2020 Popular Vote Results

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Abstract

I researched the 2020 popular vote and some data relating to the Democrats winning it in the election. This paper's purpose is to give a general understanding as to why the Democrats won the majority of the voters. The two factors I tie together are the eligible voter turnout rate and the eligible voter population. These results can be useful for people who want to explore past elections and understand an explanation as to why the Democrats won the popular vote in this instance.

Keywords: election, vote, Democrats, voter turnout

1 Introduction

The Python Research Program was a great experience and I was able to learn about many tools that I am certain will help me in the future. In two weeks, I was able to learn the basics of Python such as variables, loops, lists, and dictionaries to more advanced concepts: data frames and plots. The data frames and plots were especially useful in this project because of their wide range of functions that help to process data. I chose to work on the election project because I found the 2020 election fascinating. Many people were talking about it when it was coming up, and even after the election there were many uncertainties. I wanted to do my own research and learn why the democrats won the popular vote through a more general lens.

Github project link: https://github.com/Anay-jo/PRProject

2 Method

Some techniques I learned in the Python Research Program were Data Frames and plots using pandas and Plotly which were really helpful in this project. I was able to visualize my data and visibly see a difference between two sides of my data. For example in the graph below, we can see a larger average turnout rate for eligible voters in democratic than republican states. Another useful technique is the floor division function in Python. This helped me with finding the average percent of non-citizens in all of the states. Another way to store data is to use a lot of lists, but lists don't have functions that store them and

many other lists in a table. Lists also don't have functions that organize their data into graphs. Data frames, on the other hand, have a lot of features for visualizing and storing large amounts of data.

3 Results

My project gives generic data which supports Democrats winning the popular vote. We see in the first graph above that the democrats have, on average, a higher turnout rate when it comes to eligible voters. We also see in the second bar graph that the democrats have, on average, a slightly larger population of eligible voters. A larger percent of a larger population is more than a smaller percent of a smaller population which supports the Democrats winning the popular vote. I believe that I was successful in tying the supported data with the Democrats winning the popular vote, but I believe that if I had more time, I would try to gather more data on other potential factors.

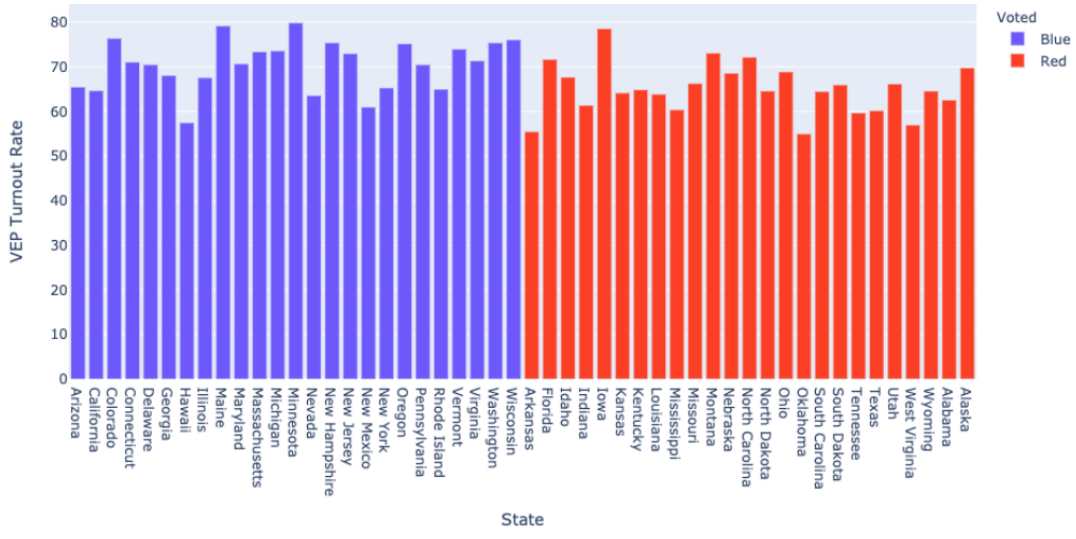

FIGURE 1: The democrats have, on average, a higher turnout rate when it comes to eligible voters.

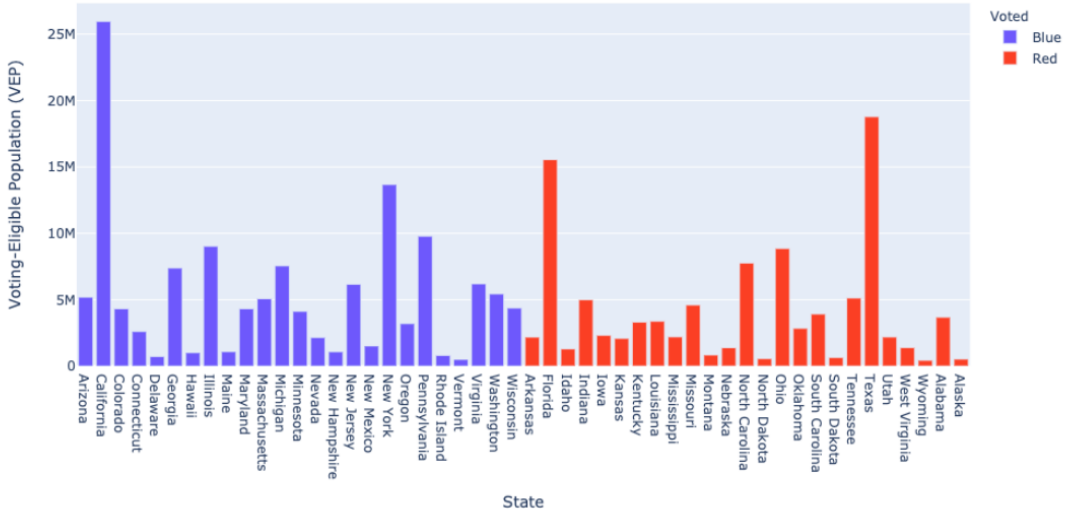

FIGURE 2: The democrats have, on average, a slightly larger population of eligible voters

4 Discussion

I will work more on this project to fine tune it and make it a little better. I will also try to play around with more graphs to see what types of graphs or plots make my argument more clear. The bar graphs that I used prove my point, but it is not entirely obvious. Automating some parts of my code will give me more time to do deeper research as I would not need to focus as much on my code. Learning automation would really allow my code to be more general and cover a wide range of data-sets which gives me more time to research my topic.

5 Conclusion

This experience really gave me confidence in my ability to research. Before this project, I had never done anything relating to research, so this really exposed me to a whole new world. I am proud of my project as it is my first research project I have done and it really encouraged me to continue playing around with data-sets and doing more projects.

References

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