

# GeoCivics: Understanding Political Landscapes through the Humanities and Geospatial Technology



DR. SASKIA VAN DE GEVEL

ASSOCIATE PROFESSOR IN GEOGRAPHY

APPALACHIAN STATE UNIVERSITY

# What are geographic questions?

See samples below, with sources to investigate.

---

## Location and Extent

What is the phenomenon or feature of interest? What is this place like?

Where is it located? Where does it occur?

Why is it where it is? Why does it not occur elsewhere? Could it be elsewhere?

How large an area does it cover?

## Distribution and Pattern or Shape

Where is it in relation to similar features?

Why does it take a particular form or structure?

What kind of distribution does it portray?

Is there regularity in its distribution? What is the nature of that regularity?

Is it found throughout the world? Where are its limits? What is the nature of those limits?

## Spatial Association and Interaction

What other phenomena are in the same area?

Do phenomena usually occur together in the same area? What else is there spatially associated with that phenomenon? Why?

What is the significance of the features or location?

What are the consequences of its location and associations?

## Spatial Change

Has the feature always been there? When did it first emerge or become obvious?

How has it changed spatially through time?

What factors have influenced these changes?

Why has it spread or diffused in this particular way?

What geographic factors have constrained its spread?

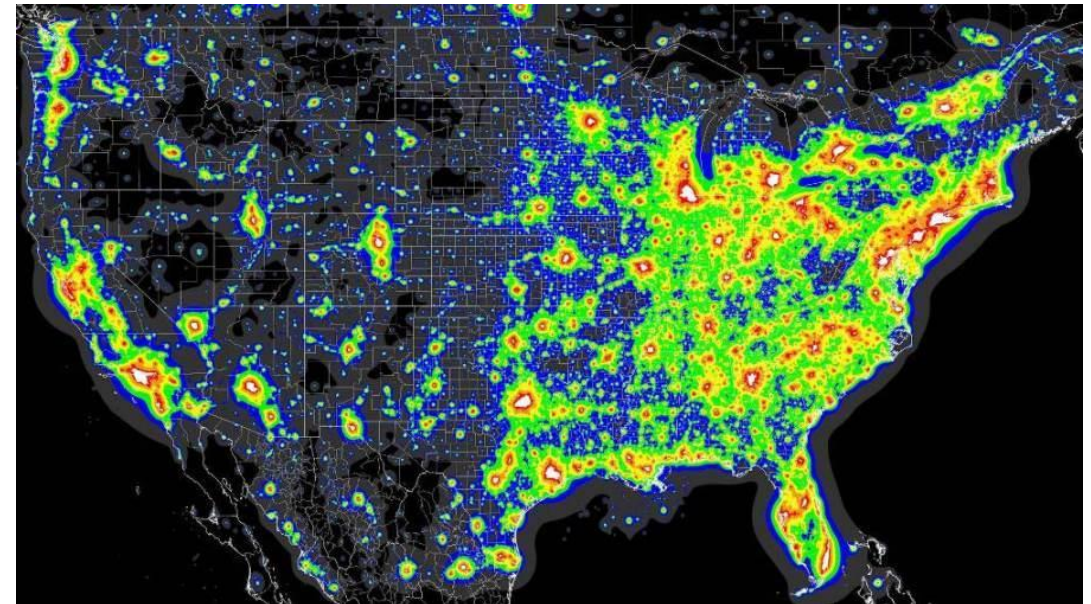
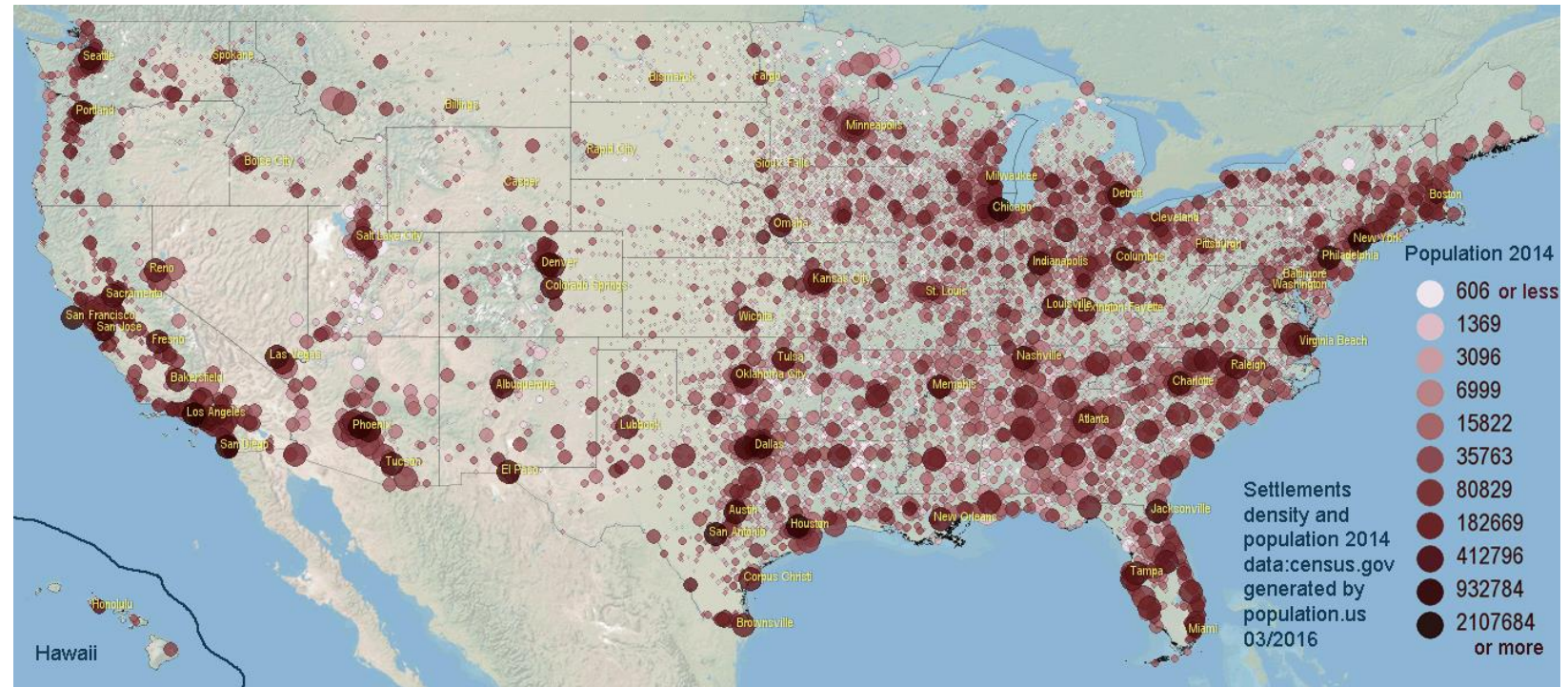
<http://ncge.org/geography-for-life>

<https://www.guilford.com/books/Teaching-Geography/Phil-Gersmehl/9781462516414/reviews>

<https://www.nationalgeographic.org/education/programs/geo-inquiry/>

Geography is the study of places and the relationships between people and their environments. Geography seeks to understand where things are found, why they are there, and how they develop and change over time.

<https://www.nationalgeographic.org/encyclopedia/geography/>



# Objectives and Topics

---

## TO UNDERSTAND THE APPORTIONMENT AND REDISTRICTING PROCESS IN THE UNITED STATES.

- Discuss the role of the decennial census in the apportionment process (next one is 2020)
- Review the criteria and guidelines for drawing electoral district lines
- Evaluate results of Supreme Court cases related to redistricting
- Consider whether it is possible to divide a state into districts mathematically
- Define gerrymandering and its positive and negative effects

## TO IDENTIFY THE NEXT QUESTIONS TO ASK OR ACTIONS TO TAKE REGARDING THIS TOPIC.

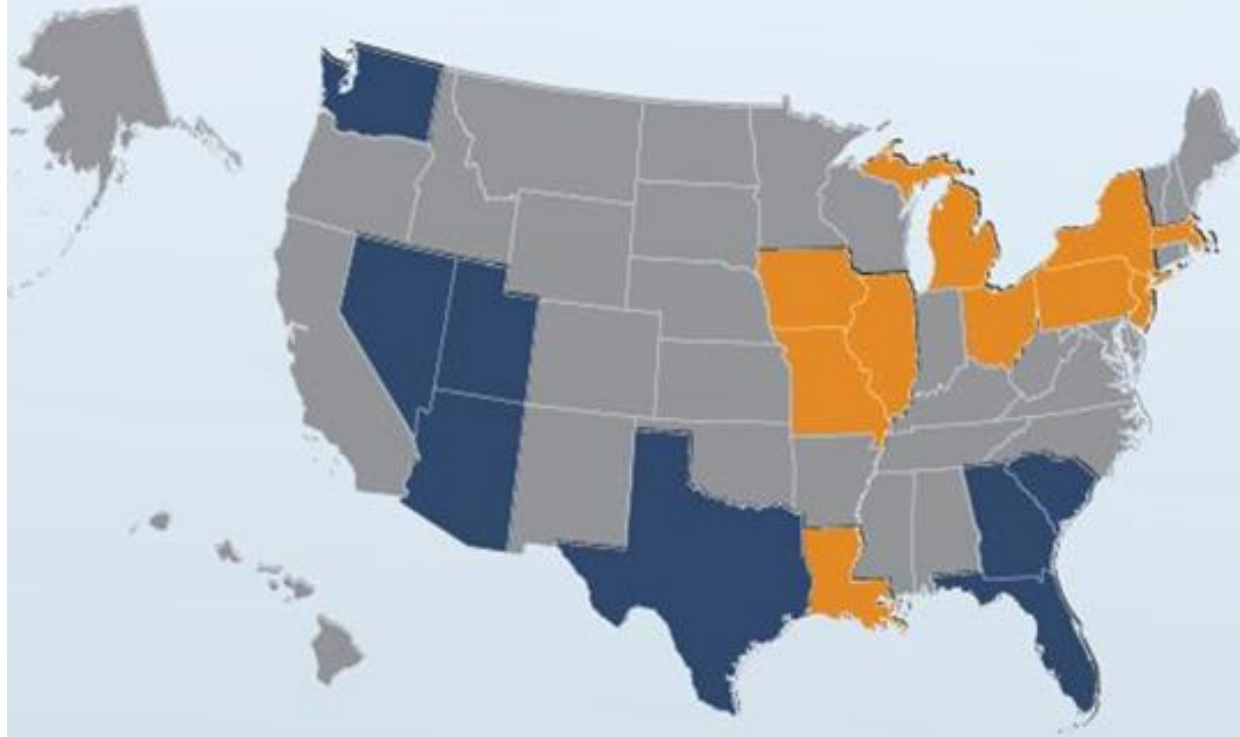
- Divide your state into districts based on current or future numbers of districts using 2010 Census data with geospatial technology
- Know who draws the district lines in your state for US Congressional districts and state legislative districts
- Consider any historical divides in your state and how they are reflected in and are affecting representative government
- Discuss what else you need to know





# APPORTIONMENT

2010  
OFFICIAL RESULTS



## GAINED

## LOST

Arizona +1

Illinois -1

Florida +2

Iowa -1

Georgia +1

Louisiana -1

Nevada +1

Massachusetts -1

South Carolina +1

Michigan -1

Texas +4

Missouri -1

Utah +1

New Jersey -1

Washington +1

New York -2

Ohio -2

Pennsylvania -1

# Apportionment

---

Apportionment is the first part of the process, following the reporting of the results of the Census to the United States Congress.

“Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers.” US Constitution

Each state must have at least one representative.

**Wyoming**, 564,460 people per representative  
**North Carolina**, 733,499 people per representative  
**California**, 702,905 people per representative

Evolved from the Connecticut Compromise of 1787, which established equal representation in the Senate and proportional representation in the House.

Reapportionment increases or decreases the number of seats each state has in the House of Representatives.

More representation for a state means more influence in the legislature and in the presidential election cycle.

The number of representatives affects the number of electoral votes in the Electoral College.



BUSINESS INSIDER  
ELECTION 2016

**CLINTON**  
**232**

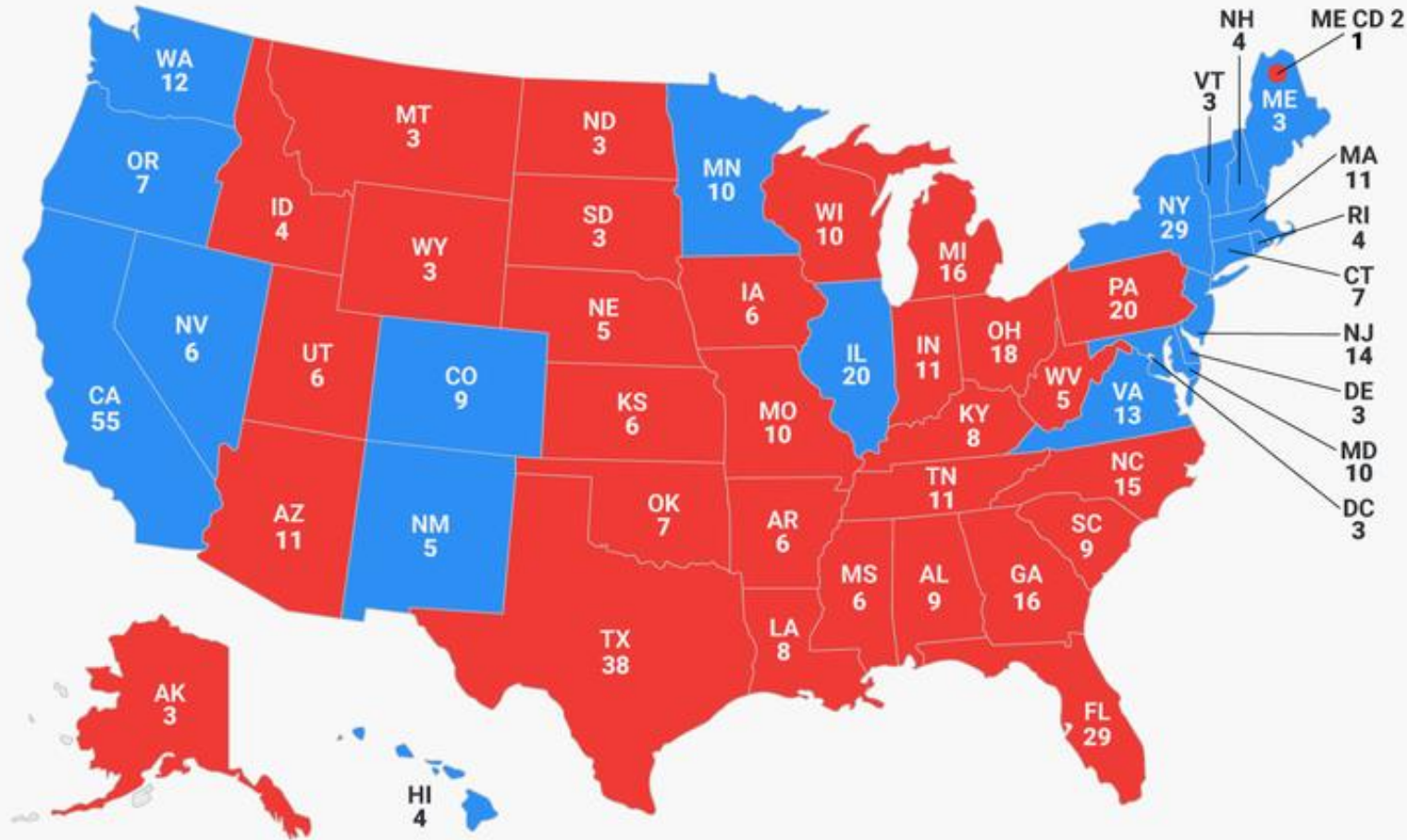
270 ELECTORAL  
VOTES TO WIN

**TRUMP**  
**306**



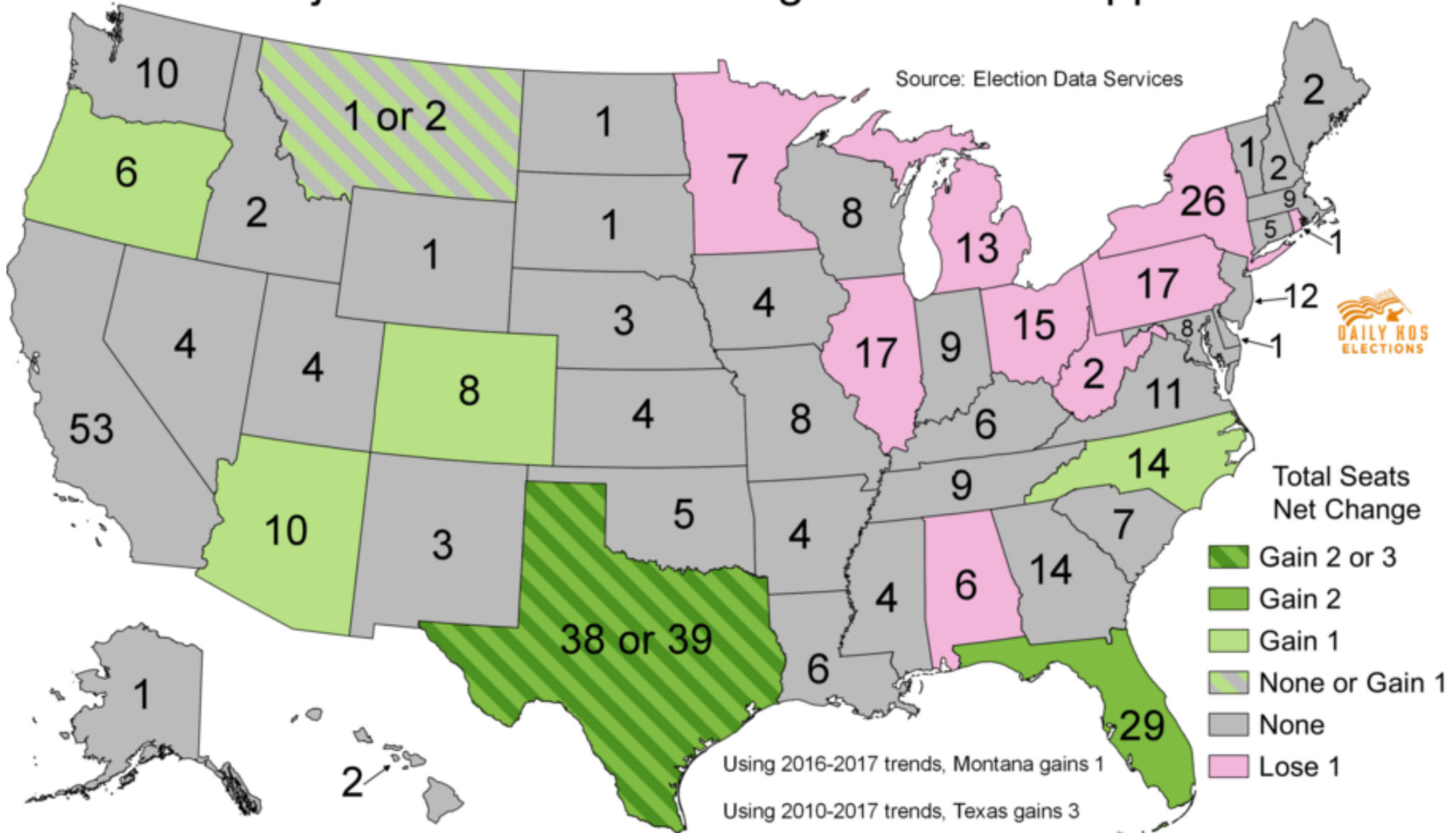
How many votes does each state have in the Electoral College?

The number of senators (2) plus the number of representatives.



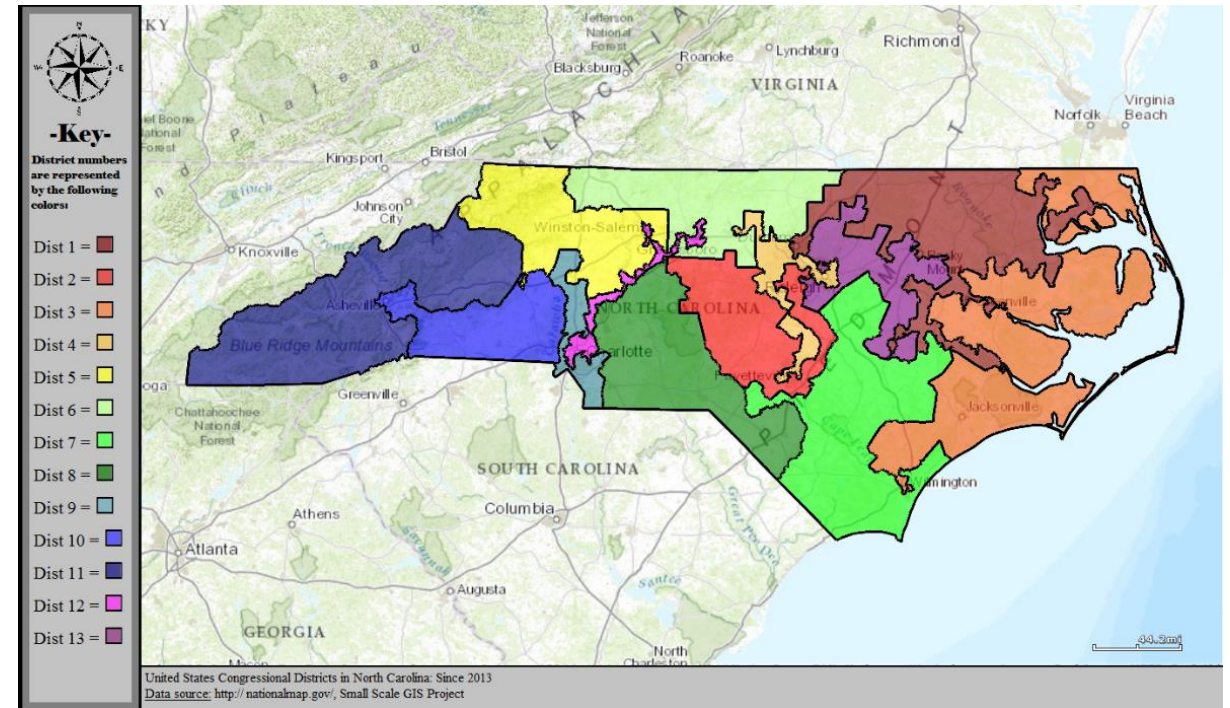
SOURCES: Associated Press, Fox News, CNN, NBC News, CBS News, ABC News

# Census Projections for 2020 Congressional Reapportionment



# Redistricting

- Redrawing of the boundaries of the districts within each state based on census results
- Follows the process of reapportionment
- States gaining or losing significant population in comparison to other states will have more changes than those that are stable
- District boundaries may also change due to population migration within a state
- Congressional district lines are also used to define other political and economic regions, such as state university regents and state school board members.





## GeoCivics



[State Resources](#) [Apportionment and Redistricting](#) [Civics and Government](#) [Geography](#)

[Home](#) / [State Resources](#) / [North Carolina](#)

## North Carolina

### Education Materials

- [North Carolinians on the Move](#)
- [North Carolina ArcGIS Online Redistricting Exercise](#)
- [North Carolina Redistricting Instructions](#)
- [Find a Giant Map from the North Carolina Geographic Alliance](#)

### Organizations and Resources

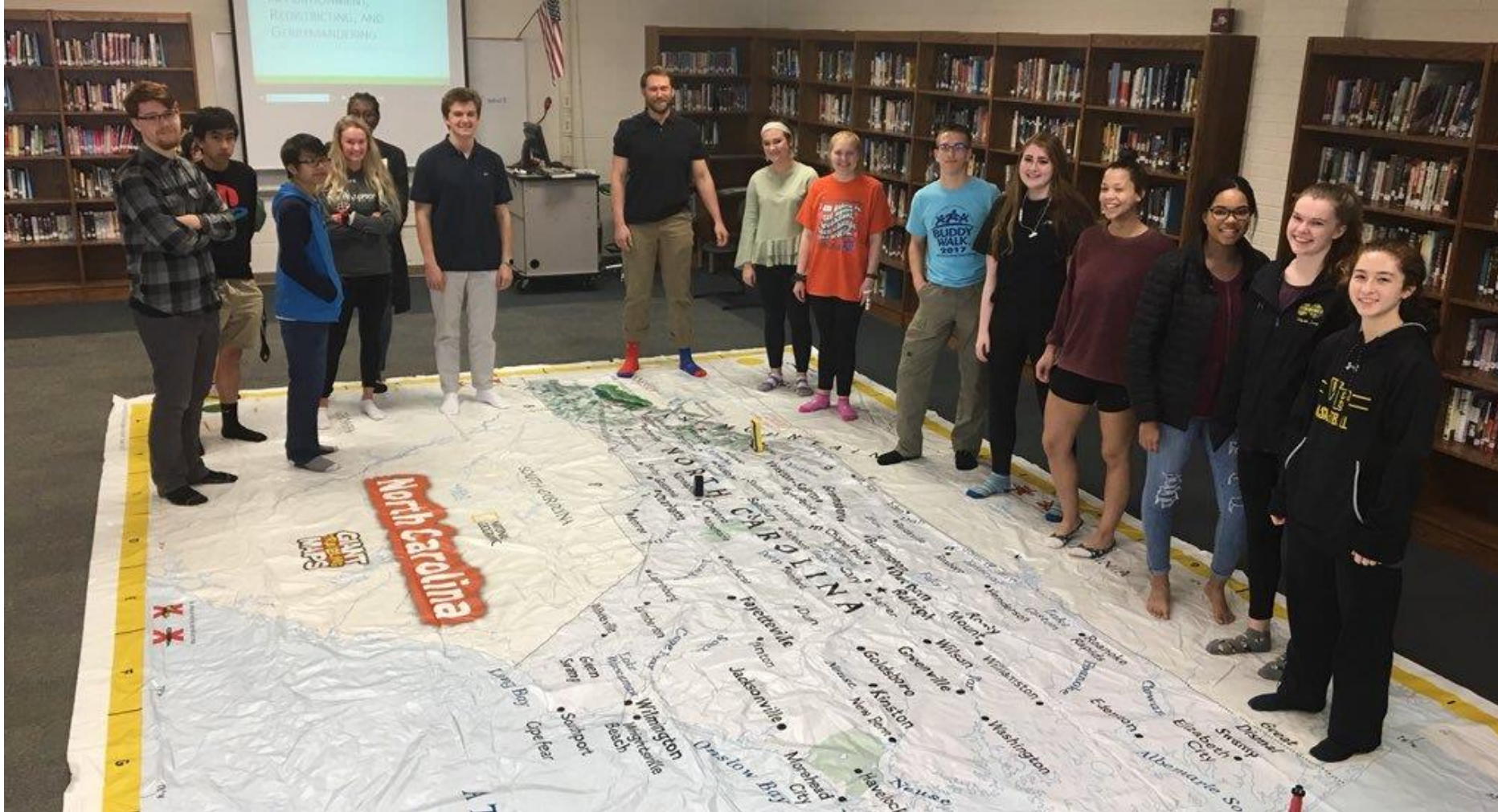
- [End Gerrymandering Now](#)
- [Political Polarization in North Carolina](#), Katherine F. Perry

### Contact

- [Saskia van de Gevel](#)

<https://www.uccs.edu/geocivics/>

# Start on the Giant State Map



# Video of the Giant Map Exercise

---

<https://www.youtube.com/watch?v=AmQczhqlyso>

# Then use ArcGIS Online lesson to redistrict your state

North Carolina apportionment exercise web map with Web AppBuilder for ArcGIS

Find address or place

**About**

**North Carolina Redistricting: A Simulation**

North Carolina has 13 representatives in Congress. Deciding who votes in which district can be difficult. Simulate the process just using these 100 counties (no splitting) to get "even representation". Try first creating only **2** zones (or districts).

**Task:**

- Using just 2010 population (POP2010), whole counties, and ensuring "contiguity" (no zones with parts that don't touch), split the state into "nearly equal portions".

Esri, HERE, Garmin, FAO, USGS, EPA, NPS

Contact us with any inquiries:

Rebecca Theobald, [geocivics50@gmail.com](mailto:geocivics50@gmail.com)

Anita Palmer, [anita@gisetc.com](mailto:anita@gisetc.com)

Andy Mink, [amink@nationalhumanitiescenter.org](mailto:amink@nationalhumanitiescenter.org)

Saskia van de Gevel, [gevelsv@appstate.edu](mailto:gevelsv@appstate.edu)

Find additional resources on the GeoCivics website.

[\*\*https://www.uccs.edu/geocivics/\*\*](https://www.uccs.edu/geocivics/)