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## **Analysis of the 2020 US election results**

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- In this presentation, we want to analyze the results of the US 2020 election in 5 US MidWest states.
- We compare this to the 2016 elections and the demography of these states.
- Only the Republican and Democratic presidential results are considered.
- The 2020 election data was obtained from the Harvard Dataverse, the 2016 election data was scraped using the New York Times API, and the census data was obtained from the tidycensus API in R software.
- The figures and tables were generated using the R software.

## Iowa

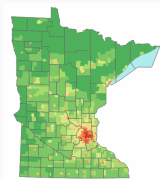
Figure 1:



- Population of about 3.2 million.
- The capital is Des Moines and the major cities are Des Moines, Cedar Rapids, and Davenport.
- Its largest industries are agriculture, insurance and financial services, biotechnology, and manufacturing.

## Minnesota

Figure 2:



- Population of about 5.7 million.
- The capital is Saint Paul and the major cities are Minneapolis, Saint Paul, Rochester and Duluth.
- Its largest industries are agriculture, manufacturing, mining and energy production.

## North Dakota

Figure 3:



- Population of about 779,000.
- The capital is Bismarck and the largest cities include Fargo, Bismarck, Grand Forks and Minot.
- Its key industries are agriculture, energy and natural resources, and autonomous systems.

## South Dakota

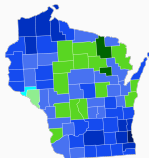
Figure 4:



- Population of about 887,000.
- The capital is Pierre and the major cities are Sioux Falls, Rapid City, Aberdeen and Brookings.
- Its largest industries are agriculture, manufacturing and mining.

## Wisconsin

Figure 5:

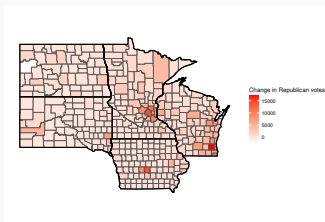


- Population of about 5.9 million.
- The capital is Madison and the major cities are Milwaukee, Madison, Green Bay and Kenosha.
- Its largest industries are manufacturing, agriculture, health care and tourism.



## Change in Republican results (2016 vs 2020)

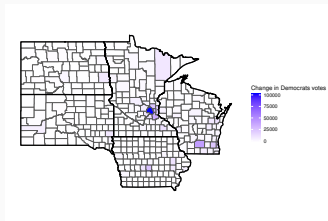
Figure 6:



There was more than 20 million votes in 2020 compared to 2016 and this reflected in positive changes in votes in almost all counties considered. However, the maximum votes change in the counties considered was just 17,106 with the minimum being -2,517.

## Change in Democrats results (2016 vs 2020)

Figure 7:



In the case of the Democrats, the maximum vote change was 103,335 and the minimum is -437. The Democrats won the election by gaining more votes and losing less votes.

# Regression results for change in Republican's votes

Table 1:

	Dependent variable:
	c.Republicans
pc.White	-102.517* (56.460)
pc.Male	-30.393 (58.134)
factor(state)iowa	955.582*** (211.892)
factor(state)minnesota	1,738.199*** (234.685)
factor(state)north-dakota	257.497 (290.363)
factor(state)south-dakota	454.750* (259.066)
factor(state)wisconsin	2,809.685*** (246.251)
Observations	377
R <sup>2</sup>	0.390
Adjusted R <sup>2</sup>	0.378
Residual Std. Error	2,080.084 (df = 370)
F Statistic	33.788*** (df = 7; 370)
Note:	*p<0.1; **p<0.05; ***p<0.01

# Regression results for change in Democrats' votes

Table 2:

	Dependent variable:
	c.Democrats
pc.White	-316.264* (188.400)
pc.Male	-9.242 (193.987)
factor(state)iowa	868.818 (707.058)
factor(state)minnesota	3,642.763*** (783.116)
factor(state)north-dakota	105.826 (968.905)
factor(state)south-dakota	319.648 (864.470)
factor(state)wisconsin	3,329.195*** (821.710)
Observations	377
R <sup>2</sup>	0.124
Adjusted R <sup>2</sup>	0.108
Residual Std. Error	6,940.987 (df = 370)
F Statistic	7.515*** (df = 7; 370)
Note:	*p<0.1; **p<0.05; ***p<0.01

## What the regression results mean for elections going forward

- From the tables above, a percentage change in White population negatively and significantly affected the change in votes of both Republicans and Democrats. However, the Democrats were affected more. According to an article on Asam News, White population "feel like a minority group that is in decline, and they feel that people of color are rising while they are declining" (Sohrabji, 2020). Trump's policies were perceived as anti-immigration and the White population therefore identifies with him more.
- A percentage change in Male population also negatively and but insignificantly affect the change in votes of both Republicans and Democrats. But the Democrats were less affected.

# What the regression results mean for elections going forward

- Minnesota and Wisconsin have positive and significant effects on the vote change for Republicans and Democrats. A lot of attention should be given to these states.
- Iowa has a positive and significant effect on Republican votes but positive and insignificant effect on Democrat votes.
- Going forward, both parties need to develop strategies on how to allay the fears of the White population and make them feel the country belongs to them. The male population also deserve attention especially in terms of more job creation.

# References

- [1] The Associated Press (2018). 2016 Presidential Election Results. The New York Times.  
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(Accessed on 2021-28-09)
- [2] Harvard Dataverse (2018). County Presidential Election Returns 2000-2020. MIT Election Data and Science Lab.  
URL:<https://doi.org/10.7910/DVN/VOQCHQ>. (Accessed on 2021-28-09)
- [3] Sohrabji, Sunita (2020). Why Whites voted for Trump: They feel like a minority. Asam News.  
URL:<https://asamnews.com/2020/12/17/three-out-of-five-white-voters-voted-for-trump/>. (Accessed on 2021-28-09)

# Thank You

Thank You