How to Make Maps: An Introduction to the Theory and Practice of Cartography
Create a Choropleth Map

Overview

For this exercise, you will produce an original choropleth map, applying some of the techniques covered in the text (choosing and building a data classification scheme, picking an appropriate visual variable).

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1. I've provided a data table with information by state (Ex_04_CensusData.xlsx)—with data by state for the US—drawn from the US Census Bureau (the data were downloaded here (https://www.census.gov/data/tables.html). You can open the table with a spreadsheet application, such as *Microsoft Excel* or *Google Sheets*. Pick one of the data columns you are interested in mapping and exploring.

2. Produce a histogram for the data you have chosen to map.

3. Carefully choose the number of categories and the classification scheme for your map and build the range classes for your data using the natural breaks method *or* one of the other methods discussed in the text.

4. Mark the data breaks on your histogram.

5. Use the outline map of states in the US to produce a basic choropleth map. You may print and complete these by hand or use a basic graphics program (such as *Microsoft Paint*).

   You may produce another choropleth map of another topic or geographic region, if you wish (for example, using countries in Europe). You can find outline maps easily on-line. If you use your own data, please indicate the source of the data with a proper citation.

Please turn in the following:

a) a neatly shaded choropleth map
- Make sure you include the source of data (if you used the data provided, just add a small entry under the map, such as "Data source: US Census Bureau 2020".
- Add a basic legend to your map(!)

b) your histogram with the data divisions from the map indicated

c) a short paragraph (circa 100 words) explaining the cartographic decisions you made
-Please note which data classification method you used and your rationale

d) another short paragraph (circa 100 words) discussing what you discovered
-*What patterns did you observe*?
-*Were the observed patterns expected or unexpected*?