

## **“Residential settlement patterns by race and ethnicity”- A Data Analysis Module**

Alan Grigsby, University of Cincinnati

### **Summary:**

In this learning module students will analyze 2010 American Community Survey (ACS) data using WebChip 3.0 and take note of contemporary trends in urban sociology. After completing the data assignment in lab, students will be asked to articulate (in essay form) how the U.S. landscape has changed since the post-War era. This latter component will be informed mostly by readings and course lectures that correspond with this module.

### **Learning Goals:**

*Substantive:*

- 1) Observe 2010 residential settlement patterns;
- 2) Discover how the present-day US population is distributed across various Census categories;
- 3) Specifically, we will determine what percent of Americans live in suburbs,
- 4) What percentage of racial minorities now reside in suburbs/city, and
- 5) To see whether the social characteristics of people who live in cities, suburbs and non-metro areas differ.

*Methodological/Quantitative Skills*

- 1) Use software to access and analyze census data
- 2) Create and read frequency tables
- 3) Create and interpret bivariate tables/cross-tabs
- 4) Quantitative reasoning
- 5) Quantitative writing
- 6) Identifying population trends over time

### **Context for Use**

This module was designed to be used in an advanced undergraduate Urban Sociology course to show students how demographic and geographic trends on the racial composition of cities have changed over time.

### **Description and Teaching material:**

Exercises PDF

Exercises DOC

### **Teaching/facilitation Notes and Tips**

The quantitative reasoning (QR) activities noted in this module are accessible through the SSDAN data web-tool (<http://www.ssdan.net/datacounts/data/>). These could potentially stand alone in non-urban sociology classes. I recommend using class time to complete and discuss the following exercises, taking a separate day to teach quantitative writing, and giving student as many attempts as possible to revise their written assessment.

In order for students to complete a written assessment (essay) on this topic, instructors will need to give historical overviews of urban growth/change, residential segregation, and suburbanization. I typically lecture and assign readings on these topics, but there are also some multimedia resources, including videos, that can supplement lectures and readings for instructors wishing to adopt this for an urban course. (See below)

### **Resource list/guide**

- PBS documentary *RACE: The Power of an Illusion*, episode III “*The House We Live In*”

### **Assessment**

- Essay on suburban change that discusses the findings from lab in connection with class material (lectures and readings).

### **Bibliography**

Farley and Squires. 1978. “‘Chocolate Cities, Vanilla Suburbs’: Will the Trend toward Racially Separate Communities continue?”. *Social Science Research*.

Frey. 2015. *The Diversity Explosion*.

Jackson, K. 1985. *Crabgrass Frontier*.

Lin and Mele. 2014. *The Urban Sociology Reader* (2<sup>nd</sup> edition).

Massey and Denton. 1993. *American Apartheid*.

## **“Residential settlement patterns by race and ethnicity”- A Data Analysis Module**

### **Summary:**

In class, we discussed the US Census definitions of metropolitan areas—including urban and suburban areas. We also discussed a brief history of urban inequality to help frame our understanding of the urban landscape in America. In this assignment you will analyze 2010 American Community Survey (ACS) data and take note of various trends. After we complete this lab, we will compare historical patterns with the recent trends in suburbanization.

### **Learning Goals:**

#### *Substantive:*

- 1) Observe 2010 residential settlement patterns;
- 2) Discover how the present-day US population is distributed across various Census categories;
- 3) Specifically, we will determine what percent of Americans live in suburbs,
- 4) What percentage of racial minorities now reside in suburbs/city, and
- 5) To see whether the social characteristics of people who live in cities, suburbs and non-metro areas differ.

#### *Methodological/Quantitative Skills*

- 1) Use software to access and analyze census data
- 2) Create and read frequency tables
- 3) Create and interpret bivariate tables/cross-tabs
- 4) Quantitative reasoning
- 5) Quantitative writing
- 6) Identifying population trends over time

## ***1. How is the U.S. population distributed across the Census categories of metro, suburban, and non-metro places?***

In order to answer this first question, you need to open WebCHIP and open a data set called “POP GEO-REV”

### **Instructions:<sup>1</sup>**

1. <http://www.ssdan.net/datacounts/data/>
2. From there, click “Browse” on the left sidebar. Find “acs2010” in the dropdown box and select it.
3. Scroll down through the list of data sets until you find “popgeo-rev.DAT”. Highlight and click “submit.” This will bring up the data set in the WebCHIP program and it is ready for analysis. (Choose WebCHIP 3.0 or latest version)
4. You can also click [here](#) to open the dataset in WebCHIP.
5. When you open this dataset, POP GEO-REV.DAT, you’ll notice it contains 2010 aggregate data on the total U.S. population, (N=306,738,434). This number is a close approximation to the US total population in 2010, but because the data contains counts from 2008 to 2010 we cannot interpret this as an *exact* count at one point in time.

Additionally, the data set contains four variables: *RaceEth* (racial and ethnic status in seven categories), *Region* of the country (in four categories), “geo” which is the city size variable in three categories (urban, suburban, non-metro), and *age* (in eight categories).

6. Use the “**marginals**” function to get the marginal frequencies for all the variables contained in the file, i.e., the percentage of the US population that falls into each of those racial, regional, city-size, and age categories.

[select and click on the “command” tab and then click “marginals” in the drop down menu]

### Preliminary Questions:

- a. In 2010, what percentage of the US population was Hispanic? \_\_\_\_\_
- b. What percent was African American? \_\_\_\_\_
- c. What percentage lived in the South? \_\_\_\_\_
- d. What percentage was between the ages of 15 and 24? \_\_\_\_\_
- e. Now look closely at the marginals for the variable GEO. What is the percentage distribution of people across the Census city-type categories of “city” and “suburb”?
- f. Are these percentages about what you expected to find?
- d. How do they differ from your expectations?

On a separate sheet, write a short paragraph about what you learn from the marginals on GEO:

---

<sup>1</sup> Must use [Internet Explorer](#) (App will not launch in Chrome).

## ***2. What are some of the social differences between people who live in the cities and those who live in the suburbs?***

One of the readings we will discuss in the course is a paper by Farley and colleagues titled “Chocolate Cities, Vanilla Suburbs.” The title suggests that different racial and ethnic groups are distributed differently among city-type categories. How pronounced are these differences today?

To begin, get **POPGeo-REV.DAT** back on your screen (follow the directions above). Then prepare a crosstab showing the racial and ethnic composition of the cities, the suburbs, and the non-metro areas.

\*Under the Table tab, click to create a *Percent Down crosstab* with RaceEth as the “row variable” and Geo as the “column variable”\*

Answer the following questions based on the two geographical categories of city and suburb (for the time being, ignore the “non-metro” and “mixed” categories):

a. Do cities and suburban areas have different racial and ethnic compositions? How pronounced are these differences?

b. Which of the two residential categories (City/Suburb) has the highest percentage of whites?

c. The highest percentage of blacks? \_\_\_\_\_

d. Hispanics? \_\_\_\_\_

e. Asians? \_\_\_\_\_

f. Based on the analysis you have just done, is there anything wrong with the depiction, “Chocolate Cities, Vanilla Suburbs?”

g. Focusing just on racial composition, are the suburbs “more like” the cities or “more like” the non-metro areas?

**Now...** prepare a *Percent Across crosstab* showing the racial and ethnic composition of the cities, the suburbs, and the non-metro areas.

\*Under the Table tab, click to create a *Percent Across crosstab* with RaceEth as the “row variable” and Geo as the “column variable”\*

h. In the same way as you did in *a* through *g*... interpret the data in the percent across table.

i. What are the main differences/similarities between these two crosstabs?