

SOC321 Introduction to Demography
Integrated Data Analysis Assignment

Race and Changing Household Structure
Jay Teachman

Introduction:

The textbook for this course discusses cross-cultural variations in household structure, as well as changes across time in household structure in the United States. The purpose of this exercise is to examine variations in household structure in the United States according to race and historical period. By the end of the exercise students should have a better appreciation of the fact that household structure in the U.S. is very fluid and that changes over time in household structure have not progressed uniformly for all race groups.

The exercise is intended to provide students with an opportunity to discuss difficulties in defining variables, provide descriptive information, identify testable hypotheses relating independent and dependent variables, and construct a simple test of the identified hypothesis using cross-tabular procedures.

Preliminaries:

Please provide a brief response to each of the following questions.

1. According to the U.S. Census, what constitutes a family? What constitutes a household?
2. Using the Census definitions, provide a brief description of the distinction between households and families. An example or two might be useful.

3. According to the U.S. Census, would a non-married, cohabiting couple be defined as a family? Why or why not?

4. Based on classroom lectures and readings, which of the following household groups would you expect to have grown the most rapidly over the period 1950-1990? Married couples, male-headed families, female-headed families, male-headed non-families, or female-headed non-families? Why would you expect this to be the case?

5. Also based on classroom lectures and readings, do you believe that the change in household type that you identify is different for Blacks vs. non-Blacks? Provide a brief justification for your 'hypothesis.'

Exercise:

This exercise will use the data called HH5090.DAT. These data are taken from U.S. Censuses conducted between 1950 and 1990. You will note that there are five household types included (married couple households, male-headed family households, female-headed family households, male-headed non-family households, and female-headed non-family households). There are also six age groups sorted according to the age of the householder (15-24, 25-34, 35-44, 45-54, 55-64, 65+), two races (Black and non-Black), five household sizes (1, 2, 3, 4, and 5+), and five years corresponding to censuses (1950, 1960, 1970, 1980, and 1990).

1. *Defining variables.* In this exercise, you are limited by the variables available to you. A variable like age is reasonably straightforward, but does involve somewhat arbitrary age groupings. The variable race is measured as a dichotomy and thus masks considerable variation, particularly within the non-Black category (which includes Whites, Asians, and so on). Household type also includes considerable variation. To illustrate this point, identify three different types of families that would be included under the category 'married couples.'

2. *Describing the data.* Provide a frequency distribution for each of the variables in the database. Do so by clicking on the 'Command' button and then on 'Marginals.'

Year: 1950 1960 1970 1980 1990

%

Race: non-Black Black

%

Age: 15-24 25-34 35-44 45-54 55-64 65+

%

HH Married Male family Female family Male non-family Female non-family

%

Size 1 2 3 4 5+

%

3. *The relationship between year and household type.* Which of these two variables would you consider to be the independent variable? Which variable would you consider to be the dependent variable?

To examine the relationship between year and household type create a cross-tab by first clicking on the ‘Command’ button, and then on ‘Crosstab.’ A dialog box will open. First, click on ‘Year,’ then ‘Race,’ and then ‘Select.’ Then click on the button labeled ‘Table’ and then ‘Percent Across.’ You will then see your results. Note: you must select percent across in order to obtain the correct percentages (this point will be discussed in class). Complete the following table using the results you obtain.

Year	Household Type				
	Married Couple	Male Headed Family	Female Headed Family	Male Headed Non-Family	Female Headed Non-Family
1950					
1960					
1970					
1980					
1990					
Total					

What does this table tell you about change in the various types of households over time?

Next click on the ‘Table’ button once again and then click on the ‘Chi square’ button. This will create a chi-square test for the relationship between year and household type. If the value of chi-square is such that it yields a significance level less than .05, the hypothesis of a relationship cannot be rejected. Do you reject the possibility of a relationship in this case?

4. *The relationship between year, household type, and race.* Now consider the relationship between household type across time as it varies according to race. Which variable(s) are dependent? Which variable(s) are independent?

To create a table indicating the change across time in household type for the two race groups click on the 'Table' button once again and then click on 'Control.' A dialog box will appear from which you will choose 'Race' and then 'Select.' Now click on the 'Table' button once again and choose 'Percent Across.' You will now see your results. Complete the following table using the results you obtain.

Non-Blacks

Year	Household Type				
	Married Couple	Male Headed Family	Female Headed Family	Male Headed Non-Family	Female Headed Non-Family
1950					
1960					
1970					
1980					
1990					
Total					

Blacks

Year	Household Type				
	Married Couple	Male Headed Family	Female Headed Family	Male Headed Non-Family	Female Headed Non-Family
1950					
1960					
1970					
1980					
1990					
Total					

What do these results tell you about the relationship between race and household type?

What do these results tell you about the change in household type across time for the two race groups? In particular, is change more dramatic in some household types for one of the race groups?

Finally, click on the 'Table' button once again and choose 'Chi square.' What do the chi square values tell you about the relationship between household type and year for each of the race groups?