This lab will give you a better sense of working with concepts, defining them, and measuring them. Remember, operationalization effectively is the last step in defining a concept. It is the point at which a concept is given empirical substance because the concept is now being measured. In one sense, what is being done in the lab is working backward from the ordinary research process. Typically, a concept is first developed and then operationally defined. However, since you are working with data already collected, the foundations for the concepts exist; you are determining what concepts are being measured. This is not an unrealistic process. A great deal of political science research is conducted on data that have already been collected.

1. Start STATA and download the smallcen data set.

In the command window, type

```
use http://web.ics.purdue.edu/~ewaltenb/POL300/Data/smallcen.dta
```

Notice the command you just typed appears in the Review window and variables are listed in the Variables window.

(a) Examine the variables `rent`, `class1`, and `hhinc`. In the command window, enter `des rent class1 hhinc` and hit return. What concept is each variable measuring?

- `rent` ______________________________________________________________

- `class1` ____________________________________________________________

- `hhinc` ____________________________________________________________

(b) This data set measures a number of different financial aspects. Economic conditions can be influenced by a variety of background characteristics (i.e., characteristics intrinsic to the individual). For example, better educated individuals will often have higher paying jobs. Name 2 other background variables contained in the data set that may affect an individual’s economic condition. Explain how these background characteristics might affect economic condition.

- Background Var1 ______________________________________________________

- ____________________________________________________________________

- ____________________________________________________________________

- ____________________________________________________________________
(c) Oftentimes in research, we are forced to use measures that are more specific than the broader concept we might want to examine. For example, education might be broadly defined as the acquired learning of an individual, especially as developed through formal processes such as schooling. Consider the variable edu. In the command window, enter des edu. What exactly is edu measuring?

(d) Get a frequency distribution of edu. In the command window, enter tab edu. Notice that 674 people are high school graduates. But do they all have the same level of education in the broader sense? Briefly indicate why they do not.

(e) Get a frequency distribution of the age variable. In the command window, enter tab age. What is age’s level of measurement?

(f) Get a frequency distribution for age_cat. In the command window, enter tab age_cat. What is the level of maturement of this variable? How many individuals are over 80? What is the largest age category, and what is its percentage?

(g) examine the variable hours1. In the command window, enter des hours1. What does it measure?
9 Get a frequency distribution of \texttt{hours1}. In the command window, enter \texttt{tab hours1}. What is the level of measurement of this variable? ____________________________

9 If we classified hours of work in terms of low, medium, and high, what level of measurement would this be? ____________________________

2. To \textit{turn in}.

The completed lab. Submit it and your log file. Be sure that your name and SS# are on all the material you submit.