

Researching Big-Tech Companies and Their Spending Based on Political Affiliations

Tech Money Busters

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Hypothesis

After multiple scandals in 2016, 2017, and 2018 relating to election interference and data breaches, we predicted that tech companies became “more politically active” in order to save their image, in that the average amount donated by tech PACs to various campaigns increased.

We also predicted that tech companies’ donations would skew conservative on average, especially after Democrats began discussing regulating tech companies.

Data

We scraped our data from opensecrets.org, a site that aggregates campaign finance and lobbying data from various sources (including the Federal Election Commission). Because we’re interested in big tech companies’ money in politics, we had to filter PACs by sector. OpenSecrets provides two categories for what we defined as “Tech Companies”: Electronics Manufacturing and Equipment and Internet. We collected data on PAC donations to national election campaigns from the 2010 to the 2020 election cycle.

We also gathered data from Business Services, a third sector of comparable size to both the sectors we counted in our “Tech Companies”. This provides a counterfactual to see whether the trend is unique to the tech industry or uniform across industries.

While evaluating the models, one challenge we faced was that we included 2020 data in our table, but the data is incomplete and was, therefore, skewing our results. We decided to leave this data out of our final multiple regression analysis and use it only for visualization and total donation calculation purposes.

Findings

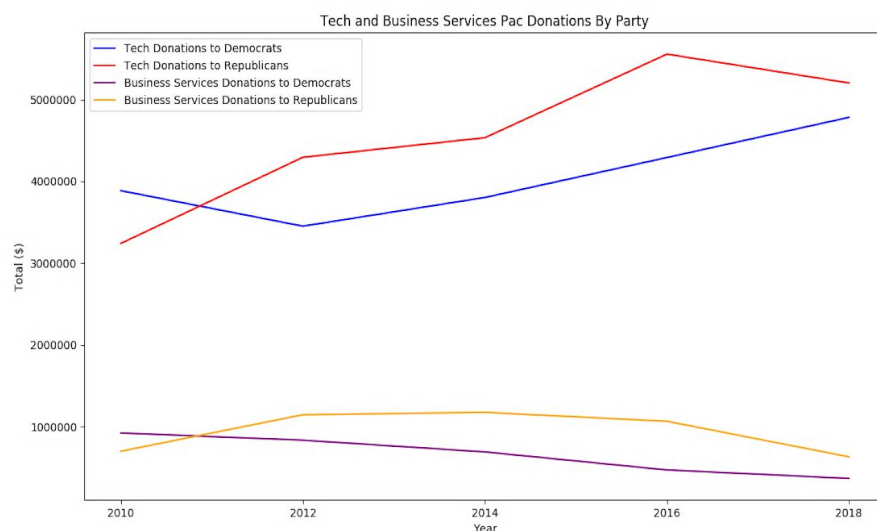
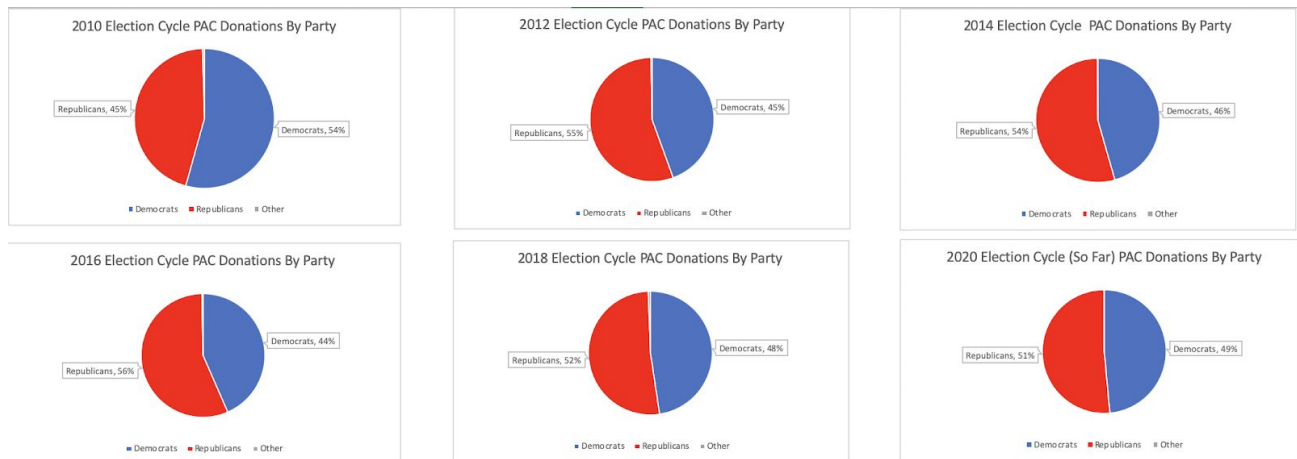
Claim #1: The average amount donated by Tech PACs to campaigns did not change significantly post-2016.

Support for Claim #1: We ran two multiple regression tests on both the Tech donation and the Business Services donation datasets. We included six variables: “year”, “is_after_2016”, “senate”, “dem”, “west”, and “is_election_year”, and found that “is_after_2016” did not have a significant predictive effect on the average donation amount in the tech sector, since its P-value was far above 0.05. In contrast, we did see a significant (negative) effect of “is_after_2016” on donation size in our analysis of the Business dataset, which further proves the inconclusivity of our results.

Claim #2: Tech PACs have donated more predominantly to Republican candidates, but this may change in the future.

Support for Claim #2: Since 2012, Tech PACs have been donating more to Republicans than to Democrats, and the number has been trending up. After the 2016 election cycle, however, contributions to

Republicans began trending down for the first time since 2010, suggesting that this trend may change in the coming years.



Claim #3: Factors of geographical location and election type had a far larger effect on donation amount than did most other factors.

Support for Claim #3: When we ran multiple regression tests on the Tech Donation dataset, two factors stood out. If a candidate was in a senate race, their donation size would increase by an average of \$366. If a candidate was in the west, their donation size would increase by an average of \$367. For comparison, the next most significant effect was from whether or not a candidate was a Democrat, in which case the donation would *decrease* by an average of \$140.