19	0												
20	1	1											
21	0												
22	2	2											
23	1	1											
Totals	**526**	**395**	**131**	**91**	**77**	**42**	**35**	**14**	**40**	**33**	**16**	**17**	**7**

Source: JLARC staff analysis of DPT PMIS data.

Table 3

Pay Differences Between Genders Within Job Class: Job Classes With Three to Ten Incumbents

Grade	Total	Small salary diffs btwn sexes	Large salary diffs btwn sexes	Where males have higher salaries: Total	Males more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Females more yrs serv.	Where females have higher salaries: Total	females more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Males more yrs serv.
1	0												
2	1	1											
3	2		2	1	1	1			1	1	1		
4	5	4	1						1	1	1		
5	5	2	3	1	1	1			2	2		2	
6	7	4	3	1	1	1			2	2	2		
7	14	7	7	4	1	1		3	3	3	2	1	
8	11	4	7	5	3	1	2	2	2				2
9	19	9	10	6	6	3	3		4	3		3	1
10	19	10	9	6	6	4	2		3	3	3		
11	26	12	14	9	8	4	4	1	5	3		3	2
12	37	22	15	7	6	5	1	1	8	8	6	2	
13	35	15	20	14	9	6	3	5	6	3	2	1	3
14	33	18	15	8	5	1	4	3	7	4	3	1	3
15	24	9	15	12	11	6	5	1	3	2	1	1	1
16	15	7	8	5	3	1	2	2	3	1		1	2
17	14	5	9	6	4	3	1	2	3	3	2	1	
18	8	4	4	3	2	1	1	1	1				1
19	4	0	4	3				3	1				1
20	1	0	1	1	1		1						
21	3	1	2	2	1		1	1					
22	0												
23	1	0	1	1	1	1							
Totals	**284**	**134**	**150**	**95**	**70**	**40**	**30**	**25**	**55**	**39**	**23**	**16**	**16**

Source: JLARC staff analysis of DPT PMIS data.

Finally, Table 4 shows the distribution of those job classes with one male and one female. Out of these 34 job classes: 18 (or 53 percent) had males receiving a higher salary; 12 (or 35 percent) had females earning a higher salary; and 4 (or 12 percent) had the male and the female earning exactly the same salary. Of the 18 job classes with a higher male salary: ten (or 56 percent) could be readily explained by the males having more years of State service; but eight (or 44 percent) could not – in five of those job classes, the female had more years of experience, and in three the male earned more than 2.3 percent per year of additional service. Of the 12 job classes with a female receiving a higher salary: six (or 50 percent) could be readily explained by the females having more years of experience; six (or 50 percent) could not, because in two job classes the male had more years of State service and in four the female received more than 2.3 percent per additional year of experience.

Distribution of Job Classes with Mix of Genders: Conclusions. The bottom line from what can be observed from the data can be summarized in three points.

- ***The vast majority of job classes do not appear to have pay equity problems.*** Of the 844 job classes with both male and female incumbents, 670 (or 79 percent) had relatively small salary differences between genders, or differences that could be readily explained in terms of differences in years of State service and proficiency increases. These job classes do not appear to be potentially problematic in terms of a wage gap between males and females. However, according to the decision rules used in this analysis, 174 job classes (or 21 percent) warranted further examination to determine whether gender pay equity problems exist.

- ***There are more cases of males having substantially higher salaries than females (than of females having higher salaries than males); but the proportions that can be readily explained by differences in years of State service and proficiency increases are similar.*** Of the 204 job classes in which males had substantially higher salaries than females, 92 (or 45 percent) of these cases could be readily explained in terms of differences in years of State service. Of the 107 job classes in which females had higher salaries than males, 45 (or 42 percent) of these cases could also be readily explained by differences in years of State service.

- ***Of the job classes selected for further examination, about two-thirds have males paid on average more than females, while one-third have females paid on average more than males.*** There were 112 cases in which males were paid more and the difference could not be explained in terms of years of State service and proficiency increases. There were 62 cases in which females were paid more and the difference could not be explained by these same factors.

The following section focuses on the 174 job classes that had exceeded the two screening criteria, and therefore were selected for further examination.

Table 4

Pay Differences Between Genders Within Job Class: Job Classes With One Male and One Female Incumbent

		Where male has higher salary:					Where female has higher salary:					
Grade	Total	Male higher salary	Males more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Female more yrs serv.	Female higher salary	female more yrs serv.	< or = 2.3% per yr serv.	>2.3% per yr serv.	Male more yrs serv.	Same Salary
1	0											
2	0											
3	0											
4	0											
5	0											
6	0											
7	1	1	1	1								
8	2	2	1		1	1						
9	1						1	1	1			
10	4	4	3	3		1						
11	3						3	2	1	1	1	
12	3	1	1	1			2	1	1		1	
13	5	1				1	2	1	1	1	0	2
14	4	2	2	1	1		1	1		1		1
15	2	1	1	0	1		1	1		1		
16	5	4	2	2		2	1	1	1			
17	3	1	1	1			1	1	1			1
18	1	1	1	1								
19	0											
20	0											
21	0											
22	0											
23	0											
Totals	34	18	13	10	3	5	12	9	6	4	2	4

Source: JLARC staff analysis of DPT PMIS data.

"Potential Problem" Job Classes Warranting Further Examination

There were two main steps for taking a closer look at the 174 job classes in which "large" pay differences were not explained by length of State service: (1) determine what, if any, role the Northern Virginia cost of competing differential may play in gender salary differences; and (2) examine the job classes on the individual agency level.

The Northern Virginia Cost of Competing Differential. Many State employees who work in Northern Virginia receive a "cost of competing differential." By using this differential, the Commonwealth recognizes that the Northern Virginia regional job market may require higher pay levels to hire and retain employees for certain types of jobs, in comparison to other regions in Virginia. This differential ranges from 9.31 percent to 30.60 percent, depending on the job class. It is possible that some job classes may have a higher proportion of males than females (or vice versa) receiving the Northern Virginia differential, which could explain the observed differences in salary (in addition to differences in years of State service and proficiency increases). The details of calculating the impact of the Northern Virginia differential are discussed in Appendix D.

The result of this step is that seven of the 174 job classes drop out of the analysis, because the Northern Virginia differential and the difference in years of State service explains the observed salary differences between genders. The seven job classes are listed in Exhibit 1.

Exhibit 1

Job Classes with Salary Differences Explained by Northern Virginia Differential

Pay Grade	Job Class Number	Job Title
2	43101	Laboratory Aide
4	63031	Highway Equipment Operator A
6	61157	Printing Press Operator B
10	74014	Occupational Safety Compliance Officer
11	42011	Public Health Nurse
11	47321	Visually Handicapped Ed. Coordinator
11	54027	Engineering Technician VII

Source: JLARC staff analysis of DPT PMIS data

Analysis of Job Classes Disaggregated by Agency. The next step of the analysis examines whether patterns that appear statewide for a job class remain the same when breaking the data down by individual agency. If gender discrimination in salaries within a given job class occurs, it must occur on the agency level, rather than

on a statewide level across agencies. In contrast, if all the men in a given job class work in different agencies than the women, salary differences observed statewide may be more an artifact of agency differences without regard to gender. This discussion first presents results sorted by job class and disaggregated by agency, and then the results are sorted first by agency and broken out by job class.

Organizing the Data by Job Class. The units of analysis have changed, from statewide job class to "agency job class" – that is, data on the incumbents of a given job class within a given agency. As shown in the spreadsheet in Appendix E, the remaining 167 "potential problem" job classes were characterized as belonging to one of four categories, or else in the "Mixed Pattern" category (based on some combination of these four categories). The four categories are:

- *No Change.* The salary differences observed statewide remain unchanged, because all incumbents in the job class are within one agency. (For example, Grade 12, State Police Special Agent.)

- *Screens Still Exceeded.* The salary differences still pass through the screens described above, even when controlling for the individual agency. (In other words, salary differences between the genders within an agency are still sufficiently large and beyond what can be readily explained by years of State service. Example: Grade 2, Office Services Aide.)

- *People in Different Agencies.* The males in a given job class are in different agencies than females. (For example, Grade 7, Photographer).

- *Screens Not Exceeded Anymore.* The salary differences do not exceed the criteria stated above anymore, when controlling for individual agency. (For example, Grade 6, Grounds Lead Worker.)

The results shown in Appendix E indicate which job classes drop out of the analysis. Twenty-seven job classes drop out because the males and the females are in different agencies. An additional 22 drop out because the salary differences among agency job classes no longer exceed the screens.

Next the focus is on those job classes in which the screens continue to be exceeded. These cases are further classified according to how they exceed the screens, which is shown in the spreadsheet in Appendix F. The spreadsheet shows four categories of "Type of Problem," plus a "Mixed Pattern" category.

1. The average male salary is greater than the average female salary, but females on average have more years of State service than males.

2. The average male salary is greater than the average female salary, and males on average have more years of State service, but the salary difference per extra year of State service is more than 2.3 percent.

3. The average female salary is greater than the average male salary, but males on average have more years of State service than females.

4. The average female salary is greater than the average male salary, and females on average have more years of State service, but the salary difference per extra year of State service is more than 2.3 percent.

The "Mixed Pattern" category is for those job classes in which the pattern in salary differences may vary from one agency to another. For example, there is the job class "Capital Outlay Project Engineer," Grade 13. In one agency, the way in which the screens are exceeded falls into the first category. In another agency, the pattern falls into the second category; and in yet another, the third category.

The results in Appendix F resemble closely a pattern seen earlier. For every two job classes in which men are earning higher salaries than women (that cannot be readily explained in terms of years of State service or the Northern Virginia cost-of-competing differential), there is one in which women are earning higher salaries than men.

Organizing the Data by Agency. The fundamental units of analysis are the same – agency job classes. But they are now sorted by agency, as shown in the spreadsheet in Appendix G. Further, those agency job classes that do not show salary differences between genders that exceed the screens were eliminated. Organized this way, the data show whether agencies show predominantly patterns favoring males, or else patterns favoring females. Most agencies have a mixture of different types of problems, as can be seen in the "Type of Problem" column in the spreadsheet in Appendix G (with 1 through 4 corresponding to the four category numbers shown above).

Some additional results can be observed from the data shown in the spreadsheet in Appendix G:

- The rough ratio of 2 to 1 (of salary differences favoring males versus females) still appears to hold somewhat among the remaining 112 agency job classes.

- The majority of agency job classes have very small numbers of incumbents being compared. Most are situations in which only one male or only one female is compared to one or more members of the opposite gender. In these situations, differences in salary due to individual differences in performance cannot be distinguished from differences due to gender.

- The remaining agency job classes, in which salary differences between genders cannot be readily explained in terms of years of State service or the Northern Virginia differential, have approximately 1,200 incumbents – or approximately two percent of roughly 65,000 full-time State classified employees.

To provide another perspective, the entire analysis described in this chapter was performed again, but with agency job classes as the starting point. This agency-level analysis is discussed in more detail in Appendix H. By putting more emphasis on the individual agency level, this alternative analysis made it possible to identify individual agencies that may have relatively higher numbers of "potential problem cases." It also served as a check to see whether the results from this alternative analysis were similar to the statewide analysis results described in this chapter. The fact that the two sets of results were indeed similar indicates that the data patterns observed are fairly robust.

In this alternative analysis, agency job classes with salary differences between genders that were relatively large and that could not be readily explained by differences in average years of State service were labeled as "potential problem cases." This label does not necessarily mean that the salary differences were due to gender discrimination. But if any gender discrimination were occurring, its effects would be more observable in these cases, rather than in the vast majority of cases that did not exceed the most basic criteria for determining whether a discrepancy in salary levels exists.

The agencies with ten or more "potential problem cases" are shown in Table 5 (all agencies with "potential problem cases" are shown in Appendix H). In many agencies, there were roughly as many potential problem cases in which female salaries were exceeding male salaries (henceforth, "female potential problem cases"), as those in which male salaries exceeded female salaries (henceforth, "male potential problem cases"). The agencies with the largest imbalances were: the Department of Mental Health, Mental Retardation, and Substance Abuse Services (DMHMRSAS); the Department of Transportation (VDOT); and James Madison University (JMU). In these agencies, the difference in the number of male potential problem cases versus female potential problem cases was ten or more. However, when considering the total number of job classes in each agency, the percentage of these job classes that were male potential problem cases (as well as female potential problem cases) was quite small. In particular, the percentages for the three agencies with the largest imbalances are: DMHMRSAS, eight percent were male and three percent were female potential problem cases; VDOT, eight percent male and two percent female; and JMU, eight percent male and two percent female potential problem cases. In these instances, there may be relatively greater potential for problems in gender pay equity; but even in these three agencies, there do not appear to be strong, overwhelming trends that can be generalized across the majority of job classes.

Analyses Using 1996 Data

As a further check on the stability of the patterns observed in the 1997 data, the same analyses shown in this chapter were conducted using data on all full-time classified State employees as of June 30, 1996. The results from the 1996 data were very similar to the results reported from the 1997 data.

Table 5

Agencies with Ten or More "Potential Problem" Job Classes

Agency	# Job Classes	# "Potential Problem" Job Classes	Male Salary > Female Salary	Female Salary > Male Salary
DMHMRSAS	344	35	26	9
VDOT	297	30	24	6
Dept. of Corrections	270	23	14	9
Univ. of Virginia	256	18	11	7
VCU	254	18	6	12
Virginia Tech	218	22	15	7
Dept. of Health	210	25	13	12
James Madison Univ.	198	19	16	3
VCCS	185	18	11	7
George Mason Univ.	171	15	5	10
Old Dominion Univ.	171	11	5	6
William & Mary	156	12	7	5
MCV Hospital	152	20	8	12
Dept. of Rehab. Svcs.	146	12	8	4
Dept. of Gen. Svcs.	138	13	6	7
State Police	113	10	7	3
DMAS	66	10	6	4

Source: JLARC staff analysis of DPT PMIS data for full-time classified employees.

CONCLUSIONS

It would be difficult to make the case that there is a broad pattern of government-wide pay discrimination against women in the State workforce who are holding the same types of jobs as men. Ninety-eight percent of State classified employees were in agency job classes that did not exceed criteria (the "screens" in this analysis) that would be necessary to make such a case. The remaining two percent of employees fall into agency job classes with salary differences that may or may not exhibit gender discrimination. But even among these cases, complicating factors make it difficult to formulate a compelling argument that there is systematic gender discrimination: (1) most of these agency job classes have such low numbers of incumbents that it would be impossible to disentangle the effects of individual job performance or other individual characteristics from gender differences; and (2) differences in salary go in both directions – the majority of cases favoring men, but a substantial number also favoring women.

Although there are some individual agencies that have relatively more potential problem cases in which male salaries on average are higher than female salaries, these situations may or may not be due to gender discrimination. They cannot be

regarded as representative of an individual agency's practice in general, however, because they consist of such small percentages of job classes in each agency.

Recommendation (1). **The Department of Personnel and Training should examine further specific agencies and specific agency job classes for gender pay discrimination. These reviews should incorporate qualitative information regarding individual incumbents such as performance evaluations, education and training, work experience prior to State service, impacts of attrition on job class composition, and market effects (if any) on job class salaries.**

Recommendation (2). **The Department of Personnel and Training should perform periodic analyses of gender salary differences within job classes at scheduled intervals, such as biennially.**

III. Analysis of Male-Dominated and Female-Dominated Job Classes

As discussed in Chapter I, the second key question regarding gender pay equity is whether there is equal pay for work that is different, but requiring comparable skill, effort, responsibility, and working conditions. One way of operationalizing the comparability of different jobs is through the pay grade the Department of Personnel and Training (DPT) assigns to them. In a sense, the pay grade assigned to a job class can be interpreted as the value that the State currently attaches to that job class (while attempting to be competitive in hiring and retaining employees in that job class). Therefore, the job classes in the same pay grade can be interpreted as the State assuming them to require comparable levels of skill, effort, responsibility, or working conditions.

Further, House Joint Resolution No. 491 of the 1997 General Assembly Session specifically directed JLARC to examine:

- which jobs are segregated by gender;
- within each pay grade, whether there is a wage gap between the jobs that are dominated by men and the jobs that are dominated by women;
- the size of this wage gap; and
- whether male-dominated and female-dominated job classes at the same grade level have the same or similar qualifications.

This chapter has two parts. The first part focuses on the first three items listed above dealing with salary differences between male-dominated and female-dominated job classes in the same pay grades. JLARC staff found that in pay grades with male-dominated and female-dominated job classes, there generally was no "wage gap" greater than typical within-group variation in salaries. In this part, job classes in the same pay grade were assumed to be comparable in terms of skill, effort, responsibility, and working conditions.

The second part examines the accuracy of this assumption. It assesses the qualifications and requirements of male-dominated and female-dominated job classes that are at the same pay grade level. JLARC staff found that there were general differences in the types of jobs dominated by males and females that relate to functional areas used to categorize different kinds of work. JLARC staff also found that, in most pay grades, qualifications of male-dominated and female-dominated job classes were generally comparable, although in some pay grades there were substantial differences (particularly concerning required education levels and work environments).

SALARY DIFFERENCES BETWEEN MALE-DOMINATED AND FEMALE-DOMINATED JOB CLASSES

This section first discusses the approach used for analyzing salary differences between male-dominated and female-dominated job classes, and then presents the results of the analysis (including a discussion of the "wage gaps," as required in the study mandate).

Approach for Analysis

The data are the same as those used for the within-job-class analysis in Chapter II: the statewide 1,413 job classes as of June 30, 1997. The approach for this analysis can be characterized as three steps: (1) within each pay grade, job classes were grouped into "female-dominated," "male-dominated," and "non-dominated" categories; (2) average salaries for each group within the pay grade were calculated; and (3) group average salaries were compared to determine "wage gaps."

Grouping Job Classes. Based on the literature, the most commonly used definition for a gender-dominated job class is one in which 70 percent or more of the incumbents are of one gender. (It should also be noted that in the literature, the terms "segregated" and "dominated" by gender are generally treated as being synonymous). Consequently, job classes that had more than ten incumbents were put into one of three groups. Those with 70 percent or more female incumbents were put into the "female-dominated" group. Those with 70 percent or more male incumbents were grouped into the "male-dominated" category. And those that had between 30 and 70 percent male incumbents were put into a third category, which was labeled the "non-dominated" group.

In order to focus the analysis more on the job classes with larger numbers of incumbents, the "large" job classes (with more than ten incumbents) were separated from the "small" job classes. This separation was done because many of the "small" job classes had only one or two incumbents, and the average salaries may have been more reflective of individual characteristics than of gender differences. As shown in the following step of the analysis, one way of analyzing the data (using the "simple average" approach) was to treat each job class as a unit of analysis, where each job class was given equal weight. Job classes with very small numbers of incumbents may not have average salaries that are as representative of gender differences as job classes with larger numbers of incumbents. Therefore, treating these small job classes the same as the large job classes may introduce anomalies that do not reflect gender differences.

Rather than ignore incumbents in these small job classes, however, they were pooled into an aggregated "Small Job Classes" category for each pay grade. This aggregated category was then classified as either "female-dominated," "male-dominated," or "non-dominated."

Calculating Group Average Salaries. Within each job class, an average male salary and an average female salary was provided by the Department of Personnel and Training (DPT). Also within each job class (and the "Small Job Classes" aggregated category), an average job class salary was calculated. This calculation was essentially a ratio. The numerator was computed by multiplying the male average salary times the number of male incumbents, multiplying the female average salary times the number of female incumbents, and adding the products together. The denominator was the total number of male and female incumbents in the job class.

For each of the three "dominated" groups, two alternatives representing the average salary across job classes were calculated. One alternative was a weighted average, in which the weights were based on the number of incumbents in each job class. To provide a corresponding sense of the variation in individual salaries within each group, the standard deviations of all male and female salaries for all job classes in a group were summarized by calculating a weighted average. The weights of this weighted standard deviation again were based on the number of male and female incumbents in each job class in the group.

The other alternative was a simple average across job classes, where each of the "large" job classes had equal weight in calculating the average. This alternative facilitates taking into account the spread of values across different job classes in a group, by calculating a corresponding standard deviation. These alternative averages and standard deviations, along with other data from the job classes for each pay grade, are shown in Appendix I.

Comparing Group Average Salaries. If a single point estimate had to be made of the "wage gap" in each pay grade, then it should be based on the difference in weighted average salaries from each group. However, these single point estimates of the "wage gap" are not the whole picture, because they do not take into account the variation in salaries within each group.

The variation in salaries is in two forms: within-job-class variation and between-job-class variation within the group. The weighted standard deviations reflect variation in individual salaries within job classes, but not between job classes within a group. For this reason, simple average salaries across the job classes (and the corresponding standard deviations across job classes) were also calculated and examined.

If the data were from randomly drawn samples, then tests of significant differences between the group means would be appropriate (using t-tests or analysis of variance). But the data are from the entire population of interest, not a randomly drawn sample. Therefore, the thresholds associated with tests of significance are not so meaningful.

An alternative way to take into consideration the variation in job class salaries was used, treating the averages and standard deviations as descriptive statistics. It is similar to the method for interpreting standard deviations used in the within-job-

class analysis (as documented in Appendix C). The weighted average is one way to summarize the different average salaries across job classes in a group. The corresponding weighted standard deviation of this group represents the typical distance between an individual salary and a single job class average in the group. For example, the weighted average salary of female-dominated Grade 5 job classes is $20,952, and the weighted standard deviation of this group average is $2,941. In other words, the "typical" deviation of an individual salary in a Grade 5 female-dominated job class can be at least $2,941 above or below this group average of $20,952. (The qualifier "at least" is there because the weighted standard deviation is representing variation in salaries *within* job classes, but not variation *between* job classes.)

Taking this example a step further, a comparison can be made with male-dominated job classes in Grade 5. This group has a weighted average salary of $21,909 with a weighted standard deviation of $3,243. So the difference in weighted average salaries between female-dominated and male-dominated job classes is $957 ($21,909 minus $20,952), which is smaller than the "typical" variation in individual salaries among female-dominated job classes ($2,941) or among male-dominated job classes ($3,243).

Furthermore, the "wage gap" can also be represented by the difference in simple averages across job classes, which are $20,618 for Grade 5 female-dominated job classes and $21,395 for male-dominated job classes (resulting in a difference of $777). This difference is less than the "typical" variation between female-dominated job classes (with a corresponding standard deviation of $1,102) and male-dominated job classes (with a corresponding standard deviation of $1,291). So, in comparison to the spread of job class salaries in Grade 5, the apparent "wage gap" between male-dominated and female-dominated job classes is substantially less than the "typical" variation within each group.

Findings

Overall, there appear to be no substantial "wage gaps" between male-dominated and female-dominated job classes that are greater than the typical variation in salaries. The specific results of the analysis, however, appear to depend on the pay grade. One story emerges for Grades 1 through 10, another for Grades 11 through 17, and yet another for Grades 18 through 23. The details for each pay grade are shown in Appendix I. The overall picture can be summarized as follows:

- In Grades 1 through 10 (in which 79 percent of full-time State classified employees fell), there appeared to be no substantial wage gap. In fact, there were about as many instances of average salaries in female-dominated job classes being higher than those of male-dominated job classes, as vice-versa.

- In Grades 11 through 17 (in which approximately 20 percent of full-time classified State employees fell), there appeared to be some wage gaps in which male-dominated job classes had a higher average salary than female-

dominated job classes. However, these apparent differences between groups were still generally smaller than typical within-group variation.

- In Grades 18 through 23 (in which approximately one percent of full-time classified State employees fell) there were no female-dominated job classes.

Grades 1 through 10. Figure 2 summarizes some of the data in Appendix I by showing the weighted average salaries in female-, non- and male-dominated job classes for each of the first ten pay grades. In about half of these pay grades, the weighted average salaries in female-dominated job classes were greater than those of male-dominated job classes. Weighted average salaries of the non-dominated job classes were generally in the same approximate range as those of male- and female-dominated job classes. This finding led to the question of whether the average salary differences between male- and female-dominated job classes were substantially greater than ordinary variation in average salaries among job classes in a pay grade.

Table 6 addresses this question more directly, by comparing the differences in weighted average salary with the corresponding weighted standard deviations within each male- and female-dominated group. Again, Table 6 summarizes statistics that are shown in Appendix I. In all cases, the differences between the groups were smaller

Table 6

Comparing Weighted Average Salaries from Male- and Female-Dominated Job Classes: Grades 1 through 10

	Weighted Average Salaries			*Weighted Average Std. Dev.*	
Grade	Female-Dominated Job Classes	Male-Dominated Job Classes	Difference in Weighted Averages	Female-Dominated Job Classes	Male-Dominated Job Classes
1*	14,888.26			2,106.44	
2	16,236.08	16,476.91	-240.83	3,309.27	2,751.51
3	16,891.02	17,221.82	-330.80	2,635.22	2,676.57
4	17,922.36	18,876.04	-953.68	2,449.70	2,993.80
5	20,951.99	21,908.52	-956.53	2,941.00	3,242.98
6	23.483.30	22,617.68	865.62	3,165.73	3,268.52
7	25,458.29	23,688.94	1,769.35	3,375.40	2,816.18
8	27,231.75	24,744.53	2,487.22	3,471.07	2,926.94
9	29,188.72	29,099.26	89.46	3,645.20	3,388.77
10	32,503.49	32,052.56	450.93	4,076.69	3,991.87

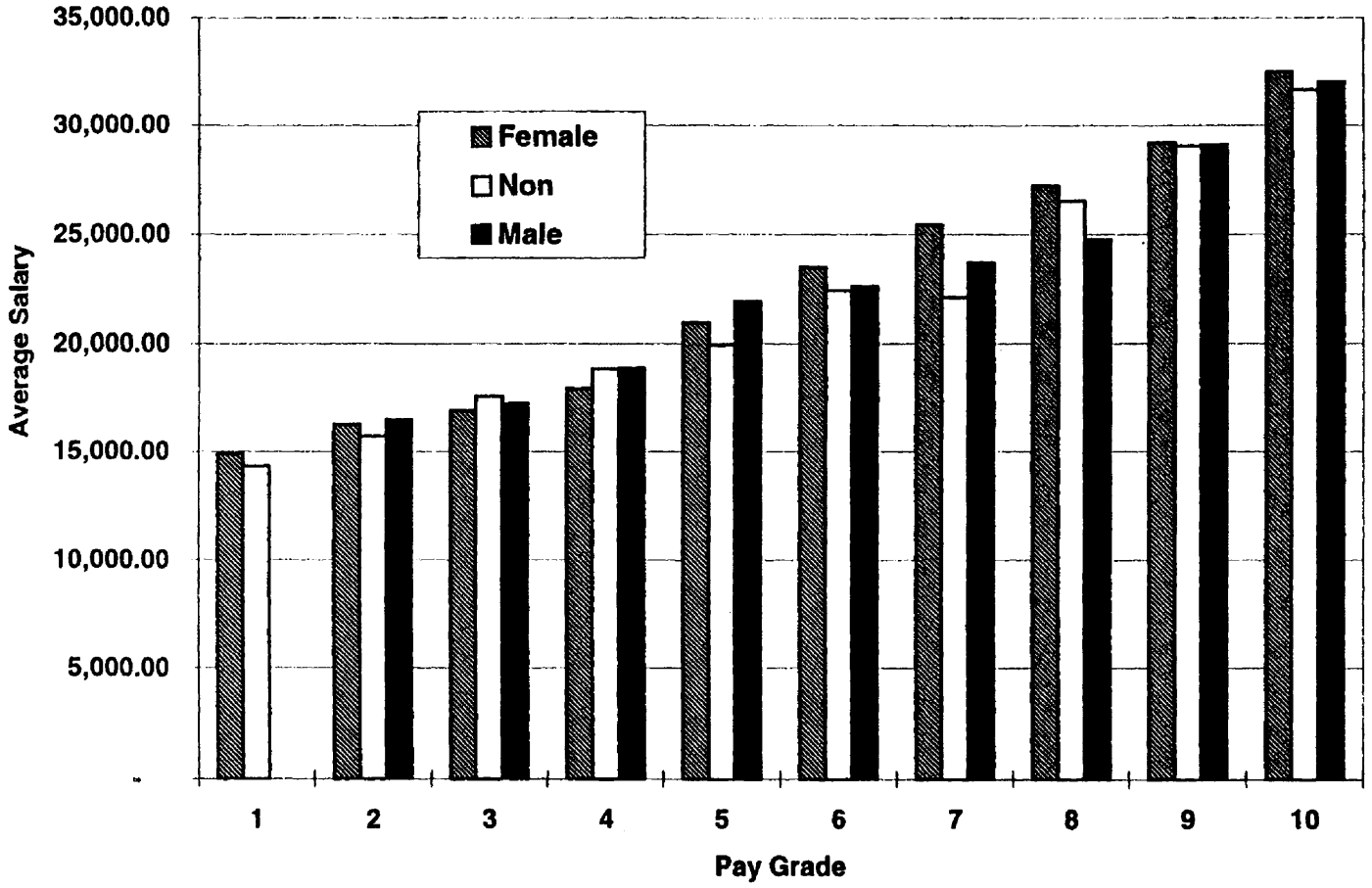
Note: Differences in averages were computed by subtracting average salary of male-dominated job classes from those of female-dominated job classes.

*Grade 1 had no male-dominated job classes.

Source: JLARC staff analysis of DPT PMIS data.

Figure 2

Weighted Average Salaries in Female-, Non-, and Male-Dominated Job Classes by Pay Grade: Grades One Through Ten



Note: Grades one through ten include approximately 79 percent of all full-time State classified employees.

Source: JLARC staff analysis of DPT PMIS data.

than the "typical" deviation occurring within each group, as represented by the weighted standard deviation. Further, the directions of the differences were inconsistent: in Grades 2 through 5, the male-dominated job class average salary was higher, when in Grades 6 through 10 the female-dominated job class average salaries were higher.

The weighted standard deviations in Table 6 capture the *within*-job-class variation of salaries, but there is also variation in salaries *between* job classes in a male-dominated or female-dominated group. Table 7 focuses on the variation between job classes in each group, using simple averages across job classes and corresponding standard deviations. In most cases, the apparent "wage gaps" between simple averages did not exceed the standard deviations (which represent the typical variation of a single job class average salary from the simple average across job classes in a group). Furthermore, the differences again showed inconsistency in direction: in Grades 4, 7 and 9 the average salaries in female-dominated job classes exceeded those in male-dominated job classes, when the reverse is true for Grades 2, 3, 5, 6, 8 and 10.

The conclusion among Grades 1 through 10 is that there was no substantial and consistent wage gap between male- and female-dominated job classes. The apparent differences among average salaries were not consistent from one pay grade to another, and were smaller than the typical variation within each group.

Table 7

Comparing Simple Average Salaries from Male- and Female-Dominated Job Classes: Grades 1 through 10

	Simple Average Salaries			*Standard Deviations*	
Grade	Female-Dominated Job Classes	Male-Dominated Job Classes	Difference in Simple Averages	Female-Dominated Job Classes	Male-Dominated Job Classes
1*	14,836.39			721.44	
2	15,343.21	16,396.17	-1,052.96	436.13	1,050.43
3	16,464.36	17,140.46	-676.10	833.99	388.76
4	18,698.54	18,590.64	107.90	1,276.14	708.53
5	20,618.27	21,395.29	-777.02	1,102.32	1,291.25
6	22,638.56	22,649.06	-10.50	1,348.16	1,344.33
7	25,627.90	24,809.73	818.17	1,024.39	1,607.03
8	26,682.52	26,945.92	-263.40	2,046.64	1,544.45
9	29,572.75	29,486.61	86.14	1,345.16	1,940.63
10	32,596.78	33,316.12	-719.34	1,809.57	2,037.20

Note: Differences in averages were computed by subtracting average salary of male-dominated job classes from those of female-dominated job classes.

*Grade 1 had no male-dominated job classes.

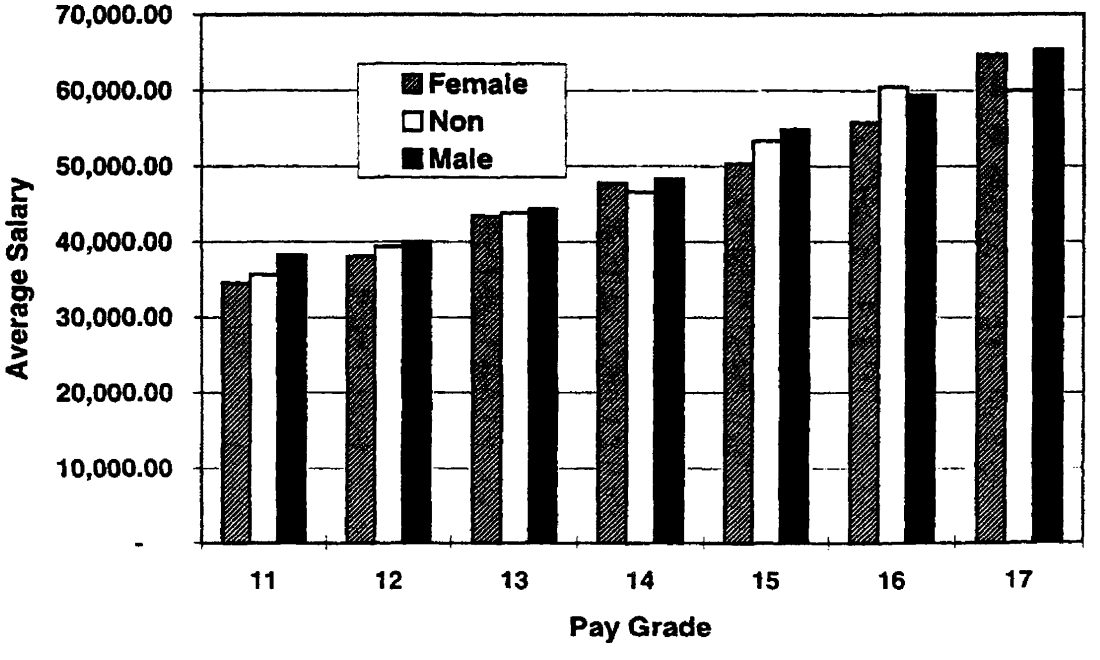
Source: JLARC staff analysis of DPT PMIS data.

Grades 11 through 17. Similar results based on weighted and simple averages for groups in Grades 11 through 17 are shown in Figure 3 and Tables 8 and 9. Both weighted and simple averages from these grades indicated that the salary differences between male-dominated and female-dominated job classes tended to be of a higher magnitude and consistently in the same direction (with female-dominated job class salaries being lower than male-dominated job class salaries), compared to Grades 1 through 10. However, with the exception of Grade 15, the differences in weighted averages were still smaller than "typical" within-job-class salary variation, and the differences in simple averages were generally smaller than typical between-job-class variation.

The exceptional case of Grade 15 led to the following question: can this relatively larger average salary difference be explained by differences in years of State service? Additional data from the Grade 15 male- and female- dominated job classes indicated it can be. The difference in average salaries in Grade 15, as a percentage of the weighted average salary of both male- and female-dominated job classes, was 8.278 percent. The average years of State service of incumbents in the female-dominated and male-dominated job classes were 11.7 and 17.5, respectively. Then, using an ap-

Figure 3

Weighted Average Salaries in Female-, Non-, and Male-Dominated Job Classes by Pay Grade: Grades 11 through 17



Note: Grades 11 through 17 include 20 percent of all full-time State classified employees.

Source: JLARC staff analysis of DPT PMIS data.

Table 8

Comparing Weighted Average Salaries from Male- and Female-Dominated Job Classes: Grades 11 through 17

	Weighted Average Salaries			*Weighted Average Std. Dev.*	
Grade	Female-Dominated Job Classes	Male-Dominated Job Classes	Difference in Weighted Averages	Female-Dominated Job Classes	Male-Dominated Job Classes
11	34,548.29	38,253.04	-3,704.75	4.331.62	4,124.35
12	38,080.02	39,997.35	-1,917.33	4,648.09	4,536.57
13	43,389.34	44,289.52	-900.18	4,629.65	5,339.24
14	47,741.14	48,294.30	-553.16	4,387.59	4,798.82
15	50,324.69	54,840.61	-4,515.92	4,181.65	5,819.29
16	55,803.82	59,345.19	-3,541.37	6,512.44	4,507.59
17	64,728.33	65,332.47	-604.14	6,993.97	4,480.07

Note: Differences in averages were computed by subtracting average salary of male-dominated job classes from those of female-dominated job classes.

Source: JLARC staff analysis of DPT PMIS data.

Table 9

Comparing Simple Average Salaries from Male- and Female-Dominated Job Classes: Grades 11 through 17

	Simple Average Salaries			*Standard Deviations*	
Grade	Female-Dominated Job Classes	Male-Dominated Job Classes	Difference in Simple Averages	Female-Dominated Job Classes	Male-Dominated Job Classes
11	35,233.37	37,547.18	-2,313.81	2,850.44	2,517.47
12	39,039.30	40,198.15	-1,158.85	2,004.90	2,985.44
13	44,400.35	44,519.98	-119.63	2,385.02	3,177.75
14	48,023.82	48,778.11	-754.29	994.74	2,581.56
15	50,592.84	55,125.87	-4,533.03	475.75	2,473.74
16	56,537.40	59,469.73	-2,932.33	2,305.54	3,127.50
17	64,728.33	65,051.20	-322.87	*	2,758.62

Note: Differences in averages were computed by subtracting average salary of male-dominated job classes from those of female-dominated job classes.

*Grade 17 had only one female-dominated job class.

Source: JLARC staff analysis of DPT PMIS data.

proach similar to that used in the within-job-class analysis in Chapter II, the percent salary difference per additional year of service was calculated: 8.278 percent divided by 5.8, or 1.427 percent. This additional percentage of salary per extra year of service is less than the 2.3 percent threshold used in Chapter II, which is the average annual salary difference that is attributable to proficiency increases for adequate performance. Therefore, the relatively large "wage gap" observed in Grade 15 seems to be consistent with average compensation for additional years of service.

Grades 18 through 23. For the job classes in the highest pay grades, no wage gaps could be calculated, because no job classes with more than ten incumbents met the definition for "female-dominated." (See Appendix I for data on "male-dominated" and "non-dominated" job classes in these pay grades.) Approximately one percent of State full-time classified employees were in Grades 18 through 23. This set of results leads to the question: why are there relatively fewer women in the highest-paying job classes? This question will be addressed in part in the following section and in the Chapter IV discussion on gender differences by functional area.

QUALIFICATIONS AND REQUIREMENTS OF MALE-DOMINATED AND FEMALE-DOMINATED JOB CLASSES

The study mandate directed JLARC to examine the qualifications and requirements of male-dominated and female-dominated job classes at the same pay grade. First, the approach used by JLARC staff to conduct an analysis of qualifications of job classes is described. This analysis is based on data obtained from job classification specifications maintained by the Department of Personnel and Training (DPT). Next, findings regarding differences in qualifications within the State classification system generally and within specific pay grades are discussed. The main conclusions resulting from this analysis are:

- There were general differences in the types of jobs dominated by males and females that relate to functional areas used to categorize different kinds of work.

- Market forces and available resources appeared to influence compensation levels and pay grade classifications, although quantifying these effects was beyond the scope of this study.

- For job classes below grade 7, qualifications of male-dominated and female-dominated job classes were generally comparable despite differences related to the functional area of the position.

- For pay grades 7 through 11, there were substantial differences in qualifications between male- and female-dominated positions within the same pay grade, particularly concerning required education levels and work environments. Although these differences generally appeared to offset each other,

further investigation may be desirable to assess more fully whether this implicit tradeoff is appropriate.

- For pay grades above 11, qualifications of male-dominated and female-dominated job classes were generally comparable, with a few exceptions concerning high-level law-enforcement positions. However, these cases did not seem to be problematic.

Approach for Analyzing Differences in Job Class Qualifications

The approach entailed several decisions regarding (1) the data collection and (2) the job classes analyzed.

Data Collection. The first step to assess differences in job class qualifications was to develop a working definition of "qualifications." A narrow interpretation might limit "qualifications" to include only the skills, education, and abilities that a candidate must possess in order to be considered for a given job class. However, such an interpretation would be flawed in that it would not fully capture other characteristics of job classes, such as work environment, that may have an impact on the gender composition and pay grade classifications of those classes. It is especially important to identify these factors, since the literature indicates that workers' personal preferences regarding these factors may be causally related to gender. For example, the literature indicates that men may be more willing to accept a potentially hazardous work environment in exchange for higher pay. Conversely, research indicates that women are generally less willing to make that tradeoff.

"Qualifications" in this analysis included not only (1) required skills, but also (2) required effort, (3) levels of responsibility, and (4) working conditions that can be seen as non-monetary benefits associated with different job classes. These factors are recognized by the literature as playing a role in determining the value of diverse positions. For example, it would be not be appropriate to conclude that a position that requires previous experience should necessarily be classified at a higher pay grade than another without evaluating other characteristics of the job classes such as required levels of education and level of supervision given.

The main source of data for assessing the qualifications and requirements of job classes was DPT job classification specifications. These classification specifications included information for each job class regarding: complexity of work; supervision given; supervision received; scope; impact of actions; personal contacts; and, knowledge, skills, and abilities. Appendix J provides an example of a classification specification.

Although this analysis was not intended to be a fully comprehensive job evaluation study, it did attempt to assess information on job classes in a manner that would reveal differences in qualifications. As a result, the four factors outlined above were used as the framework for an analytical matrix. Information from DPT classification specifications provided the following data on each of these four factors.

Required Effort. One item examined in this factor was the type of work performed, such as skilled labor or analytical work. The EEO classification, a federally defined means of categorizing job classes (such as "Officials and Administrators"; "Professionals"; "Technicians"; "Protective Services Workers"; "Paraprofessionals"; "Administrative Support"; "Skilled Craft Workers"; or "Service-Maintenance") was also recorded. In addition, the DPT Overtime Code indicating whether the position had been preapproved for overtime payment was recorded. The level of interaction with people inside and outside the incumbent's division was also documented.

Required Skill. The required levels of education, as well as any required professional certifications or licenses, were documented. In addition, some positions utilized examinations or physical standards that acted as a screening device. Whether the position required prior experience (either within or outside the State system) was also noted.

Responsibility. The level of responsibility associated with the position included the position's role in managing tasks or people and in making decisions. Positions that involved enforcing the law or regulations, or making inspections, were also noted.

Working Conditions. The environment in which the employee worked could have included an office, a corrections facility, or the field, among others. Some positions required travel or exposure to hazardous materials or dangerous situations.

Job Classes Analyzed. The original data set included 1,413 classified occupations. Of these, 1,051 were gender-dominated; males dominated 717 job classes, and females dominated 334 job classes. Of the 1,051 dominated job classes, 325 had only one or two incumbents; 633 had fewer than ten. To make the analysis more manageable, small job classes (those with ten or fewer incumbents) were deleted, reducing the number of job classes to be analyzed to 418. Although this was only 30 percent of the total number of job classes, they accounted for almost three-fourths of the total number of full-time classified State employees (48,068 of 64,725). In this data set, grades 1, 18, 19, 20, 21, 22, and 23 dropped out of the analysis. They dropped out either because there were no dominated classes at those levels with more than ten incumbents or the dominated classes within a grade were dominated wholly by one. Of the dominated classes with more than ten incumbents, 158 were dominated by females and 260 were dominated by males.

Findings from Analysis of Classification Specifications

The information on job qualifications was first analyzed in terms of general patterns across all pay grades, and then one pay grade was analyzed at a time.

General Patterns Across Pay Grades. There were some general differences in qualifications between male-dominated and female-dominated job classes. Many of these differences could be inferred from an analysis of the functional area and EEO

classification of a job class. The range of different functional areas and EEO classifications is shown in Tables 10 and 11.

As the data in Tables 10 and 11 indicate, women tended to dominate positions in the areas of "Office Services, Store Sales, Data Processing" (which included clerical and support positions) and "Human Affairs and Institutional Services" (which included nursing positions). Males tended to dominate jobs in the areas of "Trades, Labor, and Warehousing" and "Law Enforcement, Public Safety, and Corrections." This concentration was especially noticeable at higher pay grades, where female-dominated positions are concentrated in two functional areas—"Human Affairs and Institutional Services" and "General Administration and Finance." High-grade male-dominated jobs are not as concentrated.

Given these differences in functional area and EEO classification, male- and female-dominated jobs frequently had different qualifications. For example, a female-dominated nursing position had different qualifications than a male-dominated corrections officer position, even if they were at the same grade. However, these differences do not necessarily indicate inequitable treatment. Some of the differences across pay grades are that male-dominated positions were more likely to have physical standards, involve a criminal background check, require a commercial driver's license, or involve physical labor.

The requirement of a driver's license was used as a proxy measure of working conditions. Those jobs that required routine travel or operation of equipment were likely to involve exposure to hazard or an outdoor work environment. Positions that required a driver's license, such as "Highway Equipment Operator," "State Police Trooper I," or "Carpenter," were more likely to involve travel, exposure to hazard, and physical labor. In addition, they were more likely to be male-dominated. In fact, a driver's license was required by 40 percent of male-dominated job classes (103 of 260). In contrast, only six female-dominated job classes required a driver's license. Four of the six positions were administrative and paraprofessional positions within the Department of Motor Vehicles.

Just as men were more likely to dominate positions that required a driver's license or work in the field, females were more likely to dominate positions that required a nursing certificate or were set in an office environment. Gender differences were apparent where medical licensure or certification was required. Male-dominated positions that required medical licensure or certification were doctors; female-dominated positions that required medical licensure or certification were nurses.

Further, effects of the market must be taken into consideration. Quantifying the influence of these factors was beyond the scope of this analysis, so further study may be warranted. Further study may also address whether these greater market forces are inequitable or whether their use in determining compensation levels for State employees is appropriate. The role of the market will be further discussed in Chapter IV.

Table 10

Distribution of Gender-Dominated Job Classes Among EEO Classifications

Source: JLARC staff analysis of DPT data.

Key to EEO Classifications

A - Officials and Administrators
B - Professionals
C - Technicians
D - Protective Service Workers
E - Paraprofessionals
F - Office and Clerical
G - Skilled Craft Workers
H - Service and Maintenance
I - Other Faculty (None in this Sample)

Grade		Number of Dominated Classes	FUNCTIONAL AREA							
			A	B	C	D	E	F	G	H
1	Female	2					1			1
	Male	0								
2	Female	5					1	1		3
	Male	4						1		3
3	Female	3					2			1
	Male	5				1				4
4	Female	11			3		5	3		
	Male	9			1			1	1	6
5	Female	8			1		4	3		
	Male	6			1			1	2	2
6	Female	12		1	3		3	5		
	Male	14			1	1		1	10	1
7	Female	19		2	7		6	4		
	Male	20	1		1	2	1	1	11	3
8	Female	24	1	7	3		13			
	Male	33		2	8	7	1		14	1
9	Female	17	1	14	1			1		
	Male	31	2	7	4	7	1		8	2
10	Female	18	1	16				1		
	Male	25		7	4	5			8	
11	Female	14	4	10						
	Male	21	2	9	6	4				
12	Female	11	2	8	1					
	Male	28	4	15	3	5			1	
13	Female	4	1	3						
	Male	16	4	9		3				
14	Female	5	3	2						
	Male	21	9	10		2				
15	Female	2	1	1						
	Male	11	6	4		1				
16	Female	2	1	1						
	Male	10	6	4						
17	Female	1	1							
	Male	4	3	1						
18	Female	0								
	Male	1	1							

Table 11

Distribution of Gender-Dominated Job Classes Among Functional Areas

Source: JLARC staff analysis of DPT data

Key to Functional Areas

1000 - Office Services, Store Sales, Data Processing
2000 - General Administration and Finance
3000 - Education, Information, and Planning
4000 - Human Affairs and Institutional Services
5000 - Engineering, Applied Sciences, and Technology
6000 - Trades, Labor, and Warehousing
7000 - Law Enforcement, Public Safety, Corrections
8000 - Agriculture, Natural Resources, Environmental Control

Grade		Number of Dominated Classes	FUNCTIONAL AREA							
			1000	2000	3000	4000	5000	6000	7000	8000
1	Female	2				1		1		
	Male	0								
2	Female	5	1			1		3		
	Male	4						4		
3	Female	3			1	1		1		
	Male	5						4	1	
4	Female	11	3	1		6		1		
	Male	9					1	7		1
5	Female	8	2	1		5				
	Male	6	1					4		1
6	Female	12	4	2	1	4			1	
	Male	14					1	12		1
7	Female	19	3	4	4	7			1	
	Male	20			1			15	2	2
8	Female	24	2	9	8	3	1		1	
	Male	33	1	1	2	1	4	15	5	4
9	Female	17	1	7	1	7			1	
	Male	31		2	3		3	10	6	7
10	Female	18	2	6	4	5	1			
	Male	25	1		1	1	5	8	6	3
11	Female	14		3	2	7			2	
	Male	21				1	6	3	5	6
12	Female	11	1	4	1	5				
	Male	28	1	2	2	4	8	3	6	2
13	Female	4		1		3				
	Male	16		3	1	0	6	1	3	2
14	Female	5		2		3				
	Male	21	1	3	2		6	1	7	1
15	Female	2				2				
	Male	11	1	1		1	5		3	
16	Female	2				2				
	Male	10	1	3		2	2		1	1
17	Female	1				1				
	Male	4	2				1		1	
18	Female	0								
	Male	1		1						
23	Female	0								
	Male	1				1				

Grade-by-Grade Analysis. The analysis of differences between gender-dominated classes (with more than ten incumbents) at the level of the pay grade reveals different sets of findings that correspond to three broader groups of pay grades: Grades 1 to 6; Grades 7 to11; and Grades 12 and above.

Grades 1 to 6. In this group of pay grades, qualifications were generally comparable between gender-dominated classes. Most positions required low levels of education, did not have much responsibility, and completed repetitive tasks. There were differences regarding qualifications that reflected the segregation of genders by functional area. Generally stated, males occupied positions that were physically demanding and females occupied clerical and support positions. Details regarding each pay grade follow.

In Grade 2, most of the dominated classes fell into the functional area of "Trades, Labor, and Warehousing" (seven of nine) and the EEO classification of "Service and Maintenance" (six of nine). Qualifications for these positions were generally consistent between gender-dominated classes, although three of the four male-dominated jobs required a driver's license and work out in the field. Levels of responsibility and difficulty of work were generally consistent across genders for these positions. Gender differences along traditional societal gender roles could be observed: women in this class were tailors, clerical or support staff, or food handlers, while men were maintenance workers, groundskeepers, or motor vehicle operators.

In Grade 3, differences between dominated male- and female-dominated classes in qualifications regarding education, levels of responsibility, and levels of personal contacts were minimal in most respects. However, four out of five male-dominated jobs required a driver's license and travel related to field work. Five of the eight classes in this data set were in the functional area of "Trades, Labor, and Warehousing" and had the EEO classification of "Service and Maintenance."

In Grade 4, seventy percent of the female-dominated classes required a high-school education, while only one-third of male-dominated classes did. However, all of the male-dominated positions required working in a shop, physical plant, or outdoor environment, and most involved physical effort. Patterns of gender segregation by functional area continued.

In Grade 5, the female-dominated jobs were generally paraprofessional healthcare positions such as "Medication Assistant" or "Pharmacy Assistant B." Men typically dominated maintenance and service jobs in "Trades, Labor, and Warehousing." Educational requirements, levels of difficulty, and responsibility appeared to be fairly consistent within this grade.

In Grade 6, female-dominated positions were more varied, but eight of the 12 were clerical and human-services positions. Twelve of 14 male-dominated classes were in "Trades, Labor, and Warehousing." As a result, there were differences in qualifications resulting from the differences in functional areas. Generally, however, education

levels were comparable. A high-school diploma was generally the required level of education, although five of 14 male-dominated and five of 12 female-dominated classes also required vocational or technical training. Female-dominated classes were generally in an office or hospital environment, while male-dominated jobs worked in a shop, physical plant, or in the field.

Grades 7 to 11. In this group, the general trend was toward higher levels of education, skill and responsibility. Gender differences that emerged may be summarized as follows. Female-dominated positions required a college degree for a paraprofessional office job. Male-dominated positions required vocational or technical training to complete a skilled trade in a shop or physical plant, or required completion of law-enforcement training to serve as a police officer in the field or a corrections officer in a State prison.

This characterization is based on specific patterns observed in the data. Female-dominated jobs began to require a college degree at Grade 7, compared to Grade 8 for male-dominated jobs. Female-dominated jobs were generally concentrated in the "Paraprofessional" EEO class, whereas male-dominated jobs were less concentrated. JLARC staff could not determine whether these distinctions were inequitable, however, because of characteristics of the male-dominated jobs that may offset these differences.

The male-dominated jobs generally required vocational or technical training or the practice of a skilled craft. In addition, male-dominated classes generally required operation from a shop or physical plant and required travel and fieldwork. To assess the comparability of these requirements for these particular job classes in more depth, a quantitative job evaluation study may be desired. Such a study may also be able to evaluate another phenomenon observable in this group of pay grades, that female-dominated jobs in the "Officials/Administrators" and "Professional" EEO classes appeared to be at lower pay grades than male-dominated classes within those same EEO classes. There may be factors that explain this, such as market influence or technical knowledge required, but further investigation may be desired. Details regarding specific pay grades follow.

In Grade 7, seven of the 19 female-dominated job classes—but none of the 20 dominated by males—required a college education. These positions include "Tax Technician," "Hospital Accounts Collector B," and "Extension Center Assistant A." Nine of the 20 male-dominated classes required vocational training in addition to a high school degree. Eleven of these 20 job classes (including six of the nine requiring vocational or technical training) had EEO classifications of "Skilled Craft Workers." Male-dominated jobs included "Security Officer Senior," "Juvenile Correctional Officer," and "Mason Plasterer." It is possible that the skill and knowledge required by one of these classes is comparable to the knowledge and skill gained through a college education, but further investigation may be necessary to reach a definite conclusion. It is also possible that differences in working conditions may balance out differences in required education. Male-dominated jobs were generally more likely to involve travel, the out-

doors, hazardous situations, or to involve strenuous physical effort. Ten out of 20 male-dominated positions required a driver's license and travel, and 14 of 20 required physical or skilled labor.

In Grade 8, 13 out of 24 female-dominated job classes required a college degree compared to two of the 33 male-dominated classes. Sixteen of the male-dominated classes required vocational, technical, or law-enforcement training, compared to only one female-dominated class that required such a background. Thirteen of the female-dominated classes were "Paraprofessional" positions according to their EEO classification, compared to one male-dominated class. Female-dominated classes were concentrated in the functional areas of "General Administration and Finance" and "Education, Information, and Planning." Fourteen of the male dominated positions were "Skilled Craft Workers." At Grade 8, positions in the EEO class of "Protective Services," such as police and corrections officers, became more numerous. The hazards associated with such work must also be considered in any additional analysis that would be done of the comparability of qualifications between gender-dominated classes, especially since all such job classes in this grade are male-dominated.

In Grade 9, all but two of the 17 female-dominated positions required a college degree. Only four of 31 male-dominated positions had that requirement, but 17 required vocational, technical, or law-enforcement training. Fourteen of the female-dominated jobs were "Professionals" according to EEO classifications, compared to seven of the male-dominated positions. Another seven male-dominated positions were in "Protective Services" and eight were "Skilled Craft Workers."

In Grade 10, 16 of 18 female-dominated jobs required a college degree. Only six of 25 male-dominated jobs required a degree, although 13 required vocational, technical, or law-enforcement training. Sixteen of the female-dominated jobs, compared to seven of the male-dominated jobs, were classified as "Professionals." Female-dominated "Professional" positions were generally administrative or managerial, and were located in offices. The male-dominated professional positions were different from female-dominated "Professionals" positions in that they were more likely to involve technology or fieldwork. Males continued to dominate the "Skilled Craft Workers" and "Protective Services" areas. As a result of their concentration in these areas, more male-dominated job classes required work in the field or at a corrections facility.

In Grade 11, 11 out of 14 female-dominated job classes required a college degree. In contrast, only eight of 21 male-dominated classes required a college education; an additional eight required vocational, technical, or law-enforcement training. Female-dominated positions continued to be concentrated in the "Professionals" EEO class, and more of these were in nursing or other healthcare positions. Male-dominated positions were concentrated in 'Professionals" and "Technicians" EEO classes. There were no "Skilled Craft Workers" job classes for males to dominate; however, the male-dominated professional classes were frequently administering or supervising such workers or programs. Examples of these positions are "Buildings And Grounds Superintendent A," "Power Plant Superintendent," and "Bridge/Structure Inspection Team Leader."

Grades 12 to 23. Qualifications for jobs within these grades were generally comparable between gender-dominated classes. Almost all positions required a college degree and a considerable level of experience, skill, or knowledge. Incumbents in these positions generally completed work of considerable or unusual difficulty, administering large programs, supervising workers, or completing technical tasks. In the upper grades, many of the job classes were upper-levels of a job series. Entrance into these upper classes appeared to be related more to personal performance and experience, and clear paths for advancement could be seen. Grade 12 is somewhat different from the other grades, however, in that it included a number of entry-level professional positions, such as Engineers or Nurse Clinicians.

Above Grade 12, positions were generally supervisory and managerial positions and often reflected a general promotion track. The State Police Trooper series is an example of this pattern:

Grade 12: State Police Master Trooper
Grade 13: State Police Sergeant
Grade 14: State Police First Sergeant
Grade 15: State Police Lieutenant
Grade 16: State Police Captain.

Although there were many more male-dominated job classes above Grade 13, qualifications seemed comparable. Gender differences by functional area, however, were pronounced. Ten of 14 female-dominated positions at grade 12 or above were nursing positions. Male-dominated positions in this group were more varied.

Conclusion

When examining the qualifications and requirements of male- and female-dominated job classes at the same pay grade, JLARC staff found no clear cases of a job class being in an inappropriate pay grade. However, there were some cases (especially in Grades 7 through 11) which generated questions regarding why female-dominated jobs in specific areas were at lower pay grades than male-dominated jobs in the same areas. In this gray area, female-dominated positions generally had higher educational requirements than male-dominated jobs. However, female-dominated jobs were generally less likely to involve travel, the outdoors, hazardous situations, or to involve strenuous physical effort. It may be that these characteristics are thought to offset each other, but further review may be necessary to answer these questions more definitively. Chapter IV discusses further the gender differences by functional areas, but without the assumption that job classes being examined must be in the same pay grade.

IV. Gender Differences in Pay Grades

The previous two chapters examined gender differences while holding job class or pay grade constant and found the resulting gender differences in salary to be relatively insubstantial. Yet the average female full-time classified State employee earned a salary that was about 84 percent of the average male's salary. Among all female full-time classified State employees as of June 30, 1997, the average salary was $26,117. Among all male full-time classified State employees, the average salary was $31,265. This salary difference of $5,148 means that, on average, females earned about 84 percent of what males earned. This percentage compares with the national 1996 U.S. Census figure of 74 percent. This salary difference is also approximately 20 percent of the average female salary.

Not much of this difference in average salaries among State workers could be attributed to differences in seniority. The average female worker had been in State service for 10.6 years, when the average male worker had been in State service for 11.5 years. Instead, the difference in average salaries is primarily due to the fact that females on average were in lower pay grades than men.

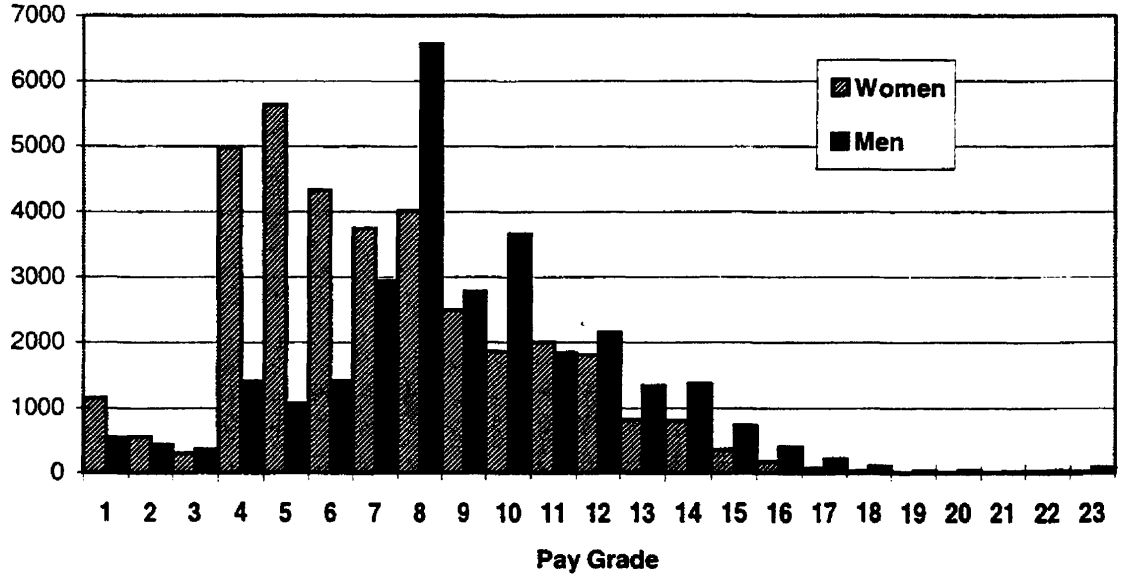
This chapter examines more closely how men and women tend to be concentrated in different types of jobs that are in different pay grades. First the apparent "pay grade gap" between the genders is discussed. Then the distributions of males and females across jobs in different functional areas are compared, and average salaries disaggregated by functional area and by gender are examined. Next, the question regarding whether males and females are classified in appropriate pay grades is addressed. Finally, conclusions from this chapter and the previous chapters are discussed.

THE "PAY GRADE GAP"

To understand better what may be underlying the difference between genders in average salaries, the distributions of men and women among pay grades were examined. This analysis revealed that female employees tended to be concentrated in lower pay grades than male employees. The weighted average and median pay grades for all State employees were Grade 8; however, the weighted average and median pay grades were Grade 9 for males and Grade 7 for females. This indicated an average "pay grade gap" between the genders of two pay grades. An examination of DPT's *Schedule of Standard Rates of Pay* revealed that a Grade 7 salary was about 84 percent of a Grade 9 salary (holding steps within the grades constant), which was almost exactly the magnitude of the average salary difference between genders. This finding supports the notion that differences in pay grade accounts for most of the difference in average salaries between men and women. As can be seen in Figure 4 on page 44, the distribution of men among pay grades is much more even than the distribution of women, who are distributed more heavily among the lower pay grades. Figure 5 on page 44 shows the percent of total employees by gender within each pay grade.

Figure 4

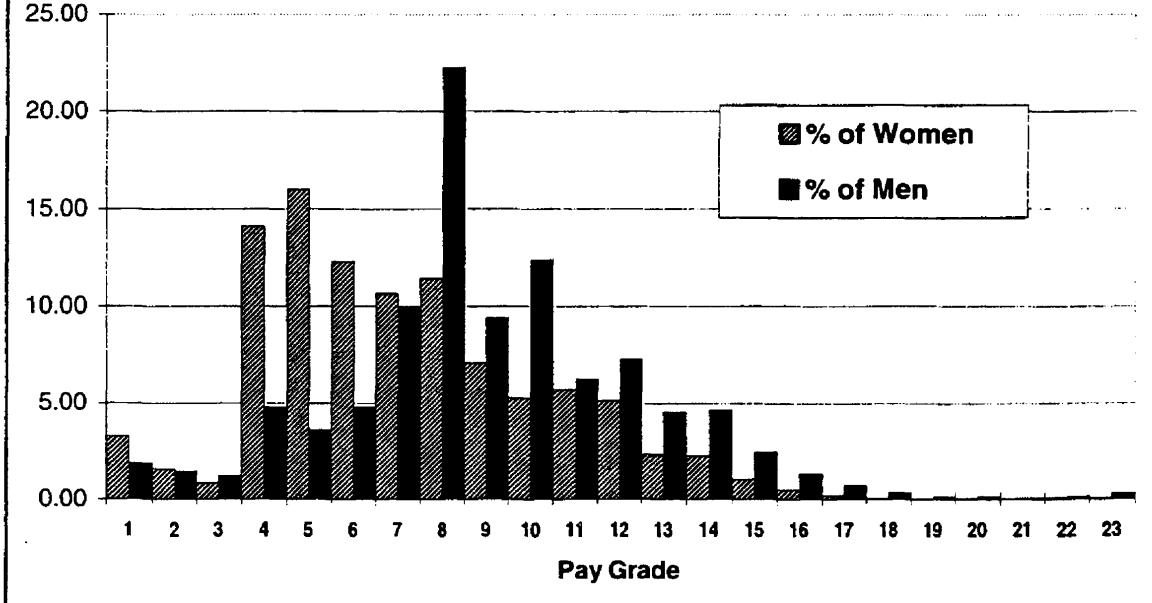
Distribution of Men and Women Among Pay Grades



Source: JLARC staff analysis of DPT data.

Figure 5

Percent of Total Employees in Each Pay Grade



Source: JLARC staff analysis of DPT data.

Closely related to the pattern of differing concentrations between genders by pay grade was the observed pattern of differing concentrations between genders across functional areas. Females seemed to be concentrated in lower-grade areas that provided service and support; men tended to be concentrated in the better compensated areas of law enforcement and the sciences. Whereas women more frequently held positions such as "Office Services Specialist" (Grade 5) or "Program Support Technician" (Grade 6), men tended to hold jobs such as "State Police Trooper II" (Grade 10) or "Engineering Tech IV" (Grade 8). A detailed examination of this gender distribution across functional areas follows.

DISTRIBUTION OF MALES AND FEMALES ACROSS FUNCTIONAL AREAS

To analyze this pattern of gender concentration within functional areas, job classes were sorted by identifying class numbers into the eight functional areas recognized by DPT:

- Office Services, Store Sales, Data Processing
- General Administration and Finance
- Education, Information, and Planning
- Human Affairs and Institutional Services
- Engineering, Applied Sciences, and Technology
- Trades, Labor, and Warehousing
- Law Enforcement, Public Safety, and Corrections
- Agriculture, Natural Resources, and Environmental Control.

Gender Dominance of Job Classes Within Functional Areas

Within the eight functional areas, women were found to dominate specific job classes that accounted for much of the observed differences in wages. To conduct this analysis, job classes were assigned to one of three categories based on their gender composition. In accordance with earlier analysis, a threshold of 70 percent was used as the test for gender dominance. Using this standard, classes were designated "Male," "Female," or "Non-Dominated." Patterns of difference were observed in the job classes dominated by men and women.

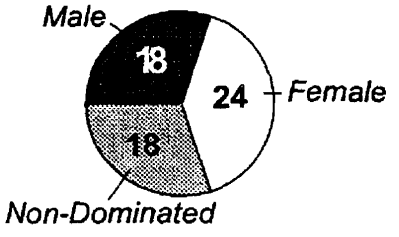
As shown in Figure 6, female employees dominated a larger percentage of job classes in non-technical areas of support and services including 40 percent of the job classes in the area of "Office Services, Store Sales, Data Processing" and 52 percent of job classes in "Human Affairs and Institutional Services." Seven of the ten job classes with the largest number of female incumbents (accounting for almost 40 percent of all female employees) fell into these two functional areas.

In contrast, more job classes in the sciences, law enforcement, and trades were dominated by men. Men dominated 86 percent of the job classes in "Agriculture, Natu-

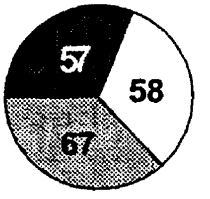
Figure 6

Gender Dominance of Job Classes Within Functional Areas

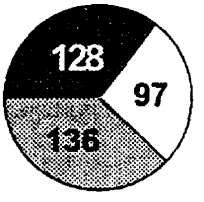
Office Services, Store Sales, Data Processing



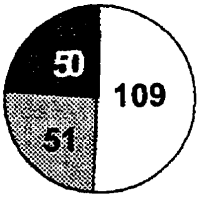
Education, Information and Planning



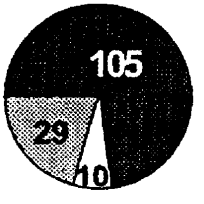
General Administration and Finances



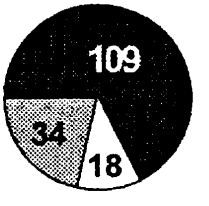
Human Affairs and Institutional Services



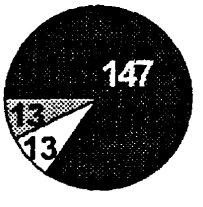
Engineering, Applied Sciences and Technology



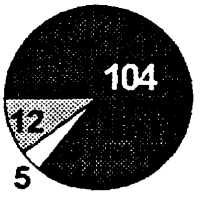
Law Enforcement, Public Safety, and Corrections



Trades, Labor, and Warehousing



Agriculture, Natural Resources, and Environmental Control



Note: Numerals in pie charts represent the number of job classes in each functional area that fall into the "male-dominated," "female-dominated," or "non-dominated" categories.

Source: JLARC analysis of DPT data.

ral Resources, and Environmental Control," 68 percent of the job classes in "Law Enforcement, Public Safety and Corrections," 73 percent of the job classes in "Engineering, Applied Sciences, and Technology," and 84 percent of the job classes in "Trades, Labor, and Warehousing." Six of the ten male-dominated job classes with the largest number of male incumbents were in "Law Enforcement, Public Safety, and Corrections" alone; however, these job classes only accounted for 20 percent of all male employees.

Gender Dominance of Functional Areas in General

Looking at the number of gender-dominated job classes only partially revealed the extent to which women were concentrated in specific functional areas. As shown in Figure 7, when looking at the total number of employees in a functional area (as opposed to the number of dominated job classes) female employees overwhelmingly dominated the functional areas of "Office Services, Store Sales, Data Processing," "General Administration and Finance," "Education, Information, and Planning," and "Human Affairs and Institutional Services." This was due to the heavy concentration of women in a few positions within these functional areas. For example, women dominated 40 percent of the job classes in the area of "Office Services, Store Sales, Data Processing," but their number of 11,438 comprised 84 percent of the total number of employees in that functional area. Similarly, although women only dominated 27 percent of the job classes in "General Administration and Finance," they accounted for 66 percent of the total employees in that area (numbering 5,498). In both of these functional areas, there were a few low-grade positions in which women were concentrated in great numbers that tilted the balance.

In the functional area of "Office Services, Store Sales, Data Processing," which included almost 30 percent of all female employees, nine of the top ten job classes (as determined by number of female incumbents) were clerical support positions, such as "Office Services Specialist" or "Program Support Technician." These nine job classes accounted for 86 percent of the women in this functional area, and all nine positions were classified as Grade 8 or lower. In contrast, only seven percent of all men were employed in this functional area. Of the ten job classes with the highest numbers of males in this area, six involved information systems. These six, which included such positions as "Programmer-Analyst" and "Computer Systems Engineer" accounted for 38 percent of the men in this area. All six were classified at Grade 10 or above.

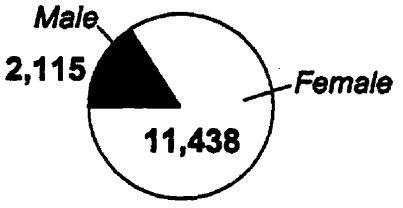
Top Ten Job Classes by Gender

An examination of the top ten job classes by gender also revealed that female employees were concentrated in fewer job classes than male employees. Whereas male employees were found in 91 percent (1,281 of 1,413) of the job classes examined, women held positions in only 69 percent (977 of 1,413). The top ten job classes for women included 42 percent of all female classified State employees (14,891 of 35,187). In comparison, the ten job classes for men accounted for only 25 percent of all male classified State employees (7,493 of 29,538).

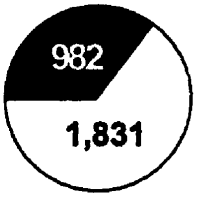
Figure 7

Number of Males and Females in Functional Areas

Office Services, Store Sales, Data Processing



Education, Information and Planning



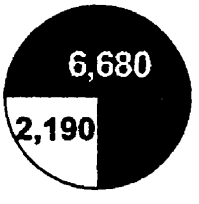
General Administration and Finances

Human Affairs and Institutional Services

Engineering, Applied Sciences and Technology

Law Enforcement, Public Safety, and Corrections

Trades, Labor, and Warehousing



Agriculture, Natural Resources, and Environmental Control

Source: JLARC analysis of DPT data.

An examination of one specific job class conveys more clearly the way in which the patterns of concentration differ by gender. "Health Services Care Worker" is a Grade 4 job class that was 85 percent female. This class employed the second-largest number of women with 2,665, representing eight percent of all female classified State employees. However, this class was also fourth on the list of job classes employing men. Despite its high rank among male-dominated job classes, its 487 incumbents represented only two percent of all male classified State employees. This heavy concentration of women into a few low-grade job classes such as "Human Services Care Worker," or "Office Services Specialist" is a primary cause of the "pay grade gap." See Tables 12 and 13 for the top ten job classes for each gender. These tables show the extent to which males and females were concentrated into two functional areas. Males were most heavily concentrated in the functional area of "Law Enforcement, Public Safety, and Corrections." Six of the top ten job classes for men were in this area, with pay grades for these positions ranging from seven to ten. In contrast, six of the top ten job classes for women were in "Office Services, Store Sales, Data Processing," with a range of pay grades from four to seven. Given these differences, it is not surprising that the average female and male classified employees are separated by a two-grade "pay grade gap."

Table 12

Top Ten Job Classes for Men

Pay Grade	Job Class Number	Job Class Title	Number of Incumbents
8	72018	Corrections Officer Senior	3,425
7	72017	Corrections Officer	625
10	71113	State Police Trooper II	529
4	44071	Human Services Care Worker	487
9	72014	Corrections Sergeant	477
1	62031	Housekeeping Worker	476
10	72402	Probation Officer	459
7	72262	Juvenile Correctional Officer	369
8	54024	Engineering Technician IV	327
8	63064	Transportation Maintenance Supervisor	319

Source: JLARC staff analysis of DPT PMIS data.

Pay Grade Gaps Within Functional Areas

As can be seen in Table 14, pay grade gaps are evident within most functional areas. In six of the eight functional areas, the average female employee was in a lower pay grade than the average male employee. In seven of the eight functional areas, the average female earned a lower salary than the average male.

Table 13

Top Ten Job Classes for Women

Pay Grade	Job Class Number	Job Class Title	Number of Incumbents
5	11025	Office Services Specialist	3,016
4	44071	Human Services Care Worker	2,665
6	11045	Program Support Technician	1,733
4	11024	Office Services Assistant	1,475
8	72018	Corrections Officer Senior	1,303
5	11036	Secretary Senior	1,206
6	11037	Executive Secretary	987
1	62031	Housekeeping Worker	972
6	23412	Fiscal Technician	769
7	11046	Program Support Technician Senior	765

Source: JLARC staff analysis of DPT PMIS data.

Table 14

Average Grades and Salaries of Males and Females by Functional Area

	Average Grade			Average Salary ($)		
Functional Area	Total	Female	Male	Total	Female	Male
Office Services, Store Sales, Data Processing	7	6	10	25559.1	23655.44	35854.17
General Administration and Finance	10	9	11	33669.66	30839.82	39186.84
Education, Information, and Planning	10	9	10	31602.95	30085.32	34432.66
Human Affairs and Institutional Services	8	8	9	28494.06	27065.73	33072.22
Engineering, Applied Sciences, and Technology	11	10	11	36317.46	33120.69	37035.27
Trades, Labor, and Warehousing	5	2	6	22911.23	16714.72	24942.73
Law Enforcement, Public Safety, and Corrections	13	13	13	28034.56	26140.69	28856.1
Agriculture, Natural Resources, and Environmental Control	10	10	10	34082.92	34399.66	32022.72

Source: JLARC staff analysis of DPT PMIS data.

In the four female-dominated functional areas ("Office Services, Store Sales, Data Processing"; "General Administration and Finance"; "Education, Information, and Planning"; and "Human Affairs and Institutional Services"), pay grade and wage gaps were observed. In two of these four areas, the average male was in a position one grade higher than the average female, and in one area he was in a position two grades higher. However, in the area of "Office Services, Store Sales, Data Processing," the average male held a position that was four grades higher than that of the average woman. The jobs of the average man and average woman in this functional area are quite different. For example, the job class with the highest number of male incumbents was "Programmer Analyst" (Grade12), while the job class with the highest number of female incumbents was "Office Services Specialist" (Grade 5).

In the four male-dominated functional areas ("Engineering, Applied Sciences, and Technology"; "Trades, Labor, and Warehousing"; "Law Enforcement, Public Safety, and Corrections"; and "Agriculture, Natural Resources, and Environmental Control"), the average pay grades of male and female employees were less divergent. The average woman was at the same pay grade in two of the four functional areas, and one grade lower in one. However, in the area of "Trades, Labor, and Warehousing," the average female employee was in a position that was four grades lower than the average male employee. Once again, men and women in this area held very different jobs. Females in this area were more frequently in relatively unskilled service positions, such as "Housekeeping Worker" (Grade 1); although a large number of males also held this job, the average grade for men was higher because of the large number of men in job classes in the skilled trades, such as "Carpenter" (Grade 7), or with working conditions that involved hazard, travel, or the outdoors, such as "Transportation Crew Leader" (Grade 7).

ARE MALES AND FEMALES CLASSIFIED IN APPROPRIATE PAY GRADES?

Given that males and females are distributed differently into different job classes, the question arises as to whether the State values these jobs appropriately through their assignment into pay grades. Although this study was not intended to be a comprehensive evaluation of the state's job classification system, this question was briefly addressed. First, the current job classification system used by DPT is described, and then it is briefly assessed.

Current DPT Job Classification System

Virginia first began systematically classifying positions following the enactment of the 1942 Virginia Personnel Act. In 1943, a system of classification developed by an outside consultant was implemented. Using a non-quantitative "position classification" system, 14,400 State employees were assigned to 461 job classes. In 1947, a statewide evaluation and fine-tuning of the system was undertaken.

Throughout the years, the system has been adjusted several times, but DPT continues to classify positions via the "position classification method." As the system operates today, similar positions are grouped together into larger classes, which are then assigned to pay grades. The analyst who evaluates a position to be classified first uses "allocation factors" to understand how these positions relate to, and differ from, other similar positions in the classification system. The evaluator must fully understand how the work processes, organizational structure, functions, and relationships interact and affect the position. Using this information, the analyst defines the position in terms of the seven factors mentioned in Chapter III: complexity of work; supervision given; supervision received; scope; impact of actions; personal contacts; knowledge, skills, and abilities. These factors are unweighted and non-quantitative, as compared to other methods of job evaluation, such as factor comparison or point methods. According to DPT's *Classification and Evaluation Manual for Agency Compensation and Classification Analysts*, the procedure requires "a high degree of analysis and judgment on the part of the classifier. It is the successful interaction between the classifier and the supervisory staff, and their combined knowledge of agency operations, which provides the most valuable information used in the classification process."

Once the classes have been determined, class specifications are prepared. These specifications are drafted using the eight allocation factors as a template of sorts. Once developed, the classification specification then serves as (1) a point of reference for job evaluation, (2) the standard in allocating positions, (3) a source of benchmark descriptions, and (4) a source of information for general management purposes. The next step involves allocating positions to classes. In making this assignment, the analyst compares the position to other class and position specifications which are in the same or related occupational groups to ensure that the system is consistent.

Following the classification process, job classes are assigned to pay grades. The DPT *Classification and Job Evaluation Manual* states that this is "based upon the maintenance of a dynamic balance of the following: (1) competitive salary levels in the labor market, (2) internal alignment (salary and other factors), and (3) available funding resources." DPT staff confirmed that this process is still followed today.

Assessment of DPT Job Classification System

The assessment undertaken by JLARC staff of the large gender-dominated classes provided a means of characterizing positions, but was not a full job evaluation study in that it did not explicitly assess the relative value of individual job classes. Nonetheless, the analysis did not identify any clear systematic flaws with DPT's overall classification system.

Process. Job evaluation systems are commonly used by organizations to ensure that jobs are appropriately compensated. These systems may be non-quantitative, such as the position classification system utilized by DPT, or they may be quantitative, such as the Factor Evaluation System (FES) utilized by the federal government. Both types are commonly used, although the trend has been toward the adoption of

quantitative systems. Despite this trend, the literature is divided over which type of process is more bias-free and results in a more equitable classification system. Given this division, it is difficult to conclude that DPT's current overall process is inadequate. However, when examining DPT job classification specifications, it appeared that many job classes had not been reviewed or re-evaluated for several years. This time lag may present problems for job classes in which changing technology may have changed the duties substantially in recent years.

Outcomes. As was discussed in Chapter III, JLARC staff found no clearly egregious problems with the results of the State's current classification process. However, there are some areas of the system that may warrant further investigation. These areas include the differences in qualifications between male- and female-dominated job classes in grades 7 through 11, and the higher frequency of female-dominated "Professional" positions at lower grades than male-dominated "Professional" positions. It is not possible to conclude that the outcomes are inequitable because it appeared that the positions in question involved clear tradeoffs, which may cancel each other out. For example, a position requiring a high level of education may have been at the same pay grade as a position that did not require much education but involved strenuous labor, hazardous situations, travel, or working outdoors, factors that may also merit compensation. Further analysis may be warranted to determine if these differences noted were inequitable.

Role of the Market in Determining Salary Levels. One confounding factor in determining the gender equity of the State's compensation system is the role of the market in determining pay grade assignments and levels of compensation for State positions. This role is defined by the *Code of Virginia* (§2.1-114.6), which specifically states that:

> *"It is a goal of the Commonwealth that its employees be compensated at a rate comparable to the rate of compensation for employees in the private sector of the Commonwealth in similar occupations. In determining comparability, consideration shall be given to the economic value of fringe benefits in addition to direct compensation. An annual review shall be conducted by the Director of Personnel and Training to determine where discrepancies in compensation exist as between the public and private sectors of the Commonwealth; the results of such review to be reported each year to the Governor and the General Assembly, by the fifteenth day of December."*

The literature is divided over the appropriateness of using prevailing market wages to establish compensation levels within a classification system. Much of the literature articulates a belief that jobs perceived to be traditionally occupied by women are routinely undervalued by private sector employers, and governmental intervention is necessary to remedy this inequity. Another portion of the literature takes the position that interference with market-set rates for labor will result in more harm than good. Further investigation regarding this issue was beyond the scope of this study, but may be an area for further exploration.

CONCLUSIONS

This study has focused primarily on two aspects of gender pay equity: (1) whether there was equal pay for equal work; and (2) whether there was equal pay for work requiring comparable skill, effort, responsibility, and working conditions. This study shows that the first aspect appears generally to have been achieved. When controlling for job class, the data indicated that there was no broad pattern of government-wide pay discrimination against women in the State workforce who are holding the same types of jobs as men. While there still may be specific cases of gender discrimination in specific State agencies, these cases would have to be examined more in-depth on a case-by-case basis. Such an examination was beyond the scope of this study. It is clear from the data examined, however, that these cases are not generalizable to the State workforce as a whole.

If job classes in the same pay grade are assumed to be sufficiently comparable, the second aspect of pay equity appears to have been achieved as well. When controlling for pay grade in a comparison of male-dominated and female-dominated job classes, the salary differences observed between these groups were generally smaller than the typical variation within each group. This pattern indicates that, when controlling for pay grade, incumbents in female-dominated job classes did not earn substantially less than their counterparts in male-dominated job classes.

However, if there were questions regarding whether job classes in the same pay grade were truly comparable, then it may not be so clear whether there is equal pay for work requiring comparable skill, effort, responsibility, and working conditions. Doubts may be raised when observing that the average salary of female State workers was 84 percent that of males. This difference in average salaries appears to be due primarily to the fact that men and women tended to work primarily in different functional areas. Different functional areas have different job classes, which are assigned to different pay grades. For example, women overwhelmingly dominated the non-technical areas of support and services, especially the functional area of "Office Services, Store Sales, Data Processing." In contrast, more job classes in the sciences, law enforcement, and trades were dominated by men. Assessment of the qualifications and requirements for male-dominated and female-dominated job classes indicates that, overall, their assignment to specific pay grades appeared reasonable. Further, the process DPT uses in its current job classification system appeared to be a reasonable one, although it is not the only one available.

Examining the two aspects of pay equity by observing gender differences in salary data while controlling for job class and pay grade is a logical first step, before questioning whether male-dominated and female-dominated jobs are appropriately valued by the State. When reviewing its job classification system, DPT should focus especially on Grades 7 through 11. In this gray area, female-dominated jobs generally had higher educational requirements than male-dominated jobs. However, female-dominated jobs also tended to be located indoors or in less hazardous environments,

and were less likely to involve strenuous physical effort. It may be that these characteristics are thought to offset each other, but further study focusing more explicitly on these tradeoffs may determine more definitively whether they are appropriate.

Recommendation (3). **The Department of Personnel and Training should review and update its job classification system. The analysis should address the placement of job classes in Grades 7 through 11, and assess whether the implicit tradeoffs between different job requirements, such as education and working conditions, are appropriate.**

Appendixes

Appendix A

House Joint Resolution No. 491
1997 Session

Directing the Joint Legislative Audit and Review Commission to study pay equity in the state workforce.

WHEREAS, equity in pay has become an important national issue, resulting in many studies by other states; and

WHEREAS, the principle of equal work for equal pay remains an important consideration affecting the productivity of any workforce; and

WHEREAS, the Commonwealth is one the largest employers in Virginia; and

WHEREAS, the Joint Legislative Audit and Review Commission (JLARC) is empowered by statute to make such special studies and reports on the operations and functions of state government as may be directed by the General Assembly; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Joint Legislative Audit and Review Commission be directed to study pay equity in the state workforce. JLARC shall also examine (i) which jobs are segregated by gender; (ii) within each pay grade, whether there is a wage gap between the jobs that are dominated by men and the jobs that are dominated by women; (iii) the size of the wage gap referred to in clause (ii); and (iv) whether male-dominated and female-dominated job classes at the same grade level have the same or similar qualifications. To assist it in its study, JLARC may hire outside consultants as it deems appropriate.

All agencies of the Commonwealth shall provide assistance to JLARC for this study, upon request.

JLARC shall complete its work in time to submit its findings and recommendations to the Governor and the 1998 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Appendix B

Regression Analysis of Male and Female Salary Data

Several alternative regression models were used to examine associations that can be observed between male and female salaries and other factors such as occupation level and years of service. This appendix documents: the data used; a discussion of potential models that could have been specified (including the models used in this analysis); and the results and their implications.

DATA

Data provided by the Department of Personnel and Training (DPT) includes the following information for each job class for both women and men as of June 30, 1997 (followed by identifying abbreviations used in the model):

- pay grade (GR)
- average salary (FSAL/MSAL)
- standard deviation (FDEV/MDEV)
- number of positions (FNO/MNO)
- average years of service (FYRS/MYRS)
- percentage receiving Northern Virginia Cost of Competing Differential (FNOVA/MNOVA)

Additionally, the percentage of positions in a job class held by men (P_MEN) was computed from the DPT data.

POTENTIAL MODELS FOR ANALYSIS

The comparable worth literature abounds with documentation of the difficulties associated with developing regression models that adequately describe the wage determination function. Such models typically employ the individual occupation as the unit of analysis. Annualized earnings for men and women together are often used as the dependent variable, with independent variables selected to control for workers' characteristics, job characteristics, working conditions, and gender composition of the occupation.

There are a number of problems inherent in such an approach, however. The first problem relates to the use of men's and women's combined wages as the dependent variable. It has been observed in the literature that as long as women earn less than men—for any reason—average wage will be correlated with the number of women in an occupation, and gender composition will appear to have an effect. Regressing wages for men and women separately solves this problem.

Another problem with such an approach is the inability to control for all factors that influence the wage function. A model that lacks a comprehensive number of independent variables could potentially overstate the impact of gender composition. For example, assume that women in general have lower levels of education than men and that lower educational levels are strongly correlated with lower salaries. A model that includes gender composition but excludes education as an independent variable could indicate a gender effect where there is none. That is, the true determinant of wage inequalities—education—is masked by the highly correlated variable gender composition.

One study addressed this problem by incorporating over 200 independent variables into the regression model. To follow this approach, a great deal of additional data would need to be obtained, some of which may be unavailable. This data would ideally include:

- average total years of service to outside employers
- years of continuous service to the State,
- average levels of education,
- average age,
- percentage of married incumbents,
- ethnic distribution of incumbents,
- average number of applicants for a given job class (to understand the intensity of competition for each job and measure resulting market effects),
- whether the employing agency had settled or been implicated in a gender-discrimination suit,
- average results of performance evaluations, and
- information regarding required skill, effort, responsibility, and working conditions for each specific job class.

Due to the difficulties associated with identifying and measuring these factors, such a model seemed beyond the scope of this analysis. Therefore, the regression model for this study was developed using an alternate approach. Underlying this model is an assumption that pay grade may be used as a proxy for "soft" variables such as necessary education levels, required skill, effort, responsibility, and working conditions.

These factors—differences in education, required skill, effort, responsibility, and working conditions—must be accounted for since personal preferences related to them may be causally related to gender. For example, men may be generally willing to accept poorer working conditions in exchange for a higher salary. To women, however, a safe and clean work environment may be a higher priority, even if it is accompanied by lower pay. If it is true that women and men tend to self-select job classes with unequal levels of compensation, then the hypothesis of gender discrimination may be raised where there is only self-selection bias.

The use of pay grade as a proxy for these variables seems reasonable given the rationale for job classification systems in the first place. These systems, such as that currently used by DPT, were developed to ensure gender equity. In a properly crafted system, positions with differing levels of required skill, effort, responsibility, and working conditions, but of equal value to the employer, should receive equal pay. If DPT's classification system is accepted as valid, which seems reasonable, it seems useful to regress average wages (by gender) for all job classes, with pay grade used as an independent variable to control for job characteristics and employee preferences. Although it is unlikely to entirely control for differences in areas such as education or total years of work experience, it is a good start.

A regression of all salaries across pay grades may be important because of the small size of some of the pay grades. For example, in 1997, a total of 10 women are classified as grade 21 employees. All of these women work in three of the grade's fourteen job classes. A regression of the data for this pay grade alone could be troublesome; these smaller classes are less distortional when analyzed in the larger context of all pay grades.

RESULTS

Two separate sets of regression models were estimated. One was a regression model across all pay grades. The other set consisted of a separate regression model run within each pay grade, where feasible.

Regression Model Across All Pay Grades

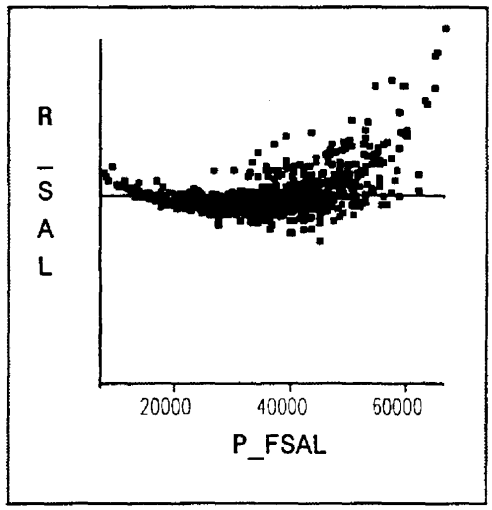
Regression models that incorporate data for all classified employees while using grade as a control do not support the notion that female State

employees are systematically discriminated against in the area of compensation. The models with the best fits used the inverse log transformation of salary as the dependent variable. Pay grade, years of service, percentage receiving the Northern Virginia allowance, and percent male were employed as independent variables.

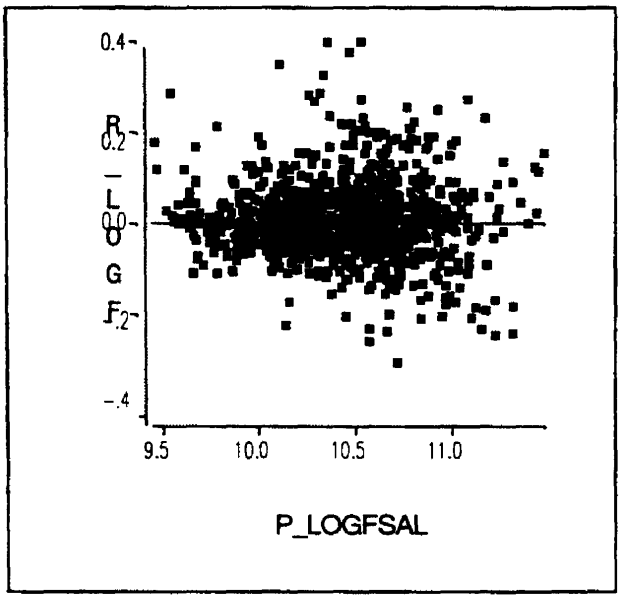
Models were weighted by the number of employees to avoid any distortion of effects that might be caused by pay grades with very few incumbents. A stepwise approach was employed as recommended in the literature.

Models regressing MSAL and FSAL resulted in good fits, although residuals did not seem to be randomly distributed. A correlation matrix of the independent variables was generated to identify potential cases of multicollinearity that might weaken the model. (See Exhibit I.)

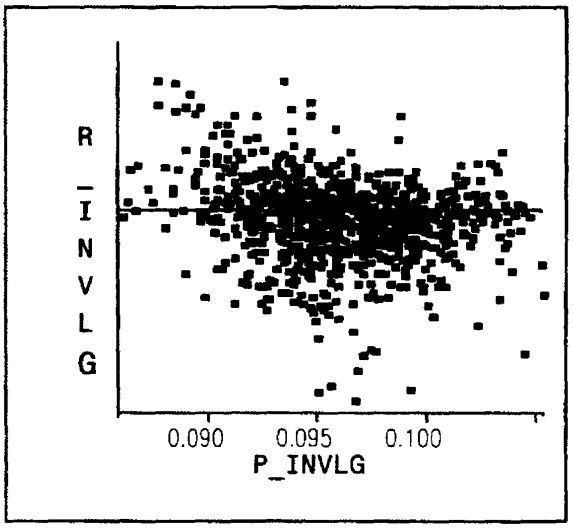
Although some correlation between variables was noticed, no case was large enough to warrant the exclusion of any variable from the model. Initially, the regression models incorporated MSAL and FSAL as the dependent variables. However, as is seen in the following plot, residual plots clearly revealed a crescent shape, indicating the need to transform the salary variable.



The first transformation undertaken was the natural log of salary. Although the use of LOGMSAL and LOGFSAL provided a better fit, a disturbing conical pattern was still seen in the residual plot, which follows.



To address this problem, a further transformation to the inverse of the natural log of salaries was undertaken, providing the best fits and most random residual distribution.



The complete regression analysis is contained in Exhibit II. Equations determined by the models were:

For Women:
INVLOGF= 0.106 - 0.0009 GR - 0.0001 FYRS - 2.26E-05 FNOVA + 8.9E-06 P_MEN
For Men:
INVLOGM= 0.106 - 0.0009 GR - 0.0001 MYRS - 2.35E-05 MNOVA + 1.36E-06 P_MEN

The fact that the derived wage functions have very similar structures seems to support the conclusion that men and women receive equal treatment in the area of compensation. Substantially different equations might have been indicative of unequal treatment.

The parameter estimate of P_MEN in both models is positive, indicating that a higher percentage of men (P_MEN) in a job class is observed to have a very small *negative* effect on the salaries of *both* men and women.

These results seem to run counter to what one would expect to find if occupations dominated by men received higher compensation. Were men the beneficiaries of sexist compensation practices, one would expect salaries to be higher in job classes with higher percentages of men. Accordingly, the parameter estimate for P_MEN would have had a negative coefficient given the use of the inverse log of salary as the dependent variable.

Despite this surprising nature of this relationship, it appears that variation in gender composition explains very little of the variation in the dependent variable. Partial R^2 values of P_MEN are .0001 for men and .0028 for women. One can conclude from these models that any effect of P_MEN on annual earnings is extremely small, accounting for significantly less than one percent of the variation of the dependent variable.

Regressions by Pay Grade

Although the regressions for all pay grades did not seem to indicate the presence of discriminatory compensatory practices, regressions were also done at the level of the pay grade. (See Exhibit III.) Under the State's classification system, content, effort, required skill, and work conditions would be controlled for within each pay grade. Despite this control, the independent variables used in the models were unable to explain much of the variation in salaries in several of the pay grades.

In addition, these analyses were at times hindered by the small number of employees in some of the job classes. The regressions of women's salaries for pay grades 1, 19, 20, and 21, which present some very unusual findings, are likely invalid due to the small number of job classes involved. Models for these grades have very few degrees of freedom (between two and four), making their results less than reliable. For example, an analysis of the data for females in grade 21 reveals that P_MEN has an R^2 value of 0.991, which seems highly doubtful. An examination of the data shows why this would indeed be a faulty conclusion. The range of the dependent variable for grade 21 is so small relative to its mean (due to the small number of female employees in that grade) that there is a loss of accuracy in the computations. For this reason, the regression results for this particular pay grade are not helpful.

Setting aside those grades in which there were too few observations to obtain reliable results, the effects of P_MEN are found to be similar to those found in the regressions of all pay grades. The independent variable P_MEN generally has very little, if any, effect on wages.

It is interesting to note the effects of MYRS and FYRS in these models. One might suspect that the number of years of service would be one of the strongest, if not the strongest, independent variable. Although years of service generally has a strong, positive effect on salary, its influence steadily declines as one moves through the higher pay grades. (See Exhibit IV.)

Due to the limitations of the data sets, it is not possible to further pinpoint factors that determine the wage equation for these pay grades. However, it is apparent that the models may be missing important independent variables. Due to the small number of positions involved in the higher grades, it is likely that these unincorporated factors are much more influential than those factors that traditionally define public sector compensation systems. For example, salaries in the higher pay grades are more likely shaped by market forces of supply and demand or the particular expertise and the employee's personal skills or knowledge, rather than years of service to the State.

CONCLUSION

Although the regression models do not fully explain the variation in the dependent variable, they do not support the contention that female employees are systematically discriminated against in the Commonwealth's compensation system. While it is true that the average female employee earns less than the average male employee, it appears that most of this difference is due to the high concentration of women in the lower pay grades.

Exhibit I
Correlation Matrix
Male Data weighted by MNO

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
MYRS	1281	11.465414	25.149703	338665	0	42.00
MNOVA	1281	7.400142	43.405836	218585	0	92.90
P_MEN	1413	72.010227	120.023023	2127038	0	100.00

Correlation Analysis

		GR	MYRS	MNOVA	P_MEN
GR	Corr.Coefficient	1	0.36509	-0.08317	0.22585
	Prob>|R|IIHo:Rho=0	0	0.0001	0.0029	0.0001
	N	1413	1281	1281	1413
MYRS	Corr.Coefficient	0.36509	1	0.06389	0.30372
	Prob>|R|IIHo:Rho=0	0.0001	0	0.0222	0.0001
	N	1281	1281	1281	1281
MNOVA	Corr.Coefficient	-0.08317	0.06389	1	-0.04501
	Prob>|R|IIHo:Rho=0	0.0029	0.0222	0	0.1074
	N	1281	1281	1281	1281
P_MEN	Corr.Coefficient	0.22585	0.30372	-0.04501	1
	Prob>|R|IIHo:Rho=0	0.0001	0.0001	0.1074	0
	N	1413	1281	1281	1

Female Data Weighted by FNO

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
FYRS	977	10.626598	19.582965	373918	0	37.00
FNOVA	977	6.705837	41.024950	235958	0	66.70
P_MEN	1413	23.496232	118.324351	826762	0	100.00

Correlation analysis

		GR	FYRS	FNOVA	P_MEN
GR	Corr.Coefficient	1	0.10885	0.10921	0.33783
	Prob>|R|IIHo:Rho=0	0	0.0007	0.0006	0.0001
	N	1413	977	977	1413
FYRS	Corr.Coefficient	0.10885	1	0.02117	-0.23795
	Prob>|R|IIHo:Rho=0	0.0007	0	0.5087	0.0001
	N	977	977	977	977
FNOVA	Corr.Coefficient	0.10921	0.02117	1	-0.01907
	Prob>|R|IIHo:Rho=0	0.0006	0.5087	0	0.5517
	N	977	977	977	977
P_MEN	Corr.Coefficient	0.33783	-0.23795	-0.01907	1
	Prob>|R|IIHo:Rho=0	0.0001	0.0001	0.5517	0
	N	1413	977	977	1

Exhibit II
Regression of all Pay Grades
Men Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable GR Entered R-square = 0.94524425 C(p) =1897.1959183

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.28638426	0.28638426	22079.3	0.0001
Error	1279	0.01658956	0.00001297		
Total	1280	0.30297382			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10559367	0.00005953	40.81626040	3146798	0.0001
GR	-0.00091654	0.00000617	0.28638426	22079.3	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MYRS Entered R-square = 0.97349139 C(p) =261.70636281

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.29494241	0.14747120	23466.4	0.0001
Error	1278	0.00803141	0.00000628		
Total	1280	0.30297382			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10629864	0.00004563	34.11167717	5428026	0.0001
GR	-0.00085441	0.00000461	0.21569810	34323.0	0.0001
MYRS	-0.00011044	0.00000299	0.00855814	1361.82	0.0001

Bounds on condition number: 1.153793, 4.615171

Step 3 Variable MNOVA Entered R-square = 0.97787855 C(p) = 9.38248610

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.29627160	0.09875720	18816.6	0.0001
Error	1277	0.00670222	0.00000525		
Total	1280	0.30297382			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10649283	0.00004344	31.53564483	6008609	0.0001
GR	-0.00086215	0.00000424	0.21673768	41295.9	0.0001
MYRS	-0.00010599	0.00000275	0.00780173	1486.49	0.0001
MNOVA	-0.00002368	0.00000149	0.00132919	253.26	0.0001

Bounds on condition number: 1.169154, 10.05735

Step 4 Variable P_MEN Entered R-square = 0.97798865 C(p) = 5.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	4	0.29630496	0.07407624	14173.5	0.0001
Error	1276	0.00666886	0.00000523		
Total	1280	0.30297382			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10642590	0.00005081	22.93280746	4387894	0.0001
GR	-0.00086347	0.00000427	0.21411859	40968.8	0.0001
MYRS	-0.00010777	0.00000283	0.00756880	1448.19	0.0001
MNOVA	-0.00002348	0.00000149	0.00130288	249.29	0.0001
P_MEN	0.00000136	0.00000054	0.00003336	6.38	0.0116

Bounds on condition number: 1.24229, 18.29392

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	GR		1	0.9452	0.9452	1897.1959	22079.2777	0.0001
2	MYRS		2	0.0282	0.9735	261.7064	1361.8162	0.0001
3	MNOVA		3	0.0044	0.9779	9.3825	253.2564	0.0001
4	P_MEN		4	0.0001	0.9780	5.0000	6.3825	0.0116

WOMEN Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable GR Entered R-square = 0.94743744 C(p) =1469.0740176

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.27416721	0.27416721	17574.3	0.0001
Error	975	0.01521043	0.00001560		
Total	976	0.28937764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10507774	0.00005130	65.45423738	4195666	0.0001
GR	-0.00086040	0.00000649	0.27416721	17574.3	0.0001

Bounds on condition number: 1, 1

Step 2 Variable FYRS Entered R-square = 0.97143967 C(p) =355.92272205

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.28111292	0.14055646	16564.6	0.0001
Error	974	0.00826472	0.00000849		
Total	976	0.28937764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10642592	0.00006043	26.31792037	3101575	0.0001
GR	-0.00084540	0.00000482	0.26155801	30824.7	0.0001
FYRS	-0.00013704	0.00000479	0.00694571	818.55	0.0001

Bounds on condition number: 1.01199, 4.047958

Step 3 Variable P_MEN Entered R-square = 0.97622946 C(p) =135.38728296

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.28249898	0.09416633	13320.0	0.0001
Error	973	0.00687866	0.00000707		
Total	976	0.28937764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10618782	0.00005772	23.92645472	3384443	0.0001
GR	-0.00087043	0.00000474	0.23792265	33654.6	0.0001
P_MEN	0.00000931	0.00000066	0.00138606	196.06	0.0001
FYRS	-0.00011823	0.00000457	0.00472461	668.30	0.0001

Bounds on condition number: 1.23534, 10.56654

Step 4 Variable FNOVA Entered R-square = 0.97907893 C(p) = 5.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	4	0.28332355	0.07083089	11372.1	0.0001
Error	972	0.00605409	0.00000623		
Total	976	0.28937764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10630843	0.00005518	23.11564040	3711276	0.0001
GR	-0.00086413	0.00000449	0.23100053	37087.7	0.0001
P_MEN	0.00000888	0.00000062	0.00125666	201.76	0.0001
FYRS	-0.00011866	0.00000429	0.00475812	763.93	0.0001
FNOVA	-0.00002258	0.00000196	0.00082457	132.39	0.0001

Bounds on condition number: 1.239757, 18.24112

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	GR		1	0.9474	0.9474	1469.0740	17574.3259	0.0001
2	FYRS		2	0.0240	0.9714	355.9227	818.5536	0.0001
3	P_MEN		3	0.0048	0.9762	135.3873	196.0607	0.0001
4	FNOVA		4	0.0028	0.9791	5.0000	132.3873	0.0001

Exhibit III -- Regressions by Pay Grade

INV LOG SAL for Men By Grade
(Weighted by MNO)

---------- GR=1 ----------

Stepwise Procedure for Dependent Variable INVMSAL

No variable met the 0.1500 significance level for entry into the model.

---------- GR=2 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.61197772 C(p) = 23.19946234

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00007749	0.00007749	17.35	0.0016
Error	11	0.00004913	0.00000447		
Total	12	0.00012662			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10491377	0.00038773	0.32702656	73215.6	0.0001
MYRS	-0.00017289	0.00004151	0.00007749	17.35	0.0016

Bounds on condition number: 1, 1

---------- Step 2

Variable MNOVA Entered R-square = 0.87949418 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00011136	0.00005568	36.49	0.0001
Error	10	0.00001526	0.00000153		
Total	12	0.00012662			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10533278	0.00024345	0.28565627	187206	0.0001
MYRS	-0.00018243	0.00002435	0.00008568	56.15	0.0001
MNOVA	-0.00003419	0.00000726	0.00003387	22.20	0.0008

Bounds on condition number: 1.006963, 4.027852

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered / Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
	Label						
1	MYRS	1	0.6120	0.6120	23.1995	17.3489	0.0016
2	MNOVA	2	0.2675	0.8795	3.0000	22.1995	0.0008

---------- GR=3 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.62693941 C(p) = 2.22835742

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00001969	0.00001969	23.53	0.0003
Error	14	0.00001172	0.00000084		
Total	15	0.00003141			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10345248	0.00020873	0.20560633	245643	0.0001
MYRS	-0.00010679	0.00002202	0.00001969	23.53	0.0003

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.6269	0.6269	2.2284	23.5274	0.0003

---------- GR=4 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.46499673 C(p) = 37.46086193

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00027247	0.00027247	31.29	0.0001
Error	36	0.00031350	0.00000871		
Total	37	0.00058597			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10357173	0.00032231	0.89919471	103258	0.0001
MYRS	-0.00018656	0.00003335	0.00027247	31.29	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.73796685 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00043243	0.00021621	49.29	0.0001
Error	35	0.00015354	0.00000439		
Total	37	0.00058597			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10383523	0.00023289	0.87204506	198781	0.0001
MYRS	-0.00018183	0.00002368	0.00025856	58.94	0.0001
MNOVA	-0.00002535	0.00000420	0.00015995	36.46	0.0001

Bounds on condition number: 1.001093, 4.004373

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
	Label							
1	MYRS		1	0.4650	0.4650	37.4609	31.2893	0.0001
2	MNOVA		2	0.2730	0.7380	3.0000	36.4609	0.0001

---------- GR=5 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.55311338 C(p) = 34.26958342

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00026493	0.00026493	33.42	0.0001
Error	27	0.00021405	0.00000793		
Total	28	0.00047897			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10196476	0.00027686	1.07530195	135640	0.0001
MYRS	-0.00012898	0.00002231	0.00026493	33.42	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.80396265 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00038508	0.00019254	53.31	0.0001
Error	26	0.00009390	0.00000361		
Total	28	0.00047897			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10251742	0.00021000	0.86069332	238327	0.0001
MYRS	-0.00015561	0.00001575	0.00035248	97.60	0.0001
MNOVA	-0.00002597	0.00000450	0.00012015	33.27	0.0001

Bounds on condition number: 1.093987, 4.375948

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.5531	0.5531	34.2696	33.4180	0.0001
2	MNOVA		2	0.2508	0.8040	3.0000	33.2696	0.0001

---------- GR=6 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.60315475 C(p) = 34.04360354

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00029749	0.00029749	66.87	0.0001
Error	44	0.00019573	0.00000445		
Total	45	0.00049323			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10128084	0.00018897	1.27781738	287247	0.0001
MYRS	-0.00014915	0.00001824	0.00029749	66.87	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.77559788 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00038254	0.00019127	74.31	0.0001
Error	43	0.00011068	0.00000257		
Total	45	0.00049323			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F

INTERCEP	0.10146532	0.00014728	1.22158758	474592	0.0001
MYRS	-0.00014093	0.00001395	0.00026279	102.10	0.0001
MNOVA	-0.00002558	0.00000445	0.00008505	33.04	0.0001

Bounds on condition number: 1.010637, 4.042547

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.6032	0.6032	34.0436	66.8745	0.0001
2	MNOVA		2	0.1724	0.7756	3.0000	33.0436	0.0001

---------- GR=7 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.82132071 C(p) = 20.52933901

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00242024	0.00242024	340.15	0.0001
Error	74	0.00052653	0.00000712		
Total	75	0.00294677			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10077847	0.00008515	9.96682094	1400773	0.0001
MYRS	-0.00016764	0.00000909	0.00242024	340.15	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.85903295 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00253137	0.00126569	222.43	0.0001
Error	73	0.00041540	0.00000569		
Total	75	0.00294677			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10082260	0.00007680	9.80689631	1723417	0.0001
MYRS	-0.00015738	0.00000845	0.00197191	346.53	0.0001
MNOVA	-0.00001756	0.00000397	0.00011113	19.53	0.0001

Bounds on condition number: 1.081655, 4.326621

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.8213	0.8213	20.5293	340.1498	0.0001
2	MNOVA		2	0.0377	0.8590	3.0000	19.5293	0.0001

---------- GR=8 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.71710495 C(p) = 40.90959087

	DF	Sum of Squares	Mean Square	F	Prob>F

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00261370	0.00261370	225.60	0.0001
Error	89	0.00103109	0.00001159		
Total	90	0.00364479			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10031063	0.00011775	8.40833488	725774	0.0001
MYRS	-0.00017161	0.00001143	0.00261370	225.60	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.80537219 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00293542	0.00146771	182.07	0.0001
Error	88	0.00070938	0.00000806		
Total	90	0.00364479			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10030368	0.00009822	8.40611424	1042798	0.0001
MYRS	-0.00015485	0.00000989	0.00197494	245.00	0.0001
MNOVA	-0.00002687	0.00000425	0.00032172	39.91	0.0001

Bounds on condition number: 1.077516, 4.310063

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.7171	0.7171	40.9096	225.6043	0.0001
2	MNOVA		2	0.0883	0.8054	3.0000	39.9096	0.0001

---------- GR=9 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.52955414 C(p) = 42.12386111

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00080135	0.00080135	119.32	0.0001
Error	106	0.00071190	0.00000672		
Total	107	0.00151325			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09877032	0.00014558	3.09131819	460286	0.0001
MYRS	-0.00013107	0.00001200	0.00080135	119.32	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.66195244 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00100170	0.00050085	102.80	0.0001
Error	105	0.00051155	0.00000487		
Total	107	0.00151325			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09894717	0.00012703	2.95616036	606775	0.0001
MYRS	-0.00012896	0.00001022	0.00077503	159.08	0.0001

MNOVA	-0.00002881	0.00000449	0.00020035	41.12	0.0001

Bounds on condition number: 1.001031, 4.004122

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.5296	0.5296	42.1239	119.3182	0.0001
2	MNOVA		2	0.1324	0.6620	3.0000	41.1239	0.0001

---------- GR=10 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.48553636 C(p) = 1.78854307

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00055724	0.00055724	96.26	0.0001
Error	102	0.00059044	0.00000579		
Total	103	0.00114768			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09727065	0.00009953	5.52901476	955149	0.0001
MYRS	-0.00006864	0.00000700	0.00055724	96.26	0.0001

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.4855	0.4855	1.7885	96.2647	0.0001

---------- GR=11 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.44970986 C(p) = 7.53069065

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00036508	0.00036508	93.16	0.0001
Error	114	0.00044673	0.00000392		
Total	115	0.00081181			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09644183	0.00015328	1.55131953	395877	0.0001
MYRS	-0.00010093	0.00001046	0.00036508	93.16	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.47977556 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00038949	0.00019474	52.11	0.0001
Error	113	0.00042232	0.00000374		
Total	115	0.00081181			

Variable	Parameter	Standard	Type II

Variable	Estimate	Error	Sum of Squares	F	Prob>F
INTERCEP	0.09653219	0.00015381	1.47209058	393884	0.0001
MYRS	-0.00009862	0.00001025	0.00034581	92.53	0.0001
MNOVA	-0.00001297	0.00000508	0.00002441	6.53	0.0119

Bounds on condition number: 1.007866, 4.031464

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.4497	0.4497	7.5307	93.1634	0.0001
2	MNOVA		2	0.0301	0.4798	3.0000	6.5307	0.0119

---------- GR=12 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.51889212 C(p) = 1.14413472

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00040664	0.00040664	147.76	0.0001
Error	137	0.00037703	0.00000275		
Total	138	0.00078366			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09542321	0.00009354	2.86396590	1040681	0.0001
MYRS	-0.00007309	0.00000601	0.00040664	147.76	0.0001

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.5189	0.5189	1.1441	147.7594	0.0001

---------- GR=13 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.41026727 C(p) = 4.55439444

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00015436	0.00015436	72.35	0.0001
Error	104	0.00022188	0.00000213		
Total	105	0.00037624			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09435315	0.00011689	1.38999953	651513	0.0001
MYRS	-0.00006359	0.00000748	0.00015436	72.35	0.0001

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.42993931 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00016176	0.00008088	38.84	0.0001
Error	103	0.00021448	0.00000208		
Total	105	0.00037624			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09439351	0.00011745	1.34498298	645897	0.0001
MYRS	-0.00006116	0.00000750	0.00013858	66.55	0.0001
MNOVA	-0.00001106	0.00000586	0.00000740	3.55	0.0622

Bounds on condition number: 1.030418, 4.121674

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.4103	0.4103	4.5544	72.3511	0.0001
2	MNOVA		2	0.0197	0.4299	3.0000	3.5544	0.0622

---------- GR=14 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.30975171 C(p) = 1.08175250

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00013662	0.00013662	50.26	0.0001
Error	112	0.00030445	0.00000272		
Total	113	0.00044107			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09350898	0.00011806	1.70540774	627379	0.0001
MYRS	-0.00005531	0.00000780	0.00013662	50.26	0.0001

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.3098	0.3098	1.0818	50.2605	0.0001

---------- GR=15 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.14740363 C(p) = 3.16885437

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00002096	0.00002096	14.00	0.0003
Error	81	0.00012121	0.00000150		
Total	82	0.00014217			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09215900	0.00013492	0.69817585	466547	0.0001
MYRS	-0.00002981	0.00000796	0.00002096	14.00	0.0003

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.16990799 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F

Regression	2	0.00002416	0.00001208	8.19	0.0006
Error	80	0.00011802	0.00000148		
Total	82	0.00014217			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09220186	0.00013709	0.66731696	452361	0.0001
MYRS	-0.00002905	0.00000792	0.00001982	13.44	0.0004
MNOVA	-0.00001043	0.00000708	0.00000320	2.17	0.1448

Bounds on condition number: 1.004218, 4.016873

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.1474	0.1474	3.1689	14.0039	0.0003
2	MNOVA		2	0.0225	0.1699	3.0000	2.1689	0.1448

---------- GR=16 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.19512612 C(p) = 3.14940488

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00001950	0.00001950	15.76	0.0002
Error	65	0.00008045	0.00000124		
Total	66	0.00009995			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09157647	0.00018505	0.30311082	244911	0.0001
MYRS	-0.00004520	0.00001139	0.00001950	15.76	0.0002

Bounds on condition number: 1, 1

Step 2 Variable MNOVA Entered R-square = 0.22127903 C(p) = 3.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00002212	0.00001106	9.09	0.0003
Error	64	0.00007783	0.00000122		
Total	66	0.00009995			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09155212	0.00018418	0.30048696	247084	0.0001
MYRS	-0.00003992	0.00001185	0.00001381	11.35	0.0013
MNOVA	-0.00001435	0.00000979	0.00000261	2.15	0.1475

Bounds on condition number: 1.101842, 4.407369

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.1951	0.1951	3.1494	15.7580	0.0002
2	MNOVA		2	0.0262	0.2213	3.0000	2.1494	0.1475

---------- GR=17 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MNOVA Entered R-square = 0.15873574 C(p) = 1.01923346

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000682	0.00000682	8.30	0.0061
Error	44	0.00003615	0.00000082		
Total	45	0.00004297			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09022080	0.00006662	1.50681790	1834202	0.0001
MNOVA	-0.00003066	0.00001064	0.00000682	8.30	0.0061

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MNOVA		1	0.1587	0.1587	1.0192	8.3022	0.0061

---------- GR=18 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MYRS Entered R-square = 0.11196103 C(p) = 1.03290897

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000391	0.00000391	4.16	0.0494
Error	33	0.00003102	0.00000094		
Total	34	0.00003493			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.08994737	0.00025441	0.11750116	125004	0.0001
MYRS	-0.00002842	0.00001393	0.00000391	4.16	0.0494

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MYRS		1	0.1120	0.1120	1.0329	4.1605	0.0494

---------- GR=19 ----------

Stepwise Procedure for Dependent Variable INVMSAL

Step 1 Variable MNOVA Entered R-square = 0.23739264 C(p) = 1.77865929

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000286	0.00000286	3.42	0.0913
Error	11	0.00000918	0.00000083		
Total	12	0.00001204			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.08891591	0.00017583	0.21346307	255728	0.0001
MNOVA	-0.00002291	0.00001238	0.00000286	3.42	0.0913

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVMSAL

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	MNOVA		1	0.2374	0.2374	1.7787	3.4242	0.0913

---------- GR=20 ----------

Stepwise Procedure for Dependent Variable INVMSAL
No variable met the 0.1500 significance level for entry into the model.

---------- GR=21 ----------

Stepwise Procedure for Dependent Variable INVMSAL
No variable met the 0.1500 significance level for entry into the model.

---------- GR=22 ----------

Stepwise Procedure for Dependent Variable INVMSAL
No variable met the 0.1500 significance level for entry into the model.

---------- GR=23 ----------

Stepwise Procedure for Dependent Variable INVMSAL
No variable met the 0.1500 significance level for entry into the model.

INV LOG SAL for Women By Grade
(Weighted by FNO)

---------- GR=1 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.87786619 C(p) = 1.45604078

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00002482	0.00002482	21.56	0.0188
Error	3	0.00000345	0.00000115		
Total	4	0.00002827			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10625791	0.00039082	0.08507529	73920.9	0.0001
FYRS	-0.00017342	0.00003735	0.00002482	21.56	0.0188

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.8779	0.8779	1.4560	21.5632	0.0188

---------- GR=2 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.57309367 C(p) = 2.20756179

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00009224	0.00009224	18.79	0.0007
Error	14	0.00006871	0.00000491		
Total	15	0.00016095			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10513249	0.00046028	0.25604642	52170.4	0.0001
FYRS	-0.00016549	0.00003817	0.00009224	18.79	0.0007

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.5731	0.5731	2.2076	18.7941	0.0007

---------- GR=3 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.85188110 C(p) = 6.12993696

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00007000	0.00007000	63.26	0.0001
Error	11	0.00001217	0.00000111		
Total	12	0.00008217			

Variable	Parameter	Standard	Type II

Variable	Estimate	Error	Sum of Squares	F	Prob>F
INTERCEP	0.10420583	0.00020297	0.29164474	263580	0.0001
FYRS	-0.00015583	0.00001959	0.00007000	63.26	0.0001

Bounds on condition number: 1, 1

Step 2 Variable FNOVA Entered R-square = 0.91143822 C(p) = 2.04634205

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00007489	0.00003745	51.46	0.0001
Error	10	0.00000728	0.00000073		
Total	12	0.00008217			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10429767	0.00016837	0.27923541	383708	0.0001
FYRS	-0.00015544	0.00001589	0.00006965	95.70	0.0001
FNOVA	-0.00002347	0.00000905	0.00000489	6.72	0.0268

Bounds on condition number: 1.000089, 4.000355

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.8519	0.8519	6.1299	63.2647	0.0001
2	FNOVA		2	0.0596	0.9114	2.0463	6.7249	0.0268

---------- GR=4 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FNOVA Entered R-square = 0.27249153 C(p) = 4.77402284

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00031272	0.00031272	12.36	0.0013
Error	33	0.00083491	0.00002530		
Total	34	0.00114764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10234727	0.00010318	24.89566057	984001	0.0001
FNOVA	-0.00003895	0.00001108	0.00031272	12.36	0.0013

Bounds on condition number: 1, 1

Step 2 Variable FYRS Entered R-square = 0.33911469 C(p) = 3.49793953

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00038918	0.00019459	8.21	0.0013
Error	32	0.00075846	0.00002370		
Total	34	0.00114764			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10312041	0.00044189	1.29073002	54457.2	0.0001
FYRS	-0.00008071	0.00004494	0.00007646	3.23	0.0819
FNOVA	-0.00004071	0.00001077	0.00033891	14.30	0.0006

Bounds on condition number: 1.008434, 4.033736

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FNOVA		1	0.2725	0.2725	4.7740	12.3603	0.0013
2	FYRS		2	0.0666	0.3391	3.4979	3.2259	0.0819

---------- GR=5 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.38126100 C(p) = 12.43040571

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00027017	0.00027017	14.17	0.0010
Error	23	0.00043845	0.00001906		
Total	24	0.00070862			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10205665	0.00041058	1.17783385	61785.7	0.0001
FYRS	-0.00013943	0.00003704	0.00027017	14.17	0.0010

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.59245642 C(p) = 3.01953856

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00041983	0.00020991	15.99	0.0001
Error	22	0.00028880	0.00001313		
Total	24	0.00070862			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10183625	0.00034691	1.13122762	86175.2	0.0001
FYRS	-0.00013114	0.00003083	0.00023745	18.09	0.0003
P_MEN	0.00001421	0.00000421	0.00014966	11.40	0.0027

Bounds on condition number: 1.006393, 4.025573

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.3813	0.3813	12.4304	14.1724	0.0010
2	P_MEN		2	0.2112	0.5925	3.0195	11.4007	0.0027

---------- GR=6 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.72046482 C(p) = 25.98689043

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00062519	0.00062519	105.67	0.0001
Error	41	0.00024257	0.00000592		
Total	42	0.00086776			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10152571	0.00021234	1.35249268	228602	0.0001
FYRS	-0.00018560	0.00001805	0.00062519	105.67	0.0001

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.78625850 C(p) = 12.69104674

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00068229	0.00034114	73.57	0.0001
Error	40	0.00018548	0.00000464		
Total	42	0.00086776			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10126414	0.00020223	1.16270402	250749	0.0001
FYRS	-0.00017011	0.00001658	0.00048797	105.24	0.0001
P_MEN	0.00000814	0.00000232	0.00005709	12.31	0.0011

Bounds on condition number: 1.076275, 4.305099

Step 3 Variable FNOVA Entered R-square = 0.83224506 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00072219	0.00024073	64.49	0.0001
Error	39	0.00014557	0.00000373		
Total	42	0.00086776			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10124838	0.00018150	1.16152244	311183	0.0001
FYRS	-0.00015981	0.00001521	0.00041225	110.44	0.0001
FNOVA	-0.00001691	0.00000517	0.00003991	10.69	0.0023
P_MEN	0.00001012	0.00000217	0.00008137	21.80	0.0001

Bounds on condition number: 1.167502, 10.18824

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.7205	0.7205	25.9869	105.6721	0.0001
2	P_MEN		2	0.0658	0.7863	12.6910	12.3128	0.0011
3	FNOVA		3	0.0460	0.8322	4.0000	10.6910	0.0023

---------- GR=7 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.69986338 C(p) = 32.18353795

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00190006	0.00190006	144.57	0.0001
Error	62	0.00081484	0.00001314		
Total	63	0.00271490			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10055005	0.00014934	5.95779211	453319	0.0001
FYRS	-0.00016102	0.00001339	0.00190006	144.57	0.0001

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.79608063 C(p) = 4.63150889

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00216128	0.00108064	119.07	0.0001

Error	61	0.00055362	0.00000908
Total	63	0.00271490	

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09965155	0.00020845	2.07423559	228547	0.0001
FYRS	-0.00010508	0.00001525	0.00043093	47.48	0.0001
P_MEN	0.00001551	0.00000289	0.00026122	28.78	0.0001

Bounds on condition number: 1.877838, 7.511352

Step 3 Variable FNOVA Entered R-square = 0.80464845 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00218454	0.00072818	82.38	0.0001
Error	60	0.00053036	0.00000884		
Total	63	0.00271490			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09978135	0.00022073	1.80636939	204356	0.0001
FYRS	-0.00010939	0.00001528	0.00045290	51.24	0.0001
FNOVA	-0.00000848	0.00000523	0.00002326	2.63	0.1100
P_MEN	0.00001455	0.00000291	0.00022026	24.92	0.0001

Bounds on condition number: 1.959119, 14.8233

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.6999	0.6999	32.1835	144.5726	0.0001
2	P_MEN		2	0.0962	0.7961	4.6315	28.7822	0.0001
3	FNOVA		3	0.0086	0.8046	4.0000	2.6315	0.1100

---------- GR=8 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.84034128 C(p) = 45.43339132

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00272639	0.00272639	368.44	0.0001
Error	70	0.00051799	0.00000740		
Total	71	0.00324438			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.10045545	0.00010771	6.43658257	869819	0.0001
FYRS	-0.00019325	0.00001007	0.00272639	368.44	0.0001

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.88055597 C(p) = 18.86189025

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00285686	0.00142843	254.34	0.0001
Error	69	0.00038752	0.00000562		
Total	71	0.00324438			

Variable	Parameter	Standard	Type II

Variable	Estimate	Error	Sum of Squares	F	Prob>F
INTERCEP	0.09971977	0.00017917	1.73967807	309757	0.0001
FYRS	-0.00015388	0.00001199	0.00092576	164.84	0.0001
P_MEN	0.00000860	0.00000178	0.00013047	23.23	0.0001

Bounds on condition number: 1.8673, 7.469202

Step 3 Variable FNOVA Entered R-square = 0.90428927 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00293386	0.00097795	214.16	0.0001
Error	68	0.00031052	0.00000457		
Total	71	0.00324438			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09975065	0.00016174	1.73699202	380377	0.0001
FYRS	-0.00014047	0.00001129	0.00070697	154.82	0.0001
FNOVA	-0.00002372	0.00000578	0.00007700	16.86	0.0001
P_MEN	0.00000788	0.00000162	0.00010824	23.70	0.0001

Bounds on condition number: 2.037691, 15.61083

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.8403	0.8403	45.4334	368.4352	0.0001
2	P_MEN		2	0.0402	0.8806	18.8619	23.2311	0.0001
3	FNOVA		3	0.0237	0.9043	4.0000	16.8619	0.0001

---------- GR=9 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.42931948 C(p) = 37.44484320

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00042612	0.00042612	65.45	0.0001
Error	87	0.00056642	0.00000651		
Total	88	0.00099254			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09861684	0.00015492	2.63827711	405228	0.0001
FYRS	-0.00011417	0.00001411	0.00042612	65.45	0.0001

Bounds on condition number: 1, 1

Step 2 Variable FNOVA Entered R-square = 0.58616575 C(p) = 5.79200928

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00058179	0.00029090	60.91	0.0001
Error	86	0.00041075	0.00000478		
Total	88	0.00099254			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09896673	0.00014616	2.18985179	458500	0.0001
FYRS	-0.00012231	0.00001217	0.00048231	100.98	0.0001
FNOVA	-0.00003613	0.00000633	0.00015568	32.59	0.0001

Bounds on condition number: 1.013901, 4.055605

Step 3 Variable P_MEN Entered R-square = 0.60383922 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00059933	0.00019978	43.19	0.0001
Error	85	0.00039320	0.00000463		
Total	88	0.00099254			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09878576	0.00017125	1.53928684	332751	0.0001
FYRS	-0.00011738	0.00001224	0.00042527	91.93	0.0001
FNOVA	-0.00003540	0.00000624	0.00014893	32.20	0.0001
P_MEN	0.00000408	0.00000209	0.00001754	3.79	0.0548

Bounds on condition number: 1.059127, 9.367638

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.4293	0.4293	37.4448	65.4496	0.0001
2	FNOVA		2	0.1568	0.5862	5.7920	32.5946	0.0001
3	P_MEN		3	0.0177	0.6038	4.0000	3.7920	0.0548

---------- GR=10 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.25949435 C(p) = 32.22718165

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00008245	0.00008245	29.09	0.0001
Error	83	0.00023528	0.00000283		
Total	84	0.00031773			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09712250	0.00012068	1.83601371	647696	0.0001
FYRS	-0.00005704	0.00001058	0.00008245	29.09	0.0001

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.38811655 C(p) = 14.56017420

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00012332	0.00006166	26.01	0.0001
Error	82	0.00019441	0.00000237		
Total	84	0.00031773			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09680798	0.00013386	1.23993924	522987	0.0001
FYRS	-0.00005122	0.00000977	0.00006512	27.47	0.0001
P_MEN	0.00000616	0.00000148	0.00004087	17.24	0.0001

Bounds on condition number: 1.020995, 4.083979

Step 3 Variable FNOVA Entered R-square = 0.47026008 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00014941	0.00004980	23.97	0.0001

Error	81	0.00016831	0.00000208
Total	84	0.00031773	

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09705272	0.00014309	0.95596138	460053	0.0001
FYRS	-0.00005964	0.00000945	0.00008272	39.81	0.0001
FNOVA	-0.00001641	0.00000463	0.00002610	12.56	0.0007
P_MEN	0.00000638	0.00000139	0.00004363	21.00	0.0001

Bounds on condition number: 1.08992, 9.560493

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
	Label							
1	FYRS		1	0.2595	0.2595	32.2272	29.0856	0.0001
2	P_MEN		2	0.1286	0.3881	14.5602	17.2370	0.0001
3	FNOVA		3	0.0821	0.4703	4.0000	12.5602	0.0007

---------- GR=11 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.35405071 C(p) = 9.51933061

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00019671	0.00019671	50.97	0.0001
Error	93	0.00035889	0.00000386		
Total	94	0.00055560			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09654330	0.00013397	2.00412994	519336	0.0001
FYRS	-0.00008583	0.00001202	0.00019671	50.97	0.0001

Bounds on condition number: 1, 1

Step 2 Variable FNOVA Entered R-square = 0.41331085 C(p) = 2.29756998

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00022964	0.00011482	32.41	0.0001
Error	92	0.00032596	0.00000354		
Total	94	0.00055560			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09674788	0.00014485	1.58062825	446116	0.0001
FYRS	-0.00008920	0.00001157	0.00021053	59.42	0.0001
FNOVA	-0.00001769	0.00000580	0.00003292	9.29	0.0030

Bounds on condition number: 1.009226, 4.036904

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F

1	FYRS	1	0.3541	0.3541	9.5193	50.9741	0.0001
2	FNOVA	2	0.0593	0.4133	2.2976	9.2927	0.0030

---------- GR=12 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.32751492 C(p) = 23.81295253

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00012350	0.00012350	56.49	0.0001
Error	116	0.00025358	0.00000219		
Total	117	0.00037708			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09548129	0.00009877	2.04271047	934434	0.0001
FYRS	-0.00006399	0.00000851	0.00012350	56.49	0.0001

Bounds on condition number: 1, 1

Step 2 Variable FNOVA Entered R-square = 0.37871329 C(p) = 15.32082457

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00014281	0.00007140	35.05	0.0001
Error	115	0.00023427	0.00000204		
Total	117	0.00037708			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09563314	0.00010736	1.61657754	793540	0.0001
FYRS	-0.00006754	0.00000830	0.00013491	66.22	0.0001
FNOVA	-0.00001293	0.00000420	0.00001931	9.48	0.0026

Bounds on condition number: 1.019625, 4.0785

Step 3 Variable P_MEN Entered R-square = 0.44371485 C(p) = 4.00000000

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	3	0.00016732	0.00005577	30.31	0.0001
Error	114	0.00020976	0.00000184		
Total	117	0.00037708			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09557648	0.00010320	1.57812135	857658	0.0001
FYRS	-0.00007386	0.00000808	0.00015393	83.65	0.0001
FNOVA	-0.00001493	0.00000403	0.00002527	13.73	0.0003
P_MEN	0.00000453	0.00000124	0.00002451	13.32	0.0004

Bounds on condition number: 1.068788, 9.502694

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.3275	0.3275	23.8130	56.4945	0.0001
2	FNOVA		2	0.0512	0.3787	15.3208	9.4768	0.0026
3	P_MEN		3	0.0650	0.4437	4.0000	13.3208	0.0004

---------- GR=13 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.13180956 C(p) = 7.28565203

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00002566	0.00002566	12.15	0.0008
Error	80	0.00016901	0.00000211		
Total	81	0.00019467			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09440266	0.00018031	0.57909370	274110	0.0001
FYRS	-0.00005020	0.00001440	0.00002566	12.15	0.0008

Bounds on condition number: 1, 1

Step 2 Variable P_MEN Entered R-square = 0.19729499 C(p) = 2.85276886

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00003841	0.00001920	9.71	0.0002
Error	79	0.00015626	0.00000198		
Total	81	0.00019467			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09412031	0.00020691	0.40930447	206928	0.0001
FYRS	-0.00003964	0.00001454	0.00001470	7.43	0.0079
P_MEN	0.00000438	0.00000173	0.00001275	6.44	0.0131

Bounds on condition number: 1.088993, 4.355971

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.1318	0.1318	7.2857	12.1457	0.0008
2	P_MEN		2	0.0655	0.1973	2.8528	6.4449	0.0131

---------- GR=14 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable P_MEN Entered R-square = 0.07996429 C(p) = 3.87433490

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00001673	0.00001673	7.04	0.0096
Error	81	0.00019253	0.00000238		
Total	82	0.00020926			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09278903	0.00011162	1.64248769	691034	0.0001
P_MEN	0.00000577	0.00000217	0.00001673	7.04	0.0096

Bounds on condition number: 1, 1

Step 2 Variable FYRS Entered R-square = 0.10397931 C(p) = 3.71112681

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	2	0.00002176	0.00001088	4.64	0.0124
Error	80	0.00018750	0.00000234		
Total	82	0.00020926			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F

INTERCEP	0.09309202	0.00023474	0.36860834	157273	0.0001
FYRS	-0.00002142	0.00001463	0.00000503	2.14	0.1470
P_MEN	0.00000492	0.00000224	0.00001133	4.83	0.0308

Bounds on condition number: 1.072825, 4.291302

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	P_MEN		1	0.0800	0.0800	3.8743	7.0401	0.0096
2	FYRS		2	0.0240	0.1040	3.7111	2.1441	0.1470

---------- GR=15 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.22004011 C(p) = 0.83704076

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00002168	0.00002168	14.95	0.0003
Error	53	0.00007684	0.00000145		
Total	54	0.00009851			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09285231	0.00020108	0.30914405	213239	0.0001
FYRS	-0.00005479	0.00001417	0.00002168	14.95	0.0003

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.2200	0.2200	0.8370	14.9522	0.0003

---------- GR=16 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.12717349 C(p) = 3.78972573

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000758	0.00000758	5.68	0.0221
Error	39	0.00005203	0.00000133		
Total	40	0.00005961			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09192004	0.00028144	0.14231357	106668	0.0001
FYRS	-0.00004739	0.00001988	0.00000758	5.68	0.0221

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.1272	0.1272	3.7897	5.6824	0.0221

---------- GR=17 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.23926908 C(p) = 1.89923019

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000693	0.00000693	8.18	0.0083
Error	26	0.00002204	0.00000085		
Total	27	0.00002897			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.09152395	0.00034612	0.05926276	69924.1	0.0001
FYRS	-0.00006245	0.00002184	0.00000693	8.18	0.0083

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FYRS		1	0.2393	0.2393	1.8992	8.1777	0.0083

---------- GR=18 ----------

Stepwise Procedure for Dependent Variable INVLGFS

No variable met the 0.1500 significance level for entry into the model.

---------- GR=19 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FYRS Entered R-square = 0.81249572 C(p) = 1.01450691

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000319	0.00000319	13.00	0.0366
Error	3	0.00000074	0.00000025		
Total	4	0.00000393			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.08739646	0.00037863	0.01309250	53280.0	0.0001
FYRS	0.00007890	0.00002188	0.00000319	13.00	0.0366

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
	Label							
1	FYRS		1	0.8125	0.8125	1.0145	12.9996	0.0366

---------- GR=20 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable FNOVA Entered R-square = 0.57803538 C(p) = 6.16253166

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000721	0.00000721	4.11	0.1357
Error	3	0.00000526	0.00000175		
Total	4	0.00001247			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.08923954	0.00066224	0.03185478	18158.6	0.0001
FNOVA	-0.00003288	0.00001622	0.00000721	4.11	0.1357

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FNOVA		1	0.5780	0.5780	6.1625	4.1096	0.1357

---------- GR=21 ----------

Stepwise Procedure for Dependent Variable INVLGFS

Step 1 Variable P_MEN Entered R-square = 0.99098527 C(p) = 1.00005265

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	1	0.00000000	0.00000000	109.93	0.0605
Error	1	0.00000000	0.00000000		
Total	2	0.00000000			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	0.08762172	0.00000301	0.03278902	8.476E8	0.0020
P_MEN	-0.00000083	0.00000008	0.00000000	109.93	0.0605

Bounds on condition number: 1, 1

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Summary of Stepwise Procedure for Dependent Variable INVLGFS

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	P_MEN		1	0.9910	0.9910	1.0001	109.9296	0.0605

---------- GR=22 ----------

Stepwise Procedure for Dependent Variable INVLGFS

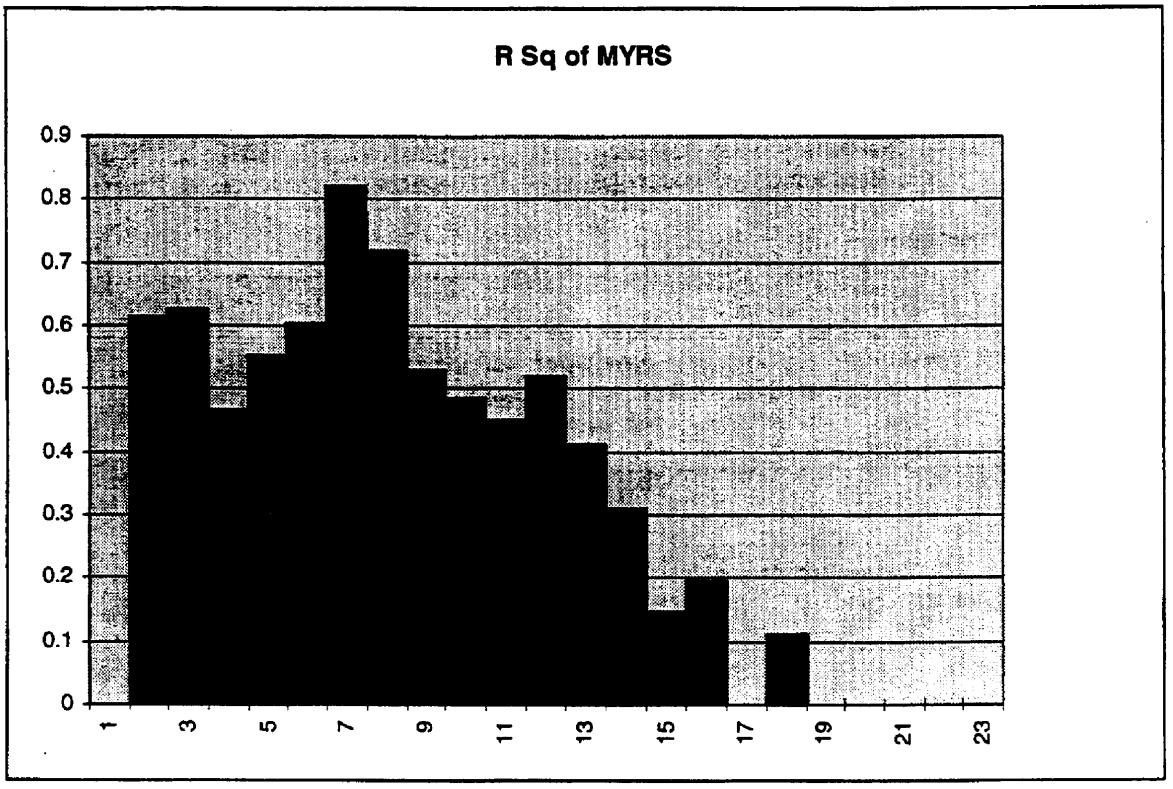
No variable met the 0.1500 significance level for entry into the model.

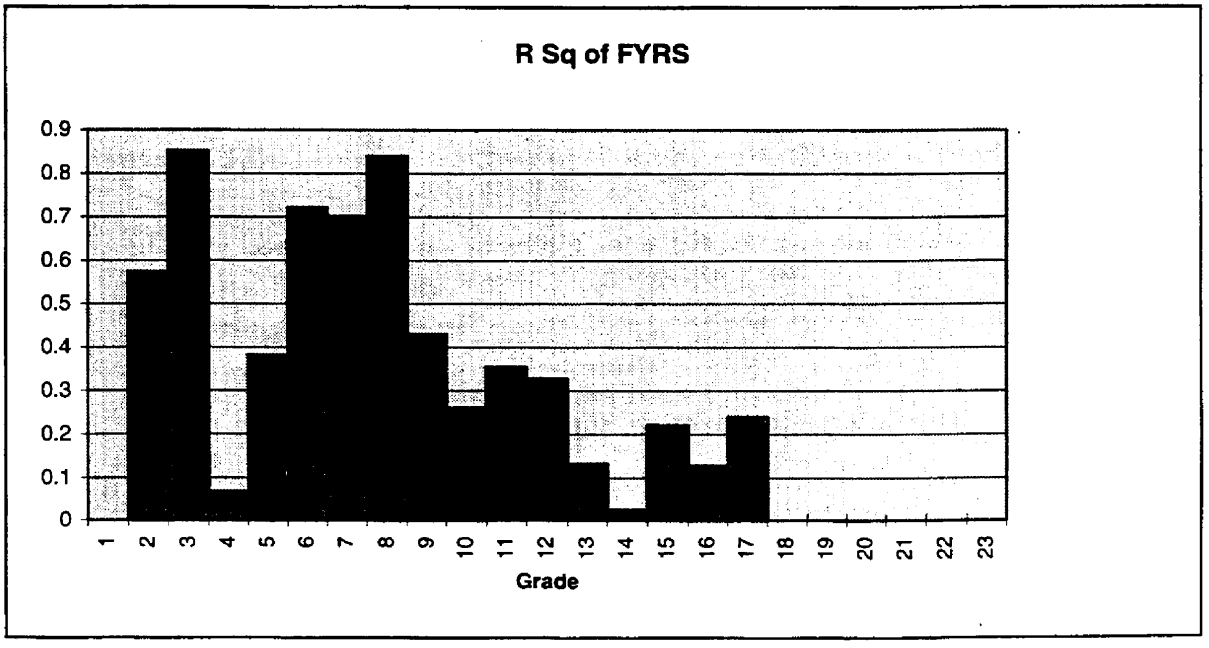
---------- GR=23 ----------

Stepwise Procedure for Dependent Variable INVLGFS

No variable met the 0.1500 significance level for entry into the model.

Exhibit IV
R^2 values of Years of Service (MYRS/FYRS)





Appendix C

Methods for Operationalizing Decision Rules Used to Analyze Salary Differences Within Job Classes

The alternative approach for analyzing salary differences within job classes can be summarized as a set of decision rules. These decision rules serve as screens for identifying which job classes show substantial salary differences between males and females that cannot be readily explained by differences in average length of State service. The screens can be characterized in terms of addressing one of two fundamental questions:

- Which job classes have "big" differences in salaries between genders, and therefore merit the greatest scrutiny?

- Can "big" salary differences between genders be readily explained in terms of differences in average years of State service between genders?

This approach contrasts with a more conventional statistical approach such as regression analysis, because it does not rely as heavily on estimating the values of key parameters of some statistical model. Rather, by focusing on the screening questions more, it allows greater flexibility in how variables relate to each other (specifically, how salaries relate to years of State service), instead of trying to summarize the relationship by estimating a parameter with a single value. Further, tests of statistical significance are not so meaningful in this particular situation, as will be discussed further below. Therefore, an alternative systematic approach for analyzing the data which follows a consistent line of logic tailored more to this situation was developed.

Are Salary Differences Between Genders "Big"?

Variation in salaries is known to occur among males and among females within each job class. A key question, then, is whether the average difference between male salaries and female salaries is "big" compared to the variation, on average, among males alone or among females alone.

If the data being analyzed were drawn from a randomly-selected sample, then a test of significant differences (using a t test) would be appropriate. The t test, applied to an individual job class, would essentially test for whether the difference between the average male salary and the average female salary is greater than approximately two times the average within-group variation in salaries (in the form of a combined or "pooled" standard deviation among both males and females in the job class). The t statistic is a ratio: the

numerator is the difference between genders, and the denominator is the pooled standard deviation among men and among women. If the t statistic is greater than approximately 2.0, then the salary difference between genders could be regarded as statistically significant; if it is less than approximately 2.0, then the salary difference would be statistically insignificant, meaning that this difference between genders is relatively small compared to the "noise" observed within each gender.

However, the data being analyzed do not constitute a randomly drawn sample, but rather the full population of interest: all full-time incumbents in a given job class as of June 30, 1997. Therefore, because no statistical inferences are being made from a sample to a broader population, using a significance test is not so meaningful, because the actual difference in the population mean salaries can be readily observed. Some other way is needed to assess whether or not the average salary difference between genders is "big" compared to variation in salaries within genders, using statistics drawn directly from the full population of interest.

The main purpose of this screen is to identify those job classes with "big" salary differences between genders that warrant the greatest examination. Therefore, the screen used was less stringent than that used for a significance test (which would have a threshold of roughly two standard deviations, and would have screened out more job classes from further consideration). Rather, the decision rule was: ***If the difference in average salaries was greater than either the male or the female salary standard deviation, then it was regarded as sufficiently "big" enough to warrant further examination. If the difference was less than either standard deviation, then it there was substantial overlap between the two groups in the salaries that were paid, and it was therefore less likely that a gender equity problem existed.***

The rationale for this decision rule centers on what a population standard deviation is intended to describe. The DPT data include <u>population</u> standard deviations, rather than <u>sample</u> standard deviations (which are slightly larger). The population standard deviation essentially represents the typical deviation between a typical single observation value and the mean of all the values in the population. For example, the average (or mean) salary of the 19 male Pharmacy Assistants (in Grade 5) is $19,321, and the standard deviation is $2,271. In other words, the "typical" deviation of an individual male Pharmacy Assistant's salary can be $2,271 above or below the mean of $19,321. This "typical" deviation of $2,670 can be regarded as a measure of the spread of male salaries around the average.

This example can be taken a step further now by including the 59 female Pharmacy Assistants in Grade 5 in the picture. They have an average salary of $20,893. The difference between the average male salary ($19,321) and the average female salary ($20,893) is $1,572. This difference is significantly different from zero because it is based on *population* means rather

than *sample* means. But it is smaller than the "typical" deviation among male salaries (namely, $2,271). Likewise, the female salary standard deviation is $2,793. So in either case, compared to "typical" variation in salary among males or females, the difference between the average male salary and the average female salary is relatively small. In other words, we can find in many instances greater salary differences among males alone or among females alone than between males and females.

As another example, consider the 6 male and 15 female Animal Care Technicians (Grade 7). The male average salary is $25,380 with a standard deviation of $2,973. The female average salary is $22,740 with a standard deviation of $2,392. The difference between the average salaries is $2,640. This difference is not greater than the male salary standard deviation, but it is greater than the female salary standard deviation. So, according to the decision rule in this analysis, this job class is examined further. This example illustrates the fact that the standard deviations among males and among females can be substantially different. Rather than "pooling" the male and female standard deviations (which is often done with t tests), they are used as alternative measures of variation; and if the difference in salaries between genders is greater than the "typical" deviation in either instance, then the job class is selected for further examination.

Can "Big" Salary Differences Be Readily Explained by Years of State Service?

The next screen utilizes a fundamental assumption. The assumption is that if a worker has been in State service longer, it is reasonable to expect that the worker may receive a somewhat higher salary for every additional year of service. For example, for many years, when a classified State worker has been evaluated to have performed adequately in the previous year, the worker may have been given a proficiency increase ranging from 2.25 to 4.56 percent. Some workers may have received greater increases, based on their performance evaluations. Therefore, it would seem normal to see more salary associated with every extra year of service.

As a baseline for comparison, the average annual salary increase due to proficiency increases for satisfactory performance over eleven years was calculated. Eleven years was chosen because that is the average length of service of all full-time classified State employees as of June 30, 1997. The proficiency increases for specific years are shown in Exhibit 1. The average salary increase across eleven years due to proficiency increases (where the worker "meets expectations") is approximately 2.3 percent. This level of 2.3 percent per year of service can serve as a baseline to screen out job classes, where observed salary differences may be due to more years of State service and corresponding proficiency increases, from those where salary differences may be reflecting pay inequities due to gender discrimination.

Exhibit 1

Proficiency Increases for Performance "Meeting Expectations", 1986 to 1996

Year	Proficiency Increase (%)
1986	4.56
1987	4.56
1988	4.56
1989	4.56
1990	0
1991	0
1992	0
1993	4.56
1994	2.25
1995	0
1996	0

Source: Department of Personnel and Training.

The screen using this baseline consisted of a series of questions, given that the average salary difference between genders in a particular job class was sufficiently large enough for further consideration. To illustrate, if males in a job class on average have higher salaries than females, the next two screening questions are as follows.

- Do males on average have more years of State service?
- [If yes:] Take the percentage salary difference and divide it by the difference in number of years of State service. For every extra year of service that males have on average, is the average salary difference less than or equal to 2.3 percent?

If the answer is "yes" to both questions, then the observed difference in average salaries between men and women appears to be readily explained by the difference in average years of State service. However, if the answer is "no" to either question, then the job class is considered to warrant further examination. (It is considered to warrant further examination because either: (1) males on average have higher salaries although females on average have more years of State service; or (2) the male salaries may be disproportionately higher even when taking into account additional years of State service.) Similar screening questions were applied to job classes in which females had higher salaries on average than males.

Additional Steps to Implement Analysis

A fundamental task was to tally the number of job classes in each pay grade that fall into different categories that are defined by the decision rules. In

addition, the job classes were also placed into one of four mutually exclusive groups, based on job class composition and size. The four groups were:

- "100 Percent Single Gender," meaning that there was no difference in average salaries between males and females to calculate (this category included job classes with only one incumbent);
- large job classes -- those with more than 10 incumbents;
- small job classes – those with 3 to 10 incumbents;
- small job classes – those with 1 male and 1 female incumbent.

The large job classes were examined separately from the small job classes because the small job classes were often more subject to anomalies due to one individual. For example, a standard deviation or an average based on 30 observations may tend to show a more stable pattern than those based on 3 observations, because they would not be as subject to the particular circumstances of one individual driving the parameter up or down.

The small job classes were divided into two groups. In the cases where there was one male and one female incumbent, there were no standard deviations in salary. Therefore, the difference between the male and female salary was treated as though it were sufficiently "big" for further examination in these cases, even though there was no screen for comparing the difference against within-group variation (because there was no within-group variation).

The decision rules were applied to the last three groups of job classes. Job classes passed the screens and which appeared to warrant further examination fell into one of two categories:

- there was more than a 2.3 percent salary difference per extra year of service; or
- one gender had a higher average salary when the other gender has on average more years of State service.

For example, in Grade 9 (which had a total of 116 job classes), 7 job classes showed patterns of males with higher salaries than females that cannot be readily explained by differences in years of State service and proficiency increases, and 6 showed similar patterns of females with higher salaries than males. However, 3 of the 7 in the first group came from job classes with small numbers of incumbents, as did 4 of the 6 in the second group; so in many of these cases, the salary differences may have been reflecting individual differences more than gender differences.

Appendix D

Calculating the Impact of the Northern Virginia Cost of Competing Differential on Observed "Wage Gaps"

The calculations for examining the role of the Northern Virginia cost of competing adjustment can be done in three steps.

Step 1: For a given job class, look up in the *Commonwealth of Virginia Compensation Plan* the size of the Northern Virginia differential that applies (the range of values is: 0, 9.31, 14.28, 19.48, 24.92, and 30.60 percent).

Step 2: Multiply this differential times the "Difference in Pct with NoVa Diff" between genders. This amount is the difference in average salary between genders that is attributable to the Northern Virginia adjustment. (For example, "Highway Equipment Operator A" [Job Class #63031] has a Northern Virginia differential of 30.6 percent, and the difference between males and females receiving it is 14.7 percent – that is, 14.7 percent more males get the 30.6 percent more salary than females because they are located in Northern Virginia. So the male average salary is 4.5 percent (14.7 percent of 30.6 percent) higher than the average female salary due to this Northern Virginia differential).

Step 3: Subtract this difference in average salary attributable to the Northern Virginia adjustment from the total percentage difference in average salary between genders. Then calculate the net annualized salary difference – that is, the total percentage difference in average salary between genders minus the difference attributable to the Northern Virginia adjustment, divided by the average difference in years of service. If the resulting net annualized difference is less than 2.3 percent, or if the new net annualized difference is now positive when it had been negative before the Northern Virginia adjustment is taken into account, then this job class needs no further examination. The difference in average salaries is attributable to differences in length of service and application of the Northern Virginia adjustment. (For example, among "Highway Equipment Operators A," the male average salary is 16.7 percent higher than the female average salary, and males on average have 5.7 more years of service. So the net annualized salary difference is 2.14 percent, which is below the 2.3 percent threshold. So when the Northern Virginia adjustment is taken into consideration along with the difference in years of service, the net difference in salaries between genders is virtually explained away.)

The rationale behind this step is as follows. When examining the total difference in average salaries between genders, the question is: to what factors

can this total difference be attributed? The Northern Virginia adjustment is one possible factor affecting the total difference, but it would not be causing new increases every year – only proficiency increases could be doing that. So, it makes sense to subtract the effects of the Northern Virginia adjustment on the total salary difference, and then to annualize the net difference (to see if the remainder of the salary difference could be attributed to proficiency increases associated with extra years of service).

Appendix E

"Potential Problem" Job Classes

			1	2	3	4		Difference
				Screens	People in	Screens		Entails
			No	Still	Different	Not Exceeded	Mixed	Only 1 Male or
GR	Class	Job Title	Change	Exceeded	Agencies	Anymore	Pattern	Only 1 Female?
2	11023	Office Services Aide		yes				
2	62062	Laundry Lead Worker				yes		
4	44332	Dental Assistant B		yes				yes
4	44341	Pharmacy Assistant A		yes				
4	61301	Carpenter Asst				yes		
4	82131	Forestry Worker	yes					
5	44106	Hosp Attendant Supervisor C	yes					
5	62124	Safety Services Patroller		yes				yes
5	76061	Instl Fire Safety Insp			yes			
6	22051	Hosp Accounts Collector A		yes				
6	61111	Locksmith			yes			
6	62153	Grounds Lead Worker				yes		
7	21231	Costumer			yes			
7	27321	Personnel Asst				yes		
7	28302	Reg Bds Investigator A		yes				
7	35042	Photographer			yes			
7	43161	Occupational Therapist Asst		yes				
7	44313	Physical Therapist Assistant		yes				
7	61502	Plumber/Steamfitter				yes		
7	61372	Electrician					2,3	yes
7	63063	Transportation Crew Leader	yes					
8	13034	Store Operations Mgr		yes				
8	21421	Admin Procedures Specialist		yes				yes
8	21521	Legal Assistant		yes				yes
8	22112	Men Hosp Reimb Rep	yes					
8	24061	Farm Placement Specialist	yes					
8	32041	Historian A				yes		
8	35212	Television System Technician		yes				yes
8	36209	Science Museum Educator	yes					yes
8	45103	Social Worker					2,4	yes
8	61154	Press Foreman			yes			
8	61166	Phototypesetting Supv			yes			
8	61185	Printing Serv Supv B		yes				yes
8	65124	Enterprise Prod Supv		yes				
8	76065	Instl Safety Officer					2,4	yes
9	21251	Insurance Claims Adjuster	yes					yes
9	22012	Hosp Admin Assistant B		yes				
9	22181	WIC Prog Repr	yes					yes
9	23023	Tax Examiner Sr		yes				yes
9	24291	Unemp Claims Invest	yes					
9	34072	Instl Housing Manager A		yes				
9	36291	History Education Coordinator				yes		
9	47025	Vocational Employment Counsel		yes				
9	61353	Hvac Install & Repair Sr Tech					2,3	yes
9	64094	Warehouse Supv Sr			yes			
9	74041	St Labor Law Rep	yes					

Note. Explanation of Categories 1 through 4 is in Chapter II.

GR	Class	Job Title	1 No Change	2 Screens Still Exceeded	3 People in Different Agencies	4 Screens Not Exceeded Anymore	Mixed Pattern	Difference Entails Only 1 Male or Only 1 Female?
9	76066	Instl Safety Spec		yes				yes
9	81343	Seed Analyst Sr	yes					yes
10	22113	Men Hosp Reimb Supv A	yes					
10	27342	Human Resource Analyst				yes		
10	28293	Reg Bds Administrator Asst				yes		
10	55012	Electronic Tech Sr				yes		
10	61186	Printing Serv Supv C				yes		
10	65122	Corr Enterprises Supv	yes					
10	82191	State Park Manager	yes					
11	13017	Univ Retail Oper Mgr A			yes			
11	21033	Property And Fac Coor Asst			yes			
11	26031	Mktg And Sales Rep		yes				
11	27351	Eeo Analyst		yes				yes
11	27361	Employment Supv		yes				yes
11	27451	St Hlth Benefits Plans Spec	yes					
11	32043	Historian C			yes			
11	33011	Technical Instructor				yes		
11	36296	Museum Asst Dir				yes		
11	37041	Planner		yes				
11	37123	Hr Comm Prog Advocate				yes		
11	43114	Nutritionist Supv				yes		
11	44386	Animal Care Supv		yes				yes
11	61187	Printing Serv Admin A			yes			
11	72047	Corr Instit Operations Ofcr	yes					
11	75121	Emergency Services Planner			yes			
11	81114	Agri Inspection Supv	yes					
11	83442	Environmental Prog Analyst		yes				
12	26123	Mat Mgmt Supv Sr		yes				
12	26142	St Procurement Spec Sr		yes				
12	32121	Preservation Prog Coor	yes					yes
12	33012	Technical Instruction Coord				yes		
12	35291	Develop Pgm Coord		yes				yes
12	41232	Environmental Hlth Spec Consul	yes					yes
12	43488	Food Operations Director A		yes				
12	53045	Forensic Scientist	yes					
12	54077	Trans R O W Asst Prog Mgr	yes					
12	61316	Industry Mgr		yes				yes
12	71131	St Police Spec Agent	yes					
12	73163	Dmv Asst Investigation Chief	yes					yes
13	21034	Property And Facilities Coord	yes					yes
13	23071	St Police Spec Agent-Acct	yes					
13	23301	Criminal Investigator-Tax	yes					yes
13	23454	Audit Supv-External	yes					yes
13	23503	Medicaid Reim Analyst	yes					
13	26104	Buyer Mgr				yes		
13	26145	St Procurement Rev Analyst		yes				

Note. Explanation of Categories 1 through 4 is in Chapter II.

			1	2	3	4		Difference
				Screens	People in	Screens		Entails
			No	Still	Different	Not Exceeded	Mixed	Only 1 Male or
GR	Class	Job Title	Change	Exceeded	Agencies	Anymore	Pattern	Only 1 Female?
13	27362	Employment Mgr			yes			
13	27373	Class & Comp Supv		yes				yes
13	27452	St Hlth Ben Plans Spec Sr	yes					yes
13	28292	Reg Bds Administrator Sr	yes					
13	32151	St Lib Supv	yes					yes
13	35131	Telecomm Network Analyst				yes		
13	37042	Planner Sr		yes				
13	43028	Physical Therapist Senior				yes		
13	45114	Clinical Social Work Dir		yes				
13	52221	Capital Outlay Project Engr		yes				yes
13	52242	Safety Engr Sr				yes		
13	53014	Analytical Chemist Supv			yes			
13	53046	Forensic Scientist Sr	yes					
13	81132	Agri Program Supv	yes					yes
13	82074	Wildlife Biologist Mgr	yes					yes
14	21291	Policy & Planning Supv		yes				yes
14	21388	Agency Mgmt Analyst Supv		yes				
14	22027	Grants Prog Admin Mgr		yes				
14	23133	St Asst Fiscal Manager	yes					
14	23141	St Acctg Syst Anal	yes					
14	24414	Emp Sec Reg Mkting Mgr	yes					yes
14	27302	Human Res Mgr			yes			
14	27471	St Emp Relations Counselor	yes					
14	32123	Preservation Prog Mgr Sr		yes				yes
14	35081	Telecomm Support Serv Mgr			yes			
14	35161	St Telecomm Network Analyst	yes					yes
14	37083	Economist Sr				yes		
14	37095	HCD Program Manager	yes					
14	37213	Comm Development Spec	yes					yes
14	52243	Safety Engr Supv		yes				yes
14	53015	Analytical Chem Section Chief			yes			
14	72033	Probation Mgr Sr		yes				
14	72181	Corr Asst Warden	yes					
14	76055	Police Dir Sr			yes			
15	15074	Data Process Oper Supv				yes		yes
15	22164	Train Ctr Prog Dir		yes				
15	22435	Hlth Resources Development Dir			yes			
15	23243	Interstate Aud Supv		yes				yes
15	23445	Audit Supv - Internal		yes				yes
15	23506	Medicaid Cost Settlement Agent	yes					
15	27313	Human Res Mgr Sr-Fld		yes				yes
15	28098	HCD Associate Director	yes					
15	32152	St Lib Mgr	yes					
15	35182	St Telecomm Sys Planning Supv	yes					yes
15	43403	Pharmacy Supervisor				yes		
15	43452	Toxicologist		yes				yes

Note. Explanation of Categories 1 through 4 is in Chapter II.

			1	2	3	4		Difference
				Screens	People in	Screens		Entails
			No	Still	Different	Not Exceeded	Mixed	Only 1 Male or
GR	Class	Job Title	Change	Exceeded	Agencies	Anymore	Pattern	Only 1 Female?
15	45061	Psychology Supervisor		yes				yes
16	22103	Men Hlth/Ment Ret Fac Adm C	yes					
16	23095	Dpb Analyst C	yes					
16	23116	Cash Administrator	yes					yes
16	23122	St Debt Mgmt Adviser	yes					yes
16	23403	Fiscal Director B			yes			
16	24415	Emp Security Reg Dir	yes					yes
16	26061	Mktg Asst Mgr				yes		
16	27453	St Hlth Ben Plans Admin, Sr	yes					yes
16	28361	Deputy Administrator			yes			
16	35112	St Telecomm Engineer Supv	yes					yes
16	42145	Registered Nurse Manager A	yes					
16	53051	Forensic Science Reg Lab Mgr	yes					yes
16	83017	Environmental Quality Asst Div	yes					
17	15061	Data Processing Operations Mgr			yes			
17	21293	Policy & Planning Dir			yes			
17	31015	Executive Advisor			yes			
17	72192	Juvenile Justice Reg Admin	yes					yes
17	2511	Medicaid Oper Dir Sr	yes					yes
17	3404	Controller			yes			
18	23444	Audit Director-Internal			yes			
18	28182	Crim Justice Svc Deputy Dir	yes					yes
19	22105	Men Hlth/Retard Fac Dir A	yes					
19	22261	Human Services Asst Comr			yes			
19	23291	Tax Asst Comr	yes					
19	31031	Ed Div Chief	yes					
20	22106	Men Hlth/Retard Fac Dir B	yes					yes
21	42213	Pub Hlth Physician Spec	yes					yes
21	42231	Medical Program Dir		yes				yes
		COUNTS	64	48	27	24	4	58

Note. Explanation of Categories 1 through 4 is in Chapter II.

Appendix F

How "Potential Problem" Job Classes Exceed Screens

			Male Salaries > Fem. Sal		Fem. Salaries > Male Sal.			
			1	2	3	4		Difference
			Females	Annualized	Males	Annualized		Entails
			Have More	SalDiff	Have More	SalDiff	Mixed	Only 1 Male
GR	Class	Job Title	Yrs Srvc	>2.3%	Yrs Srvc	>2.3%	Pattern	Only 1 Femal
2	11023	Office Services Aide					3,4	
4	44332	Dental Assistant B				yes		yes
4	44341	Pharmacy Assistant A			yes			
4	82131	Forestry Worker				yes		
5	44106	Hosp Attendant Supervisor C				yes		
5	62124	Safety Services Patroller		yes				yes
6	22051	Hosp Accounts Collector A				yes		
7	28302	Reg Bds Investigator A	yes					
7	43161	Occupational Therapist Asst	yes					
7	44313	Physical Therapist Assistant	yes					
7	61372	Electrician	yes					yes
7	63063	Transportation Crew Leader		yes				
8	13034	Store Operations Mgr	yes					
8	21421	Admin Procedures Specialist				yes		yes
8	21521	Legal Assistant	yes					yes
8	22112	Men Hosp Reimb Rep		yes				
8	24061	Farm Placement Specialist		yes				
8	35212	Television System Technician	yes					
8	36209	Science Museum Educator	yes					
8	45103	Social Worker				yes		yes
8	61185	Printing Serv Supv B	yes					yes
8	65124	Enterprise Prod Supv					1,2	
8	76065	Instl Safety Officer				yes		yes
9	21251	Insurance Claims Adjuster				yes		yes
9	22012	Hosp Admin Assistant B	yes					
9	22181	WIC Prog Repr				yes		yes
9	23023	Tax Examiner Sr		yes				yes
9	24291	Unemp Claims Invest		yes				
9	34072	Instl Housing Manager A		yes				
9	47025	Vocational Employment Counsel					3,4	
9	61353	Hvac Install & Repair Sr Tech		yes				yes
9	74041	St Labor Law Rep		yes				
9	76066	Instl Safety Spec			yes			yes
9	81343	Seed Analyst Sr				yes		yes
10	22113	Men Hosp Reimb Supv A	yes					
10	65122	Corr Enterprises Supv	yes					
10	82191	State Park Manager		yes				
11	26031	Mktg And Sales Rep					3,4	
11	27351	Eeo Analyst		yes				yes
11	27361	Employment Supv	yes					yes
11	27451	St Hlth Benefits Plans Spec				yes		
11	37041	Planner				yes		
11	44386	Animal Care Supv		yes				

Note. Explanation of "Type of Problem" Categories 1 through 4 is in Chapter II.

		1	2	3	4		Difference
		Females	Annualized	Males	Annualized		Entails
		Have More	SalDiff	Have More	SalDiff	Mixed	Only 1 Male or
Class	Job Title	Yrs Srvc	≥ 2.3%	Yrs Srvc	≥ 2.3%	Pattern	Only 1 Female?
72047	Corr Instit Operations Ofcr		yes				
81114	Agri Inspection Supv			yes			
83442	Environmental Prog Analyst					1,3	
26123	Mat Mgmt Supv Sr	yes					
26142	St Procurement Spec Sr		yes				
32121	Preservation Prog Coor				yes		yes
35291	Develop Pgm Coord	yes					yes
41232	Environmental Hlth Spec Consul				yes		yes
43488	Food Operations Director A				yes		
53045	Forensic Scientist	yes					
54077	Trans R O W Asst Prog Mgr		yes				
61316	Industry Mgr			yes			yes
71131	St Police Spec Agent		yes				
73163	Dmv Asst Investigation Chief			yes			yes
21034	Property And Facilities Coord			yes			yes
23071	St Police Spec Agent-Acct		yes				
`01	Criminal Investigator-Tax		yes				yes
4	Audit Supv-External				yes		yes
23503	Medicaid Reim Analyst	yes					
26145	St Procurement Rev Analyst			yes			
27373	Class & Comp Supv	yes					yes
27452	St Hlth Ben Plans Spec Sr				yes		yes
28292	Reg Bds Administrator Sr	yes					
32151	St Lib Supv	yes					yes
37042	Planner Sr		yes				
45114	Clinical Social Work Dir	yes					
52221	Capital Outlay Project Engr					1,2,3	yes
53046	Forensic Scientist Sr		yes				
81132	Agri Program Supv		yes				yes
82074	Wildlife Biologist Mgr		yes				yes
21291	Policy & Planning Supv			yes			yes
21388	Agency Mgmt Analyst Supv					2,3	yes
22027	Grants Prog Admin Mgr		yes				
23133	St Asst Fiscal Manager			yes			
23141	St Acctg Syst Anal	yes					
24414	Emp Sec Reg Mkting Mgr		yes				yes
27471	St Emp Relations Counselor		yes				
32123	Preservation Prog Mgr Sr			yes			yes
35161	St Telecomm Network Analyst	yes					yes
37095	HCD Program Manager		yes				
`3	Comm Development Spec		yes				yes
3	Safety Engr Supv	yes					yes
72033	Probation Mgr Sr					3,4	
72181	Corr Asst Warden		yes				

			1	2	3	4		Difference
			Females	Annualized	Males	Annualized		Entails
			Have More	SalDiff	Have More	SalDiff	Mixed	Only 1 Male or
GR	Class	Job Title	Yrs Srvc	> 2.3%	Yrs Srvc	> 2.3%	Pattern	Only 1 Female?
15	22164	Train Ctr Prog Dir	yes					
15	23243	Interstate Aud Supv		yes				yes
15	23445	Audit Supv - Internal				yes		yes
15	23506	Medicaid Cost Settlement Agent		yes				
15	27313	Human Res Mgr Sr-Fld				yes		yes
15	28098	HCD Associate Director		yes				
15	32152	St Lib Mgr			yes			
15	35182	St Telecomm Sys Planning Supv				yes		yes
15	43452	Toxicologist	yes					yes
15	45061	Psychology Supervisor	yes					yes
16	22103	Men Hlth/Ment Ret Fac Adm C		yes				
16	23095	Dpb Analyst C	yes					
16	23116	Cash Administrator	yes					yes
16	23122	St Debt Mgmt Adviser	yes					yes
16	24415	Emp Security Reg Dir				yes		yes
16	27453	St Hlth Ben Plans Admin, Sr	yes					yes
16	35112	St Telecomm Engineer Supv	yes					ye
16	42145	Registered Nurse Manager A			yes			
16	53051	Forensic Science Reg Lab Mgr			yes			yes
16	83017	Environmental Quality Asst Div		yes				
17	72192	Juvenile Justice Reg Admin	yes					yes
18	22511	Medicaid Oper Dir Sr		yes				yes
18	28182	Crim Justice Svc Deputy Dir			yes			yes
19	22105	Men Hlth/Retard Fac Dir A	yes					
19	23291	Tax Asst Comr	yes					
19	31031	Ed Div Chief			yes			
20	22106	Men Hlth/Retard Fac Dir B		yes				yes
21	42213	Pub Hlth Physician Spec	yes					yes
21	42231	Medical Program Dir		yes				yes
		COUNTS	36	36	15	21	8	58

Appendix G
Agencies with "Potential Problem" Job Classes

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
122			Dept Of Planning And Budget				
122	16	23095	Dpb Analyst C	11	6	1	
123			Department Of Military Affairs				
123	11	83442	Environmental Prog Analyst	1	1	3	yes
129			Dept Of Personnel And Training				
129	11	27451	St Hlth Benefits Plans Spec	1	2	4	yes
129	13	27452	St Hlth Ben Plans Spec Sr	1	2	4	yes
129	16	27453	St Hlth Ben Plans Admin, Sr	2	1	1	yes
138			Dept Of Information Technology				
138	14	35161	St Telecomm Network Analyst	1	2	1	yes
138	15	35182	St Telecomm Sys Planning Supv	1	1	4	yes
138	16	35112	St Telecomm Engineer Supv	1	1	1	yes
140			Dept Of Criminal Justice Svcs				
140	12	53045	Forensic Scientist	16	17	1	
140	13	53046	Forensic Scientist Sr	23	13	2	
140	16	53051	Forensic Science Reg Lab Mgr	2	1	3	yes
140	18	28182	Crim Justice Svc Deputy Dir	2	1	3	yes
146			The Science Museum Of Virginia				
146	8	36209	Science Museum Educator	1	1	1	yes
150			Dept Of The St Internal Audit				
150	15	23445	Audit Supv - Internal	1	1	4	yes
151			Department Of Accounts				
151	14	23133	St Asst Fiscal Manager	3	4	3	
151	14	23141	St Acctg Syst Anal	2	2	1	
152			Department Of The Treasury				
152	16	23116	Cash Administrator	1	1	1	yes
152	16	23122	St Debt Mgmt Adviser	2	1	1	yes
154			Department Of Motor Vehicles				
154	9	23023	Tax Examiner Sr	1	4	2	
154	12	73163	Dmv Asst Investigation Chief	1	1	1	yes
154	15	23243	Interstate Aud Supv	1	1	2	yes
156			Department Of State Police				
156	12	71131	St Police Spec Agent	135	11	2	
156	13	23071	St Police Spec Agent-Acct	22	2	2	
161			Department Of Taxation				
161	2	11023	Office Services Aide	2	8	4	

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
161	13	23301	Criminal Investigator-Tax	8	1	2	yes
161	14	21388	Agency Mgmt Analyst Supv	1	1	3	yes
161	19	23291	Tax Asst Comr	3	2	1	
165			Dept Of Housing And Comm Dev				
165	14	37095	HCD Program Manager	3	4	2	
165	15	28098	HCD Associate Director	4	3	2	
181			Dept Of Labor And Industry				
181	9	74041	St Labor Law Rep	2	4	2	
182			Virginia Employment Commission				
182	8	24061	Farm Placement Specialist	3	3	2	
182	9	24291	Unemp Claims Invest	2	2	2	
182	14	24414	Emp Sec Reg Mkting Mgr	1	1	2	yes
182	16	24415	Emp Security Reg Dir	2	1	4	yes
194			Department Of General Services				
194	9	21251	Insurance Claims Adjuster	1	8	4	yes
194	12	26142	St Procurement Spec Sr	13	10	2	
194	13	21034	Property And Facilities Coord	1	2	3	yes
194	13	26145	St Procurement Rev Analyst	4	2	3	
199			Dept Conservation & Recreation				
199	10	82191	State Park Manager	3	2	2	
199	11	83442	Environmental Prog Analyst	3	4	1	
201			Department Of Education				
201	14	22027	Grants Prog Admin Mgr	5	11	2	
201	19	31031	Ed Div Chief	3	3	3	
202			Library Of Virginia				
202	13	32151	St Lib Supv	1	1	1	yes
202	15	32152	St Lib Mgr	5	4	3	
206			Med College Of VA Hosp Auth				
206	4	44341	Pharmacy Assistant A	8	18	3	
206	5	44106	Hosp Attendant Supervisor C	2	2	4	
206	6	22051	Hosp Accounts Collector A	2	17	4	
206	9	22012	Hosp Admin Assistant B	2	5	1	
206	14	21388	Agency Mgmt Analyst Supv	1	1	2	yes
207			The University Of Virginia				
207	8	21421	Admin Procedures Specialist	1	6	4	yes
207	8	35212	Television System Technician	1	1	1	yes
207	9	61353	Hvac Install & Repair Sr Tech	15	1	2	yes
208			VPI & State University				

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
208	2	11023	Office Services Aide	2	1	3	
208	11	44386	Animal Care Supv	2	1	2	
208	12	35291	Develop Pgm Coord	1	1	1	
208	14	52243	Safety Engr Supv	1	2	1	
212			Virginia State University				
212	9	34072	Instl Housing Manager A	5	5	2	yes
213			Norfolk State University				
213	7	61372	Electrician	1	1	1	yes
216			James Madison University				
216	8	13034	Store Operations Mgr	1	3	1	yes
222			Dept Of Professional & Occ Reg				
222	7	28302	Reg Bds Investigator A	2	4	1	
222	13	28292	Reg Bds Administrator Sr	4	2	1	
236	1	1	Virginia Commonwealth Univ				
236	9	47025	Vocational Employment Counsel	3	5	4	
247			George Mason University				
247	13	52221	Capital Outlay Project Engr	4	1	2	yes
261			Virginia Community College Sys				
261	8	13034	Store Operations Mgr	2	3	3	
261	8	61185	Printing Serv Supv B	1	1	1	yes
262			Dept Of Rehabilitative Service				
262	9	47025	Vocational Employment Counsel	3	8	3	
262	11	26031	Mktg And Sales Rep	2	3	3	
301			Dept Of Agri & Cons Services				
301	9	81343	Seed Analyst Sr	5	2	4	
301	11	26031	Mktg And Sales Rep	6	3	4	
301	11	81114	Agri Inspection Supv	11	3	3	
301	11	83442	Environmental Prog Analyst	1	1	1	yes
301	13	81132	Agri Program Supv	9	1	2	yes
325			Department Of Business Asst				
325	14	37213	Comm Development Spec	3	1	2	yes
403			Dept Game & Inland Fisheries				
403	13	82074	Wildlife Biologist Mgr	15	1	2	
408			Chesapeake Bay Local Asst Dept				
408	11	83442	Environmental Prog Analyst	1	1	1	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
411			Department Of Forestry				
411	4	82131	Forestry Worker	11	5	2	
423			Dept Of Historic Resources				
423	12	32121	Preservation Prog Coor	3	1	4	yes
423	14	32123	Preservation Prog Mgr Sr	2	1	3	yes
440			Dept Of Environmental Quality				
440	15	43452	Toxicologist	1	1	3	yes
440	16	83017	Environmental Quality Asst Div	21	3	2	
501			Department Of Transportation				
501	5	62124	Safety Services Patroller	66	1	2	yes
501	7	63063	Transportation Crew Leader	102	3	2	
501	11	27351	Eeo Analyst	1	5	2	yes
501	12	54077	Trans R O W Asst Prog Mgr	4	3	2	
501	13	23454	Audit Supv-External	1	1	4	
501	13	27373	Class & Comp Supv	1	1	1	yes
501	14	21388	Agency Mgmt Analyst Supv	5	1	2	yes
601			Department Of Health				
601	8	45103	Social Worker	1	17	4	yes
601	9	22181	WIC Prog Repr	3	1	4	yes
601	11	37041	Planner	3	3	4	
601	12	41232	Environmental Hlth Spec Consul	3	1	4	yes
601	13	37042	Planner Sr	1	1	2	yes
601	21	42213	Pub Hlth Physician Spec	1	7	1	yes
601	21	42231	Medical Program Dir	1	1	2	yes
602			Dept Of Medical Asst Services				
602	13	23503	Medicaid Reim Analyst	6	2	3	
602	15	23506	Medicaid Cost Settlement Agent	4	2	2	
602	18	22511	Medicaid Oper Dir Sr	1	2	2	yes
701			Department Of Corrections				
701	4	44332	Dental Assistant B	1	25	4	
701	8	13034	Store Operations Mgr	11	6	1	
701	8	65124	Enterprise Prod Supv	29	10	2	
701	9	76066	Instl Safety Spec	23	1	3	
701	10	65122	Corr Enterprises Supv	19	2	1	
701	11	72047	Corr Instit Operations Ofcr	7	18	2	
701	13	37042	Planner Sr	1	1	2	yes
701	14	21291	Policy & Planning Supv	1	1	3	yes
701	14	72033	Probation Mgr Sr	19	5	3	
701	14	72181	Corr Asst Warden	41	10	2	
702			VA Dept F/T Visual Handicapped				
702	8	65124	Enterprise Prod Supv	1	1	1	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
702	12	61316	Industry Mgr	1	1	3	yes
720			Dept Ment Hlth & Ment Retard				
720	7	43161	Occupational Therapist Asst	2	11	1	
720	7	44313	Physical Therapist Assistant	2	7	1	
720	8	22112	Men Hosp Reimb Rep	4	4	2	
720	10	22113	Men Hosp Reimb Supv A	1	1	1	yes
720	11	27361	Employment Supv	1	1	1	yes
720	12	26123	Mat Mgmt Supv Sr	2	2	1	
720	12	43488	Food Operations Director A	2	2	4	
720	13	37042	Planner Sr	1	1	1	yes
720	13	45114	Clinical Social Work Dir	2	7	1	
720	15	22164	Train Ctr Prog Dir	4	3	1	
720	15	27313	Human Res Mgr Sr-Fld	1	2	4	yes
720	16	22103	Men Hlth/Ment Ret Fac Adm C	2	2	2	
720	16	42145	Registered Nurse Manager A	3	12	3	
720	19	22105	Men Hlth/Retard Fac Dir A	6	2	1	
720	20	22106	Men Hlth/Retard Fac Dir B	4	1	2	yes
765			Department Of Social Services				
765	8	21521	Legal Assistant	1	2	1	yes
765	14	21388	Agency Mgmt Analyst Supv	1	3	3	yes
777			Department Of Juvenile Justice				
777	15	45061	Psychology Supervisor	3	1	1	yes
777	17	72192	Juvenile Justice Reg Admin	1	2	1	yes
962			Dept Of Emp Rel Counselors				
962	14	27471	St Emp Relations Counselor	4	4	1	
TOTAL				794	419		
		COUNTS:					
Type 1 --		**M sal > F sal, but females have more yrs service:**				31	
Type 2 --		**M sal > F sal, annualized sal. diff. > 2.3%:**				39	
Type 3 --		**F sal > M sal, but males have more yrs service:**				22	
Type 4 --		**F sal > M sal, annualized sal. diff. > 2.3%:**				20	
			Total			112	
		Comparison of only 1 male or only 1 female:				53	

*"Type of Problem" categories are explained in Chapter II.

Appendix H

Further Analysis of Male and Female Average Salaries Within Job Classes, Disaggregated by Individual Agencies

Chapter II examined salary differences between males and females within the same job classes primarily on a statewide level. Another angle on this type of analysis is to look at salary differences within each agency as a starting point, and to see whether the results of this alternative analysis appears to be similar to the statewide analysis results. Further, by putting more emphasis on the individual agency level, it may be possible to identify individual agencies that may have relatively higher numbers of "potential problem" cases.

METHODS

The data were the same as those used in Chapter II. The same two screens used in the statewide within-job-class analysis were applied to agency job classes. The two screens are:

- whether the difference in average salaries between males and females is equal to or greater than either the male or the female salary standard deviation within a given job class; and, if so,

- whether the salary difference can be readily explained in terms of the difference in average years of State service.

The first screen was applied in a manner consistent with that of the statewide analysis. However, because the agency-level job classes generally had far fewer incumbents than the corresponding statewide job classes, there were many more cases in which there was only one male and only one female incumbent. In these cases, the first screen was inoperative because there were no standard deviations to compute, so these cases were passed on to the second screen (as was done in the statewide analysis).

The second screen consisted of two types of questions, as it had in Chapter II. The first question is: When males(females) have higher average salaries, do they also have more years of State service on average? If the answer to the first question is "yes," then the second question follows: For every extra year of service that males(females) have on average, is the average salary difference less than or equal to 2.3 percent? If the answer is "yes" to both questions, then the observed difference in average salaries between men and women appears to be readily explained by the difference in the average years of State service. However, if the answer is "no" to either question, then the agency

job class passes through the screen, and is classified as a "problem case" warranting further examination.

FINDINGS

There are two sets of findings to report. One set is comparable to the results reported in Chapter II, taking a statewide perspective. The other set identifies the agencies that have higher numbers of "potential problem" job classes. Both sets of results are based on 482 agency job classes (out of a total of approximately 6,500 across all agencies) which exceeded the screening criteria and therefore are classified as "potential problem cases."

Statewide Perspective

Although the specific numbers in this analysis differ from those reported in Chapter II, the qualitative upshot is very similar. Overall, the data show very little support for the notion that there is widespread systematic discrimination against women in terms of salaries paid within job classes among the vast majority of State full-time classified employees. Even though the first screen was inoperative in far more cases in this analysis, over 94 percent of State classified employees are in agency job classes that did not make it through the screens.

In this analysis, 4,970 State employees were in the agency job classes that did make it through the screens (out of a total of over 66,000 State full-time classified employees, or 7.5 percent of all State employees). These agency job classes that made it through the screens are the ones with salary differences between genders that are relatively large and that cannot be readily explained by differences in average years of State service. The fact that these agency job classes made it through the screens does not necessarily mean that the salary differences are due to gender discrimination. But they are labeled the "potential problem cases" because the salary differences between genders are sufficiently large and have yet to be fully explained. If any gender discrimination is occurring, its effects would be more striking in these cases, rather than in the vast majority of cases that cannot make it past the most elementary criteria needed to make a coherent argument that there is systematic gender pay discrimination.

But even among the "potential problem cases," two complicating factors make it difficult to formulate a compelling argument that there is systematic gender pay discrimination. One is that most of these agency job classes have such low numbers of incumbents that it would be impossible to disentangle the effects of individual job performance or other individual characteristics from gender differences. The other is that differences in salary go in both directions – in the majority of cases, men have the higher salaries, but in a substantial number of cases, women have the higher average salaries.

As shown on page 13 of Exhibit H-1, there was a total of 482 "potential problem" agency job classes. Among these cases, 292 had male salaries exceeding female salaries on average, and 190 had female salaries exceeding those of males. So the ratio of roughly 2 to 1 (of salary differences favoring males versus females) still appears to hold, as it did in Chapter II when examining a smaller number of agency job classes.

Further, the distribution of the "potential problem cases" is virtually even between lower pay grades (Grade 10 and below) and higher pay grades (Grade 11 and above). Of the 482 agency job classes, 236 were in the lower pay grades, and 246 were in the higher pay grades.

Agencies with Higher Frequencies of "potential problem cases"

All agencies with "potential problem cases" are shown in Exhibit H-2. There were several agencies with zero "potential problem cases," which are not included in the analysis. Agencies with higher numbers of potential problem cases were first examined, and then those with higher percentages of potential problem cases.

The agencies with ten or more potential problem cases are shown in Table H-1. In many agencies, there are roughly as many potential problem cases in which female salaries are exceeding male salaries (henceforth, "female potential problem cases"), as those in which male salaries exceed female salaries (henceforth, "male potential problem cases"). The agencies with the largest imbalances are: James Madison University (JMU); the Department of Transportation (VDOT); and the Department of Mental Health, Mental Retardation, and Substance Abuse Services (DMHMRSAS). In these agencies, the difference in the number of male potential problem cases versus female potential problem cases is ten or more. However, when considering the total number of job classes in each agency, the percentage of these job classes that are male potential problem cases (as well as female potential problem cases) are quite small. In particular, the percentages for the three agencies with the largest imbalances are: JMU, eight percent are male and two percent are female potential problem cases; VDOT, eight percent male and two percent female; and DMHMRSAS, eight percent male and three percent female. In these instances, there may be relatively greater potential for problems in gender pay equity; but even in these three agencies, there do not appear to be strong, overwhelming trends that can be generalized across the majority of job classes.

Table H-1
Agencies with Ten or More "Potential Problem" Job Classes

Agency	# Job Classes	# "Potential Problem Cases"	Male Salary > Female Salary	Female Salary ≥ Male Salary
DMHMRSAS	344	35	26	9
VDOT	297	30	24	6
Corrections	270	23	14	9
Univ. of Virginia	256	18	11	7
VCU	254	18	6	12
Virginia Tech	218	22	15	7
Health	210	25	13	12
James Madison U.	198	19	16	3
VCCS	185	18	11	7
George Mason U.	171	15	5	10
Old Dominion U.	171	11	5	6
William & Mary	156	12	7	5
MCV Hospital	152	20	8	12
Rehab. Services	146	12	8	4
General Services	138	13	6	7
State Police	113	10	7	3
DMAS	66	10	6	4

Source: JLARC staff analysis of DPT PMIS data.

As an alternative perspective, Table H-2 shows the agencies with the highest percentages of potential problem cases (namely, those with ten percent or more). The only agencies which appear in both Table H-1 and Table H-2 are the MCV Hospital Authority, Virginia Tech, VDOT, the Department of Health, and the Department of Medical Assistance Services (DMAS). Most of the agencies have differences in the number of male and female potential problem cases of only one or two job classes. But four agencies have relatively larger imbalances (of four or more job classes): MCV Hospital Authority, Virginia Tech, VDOT, and DMHMRSAS. However, each of these agencies also have relatively large total numbers of job classes.

The profile of agencies in Table H-2 is very different from those in Table H-1. Consequently, as a percentage of total number of job classes, the "imbalances" again represent a relatively small minority of job classes in each agency. In particular, the percentages are: MCV, five percent are male and eight percent are female potential problem cases; Virginia Tech, seven percent male and three percent female; VDOT, eight percent male and two percent female; and DMHMRSAS, eight percent male and three percent female. Again, even in these agencies, there may be relatively greater potential for problems in

Table H-2
Agencies with Highest Percentages of "Potential Problem" Job Classes

Agency	# Job Classes	# "Potential Problem Cases"	Male Salary > Female Salary	Female Salary > Male Salary
State Internal Auditor	4	1		1
Commission Local Govt.	4	1		1
Dept. Deaf & Hard H.	5	1	1	
Ches. Bay Local Asst.	11	2	2	
Historic Resources	18	3	1	2
Treasury	32	5	3	2
DMAS	66	10	6	4
Business Assistance	14	2	2	
MCV Hospital Authority	152	20	8	12
Dept. Visual Handicap.	40	5	2	3
Dept. of Health	210	25	13	12
Planning & Budget	17	2	2	
Dept. Envmtl. Quality	71	8	5	3
Housing & Com. Dvlpmt.	29	3	3	
Dept. of Accounts	39	4	1	3
DMHMRSAS	344	35	26	9
VDOT	297	30	24	6
Virginia Tech	218	22	15	7
Frontier Cultural Museum	20	2	1	1

Source: JLARC staff analysis of DPT PMIS data.

gender pay equity, but there do not appear to be strong trends of pay discrimination that can be generalized across the majority of job classes.

Overall, there appear to be some individual agencies that have relatively more potential problem cases in which male salaries on average are higher than female salaries. While these situations may or may not be due to gender discrimination, they cannot be regarded as representative of agency practice in general, because they consist of such small minorities of job classes in each agency.

Exhibit H-1

"Potential Problem" Agency Job Classes

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
122			Dept Of Planning And Budget				
122	6	11045	Program Support Tech	1	4	2	yes
122	16	23095	Dpb Analyst C	11	6	1	
123			Department Of Military Affairs				
123	5	11025	Office Services Spec	1	3	1	
123	6	61402	Painter	2	1	2	yes
123	7	72262	Juvenile Correctional Officer	9	2	2	
123	11	83442	Environmental Prog Analyst	1	1	3	yes
129			Dept Of Personnel And Training				
129	11	27451	St Hlth Benefits Plans Spec	1	2	4	yes
129	13	27452	St Hlth Ben Plans Spec Sr	1	2	4	yes
129	16	27453	St Hlth Ben Plans Admin, Sr	2	1	1	yes
131			Department Of Veterans Affairs				
131	9	47092	Vet Claims Agent A	14	7	1	
138			Dept Of Information Technology				
138	14	15051	Computer Systems Engineer	4	4	1	
138	14	35161	St Telecomm Network Analyst	1	2	1	yes
138	15	35182	St Telecomm Sys Planning Supv	1	1	4	yes
138	16	35112	St Telecomm Engineer Supv	1	1	1	yes
140			Dept Of Criminal Justice Svcs				
140	11	23415	Accountant Senior	1	1	1	yes
140	12	53045	Forensic Scientist	16	17	1	
140	13	53046	Forensic Scientist Sr	23	13	2	
140	15	15045	Systems Analyst	1	1	1	yes
140	16	53051	Forensic Science Reg Lab Mgr	2	1	3	yes
146			The Science Museum Of Virginia				
146	8	36209	Science Museum Educator	1	1	1	yes
150			Dept Of The St Internal Audit				
150	15	23445	Audit Supv - Internal	1	1	4	yes
151			Department Of Accounts				
151	5	11025	Office Services Spec	1	1	3	yes
151	11	23415	Accountant Senior	1	2	4	yes
151	14	23133	St Asst Fiscal Manager	3	4	3	
151	14	23141	St Acctg Syst Anal	2	2	1	
152			Department Of The Treasury				
152	9	23414	Accountant	2	7	4	
152	11	23415	Accountant Senior	2	2	1	
152	12	23416	Accounting Manager A	1	1	1	yes
152	13	21241	Policy Analyst	2	1	3	yes
152	16	23122	St Debt Mgmt Adviser	2	1	1	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
154			Department Of Motor Vehicles				
154	4	11024	Office Services Asst	1	30	2	yes
154	5	61156	Printing Press Oper A	1	1	2	yes
154	8	15072	Computer Oper Tech Sr	1	2	1	yes
154	9	23023	Tax Examiner Sr	1	4	2	yes
154	10	21385	Agency Mgmt Analyst	1	8	4	yes
154	12	73163	Dmv Asst Investigation Chief	1	1	3	yes
154	13	21387	Agency Mgmt Lead Analyst	4	1	2	yes
154	15	23243	Interstate Aud Supv	1	1	2	yes
156			Department Of State Police				
156	6	11045	Program Support Tech	2	8	1	
156	6	15071	Computer Oper Tech	1	5	4	yes
156	8	23413	Fiscal Technician Senior	2	4	2	
156	9	21284	Statistical Analyst	1	5	1	yes
156	10	15082	Comp Network Support Tech Sr	1	1	4	yes
156	12	15043	Programmer/Analyst	2	3	3	
156	12	71131	St Police Spec Agent	135	11	2	
156	13	23071	St Police Spec Agent-Acct	22	2	2	
156	14	15051	Computer Systems Engineer	4	1	1	yes
156	15	15045	Systems Analyst	2	3	1	
161			Department Of Taxation				
161	2	11023	Office Services Aide	2	8	4	
161	9	11052	Office Manager	1	1	4	yes
161	12	37082	Economist	1	2	1	yes
161	13	23301	Criminal Investigator-Tax	8	1	2	yes
161	17	15062	Systems Development Manager	1	1	4	yes
161	19	23291	Tax Asst Comr	3	2	1	yes
163			Department For The Aging				
163	12	22272	Human Services Prog Coord	1	1	1	yes
165			Dept Of Housing And Comm Dev				
165	12	23416	Accounting Manager A	1	2	2	yes
165	14	37095	HCD Program Manager	3	4	2	
165	15	28098	HCD Associate Director	4	3	2	
181			Dept Of Labor And Industry				
181	9	74041	St Labor Law Rep	2	4	2	
181	11	21386	Agency Mgmt Analyst Sr	3	1	2	yes
181	15	23101	Agency Admin Mgr	1	1	1	yes
182			Virginia Employment Commission				
182	7	11027	Office Services Supv Sr	1	2	2	yes
182	8	24061	Farm Placement Specialist	3	3	2	
182	9	24291	Unemp Claims Invest	2	2	2	
182	12	37082	Economist	3	2	4	

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
182	14	24414	Emp Sec Reg Mkting Mgr	1	1	2	yes
182	15	15045	Systems Analyst	2	5	4	
182	16	24415	Emp Security Reg Dir	2	1	4	yes
194			Department Of General Services				
194	5	11025	Office Services Spec	2	35	2	
194	6	11026	Office Services Supv	1	1	1	yes
194	6	62042	Housekeeping Supv Sr	11	7	2	
194	7	11027	Office Services Supv Sr	1	2	2	yes
194	7	11046	Program Support Tech Sr	1	7	3	yes
194	9	21251	Insurance Claims Adjuster	1	8	4	yes
194	9	35072	Graphic Designer	1	2	3	yes
194	11	61283	Bldgs And Grnds Supt A	1	1	2	yes
194	12	26142	St Procurement Spec Sr	13	10	2	
194	12	53073	Microbiologist Supv	1	1	4	yes
194	13	21034	Property And Facilities Coord	1	2	3	yes
194	13	26145	St Procurement Rev Analyst	4	2	3	
194	16	15046	Prog/Systems Development Supv	1	1	4	yes
199			Dept Conservation & Recreation				
199	10	82191	State Park Manager	3	2	2	
199	11	82192	St Park Mgr Sr	19	2	3	
199	11	83412	Environmental Spec Sr-Fld	14	4	2	
199	11	83442	Environmental Prog Analyst	3	4	2	
201			Department Of Education				
201	3	62033	Housekeeping Worker Sr	1	1	4	yes
201	3	62145	Food Production Worker A	1	1	3	yes
201	4	62122	Motor Vehicle Operator B	1	1	1	yes
201	5	62146	Food Production Worker B	2	1	2	
201	7	44075	H S Care Supervisor	1	2	4	yes
201	12	15043	Programmer/Analyst	2	3	1	
201	14	15044	Sr Programmer/Analyst	1	2	1	yes
201	14	22027	Grants Prog Admin Mgr	5	11	2	
201	19	31031	Ed Div Chief	3	3	3	
202			Library Of Virginia				
202	13	32151	St Lib Supv	1	1	1	yes
202	15	32152	St Lib Mgr	5	4	3	
204			College Of William And Mary				
204	7	11038	Executive Secretary Sr	1	9	4	yes
204	7	11046	Program Support Tech Sr	2	11	4	
204	8	15072	Computer Oper Tech Sr	2	3	2	
204	8	76041	Police Officer	9	3	2	
204	9	55011	Electronic Tech	3	2	3	
204	10	15082	Comp Network Support Tech Sr	1	2	1	yes
204	10	23421	Business Manager A	1	2	3	yes
204	12	22026	Grants Prog Admin Supv	1	1	4	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
204	12	23422	Business Manager B	2	2	1	
204	14	52206	Architectural Consultant	3	1	1	yes
204	16	15053	Computer Center Lead Engineer	1	1	1	yes
204	16	15068	Data Base Administrator	1	1	2	yes
206			Med College Of VA Hosp Auth				
206	2	62032	Housekeeping Lead Worker	1	1	2	yes
206	2	64081	Storekeeper Helper	6	1	4	yes
206	4	44341	Pharmacy Assistant A	8	18	3	
206	5	44106	Hosp Attendant Supervisor C	2	2	4	
206	5	44342	Pharmacy Assistant B	15	28	4	
206	6	22051	Hosp Accounts Collector A	2	17	4	
206	7	44074	H S Care Specialist Sr	2	1	4	yes
206	7	61383	Trades/Utilities Lead Wkr	16	1	3	yes
206	7	64084	Storekeeper Supv	2	1	4	yes
206	9	22012	Hosp Admin Assistant B	2	5	1	
206	9	23414	Accountant	1	3	4	yes
206	10	21385	Agency Mgmt Analyst	3	3	4	
206	12	15043	Programmer/Analyst	1	4	4	yes
206	12	23416	Accounting Manager A	1	1	2	yes
206	12	23422	Business Manager B	2	2	3	
206	12	23432	Budget Analyst Senior	1	1	1	yes
206	12	35253	Pub Rel Coord	1	3	2	yes
206	13	21387	Agency Mgmt Lead Analyst	1	2	2	yes
206	14	21388	Agency Mgmt Analyst Supv	1	1	2	yes
206	15	15045	Systems Analyst	2	1	2	yes
207			The University Of Virginia				
207	3	62152	Grounds Worker Sr	6	1	3	yes
207	3	76102	Security Lead Guard	20	4	2	
207	6	64083	Storekeeper Sr	8	1	2	yes
207	7	11038	Executive Secretary Sr	1	16	4	yes
207	8	21421	Admin Procedures Specialist	1	6	4	yes
207	8	35212	Television System Technician	1	1	1	yes
207	8	35251	Pub Rel Asst Spec	3	9	3	
207	9	26102	Buyer Spec	1	1	3	yes
207	9	34032	Research Spec Sr	1	2	1	yes
207	9	61353	Hvac Install & Repair Sr Tech	15	1	2	yes
207	11	34042	Audio Visual Supv	2	1	1	yes
207	12	15073	Computer Oper Supv	1	1	3	yes
207	12	22026	Grants Prog Admin Supv	1	4	1	yes
207	12	23422	Business Manager B	3	7	1	
207	12	43153	Rad Safety Spec	1	1	3	yes
207	14	23417	Accounting Manager B	1	3	1	yes
207	16	15046	Prog/Systems Development Supv	4	4	1	
207	17	15054	Computer Systems Chief Engr	4	1	2	yes
208			VPI & State University				
208	2	11023	Office Services Aide	2	1	3	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
208	2	62144	Food Operations Asst B	20	40	4	
208	4	82061	Wildlife Worker	1	1	4	yes
208	5	44383	Animal Care Tech B	1	14	1	yes
208	7	11046	Program Support Tech Sr	8	59	4	
208	7	35071	Graphic Artist	1	2	2	yes
208	9	23414	Accountant	3	20	2	
208	9	26102	Buyer Spec	1	2	4	yes
208	9	34104	Campus Center Director	2	1	2	yes
208	9	43112	Nutritionist	3	1	2	yes
208	10	35252	Pub Rel Spec	8	9	4	
208	11	26103	Buyer Senior	1	5	1	yes
208	11	27323	Personnel Practices Analyst	1	1	1	yes
208	11	44386	Animal Care Supv	2	1	2	yes
208	12	27343	Human Resource Generalist	3	3	1	
208	12	35253	Pub Rel Coord	6	10	2	
208	12	35291	Develop Pgm Coord	1	1	1	yes
208	14	15051	Computer Systems Engineer	15	2	4	
208	14	23417	Accounting Manager B	6	3	2	
208	14	23423	Business Manager C	2	1	2	yes
208	14	52243	Safety Engr Supv	1	2	1	yes
208	16	23443	Audit Manager-Internal	2	1	2	yes
212			Virginia State University				
212	2	76101	Security Guard	1	1	2	yes
212	5	43103	Laboratory Tech Sr	1	1	4	yes
212	7	11046	Program Support Tech Sr	1	5	1	yes
212	9	23414	Accountant	1	5	4	yes
212	9	34072	Instl Housing Manager A	5	5	2	
212	9	76051	Police Sergeant	1	1	4	yes
212	10	21385	Agency Mgmt Analyst	2	5	4	
212	10	35252	Pub Rel Spec	1	1	3	yes
212	11	21386	Agency Mgmt Analyst Sr	1	2	1	yes
213			Norfolk State University				
213	4	11067	Postal Assistant	1	1	4	yes
213	7	61372	Electrician	1	1	1	yes
213	8	76041	Police Officer	13	1	4	yes
213	10	15042	Programmer	2	1	4	yes
213	11	26103	Buyer Senior	1	2	3	yes
213	12	15043	Programmer/Analyst	2	3	2	
213	14	23423	Business Manager C	2	1	1	yes
214			Longwood College				
214	4	11067	Postal Assistant	1	1	1	yes
214	8	34012	Enrollment Services Spec	1	4	4	yes
214	8	76041	Police Officer	5	1	2	yes
216			James Madison University				
216	1	62031	Housekeeping Worker	10	60	4	

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
216	2	62144	Food Operations Asst B	1	6	2	yes
216	4	64082	Storekeeper	2	3	2	
216	6	61162	Phototypesetting Specialist	1	1	1	yes
216	6	76151	Dispatcher/Police	2	1	4	yes
216	7	21232	Theatre Production Specialist	1	1	2	yes
216	7	35321	Radio Prod Asst Spec	1	2	1	yes
216	8	13034	Store Operations Mgr	1	3	1	yes
216	8	34081	Student Services Spec	2	3	4	
216	8	43486	Food Operations Manager A	3	5	2	
216	9	31112	Ext Center Assistant B	1	2	1	yes
216	9	43072	Laboratory Spec Sr	2	1	2	yes
216	10	23421	Business Manager A	1	7	2	yes
216	10	34082	Student Services Coord	1	1	1	yes
216	11	26103	Buyer Senior	1	3	2	yes
216	11	34042	Audio Visual Supv	1	1	2	yes
216	13	21387	Agency Mgmt Lead Analyst	1	1	2	yes
216	13	23442	Auditor Senior-Internal	1	1	1	yes
216	14	23417	Accounting Manager B	2	2	1	yes
217			Radford University				
217	3	62145	Food Production Worker A	2	11	2	
217	4	11067	Postal Assistant	1	3	4	yes
217	4	62041	Housekeeping Supervisor	2	3	1	
217	8	32012	Library Assistant	2	8	3	
217	9	76051	Police Sergeant	2	1	2	yes
217	14	23417	Accounting Manager B	2	1	2	yes
221			Old Dominion University				
221	3	62033	Housekeeping Worker Sr	9	9	4	
221	6	62042	Housekeeping Supv Sr	3	1	4	yes
221	7	11038	Executive Secretary Sr	1	9	4	yes
221	8	35251	Pub Rel Asst Spec	1	2	4	yes
221	8	76041	Police Officer	15	4	2	
221	9	15081	Computer Network Support Tech	5	2	2	
221	10	61282	Bldgs And Grnds Supv B	1	1	2	yes
221	11	33021	Train And Development Coord	1	1	3	yes
221	12	15043	Programmer/Analyst	7	4	2	
221	14	15044	Sr Programmer/Analyst	4	5	4	
221	16	15046	Prog/Systems Development Supv	1	2	2	
222			Dept Of Professional & Occ Reg				
222	7	28302	Reg Bds Investigator A	2	4	1	
222	13	28292	Reg Bds Administrator Sr	4	2	1	
223			Dept Of Health Professions				
223	18	22044	Human Serv Prog Dir, Sr	1	1	2	
236			Virginia Commonwealth Univ				
236	5	43103	Laboratory Tech Sr	2	2	4	

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
236	6	11026	Office Services Supv	1	19	4	yes
236	6	62042	Housekeeping Supv Sr	2	1	4	yes
236	7	21232	Theatre Production Specialist	1	1	4	yes
236	8	15011	Installation & Repair Tech	4	1	2	yes
236	8	61083	Laboratory Mechanic C	5	1	1	yes
236	9	15081	Computer Network Support Tech	2	1	4	yes
236	9	22071	Grants Specialist	1	7	4	yes
236	9	47025	Vocational Employment Counsel	3	5	4	
236	9	76051	Police Sergeant	7	1	2	yes
236	10	15012	Installation & Repair Tech Sr	3	1	3	yes
236	10	35073	Graphic Design Supervisor	2	2	2	
236	11	35171	Telecommunications Sys Planner	1	3	3	yes
236	12	23422	Business Manager B	4	4	4	
236	12	27343	Human Resource Generalist	1	2	4	yes
236	13	43074	Laboratory Manager	1	2	3	yes
236	14	23423	Business Manager C	3	6	1	
236	14	52206	Architectural Consultant	4	2	1	
238			Virginia Museum Of Fine Arts				
238	9	35072	Graphic Designer	1	1	4	yes
239			Frontier Cultural Museum Of VA				
239	5	36263	Historic Site Crafts Demon	2	2	3	
239	6	11045	Program Support Tech	1	1	2	yes
241			Richard Bland College				
241	1	62031	Housekeeping Worker	2	2	2	
242			Christopher Newport University				
242	2	62032	Housekeeping Lead Worker	1	1	4	yes
242	8	76041	Police Officer	6	1	4	yes
242	9	76051	Police Sergeant	2	2	4	yes
245			St Council Of Higher Education				
245	15	15052	Computer Systems Senior Eng	1	1	3	yes
247			George Mason University				
247	4	64091	Warehouse Worker	1	1	4	yes
247	5	11025	Office Services Spec	3	35	4	
247	6	11026	Office Services Supv	2	1	3	yes
247	6	62042	Housekeeping Supv Sr	1	1	1	yes
247	7	34011	Enrollment Services Asst	1	3	4	yes
247	8	23413	Fiscal Technician Senior	3	26	4	
247	8	32051	Archivist A	1	1	4	yes
247	9	11052	Office Manager	1	4	4	yes
247	9	15081	Computer Network Support Tech	3	3	4	
247	9	26102	Buyer Spec	2	3	4	
247	10	34013	Enrollment Services Coord	2	5	1	
247	11	23415	Accountant Senior	5	9	2	

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
247	12	23432	Budget Analyst Senior	1	1	3	yes
247	13	23442	Auditor Senior-Internal	1	2	1	yes
247	13	52221	Capital Outlay Project Engr	4	1	2	yes
261			Virginia Community College Sys				
261	4	61081	Laboratory Mechanic A	2	1	2	yes
261	5	11036	Secretary Senior	1	173	2	yes
261	5	61156	Printing Press Oper A	2	4	1	
261	6	11026	Office Services Supv	1	9	2	yes
261	6	15071	Computer Oper Tech	1	5	4	yes
261	6	61157	Printing Press Oper B	4	4	4	
261	7	11046	Program Support Tech Sr	2	19	1	
261	7	35071	Graphic Artist	1	2	4	yes
261	8	15011	Installation & Repair Tech	8	3	2	
261	8	23413	Fiscal Technician Senior	1	46	2	yes
261	8	61185	Printing Serv Supv B	1	1	1	yes
261	9	31112	Ext Center Assistant B	2	1	1	yes
261	11	21386	Agency Mgmt Analyst Sr	1	1	1	yes
261	11	23415	Accountant Senior	2	6	1	
261	11	76053	Police Captain	1	1	3	yes
261	12	15013	Installation & Repair Supv	3	2	3	
261	12	52204	Architect	1	2	3	yes
261	15	15052	Computer Systems Senior Eng	3	1	4	yes
262			Dept Of Rehabilitative Service				
262	4	11024	Office Services Asst	1	5	1	yes
262	5	44072	H S Care Lead Worker	2	5	2	
262	9	47025	Vocational Employment Counsel	3	8	3	
262	10	45112	Clinical Social Worker	1	1	1	yes
262	11	22271	Human Services Prog Spec	4	13	1	
262	11	26031	Mktg And Sales Rep	2	3	3	
262	11	43031	Speech Pathologist	1	3	2	yes
262	12	22224	Human Services Supv-Field	2	3	3	
262	12	23416	Accounting Manager A	1	1	1	yes
262	13	22273	Human Services Prog Consultant	1	1	3	yes
262	13	23442	Auditor Senior-Internal	2	1	1	yes
262	14	45052	Psychologist Senior	2	1	1	yes
301			Dept Of Agri & Cons Services				
301	6	23412	Fiscal Technician	2	1	4	yes
301	9	81343	Seed Analyst Sr	5	2	4	
301	11	26031	Mktg And Sales Rep	6	3	4	
301	11	83442	Environmental Prog Analyst	1	1	1	yes
301	12	15043	Programmer/Analyst	1	5	4	yes
301	13	81132	Agri Program Supv	9	1	2	yes
301	15	26033	Mktg & Sales Conslt	7	4	2	
325			Department Of Business Asst				
325	13	26032	Mktg & Sales Rep Sr	1	1	2	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
325	14	37213	Comm Development Spec	3	1	2	yes
402			Marine Resources Commission				
402	5	11025	Office Services Spec	1	6	4	yes
403			Dept Game & Inland Fisheries				
403	12	15043	Programmer/Analyst	1	1	2	yes
403	12	33022	Train & Dev Coord Sr	1	2	3	yes
403	13	82074	Wildlife Biologist Mgr	15	1	2	yes
407			Virginia Port Authority				
407	8	76041	Police Officer	50	2	2	
407	11	76053	Police Captain	1	1	4	yes
407	15	26033	Mktg & Sales Conslt	2	2	3	
408			Chesapeake Bay Local Asst Dept				
408	11	83442	Environmental Prog Analyst	1	1	1	yes
408	12	52014	Environmental Engineer	1	1	2	yes
409			Dept. Mines, Minerals & Energy				
409	11	21386	Agency Mgmt Analyst Sr	2	1	2	yes
423			Dept Of Historic Resources				
423	10	32072	Architectural Historian	1	3	2	yes
423	12	32121	Preservation Prog Coor	3	1	4	yes
423	14	32123	Preservation Prog Mgr Sr	2	1	3	yes
425			Jamestown-Yorktown Foundation				
425	1	62031	Housekeeping Worker	1	2	3	yes
440			Dept Of Environmental Quality				
440	12	53013	Analytical Chemist Sr	3	1	3	yes
440	13	21387	Agency Mgmt Lead Analyst	2	1	1	yes
440	14	15044	Sr Programmer/Analyst	3	2	1	yes
440	14	15051	Computer Systems Engineer	1	1	1	yes
440	14	21613	Enforcement/Compliance Mgr	1	1	1	yes
440	15	43452	Toxicologist	1	1	3	yes
440	15	52017	Environmental Tech Serv Admin	14	2	3	
440	16	83017	Environmental Quality Asst Div	21	3	2	
501			Department Of Transportation				
501	2	11066	Postal Aide	1	1	2	yes
501	3	62033	Housekeeping Worker Sr	1	1	1	yes
501	4	11067	Postal Assistant	4	2	3	
501	4	63031	Hwy Equip Operator A	211	5	2	
501	4	64082	Storekeeper	7	1	2	yes
501	5	62124	Safety Services Patroller	66	1	2	yes
501	6	23412	Fiscal Technician	5	34	2	yes
501	7	35041	Photo Lab Tech	1	1	2	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
501	7	63063	Transportation Crew Leader	102	3	2	
501	8	15011	Installation & Repair Tech	3	1	2	
501	9	11052	Office Manager	1	4	2	yes
501	9	83411	Environmental Spec Fld	1	2	2	yes
501	11	27351	Eeo Analyst	1	5	2	yes
501	12	15043	Programmer/Analyst	31	6	2	
501	12	15073	Computer Oper Supv	1	2	2	yes
501	12	23432	Budget Analyst Senior	6	1	2	yes
501	12	23452	Auditor Senior-External	6	1	2	yes
501	12	27324	Personnel Practices Analyst Sr	6	12	2	
501	12	27332	Employee Relations Analyst Sr	1	1	2	yes
501	12	32065	Archaeologist Sr	2	2	2	
501	12	54077	Trans R O W Asst Prog Mgr	4	3	2	
501	13	21241	Policy Analyst	3	1	2	yes
501	13	23442	Auditor Senior-Internal	5	1	2	yes
501	13	23454	Audit Supv-External	1	1	4	yes
501	13	46162	Human Res D. P. User Liaison	12	2	4	
501	14	21388	Agency Mgmt Analyst Supv	5	1	2	yes
501	14	23423	Business Manager C	5	4	1	
501	14	83421	Environmental Mgr-Fld	7	2	3	
501	15	15052	Computer Systems Senior Eng	1	1	3	yes
501	18	51032	Trans District Admin	8	1	3	yes
601			Department Of Health				
601	5	11036	Secretary Senior	1	32	1	yes
601	5	23411	Fiscal Assistant	1	42	4	yes
601	6	23412	Fiscal Technician	2	21	1	
601	8	35051	Health Educator	1	14	1	yes
601	8	45103	Social Worker	1	17	4	yes
601	9	15081	Computer Network Support Tech	1	1	1	yes
601	9	22181	WIC Prog Repr	3	1	4	yes
601	9	43112	Nutritionist	6	76	4	
601	10	21385	Agency Mgmt Analyst	15	19	1	
601	10	23421	Business Manager A	1	7	2	yes
601	10	35052	Hlth Educator Sr	2	9	4	
601	11	21285	Statistical Analyst Sr	3	1	4	yes
601	11	37041	Planner	3	3	4	
601	11	42011	Pub Hlth Nurse	2	534	4	
601	11	45113	Clinical Social Work Supv	3	8	2	
601	12	22224	Human Services Supv-Field	2	2	4	
601	12	41232	Environmental Hlth Spec Consul	3	1	4	
601	13	21387	Agency Mgmt Lead Analyst	1	1	2	yes
601	13	27344	Human Resource Generalist Sr	1	1	3	yes
601	13	37042	Planner Sr	1	1	2	yes
601	14	15051	Computer Systems Engineer	3	2	2	
601	14	45052	Psychologist Senior	4	6	2	
601	15	22042	Human Services Prog Mgr	1	2	4	yes
601	15	27326	Personnel Practices Mgr	2	1	2	yes
601	21	42213	Pub Hlth Physician Spec	1	7	1	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
602			Dept Of Medical Asst Services				
602	10	21385	Agency Mgmt Analyst	1	1	4	yes
602	12	23416	Accounting Manager A	1	1	1	yes
602	12	23432	Budget Analyst Senior	2	1	1	yes
602	13	21241	Policy Analyst	2	3	3	
602	13	23503	Medicaid Reim Analyst	6	2	3	
602	13	46162	Human Res D. P. User Liaison	6	1	2	yes
602	14	23417	Accounting Manager B	1	1	3	yes
602	15	23506	Medicaid Cost Settlement Agent	4	2	2	yes
602	16	23443	Audit Manager-Internal	1	1	1	yes
602	18	22511	Medicaid Oper Dir Sr	1	2	2	yes
701			Department Of Corrections				
701	3	62123	Instl Chauffeur	1	1	2	yes
701	4	44332	Dental Assistant B	1	25	4	yes
701	5	43141	Rad Tech Asst	1	1	1	yes
701	5	64092	Warehouse Specialist	1	1	2	yes
701	6	11026	Office Services Supv	1	12	4	yes
701	8	26121	Materiel Mgmt Tech	1	1	1	yes
701	8	65124	Enterprise Prod Supv	29	10	2	
701	9	11052	Office Manager	2	28	2	
701	9	23414	Accountant	10	30	2	
701	9	43081	Medical Technologist	1	1	3	yes
701	9	76066	Instl Safety Spec	23	1	3	yes
701	10	65122	Corr Enterprises Supv	19	2	1	
701	11	23415	Accountant Senior	6	1	2	yes
701	11	26103	Buyer Senior	1	1	3	yes
701	11	72047	Corr Instit Operations Ofcr	7	18	2	
701	13	21241	Policy Analyst	1	1	1	yes
701	13	37042	Planner Sr	1	1	2	yes
701	14	15051	Computer Systems Engineer	2	3	4	
701	14	21291	Policy & Planning Supv	1	1	3	yes
701	14	23417	Accounting Manager B	2	1	1	yes
701	14	72033	Probation Mgr Sr	19	5	3	
701	14	72181	Corr Asst Warden	41	10	2	
701	16	42423	Dentist	10	3	4	
702			VA Dept F/T Visual Handicapped				
702	8	65124	Enterprise Prod Supv	1	1	1	yes
702	11	21386	Agency Mgmt Analyst Sr	1	1	2	yes
702	11	47321	Vis Handicapped Ed Coord	3	2	4	
702	12	61316	Industry Mgr	1	1	3	yes
702	14	22222	Hs Manager Sr-Fd	5	1	3	yes
720			Dept Ment Hlth & Ment Retard				
720	4	11067	Postal Assistant	2	2	1	yes
720	6	11026	Office Services Supv	3	3	3	
720	6	15071	Computer Oper Tech	1	3	4	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
720	7	43161	Occupational Therapist Asst	2	11	1	
720	7	44313	Physical Therapist Assistant	2	7	1	
720	8	15011	Installation & Repair Tech	3	3	4	
720	8	22112	Men Hosp Reimb Rep	4	4	2	
720	8	26101	Buyer	1	6	1	yes
720	8	32112	Medical Records Tech Sr	1	14	1	yes
720	8	62043	Housekeeping Manager	2	3	1	
720	9	26102	Buyer Spec	3	4	1	
720	9	43054	Recreation Therapist-Sr	6	16	2	
720	9	43112	Nutritionist	1	13	1	yes
720	10	15082	Comp Network Support Tech Sr	2	2	1	
720	10	22113	Men Hosp Reimb Supv A	1	1	1	yes
720	11	27361	Employment Supv	1	1	1	yes
720	11	41032	Utilization Review Analyst Sr	1	2	2	yes
720	11	45113	Clinical Social Work Supv	9	24	1	
720	12	22272	Human Services Prog Coord	3	5	1	
720	12	26123	Mat Mgmt Supv Sr	2	2	1	
720	12	27311	Human Res Ofcr-Fld	1	3	2	yes
720	12	43488	Food Operations Director A	2	2	4	
720	12	53201	Rehab Engr	3	2	3	
720	13	22273	Human Services Prog Consultant	7	16	2	
720	14	27312	Human Res Mgr-Fld	3	3	2	
720	15	22042	Human Services Prog Mgr	1	2	1	yes
720	15	27313	Human Res Mgr Sr-Fld	1	2	4	yes
720	15	43025	Physical Therapy Director	1	1	1	yes
720	16	22103	Men Hlth/Ment Ret Fac Adm C	2	2	2	
720	16	22133	Community Services Director	1	1	2	yes
720	16	23443	Audit Manager-Internal	1	1	3	yes
720	16	42145	Registered Nurse Manager A	3	12	3	
720	18	22044	Human Serv Prog Dir, Sr	1	1	3	yes
720	19	22105	Men Hlth/Retard Fac Dir A	6	2	1	
720	20	22106	Men Hlth/Retard Fac Dir B	4	1	2	yes
750			Dept Of Correctional Education				
750	7	34093	Instructional Assistant	20	9	1	
751			VA Dep F/T Deaf & Hard Of Hear				
751	6	11045	Program Support Tech	1	2	1	
765			Department Of Social Services				
765	5	23411	Fiscal Assistant	2	19	2	
765	6	11026	Office Services Supv	1	9	4	yes
765	8	21521	Legal Assistant	1	2	1	yes
765	11	26103	Buyer Senior	2	1	1	yes
765	14	15051	Computer Systems Engineer	5	2	1	
765	14	21388	Agency Mgmt Analyst Supv	1	3	3	yes
765	15	22042	Human Services Prog Mgr	5	9	1	
765	15	23418	Accounting Manager C	1	1	2	yes

*"Type of Problem" categories are explained in Chapter II.

Agy	Grd	Class	Job Title	No. of Males	No. of Females	Type of Problem*	Only 1 M or 1 F?
777			Department Of Juvenile Justice				
777	6	64083	Storekeeper Sr	6	1	4	yes
777	7	44181	Corr Nurse Tech	2	6	2	
777	8	43522	Volunteer Services Dir	1	2	2	yes
777	11	23415	Accountant Senior	1	1	4	yes
777	13	22273	Human Services Prog Consultant	3	1	1	yes
777	14	21242	Policy Analyst Senior	1	1	2	yes
777	15	45061	Psychology Supervisor	3	1	1	yes
777	15	72034	Probation Director	12	2	2	
777	15	72173	Institution Supt Sr	4	2	2	
942			VA Museum Of Natural History				
942	8	43071	Laboratory Specialist	1	1	4	yes
942	9	35072	Graphic Designer	1	1	4	yes
968			Commission On Local Government				
968	14	21242	Policy Analyst Senior	1	1	4	yes
999			Dept Alcoholic Beverag Control				
999	7	11046	Program Support Tech Sr	1	7	1	yes
999	7	76012	Security Ofcr Sr	2	1	2	yes
999	10	15042	Programmer	1	1	1	yes
999	11	23415	Accountant Senior	2	2	2	
TOTAL				2116	2854		

236 = Job classes up to Grade 10
246 = Job classes Grade 11 & up

COUNTS:

1 –	**M sal > F sal, but females have more yrs service:**	131
2 –	**M sal > F sal, annualized sal. diff. > 2.3%:**	161
3 –	**F sal > M sal, but males have more yrs service:**	72
4 –	**F sal > M sal, annualized sal. diff. > 2.3%:**	118
	Total	482

Comparison of only 1 male or only 1 female: 307

*"Type of Problem" categories are explained in Chapter II.

Exhibit H-2
Agencies with "Potential Problem" Job Classes

Agency	# Job Classes	# "Potential Problem Cases"	% "Potential Problem Cases"	Male Salary > Female Salary	%	Female Salary > Male Salary	%
Dept Ment Hlth & Ment Retard	344	35	10	26	8	9	3
Department Of Transportation	297	30	10	24	8	6	2
Department Of Health	210	25	12	13	6	12	6
Department Of Corrections	270	23	9	14	5	9	3
VPI & State University	218	22	10	15	7	7	3
Med College Of VA Hosp Auth	152	20	13	8	5	12	8
James Madison University	198	19	10	16	8	3	2
The University Of Virginia	256	18	7	11	4	7	3
Virginia Commonwealth Univ	254	18	7	6	2	12	5
Virginia Community College Sys	185	18	10	11	6	7	4
George Mason University	171	15	9	5	3	10	6
Department Of General Services	138	13	9	6	4	7	5
College Of William And Mary	156	12	8	7	4	5	3
Dept Of Rehabilitative Service	146	12	8	8	5	4	3
Old Dominion University	171	11	6	5	3	6	4
Department Of State Police	113	10	9	7	6	3	3
Dept Of Medical Asst Services	66	10	15	6	9	4	6
Department Of Juvenile Justice	124	9	7	7	6	2	2
Virginia State University	98	9	9	4	4	5	5
Department Of Education	96	9	9	5	5	4	4
Department Of Motor Vehicles	142	8	6	6	4	2	1
Department Of Social Services	99	8	8	6	6	2	2
Dept Of Environmental Quality	71	8	11	5	7	3	4
Norfolk State University	130	7	5	3	2	4	3
Virginia Employment Commission	99	7	7	4	4	3	3
Dept Of Agri & Cons Services	93	7	8	3	3	4	4
Radford University	151	6	4	4	3	2	1
Department Of Taxation	88	6	7	3	3	3	3
Dept Of Criminal Justice Svcs	57	5	9	4	7	1	2
VA Dept F/T Visual Handicapped	40	5	13	2	5	3	8
Department Of The Treasury	32	5	16	3	9	2	6
Dept Alcoholic Beverag Control	95	4	4	4	4		0
Dept Of Information Technology	80	4	5	3	4	1	1
Dept Conservation & Recreation	69	4	6	3	4	1	1
Department Of Military Affairs	58	4	7	3	5	1	2
Department Of Accounts	39	4	10	1	3	3	8
Longwood College	93	3	3	2	2	1	1
Christopher Newport University	71	3	4		0	3	4
Dept Game & Inland Fisheries	60	3	5	2	3	1	2
Dept Of Labor And Industry	50	3	6	3	6		0
Dept Of Personnel And Training	33	3	9	1	3	2	6
Virginia Port Authority	32	3	9	1	3	2	6
Dept Of Housing And Comm Dev	29	3	10	3	10		0
Dept Of Historic Resources	18	3	17	1	6	2	11
Library Of Virginia	44	2	5	1	2	1	2
Dept Of Professional & Occ Reg	37	2	5	2	5		0
VA Museum Of Natural History	21	2	10		0	2	10
Frontier Cultural Museum Of VA	20	2	10	1	5	1	5
Dept Of Planning And Budget	17	2	12	2	12		0
Department Of Business Asst	14	2	14	2	14		0
Chesapeake Bay Local Asst Dept	11	2	18	2	18		0
Dept. Mines, Minerals & Energy	66	1	2	1	2		0
Virginia Museum Of Fine Arts	56	1	2		0	1	2
Jamestown-Yorktown Foundation	46	1	2		0	1	2
Marine Resources Commission	45	1	2		0	1	2
The Science Museum Of Virginia	41	1	2	1	2		0
Dept Of Health Professions	35	1	3	1	3		0
Dept Of Correctional Education	28	1	4	1	4		0
Richard Bland College	23	1	4	1	4		0
St Council Of Higher Education	16	1	6		0	1	6
Department For The Aging	14	1	7	1	7		0
Department Of Veterans Affairs	12	1	8	1	8		0
VA Dep F/T Deaf & Hard Of Hear	5	1	20	1	20		0
Dept Of The St Internal Audit	4	1	25		0	1	25
Commission On Local Government	4	1	25		0	1	25
Total	5951	482		292		190	

Appendix I

Analysis of Salaries in Male- and Female-Dominated Job Classes

Grade 1

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
SMALL JOB CLASSES						14145.50	1879.50	2	6.5	0.00	14,145.50
44101	Hosp Attendant A	14975.75	2098.07	4	11.0	15995.10	1783.48	21	16	16.00	15,832.00
62061	Laundry Worker	15069.64	1786.08	14	10.4	14374.77	2351.32	48	10.8	22.58	14,531.68
	Average	**15,022.70**		18		**14,838.46**		71			**14,836.39**
	Standard Deviation										**721.44**
	Weighted Average	**15,048.78**				**14,847.56**					**14,888.26**
	Weighted Std. Dev.										**2,106.44**
	Wtd. Avg. Years of Service				10.5				12.2		**11.9**
Non Dominated											
62143	Food Operations Asst A	14229.22	2372.80	50	10.4	14415.47	2264.00	112	11.3	30.86	14,357.99
62031	Housekeeping Worker	14236.27	2107.93	476	9.1	14351.77	2325.88	972	10.2	32.87	14,313.80
	Average	**14,232.75**		526		**14,383.62**		1,084			**14,335.89**
	Standard Deviation										**22.09**
	Weighted Average	**14,235.60**				**14,358.35**					**14,318.25**
	Weighted Std. Dev.										**2,258.60**
	Wtd. Avg. Years of Service				9.2				10.3		**10.0**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
62052	Tailor					15333.08	2346.03	12	8.8	0.00	15,333.08
SMALL JOB CLASSES		13409.00	0.00	1	6.00	16479.40	1388.30	10	7.39	9.09	16,200.27
11023	Office Services Aide	13397.43	1691.69	12	5.8	15458.07	2916.13	59	10.1	16.90	15,109.79
62144	Food Operations Asst B	16416.54	2486.63	60	10.6	16667.55	3990.04	244	13.2	0.00	15,333.08
43101	Laboratory Aide	17020.33	703.81	3	11.3	16317.25	2312.16	12	13.7	0.00	15,333.08
62062	Laundry Lead Worker	16496.20	2404.03	5	14.4	14126.33	2183.82	14	12.0	26.32	14,749.98
	Average	**15,347.90**		81		**15,730.28**		351			**15,343.21**
	Standard Deviation										**436.13**
	Weighted Average	**15,959.41**				**16,299.93**					**16,236.08**
	Weighted Std. Dev.										**3,309.27**
	Wtd. Avg. Years of Service				10.1				12.3		**11.9**
Non Dominated											
62032	Housekeeping Lead Worl	15454.28	2417.74	73	8.7	16673.73	2521.26	113	13.1	39.25	16,195.13
44102	Hosp Attendant B	15098.14	2319.77	43	6.6	15142.48	2390.87	44	6.9	39.25	16,195.13
11066	Postal Aide	16253.55	2040.33	11	9.6	14906.18	2060.07	11	8.5	50.00	15,579.87
76101	Security Guard	15042.64	1614.08	39	7.2	15089.60	2035.85	20	9.4	66.10	15,058.56
	Average	**15,462.15**		166		**15,453.00**		188			**15,757.17**
	Standard Deviation										**475.16**
	Weighted Average	**15,318.28**				**16,043.41**					**15,703.38**
	Weighted Std. Dev.										**2,302.59**
	Wtd. Avg. Years of Service				7.9				11.0		**9.5**
Male Dominated											
62121	Motor Vehicle Operator A	16518.10	1970.82	41	12.8	16321.57	2103.76	7	14.1	85.42	16,489.44
63061	Trans Maintenance Work	18078.33	2332.87	39	15.2	15327.00	0.00	2	0.0	95.12	17,944.12
64081	Storekeeper Helper	15031.27	2979.61	11	5.6	14659.00	0.00	1	1.0	91.67	15,000.25
62151	Grounds Worker	16129.13	3155.05	128	7.6	16846.50	4492.12	4	8.3	96.97	16,150.87
	Average	**16,439.21**		219		**15,788.52**		14			**16,396.17**
	Standard Deviation										**1,050.43**
	Weighted Average	**16,493.93**				**16,210.71**					**16,476.91**
	Weighted Std. Dev.										**2,751.51**
	Wtd. Avg. Years of Service				9.8				9.5		**9.8**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
34121	Teacher Aide	14673.50	653.50	2	0.5	15373.81	1552.05	37	3.5	5.13	15,337.90
44292	Sterile Supply Wkr Sr	16490.20	2506.86	5	3.0	16768.37	2663.57	27	9.0	15.63	16,724.91
62145	Food Production Worker	17182.03	2987.40	33	7.9	17372.09	2911.25	117	11.2	22.00	17,330.28
	Average	**16,115.24**		40		**16,504.76**		181			**16,464.36**
	Standard Deviation										**833.99**
	Weighted Average	**16,970.12**				**16,873.54**					**16,891.02**
	Weighted Std. Dev.										**2,635.22**
	Wtd. Avg. Years of Service				6.9				9.3		**8.9**
Non Dominated											
62033	Housekeeping Worker Sr	17597.83	3214.77	30	10.2	17387.94	2987.00	65	12.0	31.58	17,454.22
44103	Hosp Attendant Specialist	16832.71	2502.17	7	11.0	16656.00	2473.56	8	12.0	46.67	16,738.46
SMALL JOB CLASSES		18571.50	1597.21	14	15.59	18389.00	948.25	12	12.56	53.85	18,487.27
	Average	**17,667.35**		51		**17,477.65**		85			**17,559.99**
	Standard Deviation										**717.85**
	Weighted Average	**17,760.10**				**17,460.38**					**17,572.77**
	Weighted Std. Dev.										**2,659.13**
	Wtd. Avg. Years of Service				11.8				12.1		**12.0**
Male Dominated											
62123	Instl Chauffeur	17414.16	2248.65	31	9.1	16663.50	4661.14	6	4.7	83.78	17,292.43
76102	Security Lead Guard	16543.81	2624.66	26	8.5	15816.20	2805.44	5	7.4	83.87	16,426.45
61381	Trades/Utilities Wkr	17235.82	2619.25	130	9.1	16417.17	2524.61	12	7.8	91.55	17,166.64
62152	Grounds Worker Sr	17613.62	2991.80	73	9.6	17502.60	2703.25	5	7.0	93.59	17,606.50
63161	Vehicle Service Attendant	17210.27	1603.11	11	6.8					100.00	17,210.27
	Average	**17,203.54**		271		**16,599.87**		28			**17,140.46**
	Standard Deviation										**388.76**
	Weighted Average	**17,290.56**				**16,556.47**					**17,221.82**
	Weighted Std. Dev.										**2,676.57**
	Wtd. Avg. Years of Service				9.1				6.9		**8.9**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
44332	Dental Assistant B	14989.00	0.00	1	0.0	19305.72	2498.55	82	8.6	1.20	19,253.71
22092	Pub Hlth Outreach Worke	18729.00	0.00	1	2.0	17677.74	2198.19	54	8.7	1.82	17,696.85
11035	Secretary	19269.50	2137.50	2	0.0	19150.93	3188.82	86	7.8	2.27	19,153.62
11024	Office Services Asst	17947.01	2713.25	88	6.3	18673.50	2809.21	1475	8.7	5.63	18,632.60
44191	Nursing Assistant	18318.00	2094.86	7	9.6	17408.69	1564.99	108	11.4	6.09	17,464.04
44071	H S Care Worker	17876.71	2309.49	487	9.2	17390.27	2300.52	2665	9.7	15.45	17,465.43
12043	Photocopy Technician	19986.78	2090.42	9	15.4	19070.62	2409.94	42	11.7	17.65	19,232.30
43102	Laboratory Technician	18117.12	2774.95	17	7.1	17793.95	2533.17	61	8.0	21.79	17,864.38
44341	Pharmacy Assistant A	15587.75	289.08	8	2.5	17548.59	2328.67	27	4.4	22.86	17,100.40
61293	Barber/Cosmetologist	20177.67	2420.19	3	20.0	20976.50	2287.48	10	18.0	23.08	20,792.15
44314	Physical/Occup Therapist	20052.63	3131.54	8	13.8	21328.65	1413.40	26	16.9	23.53	21,028.41
	Average	**18,277.38**		631		**18,756.83**		4,636			**18,698.54**
	Standard Deviation										**1,276.14**
	Weighted Average	**17,938.68**				**17,920.14**					**17,922.36**
	Weighted Std. Dev.										**2,449.70**
	Wtd. Avg. Years of Service				8.8				9.4		**9.3**
Non Dominated											
13031	Store Clerk	17074.83	2511.19	12	5.0	16579.30	1764.01	27	4.3	30.77	16,731.77
62041	Housekeeping Supervisor	19362.08	2459.97	36	13.8	20282.87	2421.23	55	17.8	39.56	19,918.60
11067	Postal Assistant	18911.49	2614.39	63	10.1	18909.84	2802.92	77	10.0	45.00	18,910.58
SMALL JOB CLASSES		18009.23	1464.14	39	7.4	17935.97	1092.86	35	8.65	52.70	17,974.58
56076	Toll Collector	21536.50	1435.02	58	9.4	21737.78	1516.57	46	9.4	55.77	21,625.53
76132	Bridge Tunnel Patroller	16278.85	1973.73	65	4.0	17150.58	2148.66	45	7.0	59.09	16,635.47
82131	Forestry Worker	18997.09	2161.63	11	15.0	17077.60	870.72	5	10.8	68.75	18,397.25
	Average	**18,595.72**		284		**18,524.85**		290			**18,599.11**
	Standard Deviation										**1,637.55**
	Weighted Average	**18,703.97**				**18,979.72**					**18,843.28**
	Weighted Std. Dev.										**2,058.33**
	Wtd. Avg. Years of Service				8.6				10.2		**9.4**

le Dominated											
64082	Storekeeper	17805.33	2456.10	81	9.3	18374.15	3293.09	32	11.4	71.68	17,966.41
62122	Motor Vehicle Operator B	18980.12	2506.85	41	10.3	17272.05	1793.67	4	10.0	91.11	18,828.29
61371	Electrician Asst	19258.27	3278.62	11	9.9	15327.00	0.00	1	0.0	91.67	18,930.66
64091	Warehouse Worker	18525.97	2588.21	62	11.2	17435.20	2378.17	5	5.8	92.54	18,444.57
61501	Plumber/Steamfitter Asst	17103.31	2412.90	13	7.4	16025.00	0.00	1	12.0	92.86	17,026.29
61301	Carpenter Asst	18981.67	2646.50	18	9.7	15327.00	0.00	1	3.0	94.74	18,789.32
63031	Hwy Equip Operator A	19586.39	3543.31	238	11.1	16330.00	746.19	5	5.4	97.94	19,519.39
56061	River Ferry Crewmember	18465.18	2056.46	11	13.0					100.00	18,465.18
82021	Wildlife Worker I	19345.63	2856.14	19	8.7					100.00	19,345.63
	Average	**18,672.43**		494		**16,584.34**		49			**18,590.64**
	Standard Deviation										**708.53**
	Weighted Average	**18,982.04**				**17,807.47**					**18,876.04**
	Weighted Std. Dev.										**2,993.80**
	Wtd. Avg. Years of Service				10.5				9.7		**10.5**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
nale Dominated											
43111	Nutritionist Asst					18160.46	1555.91	24	6.0	0.00	18,160.46
11036	Secretary Senior	22024.89	4513.76	9	3.1	22085.04	3099.69	1206	12.6	0.74	22,084.59
11025	Office Services Spec	20173.19	2991.99	164	8.3	20681.11	2935.48	3016	10.1	5.16	20,654.92
44198	Medication Asst	22021.71	2791.94	14	4.4	21694.44	1766.46	117	15.2	10.69	21,729.42
23411	Fiscal Assistant	22564.79	3372.57	121	15.6	20528.12	3025.93	490	9.9	19.80	20,931.45
44072	H S Care Lead Worker	20306.66	2822.04	110	13.2	20163.79	2715.63	412	13.5	21.07	20,193.90
44342	Pharmacy Assistant B	19321.16	2270.05	19	6.4	20892.58	2792.86	59	10.9	24.36	20,509.80
43103	Laboratory Tech Sr	20218.08	2985.90	24	12.5	20858.19	3067.91	63	9.3	27.59	20,681.61
	Average	**20,947.21**		461		**20,632.97**		5,387			**20,618.27**
	Standard Deviation										**1,102.32**
	Weighted Average	**20,892.28**				**20,957.10**					**20,951.99**
	Weighted Std. Dev.										**2,941.00**
	Wtd. Avg. Years of Service				11.3				11.0		**11.0**
n Dominated											
62146	Food Production Worker I	21406.99	3449.83	43	14.1	20759.35	3435.26	83	12.1	34.13	20,980.37
44383	Animal Care Tech B	20187.78	2165.09	9	11.0	18772.07	1974.46	15	6.1	37.50	19,302.96
61156	Printing Press Oper A	22386.43	2505.06	7	12.3	21644.29	2093.14	7	15.1	50.00	22,015.36
44081	Psy Forensic Worker	19201.66	2795.00	99	9.3	18892.43	2907.02	84	9.2	54.10	19,059.72
ALL JOB CLASSES		21237.1204	1397.28	25	13.3	21999.29412	1903.49	17	15.2	59.52	21,545.62
36263	Historic Site Crafts Demo	17200.73	796.40	15	2.7	17097.29	838.43	7	2.4	68.18	17,167.82
	Average	**20,270.12**		198		**19,860.79**		213			**20,011.97**
	Standard Deviation										**1,673.43**
	Weighted Average	**19,943.43**				**19,890.85**					**19,916.18**
	Weighted Std. Dev.										**2,726.91**
	Wtd. Avg. Years of Service				10.5				10.6		**10.5**
le Dominated											
13032	Store Clerk Sr	23391.57	2926.28	54	16.5	22006.45	2634.88	20	12.1	72.97	23,017.21
63101	Trans Sign Fabricator	19209.00	2893.36	15	8.1	18980.75	2387.75	4	6.0	78.95	19,160.95
64092	Warehouse Specialist	21551.94	3033.63	48	14.2	18343.33	2511.69	3	5.7	94.12	21,363.20
81022	Agri Tech B	21819.97	2806.00	33	15.6	23929.00	0.00	1	26.0	97.06	21,882.00

63032	Hwy Equip Operator B	22539.42	3688.36	182	14.4	21302.00	4022.78	5	8.4	97.33	22,506.33
62124	Safety Services Patroller	20490.55	3060.34	76	6.0	16755.00	0.00	1	3.0	98.70	20,442.04
	Average	**21,500.41**		408		**20,219.42**		34			**21,395.29**
	Standard Deviation										**1,291.25**
	Weighted Average	**21,973.75**				**21,125.76**					**21,908.52**
	Weighted Std. Dev.										**3,242.98**
	Wtd. Avg. Years of Service				13.0				10.4		**12.8**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
male Dominated											
11037	Executive Secretary	22592.71	2463.24	7	6.7	24879.49	3146.60	987	13.4	0.70	24,863.39
44051	Practical Nurse A	25019.00	0.00	1	10.0	21935.72	3245.11	29	12.7	3.33	22,038.50
42401	Univ Dental Asst	20935.00	0.00	1	11.0	21721.67	2597.47	15	4.5	6.25	21,672.50
11045	Program Support Tech	22215.62	3530.90	122	7.1	23200.81	3206.19	1733	10.9	6.58	23,136.02
22051	Hosp Accounts Collector	19587.00	436.00	2	7.0	23054.18	2750.43	22	11.4	8.33	22,765.25
23412	Fiscal Technician	23162.33	3805.55	70	7.7	22723.64	3175.64	769	10.4	8.34	22,760.24
11026	Office Services Supv	23209.65	3623.73	20	10.4	24606.71	3048.76	217	15.1	8.44	24,488.81
76151	Dispatcher/Police	19952.00	2600.36	12	3.9	20909.55	2721.88	44	5.8	21.43	20,704.36
44073	H S Care Specialist	23276.25	3175.99	36	11.5	23686.86	2857.25	110	13.0	24.66	23,585.61
13033	Store Operations Supv	20515.11	1959.66	9	4.2	20240.72	2368.91	25	6.3	26.47	20,313.35
34051	Instructional Ctr Tech	21975.75	2474.54	8	4.8	22999.47	2970.86	19	10.4	29.63	22,696.15
	Average	**22,040.04**		288		**22,723.53**		3,970			**22,638.56**
	Standard Deviation										**1,348.16**
	Weighted Average	**22,489.41**				**23,555.40**					**23,483.30**
	Weighted Std. Dev.										**3,165.73**
	Wtd. Avg. Years of Service				7.8				11.6		**11.4**
n Dominated											
43485	Food Operations Mgr Ass	21097.21	3482.27	16	5.3	23558.98	4510.46	37	15.4	30.19	22,815.80
15071	Computer Oper Tech	22055.26	2973.48	46	9.1	23769.94	3227.21	79	13.1	36.80	23,138.94
25081	ABC Store Manager Assi	23975.50	3635.30	32	13.1	21584.60	3305.03	40	6.5	44.44	22,647.22
62042	Housekeeping Supv Sr	22074.00	3686.42	38	10.8	23195.98	3247.81	41	16.0	48.10	22,656.29
1ALL	JOB CLASSES	21379.52	1975.69	52	9.7	22958.83	1618.66	41	12.1	55.91	22,075.77
56012	Toll Collections Supervisc	26547.91	1957.74	11	10.8	26444.40	1675.06	5	11.0	68.75	26,515.56
76011	Security Ofcr	20467.84	3275.82	51	5.1	18895.04	2339.40	23	3.6	68.92	19,979.00
	Average	**22,513.89**		246		**22,915.40**		266			**22,832.66**
	Standard Deviation										**1,790.44**
	Weighted Average	**21,974.58**				**22,827.24**					**22,417.57**
	Weighted Std. Dev.										**3,039.05**
	Wtd. Avg. Years of Service				9.0				11.9		**10.5**

Male Dominated											
61157	Printing Press Oper B	23311.30	3030.17	23	14.4	25728.88	2001.67	8	18.0	74.19	23,935.19
63082	Weigh Party Technician	23939.29	4520.86	70	13.6	23167.74	4722.00	23	10.3	75.27	23,748.48
54022	Engineering Tech II	21083.69	2563.28	48	8.2	22599.50	3807.23	12	6.4	80.00	21,386.85
61111	Locksmith	22040.00	2566.36	16	8.0	19405.25	1266.01	4	7.3	80.00	21,513.05
64083	Storekeeper Sr	22204.82	3025.98	101	10.9	21445.54	2644.23	24	10.2	80.80	22,059.04
61082	Laboratory Mechanic B	22884.73	4301.16	33	6.0	21454.00	2282.39	6	4.2	84.62	22,664.62
82101	St Park Ranger	21653.21	3248.32	34	8.4	21574.20	3428.71	5	7.4	87.18	21,643.08
61402	Painter	24130.24	3461.28	80	14.2	19624.67	1305.59	3	3.7	96.39	23,967.39
62153	Grounds Lead Worker	22322.04	3003.63	53	11.4	18316.00	0.00	1	6.0	98.15	22,247.85
63033	Hwy Equip Operator C	25098.88	3659.20	80	15.5	17913.00	0.00	1	0.0	98.77	25,010.17
61382	Trades/Utilities Sr Wkr	21788.95	3177.37	168	10.0	20858.50	2542.50	2	4.0	98.82	21,778.00
61432	Boiler Operator	21296.83	2590.50	109	7.6	19151.00	0.00	1	9.0	99.09	21,277.32
61351	Hvac Install & Repair Ass	20937.39	2995.47	23	6.1					100.00	20,937.39
63071	Bridge Construction Repa	24918.44	4021.27	43	12.4					100.00	24,918.44
	Average	**22,686.42**		881		**20,936.52**		90			**22,649.06**
	Standard Deviation										**1,344.33**
	Weighted Average	**22,664.03**				**22,164.03**					**22,617.68**
	Weighted Std. Dev.										**3,268.52**
	Wtd. Avg. Years of Service				10.8				9.2		**10.7**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
24341	Claims Tech					27451.50	2253.57	18	16.7	0.00	27,451.50
32111	Medical Records Tech					26460.58	2332.16	12	13.0	0.00	26,460.58
27321	Personnel Asst	18354.42	0.00	1	0.0	25733.95	3301.19	111	11.6	0.89	25,668.06
11038	Executive Secretary Sr	23493.60	3846.35	5	7.4	27425.79	3068.64	314	13.9	1.57	27,364.16
34011	Enrollment Services Asst	21245.60	1106.38	5	1.8	25274.87	3684.92	132	13.3	3.65	25,127.82
23021	Tax Technician	19582.00	0.00	1	0.0	26324.29	3106.69	24	15.5	4.00	26,054.60
44052	Practical Nurse B	23434.00	2998.39	20	7.3	24879.01	2979.27	346	13.2	5.46	24,800.05
31111	Ext Center Assistant A	20935.00	0.00	1	3.0	25493.29	2709.92	17	11.1	5.56	25,240.05
11027	Office Services Supv Sr	26901.44	3761.55	9	11.2	26984.01	3390.19	125	17.2	6.72	26,978.46
44053	Psychiatric Practical Nurs	24571.27	3159.66	11	13.7	24471.66	3525.43	123	11.1	8.21	24,479.84
73014	Dmv Customer Svcs Gen	23843.44	2384.10	48	3.3	24342.80	3533.83	475	8.3	9.18	24,296.97
22052	Hosp Accounts Collector	24918.83	2094.25	6	9.5	25271.76	3518.23	51	11.8	10.53	25,234.61
44181	Corr Nurse Tech	28526.25	2509.37	20	8.5	26504.28	3609.22	162	6.5	10.99	26,726.47
11046	Program Support Tech Si	24080.56	3819.08	118	6.6	25527.05	3629.37	765	12.1	13.36	25,333.75
43161	Occupational Therapist A	30916.50	344.50	2	1.0	24878.92	2630.65	12	14.3	14.29	25,741.43
34102	Facilities Coordinator	21454.50	1431.50	2	0.5	26457.56	2875.80	9	15.8	18.18	25,547.91
44075	H S Care Supervisor	26761.34	3056.28	38	17.5	25787.54	3367.37	112	17.2	25.33	26,034.24
43053	Recreation Therapist	25226.08	3921.11	13	6.4	24776.06	3611.73	36	4.9	26.53	24,895.45
44384	Animal Care Tech C	25379.67	2973.07	6	15.5	22740.00	2391.81	15	6.1	28.57	23,494.19
	Average	**24,095.56**		306		**25,620.26**		2,859			**25,627.90**
	Standard Deviation										**1,024.39**
	Weighted Average	**24,743.67**				**25,534.77**					**25,458.29**
	Weighted Std. Dev.										**3,375.40**
	Wtd. Avg. Years of Service				8.0				11.8		**11.5**
Non Dominated											
35071	Graphic Artist	23535.83	1482.50	6	8.7	24691.85	3294.19	13	8.4	31.58	24,326.79
44074	H S Care Specialist Sr	26022.56	3672.49	16	13.8	26098.31	3057.10	26	16.7	38.10	26,069.45
34093	Instructional Assistant	24984.61	3462.14	50	9.1	25299.88	4227.76	75	8.5	40.00	25,173.77
45021	Psychologist Assistant	26267.57	2346.42	7	10.3	24601.25	2537.53	8	6.1	46.67	25,378.87
SMALL JOB CLASSES		25057.44	2088.15	85	10.2	24275.52	2100.21	79	8.9	51.83	24,680.78
61184	Printing Serv Supv A	25574.14	2773.12	7	11.7	24219.50	3127.97	6	10.8	53.85	24,948.92
43501	Corr Food Ser Supv	23654.61	3423.61	119	6.7	21967.28	2881.42	94	5.4	55.87	22,909.97
25082	ABC Store Manager Asst	25498.63	3880.90	56	12.0	23146.44	3487.22	43	6.4	56.57	24,476.97
76133	Bridge Tunnel Patroller Si	21016.83	1360.69	12	6.9	21604.88	1873.38	8	8.4	60.00	21,252.05

Grade 7

56041	Traffic Controller	24336.58	3461.76	33	8.3	23648.65	4374.45	20	9.2	62.26	24,076.98
54023	Engineering Tech III	25358.75	2898.61	20	14.7	25039.00	2464.84	11	12.5	64.52	25,245.29
72017	Corr Officer	20163.97	1346.10	625	0.3	19959.50	961.88	313	0.4	66.63	20,095.74
54121	Hwy Permits & Subdivisio	25429.56	2918.92	9	8.2	25699.25	3500.57	4	10.3	69.23	25,512.54
43512	Recreation Supervisor B	24859.60	3036.65	30	11.2	25650.31	4850.95	13	9.1	69.77	25,098.65
	Average	**24,411.48**		1,075		**23,992.97**		713			**24,231.91**
	Standard Deviation										**1,637.53**
	Weighted Average	**22,029.79**				**22,190.70**					**22,093.96**
	Weighted Std. Dev.										**2,124.69**
	Wtd. Avg. Years of Service				4.2				4.8		**4.4**
Male Dominated											
72262	Juvenile Correctional Offi	20994.24	2021.33	369	3.8	20834.73	2031.42	135	4.5	73.21	20,951.51
34101	Student Act Bldg Manage	27091.44	5228.80	9	11.4	25899.33	2499.81	3	13.3	75.00	26,793.41
64084	Storekeeper Supv	24643.20	2999.40	50	14.3	26776.75	3147.63	8	17.9	86.21	24,937.48
62082	Laundry Mgr	24049.67	3593.57	15	10.5	25087.50	4152.50	2	13.0	88.24	24,171.77
76012	Security Ofcr Sr	24229.56	3446.36	66	8.1	23895.43	2329.92	7	4.7	90.41	24,197.52
64093	Warehouse Supv	25131.44	2336.46	25	16.2	22146.50	739.50	2	10.0	92.59	24,910.33
61522	Water Sys Treat Plant Op	25311.57	3377.37	72	9.7	24386.50	2925.89	4	5.5	94.74	25,262.88
63063	Transportation Crew Leac	28571.24	4354.96	102	19.5	24225.00	2338.24	3	13.0	97.14	28,447.06
81101	Agricultural Supv	24589.22	3468.47	77	11.6	23841.50	2906.50	2	11.0	97.47	24,570.29
61372	Electrician	24218.37	3066.38	108	8.5	21910.50	975.50	2	8.5	98.18	24,176.41
61383	Trades/Utilities Lead Wkr	24740.08	3375.91	85	12.3	26748.00	0.00	1	8.0	98.84	24,763.43
61502	Plumber/Steamfitter	24282.19	2549.99	108	10.9	20023.00	0.00	1	5.0	99.08	24,243.11
61112	Locksmith Sr	25902.39	3594.66	18	12.4					100.00	25,902.39
61302	Carpenter	24110.40	2917.41	145	11.1					100.00	24,110.40
61392	Sheet Metal Worker	24591.84	3257.81	19	7.7					100.00	24,591.84
61403	Painter Lead	27787.89	2693.68	18	17.1					100.00	27,787.89
61492	Mason Plasterer	23539.27	3007.06	30	11.7					100.00	23,539.27
61511	Power Plant Oper Lead W	23349.45	2566.10	49	8.4					100.00	23,349.45
63181	Equip Repair Tech	23430.70	2946.30	128	11.2					100.00	23,430.70
82141	Forestry Asst	26057.45	2845.79	67	15.6					100.00	26,057.45
	Average	**24,831.08**		1,560		**23,814.56**		170			**24,809.73**
	Standard Deviation										**1,607.03**
	Weighted Average	**23,914.77**				**21,616.66**					**23,688.94**
	Weighted Std. Dev.										**2,816.18**
	Wtd. Avg. Years of Service				10.0				5.8		**9.6**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
12071	Administrative Staff Asst	21894.50	487.50	2	0.5	29912.10	3316.93	141	15.2	1.40	29,799.97
27341	Human Resource Asst	23929.00	0.00	1	3.0	28694.87	3563.44	23	11.7	4.17	28,496.29
35051	Health Educator	28596.00	0.00	1	0.0	25377.42	3338.11	22	1.8	4.35	25,517.36
21521	Legal Assistant	31261.00	0.00	1	0.0	27240.53	3405.61	15	7.1	6.25	27,491.81
43051	Music Therapist	26748.00	0.00	1	0.0	24530.36	3704.29	11	6.3	8.33	24,715.16
23413	Fiscal Technician Senior	25179.19	3477.46	53	7.6	26851.98	3541.93	569	12.9	8.52	26,709.44
26101	Buyer	28402.60	3150.84	5	11.2	25900.56	3015.45	52	12.5	8.77	26,120.04
53011	Analytical Chemist Asst	21407.00	0.00	1	0.0	22841.80	2360.00	10	1.1	9.09	22,711.36
36299	Visitor Services Supv	23929.00	0.00	1	1.0	23793.56	2242.62	9	3.2	10.00	23,807.10
32112	Medical Records Tech Sr	28378.00	3336.83	3	19.0	28175.03	2838.51	24	19.7	11.11	28,197.58
34081	Student Services Spec	24303.67	2309.54	6	1.5	26585.24	3594.60	46	9.7	11.54	26,321.98
45103	Social Worker	24229.70	3241.34	10	7.1	28027.07	4170.97	73	10.9	12.05	27,569.56
37121	Human Rights Advocate	27257.25	3386.35	4	7.0	26603.56	3315.59	27	11.4	12.90	26,687.91
34012	Enrollment Services Spec	23638.81	2402.11	21	3.4	26334.13	3681.69	121	10.4	14.79	25,935.53
23192	Tax Cust Svce Assoc Rej	21768.50	208.71	4	0.5	21935.82	335.09	22	0.9	15.38	21,910.08
35251	Pub Rel Asst Spec	24932.70	1980.48	10	5.8	25903.44	4069.30	54	7.1	15.63	25,751.76
32131	St Library Asst	22748.67	1215.75	3	0.3	24857.13	3298.20	15	8.1	16.67	24,505.72
21421	Admin Procedures Specl	22393.00	712.76	3	4.0	28850.36	4113.45	14	11.8	17.65	27,710.83
43522	Volunteer Services Dir	35236.84	8950.54	3	22.7	27677.08	4271.17	13	8.6	18.75	29,094.54
73015	Dmv Cust Svcs Generalis	30160.82	3197.14	39	16.9	29478.84	3777.69	167	15.3	18.93	29,607.95
32012	Library Assistant	26544.45	3601.58	62	11.3	27208.63	3586.39	259	13.9	19.31	27,080.35
22011	Hosp Admin Assistant A	28401.63	3395.93	8	16.8	29823.75	3237.44	28	17.2	22.22	29,507.72
15072	Computer Oper Tech Sr	26438.67	3849.26	33	10.9	27942.46	3278.70	94	16.3	25.98	27,551.71
23022	Tax Examiner	25454.42	3303.18	12	8.8	28401.10	3691.88	31	18.1	27.91	27,578.77
	Average	**25,968.06**		287		**26,789.45**		1,840			**26,682.52**
	Standard Deviation										**2,046.64**
	Weighted Average	**26,339.97**				**27,370.84**					**27,231.75**
	Weighted Std. Dev.										**3,471.07**
	Wtd. Avg. Years of Service				9.8				12.8		**12.4**
Non Dominated											
24202	Labor Market Analyst	28588.75	3995.33	4	14.8	27846.20	3696.30	10	14.9	28.57	28,058.36
76152	Dispatcher/State Police	25406.18	3680.13	28	6.6	27375.40	3916.30	53	11.2	34.57	26,694.68
43071	Laboratory Specialist	23858.37	2720.29	105	5.8	24775.41	3138.82	194	7.7	35.12	24,453.37
81314	Agricultural Commodity S	22138.25	431.71	4	5.0	22498.86	1493.84	7	5.7	36.36	22,367.73

Grade 8

24023	Emp Security Interviewer	26962.95	3999.29	106	10.6	28695.92	3750.30	169	14.7	38.55	28,027.94
34031	Research Spec	25787.68	3029.72	22	10.2	24874.74	3105.73	35	6.9	38.60	25,227.10
26121	Materiel Mgmt Tech	25452.09	3901.94	11	9.6	26951.27	3365.30	11	14.0	50.00	26,201.68
36209	Science Museum Educat	22886.00	0.00	1	1.0	22382.00	0.00	1	5.0	50.00	22,634.00
13034	Store Operations Mgr	27693.24	3265.68	17	6.9	23505.44	2307.84	16	7.6	51.52	25,662.79
62043	Housekeeping Manager	27446.31	5300.73	13	14.0	25719.00	3164.33	10	18.8	56.52	26,695.31
54071	Trans Right Of Way Ager	27985.88	3091.49	8	5.5	25412.67	3271.35	6	11.5	57.14	26,883.08
43486	Food Operations Manage	26177.63	3828.99	48	8.8	26433.55	3527.24	34	13.6	58.54	26,283.74
ALL JOB CLASSES		27714.69	2114.51	74	12.4	26744.81	2309.94	48	10.7	60.66	
25083	ABC Store Manager A	30403.81	3723.69	80	19.5	25140.02	3676.30	48	8.8	62.50	28,429.89
	Average	**26,321.56**		521		**25,596.81**		642			**25,970.74**
	Standard Deviation										**1,834.21**
	Weighted Average	**26,754.06**				**26,335.39**					**26,522.94**
	Weighted Std. Dev.										**3,324.25**
	Wtd. Avg. Years of Service				10.7				10.8		**10.8**
ile Dominated											
72018	Corr Officer Sr	23796.53	2773.38	3425	7.6	22816.25	2029.82	1303	5.3	72.44	23,526.37
34041	Audio Visual Tech	26187.59	3770.75	32	9.3	26976.25	4196.52	12	10.8	72.73	26,402.68
65124	Enterprise Prod Supv	29035.33	3313.91	30	8.6	24818.91	3231.84	11	5.3	73.17	27,904.10
26022	Pur And Stores Supervisc	27339.33	3730.95	9	10.1	27547.33	3329.02	3	14.3	75.00	27,391.33
56042	Traffic Control Supv	28102.53	4056.08	15	15.7	29452.40	3399.07	5	16.4	75.00	28,440.00
15011	Installation & Repair Tech	24949.53	3454.39	45	4.5	25426.00	4900.55	13	6.7	77.59	25,056.33
72263	Juvenile Corr Officer Sr	25316.91	2558.33	43	8.0	24233.09	2843.12	11	11.1	79.63	25,096.13
54024	Engineering Tech IV	26199.17	4023.73	327	14.3	25374.01	3606.08	80	10.7	80.34	26,036.98
36024	Museum Exhibits Prepare	26925.60	3139.90	10	10.5	26392.50	3506.50	2	3.0	83.33	26,836.75
76041	Police Officer	27244.67	4361.18	262	8.4	25800.82	4719.73	49	6.7	84.24	27,017.18
76065	Instl Safety Officer	26019.55	3421.08	11	8.5	28660.00	1912.00	2	10.5	84.62	26,425.77
54112	Trans Construction Inspe	25499.85	2987.10	191	8.7	24638.59	2569.11	27	7.7	87.61	25,393.18
82102	St Park Chief Ranger	23938.97	3216.49	30	6.2	23069.75	1626.35	4	2.5	88.24	23,836.71
61083	Laboratory Mechanic C	28827.67	4588.25	49	12.7	29665.00	2401.20	4	12.3	92.45	28,890.86
43513	Corr Recreation Supv	27184.68	4290.78	25	11.2	25741.00	2855.00	2	13.5	92.59	27,077.74
63083	Weigh Party Chief	29765.69	2522.18	16	19.4	27350.00	0.00	1	12.0	94.12	29,623.59
54302	Bridge/Structure Inspecto	24379.32	3231.88	19	6.3	21889.00	0.00	1	4.0	95.00	24,254.80
82366	Marine Res Patrol Offcr A	26139.26	3219.88	19	11.4	22886.00	0.00	1	4.0	95.00	25,976.60
76013	Security Ofcr Supv	28769.24	3578.44	21	20.2	22886.00	0.00	1	5.0	95.45	28,501.82
62154	Grounds Supv	27394.47	3600.19	45	12.3	27425.50	4539.50	2	15.0	95.74	27,395.79
63064	Transportation Maint Sup	30258.03	4048.57	319	19.3	29240.00	0.00	1	18.0	99.69	30,254.85
61303	Carpenter Senior	26892.72	2796.52	57	11.7					100.00	26,892.72
61352	Hvac Install & Repair Tec	26297.59	3564.49	143	8.6					100.00	26,297.59

Grade 8

61373	Electrician Sr	27231.11	3228.23	84	9.4				100.00	27,231.11
61404	Painter Supervisor	27961.73	3344.09	15	15.3				100.00	27,961.73
61503	Plumber/Steamfitter Leac	27672.19	3164.58	48	15.0				100.00	27,672.19
61512	Power Plant Oper Shift Si	26813.81	3545.68	54	12.7				100.00	26,813.81
61572	Welder Senior	27989.52	2520.16	27	13.8				100.00	27,989.52
63171	Equip Body Repair Spec	27415.77	2426.51	13	15.0				100.00	27,415.77
63182	Equip Repair Tech Sr	26315.97	2939.41	278	13.0				100.00	26,315.97
63191	Traffic Signal Tech	26044.78	2615.18	40	9.2				100.00	26,044.78
82011	Wildlife Biologist Asst I	28983.07	3394.38	15	16.9				100.00	28,983.07
82142	Forestry Asst Sr	28257.44	3891.45	41	15.9				100.00	28,257.44
	Average	**27,004.53**		5,758		**25,823.26**	1,535			**26,945.92**
	Standard Deviation									**1,544.45**
	Weighted Average	**25,147.19**				**23,234.09**				**24,744.53**
	Weighted Std. Dev.									**2,926.94**
	Wtd. Avg. Years of Service				9.5			5.9		**8.8**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
22071	Grants Specialist	29156.00	4513.85	3	11.0	29749.23	3408.87	44	11.0	6.38	29,711.36
43081	Medical Technologist	29695.00	2762.21	4	7.5	28516.85	3631.08	48	10.5	7.69	28,607.48
11052	Office Manager	29550.70	4315.15	10	12.9	30840.16	3403.44	105	17.1	8.70	30,728.03
43112	Nutritionist	26738.30	3744.29	10	4.8	27947.07	4242.51	91	4.5	9.90	27,827.39
27322	Personnel Analyst	30441.38	3201.99	13	13.4	30061.96	3570.35	101	14.6	11.40	30,105.23
22501	Med Assistance Prog Rep	31480.75	4664.85	4	12.0	29180.35	3515.16	31	12.0	11.43	29,443.25
73051	Dmv Branch Off Oper Co	29561.82	3500.70	11	8.8	30595.93	3606.72	67	17.7	14.10	30,450.09
21284	Statistical Analyst	28128.80	1461.98	5	6.0	28832.97	3563.89	30	10.4	14.29	28,732.37
31112	Ext Center Assistant B	31179.67	4103.21	6	1.2	28633.45	3932.02	31	7.3	16.22	29,046.35
46082	Soc Ser Qual Assur Prog	30454.75	3700.17	4	9.0	29723.95	2719.08	20	11.7	16.67	29,845.75
22012	Hosp Admin Assistant B	33217.00	3318.00	2	8.5	27924.33	3674.17	9	8.3	18.18	28,886.63
47203	Dis Determ Analyst	32540.06	4017.40	18	14.2	31259.75	3234.91	79	9.9	18.56	31,497.33
23414	Accountant	30167.38	4257.46	63	10.0	29836.49	3841.32	269	13.0	18.98	29,899.28
46061	Support Enforcement Spe	27609.93	3915.76	67	7.0	26563.94	2981.29	282	8.1	19.20	26,764.75
47302	Vis Handi Instr	36550.33	3431.96	6	21.7	31919.08	4804.03	24	10.2	20.00	32,845.33
43072	Laboratory Spec Sr	29773.94	3969.96	69	11.9	29244.31	4012.19	162	10.8	29.87	29,402.51
23193	Tax Cust Svce Rep	28236.50	3603.00	12	8.3	29246.57	3959.16	28	12.6	30.00	28,943.55
	Average	**30,263.67**		307		**29,416.26**		1,421			**29,572.75**
	Standard Deviation										**1,345.16**
	Weighted Average	**29,578.59**				**29,104.49**					**29,188.72**
	Weighted Std. Dev.										**3,645.20**
	Wtd. Avg. Years of Service				10.0				11.2		**11.0**
Non Dominated											
34032	Research Spec Sr	30643.25	3403.26	16	15.4	26330.31	2611.39	36	5.6	30.77	27,657.37
26102	Buyer Spec	30270.39	4203.41	28	6.9	29231.67	3735.90	61	11.7	31.46	29,558.46
47025	Vocational Employment C	26053.83	2179.14	6	3.8	28445.00	3690.58	13	3.8	31.58	27,689.89
35072	Graphic Designer	28442.53	3196.52	19	9.1	28338.58	3373.20	40	9.5	32.20	28,372.06
43054	Recreation Therapist-Sr	30350.22	3751.94	9	14.2	28335.72	3024.89	18	10.6	33.33	29,007.22
21151	Instit Traffic & Park Supv	31623.50	3439.20	4	17.0	28747.86	4385.34	7	14.9	36.36	29,793.55
47024	Rehab Vocational Evaluat	32836.00	5730.52	14	16.3	29882.74	5480.66	23	6.8	37.84	31,000.19
23011	Tax Collections Repr	27389.73	3531.46	11	8.2	28517.67	3951.93	18	11.9	37.93	28,089.83
47023	Vocational Rehab Counse	32955.28	4815.07	88	15.2	31280.35	5099.90	143	8.9	38.10	31,918.42
53111	Marine Scientist	25991.00	1858.52	5	5.0	24739.14	1369.64	7	1.6	41.67	25,260.75
15081	Computer Network Suppc	27284.92	3661.73	60	5.1	29341.81	3755.25	75	14.3	44.44	28,427.64

72023	Corr Inst Rehab Cnslr	26631.89	3472.41	191	8.4	25991.61	3020.48	222	6.8	46.25	26,287.72
28306	Reg Bds Investigator B	33019.75	3094.87	8	10.8	31570.38	3678.16	8	11.6	50.00	32,295.07
22556	Health Counselor	28434.08	4320.88	24	8.0	28250.57	3696.96	23	9.0	51.06	28,344.28
41222	Environmental Hlth Spec	23599.00	255.62	8	0.0	23945.71	932.10	7	0.0	53.33	23,760.80
34072	Instl Housing Manager A	26217.15	2878.61	13	6.3	24179.36	587.78	11	4.6	54.17	25,283.16
76153	Disptacher Sr/State Polic	35745.58	4005.94	12	22.9	33176.67	4116.10	9	18.1	57.14	34,644.62
23222	St Tax Field Rep	31097.55	3996.36	29	13.6	28349.47	2993.24	19	9.1	60.42	30,009.77
SMALL JOB CLASSES		29497.74	2826.44	1317	7.9	29048.58	2186.80	3698	6.4	26.26	29,166.53
83411	Environmental Spec Fld	27874.69	3152.09	16	10.9	28101.30	2763.39	10	11.7	61.54	27,961.85
47092	Vet Claims Agent A	29999.21	4523.79	14	9.9	27210.71	1360.02	7	16.4	66.67	29,069.71
	Average	**29,331.30**		1,892		**28,238.82**		4,455			**28,742.80**
	Standard Deviation										**2,439.96**
	Weighted Average	**29,318.45**				**28,917.97**					**29,037.35**
	Weighted Std. Dev.										**2,634.33**
	Wtd. Avg. Years of Service				8.5				6.8		**7.4**
Male Dominated											
21201	Hear Off/Corr Inmate	31096.79	2337.02	19	16.9	30067.25	2184.25	8	15.4	70.37	30,791.74
25084	ABC Store Manager B	33002.36	4983.89	66	16.3	27148.70	3198.60	27	8.1	70.97	31,302.91
54025	Engineering Tech V	30211.00	4241.40	25	11.8	30797.20	3633.49	10	14.4	71.43	30,378.49
83431	Environmental Inspector	26467.46	3225.18	13	5.9	27733.20	3843.27	5	4.8	72.22	26,819.05
34104	Campus Center Director	27528.11	3153.31	9	7.8	25223.00	944.73	3	3.3	75.00	26,951.83
72264	Juvenile Corr Lead Office	25558.33	3048.20	9	8.6	23929.00	0.00	3	2.3	75.00	25,151.00
81112	Agri Inspector	30117.67	3655.35	107	13.8	28231.56	3847.77	27	8.4	79.85	29,737.63
64094	Warehouse Supv Sr	31246.11	4203.03	9	14.8	27089.00	1507.00	2	17.5	81.82	30,490.27
82103	St Park Asst Supt	27345.44	3419.95	9	8.3	27049.00	301.00	2	7.0	81.82	27,291.54
76051	Police Sergeant	31986.46	4881.55	61	14.0	30266.92	3526.81	13	10.9	82.43	31,684.38
54122	Hwy Permits & Subdiv Sp	30042.34	4459.74	44	16.3	29061.13	3612.10	8	12.9	84.62	29,891.38
35022	TV/Video Production Spe	28546.47	3813.37	17	6.7	27398.67	3798.43	3	5.7	85.00	28,374.30
81316	Agri Grader Inspect C	29840.50	4394.64	12	16.5	30280.50	1684.50	2	16.5	85.71	29,903.36
72014	Corr Sergeant	27550.52	3191.09	477	11.8	26403.94	2819.55	69	9.6	87.36	27,405.62
55011	Electronic Tech	28545.31	3549.20	26	8.5	27618.33	1856.71	3	3.7	89.66	28,449.42
71061	Comm Vehicle Enforcem	29648.38	4501.64	48	11.4	32530.50	6463.90	4	16.3	92.31	29,870.08
81102	Agricultural Mgr	30770.21	2845.90	24	18.6	24491.50	1090.50	2	1.0	92.31	30,287.23
61281	Bldgs And Grnds Supv A	30956.33	3536.14	120	12.9	33566.50	2997.73	6	17.0	95.24	31,080.62
71112	St Police Trooper I	24200.36	1243.54	110	0.4	23929.00	0.00	5	0.0	95.65	24,188.56
76066	Instl Safety Spec	30666.79	3777.49	24	10.9	34943.00	0.00	1	2.0	96.00	30,837.84
82367	Marine Res Patrol Offcr B	31510.14	3453.98	28	15.3	25019.00	0.00	1	4.0	96.55	31,286.31
61353	Hvac Install & Repair Sr T	31448.95	3604.61	59	12.8	28295.00	945.00	2	11.5	96.72	31,345.54
82202	Game Warden	29555.41	4159.15	97	10.8	32266.00	7382.04	3	11.3	97.00	29,636.73

Grade 9

63183	Equip Repair Supv	30681.56	3147.97	109	17.8	25019.00	0.00	1	8.0	99.09	30,630.08
35213	Television System Eng A	29154.55	3958.40	11	8.5					100.00	29,154.55
61304	Carpenter Supv	29474.92	3050.48	51	14.1					100.00	29,474.92
61384	Trades/Utilities Master M(	29729.22	3364.82	46	13.9					100.00	29,729.22
61411	Bldg Construction Inspect	33798.19	3718.22	26	5.8					100.00	33,798.19
61504	Plumber/Steamfitter Supv	29434.41	3554.60	44	12.4					100.00	29,434.41
61561	Electrician Supv	30011.73	3167.22	55	11.4					100.00	30,011.73
63192	Traffic Signal Tech Sr	28695.93	2915.99	14	13.6					100.00	28,695.93
	Average	**29,639.42**		1,769		**28,264.87**		210			**29,486.61**
	Standard Deviation										**1,940.63**
	Weighted Average	**29,246.63**				**27,857.79**					**29,099.26**
	Weighted Std. Dev.										**3,388.77**
	Wtd. Avg. Years of Service				12.1				9.6		**11.8**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
:male Dominated											
12072	Administrative Staff Spec					33771.63	3600.76	54	14.1	0.00	33,771.63
43113	Nutritionist Sr					32835.58	3225.32	12	5.8	0.00	32,835.58
34013	Enrollment Services Coor	29525.43	4209.39	7	3.0	31010.00	3880.55	68	14.6	9.33	30,871.44
46063	Support Enforce Spec Sr	33809.00	3080.47	6	9.0	31103.87	3725.70	45	10.4	11.76	31,422.12
11053	Office Manager Senior	30693.50	2727.50	2	5.0	33167.08	4471.01	13	19.6	13.33	32,837.27
53072	Microbiologist	37052.50	2729.31	6	20.0	32412.79	3737.92	34	11.6	15.00	33,108.75
28293	Reg Bds Administrator As	29061.50	2903.50	2	3.0	32759.55	3077.53	11	6.6	15.38	32,190.62
34082	Student Services Coord	30458.25	3418.07	4	2.5	30174.12	3393.91	21	10.6	16.00	30,219.58
22072	Grants Administrator	31239.20	3448.06	10	6.4	33129.42	3996.71	48	13.2	17.24	32,803.52
27342	Human Resource Analyst	29933.00	1419.04	3	11.7	33130.08	4957.48	12	12.8	20.00	32,490.66
47205	Dis Qual Assur Spec	39454.80	1906.27	5	20.0	38400.95	2257.48	19	18.6	20.83	38,620.50
41151	Lic/Cert Insp	33949.15	4398.07	13	12.9	32889.52	4714.58	48	10.4	21.31	33,115.34
45112	Clinical Social Worker	30794.03	4012.81	35	7.4	32102.13	5287.58	128	8.3	21.47	31,821.25
35052	Hlth Educator Sr	27532.08	907.67	4	4.0	31047.85	4138.39	13	10.6	23.53	30,220.61
37122	Human Rights Advocate S	31273.50	3344.30	4	7.5	31380.92	4248.71	13	11.4	23.53	31,355.64
23431	Budget Analyst	32360.17	3210.39	6	7.3	32171.74	2873.94	19	13.9	24.00	32,216.96
23421	Business Manager A	32419.53	5221.69	19	12.2	32761.35	4541.41	55	15.2	25.68	32,673.59
22152	Train Ctr Asst Prog Mana	35400.59	4476.47	17	17.7	33679.14	3366.97	43	18.8	28.33	34,166.88
	Average	**32,184.76**		143		**32,662.65**		656			**32,596.78**
	Standard Deviation										**1,809.57**
	Weighted Average	**32,440.21**				**32,517.29**					**32,503.49**
	Weighted Std. Dev.										**4,076.69**
	Wtd. Avg. Years of Service				10.3				12.4		**12.0**
on Dominated											
35252	Pub Rel Spec	29871.38	3804.10	29	7.4	30840.41	3678.58	63	7.9	31.52	30,534.95
21385	Agency Mgmt Analyst	31363.71	4155.66	45	7.4	30881.35	4153.45	85	9.4	34.62	31,048.32
72024	Corr Inst Rehab Supv	30251.00	2821.29	6	13.2	30495.30	4015.39	10	9.4	37.50	30,403.69
35073	Graphic Design Supervisc	33082.57	4297.75	7	14.9	33233.33	5116.85	9	13.9	43.75	33,167.37
26122	Materiel Mgmt Supv	33986.00	2962.88	7	7.9	33064.13	3634.20	8	13.6	46.67	33,494.34
72402	Probation Officer	32215.97	4611.75	459	10.3	31310.97	4778.59	481	8.1	48.83	31,752.88
23223	St Tax Field Rep Sr	33396.38	4227.93	8	11.8	33093.88	5311.42	8	11.8	50.00	33,245.13
15042	Programmer	29353.36	4246.81	74	4.2	30854.21	3735.66	68	14.5	52.11	30,072.08
24022	Emp Sec Interviewer Sup	32628.45	6184.84	20	14.7	34779.25	5449.25	16	17.3	55.56	33,584.36
MALL JOB CLASSES		33085.69	2650.46	149	12.7	32287.47	2940.84	104	11.3	58.89	32,757.57
15082	Comp Network Support T	30067.95	4080.55	37	5.5	29412.29	4004.35	24	8.8	60.66	29,809.99
32142	St Lib Spec	30812.93	3456.71	15	6.9	28653.89	2758.77	9	5.0	62.50	30,003.29

Grade 10

43487	Food Operations Manage	33064.59	3729.22	32	12.5	33290.13	4384.06	16	11.2	66.67	33,139.77
	Average	**31,783.08**		888		**31,707.43**		901			**31,770.29**
	Standard Deviation										**1,441.28**
	Weighted Average	**31,948.41**				**31,376.95**					**31,660.60**
	Weighted Std. Dev.										**4,220.20**
	Wtd. Avg. Years of Service				9.9				9.4		**9.7**
Male Dominated											
41223	Environmental Hlth Spec	32292.35	4794.20	256	11.7	30655.72	4301.87	96	8.1	72.73	31,846.00
54072	Trans Right Of Way Agen	33985.52	4446.02	64	19.6	32137.89	3921.47	19	15.5	77.11	33,562.57
35023	TV/Video Producer/Dir	32609.09	4590.17	11	8.5	30494.00	4909.38	3	6.0	78.57	32,155.86
54026	Engineering Tech VI	32327.51	4531.59	290	18.7	30268.84	3550.85	75	16.5	79.45	31,904.50
74014	Occupational Safety Com	30989.20	3891.50	15	6.5	27765.33	587.37	3	2.7	83.33	30,451.89
54195	Transportation Contract A	33041.40	5167.17	58	17.7	28808.11	4301.57	9	13.2	86.57	32,472.75
81113	Agri Inspector Sr	34368.67	4059.42	15	18.6	31707.00	2467.00	2	6.5	88.24	34,055.53
76052	Police Lieutenant	37437.21	4543.64	24	15.4	39007.33	4232.16	3	16.0	88.89	37,611.67
72015	Corr Lieutenant	32198.53	3398.92	275	15.7	31778.00	3402.86	33	14.4	89.29	32,153.47
82151	Forester	32957.00	5189.55	65	13.4	31321.71	3170.07	7	9.4	90.28	32,798.01
65122	Corr Enterprises Supv	35801.26	2253.63	19	8.4	32977.00	4381.00	2	14.5	90.48	35,532.28
15012	Installation & Repair Tech	30052.27	3721.06	63	5.3	31008.17	2397.87	6	9.3	91.30	30,135.39
71113	St Police Trooper II	29058.72	3428.07	529	5.8	28269.67	3302.01	24	3.5	95.66	29,024.48
61282	Bldgs And Grnds Supv B	33844.94	4085.70	100	15.0	34219.00	6401.74	4	8.0	96.15	33,859.33
54113	Trans Construction Inspe	31914.22	4070.05	271	20.8	31833.89	1958.03	9	11.8	96.79	31,905.21
61091	Laboratory Instrument Ma	34161.72	4413.42	64	15.3	30385.50	3035.50	2	8.5	96.97	34,047.29
73161	Dmv Investigator	34385.49	4319.30	35	12.6	31965.00	0.00	1	13.0	97.22	34,318.25
55012	Electronic Tech Sr	32096.00	4355.60	79	8.9	30602.50	1362.50	2	15.0	97.53	32,059.12
63065	Transportation Maint Sup	34946.94	3930.32	254	22.8	31965.00	0.00	1	16.0	99.61	34,935.25
61354	Hvac Install & Repair Sup	34030.76	4826.44	37	10.9					100.00	34,030.76
61461	Power Plant Supv	33034.04	3626.29	24	14.6					100.00	33,034.04
63184	Equip Repair Mgr	35483.67	2852.15	15	18.5					100.00	35,483.67
63193	Traffic Signal Tech Supv	32825.00	3040.43	11	18.9					100.00	32,825.00
72109	Corr Investigator	37243.08	3810.72	12	8.4					100.00	37,243.08
82053	Supv Wildlife Biologist As	32375.20	4143.53	10	15.2					100.00	32,375.20
82203	Game Warden Sr	36398.53	2965.06	34	18.8					100.00	36,398.53
	Average	**33,456.09**		2,630		**31,419.46**		301			**33,316.12**
	Standard Deviation										**2,037.20**
	Weighted Average	**32,206.06**				**30,711.32**					**32,052.56**
	Weighted Std. Dev.										**3,991.87**
	Wtd. Avg. Years of Service				14.2				11.4		**14.0**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
32101	Medical Records Supv					36356.31	4241.44	13	12.5	0.00	36,356.31
42011	Pub Hlth Nurse	29247.50	651.50	2	3.0	34187.61	4417.38	534	9.2	0.37	34,169.18
43114	Nutritionist Supv	29899.00	0.00	1	6.0	35987.19	4603.38	27	9.2	3.57	35,769.75
41032	Utilization Review Analyst	40930.00	2731.00	2	20.0	36649.88	3881.79	48	10.0	4.00	36,821.08
43082	Medical Technologist Sr	32685.00	0.00	1	9.0	33404.70	2564.40	20	13.2	4.76	33,370.43
42141	Registered Nurse	34684.30	4393.86	23	7.0	33095.17	4653.94	199	6.2	10.36	33,259.81
27323	Personnel Practices Anal	34676.38	5981.43	8	7.6	35665.36	4431.84	58	14.9	12.12	35,545.48
43031	Speech Pathologist	41738.50	4065.07	4	5.3	38575.75	6738.47	20	6.2	16.67	39,102.88
73052	Dmv Branch Off Mgr	39357.45	5683.98	11	23.1	37216.39	4681.46	49	19.9	18.33	37,608.92
47212	Dis Determ Unit Supv	42139.40	760.80	5	21.6	41270.00	3641.71	18	19.7	21.74	41,459.00
32143	St Lib Spec Sr	30143.00	1129.48	3	6.0	31084.50	2524.29	10	11.2	23.08	30,867.23
23441	Auditor-Internal	32488.75	3273.82	4	3.5	30338.73	2178.69	11	3.0	26.67	30,912.07
21371	Hear Off/Unempl Comp	32273.59	3471.18	17	8.4	33698.80	3756.09	45	14.6	27.42	33,308.02
72047	Corr Instit Operations Ofc	37822.29	3991.46	7	15.9	33509.39	3737.19	18	13.8	28.00	34,717.00
	Average	**35,237.32**		88		**35,074.27**		1,070			**35,233.37**
	Standard Deviation										**2,850.44**
	Weighted Average	**35,482.53**				**34,471.45**					**34,548.29**
	Weighted Std. Dev.										**4,331.62**
	Wtd. Avg. Years of Service				10.8				10.0		**10.0**
Non Dominated											
41152	Lic/Cert Sr Insp	41245.50	5752.75	8	13.6	38027.71	4494.86	17	7.0	32.00	39,057.40
22271	Human Services Prog Sp	35678.52	4835.64	27	8.9	35091.96	5033.48	53	8.7	33.75	35,289.92
23415	Accountant Senior	35451.77	4263.89	78	10.4	34058.70	4059.88	150	12.0	34.21	34,535.28
27371	Class & Comp Analyst	37817.00	4854.58	6	13.7	35457.36	4023.27	11	13.1	35.29	36,290.17
45113	Clinical Social Work Supv	39616.15	4283.30	20	10.5	37698.47	4201.22	36	15.4	35.71	38,383.36
53012	Analytical Chemist	32676.07	4410.48	15	7.5	33059.56	4601.99	27	9.7	35.71	32,922.60
41072	Occupational Hlth Comp I	31169.20	1714.81	5	4.6	30652.71	2232.78	7	0.9	41.67	30,867.91
43073	Laboratory Spec Advance	32981.00	4585.90	35	8.9	35351.17	4533.46	47	13.6	42.68	34,339.51
26103	Buyer Senior	35990.37	4294.05	38	12.1	33421.51	3845.42	51	11.7	42.70	34,518.33
21285	Statistical Analyst Sr	31971.83	2842.64	6	6.5	32395.25	4150.36	8	7.4	42.86	32,213.78
45051	Psychologist	38029.00	5340.27	41	9.7	35260.48	5627.11	52	8.9	44.09	36,481.01
35171	Telecommunications Sys	33361.67	4838.20	6	6.8	33589.57	2023.27	7	10.4	46.15	33,484.39
21386	Agency Mgmt Analyst Sr	34750.30	5558.85	43	9.6	35510.96	4380.47	50	12.1	46.24	35,159.26
26031	Mktg And Sales Rep	34074.44	3276.85	9	9.4	37869.60	5143.41	10	8.8	47.37	36,071.89

					Grade						
22153	Train Center Prog Manag	42077.31	3832.01	13	16.5	41560.14	4746.50	14	17.2	48.15	41,809.15
37041	Planner	30972.67	3372.85	6	5.2	35238.83	6224.77	6	6.0	50.00	33,105.75
72409	Prob Officer Sr	37485.31	4573.48	77	14.1	37433.24	5487.39	67	13.4	53.47	37,461.08
33021	Train And Development C	35445.39	4102.92	41	12.9	36483.66	4826.82	35	9.9	53.95	35,923.54
72025	Corr Treatment Prog Sup	34519.82	4137.28	17	14.8	31737.00	3388.43	14	10.8	54.84	33,263.06
24052	Emp Sec Coord B	40006.57	2283.73	7	22.7	37434.40	4084.52	5	17.8	58.33	38,934.83
MALL JOB CLASSES		36731.66	2682.23	149	13.8	35414.28	2727.05	106	11.2	58.43	36,184.05
83442	Environmental Prog Analy	35435.89	4850.71	19	8.8	31379.92	3954.95	13	4.5	59.38	33,788.15
83095	Wc Enforce/Compliance S	31661.00	4265.29	14	2.1	30441.11	2488.56	9	0.6	60.87	31,183.65
34042	Audio Visual Supv	34890.75	4592.43	20	12.6	32892.42	3137.93	12	11.4	62.50	34,141.38
23232	Tax Auditor	36692.72	4674.93	74	13.3	34413.16	4864.99	43	9.8	63.25	35,854.93
33011	Technical Instructor	32876.71	3544.34	7	5.9	37744.25	3735.25	4	12.0	63.64	34,646.72
24282	Unemployment Tax Repr	38689.63	5118.07	32	16.9	35972.47	5331.13	17	11.4	65.31	37,746.94
	Average	**35,640.68**		813		**35,021.85**		871			**35,320.67**
	Standard Deviation										**2,468.47**
	Weighted Average	**36,172.22**				**35,132.16**					**35,634.28**
	Weighted Std. Dev.										**4,240.69**
	Wtd. Avg. Years of Service				11.9				11.1		**11.5**
lale Dominated											
54196	Transportation Cont Admi	40079.00	3166.68	21	21.9	36353.67	3918.53	6	15.2	77.78	39,251.15
81114	Agri Inspection Supv	40195.82	2661.04	11	23.4	41766.00	759.77	3	14.7	78.57	40,532.29
83412	Environmental Spec Sr-Fl	36033.09	3715.84	44	13.3	31407.30	2194.57	10	6.4	81.48	35,176.46
54073	Trans Right Of Way Agt S	41262.89	3006.88	27	26.1	38095.00	3557.47	6	16.5	81.82	40,686.91
41241	Environmental Hlth Supv	37282.83	3891.27	41	18.4	37853.00	2476.12	8	16.9	83.67	37,375.92
53123	Geologist Senior	39836.11	3318.89	18	14.2	34966.33	1271.39	3	8.0	85.71	39,140.43
76053	Police Captain	41995.20	7821.91	15	18.1	44744.50	2985.50	2	9.0	88.24	42,318.65
76091	ABC Special Agent	38305.68	5998.05	90	14.2	34584.00	5572.64	10	5.9	90.00	37,933.51
82192	St Park Mgr Sr	37108.32	4394.41	19	16.1	38629.50	430.50	2	15.0	90.48	37,253.19
54027	Engineering Tech VII	38092.90	5401.77	20	19.2	39069.50	870.50	2	17.5	90.91	38,181.68
74015	Occ Safety Sr Comp Offic	33440.18	3973.88	11	8.5	29899.00	0.00	1	14.0	91.67	33,145.08
82031	Wildlife Biologist I	32217.16	4216.74	25	8.4	32341.00	1080.00	2	5.0	92.59	32,226.33
72016	Corr Captain	36094.05	2708.75	75	17.7	37577.75	919.37	4	21.0	94.94	36,169.17
71114	St Police Sr Trooper	40173.82	4355.55	292	16.1	38352.86	3469.95	7	13.6	97.66	40,131.19
82167	Reclam Inspector	39336.00	3192.31	44	15.3	39060.00	0.00	1	3.0	97.78	39,329.87
61283	Bldgs And Grnds Supt A	38013.38	4042.13	78	12.7	31261.00	0.00	1	4.0	98.73	37,927.91
54304	Bridge/Struct Inspect Tea	35122.96	3511.66	24	21.9					100.00	35,122.96
55013	Electronic Tech Supv	37941.21	5279.23	29	13.6					100.00	37,941.21
61092	Laboratory Instrument Su	38175.23	4217.21	31	18.8					100.00	38,175.23
61462	Power Plant Supt	33985.75	3649.26	12	14.8					100.00	33,985.75

Grade 11

83432	Environmental Inspect Sr	36485.92	5492.98	12	12.8			100.00	36,485.92
	Average	**37,675.12**		939	**36,622.53**	68			**37,547.18**
	Standard Deviation								**2,517.47**
	Weighted Average	**38,394.69**			**36,297.00**				**38,253.04**
	Weighted Std. Dev.								**4,124.35**
	Wtd. Avg. Years of Service				16.1		11.9		**15.8**

Grade 12

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
36297	Museum Asst Dir Sr					40389.50	449.50	2	4.0	0.00	40,389.50
42012	Pub Hlth Nurse Sr					39322.22	4290.81	129	12.9	0.00	39,322.22
43083	Medical Technologist Sup	32685.00	0.00	1	6.0	40675.19	3728.39	16	15.9	5.88	40,205.18
42142	Registered Nurse Clinicia	36191.63	3475.30	30	7.5	37383.81	4882.62	467	7.8	6.04	37,311.85
41193	Medical Facilities Inspect	37490.43	5311.23	7	8.9	38156.10	3721.67	41	8.1	14.58	38,059.02
12073	Administrative Staff Spec	36440.25	4923.57	4	1.0	38027.63	5212.43	19	13.8	17.39	37,751.56
35282	Spec Events Coord Sr	38060.50	4639.50	2	10.5	36198.89	3818.69	9	10.0	18.18	36,537.36
43162	Occupational Therapist	41663.00	4304.39	3	1.7	45158.08	7394.20	12	3.3	20.00	44,459.06
22026	Grants Prog Admin Supv	37848.20	4912.13	5	10.8	38574.71	3671.23	17	15.7	22.73	38,409.59
22272	Human Services Prog Co	39179.58	4660.94	33	11.3	38116.84	4958.21	100	11.4	24.81	38,380.53
27324	Personnel Practices Anal	42433.45	3632.71	11	14.5	39088.97	4592.76	29	14.2	27.50	40,008.70
27343	Human Resource Genera	39663.78	4948.95	9	5.6	36807.95	4216.23	22	11.1	29.03	37,637.06
	Average	**38,165.58**		105		**38,991.66**		863			**39,039.30**
	Standard Deviation										**2,004.90**
	Weighted Average	**38,415.69**				**38,039.18**					**38,080.02**
	Weighted Std. Dev.										**4,648.09**
	Wtd. Avg. Years of Service				9.1				9.7		**9.6**
Non Dominated											
35253	Pub Rel Coord	38243.78	4152.08	23	12.3	36525.90	4149.90	48	8.4	32.39	37,082.40
27311	Human Res Ofcr-Fld	39370.50	4291.75	12	9.7	39364.24	4277.57	25	15.6	32.43	39,366.27
21341	Hear Off/Medical Assistar	34567.00	860.48	4	6.5	37914.25	3275.41	8	13.1	33.33	36,798.50
37124	Human Rights Prog Supv	42114.67	1937.20	3	20.3	39615.33	3010.61	6	12.2	33.33	40,448.44
33022	Train & Dev Coord Sr	42343.20	4090.02	15	16.8	40278.50	5445.65	28	9.0	34.88	40,998.74
22224	Human Services Supv-Fi	38413.15	4690.99	20	12.5	37794.43	5146.05	35	10.8	36.36	38,019.42
23132	St Sr Account/Fin Analyst	39966.00	4274.80	4	7.8	39315.71	4451.20	7	10.1	36.36	39,552.18
23401	Fiscal Officer	38683.25	4609.33	4	5.5	39435.14	3189.79	7	14.4	36.36	39,161.73
73053	Dmv Branch Office Mgr S	44935.25	1932.72	4	21.0	43427.86	5331.61	7	20.9	36.36	43,976.00
23416	Accounting Manager A	41915.03	3885.48	30	8.4	39762.17	4703.29	46	14.9	39.47	40,611.98
37082	Economist	39913.25	5714.49	4	14.0	37556.80	3898.62	5	10.4	44.44	38,604.11
15073	Computer Oper Supv	41235.37	4000.90	19	18.0	39009.78	4508.85	23	22.6	45.24	40,016.59
26123	Mat Mgmt Supv Sr	40683.20	1427.98	5	15.2	36700.67	3466.72	6	18.3	45.45	38,510.91
28291	Reg Bds Administrator	40724.20	4483.41	5	6.2	39704.50	4094.12	6	15.2	45.45	40,168.00
32144	St Lib Coord	36767.60	5685.59	5	12.8	34935.50	2901.59	6	9.5	45.45	35,768.27
23432	Budget Analyst Senior	39780.17	4693.83	30	12.4	39739.94	4791.38	34	15.2	46.88	39,758.80

53045	Forensic Scientist	44917.50	5580.31	16	8.8	38918.00	5440.57	17	9.1	48.48	41,826.85
26142	St Procurement Spec Sr	42484.69	3480.95	13	16.9	37208.00	3931.04	12	13.3	52.00	39,951.88
24411	Emp Sec Off Mgr	42075.67	5994.29	6	15.8	39301.00	4365.83	5	19.6	54.55	40,814.46
33036	Corr Educ Principal A	44730.83	2698.62	6	17.5	43371.80	2926.70	5	16.4	54.55	44,113.09
37033	HCD Community Planner	38109.08	4443.21	12	8.5	36278.80	4125.43	10	4.0	54.55	37,277.13
SMALL JOB CLASSES		41174.54349	2989.21	195	15.1	39965.90551	3156.1	158	12.5	55.24	40,633.57
23422	Business Manager B	41382.58	5985.91	74	12.8	38764.91	4568.96	58	13.6	56.06	40,232.39
72031	Probation Supv	41257.17	5280.98	87	19.6	41530.74	5462.37	57	17.5	60.42	41,365.46
23244	Interstate Auditor	38534.26	4752.62	23	8.1	36262.73	3423.37	15	5.8	60.53	37,637.60
72502	Parole Examiner	40135.40	1179.59	5	18.4	41145.67	433.69	3	19.7	62.50	40,514.25
15043	Programmer/Analyst	36311.23	4984.12	198	6.5	36537.44	5054.84	115	8.3	63.26	36,394.34
21372	Appeal Ofcr/Unempl Corr	44957.00	1548.88	7	19.1	37203.00	1984.98	4	4.5	63.64	42,137.36
24053	Emp Sec Coord C	42605.29	3751.23	7	20.3	41770.50	4404.07	4	17.0	63.64	42,301.73
53013	Analytical Chemist Sr	41859.93	5397.16	14	18.7	39312.00	5463.83	7	13.7	66.67	41,010.62
52204	Architect	38346.93	4986.25	15	6.6	38662.29	4099.40	7	4.6	68.18	38,447.27
53112	Marine Scientist Sr	35820.73	5244.77	15	11.1	34752.43	4334.44	7	8.0	68.18	35,480.82
	Average	**40,448.70**		880		**38,814.56**		781			**39,655.66**
	Standard Deviation										**2,113.64**
	Weighted Average	**39,792.27**				**38,804.26**					**39,327.71**
	Weighted Std. Dev.										**4,365.24**
	Wtd. Avg. Years of Service				12.4				12.3		**12.4**
Male Dominated											
15013	Installation & Repair Supv	37304.46	5035.53	13	11.0	39790.80	6727.10	5	11.2	72.22	37,995.11
43153	Rad Safety Spec	40937.88	5967.32	8	12.8	36693.33	5747.07	3	5.7	72.73	39,780.28
43488	Food Operations Director	34280.13	2714.56	8	11.6	40600.00	2278.17	3	11.7	72.73	36,003.73
52014	Environmental Engineer	37228.67	4380.60	61	8.7	34742.23	2906.03	22	6.7	73.49	36,569.61
23452	Auditor Senior-External	40932.28	4567.71	25	10.3	37910.22	6093.15	9	9.2	73.53	40,132.32
35024	TV/Video Prod/Dir Sr	37634.78	4611.91	9	11.1	31981.00	1018.23	3	1.7	75.00	36,221.34
83094	Wc Enforce/Compliance S	38179.73	4338.32	78	7.8	34486.13	4250.21	23	5.7	77.23	37,338.61
33012	Technical Instruction Coo	38371.94	3103.80	17	9.8	34975.00	3663.62	5	9.6	77.27	37,599.91
72171	Institution Mgr	40593.00	4204.59	42	18.6	37962.17	4339.49	12	15.0	77.78	40,008.37
23233	Tax Auditor Senior	44834.17	4884.29	36	18.6	41691.67	4484.54	9	13.8	80.00	44,205.67
73035	Program Mgr/Dmv	41238.50	5565.72	4	18.3	47730.00	0.00	1	37.0	80.00	42,536.80
52241	Safety Engineer	37474.72	4652.12	29	9.2	34589.83	3340.62	6	9.7	82.86	36,980.17
52083	Civil Engineer	36034.82	3375.82	11	7.9	35766.00	1592.00	2	4.5	84.62	35,993.46
51021	Trans Engr	39566.98	5478.93	243	16.6	36487.74	4157.98	38	12.6	86.48	39,150.57
52055	Mechanical Engineer	39996.39	4868.41	18	9.3	36050.00	4789.00	2	0.0	90.00	39,601.75
61316	Industry Mgr	42041.40	2799.31	10	13.7	47730.00	0.00	1	1.0	90.91	42,558.55
71131	St Police Spec Agent	40163.99	6336.56	135	15.1	36157.55	3137.42	11	11.8	92.47	39,862.13

Grade 12

54076	Trans Dist Asst R O W M	47986.71	4337.37	14	31.6	41759.00	0.00	1	25.0	93.33	47,571.53
54114	Trans Construction Proj E	39463.96	4444.39	54	24.0	35878.33	3257.47	3	11.7	94.74	39,275.24
82212	Game Warden Superviso	40538.37	4276.82	19	18.5	40839.00	0.00	1	17.0	95.00	40,553.40
61284	Bldgs And Grnds Supt B	41159.61	3732.79	56	13.8	36402.00	4437.00	2	8.5	96.55	40,995.55
41073	Occ Hlth Sr Comp Officer	43007.43	4364.33	14	19.4					100.00	43,007.43
41242	Environmental Hlth Mgr	41332.67	3207.27	27	19.7					100.00	41,332.67
52025	Electrical Engineer	39810.16	4774.42	25	11.5					100.00	39,810.16
63067	Trans Res Maint Oper Mç	40797.88	3599.36	59	24.5					100.00	40,797.88
71115	St Police Trooper Pilot	37742.36	4209.54	11	10.4					100.00	37,742.36
71116	St Police Master Trooper	46199.27	2849.79	89	26.0					100.00	46,199.27
72041	Corr Major	40489.60	3057.89	25	17.6					100.00	40,489.60
76092	ABC Asst Spec Agent In (	45432.73	5882.89	22	19.6					100.00	45,432.73
	Average	**40,371.54**		1,162		**38,105.81**		162			**40,198.15**
	Standard Deviation										**2,985.44**
	Weighted Average	**40,474.55**				**36,574.45**					**39,997.35**
	Weighted Std. Dev.										**4,536.57**
	Wtd. Avg. Years of Service				16.3				10.1		**15.6**

Grade 13

ass	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
ie Dominated											
021	Pub Hlth Nurse Supv	41759.00	0.00	1	6.0	42347.05	3758.14	87	16.2	1.14	42,340.37
143	Registered Nurse Clinicia	42688.81	4276.93	16	11.3	43577.80	4959.43	206	12.2	7.21	43,513.73
171	Occupational Therapy Su	46725.00	2080.00	2	15.5	48775.91	6860.02	11	7.2	15.38	48,460.39
344	Human Resource Genera	41534.33	2636.36	3	11.7	43871.11	5152.49	9	15.6	25.00	43,286.92
	Average	**43,176.79**		22		**44,642.97**		313			**44,400.35**
	Standard Deviation										**2,385.02**
	Weighted Average	**42,856.04**				**43,426.82**					**43,389.34**
	Weighted Std. Dev.										**4,629.65**
	Wtd. Avg. Years of Service				11.5				13.2		**13.1**
)ominated											
2273	Human Services Prog Co	43751.97	5437.22	34	13.6	42443.08	4338.19	61	10.9	35.79	42,911.52
2221	Hs Manager-Field	46528.00	7352.79	10	21.0	43384.71	3870.00	17	16.6	37.04	44,548.89
1241	Policy Analyst	46076.67	4654.01	18	14.4	42502.50	5981.10	20	10.6	47.37	44,195.53
8189	Crim Justice Program An:	43492.75	5202.08	12	9.2	39980.42	5301.47	12	6.8	50.00	41,736.59
3442	Auditor Senior-Internal	42739.32	4887.54	31	9.2	39836.11	5636.44	28	7.8	52.54	41,361.53
1387	Agency Mgmt Lead Analy	44694.66	5718.87	58	12.7	40745.23	4497.69	43	11.0	57.43	43,013.22
6104	Buyer Mgr	44625.33	4459.96	12	11.7	39938.25	5233.96	8	14.6	60.00	42,750.50
5131	Telecomm Network Analy	41305.75	3177.28	8	5.5	37543.60	3730.02	5	6.2	61.54	39,858.77
_L	JOB CLASSES	45047.29	3484.735	216	14.7	44255.57	3155.42	134	12.3	61.71	44,744.17
6162	Human Res D. P. User Li	44106.86	4672.03	36	10.0	42425.52	4735.37	21	13.8	63.16	43,487.42
6032	Mktg & Sales Rep Sr	41457.71	4281.38	21	12.3	40517.75	5450.26	12	5.7	63.64	41,115.91
3046	Forensic Scientist Sr	47894.09	5919.13	23	13.0	41900.85	4343.15	13	8.2	63.89	45,729.86
3039	Corr Educ Principal B	47474.86	3406.17	14	19.2	44480.29	4644.05	7	12.4	66.67	46,476.67
2032	Probation Mgr	44591.71	5022.87	14	19.6	42125.29	2872.65	7	15.3	66.67	43,769.57
	Average	**44,556.21**		507		**41,577.08**		388			**43,264.30**
	Standard Deviation										**1,773.41**
	Weighted Average	**44,707.04**				**42,498.47**					**43,749.58**
	Weighted Std. Dev.										**4,305.97**
	Wtd. Avg. Years of Service				13.6				11.3		**12.6**
) Dominated											
23041	Tax Policy Analyst	37606.00	4475.79	8	8.6	36395.67	3141.91	3	5.7	72.73	37,275.91
37042	Planner Sr	47990.75	3461.53	8	13.9	43166.33	3512.44	3	17.7	72.73	46,675.00
24412	Emp Sec Off Mgr Sr	47292.81	4851.15	21	21.2	46009.43	5585.94	7	19.4	75.00	46,971.97

Grade 13

72136	Corr Reg Prog Manager	46446.84	4616.13	31	18.6	45574.00	6302.19	8	17.9	79.49	46,267.80
52015	Environmental Engr Sr	42565.79	5105.79	165	10.6	40550.88	4092.51	42	8.2	79.71	42,156.97
83443	Environmental Program F	41848.60	5246.85	65	11.9	39213.31	3488.50	16	10.0	80.25	41,328.05
52242	Safety Engr Sr	41217.47	4668.38	15	7.9	37638.33	396.45	3	6.0	83.33	40,620.95
51022	Trans Engineer Sr	46745.86	5239.52	123	21.0	45791.94	4732.41	18	16.5	87.23	46,624.08
52026	Electrical Engr Sr	44346.70	5731.87	10	10.4	42700.00	0.00	1	9.0	90.91	44,197.00
23071	St Police Spec Agent-Acc	45938.64	8383.89	22	10.8	34174.00	0.00	2	2.5	91.67	44,958.25
51141	Trans Asst Resident Engi	44195.29	6757.10	58	19.1	39838.60	7471.85	5	8.2	92.06	43,849.52
52221	Capital Outlay Project En	43607.47	4735.64	59	7.3	40683.20	1427.98	5	6.4	92.19	43,379.01
82074	Wildlife Biologist Mgr	45852.40	4175.56	15	14.3	36535.00	0.00	1	9.0	93.75	45,270.06
71071	State Police Sergeant	43780.69	6864.47	140	17.4	43891.00	7288.33	5	12.0	96.55	43,784.49
61285	Bldgs And Grnds Dir A	47528.50	4130.60	14	10.5					100.00	47,528.50
71132	St Police Sr Spec Agent	51432.11	4546.89	56	25.7					100.00	51,432.11
	Average	**44,899.75**		810		**40,868.69**		119			**44,519.98**
	Standard Deviation										**3,177.75**
	Weighted Average	**44,669.45**				**41,703.45**					**44,289.52**
	Weighted Std. Dev.										**5,339.24**
	Wtd. Avg. Years of Service				15.5				11.1		**14.9**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
42051	Certified Nurse Practitioner					47883.89	4226.89	28	11.6	0.00	47,883.89
42022	Pub Hlth Nurse Mgr	46679.00	0.00	1	13.0	48097.50	3762.41	24	17.3	4.00	48,040.76
42144	Registered Nurse Coordir	45815.80	3835.26	5	16.8	47406.48	4474.53	91	15.1	5.21	47,323.63
27302	Human Res Mgr	51996.00	4515.22	3	21.3	45851.85	5750.33	13	20.9	18.75	47,003.88
22027	Grants Prog Admin Mgr	55543.20	928.28	5	12.6	47839.71	5669.01	14	10.7	26.32	49,866.94
	Average	**50,008.50**		14		**47,415.89**		170			**48,023.82**
	Standard Deviation										**994.74**
	Weighted Average	**50,675.86**				**47,499.46**					**47,741.14**
	Weighted Std. Dev.										**4,387.59**
	Wtd. Avg. Years of Service				16.0				14.9		**15.0**
Non Dominated											
33023	Train & Dev Mgr	48900.40	5302.21	5	13.6	49255.67	6589.60	9	10.1	35.71	49,128.79
27312	Human Res Mgr-Fld	54566.57	1137.91	7	19.6	49245.83	5764.24	12	13.0	36.84	51,206.10
22041	Human Services Prog Su	48972.00	4078.71	19	15.2	47223.80	5680.98	30	9.7	38.78	47,901.67
21242	Policy Analyst Senior	46160.75	4947.46	12	9.3	46053.94	5687.59	18	10.8	40.00	46,096.66
23402	Fiscal Director A	48890.00	4716.83	7	13.1	45731.00	4087.84	10	15.7	41.18	47,031.76
23423	Business Manager C	47325.00	6338.81	36	10.5	44888.69	5433.38	36	15.3	50.00	46,106.85
23417	Accounting Manager B	48346.74	5848.19	35	13.3	44963.62	4273.32	34	13.9	50.72	46,679.70
15044	Sr Programmer/Analyst	44866.18	6208.45	150	9.0	44500.18	5812.94	130	10.3	53.57	44,696.25
21388	Agency Mgmt Analyst Su	50128.50	4633.01	12	15.8	45302.22	4379.60	9	13.6	57.14	48,060.09
35254	Pub Rel Mgr	46379.91	6480.78	11	11.8	45826.38	7228.86	8	14.9	57.89	46,146.84
45052	Psychologist Senior	48455.06	5772.27	65	10.0	44843.24	5584.73	42	10.3	60.75	47,037.34
43401	Pharmacist	53927.18	3069.01	22	10.1	51512.92	3750.31	13	5.5	62.86	53,030.45
22222	Hs Manager Sr-Fd	46129.36	5616.25	14	16.6	45177.75	6251.78	8	13.0	63.64	45,783.32
83444	Environmental Prog Mgr	48802.76	5338.20	21	15.3	48013.10	5271.31	10	10.8	67.74	48,548.03
	Average	**48,703.60**		416		**46,609.88**		369			**47,675.28**
	Standard Deviation										**2,167.50**
	Weighted Average	**47,349.10**				**45,626.00**					**46,539.13**
	Weighted Std. Dev.										**5,542.51**
	Wtd. Avg. Years of Service				11.1				11.4		**11.3**
Male Dominated											
23433	Budget Manager	48776.47	5552.95	15	13.1	47453.33	2666.27	6	13.7	71.43	48,398.43
37083	Economist Sr	46379.30	5407.01	10	12.3	40896.25	2193.96	4	7.8	71.43	44,812.71

				Grade						
MALL JOB CLASSES	48268.75	4155.70	219	14.9	48247.80	2044.35	85	13.5	72.04	48,262.89
53113 Marine Scientist Supv	47387.08	6526.86	13	14.2	44426.20	5890.24	5	11.4	72.22	46,564.61
15051 Computer Systems Engin	44067.90	5890.61	131	8.5	44171.66	4958.29	50	10.3	72.38	44,096.56
22163 Train Ctr Men Retard Pro	51421.91	2890.21	11	16.5	48909.00	3154.79	3	22.0	78.57	50,883.43
52206 Architectural Consultant	47162.88	5219.37	32	6.9	45199.63	5342.19	8	9.8	80.00	46,770.23
53047 Forensic Scientist Supv	52401.58	4743.73	12	14.8	52316.00	3802.04	3	14.3	80.00	52,384.46
72033 Probation Mgr Sr	47059.34	4704.99	32	23.7	52096.00	6093.63	8	18.1	80.00	48,066.67
72172 Institution Supt	46453.58	4278.87	12	17.9	45993.00	485.08	3	18.7	80.00	46,361.46
72181 Corr Asst Warden	47252.83	4739.57	41	18.9	41755.60	2721.68	10	15.1	80.39	46,174.94
52016 Environmental Engr Cons	50740.65	5163.76	52	14.4	47022.44	6574.55	9	8.4	85.25	50,192.06
83421 Environmental Mgr-Fld	47484.41	5736.71	29	15.9	48923.20	7394.31	5	11.0	85.29	47,696.00
23234 Tax Audit Supv	53976.91	2951.71	11	21.2	43661.00	0.00	1	5.0	91.67	53,117.25
52222 Capital Outlay Prog Mgr	50337.86	5143.52	35	9.2	48581.00	3600.70	3	4.0	92.11	50,199.16
51023 Trans Engr Prog Supv	52734.75	5814.57	97	23.2	48231.29	6714.35	7	13.4	93.27	52,431.63
35091 Telecommunications Eng	46273.67	5667.02	15	11.9	53353.00	0.00	1	25.0	93.75	46,716.13
71134 St Pol Asst Spec Agt-In-C	49255.05	5050.41	39	19.5	41759.00	0.00	1	12.0	97.50	49,067.65
61286 Bldgs And Grnds Dir B	52064.76	4082.92	17	9.2					100.00	52,064.76
71072 St Police First Sergeant	52383.87	5687.45	52	23.9					100.00	52,383.87
74061 Mine Inspector	49458.16	5354.46	31	13.4					100.00	49,458.16
74062 Coal Mine Technical Spec	47015.43	5780.68	14	6.8					100.00	47,015.43
Average	**49,016.23**		920		**46,833.08**		212			**48,778.11**
Standard Deviation										**2,581.56**
Weighted Average	**48,653.85**				**46,734.01**					**48,294.30**
Weighted Std. Dev.										**4,798.82**
Wtd. Avg. Years of Service				15.3				12.5		**14.8**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
emale Dominated											
42023	Pub Hlth Nurse Mgr Sr					51068.58	3744.72	12	21.8	0.00	51,068.58
42052	Cert Nurse Practitioner Sr					50117.09	4303.58	43	8.9	0.00	50,117.09
	Average					**50,592.84**		55			**50,592.84**
	Standard Deviation										**475.75**
	Weighted Average					**50,324.69**					**50,324.69**
	Weighted Std. Dev.										**4,181.65**
	Wtd. Avg. Years of Service								11.7		**11.7**
on Dominated											
22042	Human Services Prog Mg	53857.50	7125.97	10	13.4	50933.40	6529.81	15	15.3	40.00	52,103.04
27326	Personnel Practices Mgr	54281.60	4624.57	5	19.4	51375.17	3976.34	6	16.8	45.45	52,696.27
23445	Audit Supv - Internal	52900.00	7198.24	6	6.7	46787.00	5105.58	6	10.0	50.00	49,843.50
15045	Systems Analyst	54292.54	6185.39	125	13.6	52640.83	6078.05	96	13.7	56.56	53,575.06
22223	Hs Director-Fd	52432.86	8080.17	7	22.9	50179.60	2331.78	5	21.8	58.33	51,494.00
23101	Agency Admin Mgr	51441.22	4034.89	9	13.7	55168.50	4770.69	6	18.5	60.00	52,932.13
23418	Accounting Manager C	54928.61	5592.41	18	16.3	50223.25	4763.33	12	10.6	60.00	53,046.47
26033	Mktg & Sales Conslt	51492.44	6775.85	16	11.6	48496.89	5359.19	9	5.9	64.00	50,414.04
MALL JOB CLASSES		54320.76	3571.80	149	14.90	51983.14	2850.45	78	12.90	65.64	53,517.52
43403	Pharmacy Supervisor	62195.25	4881.30	8	13.1	57725.50	2317.66	4	10.3	66.67	60,705.33
15067	Data Base Analyst	55193.53	5703.40	19	11.1	50908.56	7078.20	9	13.6	67.86	53,816.22
	Average	**54,303.30**		372		**51,492.89**		246			**53,103.96**
	Standard Deviation										**2,702.53**
	Weighted Average	**54,291.88**				**51,915.93**					**53,346.11**
	Weighted Std. Dev.										**4,966.39**
	Wtd. Avg. Years of Service				14.2				13.3		**13.8**
lale Dominated											
45061	Psychology Supervisor	57162.95	5410.75	19	6.8	54755.25	2271.60	8	6.3	70.37	56,449.56
72173	Institution Supt Sr	52071.27	3366.04	11	23.4	49515.00	5875.77	3	22.3	78.57	51,523.50
15052	Computer Systems Senio	53437.47	6491.56	133	12.9	54793.88	5999.07	33	17.7	80.12	53,707.12
72034	Probation Director	52443.31	6438.84	16	24.5	49111.67	5621.17	3	21.7	84.21	51,917.26
52017	Environmental Tech Serv	55352.11	6331.14	18	18.4	57151.33	3516.68	3	12.3	85.71	55,609.14
51142	Trans Resident Engr	54228.07	7055.02	42	23.4	47412.20	5458.92	5	13.6	89.36	53,502.98
51041	Asst Div Administrator Tr	58867.67	3388.80	27	23.8	52294.00	3489.00	2	14.5	93.10	58,414.31
71073	St Police Lieutenant	58536.93	6101.72	44	26.8	59638.00	0.00	1	13.0	97.78	58,561.40

					Grade					
22104	Men Hlth/Ment Ret Fac A	56319.50	6976.93	12	16.8				100.00	56,319.50
52215	St Review Architect/Engir	52605.40	4489.36	15	11.5				100.00	52,605.40
52223	Capital Outlay Prog Asst I	57774.38	3944.31	13	18.4				100.00	57,774.38
	Average	**55,345.37**		350		**53,083.92**	58			**55,125.87**
	Standard Deviation									**2,473.74**
	Weighted Average	**55,028.88**				**53,704.50**				**54,840.61**
	Weighted Std. Dev.									**5,819.29**
	Wtd. Avg. Years of Service				17.8			15.7		**17.5**

Grade 16

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Female Dominated											
42147	Reg Clinical Nurse Spec	58325.00	0.00	1	12.0	54085.68	5511.99	28	10.5	3.45	54,231.86
42145	Registered Nurse Manag	53252.67	5475.15	3	22.7	60240.50	9648.85	12	12.9	20.00	58,842.93
	Average	**55,788.84**		4		**57,163.09**		40			**56,537.40**
	Standard Deviation										**2,305.54**
	Weighted Average	**54,520.75**				**55,932.13**					**55,803.82**
	Weighted Std. Dev.										**6,512.44**
	Wtd. Avg. Years of Service				20.0				11.2		**12.0**
Non Dominated											
27304	Human Resource Dir	61049.00	5677.01	6	15.3	60482.00	7338.44	7	18.7	46.15	60,743.69
31023	Ed Prin Spec	63009.06	3165.90	17	14.5	59155.29	5388.03	16	9.6	51.52	61,140.57
15068	Data Base Administrator	58898.18	6226.43	11	14.7	55875.33	8636.30	6	10.8	64.71	57,831.29
23095	Dpb Analyst C	59891.00	5374.56	11	10.3	53204.33	5055.82	6	10.7	64.71	57,531.00
15046	Prog/Systems Developme	61758.04	4855.49	50	14.8	60518.04	6023.98	24	15.8	67.57	61,355.88
	Average	**60,921.06**		95		**57,847.00**		59			**59,720.49**
	Standard Deviation										**1,679.34**
	Weighted Average	**61,389.80**				**58,928.30**					**60,446.76**
	Weighted Std. Dev.										**5,341.39**
	Wtd. Avg. Years of Service				14.2				13.4		**13.9**
Male Dominated											
23403	Fiscal Director B	60063.40	4411.02	10	16.0	50313.75	3562.89	4	12.8	71.43	57,277.79
42412	Pub Hlth Dentist A	60465.91	6997.85	23	12.5	57739.78	6985.03	9	9.3	71.88	59,699.19
SMALL JOB CLASSES		59009.18915	2563.83	106	15.5	56635.68543	1174.12	35	17.0	75.18	58,420.02
23443	Audit Manager-Internal	56886.19	6668.38	16	11.1	54935.60	3870.53	5	11.4	76.19	56,421.76
42423	Dentist	60531.73	7142.07	15	10.5	60772.00	3897.85	4	8.0	78.95	60,582.31
26034	Mktg & Sales Conslt Sr	60951.44	3775.59	9	15.6	60340.00	2015.00	2	5.5	81.82	60,840.27
15053	Computer Center Lead Er	60795.22	5961.40	55	15.8	61123.83	6419.82	12	17.4	82.09	60,854.08
51052	Trans Research Scientist	52417.75	5970.30	12	12.0	53684.00	5954.00	2	21.5	85.71	52,598.64
83017	Environmental Quality As	61439.86	5525.00	21	16.3	50411.00	3661.54	3	10.7	87.50	60,061.25
51213	Trans District Asst Engr	62953.94	6697.42	18	22.4	56580.00	4402.00	2	14.0	90.00	62,316.55
71074	State Police Captain	65095.20	5147.76	15	28.4					100.00	65,095.20
	Average	**60,055.44**		300		**56,253.56**		78			**59,469.73**
	Standard Deviation										**3,127.50**
	Weighted Average	**59,952.09**				**57,010.96**					**59,345.19**
	Weighted Std. Dev.										**4,507.59**
	Wtd. Avg Years of Service				15.8				14.6		**15**

Grade 17

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
'emale Dominated											
42146	Registered Nurse Manag	62355.00	0.00	1	18.0	64944.09	7629.79	11	15.9	8.33	64,728.33
	Average	**62,355.00**		1		**64,944.09**		11			**64,728.33**
	Standard Deviation										-
	Weighted Average	**62,355.00**				**64,944.09**					**64,728.33**
	Weighted Std. Dev.										**6,993.97**
	Wtd. Avg. Years of Service				18.0				15.9		**16.1**
lon Dominated											
22043	Human Services Prog Dir	63169.29	7311.53	7	13.6	58101.33	8051.76	12	10.0	36.84	59,968.47
	Average	**63,169.29**		7		**58,101.33**		12			**59,968.47**
	Standard Deviation										-
	Weighted Average	**63,169.29**				**58,101.33**					**59,968.47**
	Weighted Std. Dev.										**7,779.04**
	Wtd. Avg. Years of Service				13.6				10.0		**11.3**
lale Dominated											
15062	Systems Development M	67186.00	6722.19	17	14.3	65400.00	7333.31	6	13.8	73.91	66,720.09
MALL JOB CLASSES		65933.12	4199.30	118	16.6	62379.29	3557.08	38	15.9	75.64	65,067.44
15054	Computer Systems Chief	68665.40	4442.25	35	15.7	66837.33	7205.90	6	18.7	85.37	68,397.88
72183	Corr Warden Sr	60531.74	6350.66	19	21.9	56495.50	3142.50	2	18.5	90.48	60,147.34
51042	Div Administrator Trans	64923.28	2539.59	18	29.5					100.00	64,923.28
	Average	**65,447.91**		207		**62,778.03**		52			**65,051.20**
	Standard Deviation										**2,758.62**
	Weighted Average	**65,914.40**				**63,015.92**					**65,332.47**
	Weighted Std. Dev.										**4,480.07**
	Wtd. Avg. Years of Service				17.8				16.1		**17.5**

Grade 18

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Male Dominated											
23404	Controller	71106.38	5613.01	8	14.6	58930.33	4545.16	3	14.0	72.73	67,785.64
SMALL JOB CLASSES		71761.26104	5087.53	96	17.1	67653.68368	3818.07	19	13	83.48	71,082.62
	Average	**71,433.82**		104		**63,292.01**		22			**69,434.13**
	Standard Deviation										**1,648.49**
	Weighted Average	**71,710.89**				**66,464.14**					**70,794.79**
	Weighted Std. Dev.										**4,916.56**
	Wtd. Avg. Years of Service				16.9				13.1		**16.3**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Male Dominated											
SMALL JOB CLASSES		78240.18	5739.13	33	15.5	79824.89	2782.48	9	15.6	78.57	78,579.76
	Average	**78,240.18**		33		**79,824.89**		9			**78,579.76**
	Standard Deviation										-
	Weighted Average	**78,240.18**				**79,824.89**					**78,579.76**
	Weighted Std. Dev.										**5,105.56**
	Wtd. Avg. Years of Service				15.5				15.6		**15.5**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Non Dominated											
42212	Pub Hlth Physician	86192.80	6711.82	10	7.7	90774.63	9031.75	8	9.0	55.56	88,229.17
	Average	**86,192.80**		10		**90,774.63**		8			**88,229.17**
	Standard Deviation										-
	Weighted Average	**86,192.80**				**90,774.63**					**88,229.17**
	Weighted Std. Dev.										**7,742.90**
	Wtd. Avg. Years of Service				7.7				9.0		**8.3**
Male Dominated											
SMALL JOB CLASSES		87588.14	3711.97	29	18.0	74481.50	0.00	4	11.3	87.88	85,999.46
	Average	**87,588.14**		29		**74,481.50**		4			**85,999.46**
	Standard Deviation										-
	Weighted Average	**87,588.14**				**74,481.50**					**85,999.46**
	Weighted Std. Dev.										**3,262.03**
	Wtd. Avg. Years of Service				18.0				11.3		**17.2**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
on Dominated											
MALL JOB CLASSES		92344.611	2711.60	18	12.0	90745.30	3809.65	10	12.8	64.29	91,773.43
Average		**92,344.61**		18		**90,745.30**		10			**91,773.43**
Standard Deviation											-
Weighted Average		**92,344.61**				**90,745.30**					**91,773.43**
Weighted Std. Dev.											**3,103.76**
Wtd. Avg. Years of Service					12.0				12.8		**12.3**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
Ion Dominated											
42216	Pub Hlth District Dir Md	99336.56	7505.00	18	10.8	96120.67	6327.59	12	11.8	60.00	98,050.20
42245	Men Health Physician B	106053.85	6794.11	20	8.8	104756.90	6633.65	10	12.3	66.67	105,621.53
	Average	**102,695.21**		38		**100,438.79**		22			**101,835.87**
	Standard Deviation										**3,785.66**
	Weighted Average	**102,871.98**				**100,046.23**					**101,835.87**
	Weighted Std. Dev.										**6,887.33**
	Wtd. Avg. Years of Service				9.7				12.0		**10.6**
lale Dominated											
SMALL JOB CLASSES		104900.00	0	3	20.0	0	0	0		100.00	104,900.00
	Average	**104,900.00**		3				0			**104,900.00**
	Standard Deviation										-
	Weighted Average	**104,900.00**									**104,900.00**
	Weighted Std. Dev.										-
	Wtd. Avg. Years of Service				20.0				0.0		**20.0**

Class	Job Title	Male Average Salary	Male Salary Std. Dev.	Male No. of Positions	Male Avg Years of Service	Female Average Salary	Female Salary Std. Dev.	Female No. of Positions	Female Avg Years of Service	Percent Male	Job Class Salary
ın Dominated											
ALL JOB CLASSES		116765.29	0.00	7	15.0	106022.25	6452.33	4	5.8	63.64	112,858.73
	Average	**116,765.29**		7		**106,022.25**		4			**112,858.73**
	Standard Deviation										**-**
	Weighted Average	**116,765.29**				**106,022.25**					**112,858.73**
	Weighted Std. Dev.										**2,346.30**
	Wtd. Avg. Years of Service				15.0				5.8		**11.7**
ıle Dominated											
42246	Men Health Physician C	118429.19	6954.55	81	9.2	114909.74	8570.85	19	10.9	81.00	117,760.49
	Average	**118,429.19**		81		**114,909.74**		19			**117,760.49**
	Standard Deviation										**-**
	Weighted Average	**118,429.19**				**114,909.74**					**117,760.49**
	Weighted Std. Dev.										**7,261.65**
	Wtd. Avg. Years of Service				9.2				10.9		**9.5**

Appendix J

Example of a DPT Job Classification Specification

COMMONWEALTH of VIRGINIA

CLASS SPECIFICATION

CLASS TITLE	CLASS CODE
PROGRAM SUPPORT TECHNICIAN SENIOR	11046

EFFECTIVE DATE: 07/01/86 EEO CODE: E

CLASS CONCEPT/FUNCTION

This is an advanced position at the highest paraprofessional level that is responsible for the administrative aspects of a program, requiring the exercise of independent judgment and decision making, involving the application and interpretation of rules, regulations, policies and procedures of an agency or institution. Typically determines if compliance with programmatic requirements are met, or approves or disapproves services, projects, activities, or financial payments. This includes the processing of applications, certificates, grants or other program records.

DISTINGUISHING FEATURES OF THE WORK

Complexity of Work: Performs work of considerable difficulty which requires the identification and analysis of a variety of factors. The work typically involves the application of rules and regulations in support of program goals. Determines if programmatic requirements are met in order to comply with established laws and policies by identifying and locating necessary information through interviews, investigations or research, collecting and assembling a variety of information from within and outside the agency, and analyzing the information to reach logical and legal conclusions. May calculate or check calculations in order to verify the accuracy of computations by using a prescribed formula and established standards. Makes recommendations in order to assist professionals in performing their work and resolving of problems by using knowledge of the program, consulting with others and collecting data.

Supervision Given: Usually supervision over others is not a factor.

Supervision Received: Performs work under the general direction of a department head, mid-level manager, unit manager or other professionals. Employees in this class are responsible for planning and carrying out assignments, interpreting policy and resolving programmatic issues. Consultation with supervisor is expected on unusual situations.

Scope: Employees in this class are responsible for a program or phase of an assigned activity which has an effect not only on the organization but others outside the organization.

Impact of Actions: Reaches conclusions which affect other investigations, research or the social or economic well-being of persons.

Personal Contacts: Has frequent contacts with sources outside the agency or university by telephone, in writing or face to face. Interviews individuals of varied backgrounds to gather data or resolve discrepancies. Counsels and advises individuals on appropriate actions to take. Follows-up with those involved in the program to monitor activities.

KNOWLEDGES, SKILLS, AND ABILITIES

Knowledges: Considerable knowledge of the program being administered and related rules and regulations. Considerable knowledge of technical aspects of subject area. Working knowledge of types and needs of clientele served. Working knowledge of counseling techniques.

Skills: Working skill in operating required office equipment.

Abilities: Demonstrated ability to apply and interpret regulations as related to the program. Demonstrated ability to interview and counsel individuals. Demonstrated ability to apply logical sequences to the analysis and resolution of an issue.

QUALIFICATION GUIDE

Licenses or Certification: None.

Education or Training: Graduation from high school in a program which includes course work in business administration; or an equivalent combination of training and experience.

Level and Type of Experience: Experience related to the program area indicating possession of preceding knowledges, skills and abilities.

CLASS HISTORY

This class is one of the 15 new generic classes established in the Office Services occupational group effective July 1, 1986 as a result of the statewide clerical study.

Appendix K

Agency Response

COMMONWEALTH *of* VIRGINIA

Office of the Governor

George Allen
Governor

Michael E. Thomas
Secretary of Administration

November 5, 1997

Mr. Philip A. Leone
Director
Joint Legislative Audit and Review Commission
Suite 1100, General Assembly Building
Richmond, Virginia 23219

Dear Mr. Leone:

Thank you for the opportunity to review the exposure draft of your technical report, *Gender Pay Equity in the Virginia State Workforce.* The study was thorough and detailed.

I was pleased to see that only "two percent of employees fall into agency job classes with salary differences that may or may not exhibit gender discrimination." And that, "even among these cases, complicating factors make it difficult to formulate a compelling argument that there is systematic gender discrimination."

In view of these findings, I question the necessity of further investigation by the Department of Training and Personnel. It appears that resources would be expended looking for something which is not there.

Again, thank you for giving me an opportunity to comment on this very well-done informative study.

Sincerely,

Michael E. Thomas

JLARC Staff

Director: Philip A. Leone
● *Deputy Director:* R. Kirk Jonas

Division I Chief: Glen S. Tittermary
Division II Chief: Robert B. Rotz

Section Managers:
Patricia S. Bishop, Fiscal & Administrative Services
John W. Long, Publications & Graphics
● Gregory J. Rest, Research Methods

Project Team Leaders:
Craig M. Burns
Linda Bacon Ford
Harold E. Greer, III
Joseph J. Hilbert
Wayne M. Turnage

Project Team Staff:
Emily J. Bikofsky
Cynthia A. Bowling
Steven E. Ford
Deborah Moore Gardner
Jack M. Jones
Marcus D. Jones
● Wayne A. Jones
April R. Kees
Melissa L. King
Eric H. Messick
Ross J. Segel
E. Kim Snead
Paul Van Lenten
Rowena P. Zimmermann

Administrative and Research Support Staff:
Joan M. Irby
Betsy M. Jackson
Becky C. Torrence
Amanda J. Smith, Intern

● *Indicates staff with primary assignment to this project*

Recent JLARC Reports

Review of the Virginia Retirement System, January 1994
The Virginia Retirement System's Investment in the RF&P Corporation, January 1994
Review of the State's Group Life Insurance Program for Public Employees, January 1994
Interim Report: Review of the Involuntary Civil Commitment Process, January 1994
Special Report: Review of the 900 East Main Street Building Renovation Project, March 1994
Review of State-Owned Real Property, October 1994
Review of Regional Planning District Commissions in Virginia, November 1994
Review of the Involuntary Commitment Process, December 1994
Oversight of Health and Safety Conditions in Local Jails, December 1994
Solid Waste Facility Management in Virginia: Impact on Minority Communities, January 1995
Review of the State Council of Higher Education for Virginia, January 1995
Costs of Expanding Coastal Zone Management in Virginia, February 1995
VRS Oversight Report No. 1: The VRS Investment Program, March 1995
VRS Oversight Report No. 2: The VRS Disability Retirement Program, March 1995
VRS Oversight Report No. 3: The 1991 Early Retirement Incentive Program, May 1995
Review of Capital Outlay in Higher Education, June 1995
The Concept of Benchmarking for Future Government Actions, July 1995
1995 Report to the General Assembly, September 1995
Follow-Up Review of Community Action in Virginia, September 1995
VRS Oversight Report No. 4: Semi-Annual VRS Investment Report, September 1995
Technical Report: The Cost of Competing in Standards of Quality Funding, November 1995
Funding Incentives for Reducing Jail Populations, November 1995
Review of Jail Oversight and Reporting Activities, November 1995
Juvenile Delinquents and Status Offenders: Court Processing and Outcomes, December 1995
Interim Report: Feasibility of Consolidating Virginia's Wildlife and Marine Resource Agencies, December 1995
Review of the Virginia State Bar, December 1995
Interim Report: Review of the Department of Environmental Quality, January 1996
Minority-Owned Business Participation in State Contracts, February 1996
Legislator's Guide to the Virginia Retirement System, May 1996
VRS Oversight Report No. 5: Semi-Annual VRS Investment Report, May 1996
VRS Oversight Report No. 6: Biennial Status Report on the Virginia Retirement System, May 1996
Special Report: Review of the ADAPT System at the Department of Social Services, June 1996
Technical Report: Review of the Medicaid Forecasting Methodology, July 1996
Review of the Magistrate System in Virginia, August 1996
Review of the Virginia Liaison Office, October 1996
Feasibility of Consolidating Virginia's Wildlife Resource Functions, December 1996
VRS Oversight Report No. 7: Review of VRS Fiduciary Responsibility and Liability, January 1997
The Operation and Impact of Juvenile Corrections Services in Virginia, January 1997
Review of the Department of Environmental Quality, January 1997
Interim Report: The Secretarial System in Virginia, January 1997
The Feasibility of Modernizing Land Records in Virginia, January 1997
Review of the Department of Corrections' Inmate Telephone System, January 1997
Virginia's Progress Toward Chesapeake Bay Nutrient Reduction Goals, February 1997
VRS Oversight Report No. 8: Semi-Annual VRS Investment Report, May 1997
Services for Mentally Disabled Residents of Adult Care Residences, July 1997
Follow-Up Review of Child Day Care in Virginia, August 1997
1997 Report to the General Assembly, September 1997
Improvement of Hazardous Roadway Sites in Virginia, October 1997
Review of DOC Nonsecurity Staffing and the Inmate Programming Schedule, December 1997
Technical Report: Gender Pay Equity in the Virginia State Workforce, July 1997
The Secretarial System in Virginia State Government, December 1997
Overview: Review of Information Technology in Virginia State Government, December 1997
Review of the Comprehensive Services Act, December 1997