

Campaign Finance Analysis Report

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Abstract

Campaign finances are often overlooked as politicians face off against one another during an election and often the focus is on the debates or the advertisements. What gives politicians this ability to make themselves known is the use of campaign funds through millions and even billions of dollars in contributions from individual Americans to super PACs. This project analyzes campaign finances through state-by-state and federal elections starting in the early 2000s utilizing multiple data tables and charts generated post election to offer insight into the advantages or disadvantages regarding political wins and party identity. Marginal asymmetries between funding, both through individual contributions and number of PAC supporting a particular candidate, can explain an advantage in electoral wins. Another aspect of this analysis is to provide insight into incumbency advantage during elections. Increased amounts of campaign funds can and has been used to increase efforts against opponents in the media, on the debate stage, and for travel. An incumbent politician has an increased amount of trust or even fame but the same can be said for lack of trust leading to being voted out, this is usually not the case. Unironically, the victor is the one with the most amount of resources.

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1 Introduction

The topic of campaign finance is a vast one. For this project the data and explorations were divided into two components: the federal level data and the state-by-state level data. For the sake of clarity and consistency, the sections of this paper will be divided into subsections; federal, state-by-state, and overall. The goal was to determine how party ID influenced campaign financing, and more specifically whether party ID influenced donation amounts or fundraising. In addition, the question of whether money was a determining factor in campaigning success was attempted to be answered.

1.1 Definitions and Abbreviations

PACs: political action committees—raise money to help elect (or prevent the election) of a candidate or candidates.

Super PACs: independent expenditure-only committees

501(c)s: tax exempt, nonprofit groups that may engage in political activity and are not required to disclose information about their donors.

527s: tax exempt groups organized to raise money for “political activities”. The FEC only requires disclosure reports regarding PACs and political parties.

Campaign Committee: created by a candidate to fund/finance their campaign.

Joint Fundraising Committees: committees that benefit two or more candidates, PACs, party committees, etc.

FEC: Federal Election Commission

FCC: Federal Communications Commission

NCSL: National Conference of State Legislatures

EDA: Exploratory Data Analysis

2 Research Questions

When initially exploring the vast amounts of data, countless questions were asked:

Which states are the strictest, which are the most lenient? Is there correlation between party ID and donation amount? What are the stats of donations to each party by PACs, individuals, etc? Where are the largest donations from? Who are they too? Where are the smallest donations from? Who are they too? Is there correlation between strictness of state policy and party ID? Is there correlation between incumbency and donation amounts? What are the differences between PAC donations by state? or house vs senate? Are incumbent candidates better funded? To what extent? Subsequently, is there a correlation between incumbency and donation amounts? What are the differences between PAC donations by state? or house vs senate? Do females or males donate more to campaigns? Is gender relevant? Is it influenced by party ID? How much influence does money wield? How does campaign funding affect success? What differences will we find between state and federal elections? What are the financial differences in funding? Do females or males donate more to campaigns?

Eventually these questions were narrowed down to the following research questions:

Is there a correlation between greater campaign finances and electoral wins on both a state-by-state basis and federal level? How is campaign finance impacted by party ID (and state policy), and how does it differ state-by-state? How do PACS, parties, individuals, etc. contribute to/fund campaigns? What does that distribution look like, and how does it vary?

From these questions it was far more manageable to take on the data and form working hypotheses.

3 Hypotheses

It is hypothesized that party ID does not greatly impact fundraising outcomes—republican and democrat candidates receive similar ratios of contributions (i.e from PACs) and similar total donation amounts. It is hypothesized that candidates that spend more money are more likely to win their election.

4 Data

We used many different sources for our raw data, the primary ones being: FEC: Federal Election Commission, Political MoneyLine, Open Secrets, NCSL: National Conference of State Legislatures, Coalition for Integrity, Follow the Money, and Kaggle

4.1 Federal

Presidential Election Funding 2020 by Percentage			
Presidential Candidate	PACS	Small Individual Contributions	Self Financing
Joe Biden (D)	61.02	38.40	0.58
Donald Trump (R)	51.17	48.83	0.0

Presidential Election Funding 2016 by Percentage				
Presidential Candidate	PACS	Small Individual Contributions	Self Financing	Other
Hillary Clinton (D)	52.84	18.58	0.25	28.32
Donald Trump (R)	14.02	25.94	19.78	40.25

Presidential Election Funding 2012 by Percentage				
Presidential Candidate	PACS	Small Indiv. Contributions	Large Indiv. Contributions	Other
Barack Obama (D)	0.0	32.44	43.63	25.16
Mitt Romney (R)	0.24	17.80	49.74	33.07

Presidential Election Funding 2008 by Percentage				
Presidential Candidate	PACS	Indiv. Contributions	Federal Funds	Other
Barack Obama (D)	0.0	88.00	0.0	12.00
John McCain (R)	0.0	54.00	23.00	23.00

Presidential Election Funding 2004 by Percentage				
Presidential Candidate	PACS	Indiv. Contributions	Federal Funds	Other
John Kerry (D)	0.0	69.00	23.00	8.00
George W Bush (R)	1.0	74.00	20.00	5.0

4.2 State-by-State

Below is a table of one of the main datasets used to analyze state-by-state campaign financing.

Note: 0 = Democrat, 1 = Republican

State Donation Amount and Party ID								
State	State Donor Total	House Total	Senate Total	Total PAC	Party Total	Total 527	Population (2022)	Party ID
AL	54073317	10497848	16495444	15943662	5238865	807600	5024279	1
AK	13598371	2726282	4799210	2063244	1460360	330975	733391	1
AR	31287895	5820860	5173979	10500803	2864079	3887021	3011524	1
AZ	99393014	15600074	35566685	21509679	8249942	3489106	7151502	0
CA	1184582383	177064633	198947319	473013762	77040874	67077340	39538223	0
CO	126278129	17613214	37092516	35089016	8230309	4240226	5773714	0
CT	96989613	11125971	17380720	38879760	7699484	7699105	3605944	0
DE	15852885	1421959	2816414	4852877	1260067	1088205	989948	0
FL	399825186	72198411	72076565	151778296	335549583	17474272	21538187	1
GA	171989122	23257467	52686149	56877581	11581532	9781854	10711908	1
HI	13161724	1855443	3782963	2783995	1345368	102260	1455271	0
ID	19882393	2309530	4257777	7066606	2463591	530410	1839106	1
IL	245890949	41154462	36905984	101624791	15418509	17291124	12801989	0
IN	68829914	10425093	10294201	28191129	5178046	5359333	6785528	1
IA	39668386	9469899	9061897	9319348	4681317	2223173	3271616	1
KS	39582393	8324906	11579586	10345901	3154749	2106544	2937880	1
KY	40895555	5192308	8823752	10891856	8017582	3338559	4505836	1
LA	57297331	12254437	11065298	21505851	3695258	3378631	4657757	1
MA	287103211	336493783	53618079	76402559	15289535	61370742	1362359	0
MD	138320653	21075240	27640352	45112869	11145649	6528093	6177224	0
ME	21478469	2978979	7452328	4769985	2089043	372972	7029917	0
MI	134933612	23148344	33626118	39816994	15106017	5730936	10077331	0
MN	93176647	17185592	16082607	28899908	7981349	6676725	5706494	0
MO	78454209	12807144	12933900	23419869	7251341	12856160	2961279	1
MS	19160624	2691419	5066757	5423992	2968554	1023650	6154913	1
MT	21884379	4894800	7136224	4878927	1885480	383720	1084225	1
NC	116413361	19631749	25227845	30716530	10559864	11295046	1961504	1
ND	9306925	835458	1344059	4732878	1205203	282995	779094	1
NE	28204165	5074626	3210223	12630766	2740898	2035600	1377529	0
NH	23038927	3479998	6543110	4951825	2214253	437800	9288994	0
NJ	34176446	29032234	21514450	42148291	8728694	6318872	2117522	1
NM	35113356	9261391	9605079	5911455	2938670	1010453	20201249	0
NV	89747751	9583638	9936602	45768222	5335294	11409742	10439388	1
NY	654505644	106283545	96729357	288022300	43426149	27786458	779094	1
OH	124466184	18681390	19054436	45317804	13329981	10971241	11799448	1
OK	45900741	10127429	8993648	13799497	4796090	3187880	3959353	1
OR	60988553	9359526	15745802	11538387	6239658	932119	4237256	0
PA	179872874	28249423	326350387	71587849	13362129	9246905	13002700	1
RI	14846880	1885133	3091682	5305106	819643	805057	1097379	0
SC	50894265	11735187	15927595	10599809	4248484	770736	5118425	1
SD	10121447	1654348	2550010	3107459	1057942	547375	886667	1
TN	92201769	12580044	22909167	27938244	9710873	7915100	6910840	1
TX	505431584	98553277	93450362	193475434	38695665	22983552	29145505	1
UT	28318572	6948969	5308229	7600668	2549352	929896	3205958	1
VA	346444371	37228571	56894484	155870792	14621957	15495755	643077	0
VT	10880599	969946	2705948	2010376	1298364	553409	8631393	0
WA	182235165	27038289	36095051	51603520	16713922	8634340	7705281	0
WI	64077237	12434894	9354142	19143554	7394209	6287999	1793716	1
WV	9788086	1538075	2210540	3051180	1291486	141100	5893718	1
WY	18874037	2126563	4254590	8269598	2364560	270730	576851	1

4.3 Overall

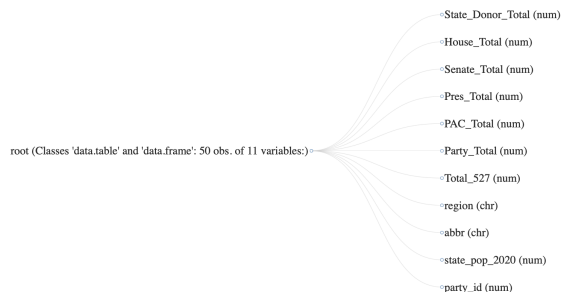


Figure 1: Visual of Variables

5 Analysis

In this section the data is manipulated and explored in order to answer the research questions. while the previous section displayed the composed and compiled data that was worked with, this section will focus more on visualizing the data.

5.1 EDA

5.1.1 Federal

As seen in both figures below (2 and 3), it is evident the substantial amount of campaign funding Obama had gained through campaigning. Compared to Romney’s campaign funding, Obama had 53 percent more funds. In this election, there was little to no PAC involvement and was primarily funded through individual donors and through other means such as sales of shirts, hats, etc (Table). These contribute to the hypothesis of candidates spending more to win the election, of which Obama did. What this also supported was the question whether or not incumbents receive more/win. On the other hand these graphs provide insight into whether or not a particular party ID receives more campaign funds. Analysis conducted on this particular election will help support patterns between winning elections and campaign funds while also supporting patterns that a particular party ID aids in gaining more funds.

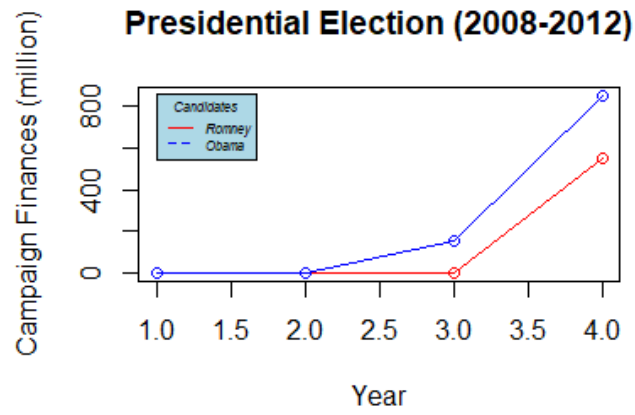


Figure 2: Timeline between Obama and Romney's Campaign Fund

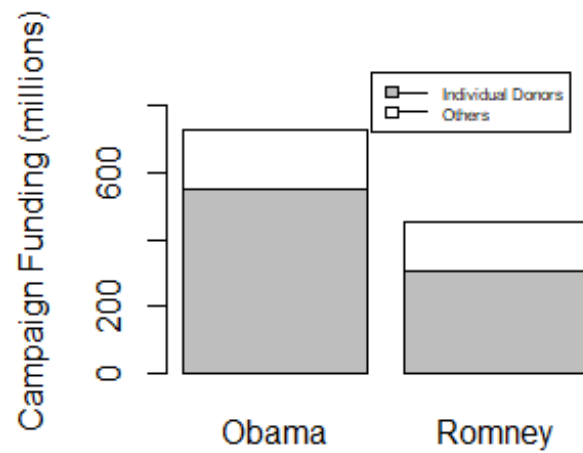


Figure 3: Comparison between Obama and Romney's Campaign Fund

As seen in both figures below (4 and 5), it is evident that funding between both candidates was close but this election appears to be an outlier compared to other elections in the past two decades. Clinton's campaign funding had a

40.12 percent increase in funding over Trump, yet she still lost. One of the outliers in this particular election was in fact the undocumented amount of free press Trump received, which was estimated to be upwards of 5 billion dollars. If the undocumented free press/advertisements were to be incorporated it would continue to prove the hypothesis of candidates with more campaign funds are more likely to win. However, disregarding the free press would subsequently disagree with the party ID hypothesis and would contribute to Democrats having an advantage with raising funds. What this particular presidential election shows is a drastic increase in PAC funding towards candidates compared to the previous elections. Analysis conducted on this election will show whether or not trends of PAC funding will increase over individual contributions as well as supporting patterns of party ID support.

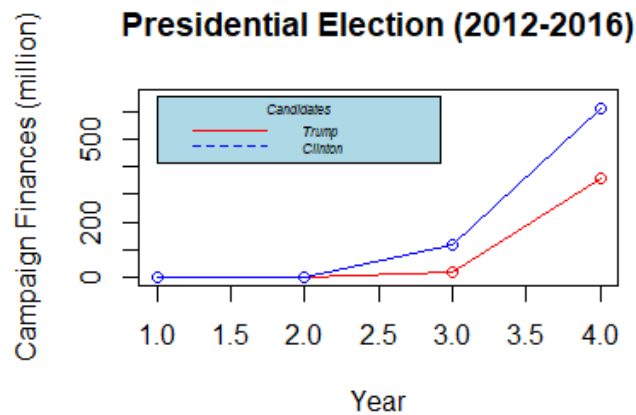


Figure 4: Presidential Campaign Financing 2012-2016

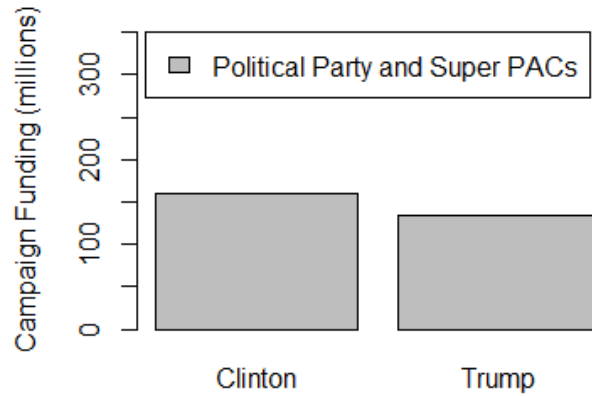


Figure 5: Super PACs

As seen in the figures below, it is evident that there was a drastic increase in funds towards the end of the election, particularly for Biden. Compared to all elections in the past two decades, this has shown a possible change in how presidential candidate campaigns have changed from a majority individual contribution funded to a majority PAC funded race. In the 2016 election Clinton was PAC funded by 53 percent and 19 percent individual contribution, Trump with 14 percent PAC funded and 26 percent individual contribution respectively (Table 2). In this election, Biden was supported with 61 percent PAC funds and 38 percent individual contributions, Trump had a 51 percent PAC and 49 percent individual contribution funded campaign (Table 1). These results contribute to the hypothesis that increased funds means an increased chance at winning an election while also detracting from the hypothesis regarding party ID as Biden won, supporting data regarding Democrats receiving more funds than Republicans. Analysis of this election shows a change in funding from majority individual contribution to having majority PAC funded race. This also supports evidence that having more campaign funds relates to an increased chance at winning an election.

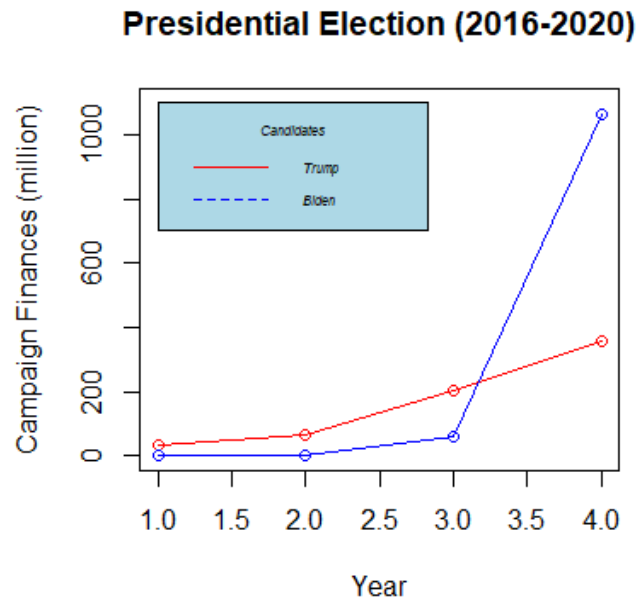


Figure 6: Timeline between Biden and Trump's campaign fund 2016-2020

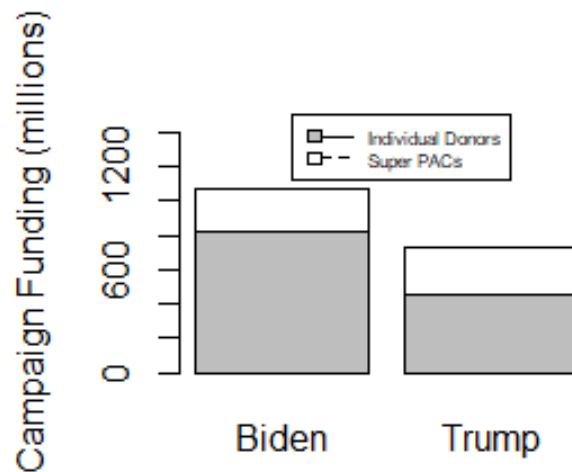


Figure 7: Campaign Funding

Analysis of Tables in correlation to Figures, there is data to suggest during presidential elections there has been a general census that increased, reported, campaign funding can lead to a more successful race. There has also been a drastic increase in PAC involvement in the last half decade compared to other elections which might show a change in how campaigns are funded in the future. What these tables contribute to is supporting notions of incumbency wins during presidential elections.

5.1.2 State-by-State

When analyzing state-by-state data, population and party ID distribution were taken into account before modeling or any calculations. A considerable amount of this EDA went into determining whether party ID influenced donation amount, and well as incorporating population data into the tables and data frames as to ensure all discoveries would be accurate and the conclusions drawn from the exploration could be trusted

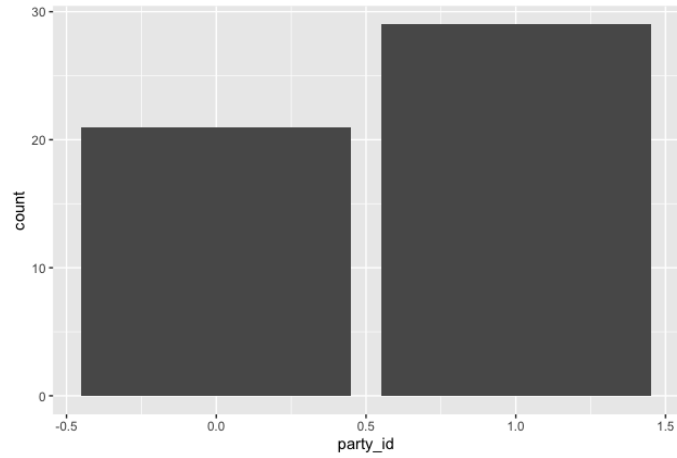


Figure 8: Distribution of State Donations by Population

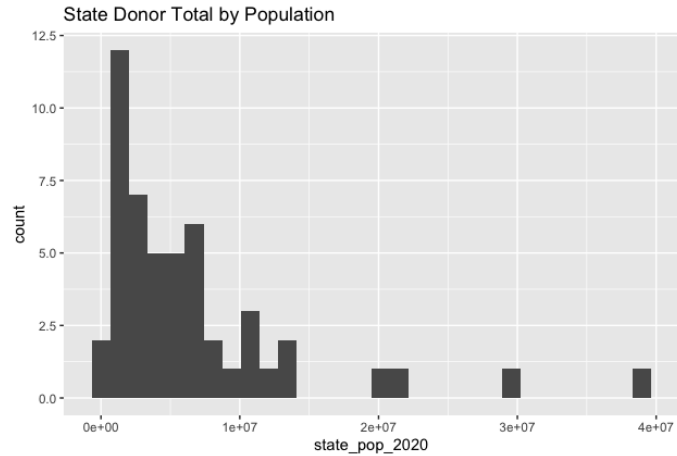


Figure 9: Distribution of Party ID by State

6 Results

6.1 Federal

Since 2004, with the exception of 2016, evidence has shown the winning presidential candidate has always had greater spending power due to raising more campaign funds. The exception with 2016 is that there was an estimated amount of 5 billion dollars worth of free advertisements towards Donald Trump that was not counted towards the overall campaign finances. (Opensecrets.org) Evidence has shown that Democrat party candidates have gained more campaign

funding in 80 percent of the presidential elections in the past two decades. In these elections, where Democrat party candidates had won, they gained on average 112 percent more funding than Republican party candidates. On the other hand, where Republican party candidates had won, they only gained an average of 23 percent more funding. 80 percent of presidential elections in the last two decades have been won by incumbents while also securing more campaign funds over other candidates. Incumbent Democrat candidates in these elections secured on average 146 percent more campaign funds while incumbent Republican candidates only secured 23 percent more.

6.2 State-by-State

After completing thorough data analysis and modeling, it was concluded that:

House and Senate Funding 2022 by percentage					
Party/Chamber	PACS	Large Individual Contributions	Small Individual Contributions	Self Financing	
House Democrats	23.4	52.5	19.4	2.0	
House Republicans	23.1	42.0	20.9	0.8	
Senate Democrats	8.9	59.3	27.5	0.0	
Senate Republicans	11.2	45.7	35.1	0.1	

Table 1: Data from Opensecrets.Org

PAC total donations and state total donations were found to be highly correlated, further supporting the finding that PACs consistently boasted the highest sums—whether it be donating or raising funds, PACS overshadow individual contributions, 527 donations, etc.

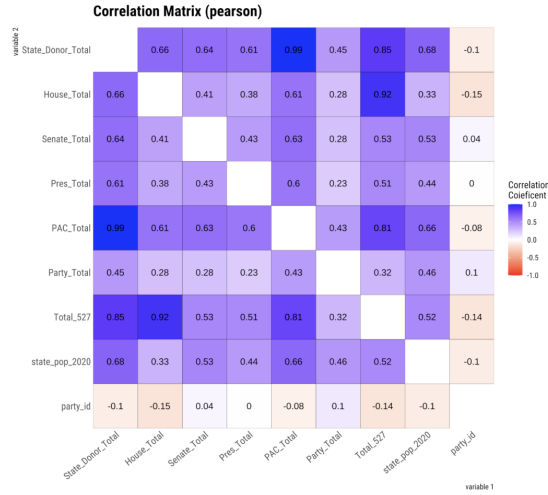


Figure 10: Correlation Matrix of State Analysis Variables

Blue states consistently have (marginally) higher total donations—this holds true for both the senate and the house, as well as PAC donations across the board. While the differences were rarely extreme, it was a constant across multiple collections and analyses of the data. This was shocking due to the fact that significantly more states are "red" and the distribution of population between republican and democratic states was roughly equal. While most of the data was skewed, party ID was normally distributed and balanced.

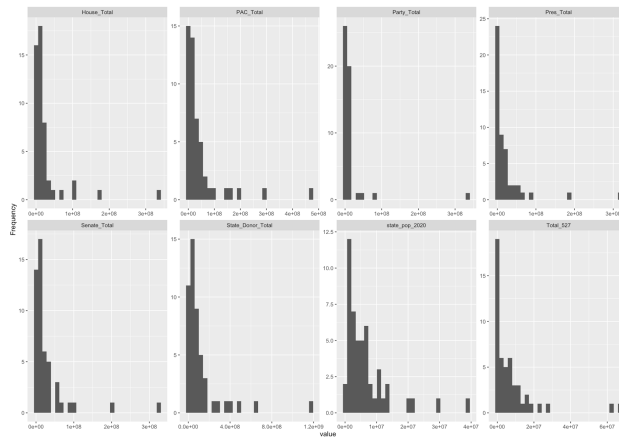


Figure 11: Histograms

Red states have less restrictive policies, specifically regarding PACs and individual contributions, but this played no (significant) role in donation and

contribution amounts. In Fact, even in "red" states, large percentages of total donations were intended for the democratic party or candidates.

6.3 Overall

Races Won by Top Spending Candidates, by percentage		
Cycle	House	Senate
2022	94.90	90.00
2020	87.71	71.43
2018	88.54	82.86
2016	95.41	85.29
2014	93.46	77.78
2012	93.63	75.76
2010	85.61	78.38
2008	92.02	85.29
2006	93.27	72.73
2004	97.54	88.24
2002	93.50	85.29
2000	95.07	82.35

PACs are biggest donors and are the most successful fundraisers in campaign finance (above candidates, parties, individuals, party committees, etc) In the past decade PACs have become the biggest donors towards presidential elections Evidence has shown that in the past two decades, in regards to presidential elections, Democrat party candidates, on average, have received more campaign funding and have spent more on the campaigns than the competition placing them at an advantage. In addition, there is a clear incumbency advantage when it comes to fundraising.

7 Conclusion

7.1 Summary of Findings

During presidential elections in the last two decades it had resulted in 80 percent of wins going towards candidates who had, on paper, more campaign funds. Another 80 percent of those elections were won by incumbent candidates. On average Democrat candidates had 112 percent more campaign funds than Republican candidates. On a state level, Democratic states' averages were higher: state donor totals, PAC totals, and 527 totals all favored blue states. Population distribution among the red and blue states were found to be even, although there are more red states in American than there are blue ones. When it comes to campaign financing in general, PACs are the dominant donors and fundraisers.

7.2 Thoughts and Expectations

Regarding federal elections, it was interesting to see the drastic amount of funding presidential candidates receive and spend during the election while also comparing the amount to other candidates. It was interesting to see the exponential amount Democrat candidates receive from PACs and individual contributions over Republican candidates during presidential elections, as it was hypothesized that there wouldn't be much difference. It was shocking that Party ID actually had an impact, it was hypothesized that everything would even out in the end.

7.3 Limitations

Federal and state level election campaign finance data regarding PACs, large and small individual contributions, 527s, and other contributions are limited pre-2000s. Analysis on federal elections in this project is only limited to post-2000s. In addition, it can be hard to classify as whole state as "red" or "blue", so that must be acknowledged as a potential weakness in this report.

7.4 Where Do We Go From Here?

So where do we go from here? Recommendation: closely examine future presidential elections and their campaign funds. Record increases in PAC funding over individual contributions and record if candidates who win had also gained a significant advantage in campaign finances.

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