

Economics 196AB
Senior Honors Seminar 2009/10
Stata Assignment, Fall 2009 (due Mon Oct 19, in class)

Download the *Stata* data sets MiniMorg98.dta and MiniMorg08.dta from the course [web site](#). These files contain the complete data for a subset of the variables in the Current Population Survey (CPS) Merged Outgoing Rotation Groups (MORG) for 1998 and 2008. Also download the Word file cps79_06.doc, which describes the structure of these data sets for the years 1979-2006. The information it provides for 2006 also applies to your 2008 data. The MORG provide earnings and work activity information for a representative sample of American households. Your task is to write a *Stata* do-file that accomplishes all of the following tasks:

1. *Data Preparation*. For each of these two years, create a data set with the following variables: earnings per week (in dollars; use *earnwke*); age (in years); years of education completed (use *ihigrdc*), and 0-1 indicator variables for being *female*, *black* and *hispanic*. (Note that the coding for race and hispanic (*ethnic*) changed between these years; you will need to choose a way to reconcile these so they match across surveys; it may not be perfect.) Restrict your data set to persons between the ages of 23 and 64 inclusive, and with weekly earnings between \$50 and \$2884 inclusive (why?). Retaining the variable *year* (already supplied in both data sets) to distinguish the two data sets, append the two data sets together, keeping only the observations with nonmissing weekly earnings, i.e. the people who actually had jobs. Convert the 1998 weekly earnings in your data to 2008 dollars (look up the Consumer Price Index on the web).

2. *Real Earnings Growth, by group*. For each of the following groups, use *Stata* to calculate the percentage growth in the group's mean real weekly earnings between 1998 and 2008. Define the percentage growth as the change in earnings between 1998 and 2008 divided by the level of earnings in 1998. The groups are:

- men
- women
- blacks
- whites
- black men
- white men
- hispanics
- nonhispanics
- persons whose highest completed level of education is high school (*ihigrdc*=12)
- persons whose highest completed level of education is a college degree (*ihigrdc*=16)
- persons aged 22-29
- persons aged 50-59

Who experienced greater higher wage growth: Men or women? Blacks or Whites? Black Men or Black Women? Hispanics or NonHispanics? People with a High School or a College Education? Young or Older workers? Of all these groups, which one had the greatest percentage increase in earnings?

3. *Significance tests*. Using *Stata*'s *ttest* command (or another method of your choosing) test whether the real earnings differences between 1998 and 2008 for each of the above groups is statistically significant. In other words, do we have enough data to reject the null hypothesis that real earnings of the group in question did not change between 1998 and 2008?

4. *Wage gaps*. Compute the gender wage gap [(men's earnings – women's earnings)/men's earnings] in 1998 and in 2008. Did it increase or decrease between these two years, and by how much? Do the same for the black-white wage gap, and the hispanic-nonhispanic wage gap. Have all of these gaps declined in magnitude over the past decade? Which one has declined the most?

To submit your assignment, email your do-file(s) that accomplish the above tasks to me at pjkuhn@econ.ucsb.edu, before class, and bring your written answers to the questions to class.