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The Moderating Role of Electoral Pressure on  
Congressional Ideological Polarization: A Cross-  
Sectional Time-Series Analysis

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# I. Shrinking Electoral Margins and Shifting Congressional Ideology

In the United States, there is a unique relationship between voters and elected officials. Within this relationship sits the process of elections, which occurs every two years for US House candidates. Essentially, elected officials work within the context of continual electoral demands. Yet, how does this pressure affect the ideology and voting behavior of representatives? There are numerous academic studies that have discussed the effects of electoral pressure on elected officials. By understanding the relationship between election results and congressional voting behavior, we can develop a better understanding of how our elected officials work toward the goals of our nation.

This study attempts to gain a better understanding of what affects congressional voting. Specifically, will a congressman moderate his voting behavior in the face of shrinking electoral margins? For example, let us assume that Congressman X won his 2000 election by a margin of five percentage points. Yet, in 2002, Congressman X faced a particularly weak challenger. Therefore, he won by a much more comfortable margin of twenty percentage points. We should then assume that the congressional voting behavior of Congressman X will become increasingly extreme during the coming term. Because Congressmen are inherently ideologically extreme, the increase in winning margin allows Congressman X to polarize his voting behavior. Several studies regarding congressional voting behavior are cited in the discussion of whether this hypothesized relationship between voting trends and electoral results actually exists.

## A. ELECTIONS

For a research project on shifting ideology, it is important to first understand the nature of elections in American politics. How does the environment and frequency of elections affect the American political realm? Congressional election results alone are not sufficient to understand the political process and voting ideology. Many scholars focus on the institution of continual electoral pressure as the principal explanation for political incapacity and congressional stalemate in the House.

Gary Jacobson sees congressional elections as a complex arrangement of multiple working plots and strategic goals. He also considers electoral influence on the behavior of elected leaders. Jacobson believes that elections shape the course led by our elected officials (Jacobson, 2004, 3). In effect, congressmen vote and attempt to hold office within the confines of a complicated balancing act. However, Jacobson notes that the coherence of electoral coalitions has arisen in Congress, which has subsequently “contributed to greater consistency in voting behavior” (Bond, 2002, 19). Party loyalty among voters has risen, while ticket splitting has diminished since the 1970s (Bond, 2002, 19).

Scholars have also noted that presidential vote totals can serve as a vital indicator of congressional electoral activities. Jacobson discusses this facet of voting behavior in the context of the rise of party loyalty. Jacobson states that “the simple correlation between a party’s district-level House and presidential vote shares has risen sharply from its low point in 1972” (Bond, 2002, 20). Presidential election results indicate a high level of efficiency of Republican congressional districts. For example, although Vice President

Al Gore outpolled George W. Bush by several hundred thousand votes nationally in the 2000 presidential election, Bush outpolled Gore in 238 House districts in 2002 (after redistricting). Thus, Jacobson demonstrates that Republican redistricting put Democrats at a significant structural disadvantage in the House (Jacobson, 2004, 251).

Meanwhile, David Mayhew has suggested several theoretical views on congressional elections. In his study on vanishing electoral marginals (1974), Mayhew focused on House elections on a macro scale. Mayhew was interested in net election shifts per Congress, rather than shifts in particular districts. According to Mayhew's research, elections have always been heavily won by incumbents. Yet, he suggests that if the trends of the 1960s hold, we may be witnessing a further "blunting of a blunt instrument" (Mayhew, 1974, 314). Mayhew's notion of vanishing marginals speaks to the core of a hypothesis concerning shifting ideology for electoral success. Have representatives "gotten better" at achieving reelection, and has it been at the expense of consistent political ideology?

Mayhew additionally outlines this general trend in his book, *The Electoral Connection* (1975). Mayhew's work focuses on the hypothesis that reelection is the primary concern of congressional incumbents. Mayhew notes that "all members of Congress have a primary interest in reelection. Some members have no other interest" (Mayhew, 1975, 16). Reelection has become the principal goal of elected officials, and thus, it is expected that shifts in ideology will occur alongside rises in reelection rates. This would explain why shifting voting behavior occurs in the face of electoral pressure.

However, Mayhew's thesis must be scrutinized. As has been seen in congressional data since Mayhew's publication in 1974, there has actually been a

deepening party differential in the last thirty years. Keith Poole (1997) and Alan Abramowitz (2001) cite the increasing role of party leadership and party identification in the last thirty years. Although Mayhew's theory remains a quintessential text for studying congressional elections, Abramowitz notes that it was published in 1974, "at what may have been the low point of party influence in Congress during the twentieth century" (Abramowitz, 2001, 257). Nevertheless, the ineffectiveness of Mayhew's hypothesis does not debunk the connection between voting behavior and electoral results. Rather, it simply complicates the direction of a possible causal connection.

Lastly, Robert Erikson and Gerald Wright suggest that "elections contribute significantly to achieving congressional representation" (Erikson, 1980, 91). Erikson argues that Republican challengers are more conservative than Republican incumbents, and likewise, that Democratic challengers are more liberal than Democratic incumbents (Erikson, 1980, 95). Essentially, Erikson maintains that elections place a different set of pressures on those in office from those attempting to gain office. Representation will be discussed in more detail in the next section, but Erikson's theory would suggest that House member ideology is better predicted by district opinion than by party affiliation (Erikson, 1980, 96).

## **B. REPRESENTATION**

Representative government serves as an important intermediary between elections and ideology. As previously discussed, there have been competing theories proposed on

the role of congressional representation. Under what is termed as the popular model of representative democracy, an elected official is a delegate to his constituents. His role is to serve the voting interests of his constituents. Yet, this model is one of the more idealistic models of voting. It presumes that the constituency of an elected official will be active enough to fully convey majority issue positions, or respond to media-based surveys on such topics. Through Madison's Federalist no. 10, majority rule came to be regarded as tyranny of the masses. Instead, a responsible model is a more useful account of American politics for the electorate (Erikson, 1980, 92). The responsible model classifies our elected officials as trustees whom we elect to represent us because we believe in their general viewpoints and decision making ability.

Through the responsible model, representation is recognized as a unique interplay between constituent affairs and congressional voting. Although congressmen are generally receptive to constituent positions on key votes, representatives will often vote their conscience on issues close to them. This interaction between representatives and their constituents is significant in a discussion on voting ideology. Are changes in congressional voting behavior the product of representatives acting as delegates? Or, from a somewhat pessimistic standpoint, are such shifts representationally expensive attempts to gain reelection? In either case, the theory implies that there exists a relationship between electoral pressure and congressional voting behavior.

According to Morris Fiorina, the relationship between constituent influences and representatives varies widely among representatives (1982). Specifically, Fiorina notes that "a high degree of electoral competition 'sensitizes' a representative to constituents' preferences" (Fiorina, 1982, 4). Fiorina's studies on constituent effects report fairly weak

relationships between constituency characteristics and congressional voting behavior (Fiorina, 1982, 19). Yet, in understanding Fiorina's argument, there is a critical distinction between his work and this paper's contention that diminishing electoral results lead to a moderation of voting ideology. Fiorina's focus is on constituent attentiveness and its role on congressional behavior. Although constituent activity is important, Fiorina's study is more focused and based upon substantially less data than this study.

Meanwhile, Douglas Arnold has also written on representation and its relationship between ideology and constituent behavior. Arnold (1990) looks at representation and theorizes on how exactly Congress comes to adopt its policies. Arnold believes that decision making by representatives is heavily constrained by citizens and coalition leaders. In essence, congressmen are constantly being squeezed on both ends. This interaction between party goals and constituent desires leads congressmen to walk a tight rope that can "impel legislators to support policies that serve either particularistic or general interests" (Arnold, 1990, 6). By proposing that political action is based upon the tug of war between varying interests, Arnold suggests that congressional voting behavior is at least partially, if not mostly, influenced by a representative's electoral and party status.

Nevertheless, the role of congressional representation was examined by Miller and Stokes in 1968 (Erikson, 1980, 101). Miller and Stokes hoped to determine whether a correlation exists between constituency opinion and representative policy positions. The correlation they found was remarkably low, yet some have suggested that this study had severe sampling errors. Erikson believes that the study indicates flaws in the "traditional



test of constituency-representative correlations,” and that constituency opinion is strongly related to representation (Erikson, 1980, 101).

### **C. IDEOLOGY**

The third quintessential component of studies regarding congressional voting is political ideology. The essence of representation manifests itself in the ideological views of each congressman serving in the United States House of Representatives. Not only is ideology manifested through representation, but ideology serves as a benchmark measure to “size up” our elected officials. The flow of congressional action can be described as a circular pattern. Elections lead to representation by a congressman, which is then judged by the voting public through a dissection of that representative’s voting ideology. In theory, if the majority of that voting population approves of its representative’s ideological voting patterns, he will be reelected, thus making ideology a significant value in measuring representation and electability.

A noteworthy sum of literature on congressional ideology has focused on the history of voting behavior. Richard Elling (1982) used the US Senate as a benchmark to study whether senators vote differently depending on how deep they are within their term. Because senators have a six year gap between elections, it is possible that voting behavior may differ greatly in year two as opposed to year six of a senator’s term. Elling remarks that some ideological moderation usually occurs during the final years of a senator’s term, and patterned instability did shift, generally, in the direction of ideological

moderation (Elling, 1982, 75). Late-term ideological moderation would support the theory that elections play a role in congressional ideological moderation.

Thomas Stratmann (2000) has taken a similar approach to voting behavior within congressional terms. However, Stratmann examines aggregate voting over congressional careers rather than within single terms. According to Stratmann's model, junior congressmen are more likely to vote with their party, thus holding a fairly ideological line. Party line voting and variability of voting decision does decrease with seniority though. Lastly, Stratmann observes that voting behavior often shifts, particularly after redistricting of congressional districts. Because seniority is generally positively correlated with increasing electoral margins (safe seats), we can take his study as support that congressional voting will moderate during times of electoral stress.

Similarly, party leadership plays a vital role in the ideological platform of each party. Abramowitz (2001) notes the increasing role of party leadership in general politics and party cohesion. According to Abramowitz, party leaders "no longer leave members alone" when it comes to voting behavior (Abramowitz, 2001, 258). Further, party leaders are supposed to represent the ideal values and direction of the party, which plays an enormous role in contemporary politics. Party leaders are often quite ideological during their time at the helm of their party.

Meanwhile, Amihai Glazer and Mark Robbins (1985) also use the general occurrence of redistricting as their benchmark for studying shifting ideology among congressmen. Their data generally concur with Stratmann's: congressmen who successfully gain reelection in redistricted constituencies are those who have shifted their voting behavior to match their new electorate. This supports the notion that incumbent

vulnerability is dependent on an elected official creating policy congruity between himself and his constituents (Whitby, 1986).

Nonetheless, it is important to focus on dissenting views regarding the theory of congressional strategic moderation. Robert Bernstein (1988) proposes there is little evidence that senators moderate their ideology due to upcoming reelection bids. According to Bernstein, it is a misnomer that approaching elections lead senators to moderate their voting behavior. Such a hypothesis assumes that the median voter in a district will be closer to the senator's opponent, which does not always occur (Bernstein, 1988, 238). In fact, certain representatives may become increasingly ideological leading up to an election due to a variety of factors, including attempts to acquire financial and human resources by mobilizing the strength of the representative's party. A study on changes in voting behavior must take ancillary circumstances into account when attempting to accumulate a general trend of ideological shifts.

Lastly, Kalt and Zupan (1990) use an economically-based model to study ideological shirking among congressmen. Termed "Principal-Agent Slack", Kalt and Zupan believe that electoral slack given to senators allows them to act within their own ideological boundaries (Kalt and Zupan, 1990, 105). In discussing their results of senatorial ideological shirking, Kalt and Zupan reflect on the implications of ideological shifting by congressional leaders:

To denote the ideology residual as ideological shirking amounts to saying that marginally uncaptured legislators vote their convictions. The normative implications of this conclusion turn on views of both the proper purpose of representatives in a democracy and the aggregate performance of representative democracy. (Kalt and Zupan, 1990, 128)

#### **D. THREE THEORIES OF IDEOLOGY/REPRESENTATION INTERPLAY**

From the aforementioned discussion on elections, representation, and ideology, the interplay between constituent behavior and representative ideology can be classified under three main theories. The first theory on electoral behavior advocates that congressmen are inherently ideologically extreme. Electoral success determines how much intrinsic ideological polarity a congressman can display in his voting behavior. Some scholars have suggested that landslide congressional elections serve as a mandate to House members, allowing them to enact change in whatever manner they see fit. Accordingly, after a strong showing in an election cycle, “Members of the advantaged party will be emboldened by new evidence of electoral support for their preferred positions” (Peterson, 2003, 413). All legislators hold policy positions that rest fairly conservative or liberal, however, it is the leeway provided by sweeping election returns that will decide how accurately legislators can represent their own views through their voting record.

Meanwhile, an alternative, more constituent-driven theory of congressional behavior suggests that congressional voting trends are a response to constituent demands. Whereas the former theory states that each legislator wishes to advocate his own, inherent views, the latter theory suggests that congressional voting ideology aligns in response to cues from the electorate. Erickson suggests that changes in policy representation “may also be the result of candidates responding directly to district ideology” (Erickson, 1980, 103). Similarly, the work of Bernstein (1988) and Glazer (1985) observes that congressional voting behavior is primarily driven by constituent opinion.

As Morris Fiorina suggests, the representative is purposive in his voting behavior, and this is why he aligns his votes with his constituency. As Fiorina notes, “his votes are not simply passive responses to role expectations, group memberships, and interest group pressures...[but] with an eye toward achieving valued consequences” (Fiorina, 1974, 29). Representatives value the offices in which they serve, and reasonability in voting (voting with district preferences) will help to ensure representatives maintain these positions. As Fiorina bluntly states, “realistically or cynically as the case may be, we believe that constituents’ preferences are reflected in a representative’s voting primarily through his concern for his electoral survival” (Fiorina, 1974, 31).

Finally, a third theory of ideological influences, promoted by Marc Hetherington (2001), suggests that the relationship between representatives and constituents is different than the model suggested by Erickson and Fiorina. According to Hetherington, as the ideology of legislators becomes increasingly conservative or liberal, the ideology of the public will subsequently shift in the same direction. Hetherington proposes that elite polarization clarifies public perceptions of ideological differences between the parties, creating an increasing ideological divide among the public (Hetherington, 2001, 619). Whereas Erickson and Fiorina believe that legislators act in accordance with the cues provided by their constituents, Hetherington believes that constituents actually follow the cues of their legislators, and by extension, cues provided by the parties. At that point, representatives consequently shift their behavior to mirror their constituency, creating an inexhaustible cycle of shifting ideology. Party separation has increased in the last twenty years, and subsequently, Americans today are more likely to think about one party

positively and one negatively than thirty years ago (Hetherington, 2001, 628). Thus, the increasing ideological polarization of Congress has created a more partisan electorate.

## **E. FINAL NOTES**

Constituent behavior leads to representation through elections. Representation in each district leads to varying congressional ideologies. Logically, the next conclusion would be that constituent behavior creates the ideologies that represent them in Congress. The idea that the voting populace can affect congressional ideology is the critical backbone of research on shifting voting ideology. Does electoral pressure have the institutional clout to shift the ideology of Congress? The aforementioned theories, although conflicting in different facets, all hold one critical component in common: there is a correlation between congressional voting behavior (ideology) and electoral success (public opinion). The general consensus of the academic community is that shifts in congressional voting behavior may vary based on electoral pressure, but the dynamics of the relationship are not universally agreed upon.

## II. Data and Methods: Shifting Congressional Ideology

Although studies of the US Congress are often qualitative, quantitative studies can provide a superlative angle for analyzing lawmaking. As has been noted in previous sections, there exists a unique relationship between electoral results and congressional voting behavior. This research project hypothesizes that congressional ideological extremity will vary based on electoral success. However, there are numerous variables that can affect congressional voting behavior. This research focuses on the House of Representatives, and it employs quantitative analysis of congressional ideology in the US House of Representatives.

There are several advantages of focusing on Congress from a quantitative angle. Foremost, quantifying this information allows research to examine a large amount of data, spanning the most recent 106 years of the US House of Representatives. Theoretically, using data through all 107 Congresses would be better, however this created several logistical problems. First, much of the election data for early congressional races is either missing or erroneous. Second, a steady two party foundation did not take hold immediately in the United States. Rather, many earlier congressional elections exhibited a multiple party dynamic that would have a confounding affect on the analysis.

Regardless, a quantitative study using 106 years of data makes it possible to theorize about various types of congressional behavior, often occurring over a long period of time. Additionally, a quantitative approach minimizes the influx of selection

bias. Introduction of error is a critical concern of any researcher, and the use of an unbiased, comprehensive quantitative design can go a long way to preventing error from minimizing the results of political research.

Yet, many studies of congressional behavior have approached the topic from a perspective of participant observer. Although such studies provide the researcher with a first-hand look at congressional decision-making, qualitative studies on Congress present several disadvantages. First, many instances of significant political behavior are not accessible to examination (Johnson and Reynolds, 2005, 194). Also, participant observation can sometimes, often unintentionally, become plagued with observer bias. Moreover, a researcher may form a perfectly unbiased and structured research plan, yet the results of his case studies may simply prove unrepresentative of congressional behavior as a whole (Johnson and Reynolds, 2005, 195). Because the purpose of this study is to generate a better understanding of the effects of electoral pressure on congressional voting behavior as a whole, its hypotheses and methodology will be grounded in exhaustive quantitative research methods.

## **A. DATA**

Seemingly, the dependent variable of this study should be a measure of the net change in ideology. However, how is one supposed to measure changes in ideology simply through examination of the congressional voting record? To achieve this goal, a set of numerical ideological scores can be used to calculate this change. The most



contemporary and significant data set in existence on ideology through congressional voting was created by two scholars, Keith Poole and Howard Rosenthal (2005). Poole and Rosenthal describe voting behavior not as a set of factions, but instead as a continuum of flexible positions (Poole, 1997, 4). This continuum effectively breaks down along ideological lines, creating predictability across varying policy issues. It can be expected that a congressman who favors higher minimum wages will also favor lower defense spending and affirmative action policies (Poole, 1997, 4). Thus, through analysis of Poole and Rosenthal's data-set, it is possible to gain an efficient understanding of congressional voting patterns and behavior.

Yet, Poole and Rosenthal discuss several caveats of their research that must be noted before their data are used for further study. Primarily, one must understand that the ideological rankings received through their data do not lead to a predictive model on specific issues. Poole and Rosenthal's study gives political scientists the ability to predict short-term voting results, but their study is not issue-driven. Poole and Rosenthal's main goal is to illustrate that vote mapping generally shows that voting will be consistent with party ideological structure (Poole, 1997, 5).

Also, certain circumstances must be recognized when discussing aggregate shifts in ideology. The main hypothesis of this research is that congressional ideology will moderate in the face of diminishing electoral margins. However, this hypothesis works under a critical assumption, and one that must be discussed. This hypothesis assumes that all US House districts are moderate, yet this is not entirely true. As Bernstein (1988) suggests, the median voter in congressional districts are not always closer to an opponent's ideology. For instance, some districts are quite conservative or liberal. Let us

assume that Congressman Y, with a 0.2 ideology, serves in a heavily conservative district where the median voter is a 0.6. In the last several elections, his margin of victory has shrunk substantially. How would Congressman Y act in order to reverse this trend? Contrary to the original hypothesis, Congressman Y would become *increasingly* conservative to regain the votes he had lost. Although this instance would, in fact, support the theory that is being tested, its occurrence within the data set would skew the results of a correlation study. Using proper control factors, discussed in the forthcoming section on independent variables, allows the regression analysis to avoid the data from working against itself.

## **B. DEPENDENT VARIABLE**

Ideology will be the main dependent variable for this study. Poole and Rosenthal (2005) will serve as the data source for defining ideology, and it is important to discuss the exact parameters of Poole and Rosenthal's definition of "ideology". The data set they use ranks each representative throughout the history of Congress on a scale from -1 to 1, and this study has cross examined this variable against several others.

Studies by both David Mayhew (1974, 1975) and Morris Fiorina (1982) have discussed the importance of voting ideology and its relation to congressional success. Mayhew has theorized that the primary goal of congressional work is reelection, and such a theory could be supported through the results of this study. Ideology is a strong, unbiased baseline to study congressional behavior. As a measure of congressional

actions, ideology will be calculated against a variety of variables, most notably election returns, to see how ideology varies in response to changes in electoral security.

Why exactly is ideology a strong measure to compare with electoral results? Ideology is measured based on the actual voting behavior of all House members throughout history. As such, there is no selection bias or issues of over-selection or under-selection of certain groups; every congressional member is selected. However, it must be noted that some election data was removed before the regression data was compiled, and this will be discussed shortly.

However, because this study intends to demonstrate dynamic ideological shifts occurring by members pressured by reelection, the W-NOMINATE (which will be referred to as WNOM through this paper) and DW-Nominate scores provided by Poole and Rosenthal will not suffice. The DW-Nominate scores themselves create a “best line” scenario within the WNOM data points. The DW- Nominate line creates a trend line over the career of each congressman. Because the effectiveness of this study depends on the dynamic changes between each Congress, an average line will not effectively measure ideological shift. This is shown below.

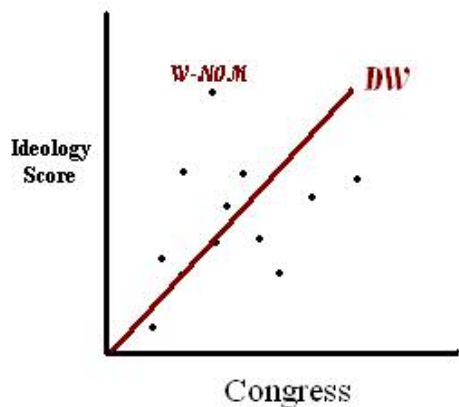


Table 1.

Thus, several derivative measures were calculated using this data to resolve this issue. Poole and Rosenthal did not include this study's main complex variable within their original discussion and ideology data, however Keith Poole (2005) discusses the efficacy and theory behind the variable constructed for this study's data in his most recent book.

According to Poole, the WNOM scores essentially serve as a "static" version of the D-Nominate scores released by Poole and Rosenthal (Poole, 1997, 249). The scores correspond to individual ideology scores, by Congress, for a given representative. For instance, Table 2 below shows Congressman Christopher Shays (R-CT) and his individual WNOM Scores:

| <b>Congress</b> | <b>WNOM</b> |
|-----------------|-------------|
| 100             | 0.066       |
| 101             | 0.108       |
| 102             | 0.123       |
| 103             | 0.120       |
| 104             | 0.149       |
| 105             | 0.131       |
| 106             | 0.216       |
| 107             | 0.211       |

Table 2.

These WNOM values can be analyzed against electoral margins to see if there are any correlations between high WNOM values and high electoral margins. This measure would simply be the WNOM value at point (*t*). As will be discussed shortly, although this is an effective way to measure ideological change, it not the soundest model. In the previous example, Mr. Shays' congressional record shows a trend of becoming more conservative with increasing seniority, yet the unique changes within the trend will indicate whether individual elections are affecting his decision-making. The change in

DW Ideology for Representative Shays, as indicated by the best line depicted in Table 1, would be an approximate conservative shift of 0.012 for each Congress he has served.

Although it seems useful to use Poole's WNOM to decipher the change in ideology across congressional terms, using this variable would present a methodological problem. Poole's WNOM variable simply uses WNOM score for each congressman in a given Congress, creating a value to correlate with other variables, in this case, electoral margins.

Poole touched on this topic in a 1993 study where he subtracted WNOM at (t-1) from WNOM (t) to find the difference between two Congresses. Yet, the straight WNOM scores present a problem with this process. This study intends to isolate electoral stress as the cause for congressional ideological moderation. Many studies, including the seniority measure of this study, have indicated that there is a correlation between seniority and ideology. While some studies (Strattman, 2000; Elling, 1982) have suggested a negative correlation between seniority and ideological polarization, there are others that have suggested the opposite result. However, it seems certain that career trends in ideology do exist for many congressional leaders, whether positive or negative, and must be dealt with to isolate the remainder of unexplained ideological change.

Therefore, to remove career trend data from the explanatory variable, these data must be subtracted from the WNOM margins between each Congress. Poole and Romer's study in 1993 found no connection between electoral margins and ideology, however there were several problems with their study. First, Poole did not subtract this trend data, which he acknowledges in his most recent writing (2005). According to Poole, the DW trend line should be subtracted because it enables us "to compute a shift distance for

every legislator between Congresses, controlling for the linear time trend” (Poole, 2004, 173). Thus, this study employs Poole’s most updated theoretical process by subtracting the DW trend line from the change in WNOM, effectively leaving the remaining ideological change possibly explained by electoral pressure, as this study suggests. Throughout this paper, this will be referred to as either the “complex” model, or as the distance between the change in WNOM minus the change in DW (DCWDDW). This is shown for Congressman Shays in Table 3:

| <b>Congress</b> | <b>WNOM</b> | <b>Change WNOM</b> | <b>DW-NOMINATE</b> | <b>Change DW_Ideology</b> | <b>DCWDDW</b> |
|-----------------|-------------|--------------------|--------------------|---------------------------|---------------|
| 100             | 0.066       | ---                | 0.078              | ---                       | ---           |
| 101             | 0.108       | 0.042              | 0.090              | 0.017                     | 0.025         |
| 102             | 0.123       | 0.015              | 0.102              | 0.017                     | -0.002        |
| 103             | 0.120       | -0.003             | 0.115              | 0.017                     | -0.020        |
| 104             | 0.149       | 0.029              | 0.127              | 0.018                     | 0.011         |
| 105             | 0.131       | -0.018             | 0.139              | 0.017                     | -0.035        |
| 106             | 0.216       | 0.085              | 0.151              | 0.017                     | 0.068         |
| 107             | 0.211       | -0.005             | 0.164              | 0.017                     | -0.022        |

Table 3.

Although the remaining margin values become very small in many cases, this is a critical process of the study.

Nevertheless, the DCWDDW process is not the final step in transforming the central dependent variable of the “Complex Model” of this study. To run the data set together, the WNOM scores must be put into partisan form. In effect, the -1 to 1 scale must be transformed into a positive scale to keep Democratic and Republican data from moving in opposite directions. Thus, the main dependent variable for the Complex Model becomes partisan distance (PDCWDDW). To construct this variable, the partisan measure is the same as the main distance measure for Republicans, but for Democrats,

ideology is multiplied by -1. All third party representatives are coded as missing. Many studies focus on incumbents versus challengers or Republicans versus Democrats, however, the crux of this study is the electoral security of each representative. Shifting the scale positive for both parties enables the regression analyses to be run on the full data set, and subsequently to show simultaneous shifts between ideological extremity and moderation for both Republicans and Democrats.

### **C. INDEPENDENT VARIABLES**

To study the effect of electoral vote margins upon ideology, it is important to use a variety of other variables that have been studied by other scholars. Although many of these variables will be important in discussing the exact effects of congressional ideological shifts and electoral margins, they will mostly serve as control variables. By using control variables in conjunction with the main independent variable, the results of the study will hold more weight. Moreover, additional variables enable the data to be compared and contrasted with previous scholarly studies on congressional behavior.

The main independent variable for this study will be vote margins in congressional elections. Primary documentation of election results is critical in developing a statistical analysis on electoral pressure. These results, for the House of Representatives, were distributed by Gary King (1994), through the Inter-university Consortium for Political and Social Research, and also, through the Office of the Clerk (Election Statistics, 2005). Yet, to wholly examine voting behavior, there are a number of

extremely useful formats for election results. First, for congressional elections, a vote count “by-district” would be necessary to compose the election return margins that will be cross-examined against the dependent variable of congressional voting behavior. Election totals consist of vote totals, by district, for the Republican and Democratic candidate in each election.

Because of the official nature of such data, they are quite reliable. Election returns from earlier congresses often provided conflicting and erroneous data, which is why they are omitted. Gary King’s election data, which begin in the 56<sup>th</sup> Congress, proved to be extremely reliable through cross-checking the numbers with those of the US Clerk, and so the 56<sup>th</sup> Congress is where the regression data begin for this study. Logically, electoral vote margins serve as an important indicator of constituent ideology and approval, two factors critical to incumbent representatives in their pursuit of reelection.

Methodologically, several by-products of this basic election data create the main independent variable for this study. First, Winning Percent Margin is a critical variable, and it is defined as the percentage difference in votes between the winner and loser of each election. This variable is used for the Simple Model, which contrasts Winning Percent Margin against WNOM. Winning percent margin allows a regression to measure whether elevated winning percentages correlate with ideological extremity.

Meanwhile, Change in Winning Percent Margin serves as the main independent variable in the “Complex” Model. How has the electoral security of each representative increased or decreased since the previous election? Effectively, this variable measures whether each election for Congressman X is becoming more or less difficult. Change in Winning Percent is constructed by taking the difference between the Winning Percent



Margin at ( $t$ ) and the Winning Percent Margin at ( $t-1$ ). It is then juxtaposed against PDCWDDW to illuminate shifts within already heightened electoral margins or ideological extremity. For example, while Winning Percent Margin might show that a 60% margin of victory will correlate with a 0.5 ideology, using Change in Winning Percent as the independent variable enables the regression to note any corresponding ideological shifts when that margin increases to 65% in the following term.

As previously mentioned, the data set originally included all House Members and terms between the 56<sup>th</sup> and 107<sup>th</sup> Congresses, however several omissions must be made. In unique circumstances, election data was coded as -9 within Gary King's data set. Circumstances where this occurred include elections involving independent parties, and other irregularities. In most instances, these data were removed. Also, there were instances where Republican or Democratic candidates ran completely unopposed, without election. King coded such data as -1, and this occurred most prevalently in Louisiana, Florida, and several other Southern states. These data were also removed in most instances. The quantity of figures used for each regression is recorded within the tables located in the upcoming section of results.

Additionally, region of the country is an important variable in studying congressional ideology. The nation will be coded by region and by state. James Campbell (1992) has done a great deal of research on state and regional voting patterns, and has actually devised an equation that uses several variables to predict how a state will vote in presidential elections. It is expected that regions that are generally more conservative or liberal will be represented by congressmen whose ideologies are particularly polarized. The South and West will be notably conservative, while the Northeast will be notably

liberal. Most important to these analyses will be the Northeast and West, as the South displays numerous electoral anomalies and realignment that may affect its role as a control (Jacobson, 2004, 237).

Party will also serve as a variable, but in combination with region. The two interact together, and are used separately in discussing whether certain regions are represented by more ideologically polarized representatives. Party is coded as 0 for Democratic House members and 1 for Republican House members. Congressional voting behavior is influenced by party pressure, and party affiliation also works strongly with regional politics. Regions that are generally more conservative or liberal will exhibit strong party affiliation, and therefore, display more extreme viewpoints on issues.

Further, tenure in office is measured within this study in absolute terms, by the number of terms a congressman has served in office. Thomas Stratman (2000) has approached congressional behavior from the angle of tenure. According to Stratman's research, junior congressmen are more likely to vote with their party line, and party voting decreases with seniority. Also, congressmen who have served longer in office will exhibit less ideological shift than their shorter-tenured colleagues. Seniority plays a crucial role, as approximately 80% of the congressional data points in the study involve congressmen who have served two or more terms. It is expected that congressmen who have served longer in office will hold more extreme viewpoints.

Similar to tenure, a critical variable for this study is whether the winning candidate in a given race was an incumbent. For this study, incumbents were coded as 1, while all challengers, open seat races, multiple incumbent races, and other possibilities are coded as 0. Incumbency plays a similar role to seniority in this study, as incumbency

helps identify trends of tenured congressmen. Yet, incumbency is also important because it identifies all unique races that do not feature an incumbent versus a challenger, which occurs about 22% of the time between 1898 and 2002 (Arnold, 1990, 49-51).

Another variable of study is presidential election results, by state. A count of presidential election results “by-district” would be the most effective independent variable to juxtapose against electoral and congressional voting results. Will a president’s level of popularity within a given representative’s district create any voting variation? However, these data were unattainable, leaving statewide data as the only alternative. Presidential vote margins and data are calculated through the same procedures as congressional election results (absolute difference and percentage difference). There are two variables which are used in the regression models as controls. The first variable used codes whether the winning president is of each congressman’s party, coded as “0” if different, and “1” if the same. Second, the statewide percentage margin of the presidential candidate of a congressman’s party is used within the regression models. Scholars suggest that presidential elections have a moderate effect on congressional elections, and this variable will be studied as it correlates with success of same party candidates. This variable is significant, as previous research has suggested that presidential success has a negative effect on the success of opposing party congressional candidates.

Moreover, presidential results serve as a safeguard against ideological regions that have the potential to skew the congressional data. In regions where representatives are more moderate than the median voter, vanishing congressional electoral margins would lead to increased ideological polarity, as an attempt to corral a larger cross-section of supporters. Unfortunately, presidential results by district are unavailable to use for this

purpose, which leaves statewide results. Even so, presidential results within the data set help to identify and control for such highly polarized regions.

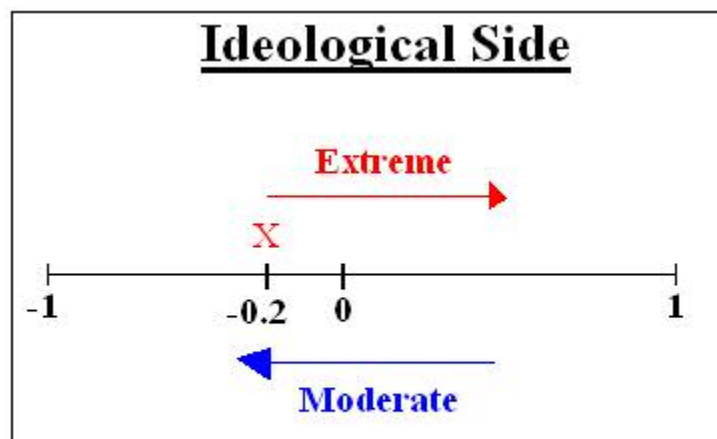
Additionally, Thorson and Stambough (1995) have studied the effects of presidential coattails, and believe it to be an important factor of electoral margins. Some suggest that coattails have an effect on close congressional races. Buck (1972) asserts that congressmen will actually shift their policy support in favor of the president when the president commands a substantial margin of victory in their districts. Consequently, there should be a positive relationship between presidential success in a district and the success of congressional candidates of the same party in that district. This second dimension of Presidential success adds to the effectiveness of presidential election results as a control within the regression analysis.

Institutional structures of divided government and divided Congress will be studied to see how each affects congressional voting behavior. Divided government occurs when the executive branch is controlled by a different party than the majority party in Congress. Divided Congress occurs when the House and Senate are each controlled by a different party. John Coleman (1999) has argued that divided government leads to legislative moderation, but lowers productivity.

For this study, several controls related to divided or unified government and Congress are used. First, the variable Divided Government is coded as 0 in the case of unified government and is coded as 1 in the case of divided government. Second, the variable Unified Congress is coded as 0 during unified Congress and is coded as 1 when Congress is divided. Third, the percentage of seats in the entire house that a congressman's party holds will serve as another control factor for the House. Moreover,

the percentage of seats in the senate that a representative's party holds is a control factor. Government and Congressional institutional controls are effective within regression models to ensure that unique institutional factors are not skewing member ideological results.

Last, ideological side is an important variable for several of the regressions. For several of the regression models (which will be discussed in the methods section), ideological distance served as the main dependent variable of the model. Thus, ideological side is an important control variable, as it codes whether the member's ideological mean is less than or equal to zero (a liberal), or greater than zero (a conservative). There are House members whose ideological score sit on the opposite side of the spectrum from their party. In such cases, holding that representative's party as his main ideological classification could distort the data. For instance, if a Republican with a -0.2 rating moved to a 0.0 rating in the next congressional term, standard classification would categorize that Republican as becoming increasingly moderate, when, in actuality, he is becoming more conservative. Thus, ideological side keeps unique ideological cases from damaging the effectiveness of the model. This effect is shown in the representation below:



Essentially, what this diagram shows is that although Republican Congressman X may move toward 0, he is becoming more extreme. In itself, this idea is somewhat counterintuitive, yet it is important to understand. The assumption of this study is that Republicans and Democrats are ideologically extreme, and correspond to the ideology of their own party. Democrats are close to -1, while Republicans are close to 1. Thus, for a Republican, any move in the direction of -1 is ideological moderation, while any move toward 1 is becoming more ideologically extreme. For a Democrat, the exact opposite is true. Essentially, the actual starting position of representative along the spectrum does not matter; it is the direction of the shift that is significant.

#### **D. METHODOLOGY**

The working theory of this study is that legislators in Congress are inherently ideologically extreme. To study such a theory, a variety of methods can be used. For this particular research project, the design will focus on linear regression analysis and correlation studies of the previously discussed variables. Most importantly, primary documentation of election results is critical in developing a statistical analysis on electoral pressure.

There are two main types of design that can be used for the regression analysis within this study; pooled cross-sectional regression, and cross-sectional time-series regression. A pooled cross-sectional analysis involves individual members stacked within individual groups. For this particular study, congressmen are not uniform across each Congress, making this method somewhat unusable. Although pooled regression can be

used for basic correlations of election and ideological data, a more versatile regression model is necessary for this analysis. Instead, this study uses a cross-sectional time-series model. Because members overlap across different sections of the data set, the regression must be put together as a time-series.

Additionally, a cross-sectional time-series regression with lags is used for this data set. Because each Congress is essentially its own static entity, it makes sense to use this statistical method. Lagged regression controls for first-order autocorrelation, as it recognizes that while the data is connected and a trend exists within the data set, different Congresses may act as distinct groups in certain situations.

The actual regression data will be run using the statistical program STATA. There are several measures within the regression data which are used to decipher the validity of the regression measures. The first important measure is the overall R-squared measure for each run of the data set. The R-squared measure indicates how much variance within the data can be explained by the main variable. For most analyses discussed in the forthcoming section, the R-squared measurement is above 0.1.

Moreover, the regression data include a measure that shows the confidence that a given probability percentage of the data falls within two standard deviations. For most studies, a 95% confidence interval is the general cutoff. Within such a deviation spread, the  $P > |z|$  measure should be below 0.05 to provide significant results. However, the data for this study does not lie within a standard deviation spread. The theory itself leads to a suggestion that the data falls in a directional pattern. Because of the directional nature of this data set, an acceptable probability interval would include 90% of the data. Similarly, the  $P > |z|$  measure must be below 0.1 for values to have significance.

# III. Results

## A. FULL DATA SET

The function of this study is to show that a relationship exists between electoral margins and House member ideological polarity. Through several models of regression analysis, a relationship is found between these two variables. This study uses two particular models which have been discussed in the previous section. The first model, termed the Simple Model, involves the WNOM variable and Winning Percent Margins for members of the House. Essentially, this model measures whether representatives in the House become more or less extreme over time with increasing electoral margins.

One of the main benefits of this study is that it involves mostly complete data over the last 106 years of congressional history. As such, the most important regression was run using the full data set. As can be seen in Table 4 at the back of this paper, variable of interest, Winning Percent Margin, was statistically insignificant in the Simple Model. This occurs for several possible reasons. First, this model uses electoral margins rather than change in margins. Second, the Simple Model correlates whether a positive relationship exists between high margins and extreme ideology by comparing the data with dummy variables. While this method is not incorrect, it may be too simple for such an expansive data set, as individual congresses are not necessarily comparable.

Thus, the Complex Model, using PDCWDDW, is the most effective model. Poole and Romer (1993) used WNOM at time ( $t$ ) minus WNOM at time ( $t-1$ ) for their original



study. While Poole and Romer's independent variable of electoral margins obtained insignificant results, additional characteristics of their study should be noted. As previously mentioned, Poole (2005) discussed several shortcomings of his model. Poole advocated subtracting the DW line from the WNOM data for future regressions, which has been done in the Complex Model for this study. Additionally, the variable within this study has been transformed into a positive scale using the partisan measure. Consequently, the PDCWDDW measure is an improved version of Poole's most recent research.

The Complex Model (Table 4) indicates a positive relationship between Change in Winning Percent and PDCWDDW. The  $P > |z|$  measure of 0.077 and R-squared of 0.1379 indicate that the positive coefficient is statistically significant. Because the dependent variable measures partisan ideological change, this value essentially means that as representatives increase their winning margins, their ideology becomes more extreme.

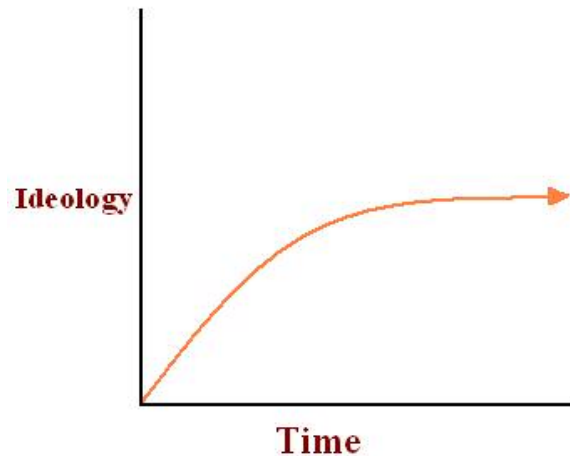
Yet, Poole and Romer (1993) still looms when reviewing this result. While several of the reasons for their insignificant measure of ideology and electoral margins have been listed, there is one additional reason. Poole and Romer's data set spanned the 80<sup>th</sup> to 97<sup>th</sup> Congresses. Of course, the choice of using these particular Congresses was not made because of the electoral margins control variable within their study. Thus, there are two potentially critical problems with this choice. First, the data set for their study is somewhat small, in contrast with the more extensive analysis provided in this study (56<sup>th</sup> Congress to the 107<sup>th</sup> Congress). Using a larger set of data helps to control for short-term confounding variables. Secondly, scholars have noted the rise of strong parties during the

early 1980s, which corresponds with the 97<sup>th</sup> Congress. Strong party structure has a considerable impact on ideological shirking, and will be discussed later in this section. In essence, Poole and Romer's study may lack the most vital years of Congressional ideological polarization, making the data of this study's Complex Model a noteworthy upgrade.

Upon review of the model, the results of the remaining variables are consistent with previous scholarly analyses. The Seniority variable is significant, and indicates a positive correlation with changing electoral margins. Many previous studies on congressional tenure have noted this relationship. Meanwhile, the President of Your Party variable is significant and positive. This relationship effectively represents that the party in control is slightly more extreme than the party not in power. This may indicate that members of the majority party have enough access to power that they are better able to take stronger ideological positions. Congressmen within the minority party may hold moderate partisan positions to counterbalance a lack of access to the presidency.

Similarly, during times of divided Congress and divided government, the Complex Model provides significant results that representatives become increasingly ideological. The correlations provided by the model are positive, with fairly significant 90% confidence values. These results may indicate that member ideological polarity is more common during divided government. It is possible that during periods of divided government, a stronger adversarial system develops within the House and Senate. Essentially, both vertical and horizontal divisions in Congress correlate with an increasing polarization of Congress.

Lastly, the PDCWDDW variable with lags provides a negative correlation with electoral margin shifts. Effectively, this means that when a representative's ideology becomes more extreme, he is pressured to bring his position back toward the middle, leading to a general decrease in the rate of change in ideology during the following term. At the same time, the lagged term for the Simple Model was significant and positive. While these two models would seem on first glance to contradict each other, in fact they do not. The dynamic of this relationship is shown in the illustration below:



The above illustration represents a general conclusion that might be inferred from both the Simple and the Complex Model. The significant and positive lagged dependent term in the Simple Model suggests that there is a positive trend of a member's ideology over time. Effectively, representatives tend to become more ideological the longer that they are in Congress. The significant but negative lagged dependent term in the Complex Model suggests that the rate of the ideological change over time decreases. In other words, members may asymptotically reach close to an equilibrium ideology.

Although the Simple Model may not work well on Winning Percent Margins and ideology, much of the remainder of the data prove to be quite significant as controls.

Because the Simple Model uses the same data set as the Complex Model, the results shown in Table 4 depict the veracity of the hypotheses. Variables for the Northeast, West, Party, and Seniority were all highly significant and positively correlated with ideology. For region, the regression results indicate that House members from the Northeast and West are generally more ideologically extreme than members from the South. This is a logical result, as these regions are accepted by scholars as being ideologically extreme and more uniform than the South.

## **B. FULL DATA SET, BY PARTY**

Breaking down the data by party provides some of the most intriguing results, as shown in Table 5. The Democratic Party seems to follow the theory within this study much more closely than the Republican Party. For Democrats, using the Simple Model, House winning percent is significant and positive, with an impressive R-squared value of 0.8161. Over time, Democrats solidly increase margins and ideology. The Complex Model echoes the results of the Simple Model, providing a significant and positive relationship with an R-squared value of 0.1334. Accordingly, Democratic representatives in the House may be particularly constrained by electoral factors.

Meanwhile, according to regression analysis of the data, the same cannot be said about Republicans. Winning Percent and Change in Winning Percent led to insignificant results for both the Simple and Complex Models. Although this study presents no exact explanation for this insignificance within the Republican data, it is likely that some

intrinsic dissimilarity may exist between the party structures of the Democratic and Republican parties. To study this relationship, it would be necessary to include additional measures of party strength, cohesion, and leadership to interpret variation of party line voting across each party.

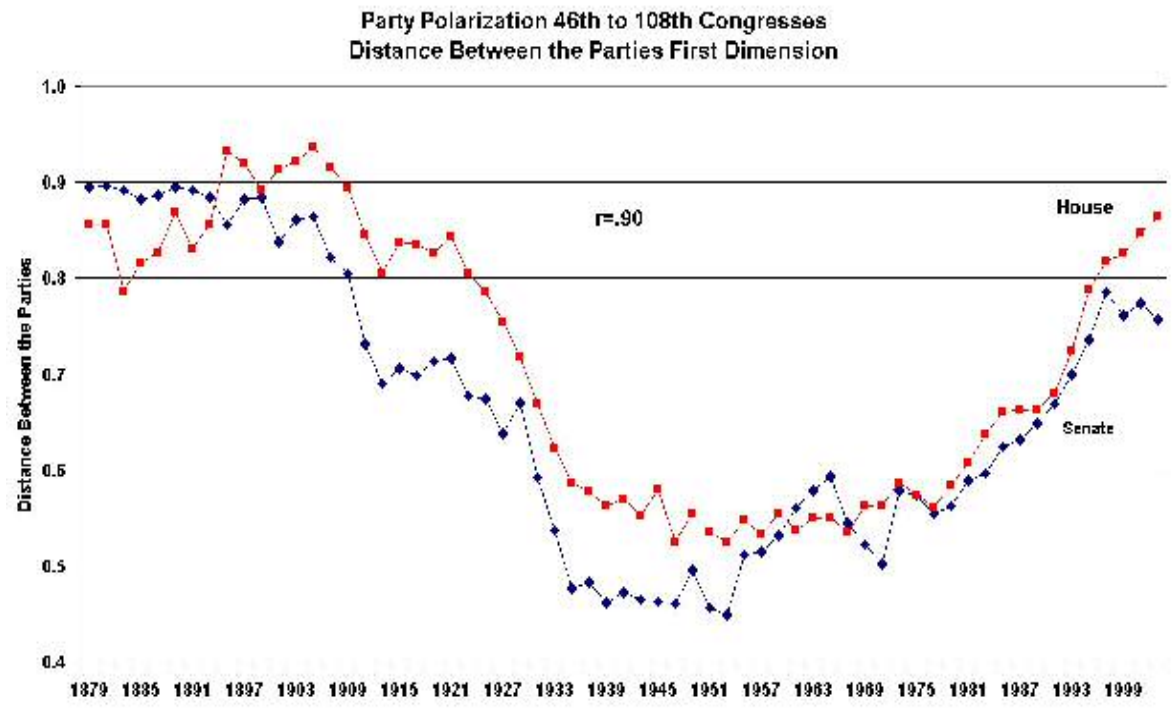
Nevertheless, both Democratic and Republican data provide several strong control measures to endorse these findings. While it would seem that perhaps the Republican data is incomplete, many of the other measures provide significant and expected results. For example, in Table 5, it can be seen that Republicans have a significant and negative correlation in the Northeast. This means that Republicans in the Northeast trend more moderate over time, which, in light of the increasing liberalization of the Northeast, seems as expected. Similarly, the lagged PCDWDDW variable works in the same directions for the Simple and Complex Models for both Republicans and Democrats, helping to indicate that there is not a specific problem with the Republican data. The substantiation of this Republican data leads to questions concerning how Republicans and Democrats handle changing electoral margins differently.

Yet, what are the implications of this difference? Several possibilities can be conjectured to explain this discrepancy. First, it is possible that Democrats are simply better at being responsive to the electorate. When electoral margins widen, they predictably and uniformly move toward their own ideologically polar stances. Effectively, Democrats are particularly exhibitivive of the popular model of representation. Electoral slack allows Democrats to polarize, but otherwise, Democrats moderate their stances to maintain office and mirror the ideology of their constituency.

Meanwhile, Republicans seem to ignore cues from the constituency. Republicans do not shift their ideology congruent to shifts in electoral margins. What can explain this facet of Republican representation? It is possible that Republicans exhibit the trustee model of representation. In essence, Republicans believe that the constituency entrusts in them the responsibility to vote their conscience. Regardless of shrinking electoral margins, Republicans do not shift their ideology. If this is the case, Republicans can be seen as inflexible in their ideological positions, unwilling to stay ideologically representative of their shifting districts.

### **C. PARTIAL DATA SET, BY WEAK/STRONG PARTIES**

In the prior discussion concerning Poole and Romer (1993), it is mentioned that their study did not include data from the period of strong parties. This period includes the 97<sup>th</sup> Congress up through present day Congress, or the 107<sup>th</sup> for this study. Scholars have identified a strong rise in party cohesion, party leadership, and ideological separation during this period (Poole, 1997; Abramowitz, 2001). A representation of party polarization from Keith Poole's website is shown below:



(Graph courtesy of Keith Poole, [http://voteview.com/Polarized\\_America.htm](http://voteview.com/Polarized_America.htm))

During strong party periods, as witnessed in the last twenty-five years, rising electoral margins more strongly correlate with polarized ideology. The basic theory behind this study is that congressmen are inherently ideologically extreme, and it is elections that reel members back into the moderate viewpoints shared by mainstream America. In essence, party polarization helps to shield incumbent congressmen. At the same time, the electorate itself becomes polarized, leaving Representatives adequately able to manifest their ideological polarity.

The aforementioned theoretical basis for ideological extremity during strong party periods is corroborated within this study by the Complex Model. In fact, while the Complex Model is statistically demanding, the data for the strong parties regression provides the strongest coefficient and most significant measure ( $P > |z| = 0.02$ ) of all

PDCWDDW model regressions up to this point. Ideological shirking by members is thus affected by the political atmosphere within which it occurs.

As expected, periods of weak parties provide insignificant results of ideological shift by Representatives. When party structure is weak, incumbents are not protected by a strong party structure and ideological divide. The electorate becomes increasingly moderate, which serves to reel Congressman further toward the middle, in spite of rising electoral returns. Party structure in Congress may be a critical component to member ideological shirking.

#### **D. STRONG PARTIES: A CLOSER LOOK**

Because Republican and Democratic data varied immensely for the full data set, it would be expected that a congruent variation will occur within the partial data set. The Democratic data for the full data set was particularly effective in showcasing the relationship advocated by this study, and subsequently, the Democratic data for strong parties should be increasingly effective. The results of this regression reverberate this expectation (Table 7), with the coefficient for the Democratic split of the strong party data at 0.012, the highest overall significant value for PDCWDDW, and with a  $P > |z|$  of only 0.016. Basically, when party structure and polarization is strong, as is the case in today's political arena, Democrats are particularly restrained by electoral margins.

Similar to the results of the full dataset, Republican measures are insignificant for strong party regressions (Table 7). Because of the strength of ideological shirking within



strong parties, it is surprising that Republican values remain insignificant for both the Simple and Complex Models. The institutional factors that create this inconsistency between Republicans and Democrats clearly remains steadily in existence through periods of both weak and strong parties.

## IV. FINAL THOUGHTS

Elected officials in the United States maintain a unique and shifting relationship with their constituents, creating interplay between a representative's ideological extremity and his desires to maintain political office. As election margins grow and the offices of congressmen become safe, they more readily exhibit their intrinsic ideological polarity. This study answers several questions about elections and ideology, while creating several others. Is representative ideological moderation bad for democracy, or is it a useful mechanism to counterbalance innate political extremity within our elected officials? While an answer to this question is not resolved by this study, it is a fascinating matter that must be decided by the electorate.

Additionally, the innate differences between the Republican and Democratic parties shown within this study are an interesting topic of discussion. While Democrats and Republicans are typically thought to only differ in their ideological stances, there actually appears to be a more dynamic relationship between the two parties. Why do Republicans seemingly ignore shifts in electoral success when formulating their ideological positions? Why are Democrats more willing to ideologically polarize when gauging an electoral vote of confidence from their constituents? Effectively, the underlying perception of representation within each party may be unique. While Democrats are more responsive to electoral cues by the electorate, Republicans are more static, taking a trustee approach to representation. Recognizing such an intrinsic

difference between the Democratic and Republican parties is critical in understanding party and member behavior.

Nevertheless, what is the utilitarian usefulness for society to understand representative ideological moderation? What is the value of this study for the average voter? While on first glance it may only seem to provide interesting reading material for academics and those captivated by politics, the correlation between election margins and ideology within this study is, in fact, vital to the electorate. Foremost, by understanding how election results affect congressional representation, the electorate can determine the effectiveness of political activism. While a majority of representatives occupy safe seats in the House, this study indicates that reducing an incumbent victor's electoral margins can help to moderate his policies in future Congresses. Cues by the electorate play a larger role within the voting decisions of incumbent Representatives than is assumed by the average American. This study itself serves as a potent endorsement for increased voter participation, even in districts where challengers lack the resources and support to closely challenge an incumbent Representative.









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