

CENSUS DATA MODULE: Income and Income Inequalities

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LEARNING OBJECTIVES:

Skill

- Learning about survey methodology and sampling methods
- Using software to access and analyze census data
- Identifying independent and dependent variables
- Learning how to construct, read, and interpret bivariate tables displaying frequencies and percentages
- Creating visual tools representing quantitative data in the form of charts or graphs
- Identifying population trends over time

Substance

- To discuss the topic of occupational structure using census data

It is now time to “learn by doing”, economists’ jargon for doing what we are taught and learning from that effort. In the context of this course and its software it means working with the software and census data on your own and outside the classroom.

This exercise uses the dataset WORK2K-25.dat.

1. Go to <http://www.ssdan.net/datacounts>
2. Click on the “Data” in the menu bar
3. From there, click “Browse” on the left sidebar. Find “**census2000**” in the drop-down box and select it.
4. Scroll down through the list of data sets until you find “**work2k-25.dat**” Highlight and click “submit.”
5. You can also click [here](#) to launch the dataset in WebCHIP.

From a Percent Across data table, create histograms (bar graphs) with percent on the vertical axis and level of education on the horizontal axis. For each educational category draw two bar graphs, one for earnings above \$25,000 and another for earnings below \$25,000. You may want to use graph paper on this exercise. If you are ambitious and have spreadsheet software, try using it for this module. If you have neither graph paper nor a spreadsheet, then a piece of paper will do but be careful about your vertical scale.

Next take create a Percent Down table and two pie charts, one for earnings above \$35,000 and one for earnings below \$15,000.

Then, write a few full sentences describing those bar graphs and pie charts. How do these histograms and pie charts help understand college-high school earnings gap?

CHANGING OCCUPATIONAL STRUCTURE

Examine the changing occupational structure in durable manufacturing and the shift away from the less skilled high school graduates to the more skilled college graduates. The purpose of this section is to see if that changing occupational structure extends beyond the durable manufacturing category, that is, is it part of a more general change in the occupational structure? **WHAT IS THE TREND?**

This module will use two new features of WebCHIP: trend data and figures. This exercise uses the a new dataset that looks at census data from 1950-1990: [EDOC5090.DAT](#).

1. Go to <http://www.ssdan.net/datacounts>
2. Click on the "Data" in the menu bar
3. From there, click "Browse" on the left sidebar. Find "**centrend**" in the drop-down box and select it.
4. Scroll down through the list of data sets until you find "**edoc5090.dat**" Highlight and click "submit."
5. You can also click [here](#) to launch the dataset in WebCHIP.

Create a percent down table with "Year" as the row variable and "Occupation" as the column variable. Create a bar graph, and analyze your results.

Now, create a new percent down table controlling for the variables "Race" and "Gender".

Here is the basic question: **How does gender or race affect your previous conclusions?** Draw diagrams that will display the changes in your conclusions.