THE CHOICE -- 2016

Ryan Kelly

MAP TOPIC: The recently concluded general election has already produced several high-quality maps showing the voting breakdown at the county level. What has yet to be mapped are the correlations between voting preferences and such variables as race, income and gender.

This mapping project (to be titled The Choice – 2016) will be generated in two phases. The first phase will be to generate a national general election map by both state and county which will display each state and county by the percentage it went for either Hillary Clinton or Donald Trump. Data for third/fourth party candidates (when applicable) will also be included in the total.

The second phase of the project will be to build a map (at the county level) which populates with selected demographic data and income data.

The goal is to build a national map at the county level where the user can rapidly scan both general election data and the concomitant demographic/income data to identify trends and correlations at the county level in the recently concluded November 8, 2016 general election.

What Will the Map User Get Out of the Product?

The target user will be the individual who wishes to view more than just the basic "red-and-blue" state divide so common to most general election maps. The user will be one more interested in looking at the deeper trends at the mid-level of the county geographic unit which, while nowhere near as detailed as the precinct level (2016 data which will not be readily available until 2017) will still be able to provide the user with the ability to see correlations between voting trends and race, income and gender.

The key items for which the user will be able to utilize the map will be:

1. A visually appealing map in which they can view the actual vote totals, as well as percentage totals, for each state and county of the United States of America
2. The ease of being able to quickly jump between voting data, racial data and demographic data with the use of a simple dropdown menu
3. Quick access to both voting statistics as well demographic statistics which will immediately be populated on mouse-over in the form of an information window

A typical scenario will be the user who wishes to see how his/her home county voted in the 2016 general election. The user is from Broward County FL. The user will first see a macro-level map of the fifty states and see his home state of Florida is colored a light shade of red, indicating that the GOP candidate carried the state in the Electoral College albeit by a slim margin. He proceeds to zoom into Florida whereupon the state view gives way to a county view that visually displays each county and the degree to which they either voted Democrat or GOP. He proceeds to mouse-over Broward County which triggers an information window which displays the vote distribution between the two major-party candidates (likely using a pie graph) and the total number of votes cast for each candidate. The user will then have the option to utilize a dropdown menu and change the data scheme from voting results to demographic data. The user, as they proceed to mouse-over the state of Florida (or any other part of the USA) will then be able to quickly and dynamically see the voting results of each county as well as data from the most recent census to gain a greater overall understanding of the trends between voting preferences and core demographic and income-related data.

Data Sources, Content Requirements and User Interfaces:

The data sources for this mapping project have been finalized and are as follows:

1. A base map of the United States (likely to be provided by Open Street Maps)
2. JSON files of the United States at both the state and county level which contain standardized FIPS codes for ease of importing spreadsheet data from election websites as well as the U.S. Census TIGER files from 2010. These have been provided during the three-semester New Maps Plus program; existing course resources will be utilized where necessary
3. Election data for both the state and county level in CSV format. State level election data was imported into a simple Excel spreadsheet; county-level data has been acquired from http://uselectionatlas.org/
4. Demographic and income data have been downloaded from the 2010 U.S. Census at https://www.census.gov/support/USACdataDownloads.html and exported into CSV format

The Technology Stack

The data format for this mapping project will be exclusively in JSON and CSV files.

I will be using HTML, JavaScript (Leaflet) and CSS in the construction of the project.

I am undecided as to the platform on which to host the map. I am wanting to link it to the Kentucky Association of Mapping Professionals (KAMP) website and thus I will need to select a public platform which any user can access if they click on a link from the KAMP website. I am amenable to any suggestion as to how to facilitate this proposal.

The project will be stored on Mapbox or CartoDB.

User Interface and Thematic Representation

The map will employ a choropleth design style since the data is in polygon vector tiles (ex. states, counties). I will also reply on either pop-up boxes and/or dynamic information windows which will populated with new data as the user scrolls the mouse across the map. These pop-up boxes and information windows will attempt to display

voter data in dynamic, colorful pie charts with each piece proportional to votes received by each candidate. A similar pie chart may be utilized to display race and/or gender data.

Three items critical to the success of the project design will be:

1. A dropdown menu box to allow the user to quickly switch between voter data, demographic data, and income/education data. The dropdown box will be the linchpin of the user interaction as they scroll between the various forms of data available to them at the county level
2. An information window to populate with summary voting statistics at county level
3. Zoom in/out functionality where the states JSON (and its associated data) will disappear at certain scale and will be replaced by the counties JSON (and its associated data) along with the all-important dropdown menu box

The data for this project will not be temporal and therefore a slider bar will not be incorporated into this mapping project.

Please consult the attached JPEG markup sketch (located at the following URL: https://github.com/rskelly29028/MAP673/tree/master/module-07/lab-07) of the proposed map design style, or consult the initial draft of the project at https://github.com/rskelly29028/MAP673/blob/master/final-project/index.html. The content of this draft is subject to change without notice.