South Dakota State Data Conference
Pierre SD October 13, 2017

Preparing Census data for use in Tableau

David Schuler

Data Dissemination Specialist

Data Dissemination Branch
Customer Liaison Marketing and Services Office
Communications Directorate
Bureau of Census
U.S. Department of Commerce
Geneva, IL.
david.f.schuler@census.gov
(C) 312-636-2552

21ˢᵗ Century Expectation: Anywhere, Anytime Access

Meet users' expectations:

- 24/7 access to data
- Easy Access
- Timely
- Relevant

Census.Gov

Data available in American FactFinder

American Community Survey
American Housing Survey
Annual Survey of Manufactures
Business Patterns
Nonemployer Statistics
Annual Surveys of Governments
Census of Governments
Commodity Flow Survey
Decennial Census
Decennial Census of the Island Areas (American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands)
Economic Census
Economic Census of the Island Areas
Survey of Business Owners
Equal Employment Opportunity (EEO) Tabulation
Population Estimates Program
Puerto Rico Community Survey

Getting and formatting Decennial Data

P13
MEDIAN AGE BY SEX
Universe: Total population
 2010 Census Summary File 1

From <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_P13&prodType=table>

Format Table with modify to only bring in useful data.
Transpose the Data

For purposes of this exercise remove any 0 values (empty tracts)
Remove males and females

Sort Med age both sexes
Census Tract 202, Meade County, South Dakota 20.6

United States Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

5

Download the table (not in the presentation format)

Prepare Excel CVS file for Tableau
Expand columns
Delete First header row
Tableau does not like multiple header rows

United States Census Bureau
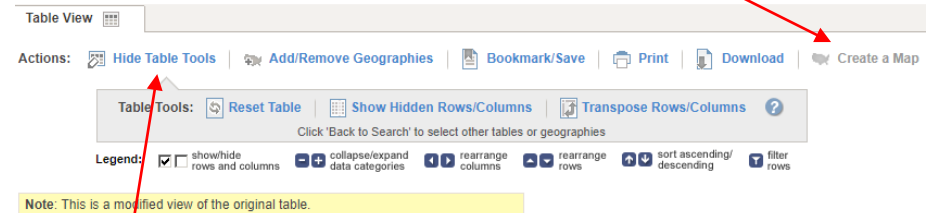U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

6

2 key header columns That say the same thing that link to Shape file
Use the first column with US in the data

Save as an excel workbook
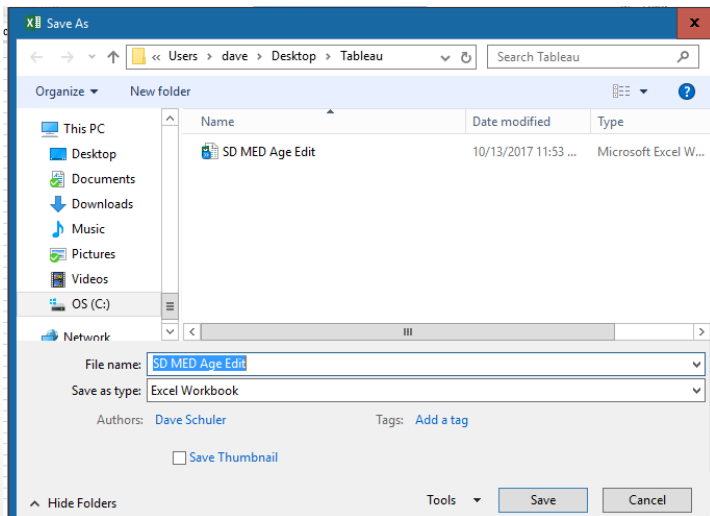
Create a map from AFF table view
Notice create a map is not highlighted

Select hide table tools then select create a map
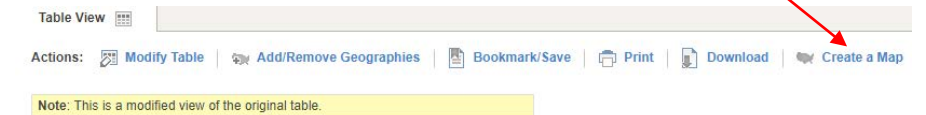
Select any hyperlinked data point.

United States™ Census Bureau
U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU
census.gov

7
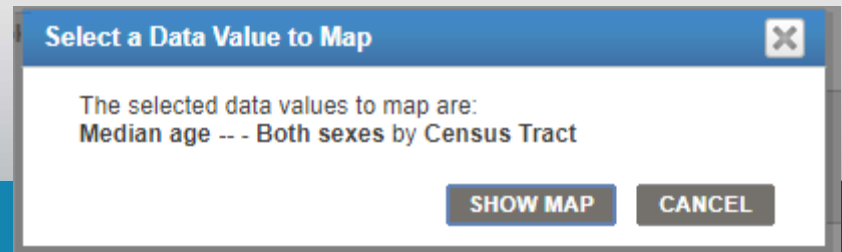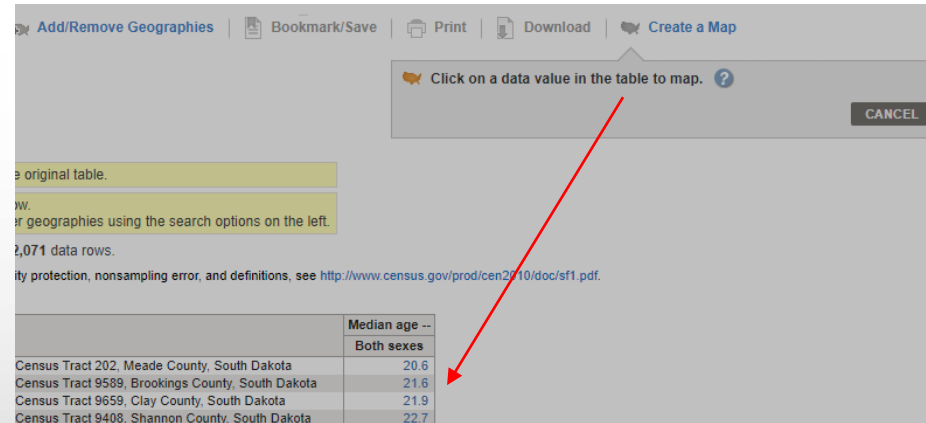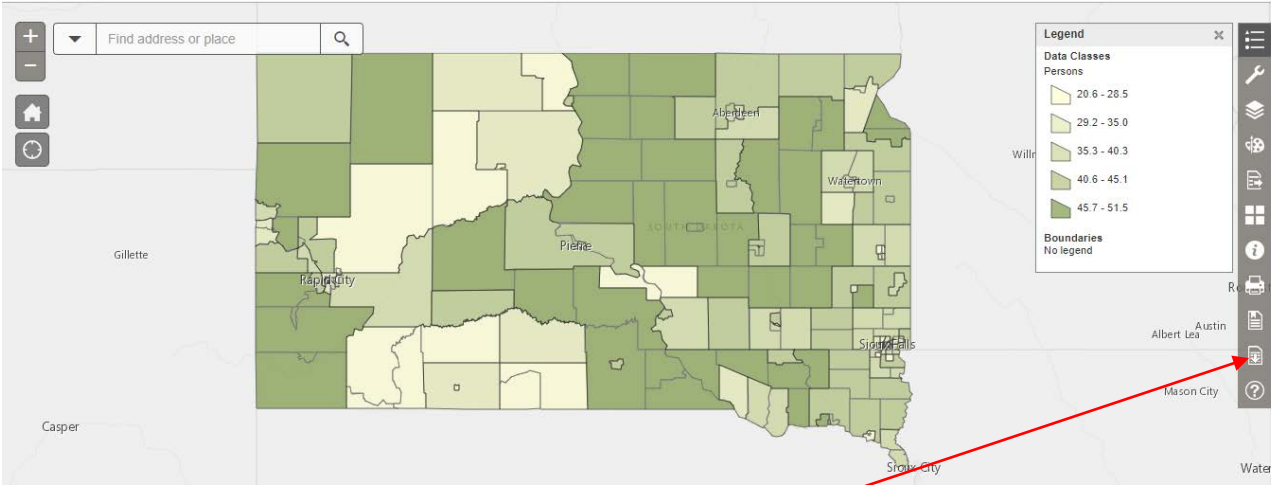
Can modify the map and add layers for visualized effect, but we just need to grab the shape file
Download the shapefile

Tableau Desktop Import Census Data and Shape files

Tableau Desktop is essentially the same as Public. (Where data is stored)
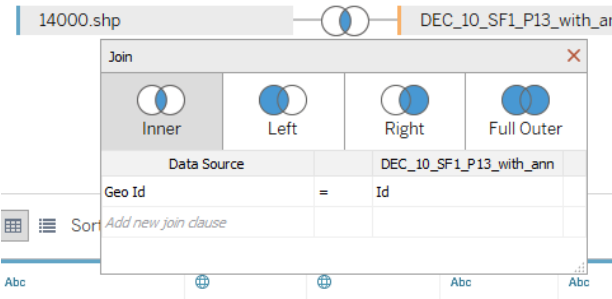As a best practice I open the shapefile first
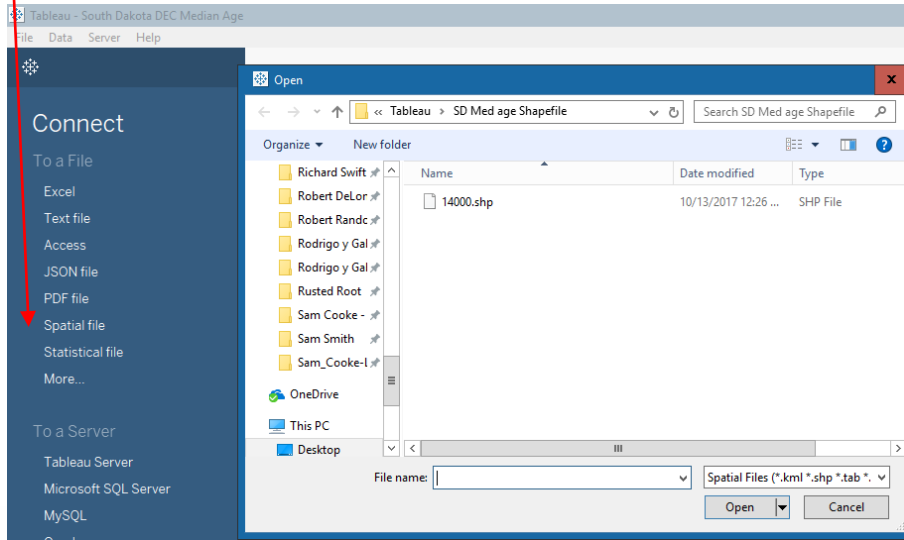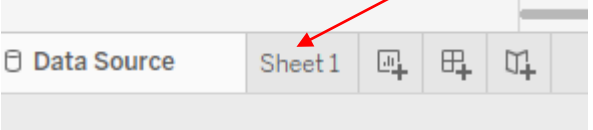
Add the excel data file connection
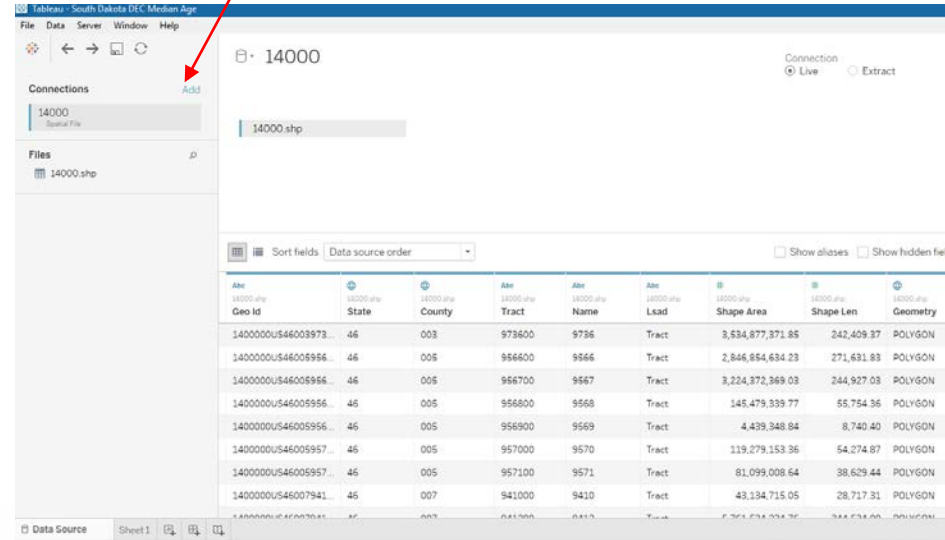
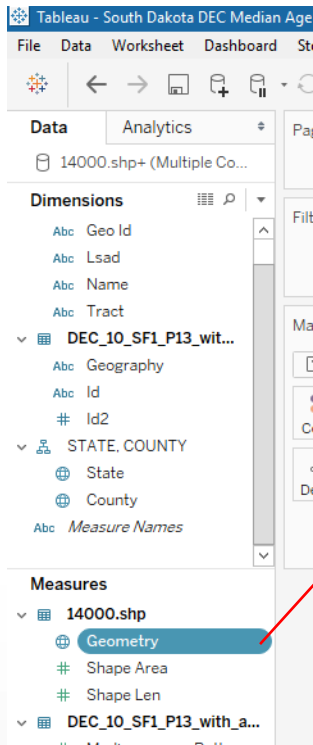
First Column data must match (Data not name).
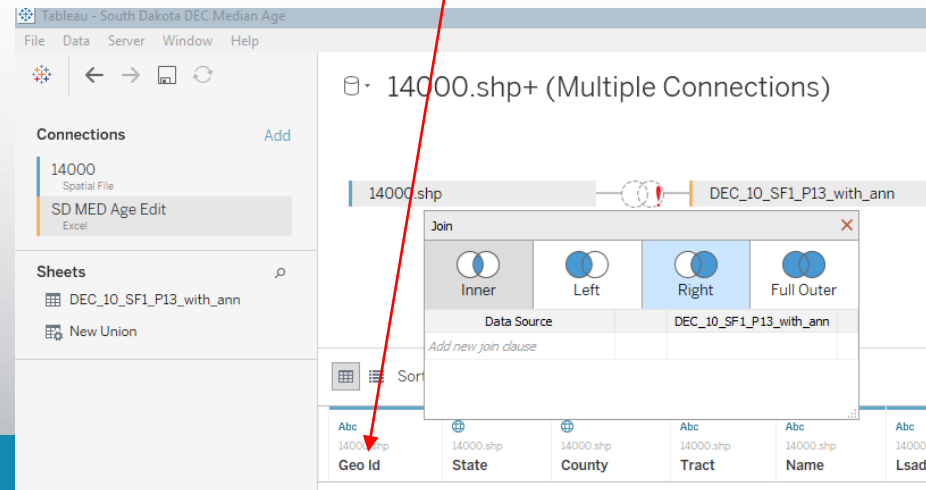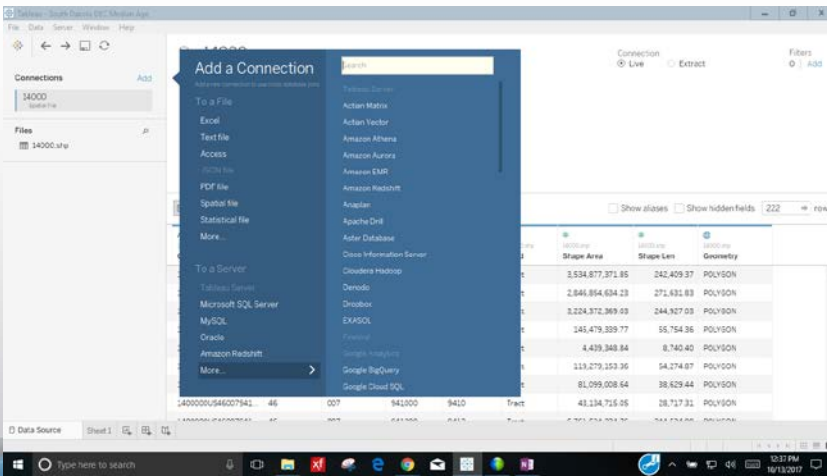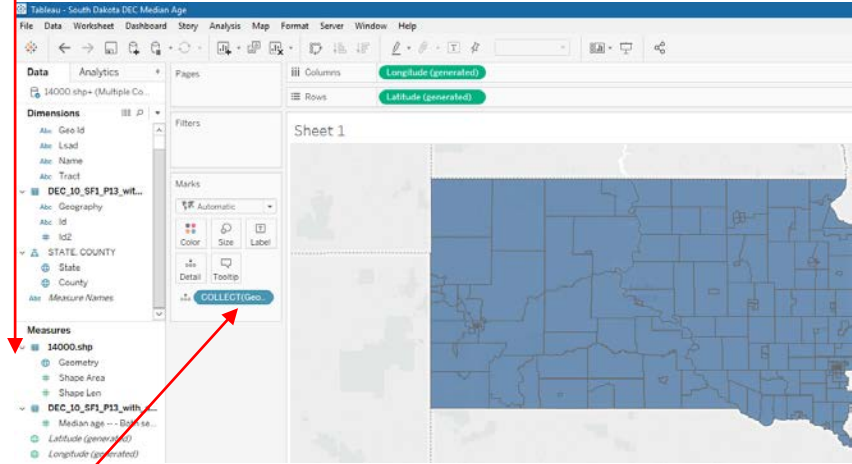
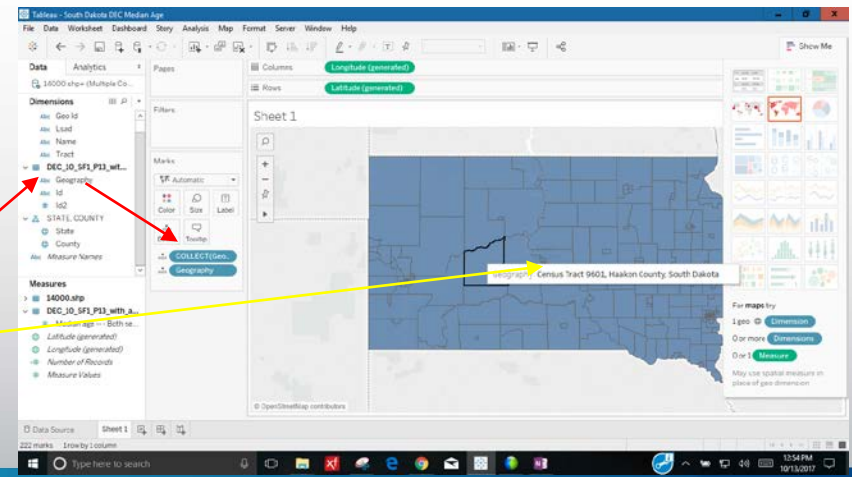# 14000.shp+ (Multiple Connections)

Select tab sheet 1 (at Bottom left)

Select Geography from left menu (from 1400.shp)

Double click Geometry then minimize 14000.shp menu

Drag Dec Geography and drop on detail. Now Mouse over name is displayed

Drag Median age to color. Mouse over now displays data and tract info
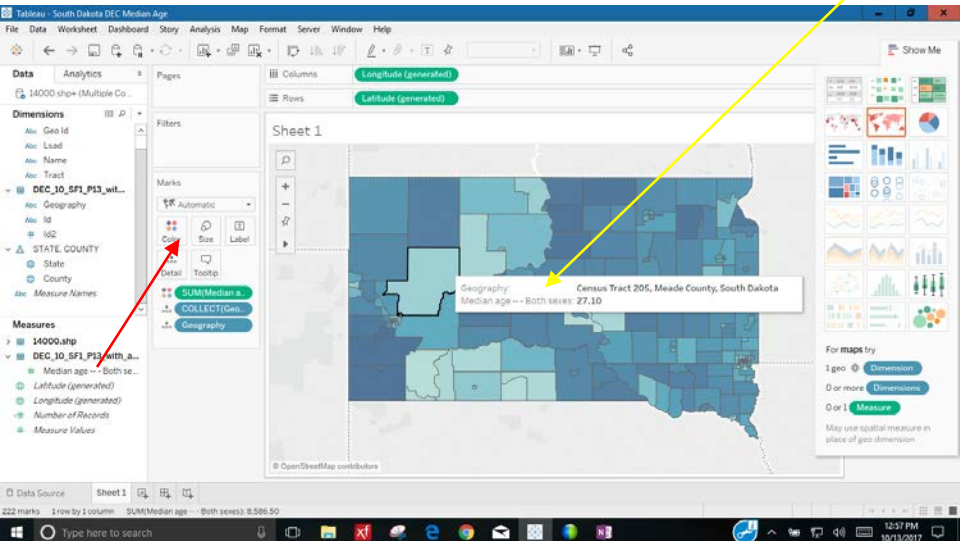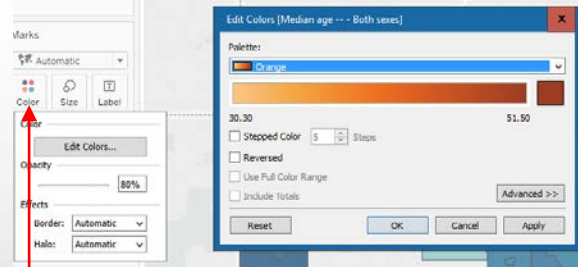
Drag Median age to filter
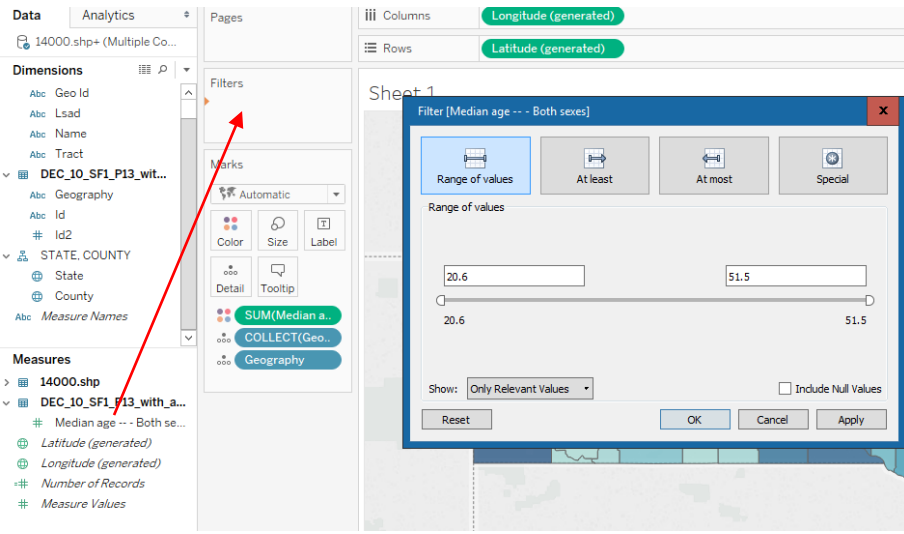
Click on filter name, Select show filter
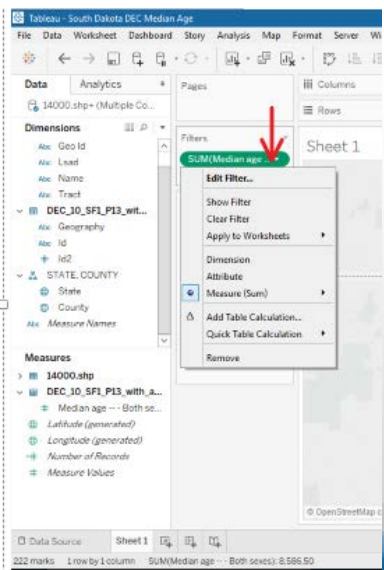
Adjust range to be displayed
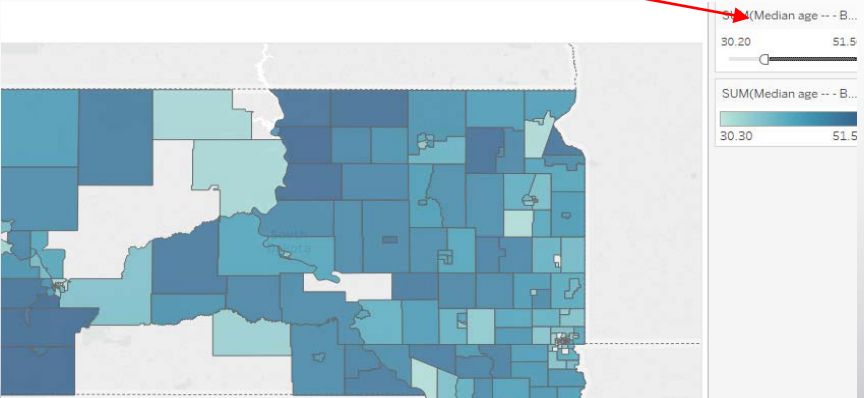
Edit Map Colors

Using ACS Data, to identify low Edu attainment. the Key is cleaning the data and using short name

https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_15_5YR_S1501&prodType=table

Modify the table to select total and percent

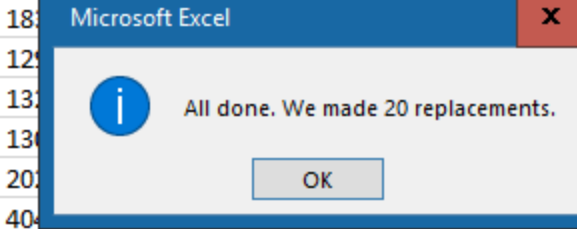Collapse and 24 and under and uncheck

Clean rest in excel (Find 25 to 24) Delete all columns to right

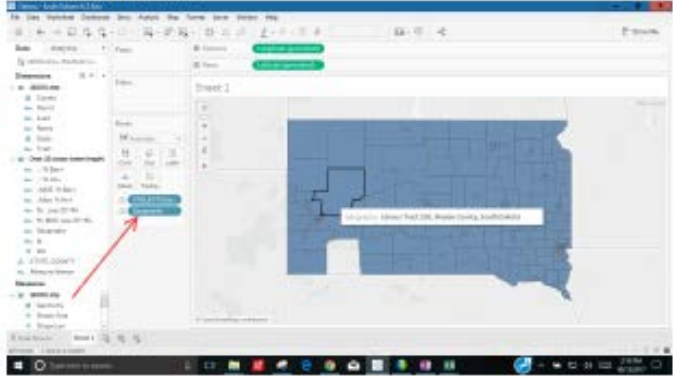Shorten Column names (Remove estimate, total) Displays better in Tableau
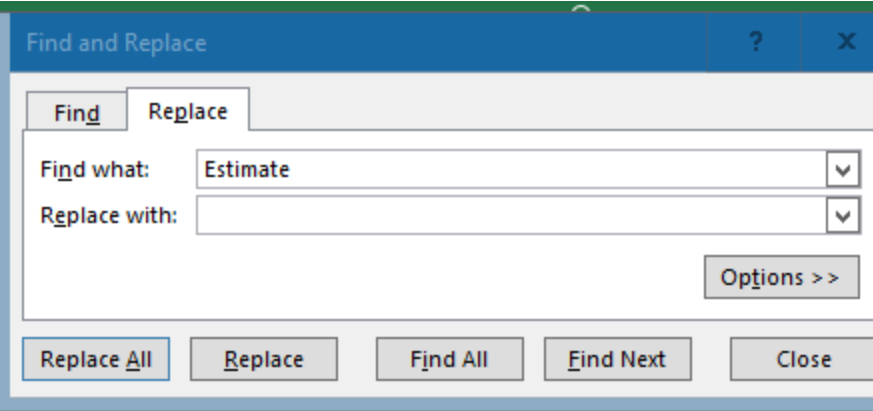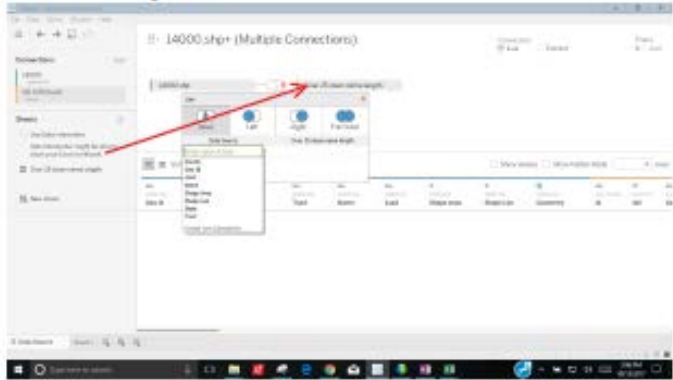
Continue the Conversation

312 636 2552

Email david.f.schuler@census.gov
Sign up for and manage alerts at
https://public.govdelivery.com/accounts/USCENSUS/subscriber/new

@uscensusbureau, #ACSData

facebook.com/uscensusbureau

@uscensusbureau