Where are the House Independents?

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November 16, 2016

Abstract

Between 2006 and 2012, candidates operating, at least on an official level, outside of the traditional two-party structure won five Senate races. Nothing similar happened in House races during that time period, creating a surprising phenomenon where independent candidates thrived in the Senate, but not in the "People's Chamber," the House of Representatives. What factors account for this dichotomy? Why is the Senate, considered to be the more aristocratic and orderly chamber, the host of several independent and pseudo-independent senators? In this paper, I will examine such factors as district partisanship, established brand, and state restrictions related to ballot access for independent candidates as the principle explanatory factors for this phenomenon using simple median voter theory games, an innovative zero-inflated negative binomial model, and case studies. These various approaches together isolate the conditions necessary for independent success in Congressional races and theorizes the reasons why we have seen more independent senators, despite American political theory establishing that the House should be the chamber more hospitable to independents.

1 Introduction

Currently, two independents occupy a seat in the United States Senate, Bernie Sanders of Vermont and Angus King of Maine. Furthermore, another Senator (Lisa Murkowski of Alaska), won re-election through a write-in campaign after losing in the primary election to Tea Party favorite, Joe Miller. Throw in Joe Lieberman's independent victory in 2006, and Jim Jeffords' defection from the GOP in early 2001, and we have had five senators who have operated outside the traditional two-party apparatus within the United States Senate over the last fifteen years. Meanwhile, no independent candidate has won a House seat since Sanders left the House in 2006 to run for the Senate. Given the number of House seats available at any time, this phenomenon is somewhat surprising. My paper sheds some light on the conditions why independents can succeed and theorizes why the Senate is more hospitable to independents than the House.

American political theory dating back to the Founding suggests that the House

should be more likely to host independents than the Senate. First, the Framers designed the House to be the chamber "closest to the people." The Founders were willing to trust the people to directly elect their representatives to the lower chamber so that the people could have a direct voice in Washington. This lower chamber was to represent majoritarian democracy, or rule by the majority of the people. Second, the Framers dictated that the House districts ought to be smaller than the statewide constituencies of senators which ensured that the House would have more members than the Senate and that every geographical region would have some voice in the House, whether the representative represents a small portion of a large port city or a vast mountainous region, like Appalachia. By Madison's reasoning, this vast diversity of interests and voices would ensure that the elected representatives would have a difficult time forging permanent coalitions, and thus make it more likely that independent candidates representing the specific interests of their specific regions would fill the House.

The Senate, on the other hand, was designed to temper the passions of the masses and act as a more dignified body that could check the fiery House. The old method of selecting senators depended on the balance of power within state legislatures. Although the Founders detested parties, the indirect election of senators gave strong, implicit power to the parties of the state legislatures, especially after the Republican Party became a permanent party opposing the Democrats. Since of the ratification of the 17th Amendment, however, the people have directly elected their senators. Although this certainly increases the likelihood of independent success compared to the original method of selection, Madisonian theory would still indicate that the larger constituencies of senators would make it more difficult for independents to succeed. The reason for this is that winning an election in a large state requires a broad coalition of support that is difficult for one person to muster. The institutional powers and organizational capacity of state parties can help one overcome these problems. Between the theoretical design of the chambers, and the practical difficulties of winning a statewide election without the institutional support of a party, we should expect that the House is better suited for independent candidates.

What we have seen, however, is the emergence of a strongly partisan House and a somewhat-more independent Senate. The main culprit for House partisanship seems to be strongly partisan districts. Nearly three-quarters of House seats are considered to be "safe" in any given election for the incumbent. In most states, the state legislatures draw the districts and the governor signs off on the map they draw- a process that can be excessively partisan if the voters usher in a period of unified control by one party (Pennsylvanias redistricting following the 2010 elections is an excellent example). Partisan control of boundaries should be correlated with strongly partisan districts, as the parties should rationally seek to ensure that their party wins the most House elections with the fewest headaches. The logic for this is simple: they want to have maximal representation in all levels of government with the fewest electoral costs. Moreover, there is a strong institutional basis for parties, as they make it easier for

voters to make decisions by providing easy heuristics (Campbell, et al., 1960) and make the legislative chambers operate more efficiently and effectively (Cox and McCubbins, 1993). As such, I expect to find that independent candidates fare weakest in the most partisan districts.

But what factors would be necessary for an independent candidate to truly compete with the candidates of the two major parties? As the careers of Murkowski, King, and Sanders show us, the candidate must have an established "brand" among the voters (Mayhew, 1973). First-time candidates for the major parties can likely use their party's brand as a proxy to get them into office. Decades of political science research back this up, from Downs' "rationally ignorant" voters (1957) to the classic *American Voter* conclusions that voting is largely determined by party labels (Campbell, et al., 1960; Lewis-Beck, et al., 2008). Moreover, as Fiorina's (1981) work argues, voters who vote based on economic conditions still use party labels as the main heuristic (see also Kinder and Kiewiet, 1981; MacKuen, Erikson and Stimpson, 1992). Thus, a Republican running to place a retiring Republican can make use of the brand established by the retiree to make up for his own lack of a brand. Here, again, independents are at a disadvantage because one cannot easily establish a brand without first serving in government. An independent's brand must come from another source; business success, prior public service, or some other claim to fame that might be enough to succeed. The Mayhewian brand depends on the ability of a representative to secure funding from the government, take the correct positions, avoid being blamed for mishaps and catastrophes, and take credit when something good happens. Without a prior brand, an independent's efforts are likely to fail, especially as the size of the constituency increases.

Summarily, direct Senate elections seem to do a better job of promoting independent candidates than the House, even though classic American political theory posits that independents should fare better in House races. Between the larger, more centrist constituencies, the brands built up by the candidates, and the strong institutional incentives[1] for the political parties to win Senate races, it appears that independents are more primed to succeed in House races than in Senate races. Why, then, are independents succeeding in Senate races, but not House races? One reason may be that states are not gerrymandered, while very few House districts are drawn to be competitive. If there is no chance of a winning a district, why bother? Another explanation might be that having an independently established brand might mean that one is more likely to seek out the highest office within reach. Sanders, for instance, snatched Vermont's open Senate seat when Jim Jeffords retired. A third possibility is that the institutional rules of the Senate make it a more attractive chamber for independents. While the Framers may have designed the House to be the chamber where independent regional views could be represented, it is in the Senate where

[1] Between the smaller number of senators, the long terms of senators and their ability to kill or stall legislation, the parties have a stronger incentive to win Senate seats than a lonely House seat. Uncontested Senate races are rare, but uncontested House races are not.

individuals wield greater power.[2] Overall, our first glance at the independents currently serving in the Senate shows that they tend to benefit from smaller constituencies and past success in other offices. None of these factors are sufficient for success, but they do appear to be important factors.

2 Background

My theories have a strong basis in a number of existing literatures. First, Abramowitz's (2013) work has shown that geographic and ideological polarization has risen over the last few decades. Instead of a House where the ideological distribution of districts looks roughly like a normal bell curve, Abramowitz's distribution is roughly bimodal, peaking at the extremes and curving downwards towards the middle. Abramowitz does not, however, blame gerrymandering, alone for these changes. Although the parties have become more skilled at drawing districts for partisan advantage, Abramowitz credits ideological realignments, voting with one's feet (Tiebout, 1956), an increase in straight-ticket voting, and differential birth rates with explaining more of the variation in partisan strength within districts. No matter what, ultimately, is the root cause of this lack of competitiveness within districts, the fact of the matter is that House districts are far less competitive now than they have been in the past and are increasingly identified with one political party. Only a few House districts are truly competitive in any given general election, which limits the opportunities for an independent candidate to win a House seat. From Abramowitz's work, we see that the median voters in most House districts are not located in the ideological center, but rather towards the wings of the spectrum, making independents unlikely to compete in most House elections.

Fiorina, Abrams, and Pope (2007), however, offer another vision of the ideological distribution of Americans: one that more closely resembles a normal distribution. They specifically take issue with the notion that Americans can be neatly distributed into "red states" and "blue states" given the lack of complete one-party domination in most states. For example, Louisiana may be a reliable vote for the Republican candidate in a presidential election, but Louisianans often elect Democrats in gubernatorial and senatorial races. Similarly, Massachusetts can always be counted on to give its Electoral College votes to Democrats, but have a strong history of electing Republican governors. As such, they doubt that Americans are truly sorted out towards the poles of the spectrum, certainly at the state level, but are instead distributed in a rather normal pattern. Consequently, we can find some support for the idea that state constituencies

[2] Holds and filibusters represent some of the ways that individuals can halt legislation. Independents would also theoretically hold more bargaining chips when the balance of power in the Senate is uncertain. In 2014, for instance, it was widely believed before the midterm elections that Greg Orman of Kansas would not only defeat incumbent Pat Roberts (R), but also that Orman's choice of caucus would ultimately determine Senate control and that he could use his position to exact major concessions from the side he would choose to back.

will be more moderate than House districts from Fiorina, et al.'s (2007) work.

The literature also supports the notion that independents, particularly in the House, face strong institutional constraints. The importance of the two major parties in Congress, for example, is a well-established theme in the literature. Cox and McCubbins (2005), for example, note the primacy of "Reed's Rules" in the House, which are the procedural rules that codified the supremacy of a simple majority in that chamber. Consequently, belonging to a party (specifically the majority party) is critically important for ambitious legislators because Reed's Rules destroyed any "negative agenda control" (Jenkins and Monroe, 2012) the minority party could possess to disrupt legislation via filibusters and holds, while control of committees and the floor ensure that the majority party gets what they want. As such, the best that a true independent in the House could hope for is that by caucusing with the majority party, he might be granted some favors from the party leadership, but most of the time, his power will depend upon the will of the party leaders.

In a similar vein, "Conditional Party Government" (Aldrich and Rohde, 2001) theory tells us that strong party homogeneity will empower party leadership to set a more partisan agenda and more rigorously whip up votes. Consequently, an independent representing a House district should have a difficult time successfully operating inside a House system that is as polarized as Abramowitz claims, regardless of which party controls the majority. Lee (2009) echoes, to some degree, Cox and McCubbins' insistence on the importance of parties, although ideology features less prominently in her model than in Cox and McCubbins' model. According to her account, parties work as teams to maximize the benefits for their members, not just for the sake of advancing one ideology over another. In a teamwork model such as this, an independent can only be useful if he caucuses with the right party and they reward him with benefits. In the Senate, it is easier to believe that an independent could be extraordinarily valuable to the majority since the chamber has less than a quarter of the members of the House and the membership is more evenly split between the parties than the House. As such, the importance of a single member's vote is far greater in the Senate than in the House and an independent could effectively wield his swing vote to maximize favorable concessions from the chamber leadership. Frances Lee's account of parties offer us another plausible explanation for why independents may thrive better in the Senate than in the House. All in all, much of the congressional literature strongly suggests that independents are at an institutional disadvantage in the majoritarian House of Representatives.

Opposing these accounts are Krehbiel's (1991, 1998) nonpartisan accounts of congressional politics: the "pivotal politics" model and his information-centric model. Unlike the party-centric accounts, the pivotal politics model is premised entirely upon a unidimensional model of ideological preferences. The median voter is an example of one such pivot. In the House, the median voter is ultimately the most powerful legislator because he breaks the tie and allows the bill

to clear the only "pivot" for that particular chamber (at least until the president vetoes the bill and sends it back to the House). In the Senate, however, the filibuster pivot exists (at least it does at the moment) at the sixtieth voter, which can be a huge hurdle to overcome for a bill. Once again, an independent senator can use this structure to maximize his benefit. Given the difficulties a party often faces in mustering sixty votes to invoke cloture, an independent can seize the opportunity to exact concessions out of the chamber leadership with little fear of party retribution. This should be easier to do in the Senate where votes are a scarcer resource and a bill has more obstacles to overcome than in the House because of supermajoritarian requirements, such as the filibuster. In addition to deemphasizing the role of parties in crafting legislation, Krehbiel's model gives us more reasons why an independent can thrive and wield great power in the Senate more than the House. In a chamber with fewer members and more pivots for a bill to clear, an independent's vote will be highly sought after on numerous issues, which can give him the upper hand in bargaining.

Krehbiel's model is also useful to mention because it is a form of the general rational choice logic that underlies the formal models of the next section in this paper. Just as Krehbiel's model assumed a unidimensional spectrum of preferences for legislators, I am going to assume that the voters have one constituency-unique spectrum that determines how they will ultimately vote. In elections, the candidates will seek to win over the median voter and everyone on his side of the median voter. Now, the location of the median voter will vary across constituencies, as we have learned from Abramowitz. In a southern Bible-belt district, the median voter will probably be a fairly conservative evangelical, whereas the median voter for a Connecticut district would be highly-educated and rather liberal. Combining Krehbiel and Mayhew, we will assume that the contenders will try to articulate positions that land closest to the median voter without alienating those farther down the spectrum. This is, admittedly, a rather big assumption in the face of decades of political research arguing that voters are unintelligent and vote only with the party label (cf. Campbell, et al. 1960; Converse, 1964; Lewis-Beck, et al., 2008). It is, however, a necessary assumption to make if we want to find any cases where independents can win. If party labels are the only feature that matter, we should only ever see Democrats and Republicans win an election. If we can assume that voters will vote for the candidate closest to the majority of their preferences, we can envision scenarios where independents will win. In any case, Krehbiel's pivotal politics model is a good illustration of simple game theory and we can use it for our purposes.

Putting it all together, what overarching theory should guide this paper? Based on a review of literature from several subfields, Abramowitz's theory of polarized districts seems to be a good explanation for electoral explanations of the dearth of independents in the House. Abramowitz and Fiorina complement each other rather well if we apply Abramowitz's explanation to House seats and Fiorina's theory of normally distributed ideology to Senate seats. It is an explanation of politics that goes back to Madison; concentrated localities will breed ideological

factions, while the larger population has more moderate views that cancel out the extremities of smaller communities. In this light, Abramowitz and Fiorina may both be right. This mostly-ideological explanation, however, does not fully account for the stranglehold the two parties have on congressional representation. Obviously, the two parties have better access to resources than most independents can muster, which makes it easier for the major party candidates to campaign across large areas. Furthermore, independents are at a disadvantage because they cannot depend upon party labels as a proxy for their own brand. They must create any name recognition and reputation that they have among the voters, unlike first-time major party candidates who can win because of their party's brand. Moreover, the procedural structures of Congress, the House in particular, favor the members of a strong majority party. Although the Senates procedures are more accommodating to independents, it is very unlikely that an independent will really be able to set his own legislative agenda. Summarily, I posit that a combination of polarized House districts, larger and more moderate Senate constituencies, the greater ease of parties in establishing a brand and strategic considerations account for the initially-counterintuitive notion that the Senate would house more independents among their ranks than the House. This leads me to three hypothesis:

H1: *All else equal, Independent candidates will do better in districts that are more competitive.*

H2: *Independent candidates will fare better in races with higher turnouts.*

H3: *Winning a previous statewide election will increase an independent candidates level of success.*

3 Median Voter Formal Models

One way to clarify the theory behind a paper is to make use of game theory. Median voter games can be useful for the purposes of this paper because they can illustrate how the underlying population distribution of a constituency affects the ideological positioning of victorious candidates and an independent's chances of victory. As always with game theoretic games, the assumptions do not entirely reflect the "real world," as we are assuming away such factors as previous brand, incumbency, campaign fundraising, scandals, and exogenous shocks (among other variables that could affect the outcome of an election) and focusing solely on the ideological positioning of candidates and the ideological preferences of their constituents. We are assuming that the voter will vote for the candidate closest to their ideological preference and that each voter has a single-peaked preference. We are also assuming that the independent party, represented in these games as the centrist party, will always remain ideologically positioned between the two other candidates, which represent the Democratic Party (on the left) and the Republican Party (on the right). Furthermore, we

are assuming that neither the Democrat nor the Republican is allowed to cross the ideological median. Each candidate is assumed to maximize their chances of victory (not necessarily maximize their vote share, otherwise equilibrium would be impossible to achieve) and the Nash Equilibrium is achieved when no candidate can make a move that would change the outcome in their favor, within the boundaries of the rules. Finally, we make the common assumptions in Game Theory of common knowledge and common rationality.

More formally, the games are bounded as follows:
N = 1, 2, 3
x_i = party preference point
z_i = individual preference point
z_m = median voter
$x \succ y$ if $||x_i - z_i|| < ||y_i - z_i|| \; \forall x, y \in \Re, y < x < z_i, y > x > z_i \rightarrow z_i \succ x \succ y$

3.1 Uniform Distribution

The first version of this game is represented by Figure 1 below, and represents a case where no single ideological point enjoys greater or less support than any other ideological point. The constituency, in other words, supports all positions equally.

This game has a roughly infinite number of Nash Equilibria, all of which result from the center party abandoning the median position. As long as the center party remains fixed on the median voter, which again is the median point, the two major parties will simply take symmetrical positions until all converge on the median voter. When the center party defects from the median voter, however, the party representing the direction in which the median voter defected will also have to defect, but by a greater amount. This will leave the other party as the undisputed winner with a majority of $50\% + \frac{\eta}{2}$, with η representing the ideological distance that the center party defected. It will be a Nash Equilibrium because there is nothing the defeated party or the centrist party can do to alter the outcome in their favor. So if, for example, the centrist candidate defected to the left, there is nothing the centrist candidate or the Democratic candidate can do to win the election. Nash Equilibrium is achieved with one candidate at the median voter and two on the same side of that candidate.

3.2 Symmetrical, Bimodal Distribution

This version of the game represents an odd constituency where there are hardly any centrists, but the population is evenly distributed, in terms of right and left and symmetrically distributed. This constituency, in other words, would be one where fringe ideologues are commonplace and centrists are all but ignored. This is the game that is most similar to Abramowitz's.

The solution for this game is, counter-intuitively, basically the same as the last

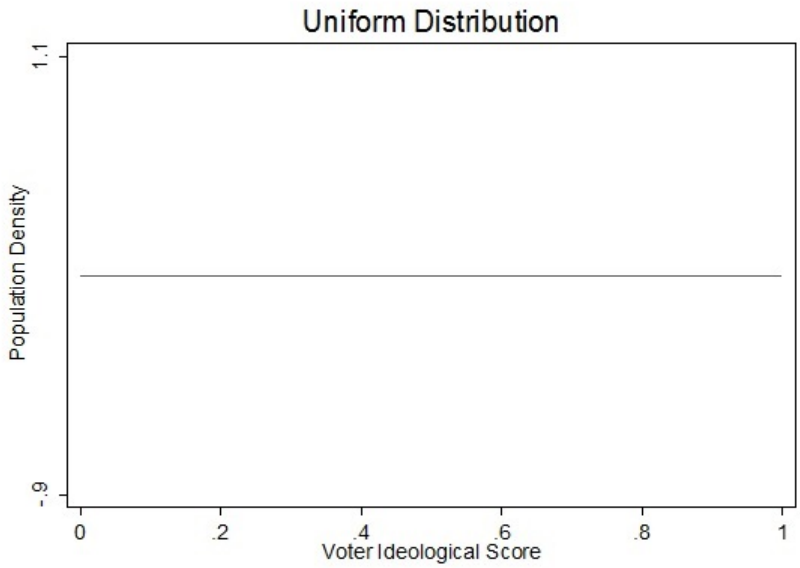

Figure 1: The Uniformally Distributed Constituency

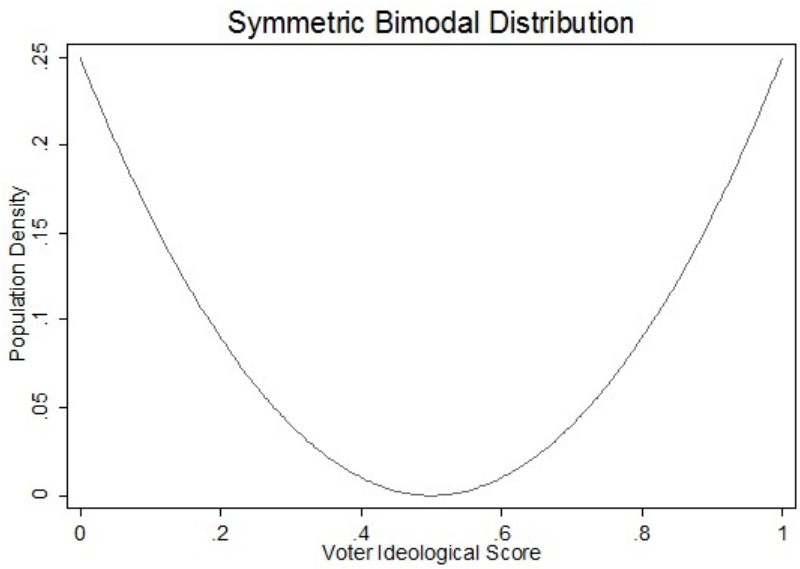

Figure 2: The Bimodally Distributed Constituency

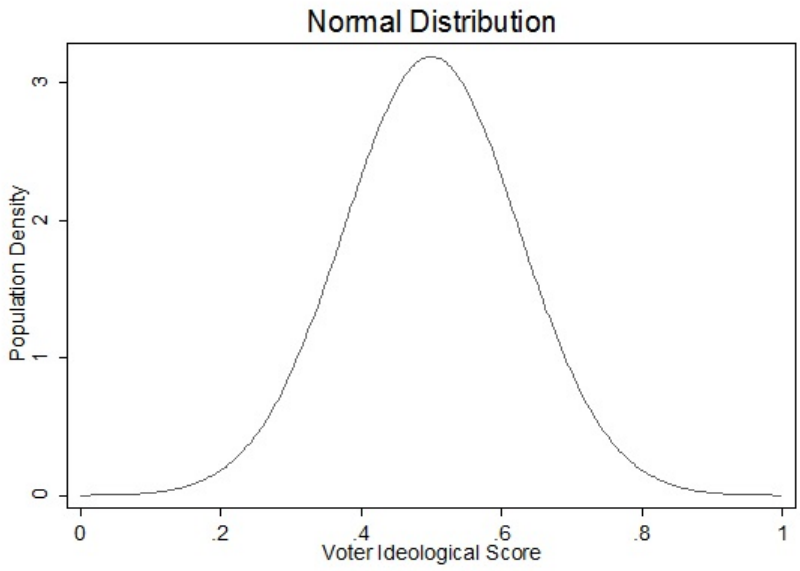

Figure 3: The Normally Distributed Constituency

one. Although the Democrat and Republican might be tempted to move towards the radical end of their respective wings, doing so would be irrational because they would lose votes to the centrist candidate and thus lose the election. Once again, as long as the centrist candidate remains at the median voter, there is nothing the Democrat or Republican can do to win, aside from move to the center. But once all three have reached the ideological center, they would all have the incentive to defect. Thus, Nash Equilibrium is only achieved when the centrist party defects to one side or the other. Like the first game, this will result in a situation where two parties are on one side of the median and the other party either remains on the median, or very close to it. Thus, this shows that even if America is split into two equally powerful camps on either side of the median (bifurcated bimodally), the candidates still must move towards the center in order to win.

3.3 Normal Distribution

In this version of the game, we tackle Fiorina, et al.'s (2007) normal distribution theory of a constituency. This distribution emphasizes America's supposed ideological centrism and tendency to support centrist politics. On the surface, it sounds like the most probable constituency for an independent to thrive.

Unsurprisingly, the solution to this game is the same as the first two. Until the median voter defects, there is no Nash Equilibrium as the two major

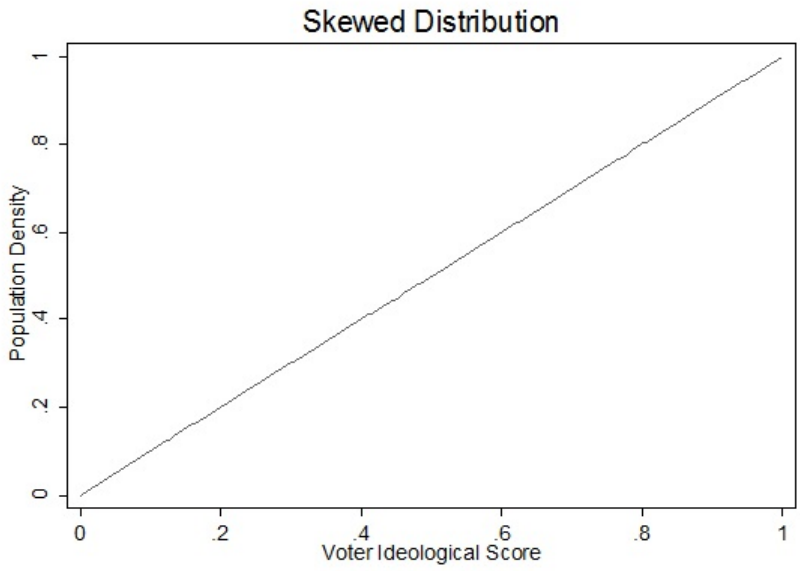

Figure 4: The Skewed Constituency

party candidates take symmetrical positions close to the median to ensure that they do not lose to their opponent. When the centrist candidate defects to one side or the other, Nash Equilibrium is achieved as neither the centrist nor the losing candidate can do anything to alter the outcome in their favor.

3.4 Skewed Distribution

This version of the game is different than the other three because it does not have a symmetrical distribution. Instead, the distribution is modeled by $y = x$ and depicts a conservative constituency where voter support increases as the ideological point becomes more conservative.

Per the rules of the game, the Democrat cannot cross the ideological median, and thus that is where the Democrat stakes out her position. Doing so guarantees her 25% of the vote, plus any additional votes she picks up from slightly right-leaning voters closer to her than to the centrist. The Republican candidate makes the rational move and places himself at the median voter to ensure a majority coalition, which is what he needs to win the race. Although in vain, the centrist candidate will position himself halfway between the Republican and Democratic candidates to get the greatest vote share, which represents the best chance he has of winning. At this point, Nash Equilibrium is achieved as the Republican has won and nothing the Democrat or Centrist is allowed to do can alter that outcome. The final results are: the Democrat positioned at

.5 earns 30.54% of the vote; the Centrist positioned at .605 earns 12.16% of the vote; and the Republican positioned at .71 earns 56.76 % of the vote. These results hold if the distribution is reversed[3].

3.5 Summary of the Formal Models

These games show us that we should never expect to see independent victories, regardless of the distribution. However, the skew of a district's distribution does dictate the ideological dispositions of the winner. When the underlying distribution is evenly spread on either side of the ideological median, the winner will likely be a moderate, all else equal. If, however, the underlying distribution is skewed to one side or the other, being a devout centrist will not be enough to win the election. However, the median voter will always be in the winning coalition in these games. A somewhat counter-intuitive finding of these simple games is that independents, all else equal, might enjoy more electoral success from a skewed population than from a normally-distributed or otherwise centrist-centric constituency.

When trying to figure out why independents do and do not succeed, these games shed light on the ideological challenges facing an independent, irrespective of what the underlying distribution happens to be. So far we have shown, theoretically, why independents are at a disadvantage due to non-ideological considerations, such as party power in Congress, the lack of an existing brand, the inability of an independent to latch onto a party brand for the purpose of voting heuristics, and an independent's lack of organizational support compared to the major parties. These formal models help to demonstrate that even if one represents a centrist district, the independent still should not expect to win because of ideological proximity to the voters. In other words, an independent staking out positions in the center of the ideological spectrum does little to boost his chances of success, even when the district is normally distributed.

Going back to the discussion of Abramowitz vs. Fiorina, and House districts vs. Senate constituencies, we learn from these models that independents face insurmountable ideological challenges, regardless of the underlying distribution. The independent fared slightly better in the House district (best represented by the skewed district), but still came no where close to defeating the Republican candidate. In the Senate constituencies, however, the independent always lost decisively to both major party candidates because of the ideological symmetry of the models. All in all, these models enrich the underlying questions of why independents are largely absent from Congress by providing more theoretical evidence that independents seeking office face innumerable challenges, and perhaps more so for independents seeking election to the Senate. Many prominent political independents often wonder why third parties and independents fail to gain traction, despite a large number of Americans identifying as "indepen-

[3]See Appendix 1 for the mathematical proof of this game

dent." These models show why centrist ideology, alone, is not only insufficient for victory, but may not factor, at all, into a final victory.

4 Data

I assembled a dataset consisting of all Senate and House races in the United States from 2006-2012. All counted, I ended up with over 1800 observations, as I made each race an observation. My range allowed me to test recent elections, with two midterms and two presidential contests, and some variation in the national character of each race. 2006 and 2008 were wave Democrat years, 2010 was a Republican wave, and 2012 was a status quo election.

My independent variables measured factors like turnout percentage, polarization, and brand. For turnout, I used the state-level voting-eligible participation percentage for each of the elections. Although there is undoubtedly variation at the House district level, the data simply do not exist to precisely calculate the turnout percentages for each House race in every year. As for polarization, I relied on Cook Political scores of district partisan advantages to provide the best estimate of a districts partisan leanings and degree of partisanship. Cook Political scores are not perfect because they only serve to compare a district‘s general partisan performance relative to the national average, but they can be used to compare district to district in terms of general partisan advantage. Thus, an R+3 district indicates that a Republican will score 3 points higher than the average Republican. Figure 5 shows the Democratic advantage in each House district.

As for Senate races, however, my intuition that the parties hold less of an advantage is supported by the summary statistics. Among Senate seats, the average advantage for the stronger party is about 7.55 points, while the median is 7 points and the mode is only 2 points. Clearly, Senate races are more competitive than House races. The histogram of polarization looks relatively normal, even if it is skewed slightly towards a Republican advantage.

I generated a few more independent variables, many of which were used in the "inflated zeros" portion of the model. One important independent variable researched the independent candidates to find out how many of them had ever held a statewide office before launching their bids. I coded this as a simple binary variable with "1" indicating that the candidate had won a statewide election. This is as good a proxy for brand as any that exists. I also included several variables measuring the ways in which the state tries to restrict independent candidates.[4] The first is a variable that measures how early a state sets its deadlines for independents to file a petition. Logically, the closer the deadline is to the election, the more likely it is that the ballot will feature an independent

[4] I collected most of this data from Ballotpedia‘s "Ballot Access" directory, although I had to hunt for specific dates or petition requirements on some states' election laws websites.

Table 1: Summary Statistics of Chamber Polarization

Chamber	Observations	Mean	Std. Dev	Min	Max
Senate	200	7.55	5.24	0	22
House	1,745	11.68	8.65	0	41

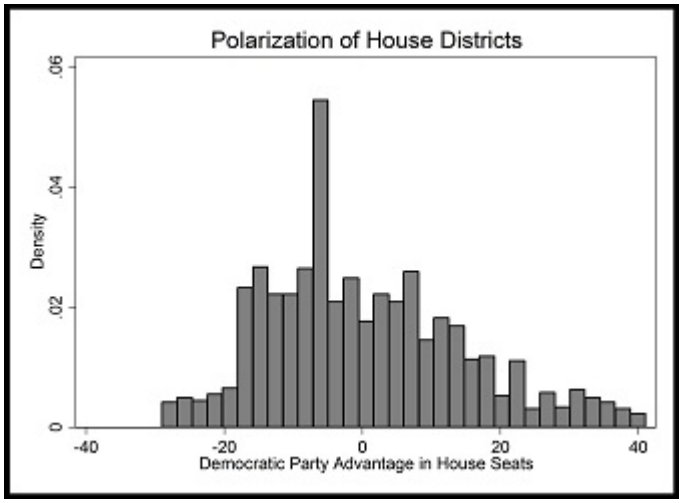

Figure 5: Democratic Party Advantage in House Districts

candidate. Similarly, I included a binary variable indicating whether or not the state has some kind of "sore loser law" preventing a primary loser from launching an independent bid (which is how Joe Lieberman won in 2006). Finally, I found some original data about state petition percentage thresholds for getting on to the ballot. In general, states that required a set number of signatures, rather than a percentage requirement, required far fewer signatures to the point where the requirement is close to 0%. For those states, I estimated what the signature requirement for each state based on their most recent presidential election turnout. Other states, however, do have percentage requirements that can be as high as 10%. As such, the petition requirement is a useful variable with a large degree of variation.

I also crafted several dependent variables. The most important dependent variable is a simple variable of the independent's share of the total vote. However, I decided to split up that variable into several bins to allow for a more interesting count model which can parse out the differences among those who actually ran a serious campaign, instead of figures like Vermin Supreme who run joke campaigns and get a few hundred votes. This distinction is at the heart of the empirical model. Very few independent campaigns are ever successful, so it is critically important to separate the meaningless independent campaigns

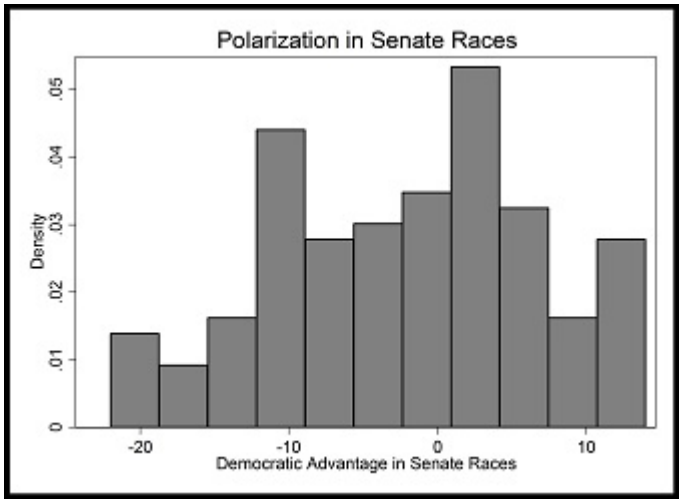

Figure 6: Democratic Party Advantage in Senate Races

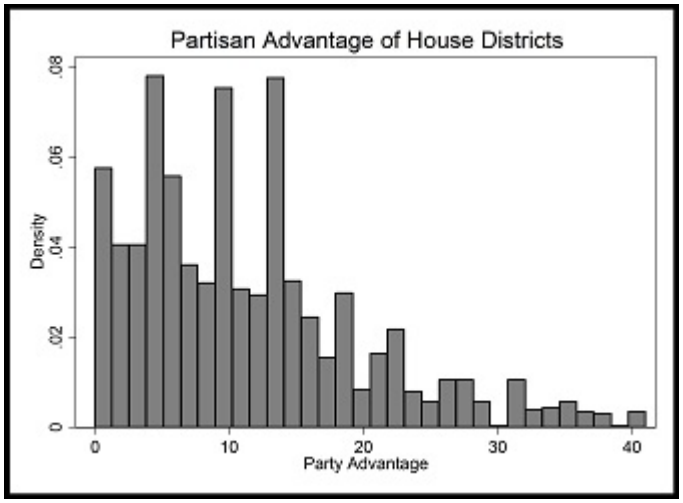

Figure 7: General Partisan Advantage of House Districts

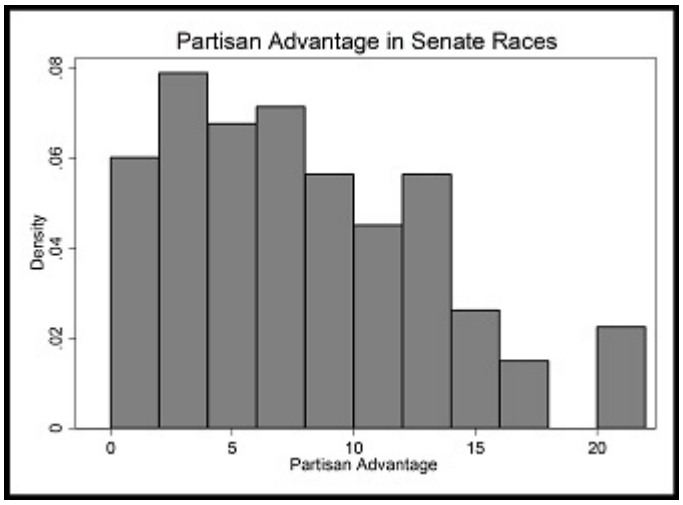

Figure 8: General Partisan Advantage in Senate Races

from the independent campaigns of consequence (which is still imperfect, as a candidate siphoning a few votes can decide the winner in a close race). The "zero" bin ended up being the median and mode of the dependent variable, while the mean was a mere .08. The skew towards zero is hardly surprising, since few independents ever manage to muster more than a few symbolic votes. All told, 96.55% of observations fall within the "zero" bin for independent success. Additionally, I included measures of non-two party vote shares (and bins of success) to run the same models for all candidates who are not running as a Democrat or Republican, just to see if the results generally hold or if there are any noticeable differences in the electoral fortunes of true independents against Greens or Libertarians. Like the measure of independent success, the non-two party success measure is heavily skewed towards zero, with zero constituting the median and mode, and .45 constituting the mean. In this measure, however, fewer of the observations fall within the zero bin (although we still see 82.15% of observations in that bin). Nonetheless, the summary statistics of all of the dependent variables confirm the intuitive notion that most independent campaigns are of minute importance in terms of the sheer number of votes they cast.

Finally, I included some controls for the national mood, such as a control for wave year elections, midterm elections, and for the party that won the national contest. Because the nation was at war throughout the term and the economy was generally bad throughout the sample, it made no sense to include those as controls.

5 Methods

Discovering the factors that make independents competitive requires a creative model. The vast majority of independents run symbolic, at best, campaigns that hardly garner any votes (although the votes that they do earn can significantly impact the outcome of a race, as we learned from the 2000 presidential debacle in Florida). Whether or not the independent votes "matter" (in terms of the ultimate winner of the race) is not, however, the focus of this paper. My analysis aims to isolate the cases of irrelevant independent candidates from the more serious candidates and find out which personal factors and exogenous conditions maximize the likelihood of success for serious independent candidates. Clearly, a simple OLS regression is not suitable for answering this kind of question, since it will treat all zero and non-zero observations equally. We also cannot use a simple Poisson or negative binomial regression for this model, since the data are overdispersed towards zero.

The solution, therefore, is a zero-inflated negative binomial model. This type of model assumes that zeros and non-zeros result from different data generating processes. In our case, we can assume that most of the "zeros" we observe are candidates who did not put forth a serious effort, are perennial candidates without any kind of significant backing, or ran a joke campaign. Most of the observations in the dataset fell into this category. In addition to the personal characteristics of the various people who launch independent campaigns, the seriousness of an independent campaign can be largely determined by the structural obstacles facing an independent candidate. Several of the variables I utilized in the "inflated zeros" portion of the model reflect these difficulties. Some states, for instance, have filing deadlines for independent candidates that are set much earlier in the year than other states. Presumably, these weed out potential joke campaigns as the candidates who file earlier will be committed for a longer period of time and must gather signatures farther away from Election Day. Similarly, the states have various signature requirements that place a greater burden on independent candidates. In general, states that set a percentage requirement, as opposed to a strict numerical requirement, make it more difficult for independents to run. Finally, most states have so-called "sore loser laws", which prevent candidates who were defeated in a major party primary from launching an independent or third-party bid (in many cases, the filing deadlines for independent candidates take place on the same day as filing deadlines for major party primaries, so even if there are no *de jure* laws against sore loser campaigns, the state is still a *de facto* sore loser law state). The bottom line is that there are (at least) two different types of independent candidates: those who are serious and have a shot to at least make some noise, and those who are not serious. As such, there are two different stories that need to be told and two different types of factors that need to be addressed and parsed out. Those who end up with hardly any votes, but spend money and put effort into the campaign are different from those who get their names on the ballot and do nothing else. The model I generate has to be able to differentiate between those

cases, and that is the benefit of a zero-inflated negative binomial model.

Among the non-zero observations we can run different models that may shed some light on the necessary conditions for an independent candidate to be at all successful in any type of race. Again, this illustrates my underlying belief that we have two different data generating processes among independent candidates that render inappropriate a more conventional model. Since negative binomial models measure the frequency of an event, the dependent variable must be transformed so that we can observe count data. Transforming the dependent variable into bins is the way to do this. For my models, I set the bins at five percent intervals into ordinal scales measuring independent and non-two party success. Consequently, we can do more with the data than just study a binary outcome that features very few successes; we can further distinguish the independent candidates by their degrees of success, rather than just as "winners" and "losers." These distinctions allow for more nuance and more interesting findings by showing when independent candidates are more competitive, even if they still lose by double digits. Binning by five percentage points seemed like a nice, comfortable cut-off point, although the size of the bins can certainly be altered. Smaller bins might allow for more nuance, but if they become too small may not tell us any more than a simpler regression might (for example, if the bins were 1 unit apart). Conversely, larger bins sacrifice nuance for greater numbers in each bin. For example, an independent scoring 11% of the vote would be treated the same as an independent mustering 19% of the vote, even though there may be some important differences that are obscured by placing them both in such a large bin. Five points seems like a happy medium between the two extremes. Once we derive the coefficients of the models, we will be able to derive the marginal change in bin placement (if any) resulting from the independent variables. Summarily, this decision to use bins is beneficial both for allowing me to use the zero-inflated negative binomial to isolate the two different data-generating processes, but also because it allows me to distinguish further among "non-zeros" in a way that binary models do not. Theoretically, we can expect a great deal of difference between an independent candidate who scores 35% of the vote and still loses against an independent candidate who scores 4% and loses. A binary model based on winning and losing would treat them the same, but this ordinal count model allows me to distinguish between those two observations and note the differences.

6 Results

Table 2 lists the results of the two models I ran (one with "independent success" as the dependent variable and another with "non-two party success" as the dependent variable). What Table 2 tells us is the expected count of the outcome among outcomes that are possibly non-zeros, provided that the outcome can have any kind of count, at all. Larger coefficients indicate a higher count, but

Table 2: Count Coefficients

Model	**1**	**2**
Dependent Variable	Independent Success	Non-Two Party Success
Chamber	2.00* (.82)	.81* (.27)
Turnout Percentage	.48* (.27)	-.01 (.01)
Partisan Advantage	.02 (.02)	.02 (.01)
Previous Office	6.47* (3.51)	3.04* (.63)
Midterm	1.50 (2.85)	-.33 (.23)
Constant	-7.99* (1.69)	-.42 (-.71)
N	2,033	2,033
Non-Zeros	72	387
Log-likelihood	-397.01	-1578.36
p>χ^2	0.00	0.00

*-$p < .05$

Standard errors in parentheses

are difficult to directly interpret. Nonetheless, we can see that House candidates have a higher expected count than Senate candidates, as do those who have held previous office, all else equal.

The coefficients on Table 3 indicate a greater likelihood that the observation must be zero. In other words, the greater the coefficient on these variables, the higher the likelihood that the outcome will fall into the inflated zeros category. Both of these tables, however, are better interpreted via margins, rather than the magnitude of the coefficient.

Table 4 provides the marginal effects on the expected counts. These values allow us to directly interpret the effect of a unit-change in x on the expected count of y (which is the ordinal scale of independent or non-two party success). What we learn, therefore, is that as you increase the filing deadlines for independent candidates by a week, the expected count for the independent candidate slightly increases, all else equal. This is consistent with my intuition that more serious independent candidates will file earlier than less-serious independent candidates. We also see from Table 4 that holding previous office seems to increase the expected count of the independent outcome, all else equal. This is, of course, consistent with my central hypothesis that the brand produced by

Table 3: Zero Coefficients

Model	**1**	**2**
Dependent Variable	Independent Success	Non-Two Party Success
Chamber	19.47 (629.82)	3.53 (3.57)
Turnout Percentage	-.03 (.13)	.00 (.01)
Weeks	-.26 (.17)	-.01 (.01)
Sore Loser Laws	-15.90 (629.56)	1.04* (.41)
Petition Percentages	1.34 (.73)	.17* (.06)
N	2,033	2,033
Zeros	1,961	1,646
Log-likelihood	-397.01	-1578.36
p>χ^2	0.00	0.00

*- $p < .05$

Standard errors in parentheses

holding previous office is vital to an independent's success.

We also see from the marginal effects table that certain variables decrease the expected count of the outcome. For example, we see that for either dependent variable, an increase in petition percentages slightly decreases the expected count of the outcome, all else equal. Although the coefficients are practically zero, the result is still somewhat counterintuitive, as theory dictates that the more difficult requirements would weed out the less serious candidates.

Finally, we have Table 5 which reports the marginal effects of the variables on the probability that the observation is, indeed, a zero. No variable achieve statistical significance in both models, but we can see that some of the results are mirror images of the results on Table 4. For example, sore loser laws appear to significantly increase the probability of observing a zero in a race when considering general "non-two party success." In other words, we see more evidence that sore loser laws hurt the success of independents and third parties. Likewise, increasing the percentage thresholds for signatures increases the likelihood of a zero, and we see some evidence that filing deadlines reduce the likelihood of being a zero for independent candidates.

From the margins tables, we are able to derive two margins plots that further clarify the marginal effects of two of our independent variables. The first is a graph of the marginal effects of partisan advantage on the expected count

Table 4: Marginal Effects on Expected Counts

Model	**1**	**2**
Dependent Variable	Independent Success	Non-Two Party Success
Chamber	.11 (.24)	-.37 (.67)
Turnout Percentage	.47 (.35)	-.01 (.01)
Partisan Advantage	.00 (.00)	.10* (.01)
Previous Office	.61 (.52)	1.40* (.34)
Midterm	.14 (.10)	-.16 (.11)
Weeks	.01* (.00)	.00 (.00)
Sore Loser Laws	.06 (2.43)	-.22* (.08)
Petition Percentages	-.01* (.00)	-.04* (.00)

*- $p < .05$

Standard errors in parentheses

Table 5: Marginal Effects on Probability of Being a Zero

Model	**1**	**2**
Dependent Variable	Indy Success	Non-Two Party Success
Chamber	.87 (28.22)	.79 (.76)
Turnout Percentages	-.15 (.53)	.00 (.00)
Weeks	-.01* (.00)	-.00 (.00)
Sore Loser Laws	.71 (28.20)	.23* (.09)
Petition Percentages	.06 (.02)	.04* (.01)

*- $p < .05$

Standard errors in parentheses

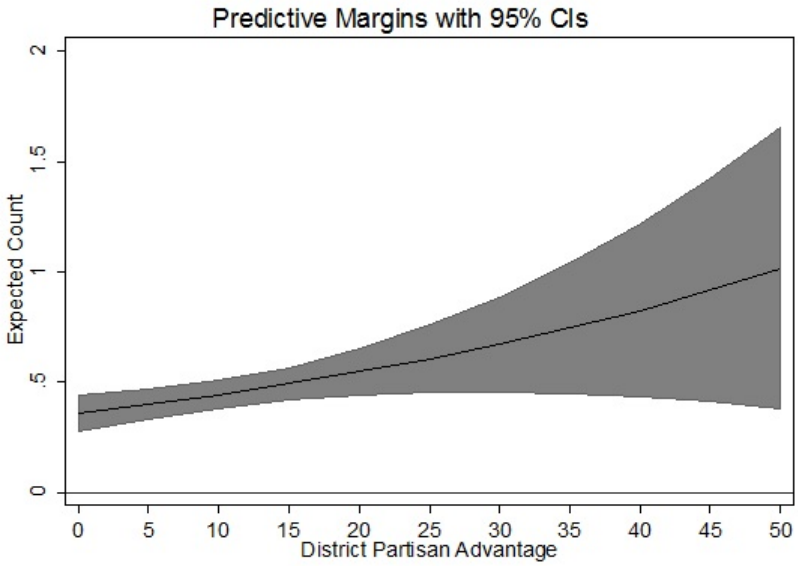

Figure 9: Marginal Effects of Partisan Districting on Count of Non-Two Party Success

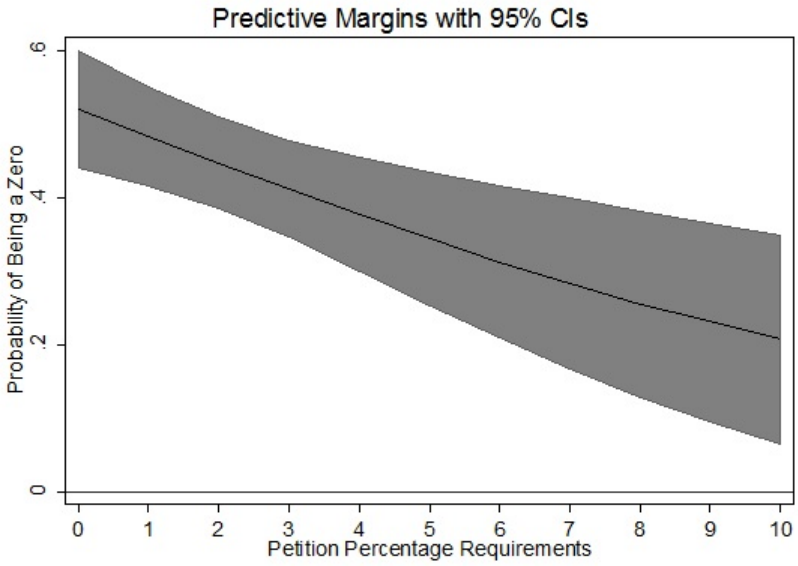

Figure 10: Marginal Effects of Petition Percentage Requirements on Probability of Observing a Zero

of non-two party success (Figure 9). What Figure 9 clearly shows is that an independent‘s expected count clearly increases as partisan advantage increases. Although the confidence intervals become wider as the partisan advantage increases (due to the lack of such extreme districts), we can still observe a constant and significant upward trend.

This phenomenon makes sense, as the minority party in a heavily partisan district may not bother to field a candidate opening up an opportunity for an independent or third party candidate to launch a campaign as the alternative to the incumbent or major party. Although this case was not included in the model, this kind of phenomenon mirrors how Bernie Sanders first came into political power as the Mayor of Burlington, VT. When the Republicans failed to field a challenger, Sanders emerged as the primary alternative to the Democratic incumbent.

Another possibility for this phenomenon is that voters may feel freer to "vote their conscience" in a race where the ultimate outcome is rarely in doubt. For example, an ultra-conservative voter in an R+25 district may feel no pressure to vote for a Republican nominee he believes to be too moderate and cast a vote, instead, for a Constitution Party or Libertarian candidate. A less-likely alternative is an explanation that goes back to the "skewed distribution" formal model, which resulted in the independent candidate doing better in the skewed districts than in the symmetrically-distributed districts. This explanation would posit that the reason for the independent doing so well in heavily partisan districts is the candidate‘s proximity to the center-right (or center-left) of a district that is too partisan in either direction for a minor party candidate to succeed. Regardless of the ultimate reason, the margins plot clearly indicates that independents and third party candidates are likely to have a better showing when a district strongly favors one party.

Figure 10 illustrates the marginal effects that increased petition requirements have on the likelihood of observing a "zero". Like Figure 9, the confidence intervals become much wider as the requirements increase, but this is similarly due to a paucity of observations on the higher end of this spectrum. Regardless, we see from this plot that the more stringent state petition requirements make it less likely that an independent or third-party campaign will be an automatic zero. In other words, the state laws have the effect of weeding out unserious or joke candidates by making it far more difficult to get on the ballot, in the first place. A ten percent signature requirement (as is the case in Hawaii, for example) makes it all but impossible for the most serious, well-financed, and well-known independent candidates to make it on to the ballot. Conversely, many states have low thresholds (often in the form of requiring n signatures) that make it easy for anyone to make it on to the ballot. As such, these low signature requirements demand little from the independent candidates in terms of popularity, financing, or effort, which usually dooms an independent to a November showing of practically 0%. Consequently, we see that these tough

requirements may be normatively "undemocratic," but strongly decrease the likelihood that an independent candidate has a dismal performance in the general election.

7 Discussion and Case Studies

Duverger's Law posits that in a "first-past-the-post" system, the electorate will eventually split into two coalitions fighting to get "50% + 1" of the vote. Yet Americans, now more than ever, have taken to calling themselves independents and eschewing a partisan label, even if they end up voting in a predictably partisan manner (Lewis-Beck, et al., 2008). The relative dearth of independents in either chamber indicates that, in general, Duverger's Law will trump the desire for independent representation. Negative partisanship is almost always a factor in elections (cf. Ansolabehere and Iyengar, 1994; Freedman and Goldstein, 1999; Freedman, Franz, and Goldstein, 2004) and could provide an alternative explanation to this phenomenon that cannot be captured by median voter models or by the zero-inflated negative binomial model. Simply put, the fear that the more evil of two major parties will win may likely be enough to counteract one's desire for a truly independent candidate. As such, there is one more line of investigation necessary in this paper to help more fully uncover the conditions necessary for an independent candidate to be successful. Case studies of Bernie Sanders, Angus King, and Lisa Murkowski offer another empirical means of isolating the factors common in successful independent campaigns and reaching a more holistic understanding of these efforts.

7.1 Bernie Sanders

The case of Bernie Sanders is the fuzziest case when trying to decide whether or not he is even truly an independent. Prior to serving in Congress, Sanders built a brand for himself as a minor third-party candidate, at first, before narrowly defeating the Democratic incumbent Mayor of Burlington in a two-person race (the Republicans did not field a challenger). He then won re-election twice, which included victories over Democrats and even a bipartisan "unity nominee" in 1987. Sanders' early victories thus represented concrete triumphs for independent candidates, rather than victories by pseudo-independent candidates. These victories resulted from the progressive brand he established among the voters and the unique circumstances which allowed him to play the role of principal challenger to the incumbent.

Sanders first won election to the House of Representatives as an official independent, with the Democrats fielding an official nominee. The Democratic nominee, Dolores Sandoval, however, only mustered about 6,000 votes in the general election, while Sanders sailed to an easy victory over Republican Representative

Peter Smith with over 117,000 votes. Despite the Democrats fielding an official nominee, Sanders was the *de facto* Democratic candidate, being supported by all prominent Democrats in the state and capitalizing on his popularity as mayor of Vermont's largest city[5]. Two years before that, Sanders nearly managed to defeated Smith, but faced both Smith and a Democratic candidate strong enough to siphon enough votes away from Sanders to ensure a Republican victory.

Following that initial House victory, Sanders only faced marginal opposition from the Democrats when running for reelection. In 2006, he ensured that he would face no challenge from the Democrats when he ran for the Senate by winning the Democratic primary and then declining the nomination. The state's Democratic leadership and other influential figures supported that move and endorsed him as the *de facto* Democratic candidate. Sanders then rode the strong Democratic wave of 2006 into the Senate on the strength of nearly 65 % of the final vote. In 2012, Sanders again won the Democratic primary and declined the nomination and went on to win an easy victory over his Republican challenger.

In 2016, however, Sanders sought the Democratic nomination for President of the United States. Sanders thus officially changed his party affiliation and launched a surprisingly successful effort challenging former Secretary of State Hillary Clinton. Initially dismissed as a long-shot, Sanders took advantage of a weak field of challengers to Clinton (only Maryland Governor Martin O'Malley remained in the race until the Iowa Caucuses among the other declared Democratic candidates) to present himself as the principal opposition within the Democratic Party to Clinton's comparatively-centrist brand of politics. Sanders raised millions of dollars, won 23 primary contests (largely in New England, the Midwest, and Interior West) and earned 1,865 delegates, ensuring him a major role at the Democratic Convention[6]. After Clinton officially secured the nomination, however, he announced that he would once again return to being an independent.

As a member of Congress, Sanders has acted like a Democrat. He has always caucused with the Democrats and in return, has been granted committee chairmanships and *de facto* status as a party member. His DW-NOMINATE score of -.523[7] does place him as one the most liberal Senators of the 113th Congress, in terms of economic policy, but it also indicates that he is not quite as liberal as Tammy Baldwin (D-WI) or Elizabeth Warren (D-MA). In terms of social policies, the second dimension of DW-NOMINATE, Sanders looks like an average Democrat, with a score of -.286. Thus, despite being officially an

[5] Socialist Ex-Mayor Elected to US House, *New York Times*. November 7, 1990

[6] "2016 Delegate Count and Primary Results," *New York Times*. http://www.nytimes.com/interactive/2016/us/elections/primary-calendar-and-results.html?_r=0

[7] Poole, McCarthy, and Rosenthal (2015), "113th Congress Rank Ordering," http://voteview.com/SENATE_SORT113.html.

independent, there are few signs that Sanders acts in a demonstrably different manner from the average New England Democrat in the Senate.

So what, overall, does Sanders teach us about independents and being successful? One, he clearly establishes that a prior brand is necessary. His record and popularity as mayor of Vermont's largest city made the state's Democratic leadership comfortable enough with him to support him over the winner of the House Democratic Primary in 1990 in the general election. Second, Sanders shows us that independents can take advantage of unique circumstances, such as when a major party chooses not to field a challenger. This was a crucial element of Sanders' initial mayoral victory and a major factor in the success of his presidential campaign. Sanders was able to win the mayoral race by presenting a progressive alternative to a mayor embraced by the establishments of both parties in Burlington and he was able to launch an unexpectedly strong presidential campaign by providing the Democratic electorate with an alternative to Hillary Rodham Clinton. Third, Sanders shows us that having the support of a major party makes victory a lot easier to achieve. Sanders lost when the Democrats did not fully support him, an outcome that our median voter games would have predicted, but never faced more than a mildly-difficult challenge once he was secure in Congress. Sanders, unfortunately, does not teach us much about the difference between Senate and House races, since Vermont's House seat is an "At-Large" seat. However, Vermont's rather homogeneous population (in terms of demographics, ideology, and education) do fit within Madison's theory that small, homogeneous populations would produce representatives unique to the area and independent of broad national coalitions. On the whole, however, Sanders shows that it is easier to succeed when you are an independent with major party backing, rather than a true independent.

7.2 Lisa Murkowski

Successful independents on the right side of the political spectrum have been rather rare. Aside from Charlie Crist's independent campaign in 2010 (back when he was still considered a relatively conservative politician), conservative independents have generally been marginal candidates, at most, although conservatives have launched more primary challenges to independents, at the Senate level than Democrats have.[8] One of these senators to lose a primary challenge was Alaska's Lisa Murkowski, the incumbent and daughter of a former Governor of Alaska. Under Alaska law, Murkowski was allowed to compete in the general election as a write-in candidate, despite losing the primary. As such, her reelection represents another case of a pseudo-independent winning election to the Senate.

[8]Since 2006, eight Republican Senators have faced strong primary challenges (three of whom were defeated). In that time period, Joseph Lieberman has been the only Democrat to face a primary challenge, which he lost.

The 2010 elections marked the first instance of the Tea Party as a force in American politics. Led by former Alaska Governor Sarah Palin and other major figures on the conservative wing of the Republican Party, Tea Party politicians launched primary challenges against a number of incumbents in the House and Senate, as well as on the state and local levels. Three Republican Senators faced strong challenges that year: Murkowski, John McCain, and Utah's Bob Bennett. Bennett lost his nomination to Mike Lee, McCain defeated J.D. Hayworth, and Murkowski lost to Palin-backed Joe Miller. Despite Murkowski's massive advantage in fundraising and name-recognition, Palin's endorsement opened up the floodgate of Tea Party money and endorsements and helped Miller eke out a minute upset over Murkowski. Although there had been a long-standing feud between Palin and Murkowski (as well as her father), Murkowski's relatively moderate conservative stances contributed to Palin's endorsement and Murkowski's primary defeat[9].

Because Alaska does not have "sore loser" laws preventing candidates defeated in primaries from running in the general as independents or write-ins, Murkowski launched a write-in bid. As we found from the median voter games, Murkowski being the centrist would likely lead to her defeat, if ideology was the sole determining factor. Indeed, we would expect to see the Democratic candidate, Scott McAdams, win because of the split between Republican and moderate votes. Moreover, Alaska is a state that tends to vote Republican in state and federal elections, but will occasionally elect a Democrat under odd circumstances. The 2008 Senate election, for example, pitted embattled incumbent Ted Stevens (the former President *Pro Tempore* of the Senate) against Anchorage Mayor Mark Begich. The ethics charges against Stevens, although later dismissed, drained enough votes from Stevens to ensure a victory for Begich. And in 2014, an independent candidate backed by both Palin and Alaska's Democratic Party (Bill Walker) defeated incumbent Republican Sean Parnell. As these examples show, Murkowski's write-in campaign allowed a theoretically-strong possibility that she would concede her seat to the other party.

Unlike Sanders, Murkowski did not have the backing of a state party in the general election. The Alaska Republican Party endorsed Miller as their nominee and approached the election as a normal Senate election. Additionally, Palin's support, and the support of state and national Tea Party groups, ensured that Murkowski would have to win the election with a moderate coalition. Her final victory ended up being attributed to the broad coalition she was able to build of moderate Republicans, labor unions, libertarians, and other centrists. As usual, the brand she had previously established ended up being crucial to her victory, as did her war chest and ability to "massage her constituency"[10],

[9]Tumulty, Karen and Phillip Rucker, "How Joe Miller Caught Lisa Murkowski by Surprise," *The Washington Post*, August 25, 2010. http://www.washingtonpost.com/wp-dyn/content/article/2010/08/25/AR2010082507096.html

[10]Knickerbocker, Brad. "AP Calls Alaska Senate Race for Murkowski, Miller Disagrees," *Christian Science Monitor*, November 17, 2010.

and her rather "gimmicky" approaches to making sure Alaskans knew how to spell her name and cast a write-in vote. In other words, we again see Mayhew's blueprints in the final analysis of her victory. Her position-taking was more acceptable to Alaskans than Miller's staunchly conservative positions, she built upon her existing brand and made herself a household name, and she used the advantage of being an incumbent to please her constituents enough to win a write-in campaign (the first successful write-in campaign since Strom Thurmond in 1954). Murkowski's case shows us that pseudo-independents can win without the backing of a major party, even when they are the ideological centrists, as long as factors other than ideological positioning ultimately factor into the voter's calculus.

Since her victory, however, Murkowski has represented Alaska as a rank-and-file Republican. Despite not getting the Republican endorsement in her 2010 race, she is treated by the Republican leadership as a full member of the Republican Party, with no strings attached or caucus affiliation. Her voting record, however, places her among the most independent and centrist members of the Senate. According to DW-NOMINATE, for example, she is the second-most-liberal Republican on economic issues (with a score of .018[11]) and one of the more-liberal Republicans on social issues (-.32). Thus, it is fitting that she was elected as a pseudo-independent, since it reflects the style of Senate representation she has utilized since winning her write-in campaign.

7.3 Angus King

The purest independent in the Senate is undoubtedly Maine's Angus King. Like Sanders and Murkowski, King had the benefit of a previously-established brand with the people of his state, having served as a popular two-term governor. Further boosting his credibility as a true independent, King served both terms as governor as an independent. His first gubernatorial election took place during the 1994 Republican Wave and featured candidates from both major parties and the Green Party (including future US Senator, Susan Collins). He then went on to easily win reelection in 1998 against a full slate of candidates, winning twice as many votes as the two major party candidates, combined. King, therefore, had a firmly established brand as a true independent prior to the 2012 contest.

King's opportunity to run for the Senate arrived when the extremely popular Republican incumbent, Olympia Snowe, announced her retirement from the Senate. King's victory came down to his existing popularity, his massive financial advantage, and the uncertainty as to which party he would ultimately caucus with in the Senate. He drew support largely from Democrats (which is

http://www.csmonitor.com/USA/Elections/Senate/2010/1117/AP-calls-Alaska-Senate-race-for-Lisa-Murkowski-Joe-Miller-disagrees

[11] Poole, McCarthy, and Rosenthal (2015), "113th Congress Rank Ordering," http://voteview.com/SENATE_SORT113.html.

why the Democratic nominee mustered only 13% of the vote) and was favored to win throughout the race. Once again, the game theoretic model does not predict that this would be the outcome, based solely on ideology, but King's popularity and success as governor proved to be enough to overcome this theoretical outcome.

In the Senate, King has proven himself to be the ideal independent. Like Sanders, he currently caucuses with the Democrats because of the institutional necessity of party alignment for committee assignments. Unlike Sanders, however, King has never expressed interest in permanently caucusing with the Democrats, allowing his allegiance to be fungible and respond to events and circumstances. Thus, after the 2014 Republican Wave, which saw the Republicans capture the Senate, King mulled caucusing with the Republicans, but ultimately declined to do so because he wanted Maine to be represented by someone in the "president's party caucus" and thought it advantageous for Maine to have a senator affiliated with each party. Nonetheless, he maintains that his caucus affiliation does not deprive him of his political independence and can change under the right circumstances. His voting record backs up this claim, as his 113th Senate DW-NOMINATE scores of -.184 and -.294[12] place him in the ideological center of the Senate and indicate that he has a track record of not voting in lockstep with either conservatives or liberals on economic or social issues.

Ultimately, King shows us that major party backing is neither necessary nor sufficient to win an election as an independent. King not only won his Senate race as a pure independent, but also won two gubernatorial elections with neither party giving him explicit or implicit support. He also shows us that a true centrist independent can win and represent his constituents as a centrist independent. King's position potentially gives him a lot of power in future elections if the balance of power is unclear after an election. For instance, had the 2016 elections ended with the Republicans controlling 50 seats and the Democrats controlling 48 (plus Bernie), Angus King's party affiliation would have determined who controlled the Senate. As such, he would have been able to extract a lot of concessions from the side he ultimately chose to support (perhaps a committee chairmanship). Ultimately, however, he demonstrates that prior brand and popularity are critical to any independent success in these Congressional races.

7.4 Discussion

The various methods utilized in this paper help to determine the conditions that are necessary for independents to be successful in a Congressional race. From the games, we see that independents (or at least centrist independents) should

[12] Poole, McCarthy, and Rosenthal (2015), "113th Congress Rank Ordering," http://voteview.com/SENATE_SORT113.html.

never succeed based on ideological positioning, alone. In a three-player median voter game, the centrist independent will always be on the losing side of the median voter and therefore can do nothing more in these games than play the role of spoiler (a preference we do not assume in these games). However, these games also lead us to expect that three-way elections in a district where support for rightist and leftist politics are roughly equal, the major party candidates will ultimately gravitate towards the center. And finally, the formal models provided a plausible reason to expect that independents will fare better in more partisan districts, rather than centrist districts, a finding that the empirical model ultimately supported.

The empirical model helps us understand how independents are able to occasionally break through and win, in spite of the numerous theoretical constraints against them and America's strong history of partisanship. From the zero-inflated negative binomial model we are to separate the data-generating processes for serious and non-serious independent candidates, as they represent two different stories. Furthermore, the model allows us to more rigorously study the "serious" candidates and parse out the distinctions between those who manage to gain a small percentage of the vote and those who manage to muster a higher share of the vote. From the model, we were able to isolate the effects of state laws on the likelihood of independent and non-third party success by seeing how they affected the expected count and the probability that the outcome would be a zero. We also learned that, in spite of my hypothesis, independents enjoy greater success when they run in a less-competitive district. And finally, the model offered more empirical proof that holding a previous office increased the expected count, all else equal. The empirical model, therefore, was critical in our efforts to better understand the conditions necessary for independent success and also to theorize why we have independents in the Senate and not in the House.

Lastly, the case studies helped to fill in some of the blanks left by the formal modeling and the empirical model. First, the case studies established indisputably that brand is essential for the candidate to have any kind of hope of success in these Congressional races. Second, and more importantly, the case studies added more depth and nuance to our analysis by further distinguishing among successful cases. In other words, we learned from the case studies how Bernie Sanders and Lisa Murkowski won elections as independents and write-in candidates, respectively, but are dependable partisans who generally enjoy establishment backing in their home states. Angus King, on the other hand, represents the only case of a truly independent senator who is always willing to switch caucus affiliation in the Senate and always wins races against candidates from both major parties.

The plurality of methods is necessary to make some kind of causal inference about the differences in House and Senate elections because the zero-inflated negative binomial model does not directly address the central question. Instead,

the model allowed us to parse out the circumstances under which independents are successful and then use theory and case studies to infer as to why these factors manifest more in Senate races than in House races. Brand, for instance, might be more of a factor in Senate races because the grander prestige of the Senate over the House might be more attractive to those who have already established a brand with the constituents of a state. As such, the best independent candidates would seek out Senate races over House races.

Alternatively, perhaps the intuition that independents will be more successful in more competitive districts is simply wrong. As mentioned earlier, the empirical model shows that independents do better in less-competitive districts and states than they do in the competitive ones. Murkowski, Lieberman, and Sanders all represented states that strongly favor one party at the federal and state levels and thus can take advantage of the minority party's weakness (as Sanders did in lower races and Lieberman did in his independent campaign) or take advantage of the majority party's strength (as Lisa Murkowski did). The median voter games show why independents struggle in a three-person contest, but more partisan districts and states will often reduce the contest to a two-person contest, either formally or practically. The problem with this explanation, of course, is that it would still lead us to hypothesize that independents would enjoy greater success in House races, rather than Senate races. But when combined with the other explanations, especially the Senate's prestige and less-majoritarian structure, we can apply this explanation to Senate races and assert that the more serious independents will put forth the effort to win in Senate races, rather than House races. Furthermore, even though independents may have greater levels of success in strongly partisan districts, it does not necessarily mean that they will win. Earning 35% of the vote as an independent is impressive, but still insufficient to win in an R+30 district. In Senate races, however, the most partisan states are still far less partisan than the most gerrymandered House district, and thus leaves the door open for independents to actually win, rather than just muster a decent percentage of the vote.

Ultimately, this paper leads back to Mayhew's simple intuition that an incumbent wants to win reelection and will do whatever necessary to establish a positive brand (position-taking, credit claiming, campaigning, and blame avoiding). Independents cannot, it seems, succeed if they have not already made themselves a household name with the voters (which can be tough to do as a politician outside of the two parties) and if they do not take advantage of any unusual circumstances. And in keeping with Mayhew, perhaps House seats are tougher for independents to win because the majoritarian rules allow the ruling party to essentially ignore the opposition and distribute funding and other common forms of pork, which would hamper any independent's attempt to build upon his brand, even if he somehow won an election. Moreover, because the House rules and procedures are so party-oriented, it is difficult to imagine a truly independent House member ever managing to wield much power or exercise much influence. Without formally caucusing, for example, the repre-

sentative might not gain any committee assignments and thus be utterly useless in the eyes of his constituents. Having a previous brand is critical to the success of independents, but so is being able to build upon it, maintain it, and expand it by being an influential legislator. Hence, the Senate might be the chamber better suited for this purpose.

Another factor that puts independents at a disadvantage is the ferocity of party rule in the House. Ever since the introduction of Reed's Rules, the majority party in the House has all but vanquished any procedural powers the minority party could hold by making the rules strictly majoritarian. In light of these realities, it does not make any sense for voters to elect a candidate who does not run under either party banner, unless he promises to caucus with one party or another. In the Senate, however, an independent can amass extraordinary power, especially if the balance of power between the parties depends on his support. Moreover, the Senate's procedural rules, such as the power to hold, allow an individual to hold up the chamber as long as he or she desires. Before the 2014 midterms, there was talk that an Independent caucus could wield power by extracting concessions from both parties in the event of a hung Senate (which would have required the election of the two most serious independent candidates, Greg Orman and Larry Pressler, in addition to a couple more Democrat victories). In short, Senate rules seem to be more accommodating to independents than the strictly majoritarian House.

Overall, the plurality of methods used in this paper allow us to form a more complete understanding of why independents sometimes succeed and why they are prominent in a chamber originally designed to hold the representatives of state legislatures. The formal models clarify the theoretical constraints facing independent candidates in terms of winning an election by ideological proximity to the voters. Even though we like to think Americans are generally moderate and vote for centrists, the games show that independents will lose even under such generous assumptions. The empirical model then offers some evidence of the effects of various laws and personal characteristics on the chances of a candidate doing well in an election outside of the two-party structure. And finally, the case studies fill in some of the blanks that are not captured by either the games or by the empirical model. Putting it all together, we come to the conclusion that previous brand matters, as do state laws that may restrict independents' access to the ballots and the partisan strength of a district or state.

8 Conclusion

James Madison would likely be very confused if he could see what became of the institutions he helped to design in 1787. Instead of a large House full of fiery, independent people representing their specific region of the country, we now have a rigidly partisan, majoritarian chamber filled with members loyal to

a national coalition, sometimes at the expense of their own constituents. And instead of a senate whose members represent their state legislatures and govern as trustees, the modern senate is basically a smaller version of the House whose members serve longer terms and answer to slightly more moderate constituencies. Additionally, Madison would probably be more than slightly confused as to why there are independent members of the Senate, but not the House. In this paper, I have tried to isolate some of the conditions under which independents succeed and theorize as to why this works in Senate elections, but not House elections.

Regarding my three original hypotheses, I have found support for H3, but not for H1 or H2. H1 postulated that "*All else equal, Independent candidates will do better in districts that are more competitive*." However, the zero-inflated negative binomial model showed that independents and third-party candidates actually fare better in districts where one party has a sizable advantage, likely because of the lack of effort put forward by the minority party, or the outright support of a minority party in the district or state. Lisa Murkowski, Bernie Sanders, Angus King, and Joe Lieberman all come from states that tend to strongly favor one party over the other. As such, they either benefited from the tacit or explicit support of one major party or replaced the minority party as the alternative to the ruling party.

As for H2, which posited that "*Independent candidates will fare better in races with higher turnouts*," I found no empirical evidence of a turnout effect in my model. The case studies, however, all took place in states with smaller populations, which suggests that independents will have more difficulty in states with larger turnouts and populations. Indeed, the most high-profile independent run in a large state, Charlie Crist's independent run in the 2010 Florida Senate race, yielded a massive defeat for Crist at almost 2:1 margins. On the whole, however, this paper has found little evidence to support H2.

We do, however, find plenty of support for H3 in this paper. H3 hypothesized that "*Winning a previous statewide election will increase an independent candidate's level of success*". In both the model and the case studies, we found that holding a previous office (and hence establishing a brand) was necessary for an independent to enjoy a greater level of success. This is logically intuitive and is backed up, empirically.

Future research needs to address the possibility that institutional rules have made the Senate a more attractive option for serious independent candidates. Numerous theories posit that being a member of the majority party is critical to success in a simple majoritarian institution such as the House. In the Senate, procedural rules empower minority members by forcing the majority party to forge a Supermajority coalition on certain issues. No major shifts in institutional rules occurred during the time period I examined, so I was forced to hold the rules constant. If the so-called "nuclear option" is ever fully imposed, it

will be interesting to see if independents fare worse in Senate elections. Also, studying the role of financing in independent campaigns could further clarify the conditions under which an independent campaign is considered "serious" or otherwise.

Although the House was designed by the Founders to be the chamber closest to the people, the strange dearth of independents within its ranks is a curious phenomenon, especially when juxtaposed with the relative success of independent candidates in Senate races. From this analysis, we clearly find that a pre-existing brand in statewide elections helps to advance the success of independent candidates, as do more one-sided constituencies and more difficult state laws involving petition requirements. Ultimately, it appears that the Senate attracts the interest of the more serious and established politicians, probably as a result of the greater prestige and power associated with the chamber, and thus we occasionally see an independent ascend to that chamber, instead of the chamber originally designed to foster greater independence among its membership.

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10 Appendix 1: Skewed Game Proof

The proof for the results that I obtained in the skewed median voter game come down to simple geometry and integral calculus. The underlying distribution was modeled as $y = x$, which forms a triangle when graphed. As such, the total area under the curve can be obtained through the triangle area formula of $a = \frac{1}{2}bh$, which comes out to .5. As such, any area resulting from integral calculus must be doubled to represent the total share of votes.

The ideological positions of the candidates came out to .5 for the Democrat, .605 for the Centrist, and .71 for the Republican. Determining voter shares depends on finding the mid-points between the centrist and one of the candidates and then using integral calculus to determine the area under the curve. The mid-point between the Democrat and the Centrist was .5525 and the midpoint between the Republican and the Centrist was .6575.

The Democrat's vote share was thus: $\int_0^{.5525} xdx = \frac{1}{2}(.5525)^2 - \frac{1}{2}(0)^2 = .1526$ * 2 = 30.54%.

The Centrist's vote share was thus: $\int_{.5525}^{.6575} xdx = \frac{1}{2}(.6575)^2 - \frac{1}{2}(.5525)^2 = .0635$ * 2 = 12.70%.

The Republican's vote share was thus: $\int_{.6575}^{1} xdx = \frac{1}{2}(1) - \frac{1}{2}(.6575)^2 = .2838$ * 2 = 56.76 %.

11 Appendix 2: Methodological Appendix

11.1 The Empirical Model

$$f(y_i|\pi_i,\lambda_i) = (((\pi_i)(1-\pi_i)^r)^I_{0i})((1-\pi_i)\binom{y_i+1}{y_i}(1-p_i)^r {p_i}^{{y_i}^{(1-I_{0_i})}}) \quad (1)$$

$$p_i = \frac{1}{1+e^{-y_{ip*}}} \quad (2)$$

$$\pi_i = \frac{1}{1+e^{-y_{*\pi_i}}} \quad (3)$$

$$-y_{ip*} = \alpha + \beta_1(Chamber) + \beta_2(turnout) + \beta_3(partisan) + \beta_4(office) + \beta_5(midterm) \quad (4)$$

$$-y_{*\pi_i} = \alpha + \beta_1(Chamber) + \beta_2(turnout) + \beta_3(filing) + \beta_4(laws) + \beta_5(petitions) \quad (5)$$

$$l(y_i|\pi_i,\lambda_i) = \Pi(\pi_i + (1-\pi_i)(1-p_i)^r)^{I_{0i}}((1-\pi_i)\binom{y_i+1}{y_i}(1-p_i)^r {p_i}^{{y_i}^{(1-I_{0_i})}}) \quad (6)$$

$$l(y_i|\pi_i,\lambda_i) = \sum ln(\pi_i + (1-\pi_i)(1-p_i)^r)^{I_{0i}}((1-\pi_i)\binom{y_i+1}{y_i}(1-p_i)^r {p_i}^{{y_i}^{(1-I_{0_i})}}) \quad (7)$$

Equation 1 represents the "family" equation for zero-inflated negative binomial models. The normal negative binomial model utilizes the first part of the equation, but zero-inflated negative binomials are a more complex version and thus add more to the family equation.

Equation 2 represents the logit link function, p_i, which is used for observations that fall outside of the zero group.

Equation 3, likewise, represents the logit function, π_i, which is used for observations falling within the zero group (which, for a zero-inflated model is assumed to be the vast majority of observations).

Equation 4 represents the General Linear Model (GLM) of Equation 2. If we wanted to derive the more complex versions of the log-likelihood function (Equation 7), we could insert this equation into the link function, p_i.

Equation 5 serves the same function as Equation 4, except that it is the GLM for Equation 3.

Equation 6 represents the GLM for the entire model, which is derived from the family equation (Equation 1).

Finally, Equation 7 represents the log-likelihood function of zero-inflated negative binomial models. This is the most elegant form of the equation, as it can be "simplified" by the laws of natural logarithms and by substituting in the link equations, but these simplifications only make the equation needlessly more complex and messy.