Montse Brufau
Alex Ferrer
Markos Gavalas
Jonatan Piñol

Delivery 1. Geographic task

Introduction :

In groups of 3 or 4 people deliver the geographic task with the US elections or any other (previously negotiated with the professor) country elections dataset.

The delivery shall include:

- the complete HTML,CSS, JS and image files to locally view the visualization.
- The source of the dataset. An explanation of the data and attributes and any manipulation done to the primary data
- A list of the used charts and the motivation behind their selection including goals and perception principles

An explanation of the duties of each member of the group.

Montse Brufau
Alex Ferrer
Markos Gavalas
Jonatan Piñol

1.-Dataset description:

For this assignment we used the US-2016-elections data and the "County Facts" data proposed for the assignment. The source of this data is "USA Census bureau " (https://www.census.gov/geo/maps-data/data/tiger-cart-boundary.html).

US-2016-elections data contain data of the primary elections of 2016, by state, county, party, candidate, number of votes to the candidate and the fraction of votes by party.

The "County Facts" data, contains general information for each county (for example population, percentage of people in function of age, percentage of women, average salary, percentages of population in function of race…)

In order to use the data for our purposes we have done some manipulations on them. Those manipulations are explained in the following section.

2.-Charts :

We present two charts, in where we show the US map with data on it.

Chart 1 : U.S. 2016 primary elections - Republican vs. Democrat vote:

In this chart we show the votes for each party (Democrat or Republican) at each county.

Each county is filled with a color depending on the proportion of votes received for each party. The colors go from red (as the Republican Party color) to blue (as the Democrat Party color). A region with more than 50% of votes to the Democrats is filled with blue color and the regions with more than 50% of votes to the Republicans, the region is filled with red color. This proportion also determines the intensity of the filled color, for example a region with 65% of votes to Democrats will be colored with a more intense blue than a region with 52% of votes to Democrats. In this way, the regions with a high proportion of votes for a party are emphasized. The details on the colors meaning can be seen on the legend that appears on the chart.

Focusing on a county will trigger a tooltip with the name of the county and the proportion of the winning party.
Clicking on a county, will trigger an infobox with the count of votes for each party.

The data used for this chart is the data of the "USA Census Bureau", where we have manipulated the data in order to have the total of votes for each party, and the proportion of these votes over the total of votes.

Montse Brufau
Alex Ferrer
Markos Gavalas
Jonatan Piñol

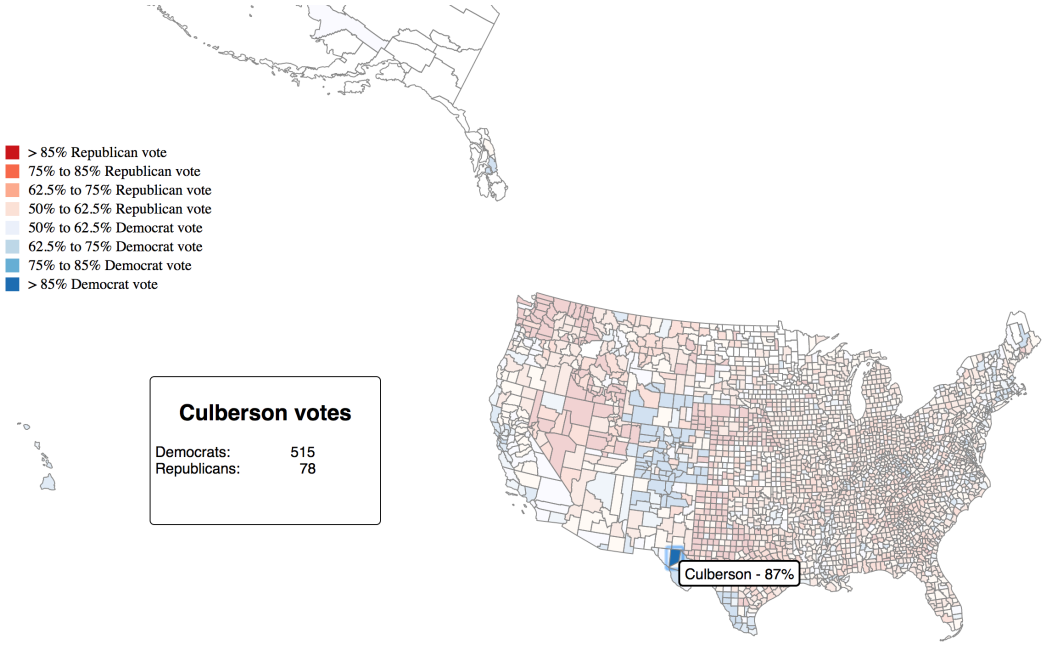

Figure 1 Chart Democrats VS Republicans

Chart 2 : U.S. 2016 primary elections - Winner Candidates

In this chart we show the winner Candidate in each county in the US, for the primary elections in 2016.

Each county is filled with a different color associated with the winning candidate (In this case selected colors are arbitrary and don't follow a logic such in the previous chart).

Focusing on a county will trigger a tooltip with the name of the county and a picture of the winner candidate of the county.

Clicking on a county will trigger an infobox with information on the county. The information shown is the winner candidate, the percentage of the Educated People, and the proportion of Black and White people (using the same label of black and white as in the facts csv). With this information what we want to show is the education and ethnic profile of voters of each candidate.

The data used for this chart is the "County Facts" used for the information of ethnicity and studies of people of each county and the winner candidate for each

county. Some manipulations have been done on both datasets in order to obtain the percentages of the facts and also on the "US election 2016" dataset to compute the winner candidate of each county, and ultimately to merge both datasets.

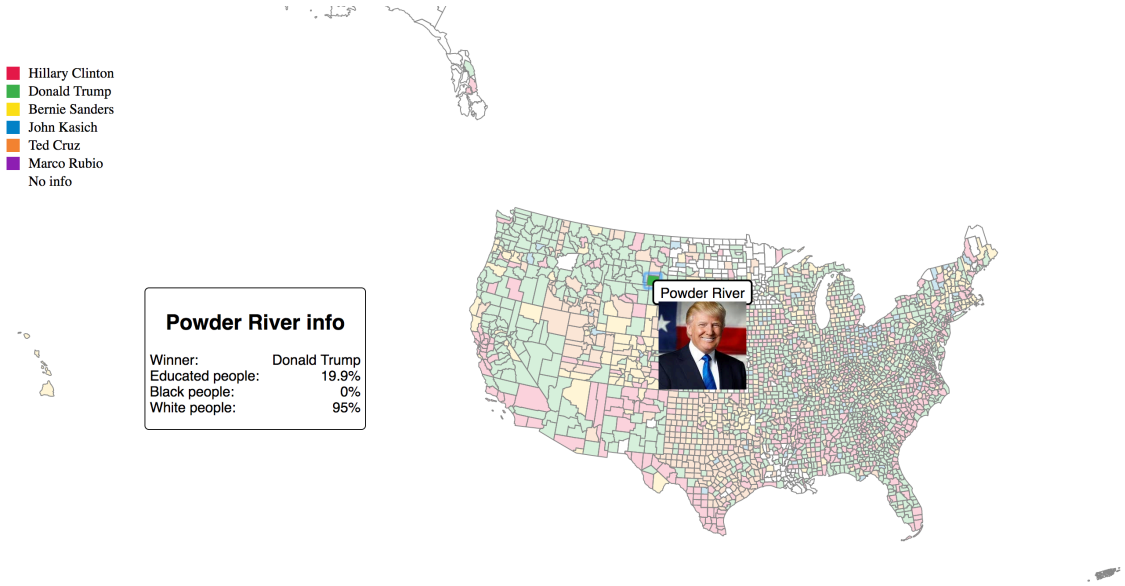

Figure 2 Candidate Winner chart

county	Democrat	Republican	proportion	democratWir
Autauga	2931	11839	0.19844279	FALSE
Baldwin	11783	53544	0.18036953	FALSE
Barbour	4469	5395	0.45306164	FALSE
Bibb	16764	19028	0.46837282	FALSE
Blount	6057	35487	0.14579723	FALSE
Bullock	2629	541	0.82933754	TRUE
Butler	45205	115176	0.28186007	FALSE
Calhoun	26301	46099	0.36327348	FALSE
Chambers	4191	11246	0.27149057	FALSE
Cherokee	21315	81490	0.20733427	FALSE

Figure 3 Modified Dataset for Democrats VS Republicans chart

county	candidate	votes	educated	white	black
Los Angeles	Hillary Clinto	590502	29.7	71	9
Philadelphia	Hillary Clinto	212785	23.9	45	44
Wayne	Hillary Clinto	163886	21.3	54	39
Harris	Hillary Clinto	156729	28.4	70	19
Orange	Donald Trum	146888	36.8	73	2
Maricopa	Donald Trum	144522	29.8	84	5
San Diego	Hillary Clinto	139813	34.6	76	5
Broward	Hillary Clinto	132527	29.9	64	28
Miami-Dade	Hillary Clinto	129467	26.3	77	18
Cuyahoga	Hillary Clinto	125914	29.7	64	30
Allegheny	Hillary Clinto	122399	35.9	81	13

Figure 4 Modified dataset for Winner Candidates chart

3.-Members duties :

We have divided our forcework into two groups, each one focusing on one chart:

Alex Ferrer : Data exploration / manipulation and focus on Democrats VS Republicans chart.
Markos Gavalas : Lead Developer focus on the Democrats VS Republicans Chart.

Montse Brufau : Lead Developer focus on the Winner Candidate Chart.
Jonatan Piñol : Data exploration / manipulation focus on the Winner Candidate Chart.