



Basic Principle of Graphs

- Area Means Quantity
 - Bar graphs, Pie graphs, Area graphs

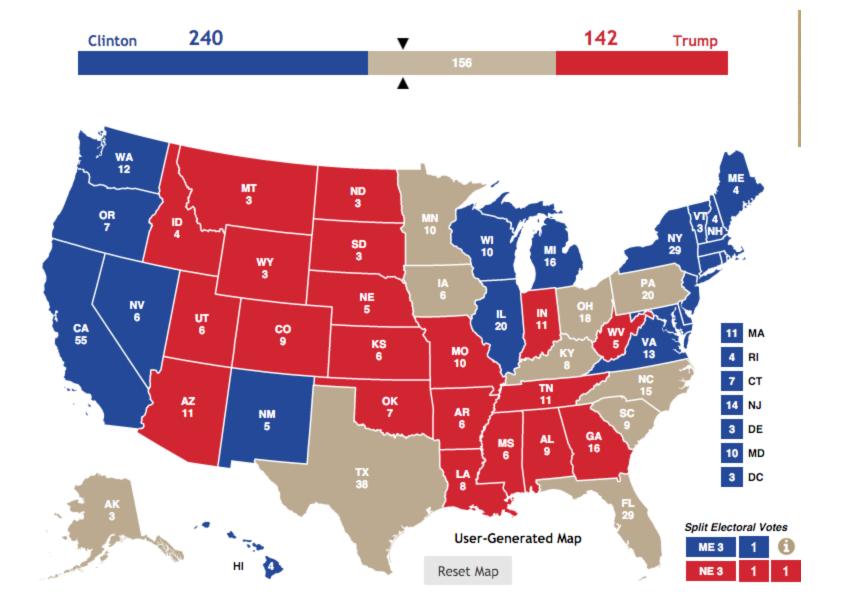
• i.e., "Bigger Means Bigger"

• i.e., "More Ink, Bigger Number"

Mapping a quantity violates this principle

More Ink, Bigger Number

- What if we tried to use "more ink, bigger number" for a map?
- Two approaches:
 - 1. Give each zone the *same area* and then plot
 - 2. Or, retain areas and use the *amount of ink* to



We're forecasting the election with three models

O Polls-plus forecast
What polls, the economy and
historical data tell us about Nov. 8

• Polls-only forecast What polls alone tell us about Nov. 8

O Now-cast
Who would win an election today

National overview

States to watch

Arizona

Colorado

Florida

lowa

Michigan

Nevada

New Hampshire

North Carolina

Ohio

Pennsylvania

Virginia

Wisconsin

Polls

National polls

All states

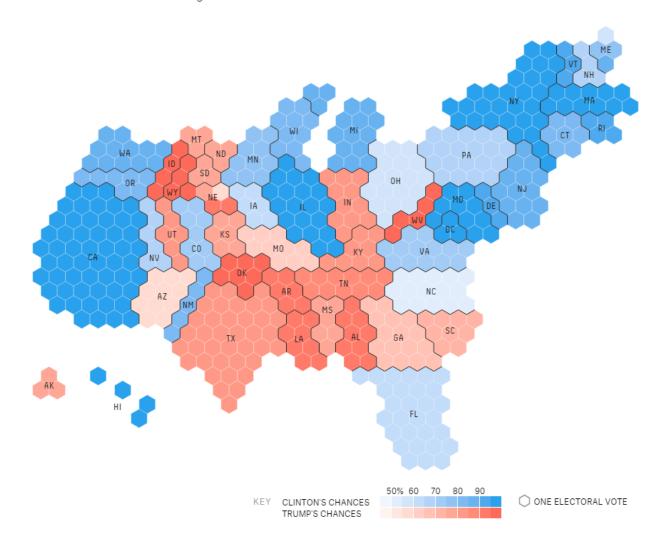
Alabama

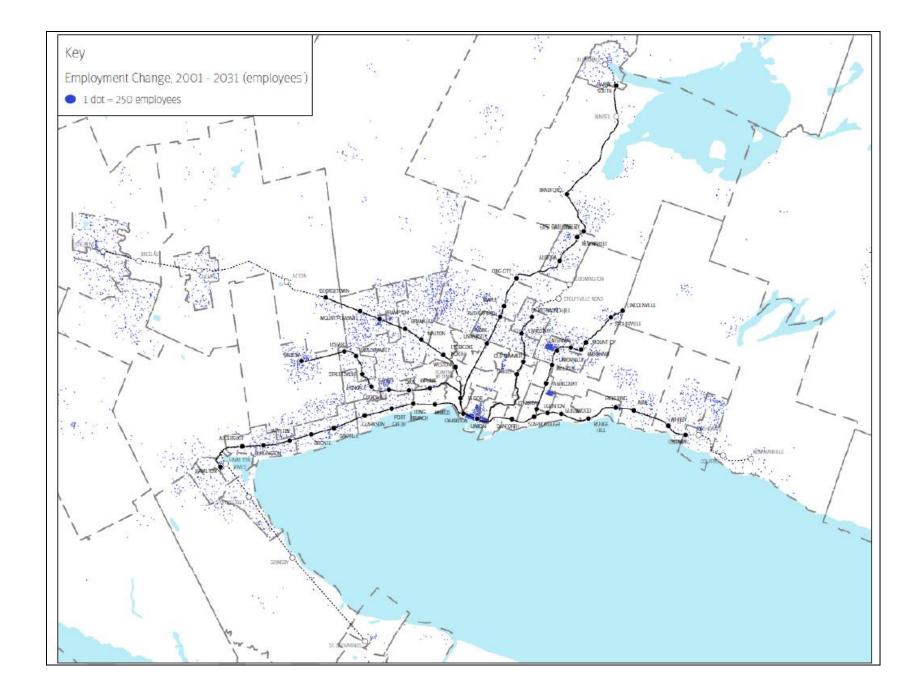
Alaska

Arizona

It's all about the 538 Electoral College votes

Here's a map of the country, with each state sized by its number of electoral votes and shaded by the leading candidate's chance of winning it.





Dot-Density Maps

- What does the dot-density map do?
 - Ink is directly proportional to quantity
 - Data in very small zones can still be quite visible
- Advantages:
 - Gives a good "overview" of the spatial patterns in the data
 - Within the limits of the zone system's structure
 - Less subject to arbitrary thresholds in chloropleth map
- Disadvantages:
 - Individual dots are not "real", just randomly placed
 - Hard to count and add up quantities
 - Loss of detail at the micro level

