

Inequality and Gender

9

SEXISM IN THE UNITED STATES

Do women have a lower place in the U.S. class system than men? Is there gender inequality in education? Jobs? Income? Wealth? How about sexist attitudes and opinions? To what extent do Americans believe that women should be only wives and mothers and should not work outside the home or take leadership positions in society? Who is most likely to subscribe to these beliefs about a woman's "proper place"?

EXERCISE 9.1 CHARTING THE INEQUALITIES OF GENDER

In virtually all societies, men control larger shares of wealth, property, power, and prestige than women. Is the United States an exception to this generalization? We'll begin to answer this question in this exercise and, at the same time, further explore the graphing capabilities of SPSS. We will use multiple line charts to display the amount of inequality between men and women on three variables in the GSS-2006-Numerical data set: years of education (EDUC), occupational prestige (PRESTG80), and income (INCOME06). The chart for each of these variables will display two lines: one for females and one for males. The differences between the lines will give us a visual indication of the degree of gender inequality: The greater the differences between the lines, the greater the inequality. We will present the graph for EDUC and SEX and leave the others to you.

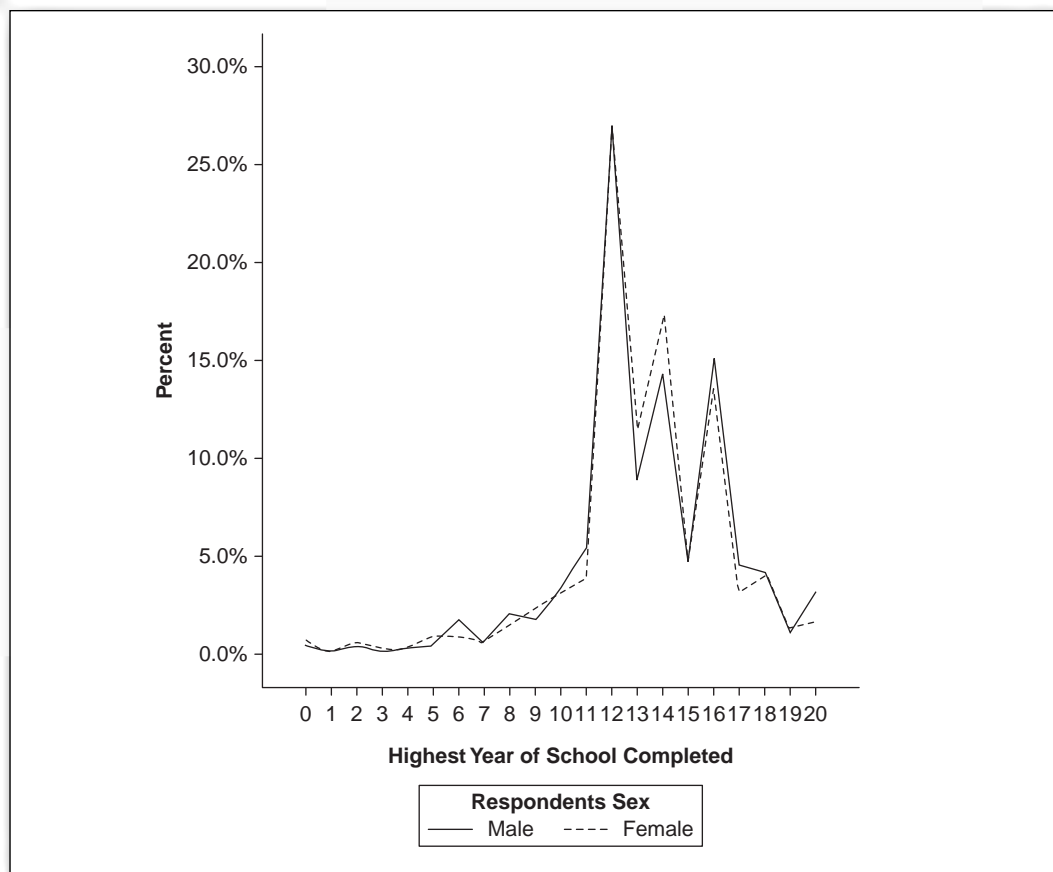
After loading the GSS-2006-Numerical data set, click **Graphs** from the menu bar and then click on **Legacy Dialogs** and **Line**. The Line Charts dialog box appears. When we graphed variables one at a time (see Chapter 3), we selected the Simple line chart, the option highlighted now. We now want to include a second variable (SEX) in the analysis, so we need to select (click on) the **Multiple** box. Do this and then follow the commands in Command Block 9.1 to produce the chart. You will place EDUC in the Category Axis: box and SEX in the Define Lines by: box. Also, have SPSS display the percentage of cases rather than the number of cases by clicking the radio button next to **% of cases** in the Lines Represent box. Women outnumber men in the sample, and the use of percentages will assure us that any differences between the lines in the chart will reflect differences in the proportional distribution of the sexes on the variable and not differences in their relative sizes.

COMMAND BLOCK 9.1 Producing a Multiple Line Chart for EDUC and SEX

- Click **Graphs** → **Legacy Dialogs** → **Line**
- Click **Multiple** on the **Define Line Chart** dialog box → Click **Define**
- In the **Define Multiple Line Chart** dialog box, highlight **EDUC**
- Click the arrow pointing to the **Category Axis:** box
- Highlight **SEX**
- Click the arrow pointing to the **Define Lines by:** box
- Click the radio button next to **% of cases** in the **Lines Represent** box
- Click **OK**

The line chart is presented in Exhibit 9.1.

Exhibit 9.1 Multiple Line Chart for EDUC and SEX



Note that men are represented by a solid black line in Exhibit 9.1 and women by a dashed black line. In the original chart in SPSS Chart Editor window, these lines were solid blue and solid green, respectively. You have a wide variety of options to change the color and shapes and sizes of charts and graphs, far too many choices to be covered in this short section. To begin to explore these options, double-click anywhere on the graph in the SPSS Viewer and

the Chart Editor window will appear. If necessary, you can use the SPSS Help feature (press F1) or go through the tutorials to increase your understanding of how to produce and change graphs. It is probably a good idea to print or save the chart at this point.

Next, follow Command Block 9.1 to construct a multiple line chart for PRESTG80 and SEX and then for INCOME06 and SEX. This time, the Multiple option will already be highlighted, and EDUC and SEX will already be selected. Click on the **Category Axis:** box and move EDUC back to the variable list by clicking the left-pointing arrow. Then, select PRESTG80, move it to the Category Axis: box, click **OK**, and save or print the chart. Repeat these operations, placing INCOM06 in the Category Axis: box.¹

Examine each of the three charts carefully. Compare the lines across the graph (from the lower to the higher scores) to see if one line is noticeably higher or lower than the other. Which line (males or females) is higher for low scores? Scores in the middle? High scores? Use the charts to complete Research Report 9.1.

1. The actual amount of gender inequality in income is obscured in the GSS. Recall that scores on *income06* represent categories rather than dollar values and that the top category includes incomes that range from \$150,000 to untold millions. Aggregating data in this way diminishes the actual size of differences between groups.

RESEARCH REPORT 9.1

Graphing Gender Inequality for Education, Prestige, and Income

NAME _____

INSTRUCTOR _____

DATE _____

For years of education (EDUC):

1. For lower years of education (less than 12 years), men are generally _____ (higher than/lower than/the same as) women.
2. For high school (12 years), men are generally _____ (higher than/lower than/the same as) women.
3. For higher years of education (especially for a college degree or 16 years or education), men are generally _____ (higher than/lower than/the same as) women.
4. For the very highest levels of education (above 16) , men are generally _____ (higher than/lower than/the same as) women.
5. This chart indicates that men and women _____ (are/are not) equal in level of education.

For Occupational Prestige (PRESTG80):

The lines for both men and women are quite irregular, with lots of “peaks and valleys,” and may be hard to analyze. One way to get a feel for the patterns is to divide the chart into thirds (at least roughly) at prestige scores of 40 and lower, 40 to 60, and 60 and higher and look for patterns within each third.

1. In the left-hand third of the chart (prestige scores of less than 40), men are generally _____ (higher than/lower than/the same as) women.
2. In the middle third of the chart (scores of 40 to 60), men are generally _____ (higher than/lower than/the same as) women.
3. In the right-hand third of the chart (scores of more than 60), men are generally _____ (higher than/lower than/the same as) women.
4. For the very highest levels of occupation prestige (scores of 70 or more), men are generally _____ (higher than/lower than/the same as) women.
5. This chart indicates that men and women _____ (are/are not) equal in level of occupational prestige.

For Income (INCOME06):

1. In the left-hand side of the chart (incomes less than \$20,000), men are generally _____ (higher than/lower than/the same as) women.
2. In the middle part of the chart (incomes between \$20,000 and \$75,000), men are generally _____ (higher than/lower than/the same as) women.
3. In the right-hand part of the chart (incomes greater than \$75,000), men are generally _____ (higher than/lower than/the same as) women.
4. For the very highest income levels (\$110,000 and more), men are generally _____ (higher than/lower than/the same as) women.
5. This chart indicates that the genders _____ (are/are not) equal in income.

Summary

What (if anything) do these graphs show about gender inequality in the United States? On which dimension is the inequality the greatest? How can you tell?

EXERCISE 9.2 TESTING THE INEQUALITIES OF GENDER FOR STATISTICAL SIGNIFICANCE

The line charts produced for Research Report 9.1 are useful visual representations of gender inequality in the United States, but there are two important questions they cannot answer. First, the charts do not indicate the average size of the difference between the genders. Second, remember that the men and women of the 2006 GSS sample are a random sample, and we need to know if the gender differences could have been produced by chance or if they reflect actual differences between all men and women in the U.S. population.

In previous chapters, we used the Crosstabs procedure and chi-square to test for statistical significance and the effects of random chance. Can we use the Crosstabs procedure in our present situation? Because all three of our measures of inequality (EDUC, PRESTG80, and INCOME06) have many scores, Crosstabs would produce tables with many rows (one for each value of the dependent variable) and two columns (one for males, one for females). These tables would be very large, too bulky for easy analysis.

We need a new technique to analyze these numerical variables and, not surprisingly, SPSS includes a procedure called T Test that fits this research situation well. T Test computes averages for each numerical variable for each group (men and women, in our case) separately and then tests the difference between the averages for statistical significance. In our case, if there is no gender inequality on a specific variable, the averages for men and women will be equal (or nearly so). The greater the difference between the male and female average scores in the sample, the greater the likelihood that they reflect gender differences in the population on the variables in question.

We will continue to use the value of .05 to identify a statistically significant result. In the present situation, this will mean that we will conclude that a difference exists between all adult men and women in the United States if the probability of getting the difference between the sample means is less than .05. As with the chi-square test, if the value of p is greater than .05, we will conclude that the difference in sample means was caused by mere random chance. If the value of p is less than .05, we will conclude that the difference observed between the sample means also exists in the population.

Instructions for the t -test procedure are given in Command Block 9.2. Our three measures of inequality (EDUC, PRESTG80, and INCOME06) will be the “Test Variables” (or dependent variables) and SEX will be our “Grouping Variable” (or independent variable). For each test variable, SPSS will calculate an average score for each category of the grouping variable (males and females in this case) and then test the differences in the means for statistical significance.

COMMAND BLOCK 9.2 Running T Test for EDUC, PRESTG80, and INCOME06 by SEX

- Click **Analyze** → **Compare Means** → **Independent Samples T Test**
 - Scroll through the list of variable names on the left of the **Independent Samples T Test** window and highlight EDUC
 - Click the arrow pointing to the **Test Variable(s):** box
 - Highlight INCOME06 in the list of variable names
 - Click the arrow pointing to the **Test Variable(s):** box
 - Highlight PRESTG80
 - Click the arrow pointing to the **Test Variable(s):** box
 - Highlight SEX
 - Click the arrow pointing to the **Grouping Variable:** box
 - Click the **Define Groups** button
 - Click in the Group 1 box and type 1
 - Click in the Group 2 box and type 2
 - Click **Continue**
 - Click **OK**
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