

# 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 problem was already discussed in *Two-Sample Problems* module in *STAT 252 Laboratories* Web site. We used graphical displays, numerical summaries, and inferences based on the t-tools 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 could see the limitations of the graphical and numerical t-tools to isolate and measure the effects of gender alone on starting salaries.

In this module we are going to demonstrate a different approach to the problem using the methods of multiple regression. You will be able to compare the effectiveness of the t-tools with those based on multiple regression.

The data for the problem are available in the SPSS file *sex.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:

<u>Column</u>	<u>Name of Variable</u>	<u>Description of Variable</u>
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 will use multiple regression and SPSS to answer the following question: Did the bank discriminatorily pay higher starting salaries to men than to women?