

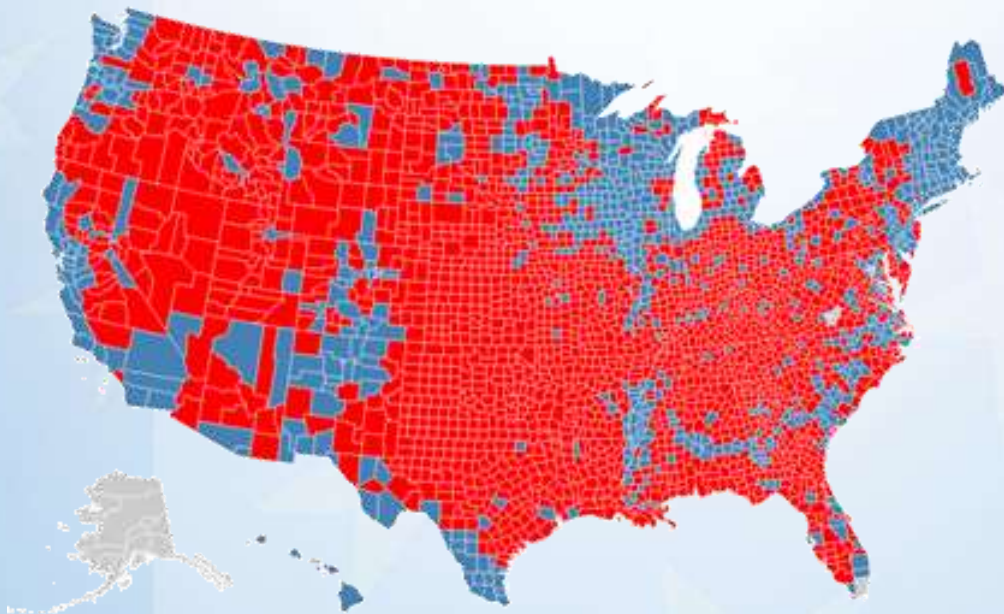


# US Presidential Elections 2016

Vikram Hegde, Loris D'Acunto, Subhashini Raghunathan

# 1st ITERATION

Click on the county to change the party



2008

2012

2016

Move the sliders to the filters the counties



Population



% Hispanic



Avg income



Educ level



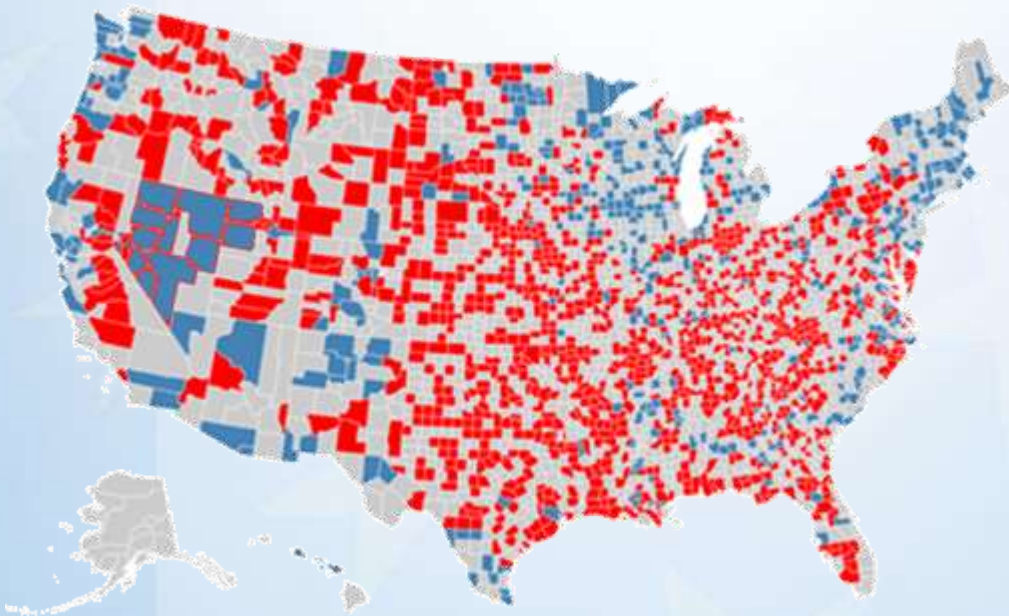
332



206

# 1st ITERATION (contd.)

Click on the county to change the party



2008

2012

2016

Move the sliders to the filters the counties



Population



% Hispanic



Avg income



Educ level



337 ✓



201





# ISSUES WITH 1<sup>st</sup> VERSION

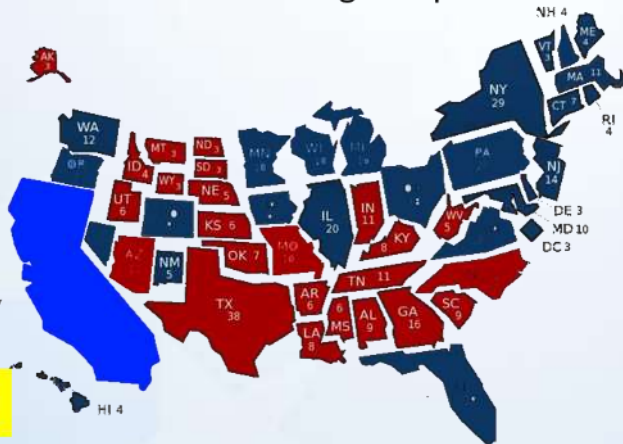
- Required users to change results of one county at a time – laborious and lot of county changes needed
- County level not aligned with electoral college – state level is better
- Size of county misleading
- Focus the viz on one dimension like race – too many degrees of freedom
- Not clear who is the winner – red color more evident than the blue
- Required lots of text to explain the visualization
- Instructors feedback to include supporting viz - bar charts

# 2<sup>nd</sup> ITERATION

2016

Historical

2016 Electoral College Map



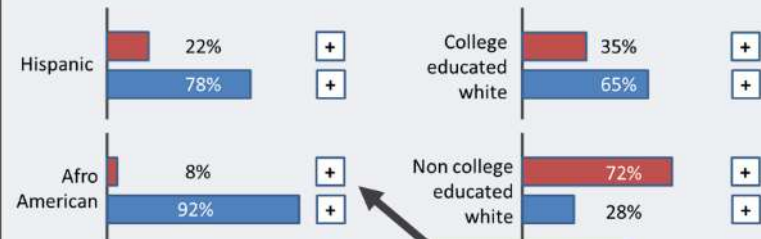
Click on the state to see the details



Republicans vote: 2,232,656  
Democrats vote: 4,727,234  
White college educated: 1,232,122  
... ..

## History

Click on the buttons to change the average preferences of the four different American race groups



Change preferences by clicking buttons





# ISSUES WITH 2<sup>nd</sup> Version

- Instructor feedback - Impossible to scale states in proportion to their EC tally without states that are too small (Idaho, North Dakota) and states that are too large (California).
- Proportional symbol map:
  - <https://bl.ocks.org/mbostock/4342045>
  - Issues: Some symbols (circles) overlap (on the east coast)
- Cartogram heat-map: <https://github.com/hrbrmstr/statebins>
  - Issues: Too abstract, we wanted something more map like.
- Finally decided on proportional symbol map with symbol jittering




## 3<sup>rd</sup> ITERATION (Pre-Usability)







# 3<sup>rd</sup> ITERATION (Pre-Usability)



## Explore past results and Create your own predictions for the 2016 Elections

2016 is election year! In November, the presidential candidates will face off in what is shaping up to be a highly contentious and polarized race. More than ever, the electorate looks divided along racial lines.

This project aims to visualize the impact of various racial and demographic groups on the 2016 election results. The electorate has been divided into 5 main groups: Hispanic, African American, Asian and other, College educated whites, non-college-educated whites. To read more about why we chose these groups [click here](#).

We start you off with data from the 2012 election results, showing which states voted Democrat and which states Republican. From there, you can adjust the percentages of voters in each racial group that will vote Democrat or Republican, and watch how that impacts the 2016 results. The size of the circles drawn on each state is proportional to the number of Electoral College votes for that state. The color indicates which party wins the state.

To view past election results [click here](#)

## Predict 2016

Click on the '+' signs next to the different racial groups to change their voting preference.

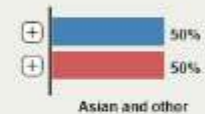
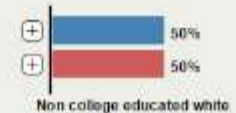
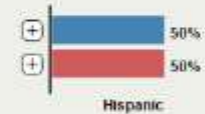
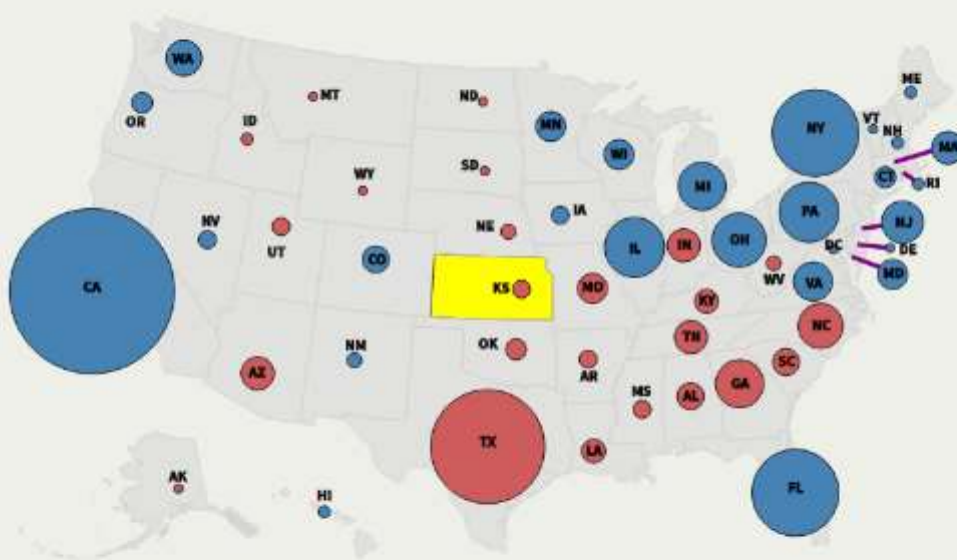




# 3<sup>rd</sup> ITERATION (Pre-Usability)

Predict 2016

Click on the '+' signs next to the different racial groups to change their voting preference.  
Click on a state to see its statistics.



Electoral College Tally



332

Kansas

Democratic Pop Vote: 440,726

Republican Pop Vote: 692,634

EC Votes awarded to: Republicans

Popular Vote



# USABILITY TEST

## **15 users tested the visualization**

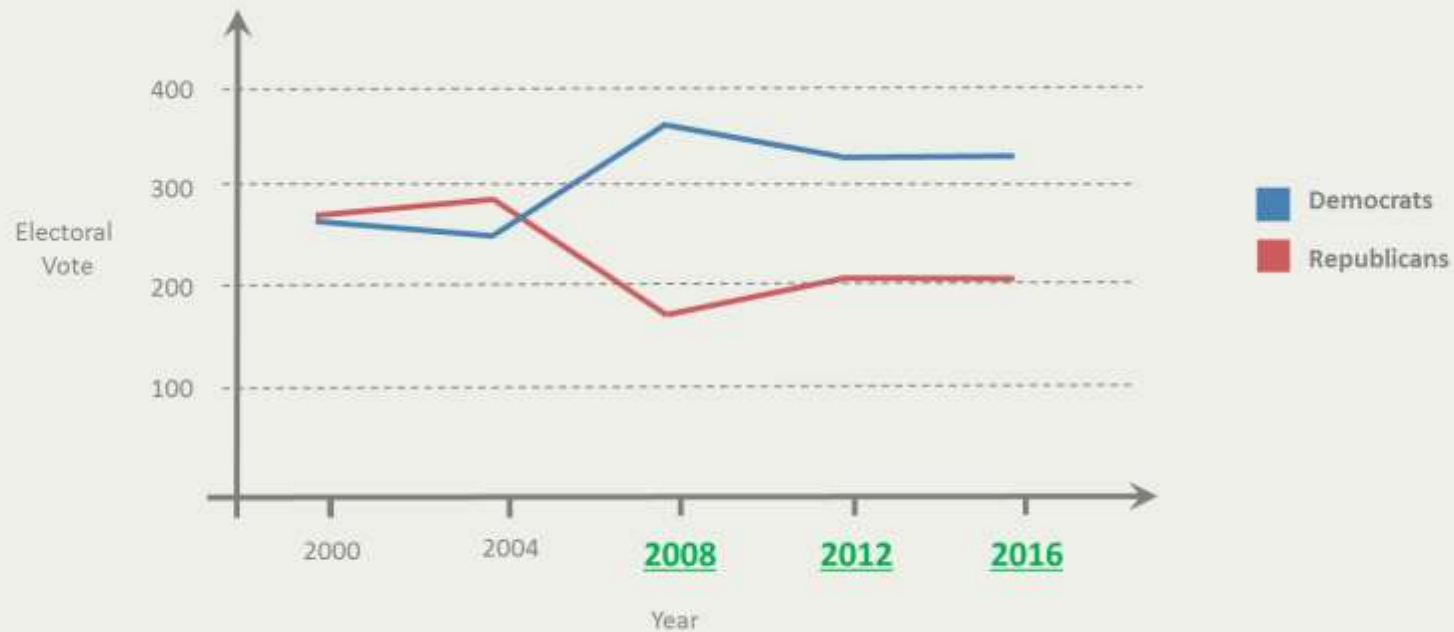
### Major Findings:

- a. Navigation is complex with a single page scrolling
- b. Users don't like/read large block of text at beginning
- c. Purpose of race controls is not obvious
- d. Meaning of colors is unclear
  - a. Red and blue for which party?
  - b. Yellow for the selected state
- e. Winner is not evident

# USABILITY IMPROVEMENTS - Home

**2016 US Presidential Elections**  
MIDS W209 Final Project - Summer 2016

>> Click on a year for details <<





# USABILITY IMPROVEMENTS

## Electoral College Tally



## Predict the 2016 election

>> Click on the state to see details <<

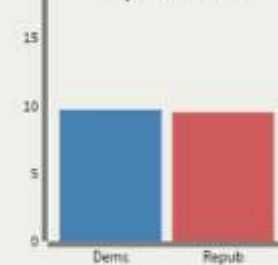
■ Democrats  
■ Republicans



### California

Democratic Pop Vote: 9,696,381  
Republican Pop Vote: 9,514,500  
EC Votes awarded to: Democrats  
State Winner: Hillary Clinton  
EC Votes awarded: 55

### Popular Vote

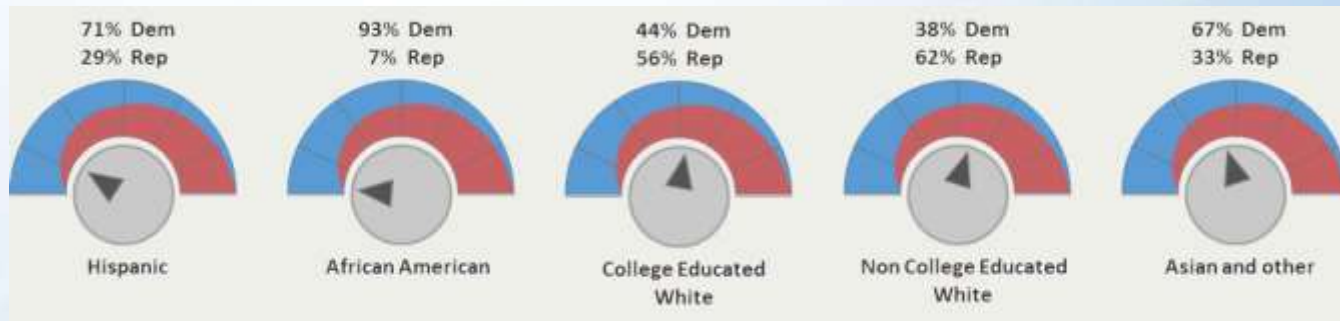


>> Change the percentage of votes for every race group <<

Back to menu



# USABILITY IMPROVEMENTS





# USABILITY IMPROVEMENTS

- Remove the initial flag and the text
- Add an initial menu with the shape of a line chart showing Democratic vs Republican performance over the years
- For 2008, 2012 and 2016 observations – a link to the visualization
- Add explicit navigation buttons rather than scrolling
- Small snippets of text integrated with the visualization
- Legend for colors
- Change the shape of the race controllers to catch attention
- Winner is more evident with a highlighting box





# Choice of Technology

- D3 + Javascript + SVG/CSS/HTML + Bootstrap
- Why ?
  1. Point and click software like Tableau too limiting - not all visualizations supported
  2. Need more flexible ways of linking data to visual elements - D3's binding data to SVG elements very natural.
  3. All three of us are programmers
    - a. Prefer fine grained control over canned coarse grain
    - b. Prefer programming to point and click



# DEMO

## LIVE DEMO

<http://people.ischool.berkeley.edu/~subhashini.r/>



## Q & A and contact information

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