How Employment Is Affected By A Political Party In Power

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Inspiration

While approaching this project, our group wanted to pick a topic that in some way related to each of us personally. Other than being engineering students in the same class at Columbia, we are all people of different ethnicities who live and/or go to school in America. Thus, we thought that incorporating our ethnicities into our project in some way could be beneficial to our interest within what we wanted to examine.

Racial inequality has been front and center especially within the last year. One of the events in 2020 that highlighted race in America was the presidential election, in which both candidates claimed that they were better for certain ethnicities, and the hot topic seemingly was who would do a better job of passing legislation that would be beneficial for all ethnicities.

With that in mind, we wanted to focus on employment amongst people of different ethnicities. We identified employment rate as something tangible to compare to see if a certain political party was more beneficial for a racial group than another party. Certainly, employment rate is not the only metric that can help measure which political party is beneficial. However, because a lot of inequality in America– and in the world for that matter– is driven by economic and wealth inequality, we thought that measuring employment rate would be a good indicator of whether or not a political party could help out a certain racial group, in a certain congressional district, more through economic legislation proposed and passed while that party held a congressional seat. This led us to formulate our question of, "How Employment Is Affected By A Political Party In Power."

Value

To what degree employment is affected based on the economic decisions of a specific political party is important in numerous different ways. Primarily, this data could be very beneficial to voters. Voters could use the results of our study as another form of criteria for who they choose to vote for. Who wouldn't want to know how many jobs are created or lost in a certain district while either a democrat or rebublican holds office? Knowing this information would be incredibly helpful to voters' knowledge.

Our results are also beneficial in predicting whether a certain seat will be flipped during the next upcoming election. We separated this prediction based on ethnic groups. Thus, this could give voters a glimpse into which political party fellow members of their ethnicity are, and

perhaps *should*, be leaning towards. Decisions based on ethnic benefit are key to our study, and have proven to be key in elections, as many recent ones at various local, state, and national levels have been decided by turnout amongst certain ethnic groups.

Lastly, political parties would be willing to learn if localities led by their party do better for employment than those led by another party, and just how beneficial/damaging their opponents' party can be for jobs. The upside to knowing such information is tremendous. Imagine being a political candidate running for office. Knowing whether or not your party has historically been more or less beneficial for employment will certainly shape how you run the race. If you were to find out that while your party holds office, employment rate increases for certain ethnicity groups, you are more likely to to target those ethnic groups while out on the campaign trail. This could buy you important endorsements and ultimately be incredibly beneficial to a potential election win. Conversely, finding out that the employment rate decreases or does not increase as fast when your political party is in charge is also extremely beneficial. It gives the opportunity to execute a couple of different agendas. Firstly, you can argue how you will be different than the predecessors in your party to attempt to sway the narrative. Secondly, you can focus on other issues in your community and how you plan to fix them to help win over votes. Alternatively, learning that your political party has relatively no effect on employment rate is equally as beneficial. This levels the playing field and gives you a fair chance to argue how you plan to bring more jobs to your community while in congress.

Data Sources & Assumptions

We used a couple of different data sources to complete our research. US Census Data was key to obtaining data about employment and population within a specific locality, as well as employment based on race within that same locality. We chose to filter on each US congressional district's labor force participation rate which was split based on the rate for Black/African American people, American Indian and Alaskan Native people, Asian people, Native Hawaiin and Pacific Island people, White people, people of other races, and people of two or more races. We choose labor force participation rate as opposed to employment rate amongst those ethnicities because labor force participation rate includes those who are employed on active military duty. We thought that the labor force participation rate painted a better picture of the employment rate in certain localities. The links to the data we used are below:

US Census Data - American Community Survey (ACS): <u>DP05</u>, <u>DP03</u>

Additionally, we made a few key assumptions before carrying out our data analysis. It is important to note that our data is pulled from the years of 2012, 2014, 2016, and 2018 and is relevant for employment rates from 2010-2016. First, we assumed that there were two political parties, democrats and republicans, that could be in power. This was primarily for simplicity sake and to avoid other forms of noise seeing that the overwhelming majority of congress is either republican or democratic, as noted in the article "Why are there only two parties in American politics?" when Aaron Blake writes, "since World War II, no more than two out of its 535 members have been anything other than Republicans and Democrats" (The Washington Post). We also based how much the employment rate changed while one party held a congress seat by the change in labor force participation rate from the year they were elected to the year that their first term ended. It is important to note that congress members don't actually start in office until the January after the year that they get elected, but because we did not have access to monthly data, we assumed this extra month was negligible. Another assumption that we made is that the congress member immediately starts to enact change once they are sworn into office. This was arguably the most influential assumption we made. It is virtually impossible to calculate just when a congress member begins to have actual influence seeing that it can take from weeks to years to pass certain legislation. This assumption should definitely be taken the most into consideration when interpreting our results.

Methods & Techniques

We implemented a couple of different techniques that we learned in class to interpret our data. We used the difference in difference method to find if there were differences in both political parties and employment rate when a congress seat was either flipped or retained by a certain party. First we split our data into democratic seats that were held in congress and republican seats that were held, as well as into districts in which the political party in congress had changed during the most recent election and the districts whose representative party remained the same. Next, we averaged the results, and subtracted the difference between the averages of employment rate of districts that witnessed a party change and those in which the political was not flipped. This helped us determine if there is any significance on whether or not a political party in charge actually had an effect on the employment rate during the span of their

term. We also used the machine learning methods learned from class of classification and logistic regression to predict whether or not a congress seat would be flipped and which political candidate would either be coming into or staying in that office. Because we partitioned our data based on ethnic groups, we were able to predict whether a certain ethnic group would be more or less likely to trust a democrat or republican more to help with employment.

Results & Conclusion

The results we obtained from our difference in difference analysis was significant. We expected to see that when a district's congressional representative's political party had not been flipped, it was because the employment rates in that district remained high. After splitting the data into republican districts that had recently been flipped republican and republican districts that remained republican; and democratic districts that had recently been flipped democratic and democratic districts that remained democratic, and taking a difference in difference analysis, we found that on average, republicans received a negative result, indicating that a congress seat will stay republican if the employment rate increases less fast or decreases. Democrats received a positive result meaning that a congress seat will stay democratic if the employment rate in that district remains high or continues to increase. In conclusion, this means that democrats face a higher consequence and are more likely to lose a congress seat if employment rates are lower or decreasing.

Additionally, our difference in difference analysis produced significant results about changes in employment based on demographic. Based on congressional seats that have been flipped from republicans to democrats, Black people see the highest growth on average of any other ethnic group, whereas American Indians and Alaskan Natives see the least growth on average in employment. Conversely, based on congressional seats that have been flipped from democrats to republicans, the only ehtnic group on average to see positive employment growth are Asians, and Hawaiin and Pacific Islanders see the least growth.

Lastly, we used classification and logistic regression analysis to predict whether a congress seat would be flipped or not. Unfortunately, our classification analysis did not produce significant results. This most likely is attributed to the fact there were so few seats that were flipped as well as all the missing factors employment data ignores. However, our other logistic regression did produce significant results. We used logistic regression to predict which party was

most likely to win the next election regardless of if that party retained control or took control of that seat. We found that the coefficient that most affected a party winning a congressional seat was the coefficient that indicates whether or not the seat had been flipped. We found that it was more likely that a congress seat will be flipped to a democrat. This is probably a result of the specific years our data was pulled from. We also found that White people had the most significant coefficient of all of the ethnic groups, indicating that the biggest indicator of whether an incoming representative will be democratic is how much the White employment rate increases. If White employment increases more, it is more likely that the seat will be filled by a democratic candidate, and if white employment increases less than before or decreases, the seat will more likely be filled by a republican. Also, according to our analysis, the biggest indicator of whether an incoming representative will be republican is how high overall Asian employment is, although this conclusion is not very significant compared to the others.

Our results are certainly noteworthy. Although they are not 100% accurate and some big assumptions were made, it is fair to say that we at least have found the start to the answer of our question of how employment is affected in each congressional district by the political party that holds the congressional seat.

Works Cited:

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