

Racial and Ethnic Composition of an Urban ZCTA and Census Tracts

Data Analysis Lab

Summary: In class, we discussed racial/ethnic and income segregation patterns in urban areas throughout the United States. We also discussed a brief history of urban inequality to help frame our understanding of these patterns. The goals of this Data Lab are to learn (1) how to navigate and access data on the website, (2) how to read and talk about tables, charts, and maps, and (3) how to write about and present patterns in a report. By the end of this Data Lab, you will be able to talk about frequency and bivariate tables with comfort. Specifically, you will examine the income distribution and racial/ethnic makeup of ZIP Code Tabulation Area (ZCTA) 02136 (Hyde Park neighborhood in Boston, Massachusetts).

Reminder: You should watch the introductory video to this project BEFORE beginning this module.

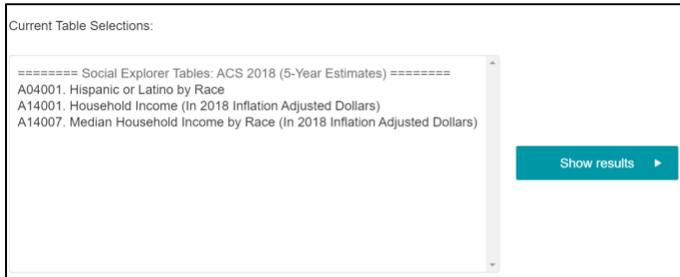
Reading Tables:

1. Go to www.SocialExplorer.com.
2. Click on the “Tables” tab. We are going to use the American Community Surveys 5-year estimates. Click on this section to expand it.
3. Select “Begin Report” next to American Community Survey (ACS) 2014-2018 (5-year estimates).
4. Since we are interested in ZIP codes, we need to select that under geographic type. Scroll all the way to the bottom for “5-digit ZIP Code Tabulation Area”
5. Under “Select a 3-Digit ZIP Code Tabulation Area” scroll to **021**.
6. Select **02136** in the box below. Once it is highlighted, click “Add.”
7. Now we are ready to choose variables. Click “Proceed to Tables.”

The image contains two screenshots of the Social Explorer website interface. The left screenshot shows the 'ACS 2018 (5-Year Estimates)' page with 'Geographies' selected and 'FIPS Codes' chosen. The right screenshot shows the 'Select one or more geographic areas' list with 'ZCTA5 02136' selected and the 'Proceed to Tables' button visible.

Further instructions on the next page.

8. Since we are interested in the racial/ethnic makeup and income distribution of this ZIP code, we need to find these variables.
9. Select **A04001. Hispanic or Latino by Race**. Once the variable is highlighted, click “Add” to add it to our selection. Repeat this for **A14001. Household Income (In 2018 Inflation Adjusted Dollars)** and **A14007. Median Household Income By Race (In 2014 Inflation Adjusted Dollars)**. You should have three items in your selection.
10. Now click “Show Results.”



Using the generated Tables, answer the Data Lab questions on the next page.

DATA LAB QUESTIONS

The first table you should see is the race and ethnic composition of 02136.

The top row says “Total Population.” This is the total population of 02136.

On the left-hand side, you will notice different racial and ethnic categories used by the Census Bureau. The first set of racial groups are not Hispanic or Latino, while the second set of racial groups *are* Hispanic or Latino.

The first column lists the count or “frequency” of each group residing in this zip code. The next column lists the percentage of residents for each group living in this zip code.

The frequency column is used to calculate the percentage of residents in each category. To calculate the percentages, divide the frequency for each group by the total population of the zip code. The sum of the percentages should be 100%.

Fill in the following table:

	Percentage	Frequency
Non-Hispanic Black		
Non-Hispanic White		
Hispanic or Latino of any race		
Other		
Total	100%	34,223

Using your calculations,

Which group is the largest? _____

What percentage of the ZIP code’s population is non-Hispanic white? _____

What percentage of the ZIP code’s population is non-Hispanic Black? _____

What percentage of the ZIP code’s population is Hispanic or Latino? _____

Which is the third largest group? _____

11. Now write about your findings. How would you describe the racial composition of the 02136 ZIP code?

12. Repeat the same steps for “Household Income.”

Fill in this table:

Household Income of ZCTA 02136

	Percentage	Frequency
Under \$50,000		
\$50,000-99,999		
\$100,000-199,999k		
\$200,000 and up		
Total	100%	11,995

Using your table, fill in the blanks:

According to the table, most households in make _____.

About ___% of 02136 households make more than \$100,000 a year.

Only 6.5%, or ___ households, in ZIP code 02136 make more than \$200,000 a year.

13. Now write about your findings. How would you describe the income distribution of the 02136 ZIP code?

14. So far in this module, we learned that the 02136 has a majority of Black residents and most household incomes are below \$50,000 per year. The next table compares the median household income across racial and ethnic groups.

FYI: The median income is used to help account for outliers. Imagine that Bill Gates lives in this neighborhood. If we were to calculate a mean (adding all of the incomes and dividing by the number of households), our average would be impacted by his large income. Instead, the median looks at the household in the middle of the distribution. In this calculation, imagine that we line up 100 households from the highest income to the lowest income. The median is the household in the middle. In this example, it is the 50th household in our lineup.

Turning back to the table, let’s look at the “Median Household Income by Race.” The first row lists the median household income for the whole neighborhood. The next row “White Alone Householder” lists the median household income for all households that the main householder identified as “White.” This means that they could also identify as Hispanic/Latino or not Hispanic/Latino. For this reason, we will look at the last row “White Alone Householder, not Hispanic or Latino” for the non-Hispanic white median household income.

Using the last table, answer the following questions:

14a. Which racial or ethnic group has the highest median household income?

Why do you think [this group] has the highest median household income? What could be going on here?

14b. Which racial or ethnic group has the lowest median household income?

Why do you think [this group] has the lowest median household income? What could be going on here?

15. How would you describe the relationship between race/ethnicity and income in 02136?

16. Last step. **Save and share** your report.

To save, click “Save As” and use your Full Name as the title. To share with me, click the share icon in the upper right corner of the screen. Copy/paste the web address and submit this on Canvas:

