SEX DISCRIMINATION PROBLEM

1. Problem Formulation

This discussion will be concerned with data on beginning salaries for all 32 male and 61 female skilled, entry-level clerical employees hired by the Harris Bank of Chicago between 1969 and 1971. These data come from a larger Harris Bank data file made public by the defense statisticians in a sex discrimination lawsuit against the bank.

The data for the problem is given in your textbook, pages 330-331 (see also pages 4-5). These data are also available in the SPSS file *discrim.sav* located on the FTP server. The instructions how to download the data files using FTP are available in the ***Introduction to SPSS*** module in STAT 252 Web site (Appendices).

The data give beginning salaries together with several valid measures of job qualification such as education level and previous experience. The following is a description of the variables in the study:

Column	**Name of Variable**	**Description of Variable**
1	BSAL	Beginning Annual Salary (dollars)
2	SAL77	Salary as of March 1977 (dollars)
3	FSEX	Sex (1 for females, 0 for males)
4	SENIOR	Seniority (months since first hired)
5	AGE	Age (months)
6	EDUC	Education (years)
7	EXPER	Experience prior to Employment with the bank (months)

We would like to use SPSS to answer the following two questions using the data:

1. Did the bank discriminatorily pay higher starting salaries to men than to women?

2. Did the females tend to receive smaller pay increases than similarly experienced (in terms of seniority) males during their employment with the bank?

The word *discriminatorily* in the first question makes our analysis especially difficult. You will see that it will be relatively easy to demonstrate that the bank paid higher starting salaries to men than to women, but it will be difficult to prove that this disparity was due to gender alone.

We will also discuss other related problems such as the changes in gender structure of the employees in the bank over the study period or the relationship between salary in 1977 and seniority. It will be also interesting to answer the question whether females tended to receive smaller pay increases than similarly qualified males during their employment with the bank.

We will use graphical displays, numerical summaries, and inferences to compare starting salaries of males and females with similar available measures of qualification such as the number of years of education or the number of months of previous experience.

You will see the limitations of the graphical and numerical tools used in the case study to isolate and measure the effects of gender alone on starting salaries. We will reconsider the same problem later using multiple regression. Then you will be able to compare the effectiveness of the tools used in this lab with those based on multiple regression.