

# Quantifying the Rising “Blue Wave”:

## The Five Metro Areas that Determined the 2020 U.S. Presidential Election

Jake Davidson, Jon Chun, & Katherine Elkins

Programming Humanity and Integrated Program in Humane Studies

### Introduction

With the 2020 Presidential Election completed and Joe Biden elected as the United States' 46<sup>th</sup> President, strategists of the Democratic Party must now shift their focus toward defending this victory in 2024. We will be assessing the outlook for the Democratic Party going forward by examining changes in voting behavior from 2016 to 2020 in five key counties: Milwaukee County (WI), Maricopa County (AZ), Wayne County (MI), Philadelphia County (PA), and Fulton County (GA). These counties were chosen for two reasons. First, they are all in states President-Elect Biden flipped from President Trump. Secondly, while they are all urban counties, together represent all regions of America. We will be analyzing changes in voter turnout, votes for Republicans or Democrats, margins of victory, and percentage point victory. Along with that, these changes and the overall behavior of voters from these counties will be compared to the voting behavior of their counties' members of the House of Representatives, through code from Kaggle. This will help us quantify any liberal shift, as pundits for years have talked about the “Blue Wave.”

### Methodology

We used both code from Kaggle as well as visualizations from Tableau, as we are seeking to tell the story of any changes in voting behavior and a liberal shift through engaging and interactive visualizations.

To begin, we first compiled all the data from both the 2016 and 2020 presidential elections in all 5 counties. This includes data points such as in voter turnout, votes for Republicans or Democrats, margins of victory, and percentage point victory. Using these data points, we created a dataset that was plugged into Tableau.

This data in Tableau was used to illustrate changes in votes for Republicans from 2016 to 2020, changes in votes for Democrats from 2016 to 2020, change in vote margin, and change in percentage point margin, all per county.

By utilizing Tableau visualizations, one can tell the story of the past two Presidential elections through data. Through Tableau, the readers will be able to receive the data fast and direct to the point.

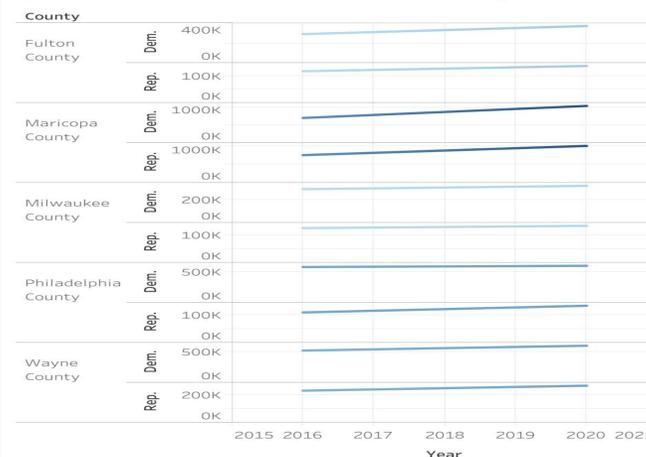
After analyzing the constituencies' voting changes, we then compared any shifts to the voting record of these different county's members in the House of Representatives. This will be used to measure the outlook of the Democratic Party moving forward. If the electorate has shifted left of their representatives, it will be a positive sign for the Democratic Party.

Because of how large these counties are, all these counties are part of multiple congressional districts. Therefore, there are four representatives from Milwaukee County, three from Philadelphia County, four from Wayne County, four from Fulton County, and eight from Maricopa County. It is important to note that these representatives do not only represent members in these counties, but they also represent more suburban areas as well, areas that are often more conservative.

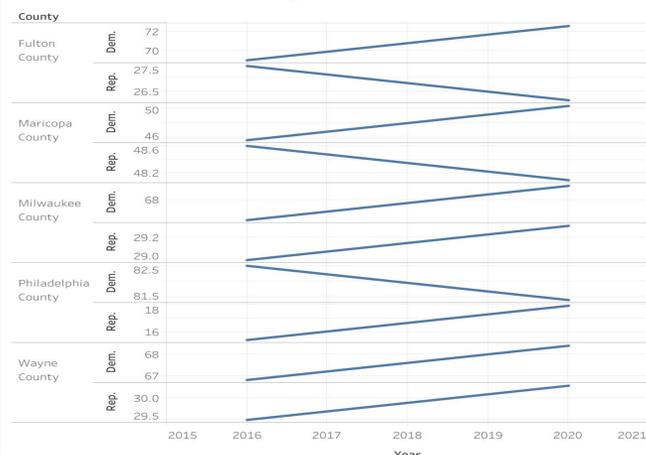
Overall, by refining the data from Congress into models through code, one can greater understand the future success of the Democratic Party. While it is important to note that all models come with inherent uncertainty, they are still extremely useful, especially in the case of political strategy.

### Vote Totals, Percentage Won, & Margin of Victory

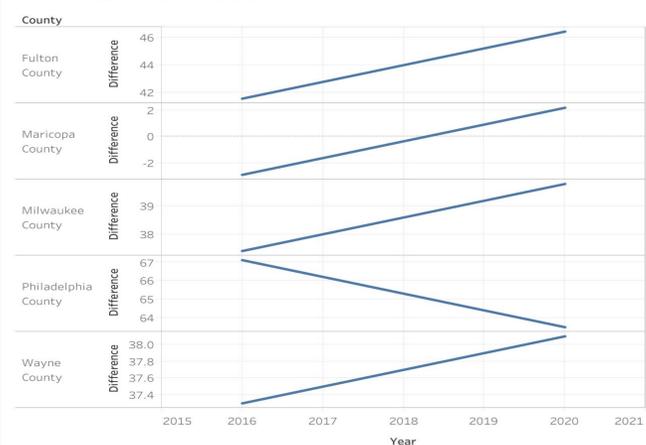
Vote Totals 2016 vs 2020 Presidential Election (Dem. = Democrat, Rep. = Republican)



Percentage of Vote 2016 vs 2020 Presidential Election (Dem. = Democrat, Rep. = Republican)



Democratic Party Percentage Point Margin of Victory 2016 vs 2020 Presidential Election



### Results

After analyzing the results from the 5 different counties, Democrats saw a very positive shift. While Biden and the Democrats won all five counties (they were projected to win at least 4 of them), that is not the main victory. The Democrats were able to widen their victories in every county except Philadelphia County, Pennsylvania (this should not be a grave concern because won Democrats 82.5% percent of the vote in 2016 and won 81.4% of the vote in 2020).

The largest change came in Maricopa County, Arizona, a county Trump won in 2016. In that election, Hillary Clinton received 45.7% of the vote. In 2020, however, as shown by the increase in percentage of vote won, Democrats jumped up nearly 5% as Biden won 50.3% of the vote. As seen on the margin of victory graph, Democrats went from losing the county by 2.9% to winning it by 2.2%. Along with that, Democrats vote share went up from 702,907 to 1,040,774.

In Fulton County, Georgia, Democrats were able to increase their vote share by 3.6%, climbing all the way up to 72.6% won. As shown on the margin of victory graph, this allowed the Democrats to win the county by 46.4%, up from 41.6% in 2016. This was the first time a Democrat won the presidential election in Georgia since Bill Clinton did in 1992. Biden narrowly won the state of Georgia by 11,779 votes, thanks in no small part to his 242,965-vote victory in Fulton County, up from 179,268 in the 2016 election, as seen on the vote totals graph.

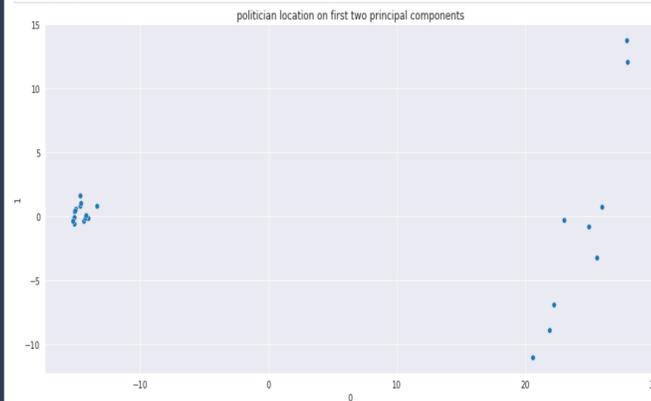
In Milwaukee County, Wisconsin, Democrats were able to increase their margin of victory from 37.4% to 39.8%, as shown on the margin of victory graph. Shifting focus to the vote totals graph, Democrats, who won Milwaukee County by 162,753 votes in 2016, expanded their lead in 2020 to 182,913. In a state that Biden won by only 20,608, these changes proved critical in flipping Wisconsin away from President Trump.

In Wayne County, Michigan, in 2020 Democrats won 68.4% of the vote, up from 66.8% in 2016, as seen on the percentage of vote graph. As seen on the margin of victory graph, Democrats won the county by 38.1%, up slightly from 37.3% in 2016. While still a slight increase, the small shift in liberal support in Wayne County allowed Joe Biden and the Democrats to flip yet another state away from President Trump.

However, compared to these four, Philadelphia County is an outlier. As seen on the margin of victory graph, Philadelphia County was the only county in which the difference decreased, as Democrats won by 67.1% in 2016, but only 63.5% in 2020. Along with that, as seen on the percentage of vote won graph, there was another decrease. Hillary Clinton won 82.5% of the vote in 2016, 1.1% greater than Joe Biden, who won 81.4%.

Transitioning to the voting behavior of members of the House of Representatives, there is a direct split on party lines. The Republican members are farther right of center than the Democrats are left of center. As seen on the graph below, the closest Republican to center is Bryan Steil of Wisconsin, who is over 20 points right of center. In comparison, the closest Democratic to center is Ann Kirkpatrick of Arizona, who is 12 points left of center.

Along with that, the Democrats are much more unified in their voting behavior compared to the Republicans. Also seen on the graph, all Democrats are within 12 to 13 points left of center. However, Republicans range is much wider, ranging between 20 to 25.



### Conclusion

In conclusion, the Democratic Party's outlook moving forward is extremely positive. Biden and the Democrats in 2020 increased their percentage of the vote share in 4 of the 5 counties examined, and the only county they did not, they still won 81.4% of the vote. There was a large increase in voter turnout, something that favored the Democrats. These changes are extremely positive for the Democrats, as they were able to mobilize and defeat an incumbent president for the first time since Bill Clinton defeated George H.W. Bush in 1992.

This increase in turnout for the Democrats is not the only reason Democrats should feel good about their future. These areas are shifting left, meaning they are shifting away from many of these members of the House of Representatives. While it is important to remember that these districts are not only made up by the county but also more suburban areas, this increase in Democratic support means greater pressure will be put upon Republican incumbents. It is not a guarantee that these seats in the House of Representatives will be flipped, but if the electorate is shifting left, Republicans will have too as well. Along with increasing pressure put upon Republican representatives as their districts shift left, it also adds security to Democrats in these districts, as their seats are safe.

Finally, the increase in support for Biden and the Democrats, coupled with the greater disparity amongst Republican representatives, is a positive for the Democratic Party moving forward. As the Democratic Party is much more unified, it will be able to illustrate a universal message to the electorate, something the Republican Party will not be able to do divided.

Overall, increased Democratic support in counties with some Republican representation present, along with a more divided Republican Party based on voting behavior in the House of Representatives, paints a positive picture moving forward to 2024.

Based on the data, the Democratic Party should seek to continue to increase voter turnout, especially in urban counties like these 5, as well as maintaining a unified strategy within the House of Representatives and as a party if it wishes to defend the White House in 2024 and win the election.

### Acknowledgements

Special thanks to Professor Chun with the help with the coding aid and special thanks to both Professor Elkins and Professor Chun for the help in brainstorming.

### Materials and Works Cited

- CNN 2020 Presidential Election Site: [www.cnn.com/election/2020/results/president](http://www.cnn.com/election/2020/results/president)
- CNN 2016 Presidential Election Site: [www.cnn.com/election/2016/results/president](http://www.cnn.com/election/2016/results/president)
- Interact with the data here! [https://public.tableau.com/profile/jake.davidson3601#!/vizhome/Programing\\_HumanityFinalProjectFinalStory/Story1?publish=yes](https://public.tableau.com/profile/jake.davidson3601#!/vizhome/Programing_HumanityFinalProjectFinalStory/Story1?publish=yes)
- Politician Voting Clusters Kaggle: <https://www.kaggle.com/bkburgess/politician-voting-clusters/comments>
- Voting Clusters Notebook: [https://github.com/programminghumanity/iphs200fall2020/blob/main/polisci\\_politici\\_an\\_voting\\_clusters\\_20201130.ipynb](https://github.com/programminghumanity/iphs200fall2020/blob/main/polisci_politici_an_voting_clusters_20201130.ipynb)