

Easy Demographics

Fall 2023

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Scholars' Lab Fall 2023 GIS Workshops

https://guides.lib.virginia.edu/gis/teaching_resources

Social Explorer

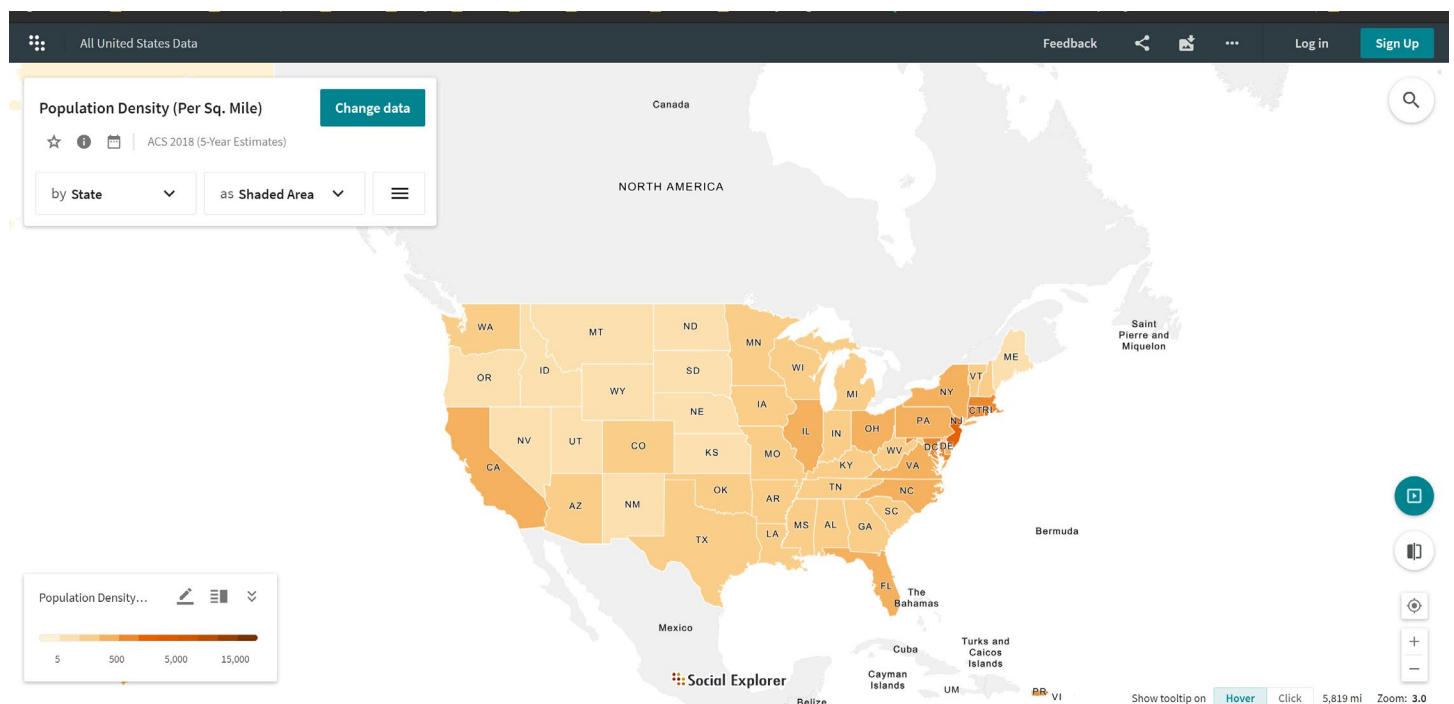
<http://www.socialexplorer.com/>

Social Explorer Help

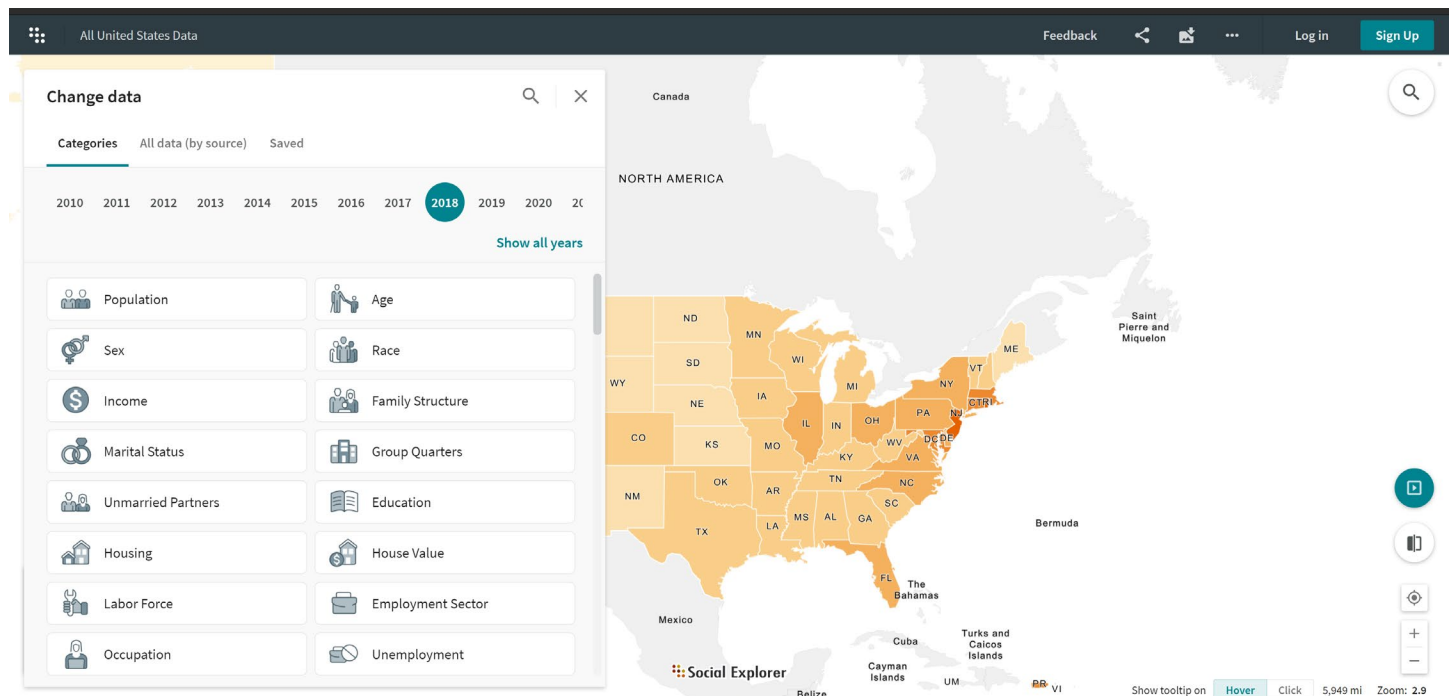
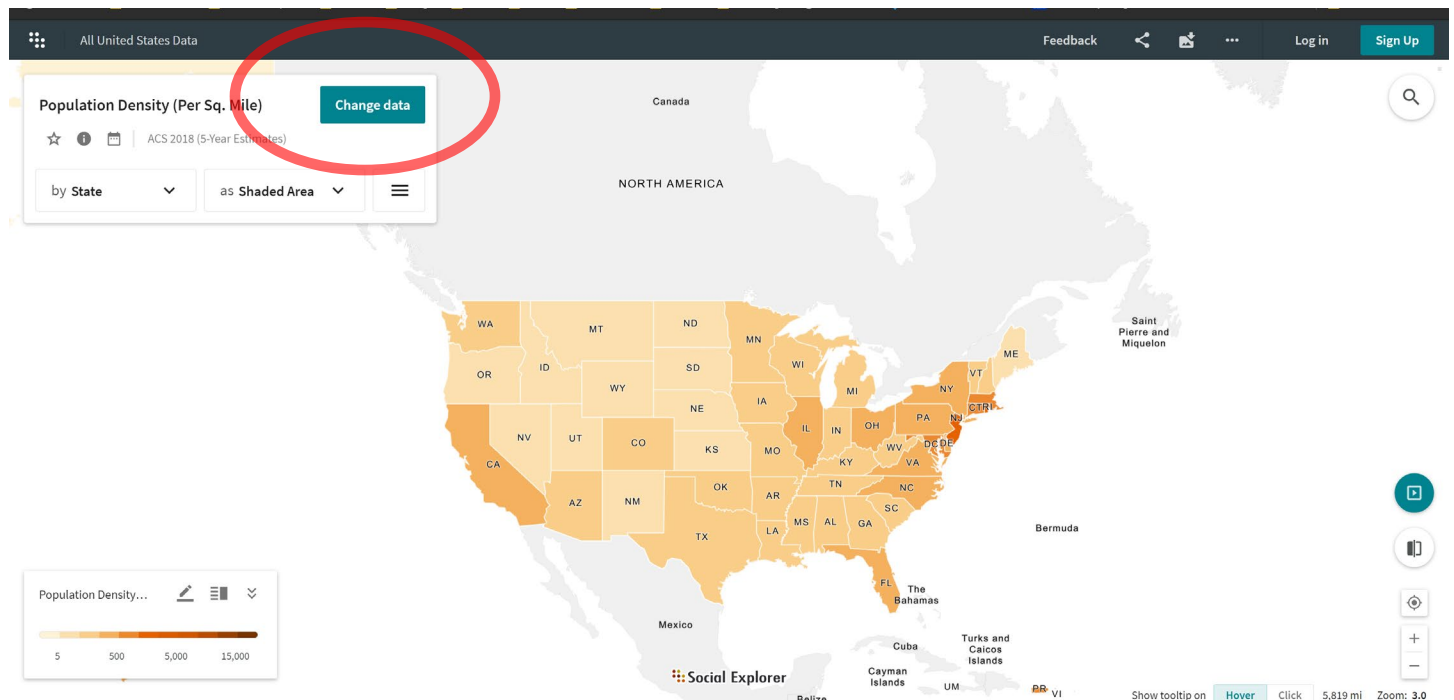
<http://www.socialexplorer.com/help>

Making a Map

Click the **Explore** button.

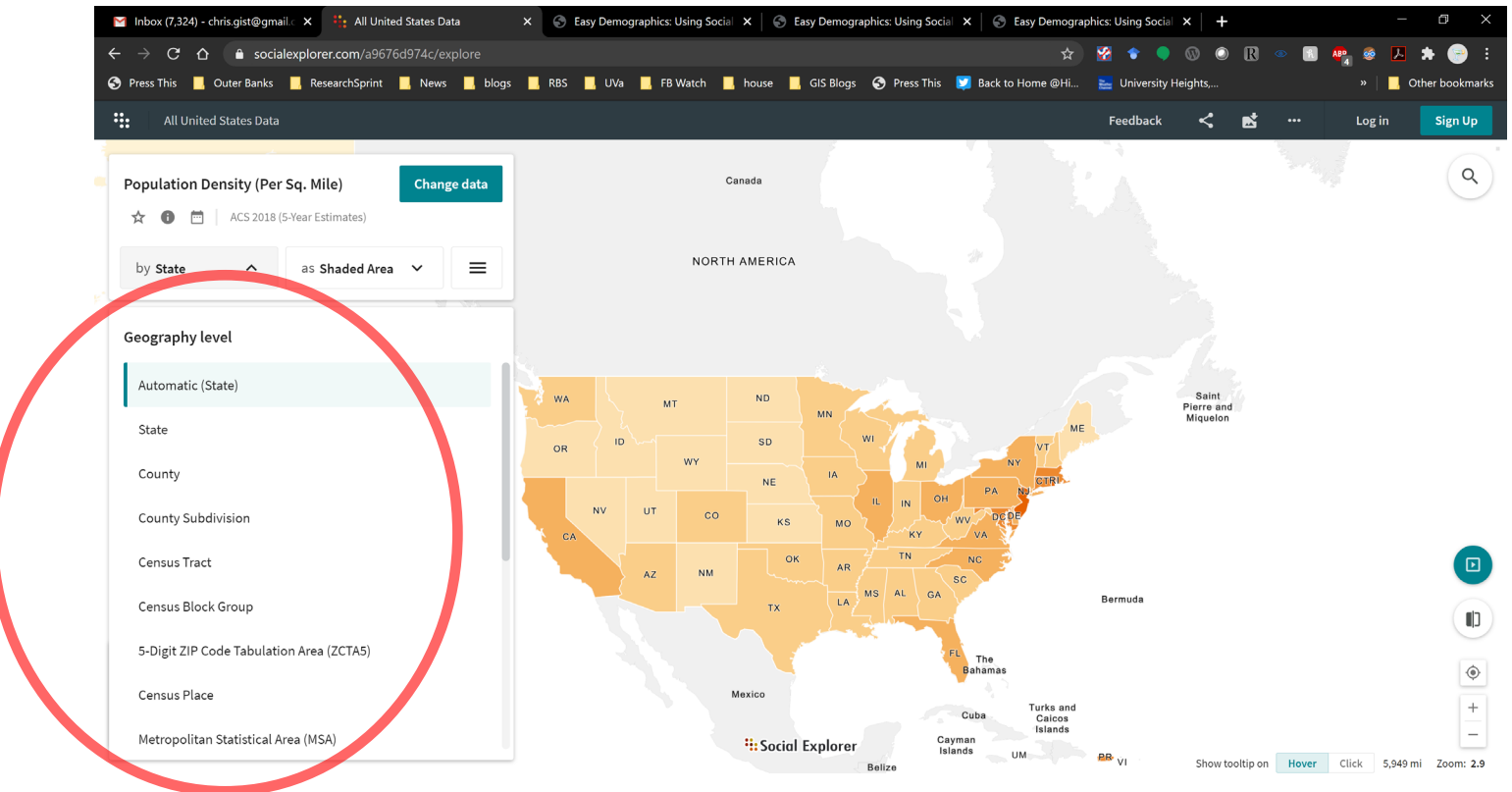
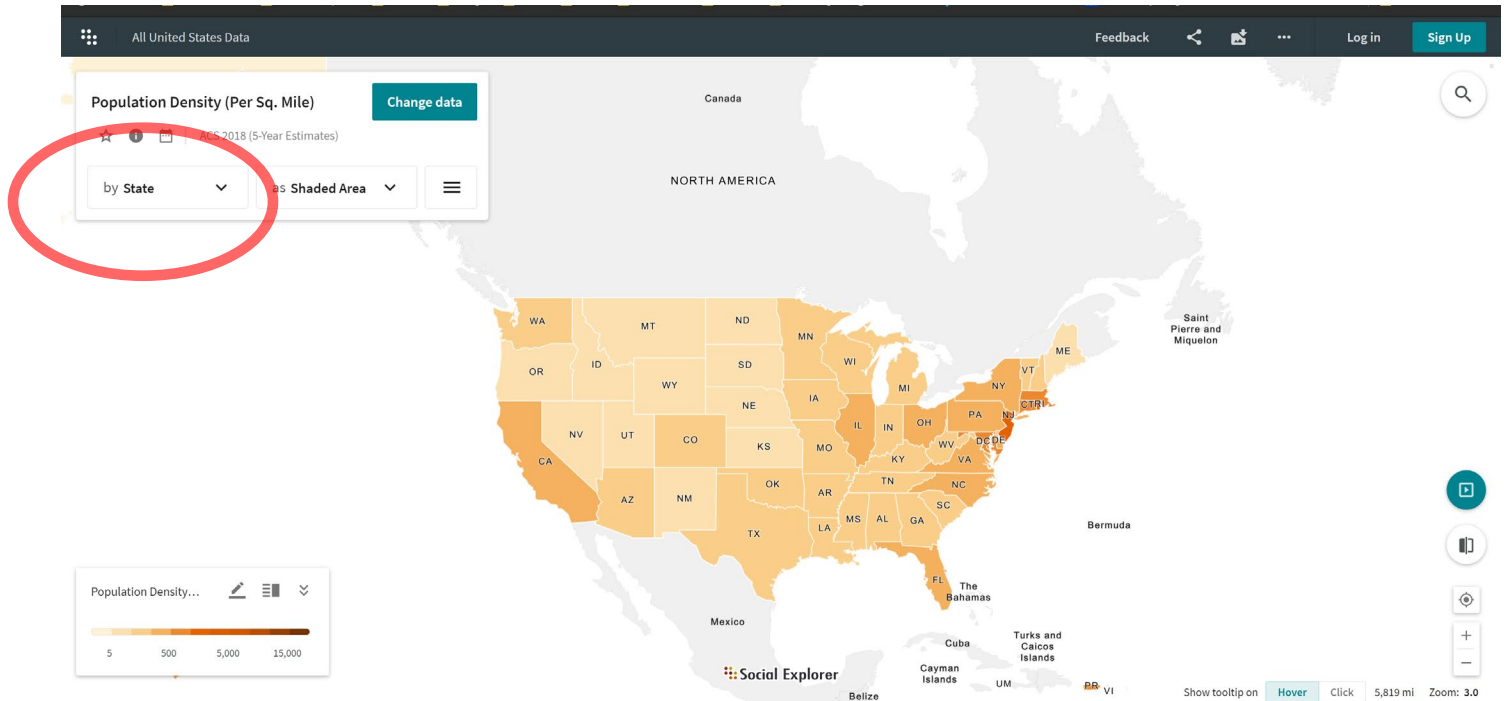


Change Indicator

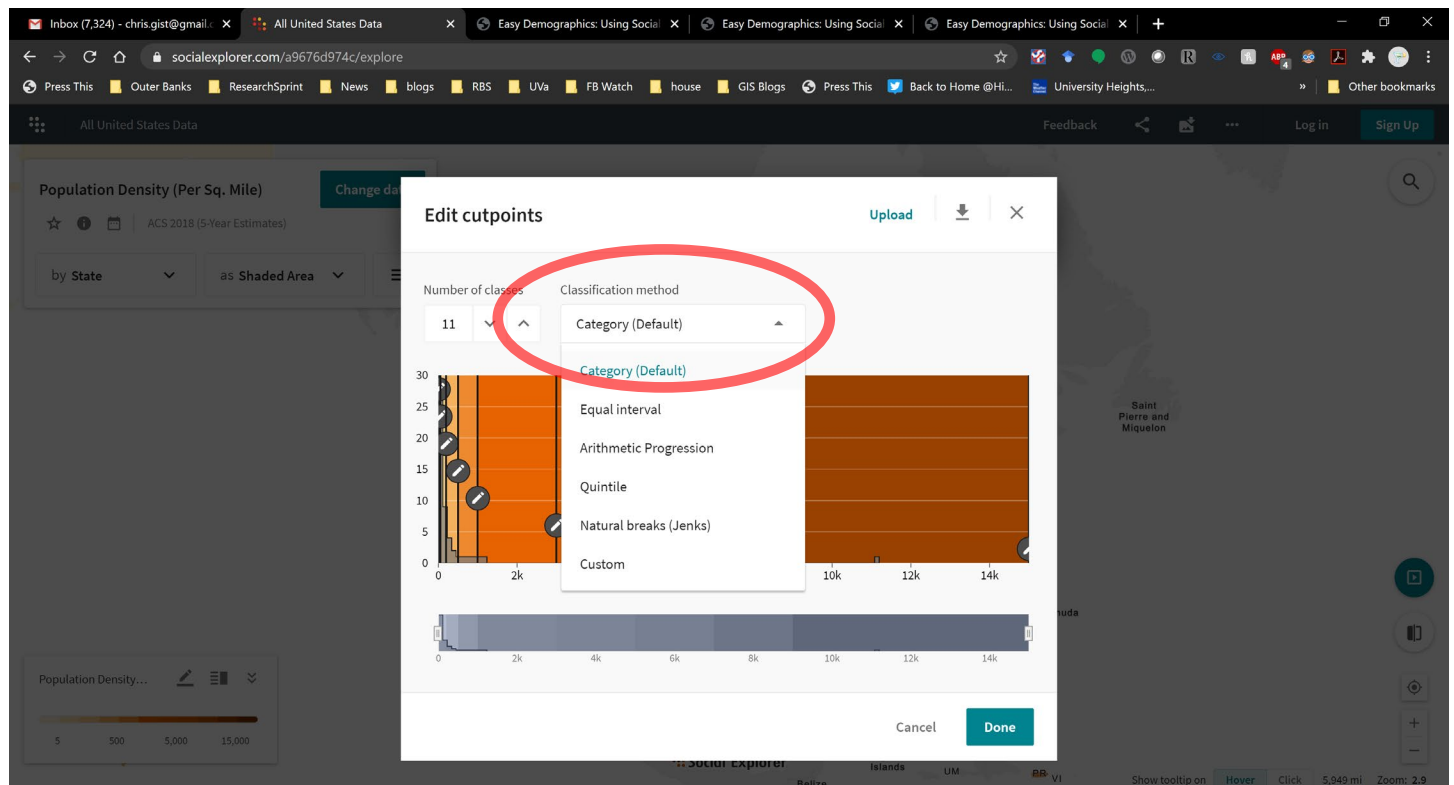
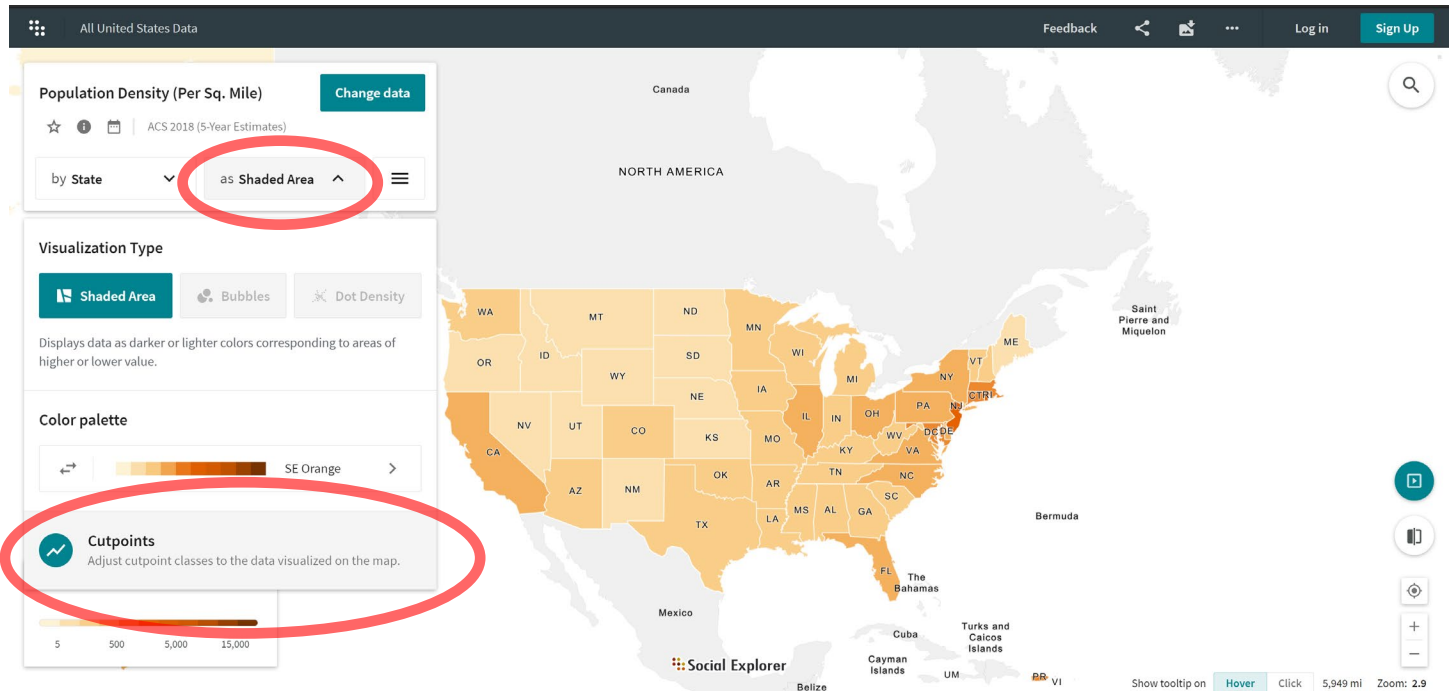


You can browse by category or by survey and use the slider to show available data for particular years.

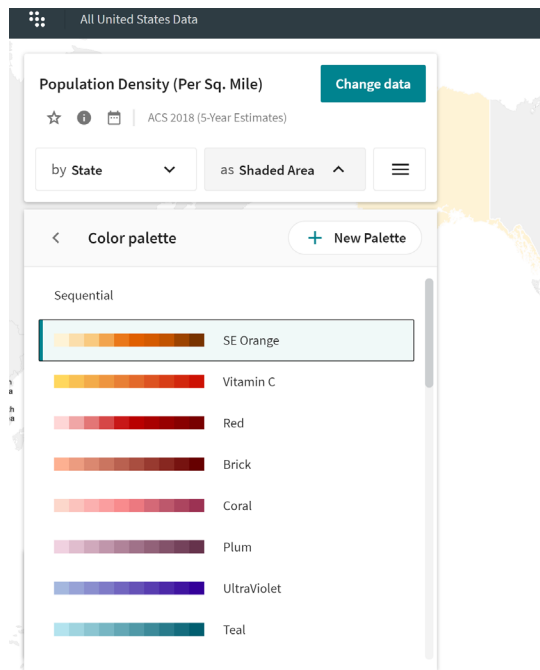
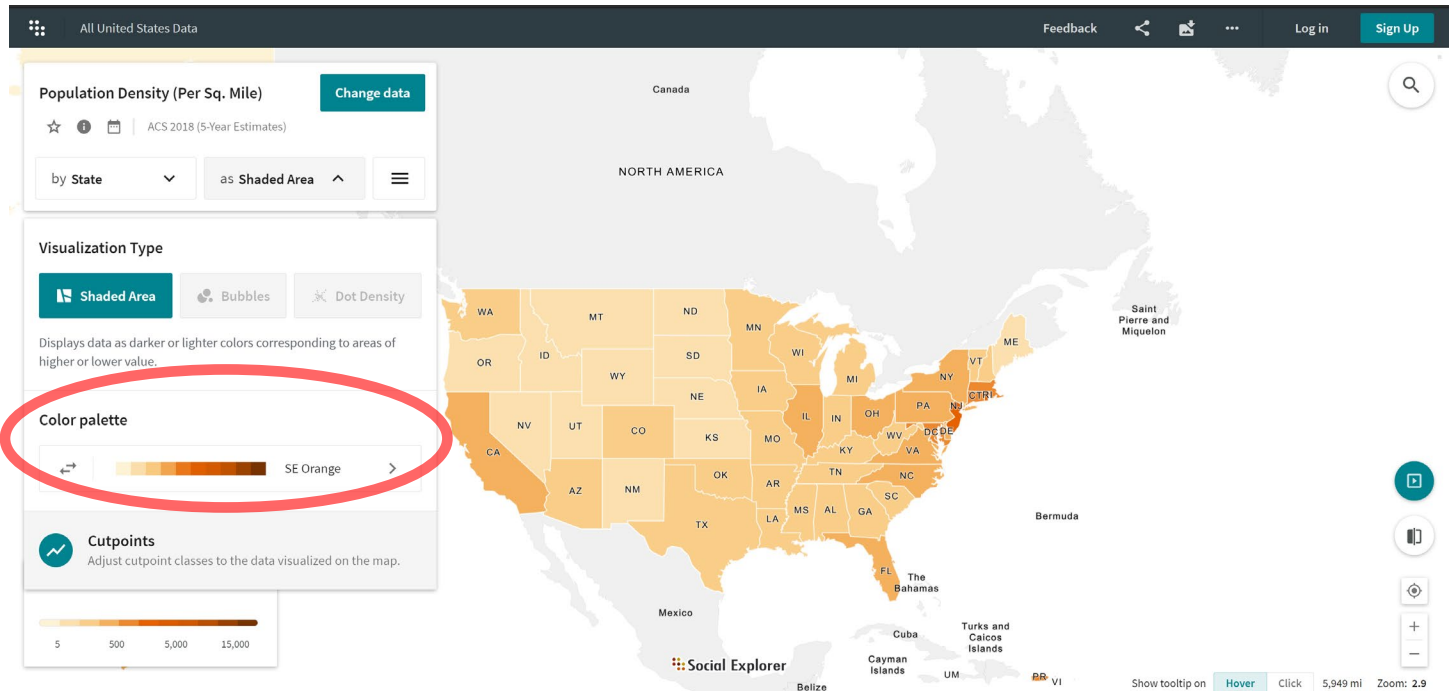
Change Geography



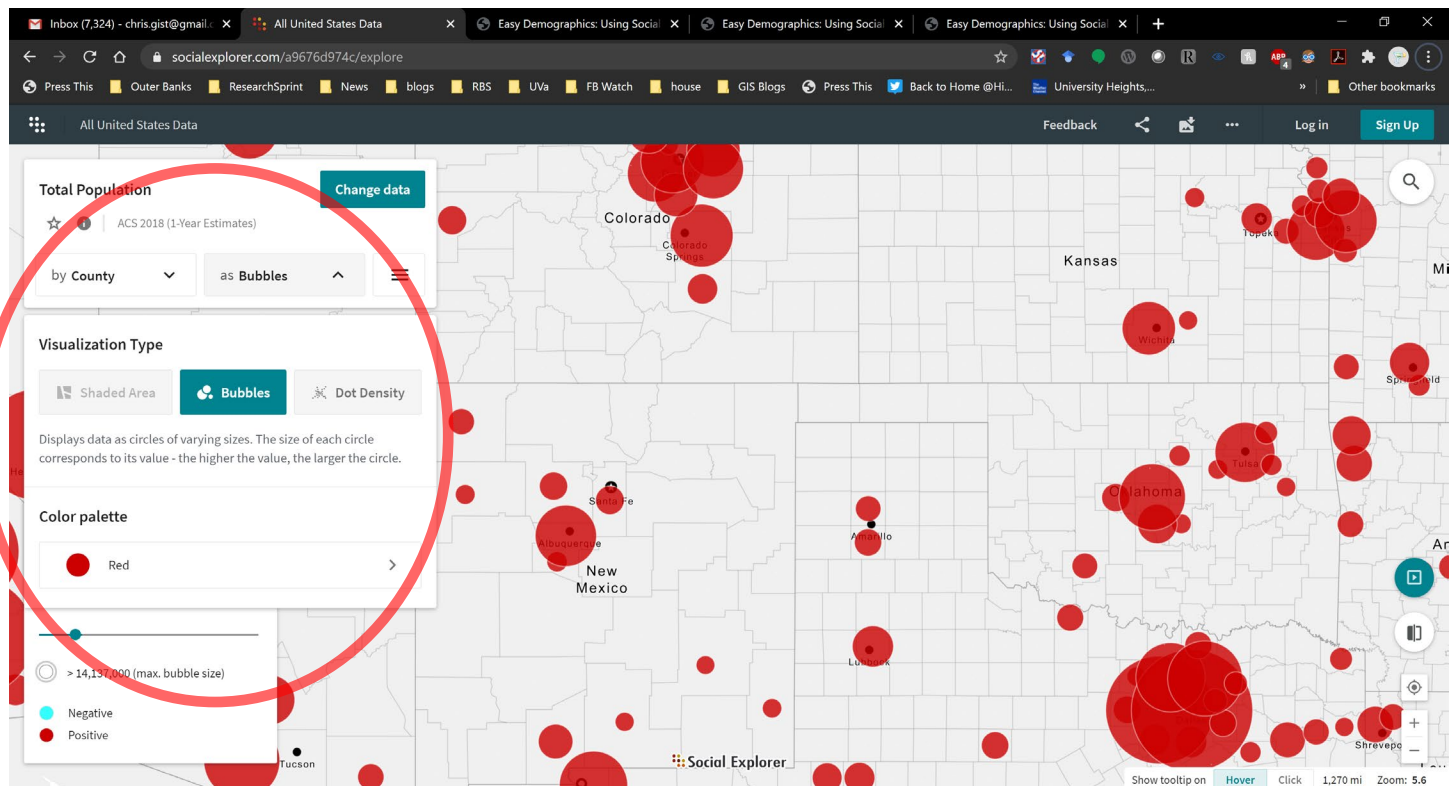
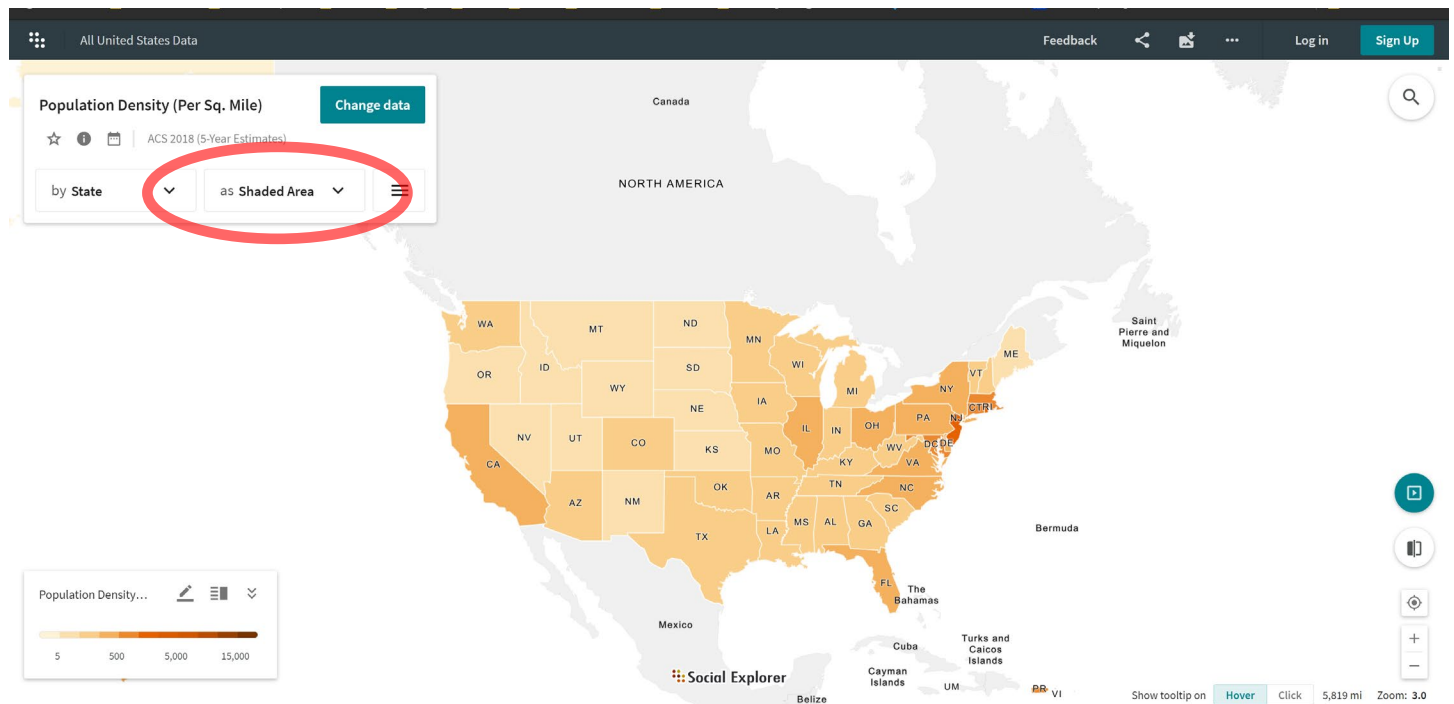
Change Category Bins (Cutpoints in SE)



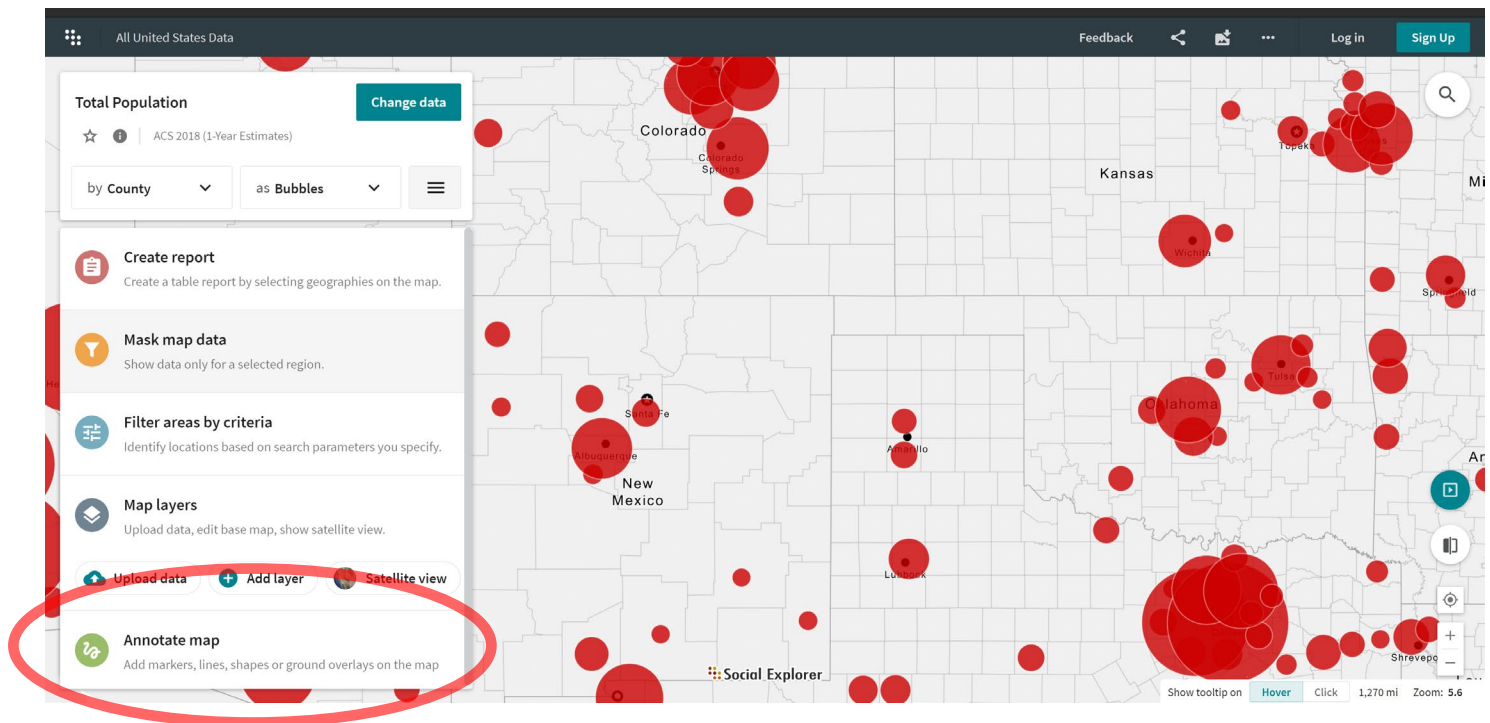
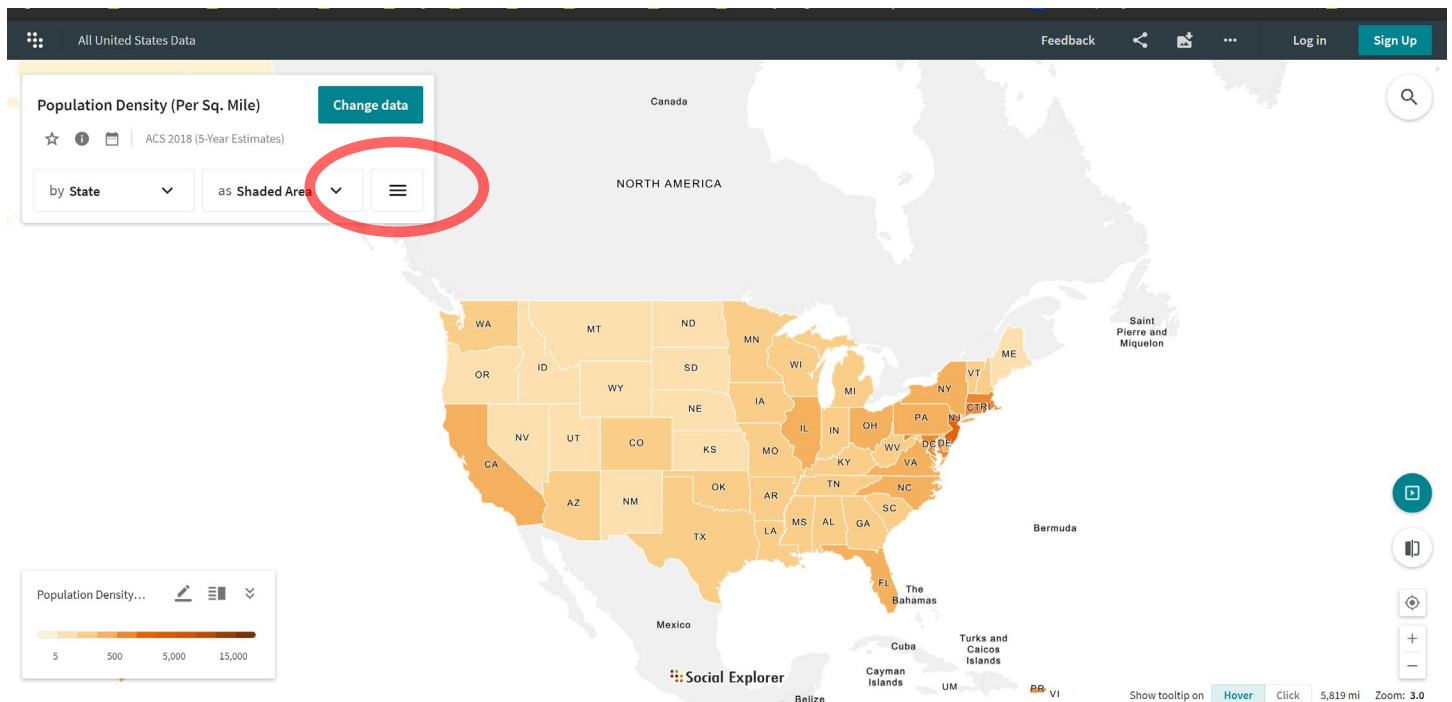
Change Color ramp

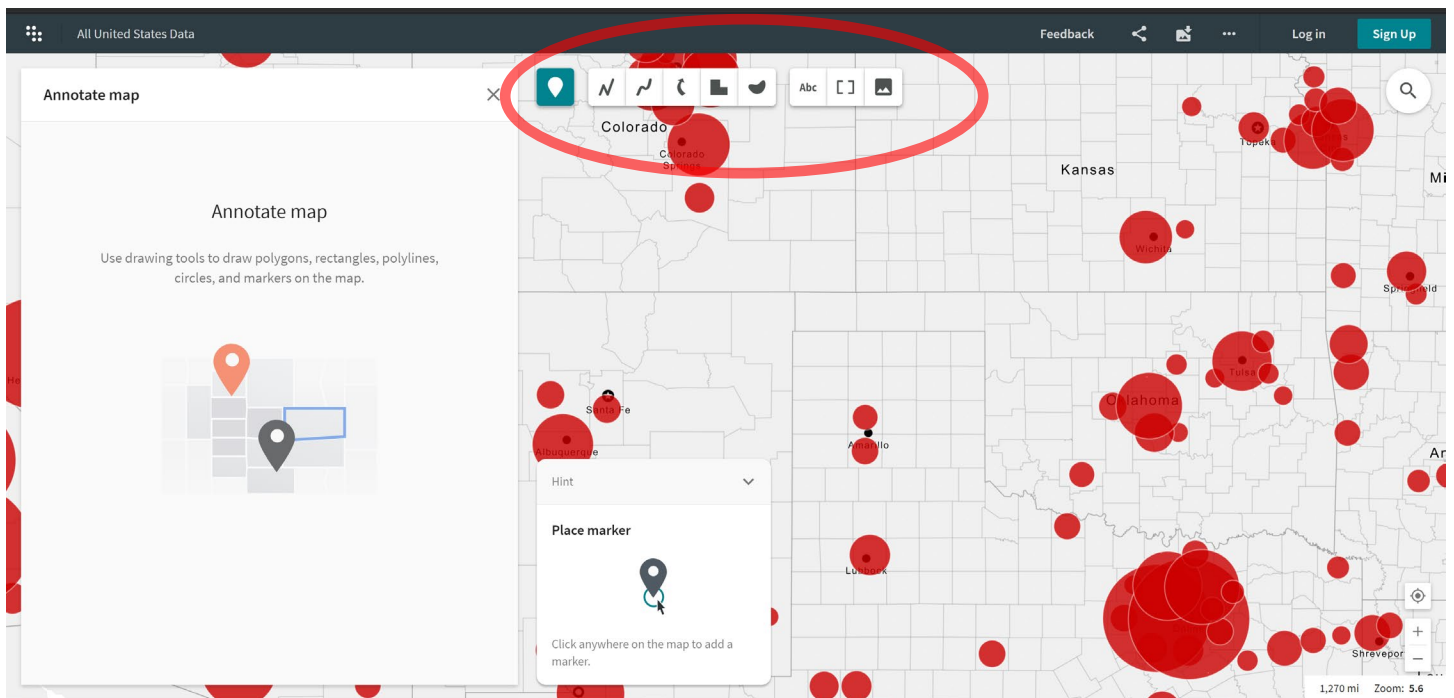


Change Symbolology

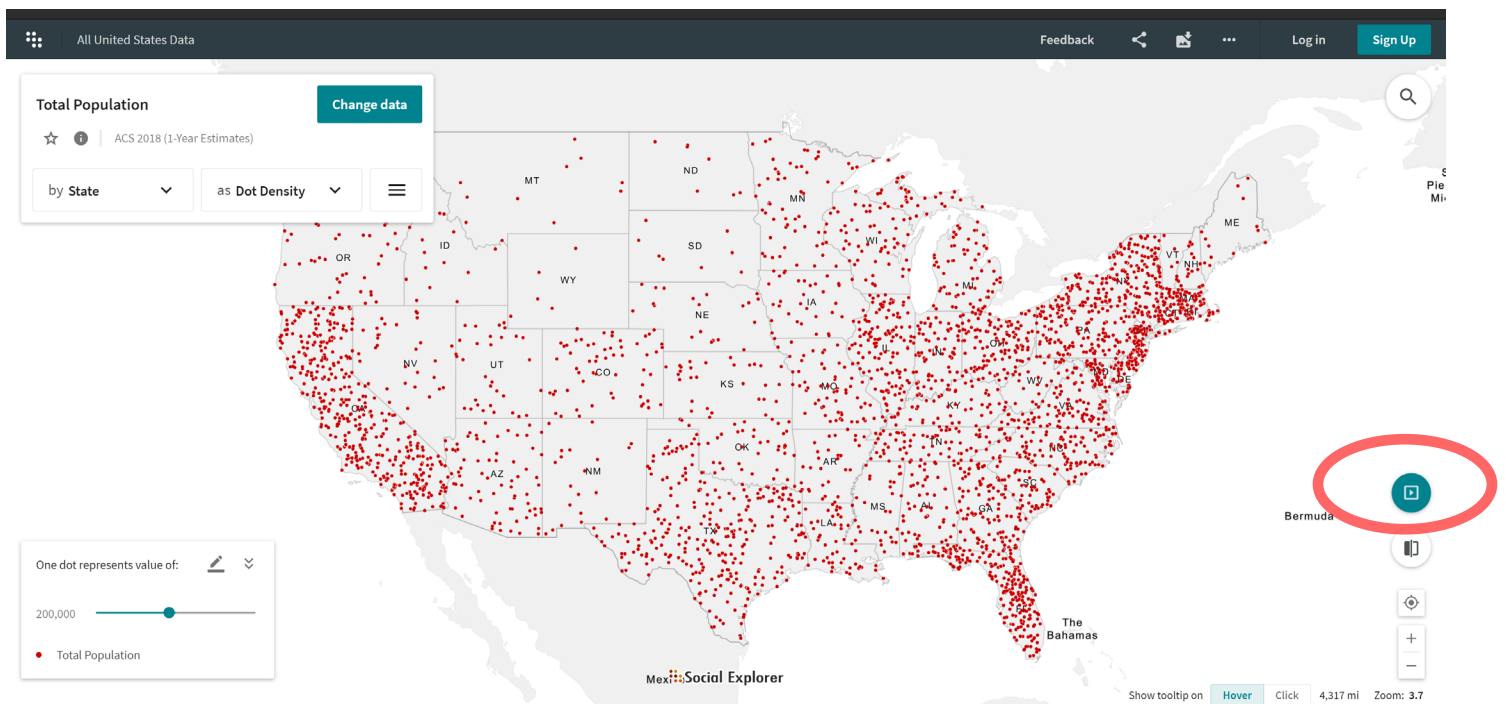


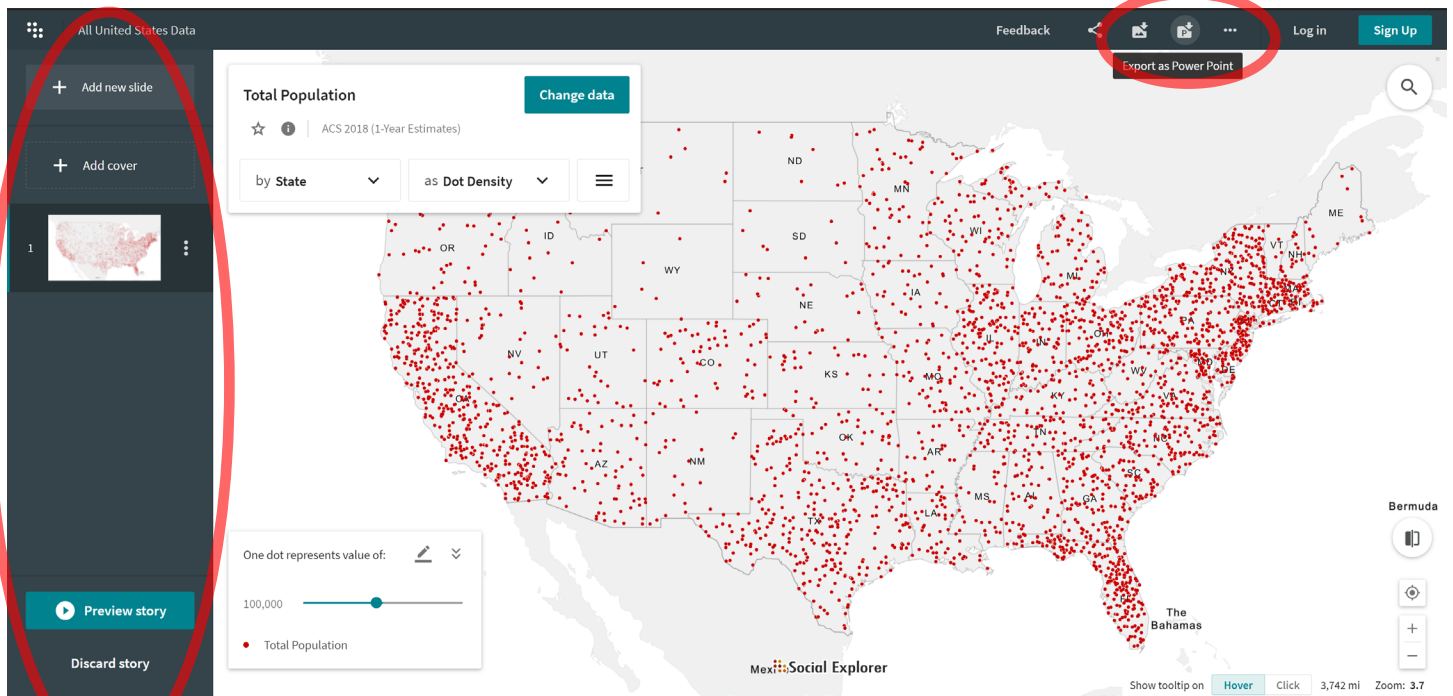
Annotate Map



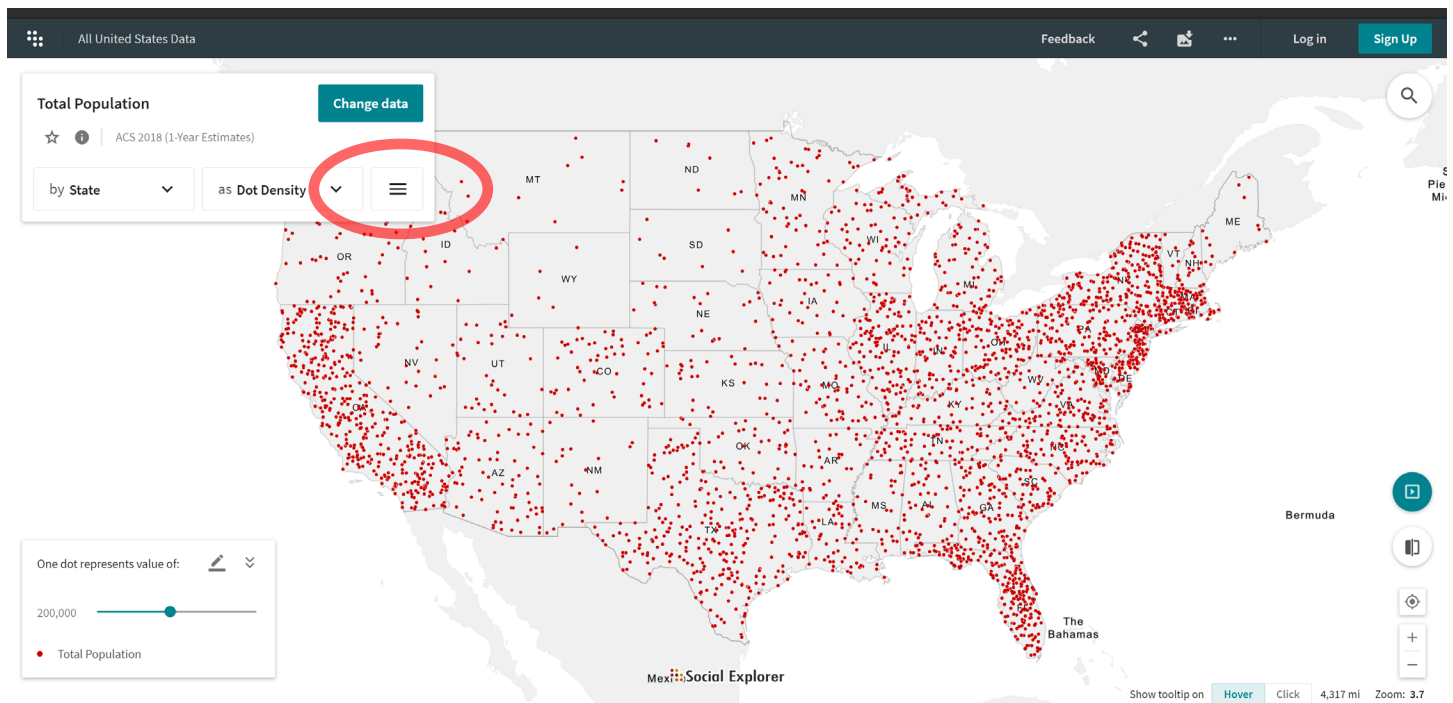


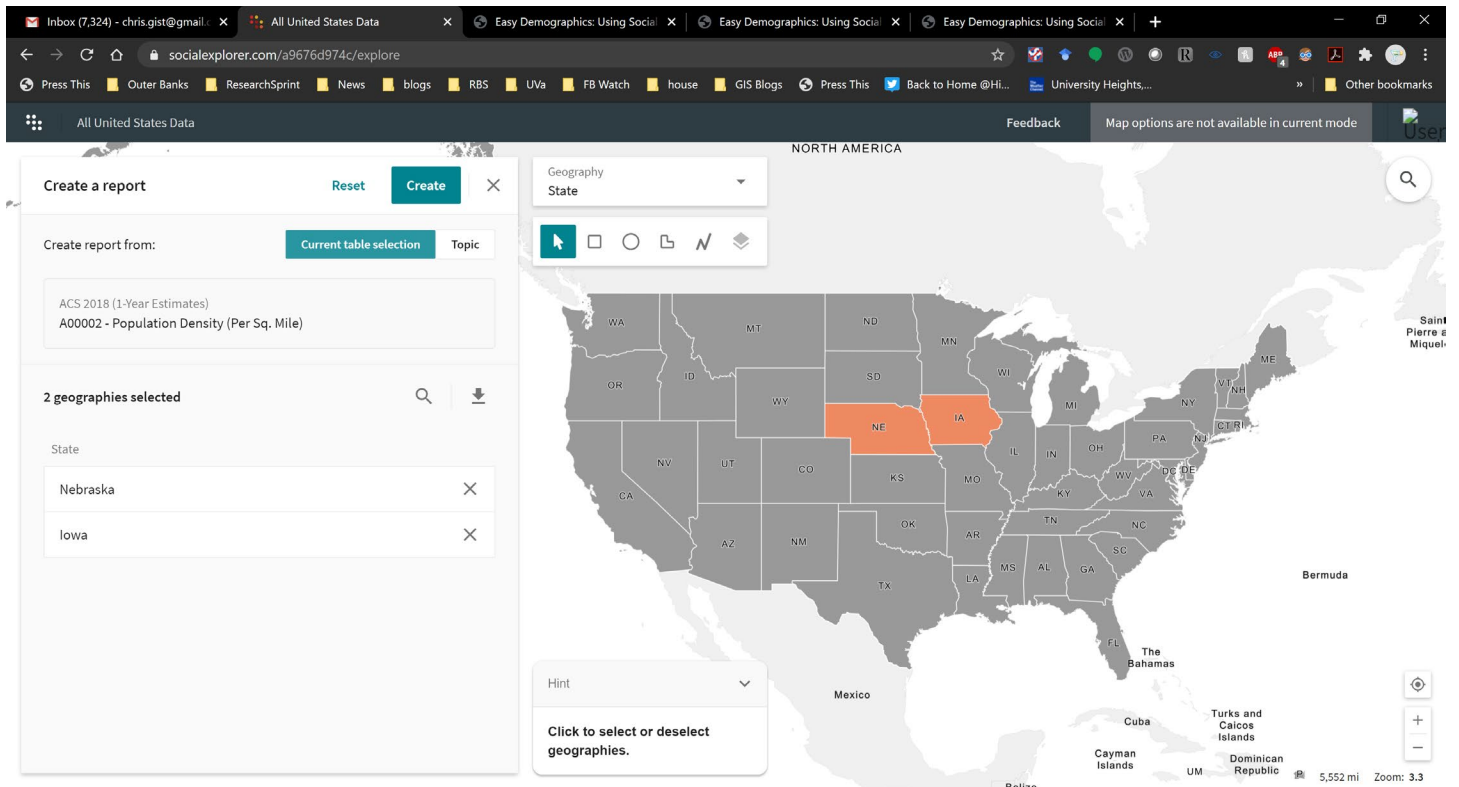
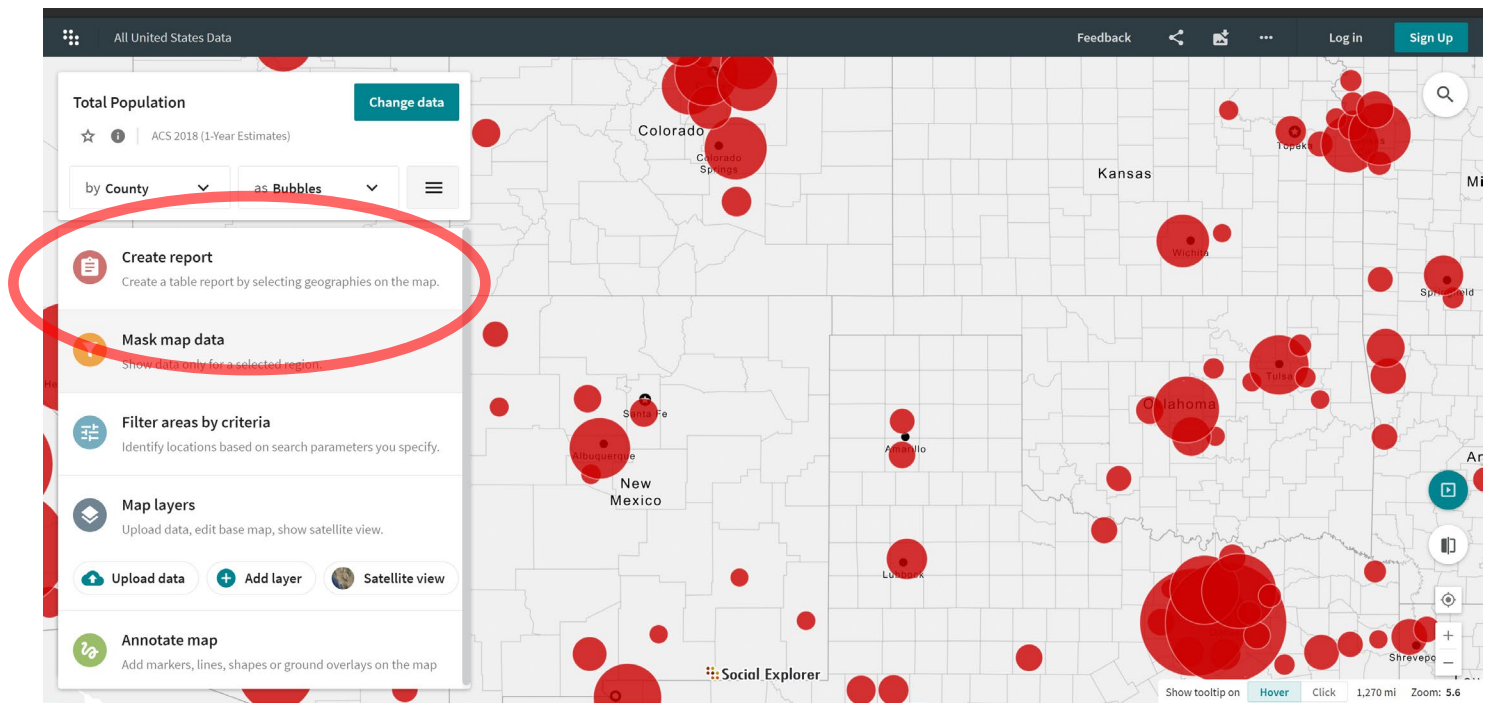
Snapshots and Powerpoint Export



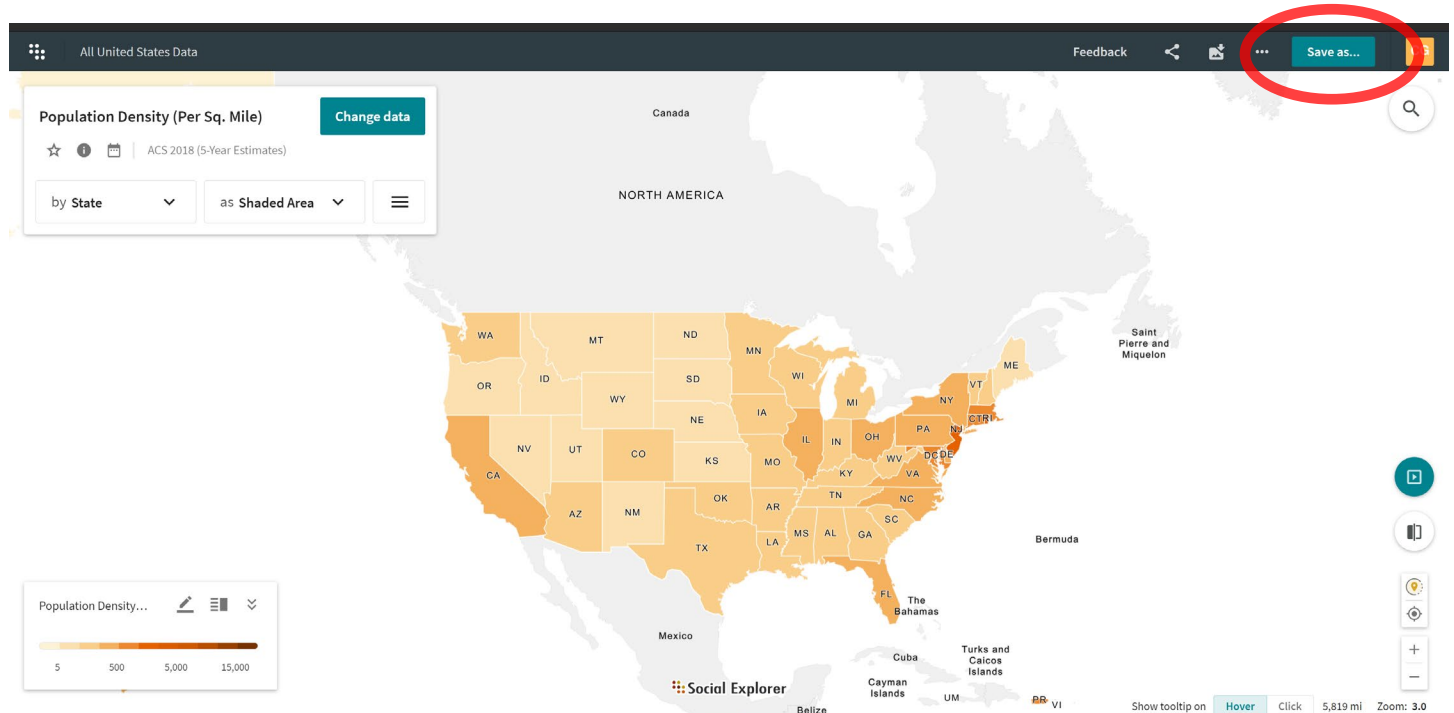


Make a Report





Save Project



Must be logged on to save project.

Extract Tabular Data

1. Click on **Tables** in the Social Explorer side panel.
2. Expand dataset of interest and select **Begin Report** link.

The screenshot shows the 'Social Explorer Tables' page. The left sidebar contains navigation links: 'Explore Maps', 'Tables', 'Teach and Learn Beta', 'Geodata Beta', 'My projects', 'Create new...', 'My Maps', 'My Reports', 'My Stories', 'Data Dictionary and documentation', and 'Website · Demographic Profiles'. The main content area is titled 'U.S. Decennial Census' and contains a description of the census data. Below the description, there's a table with three rows: 'Census 2010', 'Census 2010 (Redistricting Data - PL94)', and 'Census 2000'. Each row has a 'Begin Report' button and a 'More info' link. The 'Begin Report' button for the 'Census 2010' row is highlighted with a red circle.

3. Select **Geography** (Use **Blockgroups** to tutorial continuance).

Census 2010

Choose census year ► **Geographies** ► Tables ► Results

List Geographies FIPS Codes

Select a geographic type: (Show all geographies)

150 Block Group

Select a State:

Select a State

Select one or more geographic areas and click 'add':

All block groups in United States

4. Select **State (Virginia)**.

5. Select **County (Charlottesville City – cities at bottom of list)**.

Select a Census Tract

Select one or more geographic areas and click 'add':

All block groups in United States
All block groups in Virginia
All block groups in Charlottesville city, Virginia

Add Remove

Current Geography Selections:

==== Block Group - 150 =====
All block groups in Charlottesville city, Virginia

Proceed to Tables ►

6. Select **All block groups for Charlottesville city, Virginia**.

7. Click the **Add** button to add your selection to **Current Geography Selections**.

8. Click **Proceed to Tables**.

9. Select attributes by highlighting and using the **Add** button..

10. Click the **Show results** button..

The screenshot shows the Social Explorer interface. At the top, there is a list of tables: T1. Total Population, T2. Population Density (per sq. mile), T2A. Land Area (sq. miles), T3. Sex, T4. Sex By Age, T4A. Sex By Age - Cumulative (Less), T4B. Sex By Age - Cumulative (More), T7. Sex By Age (Short Version), T8. Age, T8A. Age - Cumulative (Less), T8B. Age - Cumulative (More), and T11. Age (Short Version). Below this list, there are abbreviations: AIAN - American Indian and Alaska Native; NHPI - Native Hawaiian and Other Pacific Islander. There are two buttons: 'Add' and 'Remove'. Below these, it says 'Current Table Selections:' followed by a list of selected tables: T4A. Sex By Age - Cumulative (Less), T4B. Sex By Age - Cumulative (More), T7. Sex By Age (Short Version), and T8. Age. At the bottom right, there is a red button labeled 'Show results'.

11. Click **Data Download**.

12. Check **Output DBF friendly column names**

14. Click link under **Download data by geography type** to download CSV.

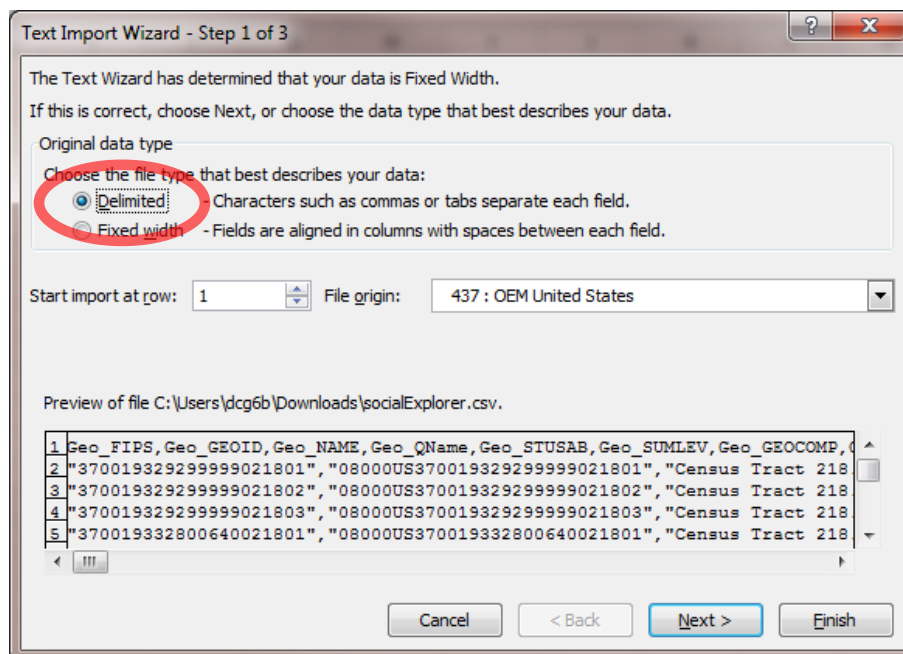
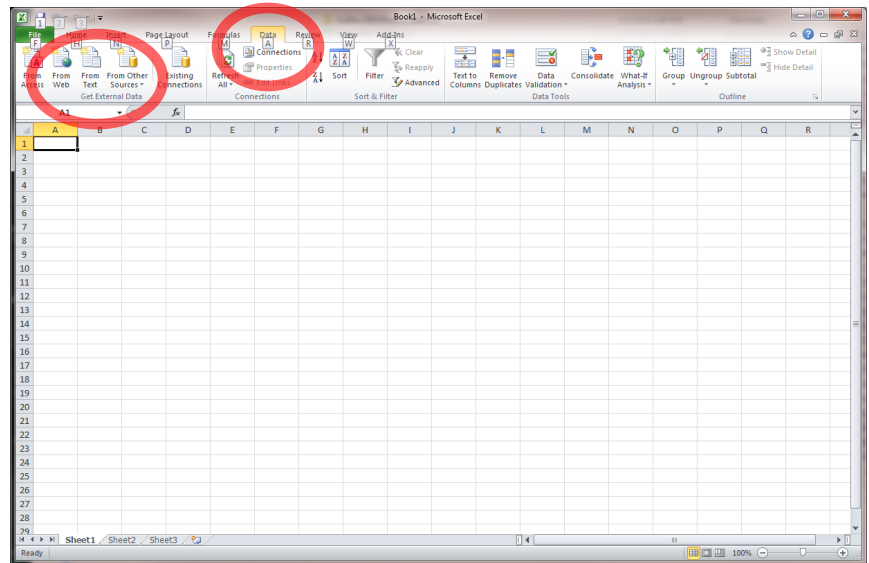
The screenshot shows the Social Explorer 'Data Download' page. The browser address bar shows 'www.socialexplorer.com/tables/C2010/R10888575'. The page has three tabs: 'Report', 'Excel', and 'Data Download'. Below the tabs, there is a paragraph explaining that data can be downloaded in CSV format. Below this, there is a section titled 'Please set options before you download any data or import programs (these options affect both)'. Under 'Output options:', there are several checkboxes: 'TAB delimited files (STATA users should use this option to make import more efficient & accurate!)', 'Output column labels in the first row', 'Output ALL geographic identifiers', 'Output percents (first variable in each table is the base)', and 'Output DBF friendly column names' (which is checked). Below this section, there is a section titled 'Download data by geography type:'. Under this section, there is a link 'Block Group data (CSV)' which is circled in red. Below this link, there are fields for 'Summary Level: 150', 'Geography Nesting: State-County-Census Tract-Block Group', and 'Selected: 37'. At the bottom left, there is a file name 'R10888575_SL150.csv' and at the bottom right, there is a link 'Show all downloads...'.

Adding new tabular data to boundary shapefile

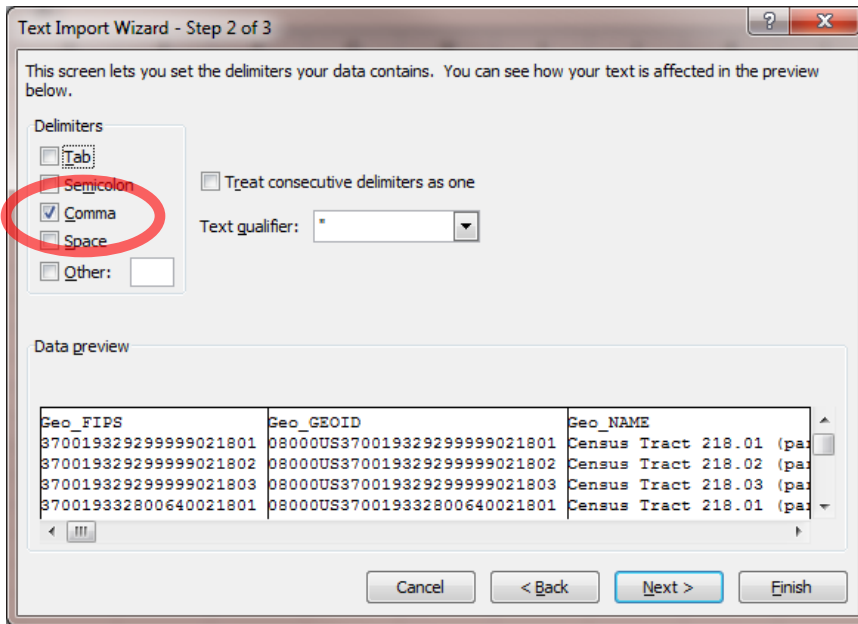
To join two tables, you need a unique key they have in common. With census data, that is usually the FIPS code. This data table has a slight issue with the formatting of the FIPS. Since these codes can have leading zeros, they must be stored as text in order to keep the leading characters intact. However if you just open the table from Social Explorer in a normal fashion in Excel, the FIPS codes are numbers and in scientific notation. Not good.

The following steps will guide you through the process of casting the FIPS codes correctly and joining to the boundary files.

1. Open Excel.
2. Click the **Data** tab.
3. Click **From Text** button.
4. Open downloaded CSV file.
5. Selected **Delimited** for file type.

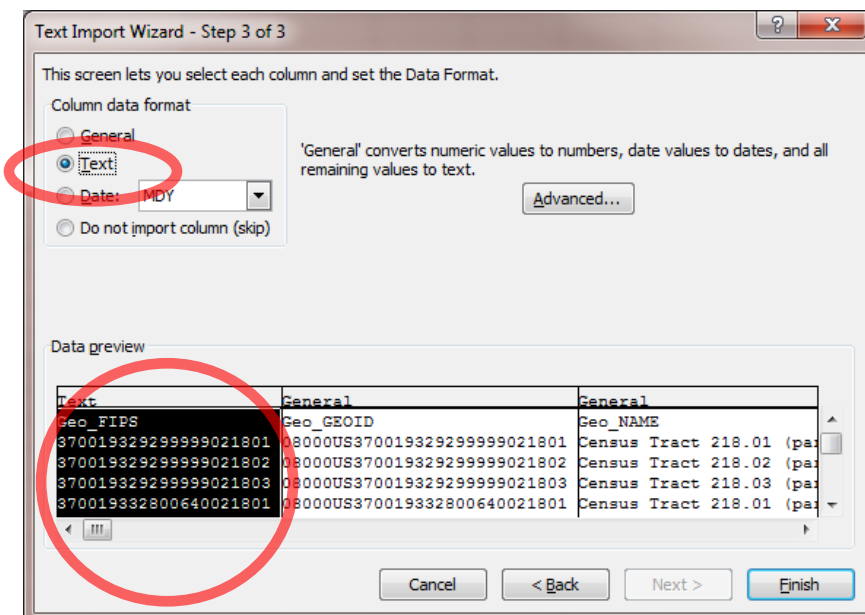


6. Click **Next**.
7. Select **Comma** for **Delimiters**.



8. Click **Next**.

9. Highlight the **Geo_FIPS** column and change the Column data format to **Text**.



10. Click **Finish**.

11. Save spreadsheet.