

IS 590 DV – Nishi Mehta

Final Project

How Popular Is Trump Amidst Covid-19? America Responds

Goal:

Aim of this course is to surface through the eclectic libraries in Python such as matplotlib, seaborn, bqplot, ipywidgets, etc and incorporate the aesthetics in data visualization.

My goal for this end project is to visualize the effect of Covid-19 on American polls, people and the leaders, to how well are the elections running and who is being coined as most popular amongst the pool of viable candidates for the upcoming elections 2020 in the U.S.

Dataset Collection:

My search history through the augment of the assignment revolved around current political and societal issues - to highlight and predict projections in the timeline. Data at <https://projects.fivethirtyeight.com/> contains live updates, graphs and charts about political, social and historical news. My dataset includes 3 datasets - easily

available in .csv format and downloadable to preprocess. They have been uploaded duly on the github repo link provided.

Plotting Variables:

Given the datasets at hand, I tried to recreate the graph displays on FiveThirtyEight about the upcoming polls, popularity of Trump along with Covid-19 affecting polls and American voices. Features selected mainly were the end-date, approval & disapproval percentage, year, pollsters, party votes, party itself, number & type of responses by Americans and so on.

Choice of Graphs:

Using matplotlib, pandas, bqplot and ipywidgets libraries in Python, I was able to develop multiple charts - a line, a bar (horizontal and vertical). These graphs were enabled with interactivity such as dropdown and date-picker. To understand a story, a live connection or interaction is necessary to view the changes on the fly. For each scenario, I have plotted a line chart showing what percentage of Americans which includes some, not all, very and not very- to gauge their reception about President Trump's action toward covid-19. Another dataset relating to the previous information is how popular Mr Trump is as compared to his competitors standing for the polls. Here, I have displayed a bar chart indicating the approval and disapproval estimate against a timeline from Jan 2020 to April 2020. This has been kept in mind and visualized for each specific category of public - be it all polls, adults or voters. Selecting a particular date for that subgroup depicts the estimated percentage accordingly. This leads us to analyzing how many votes did each candidate gather who are running for President elections. For this, I used the data columns at hand to vary the number of polls accrued by each standing candidate according to a pollster. Manifestation of this critical information from a set of eclectic fields and predicting the numbers and values is what I achieved and aimed at by developing this live dashboard!!!

Linking the pieces:

Here, interactivity has been shown for more than 1 graph to show the effect of one variable on another when varied. A flow when visualized helps better understand the numbers, votes, percentages - more vividly the opinions and take of Americans on Trump's undertaken measures for Covid-19. This would have a great impact in studying his popularity and course of upcoming 2020 elections - who is ahead in the primary forecast throughout.

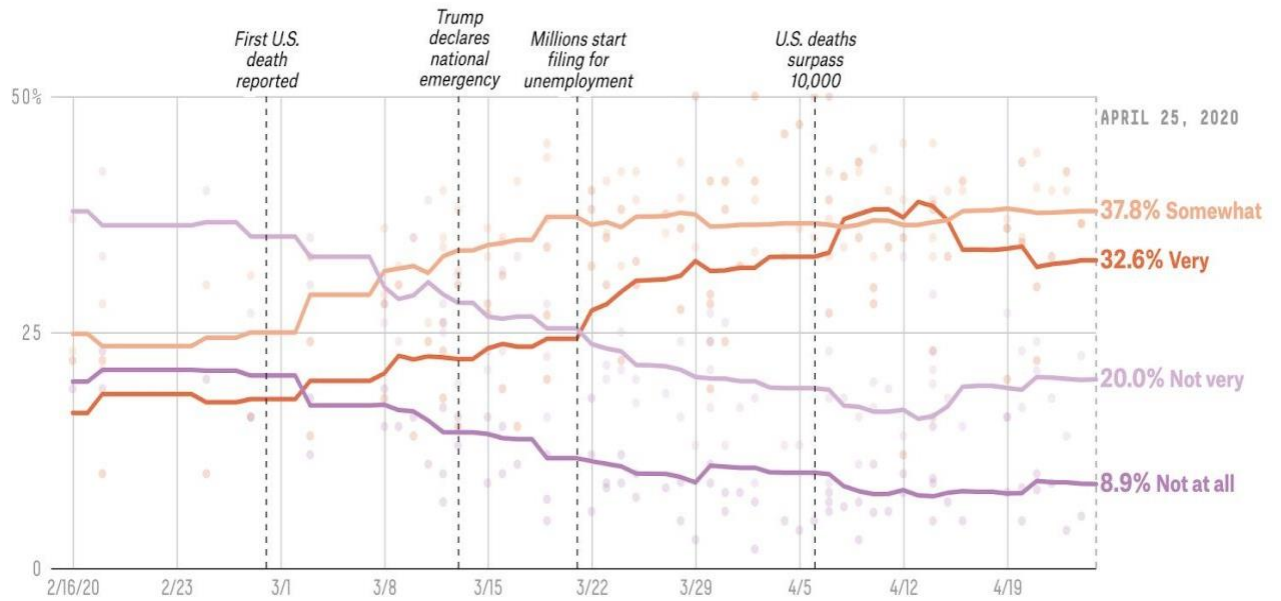
Apart from the two interactive graphs, I have included a timeline chart for votes given by each party- Republicans, Democrats or Independents. It also depicts what number of Americans are affected by what Trump has in place for Covid-19 and the results seem as a huge number of people are largely unimpressed by Trump's actions.

The contextual visualizations include how worried Americans are by the infections which is a supporting graph to measure responses to Covid-19 and the polls voted by Americans. Latest polls back the fact that the disapproval rate is greater and how Biden compares to Trump for general elections.

Contextual Visualization:

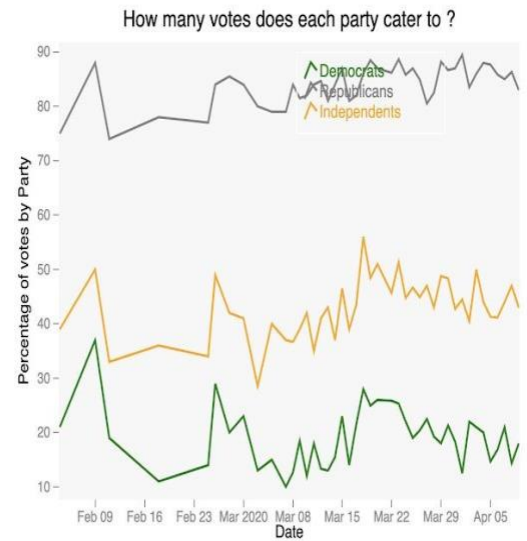
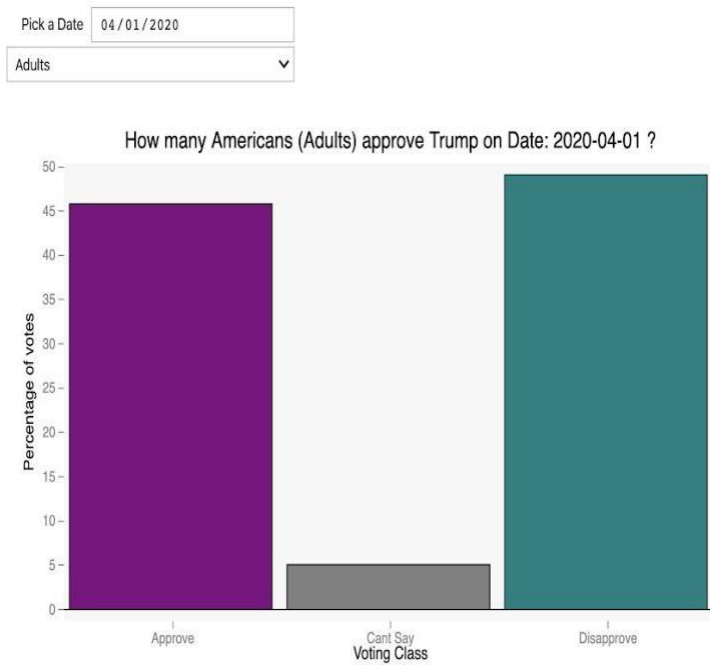
How worried are Americans about infection?

How concerned Americans say they are that they, someone in their family or someone else they know will become infected with the coronavirus



Central Interactive Visualization:

Bar chart of All Polls & Line Chart By Party

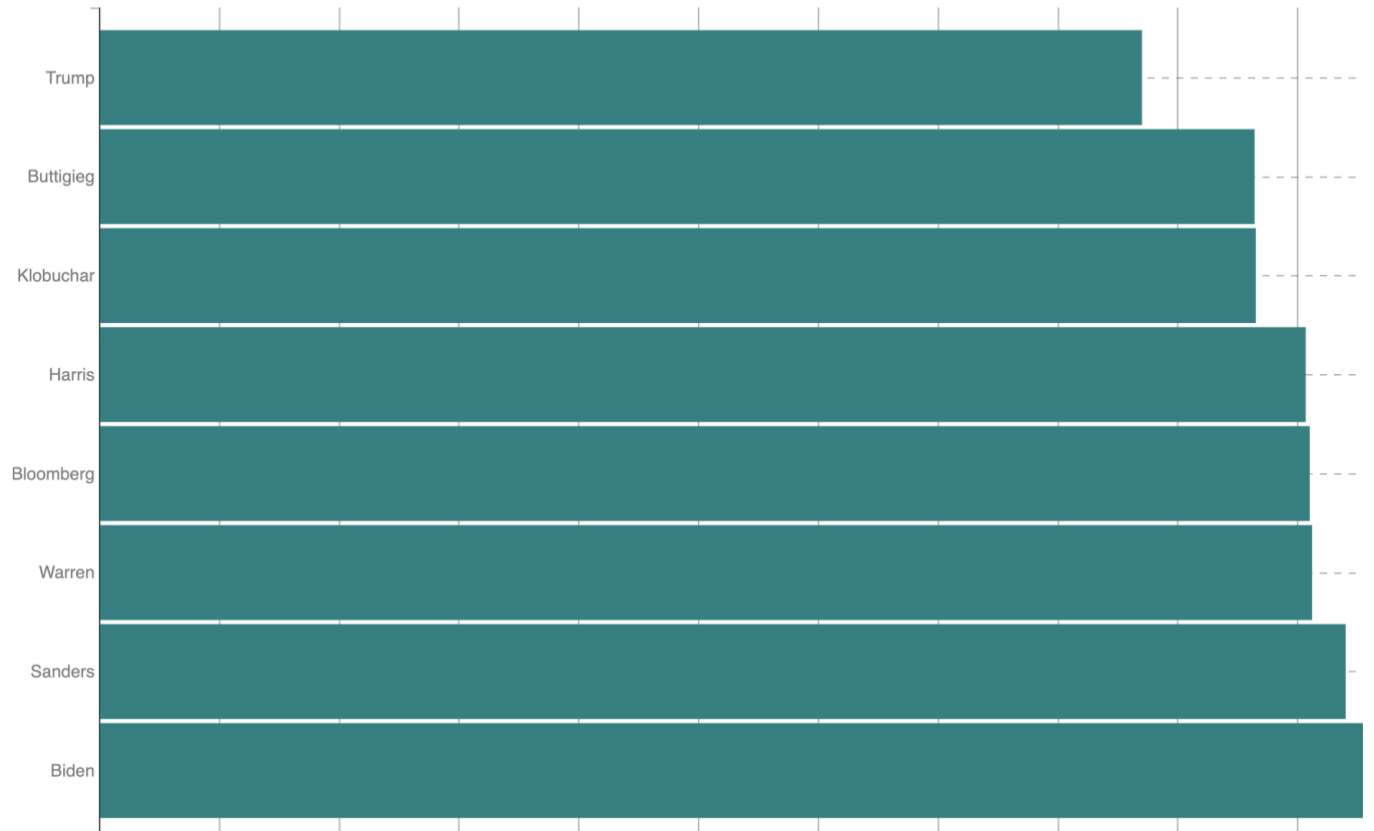


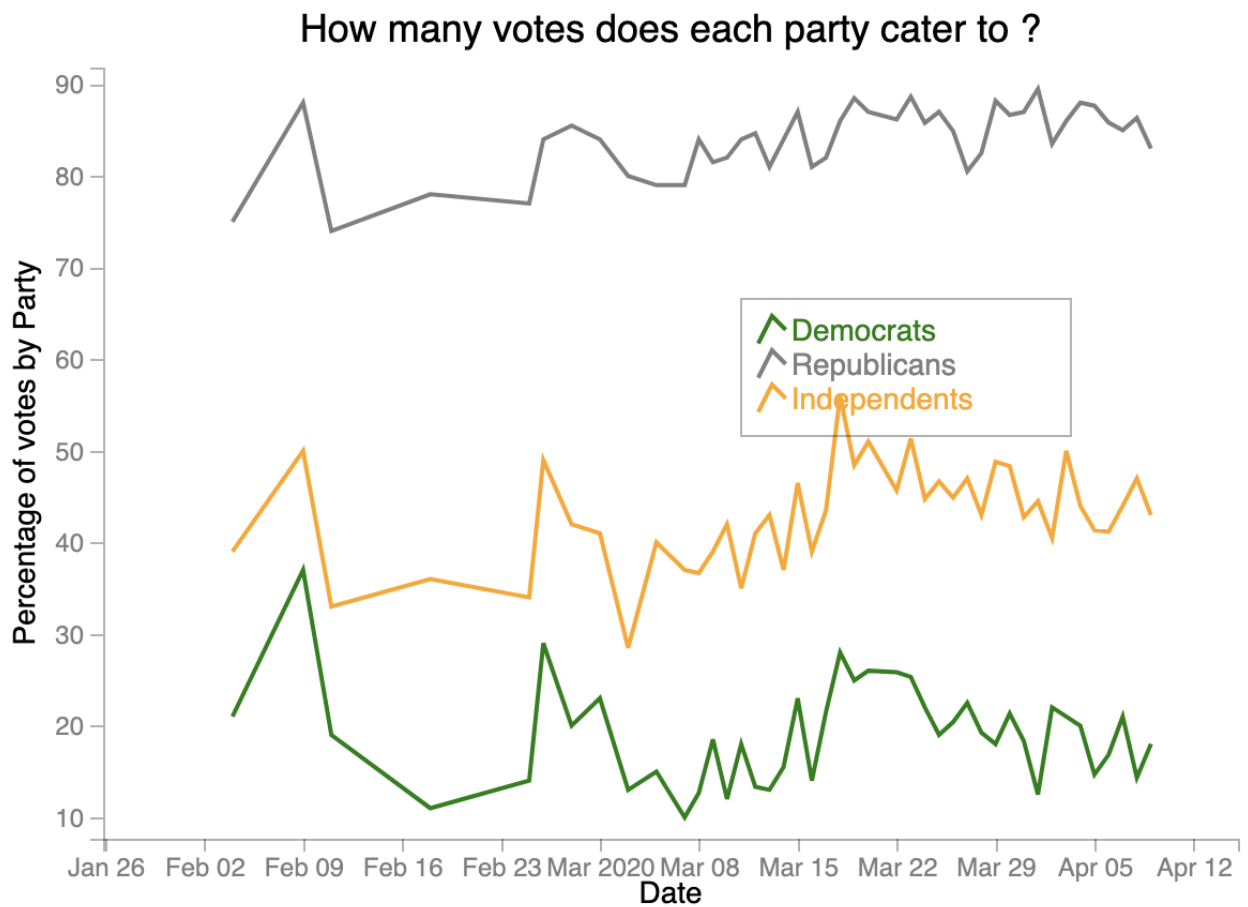
Those economic concerns could play a role in the general election, too, as the way President Trump deals with the pandemic might be a factor in voters' decisions. Below are all the polls we could find that were conducted since early February and asked Americans whether they approve of the way Trump is handling the crisis. We also broke the answers down by party, and as you can see, Republicans largely approve of Trump's response, while Democrats do not and independents fall somewhere in between.

ABC News/Washington Post



Who wins the most votes? poll by ABC News/Washington Post





Citations:

https://projects.fivethirtyeight.com/coronavirus-polls/?ex_cid=rrpromo

https://projects.fivethirtyeight.com/trump-approval-ratings/?ex_cid=rrpromo

<https://voila.readthedocs.io/en/stable/install.html#install>

<https://projects.fivethirtyeight.com/2020-primary-forecast/>

<https://projects.fivethirtyeight.com/polls/>

Dashboard Link & Dataset Submission:

To visualise the charts plotted above with the help of bqplot and ipywidgets libraries in Python, I used Voila dashboard to link the same. Using pip install and providing the path of the created jupyter notebook, the dashboard is now live and is run on mybinder !!

Mybinder link is as follows:

<https://mybinder.org/v2/gh/nishidm2/nishidm2.github.io/063dcfaa5b960a8a55fc0286cdf5fdb3a2a931cc>

Voila: <http://localhost:8866/voila/render/mehta-nishi-final-project-part3.ipynb>

Github link where all datasets and code (for part 2 and part 3) reside:

<https://github.com/nishidm2/nishidm2.github.io>