Chris Lloyd
Data Visualization in Tableau

Version 1:

https://public.tableau.com/shared/SG6WB5NYW?:display_count=yes

bernie-clinton-pa-contribution-map-v1.twbx

Final Version:

https://public.tableau.com/views/sanders-clinton-pa-contributions-v3/clinton-sanders-pa-primary-contributions-v3?:embed=y&:display_count=yes

sanders-clinton-pa-contributions-v3.twbx

Summary:

This visualization shows the difference in campaign contribution frequency and dollar amount from individual donors during the Democratic primary in Pennsylvania between Bernie Sanders and Hillary Clinton. It's goal is to give the viewer a sense of the grassroots support that Sanders enjoyed by comparing the frequency and $ amount contributed per zip in the state versus Clinton. My previous EDA project that more broadly explored campaign contributions in PA inspired me to continue exploring that dataset with Tableau. I did some data wrangling as well for this project by writing a Python script that formatted the zipcodes in a way Tableau's mapping feature supports.

Design:

My first design choice: creating a choropleth. I wanted to explore Sanders' support across the state, so the map made the most sense at first. It uses a orange/blue diverging color scheme that gives a good visual representation of Sanders' support.

After some feedback that suggested a more robust comparison between contribution frequency and contribution amount, I decided to add another visual to the Tableau story. I created a packed bubble chart that shows each zip code as a colored circle with varying sizes. The packed bubble chart uses shape, size, and color. It gives a good representation of the differences in individual contributions and dollar amount per zip code for each candidate. You can clearly see that Clinton received more money from certain zip codes, whereas Sanders had much more broad support in terms of contribution frequency. I kept the color scheme the same: Sanders blue and Clinton orange. I then created a story and made this packed bubble chart the first story item. It serves as an introduction to the choropleth.

As for interactive elements, there are several. Obviously the story itself lets you toggle between the first visual and the next. Both the choropleth and the packed bubble charts let you hover over each item for specific information. The choropleth also has additional tooltip information regarding the differential in campaign contributions per zip as well. Also, each visual has a date range, which lets you alter the contribution date range. It starts out at around the time Sanders announced his candidacy and end just after the PA Democratic primary. You may select any range you want. And finally, the map has the standard map interactively that comes standard. You can easily zoom into any part of the state that interests you.

Feedback:

"Wow. That looks cool. I'm guessing the blue means more Bernie support? I get the map at first glance and it becomes clear when I hover over the counties that this represents level of support for Bernie versus Clinton. I guess things could be a bit more clear. Add a title that pops out. The map legends need more clarification as well. Maybe make it more apparent that this measures campaign contributions, not dollar amount. I see that once I hover over the counties but not at first. Actually, one more thing: add some sort of graphic that represents total contributions and total money contributed for the whole state to get a sense of the big picture. That would be interesting as well. Overall, looks good."
- friend

Files:

The original dataset came from the FEC website, listed below. I ran the clean.py script that formatted the zip codes and created a new csv, listed here.

PA-contributions.csv
clean.py

Resources:

https://www.tableau.com/learn/training
http://classic.fec.gov/disclosurep/PDownload.do
ftp://ftp.fec.gov/FEC/Presidential_Map/2016/DATA_DICTIONARIES/CONTRIBUTOR_FORMAT.txt