University of Connecticut
DigitalCommons@UConn

Honors Scholar Theses | Honors Scholar Program

Spring 5-10-2009

Splitsville: A Study of Income Inequality and Political Polarization in the United States House of Representatives

Robert O'Brien
University of Connecticut - Storrs, robertobrien0@gmail.com

Follow this and additional works at: http://digitalcommons.uconn.edu/srhonors_theses

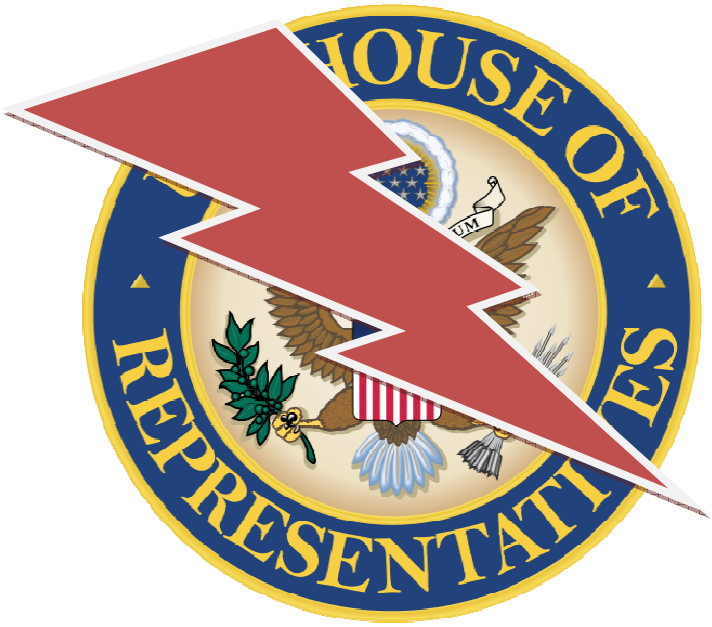
Part of the American Politics Commons

Recommended Citation
O'Brien, Robert, "Splitsville: A Study of Income Inequality and Political Polarization in the United States House of Representatives" (2009). *Honors Scholar Theses.* Paper 84.
http://digitalcommons.uconn.edu/srhonors_theses/84

This Article is brought to you for free and open access by the Honors Scholar Program at DigitalCommons@UConn. It has been accepted for inclusion in Honors Scholar Theses by an authorized administrator of DigitalCommons@UConn. For more information, please contact digitalcommons@uconn.edu.

Splitsville

A Study of Income Inequality and Political Polarization in the United States House of Representatives



By
Robert L. O'Brien
Senior Honors Thesis
May 1, 2009
University of Connecticut
Advisor: Dr. Jeffrey W. Ladewig

Table of Contents

Part I…….5

Literature Review……....5

Preliminary Assessment and Proof of Concept…….13

Research Design……16

Data Issues…….24

Part II……..28

Data Results……...29

Errors and Suggestions……..32

Analysis of Results……35

Conclusion…….39

Bibliography……44

Figures/Charts

Figure 1……14

Figure 2……15

Figure 3……23

Figure 4……26

Figure 5……27

Chart 1……..29

Chart 2……..31

In the United States today, there is an increasing disconnect emerging in two key facets of American life. The widening cleavages are growing at an alarming rate and as time goes by, it is beginning to appear that these splits may be connected in a way that does not readily present itself but nevertheless is there. As time goes on, the divisions in these important features of our daily life grows larger and larger, and as they grower deeper, it is increasingly apparent that there will be no quick fix to a worsening, very complicated problem.

The first of these separations is a part of the everyday lives of each and every one of us, and that has to do with our income. Specifically, the gap between rich and poor has grown exponentially in the last few decades. This inequality is only growing more in recent years and, while it is worse in some places than others, income inequality is definitely a nationwide problem that is degrading with time.

Another growing split in the United States is in fact a facet of life that is not as commonplace in everyday American life, but nonetheless affects each one of us very much so. On Capitol Hill, the Democrats and the Republicans are diverging from the center, and each other, in a dramatic way that has worsened greatly since the split between the parties reached a low point in the 1950's and 1960's. Over the past few decades there has been a disappearance of the members of Congress who could call themselves either "conservative Democrats" or "liberal Republicans." Such members simply no longer call the Capitol building home. Even worse, the moderates in each party have also been disappearing. Indeed, today the word "liberal" is as synonymous with "Democrat" as the word "conservative" is with "Republican."

These separations, in and of themselves, are troublesome enough. But the point of the paper that will follow is that there is a relationship between these two effects that is undeniable and is wreaking a devastating overall effect on the country. As I will later explain, I believe that

income inequality causes a voter to think differently about their choice for representation in Congress and that this different representation creates a polarized, highly partisan Congress. Specifically, I will look at the House of Representatives and the inequality in the individual congressional districts. In these situations, I believe I will find that where great inequality exists, that district is represented in a very partisan, very polarizing fashion. This introduces my research question: What is the relationship between income inequality and political polarization?

Experimentation has been done before regarding both inequality and polarization. My chief influences in the course of this study, as I will mention in my literature review, have been the works or Nolan McCarty, Keith Poole, and Howard Rosenthal as well as Andrew Gelman and Jeffrey Stonecash. This type of research has guided me along my thinking, but this research has never been done on the level or with the specificity with which I will conduct this experiment. I believe that studying polarization is essential to understanding the nature of American politics today and perhaps in working towards a remedy for this destructive brand of modern politics in Washington that tends to result in partisan fights over issues that are less essential to the health and welfare of the country than other things that a less partisan Congress could handle.

In order to understand modern polarization, I think a study must be done that tries to identify one of the leading causes of hyper-partisanship. I believe a study of income inequality is in order as inequality, as I will show later, has risen alongside partisanship, especially in recent years. I will argue that inequality is a key factor in determining the level of partisanship with which the representative of a district conducts him or herself.

What I will find is not the relationship between general polarization and inequality that I originally believed to exist. Rather there is something deeper going on in the relationship

between an unequal district and the Member that is polarized as a result. I will find, in a second test, that there is a liberalizing effect on a Representative that can be tied to income inequality. This is an unanticipated result, but it does explain why polarization should occur at the district level when whole parties should not shift based on district phenomena. Indeed, the information this study begins to reveal is vast, but it is only the first scratch on a broad surface.

Part I

Literature Review

Various works have influenced my thinking in this process. Contained in this section is the summary and evaluation of that work. I believe a variety of thought processes and differing theories on the topic have led me to my ultimate hypothesis after showing me the way through this debate and allowing me to see exactly where research has been done and where I must take my research to present the fresh and, I believe, very necessary new approach to examining inequality and its link to polarization.

There is an extensive scholarly tradition devoted to the study of polarization, especially in the House of Representatives. In almost every scientific probe of the topic there is some attempt to define the polarization and estimate the causes for it. Also in every study of polarization is the prevailing, widely accepted assumption that polarization has skyrocketed in recent years and I also make that assumption. Fiorina (2002) argues that something must be happening in the electorate, that some overriding cause for the sudden and dramatic jump in the last thirty to forty years in the level of political polarization. As I will later explain in my research design, I will measure polarization in terms of DW-NOMINATE scores, developed by Poole and Rosenthal in 1997. Graphically, there is no doubt that polarization has risen in the last few decades. Fiorina acknowledges this, however, as do most scholars in the field. What Fiorina is most interested in

is beginning a more comprehensive search for the cause(s) of polarization in the Congress. His call is something past scholars have attempted to answer and is what I will attempt to further answer here.

Parties have changed and reorganized themselves since the 1950's and 1960's when partisanship was at historically low levels. The parties have become something of interest aggregators. In other words, the various issues before the nation can be divided into two camps and politicians and their constituents can sort themselves neatly into these camps according to their interests. Rohde (1991) originated this theory, popularly called the Conditional Party Government (CPG) theory that depends primarily upon the homogeneity of the parties. Rohde also attributes the reforms of the House, such as moving away from strict use of the seniority system and recording more votes to name a few, to strengthening homogeneity of views in the parties.

Aldrich (1995) goes further in his construction of the unified party. Pressing the parties as a team used by its members to win reelection, Aldrich continues the perception of the party as interest aggregator that conglomerates the varied policy positions of its membership into clear, definable stances that neatly sort the parties into clear ideological categories. Not only do parties seek to aggregate interests, they want to do so. Doing so clearly puts them into an ideological construct that is more easily identified by the voters and is easier to side with on that holiest of days to parties: Election Day. Ladewig (2005) moves the CPG and aggregating theories forward by focusing on the constituencies. His experiment focuses on the voters' positions towards trade liberalization insofar as which groups of people, as they are situated along the liberal-to-conservative spectrum, should support opening up freer trade policies. This kind of thinking is contingent upon the prevalence of the CPG theory in modern government, and as Ladewig finds,

the theory is certainly in line with the current operations of the major American parties. The constituent interests, as Ladewig finds, can validate the existence of the CPG theory as the people sort themselves behind a party as Members of Congress have sorted themselves neatly into their party and its ideology. Thus, a new dynamic is presented: the voters.

The preferences and choices of the voters put Representatives in the House as well as in any other chamber or office that is up for election. But as the parties divide, we must recognize that incumbents more often than not reflect the beliefs and interests of their constituents. Necessarily, the people electing these polarized Congresspersons must be polarized. Therefore, it follows that something is driving the American people apart. Something is getting in our way, in the way of reaching out to each other and pulling ourselves closer across an ever-widening chasm. Rohde and Aldrich acknowledge the new, homogenous, clearly different parties. Ladewig points out the fact that voters must have some effect on this phenomenon. So what is causing these cleavages to form? In short, I believe it is income and income inequality.

It's an accepted scholarly notion that lower income voters in the United States are better economically represented by the policies of the Democratic party whereas higher income voters' interests are better reflected by the Republican party (Gelman, 2007). McCarty, Poole, and Rosenthal (2006) have pointed out very clearly, and in graphical form, that income inequality is rising in America and has been doing so dramatically for the last three decades. Correspondingly, at a shockingly parallel rate, polarization as measured by NOMINATE has risen dramatically in the last thirty years as well. There must be some correlation between the two given the accepted parallel rises in both inequality in polarization at roughly the same rate over roughly the same time. The question that remains concerns what the relationship is and

which way the effect is going. In short, is the relationship between inequality and polarization a cause-and-effect one and to what degree?

Following the traditional paradigm described above concerning which party voters should support depending on income levels is the focus of a study by Stonecash and Lindstrom (1999). As median income has increased over time, the study found, the number of seats held by Democrats has dropped off. Culminating in the 1994 midterm elections, the Republican party eventually overtook the Democrats and gained control of Congress in the early years of the Clinton administration, a position they held through the next five Congressional elections before surrendering their majorities in 2006. The focus has to be on the South, however. Since the southern realignment in the late 1970's and early 1980's (shown in McCarty, et al, and Stonecash), more seats have begun falling to the Republicans in the south. This is counter intuitive; however, as the south is a traditionally low income area and should, as they had for many years before realignment, support the Democrats. However, sweeping gains in the south and the lack of a countering overwhelming appeal of the Democrats in the north helped bring about the Republican revolution of 1994. It would seem, in the rich blue state north and the poor red state south, that income has lost its significance in swinging elections. Stonecash and Lindstrom dispute this, however, citing that another kind of income related effect could be swinging these elections. Re-enter Gelman's article.

Income related electoral behavior does not have to be attributed directly to income level. Gelman notes three states with disparate income levels, Mississippi, Ohio, and Connecticut, which are poor, moderate, and rich, respectively. This does fit into the accepted model of income levels accepted by McCarty, et al, and Stonecash and Lindstrom. What, then, is Gelman getting at? His study finds that poor states are more often than not red, as Mississippi is, whereas

rich states are blue, such as Connecticut. So, again, what is happening? What Gelman finds is that red states follow the traditional model of poor voters selecting Democrats while rich ones vote Republican. Rich states, on the other hand, do not follow the model as closely. This results in a rich state more likely than not voting for a Democratic candidate. What Gelman finds is not the income level that matters, it is the inequality.

In the poor, red states the difference between rich and poor is far more severe than in the richer blue states. This is not to say that inequality is not a serious problem in the blue states, it is however worse in the red ones. This accounts for red states swinging red in that the very rich vote according to the economic policies of the Republican party and either they are outnumbering the poor voters, the poor voters are not showing up at the polls, or the poor voters who lack the time and resources of rich voters, a la Downs (1957), have instead chosen to vote their values and have been unable to identify the economic policies of the party they vote for. Conversely, blue states are not as sharply unequal in income, enabling them to somewhat disregard the accepted model. The differential between rich and poor in the blue states definitely exists, and is large, but it is not as big a gap as in the red states. Thus, the very rich in blue states still vote along more practical economic lines, selecting Republicans. Yet the wealthier middle class in blue states tends to select Democrats, and since there are more of these voters in the blue states, the Democrats tend to take these states. Hence, Connecticut, the richest state in the Union, is a very reliable blue state, and Mississippi, one of the poorest, is a deep shade of red. Consequently, a middle of the road state such as Ohio is perennially up for grabs. This type of vote choice that people make leads to a new perspective from which to look at vote choice: economic voting.

Several issues and options come under the consideration of the voter when he or she is making a final choice in terms of who to cast a vote for. Values, personality, party, and any number of other variables may come into play in the mind of the voter. It is easy to see, especially now, that economic considerations may take precedence over any other in terms of selecting your candidate. When the economy is suffering it often becomes the most important issue of a campaign, as it is now in the 2008 presidential election. Recession, inflation, unemployment, and other economic disasters have cost men like Jimmy Carter and George H.W. Bush their presidencies in the last thirty years alone. As short as one year ago, it would have been highly unlikely that anything other than the Iraq War, terrorism, and the central tenets of the Bush Doctrine (preemption, unilateralism) would have been the legacy of George W. Bush's presidency. However, an economic meltdown may be the lasting memory of the past eight years if this condition persists. Such is the power of the economy to bring down presidencies and rewrite history. Thus, all due consideration must be given to examining economic evaluations in electoral politics.

Brooks and Brady (1999) have found that income levels have risen significantly over the last fifty years dating back to 1952. While their study is primarily concerned with presidential elections, they present valuable data that reinforces not only the prevalence of economic considerations but also the magnitude of that impact. The 1950's and 1960's were definitely low points in polarization supported by the unity in government in fighting the Cold War and the postwar economic boom. Since 1952, average income has risen dramatically in the United States. Consequently, an increasingly affluent nation time and again has put Republicans in the White House. Obviously, economic voting is influencing voters heavily, but the rise in

inequality since the 1970's is astonishingly similar to the rise in polarization. It is this stunningly close relationship that places the focus of this paper on economic choice in voting.

House sparring over policy is highly related to economic policy differences both at the fundamental level and in the minutiae of each budget related bill that the chamber debates and ultimately votes on. Coleman (1997) looks at "budget-oriented" votes in the House, which he calculates as happening 25-50% of the time, and has determined that economic voting has a highly significant effect on the rise in partisanship in the lower chamber of Congress. Macroeconomic factors are primarily responsible for increased partisanship, and the fundamental policy approaches favored by each party have come into conflict with each other to create a more polarized atmosphere. Keynesian economics, favored by the Democrats, were never popular with Republicans who introduced the supply-side theory following the disastrous stagflation characteristic of Carter's "crisis of confidence" in the late 1970's.

Thus we are left with an interesting puzzle on our hands. Richer states are voting more Democratic while poorer states are voting Republican. Some, such as Baldassarri and Gelman (2007), attribute this to a realignment of the wealthy elite, while others, such as McCarty, Poole, and Rosenthal (2006) and Theriault (2006) note that this is a sign of Southern realignment. Huber and Stanig (2006) have noted what seems to be a consensus of the academic debate, however. They note that the effects of redistribution and income inequality could have a significant effect on polarization in the electorate that is then reflected in the government. Economic voting based on income inequality has had a notable effect on political polarization in the House of Representatives, and it is due to not only the voters but also the elected officials that are espousing economic policies that have been the source of conflict for about thirty years.

Liberal Democratic Keynesianism and conservative Republican supply-side economics are the specific economic policies that have come into conflict in the House of Representatives. In the electorate, increased income inequality has led to a different kind of economic voting. Whereas an increasingly rich nation should vote Republican more and more often, an increasingly unequal nation has led to a more bipartisan nation, but not in the sense that both parties are working with each other. Unequal wealth has produced a country that votes differently than simple predictive models based on economics and party policies would predict. There is a relationship that seems to exist, as the literature has proven, between income inequality and political polarization, and it is one that I seek to further explore and attempt to define throughout the course of this paper.

From what I have turned up in this literature review, differing levels of income inequality may have a direct effect on the prevalence and outcome of economic voting that occurs in the 435 Congressional districts. This influenced economic voting may in turn directly affect the level of polarization of the individual Representative from that district. As Fiorina called for in his 2002 article, more investigation of this phenomena is sorely needed. As the country divides itself more and more along partisan lines and the gap between the rich and poor grows ever wider, something must be done to try to explain what is happening to our society and to our politics. From the information gathered in this review, I believe that the level of polarization has a significant effect on economic voting, putting in place a Representative more tuned to promoting a specific economic viewpoint shared by his constituents. The clashing of ideologies promoted by these polarized Representatives is the cause of increased political polarization.

Preliminary Assessment and Proof of Concept

Before I begin describing my experiment in technical detail and commence data assessment, I feel it is prudent to show some relationship between the figures my underlying theory relies on. In this section, I will compare two measures: DW-NOMINATE scores and the gini ratio, both of which I will define later. The comparison of these numbers over time to find a common link between them is essential to laying out a firm theoretical ground upon which the thesis may run. Furthermore, in this section I will introduce concepts and statistical comparisons that will be essential for the rest of the project, further laying a foundation upon which the technical comparisons of NOMINATE scores and mean/median ratios (another concept to be defined later) may be better understood.

A basic measure of income inequality, indeed probably the easiest and best available, is the gini ratio of income inequality. The gini ratio is a basic measure, on a scale from 0.0 to 1.0 that determines the size of the gap between rich and poor in any given geographic location. For the purposes of this draft, I will use the gini ratio for the entire United States from the years available: 1967 to 2007. Again, I have to stress here that the overall study will be more limited, for logistical reasons, than this forty-year range that is highly desirable (seeing as the more evidence you collect, the more reliable your findings). This data is presented in the graph below. Note: the x-axis reads "1-41" with 1 being 1967 and 41 and 2007.

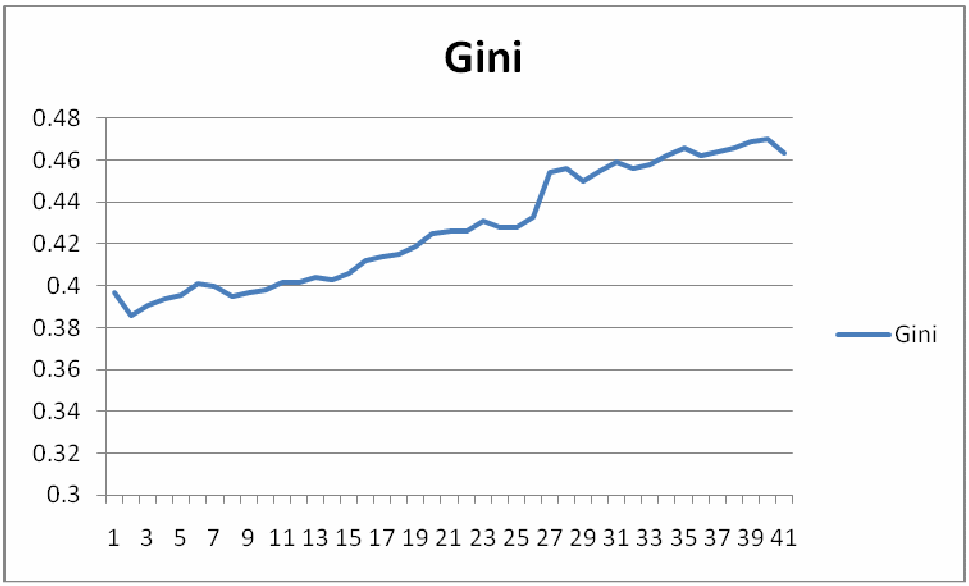


Figure 1

The rise in the gini ratio over the last four decades has been slow and steady but undeniably real. From a sub-0.4 ratio in the late 1960's, the ratio is nearing 0.5 and, give or take a few peaks and valleys over time, it appears that the ratio will continue on this generally upward trend. As I explained above in my literature review, I believe this rising inequality ties into my theory about a rise in the importance and frequency of economic voting. This rise in the gini ratio does not appear to be temporary by the looks of Figure 1. Instead, it appears that the rising gini ratio is a trend that has continued over four decades and shows no signs of stopping, reversing, or even slowing.

This finding must be compared with the rise in polarization over the years. Polarization is an abstract concept, but thanks to the works of Keith Poole and Howard Rosenthal, it has been quantified. They have analyzed non-unanimous roll call votes from all 110 Congresses in American history. They have taken this data and assigned a score to each Member of Congress from -1 to 1, with -1 being perfectly liberal and 1 being perfectly conservative. I will go into

greater detail on these scores in my research design and how I will specifically manipulate them. These scores are called DW-NOMINATE scores.

For my purposes, I want to look at the overall level of polarization for the Congresses that fall into the scope of my study. Data for every Congress is available, but data for the gini index is not and thus 1967, the furthest date back from which I can gather a gini index, will have to be the lower limit for my study. So, below is a chart of the difference between the average Democratic score and the average Republican score in the House of Representatives.

From 1967 to 2007, it is clear to see by Figure 2 that there has been a remarkable increase in polarization in the House of Representatives. It is also clear that increases in polarization have progressed along a track that closely mirrors the rise in the gini ratio. In both charts, there were steady positive slopes until about the late 20's into the 30's, or the late 1980's and into the 1990's. At these points, the two charts have increased at the same points. Figure 2 shows how the two measures increased at approximately the same time.

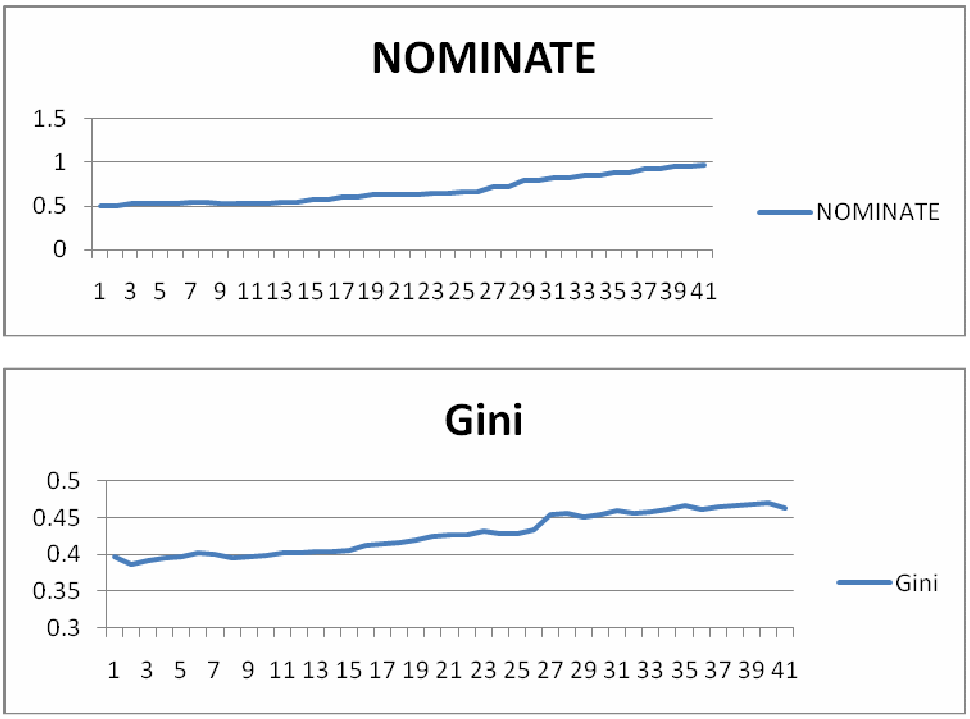


Figure 2

On close examination, you can see here that the gini ratio and NOMINATE score difference followed a similar upward trajectory over the last forty years. These are only the national numbers, however. I think that any relationship between the two can be better explained on a closer, district by district basis.

Research Design

The gini vs. Nominate findings now present me with the problem of designing an experiment that will extend this study into the districts over time for a closer, more accurate, and hopefully more valid study of the effect of income inequality on polarization in the House. As you will read in the coming pages, certain logistical problems have presented themselves concerning the availability of data. I will explain in this research design why use of the gini ratio is impractical for the purposes of this study, not for deficiencies in the ratio but for an insufficient amount of gini data available. I will also explain how I will develop another measure of income inequality and what date range I will use for this study. Following the research design I will compare more national numbers involving these new data sets in order to maintain the integrity of my "proof of concept" section.

My research design involves only two variables, but the definition of these variables is not as easy to grasp, and I will attempt to do so now. Again, my thesis is on income inequality as it relates to polarization in the U.S. House of Representatives. As I have gone through in the literature review, I believe that inequality breeds economic voting and that such voting in turn elects Representatives that are more ideologically and politically extreme, thus polarizing the House as a whole. Specifically, my hypothesis is that as income inequality increases, House polarization will correspondingly increase. But before I get to comparing these variables and

analyzing the results, it would probably be a good idea to first identify these variables. I will do so and then I will explain just how these variables will be compared with one another.

First I will identify the dependent variable in this study. Polarization can be measured in many varying ways, either through party membership, some sort of analysis of floor statements, an analysis of the text of bills and a comparison with the positions of various liberal and conservative interest groups, or perhaps some other examination focusing on the behavior or words of the individual members of the House. I choose to take a more quantitative approach for multiple reasons. The first is that it requires no cumbersome analysis of statements that can be confused, misinterpreted, or unclear at best. Another is that using bare numbers is highly preferable to combing through the voluminous text of bill after bill and trying to scan through the technical language and other minutiae of the bill to identify the language that could possibly be regarded as partisan and then compare it to some interest group's statement of their positions. My biggest reason, however, is that in using numbers I have access to a study that scores and reports every non-unanimous recorded vote ever made. In short, I will use these numbers because somebody has already done the most tedious, annoying part of the work for me (all I have to do is take it the rest of the way).

In 1997, Keith Poole and Howard Rosenthal published a study entitled *Congress: A Political-Economic History of Roll Call Voting*. In this study, Poole and Rosenthal compiled a list of every vote that was not unanimous, ruling out the procedural or otherwise non-controversial votes the House makes daily, that has ever been cast by every single Representative dating back to the 1st Congress. Such an awesome and important dataset is incredibly valuable in and of itself, but Poole and Rosenthal have gone even further in analyzing this data so that it can be used by political scientists studying polarization. Each vote is analyzed so that the "Yeas"

and "Nays" are assigned as either liberal or conservative positions. For each Congress, a score is assigned to every member ranging from -1 to +1, with -1 being perfectly liberal, +1 being perfectly conservative, and 0 being perfectly moderate. These scores are called DW-NOMINATE scores, standing for Dynamic Weighted Nominal Three-step Estimation, normally referred to simply as NOMINATE.

I will use these scores to quantify "polarization," but not exactly as Poole and Rosenthal. For the purposes of this study, I am not concerned with liberalness or conservatism. Such a study in regards to income inequality would be very interesting and I recommend that a future political scientist undertake such work, but I will not. For my project, I seek only to identify "polarization" as a general variable and not as it relates to the liberal-conservative spectrum. Instead of using the scores at their face value, I will take the absolute value of each score in the study. I do this because I only want to look at overall polarization, and as 0 is perfectly moderate and thus is not polarized at all, I can put each score along a scale from 0 to 1. This is because the absolute value of each liberal NOMINATE score will fall in this range, as will each conservative one. Basically, my scale will read as "0 is completely non-polarized and 1 is completely polarized." I will take each Representative's NOMINATE score from the 103rd Congress through the 109th (I use this range because of limitations on data that I will discuss later), take the absolute value of that score, and count that as the overall level of polarization for that individual member.

The measure of income inequality that I will use is far more complicated, this being a product of limited data on the subject and the difficulty encountered in collecting enough data to compose a consistent dataset over a long period of time. An ideal measure of income inequality, especially for this study, would the Gini ratio. Gini measures inequality in a given location and

comes up with a number comparable to the NOMINATE scores. Gini ratios exist for the American Community Survey on a yearly basis by county and congressional district. The problem is that the ACS only has Gini data for 2006 and 2007, and as accuracy is the goal of any study, that is not an acceptable sample size. Thus another measure must be found. I believe the solution to this lies in a measure of median income to mean income. Such data is available on a county by county basis over an extended period of time, and county by county data can be reliably translated to congressional district by district data allowing for an acceptable comparison between a measure of inequality and polarization. The reality of the income data, even after settling for a less than ideal measure, is more complicated.

The first problem encountered is that a reliable measure for mean household income does not exist in and of itself. Therefore, I am forced to create one using other data that exists. The simplest way to find an average would be to divide overall income by the number of households in each county. So, I am going to divide overall income by the number of households in each county. The first data to be used will be overall income. The Bureau of Economic Analysis keeps a great deal of data ranging from the 1940s to the present. On a county level, they have aggregate personal income on an annual basis. This will suffice for total income to be divided by the entire number of households. This presents the next problem: the households.

The aforementioned American Community Survey keeps household data on congressional district basis for all districts starting in 2005. While seemingly as constrictive as the limits on available Gini data, there is a solution for this problem. District household data is available in both the 2000 and 1990 Censuses. What I will do to overcome the lack of data will be to identify the percent growth of total households from the 1990 Census to the 2000 Census. I will then evenly divide the total growth over each year until I reach 2000 and can use actual data

again. After that, I can use ACS data for Congressional Districts in 2005 to project the final housing numbers (after translating county housing numbers to district numbers). This is not perfect, but it will serve as an accurate enough measure for the purposes of this study. I will do the same thing to fill in the housing numbers between the 2000 Census data and the available 2005 ACS data. I can do this because the ACS estimates are based on their own survey and 2000 Census data, making the measures sufficiently compatible. Thus, I have aggregate income for each county that will be translated into districts as well as total number of households for each district. I can then divide the aggregate income by the total number of households and calculate average household income. Then I can compare it to median household income.

Median household income is available through the Bureau of the Census. They have put together estimates, based on Census and subsequent survey data, to arrive at figures for median household income for about 3,100 counties in the United States. This data is available through the Small Area Income and Poverty Estimate study. There is a minor problem with the use of this data. SAIPE does not have median household income data for the years 1994 or 1996. A solution similar to solving for the lack of total households in the 1990s is applicable. An average will be taken for 1994 using the existing 1993 and 1995 data. Similarly, 1996 data will be generated through an average of the 1995 and 1997 data. At this point, I fully realize that accuracy may be compromised by the use of makeshift data. However, the data is based upon existing data and the accuracy should be fairly on target because of the careful and limited use of this technique. Again, where data does not exist it sometimes must be estimated for the use of the study, and that is what I am doing here.

Median household income presents the final limitation on the experiment. The Bureau of Economic Analysis has aggregate personal income data existing from the 1940s to the present.

The total number of households can be ascertained through the American Community Survey and by using 1990 and 2000 data to fill in the gap in the 1990s. However, median household income is a variable that cannot be substituted for. The lack of data cannot be overcome as easily as the lack of other data. For total households, I can use estimations for the 1990s based on percentage growth because it is very likely that, due to rising home construction and the annual growth of the population, while these numbers may not be spot on they will accurately represent the truth enough for the purposes of this study.

It would be too risky to do the same thing based on the 1993 SAIPE data and the 1990 Census to fill in missing years for median household income for two reasons. The first is that I do not feel comfortable making a reliable measure for a variable as volatile as income, especially given that between 1990 and 1993 the economy was less than ideally stable (it was the economy after all, stupid). The second is that SAIPE estimates are based on survey data that is not equivalent to Census techniques. I use 2005 ACS, 2000 Census, and 1990 Census data for housing estimates because they go about collecting data through the same means from the same sources, namely everybody who responds to the Census. So, because median household income data is available from 1993 to 2005 and no reliable, valid way of collecting median household income data presents itself for years outside of that range, those will be the limits of my study. Those years encompass the 104th through the 109th Congresses and thus every member of those Congresses will be the subjects of the polarization component of this study.

The final step necessary for all income data will be to convert it into workable units. In this case, I will convert all data from counties into their corresponding congressional districts. From here, I will make my mean to median comparison to determine an approximate level of income inequality. I have to do this because income data for these specific variables is either

non-existent or does not go far enough back in history for the individual congressional districts. It is easy enough to overcome, but it is another step in the analysis process that I need to take.

Now I must defend why I am using the exact processes that this study will entail. As I stated earlier in this research design, an ideal measure of income inequality would be the Gini ratio. The ratio involves a complex formula using the income data of an area as small as a city or as big as a nation. In fact, the CIA World Fact Book keeps an updated list of Gini ratios by nation. Unfortunately, such data does not exist to provide ratios for all 3,100 counties to be looked at in this study. I will instead use a less precise but just as valid and still very accurate measure to determine income inequality on my own. There has been little to no research done in the subject, so in a sense this will be a somewhat pioneering effort on my behalf. With that, I must acknowledge that I am allowing room for criticism based on the validity of my measurements. Nevertheless, I do believe that what I am about to describe is a valid, acceptable, accurate measure of income inequality for small areas such as counties (and likely larger areas as well).

My study will be a ratio of mean to median income. Specifically, I will take the mean household income of each county and divide it by the median household income. The median income represents the 50% mark for all earners in the county being measured, half we make more, and half will make less. This number should almost certainly be lower than the mean income of each county. This occurs because the wealthy earners in that county will pull the average higher and higher as they make more and more money every year. Meanwhile, there will always be 50% of people below the median income mark. So, if people are earning more money every year in the wealthiest percentage of the county's population, they will continually drive the average income of the county ever higher. Imagine a bell curve of income distribution.

Obviously the median will fall in the middle of the curve. As the curve tails out towards the higher income end, indicating that there are a few people who are earning a vastly higher income than those towards the middle of the curve, the mean will fall further to the right as a result indicating a much higher average household income in the county than the median household income. Below is an approximation of a county's income on a bell curve (Figure 3).

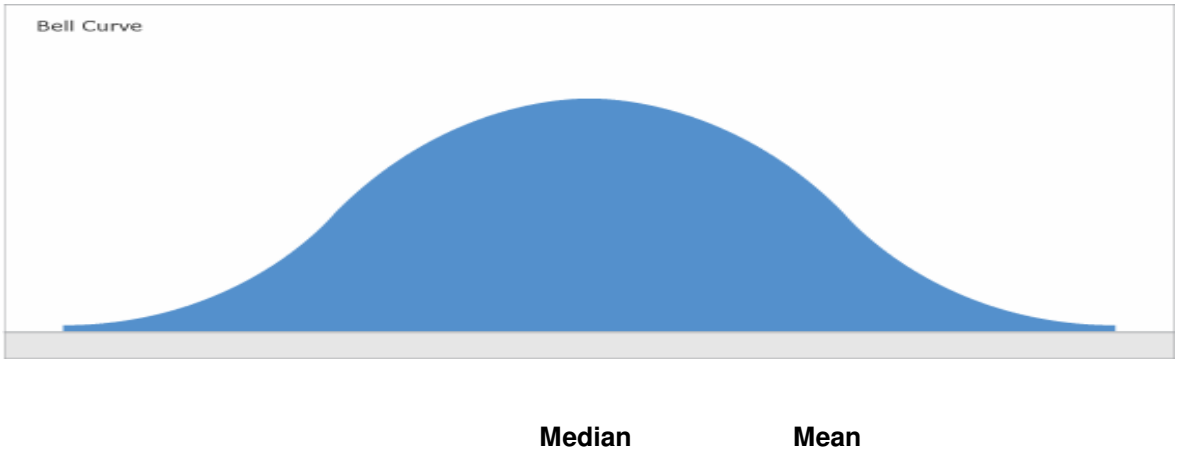


Figure 3

Thus, as my ratio of mean to median income becomes greater so too is the county's income inequality rising. The further right the Mean moves, the greater the inequality will be. Finally, I will compare this ratio to the absolute value of the DW-NOMINATE score that corresponds to the district and its Representative. I believe this will appropriately operationalize the general variables "income inequality" and "House polarization" in a manner that allows me to effectively compare them to one another. I have great confidence in these measurements and their validity based on how they were gathered by experts in the field and the care with which I will interpret and adapt them to fit my experience. Again, my hypothesis is that as the mean to median ratio, that is "income inequality" rises, so too will House polarization. I believe that the steps I have laid out in this research design will produce data that will confirm this hypothesis.

Data Issues

For the data I needed to collect, especially median household income and aggregate household income (see the research design section for an explanation of housing units), it is only available at the county level. Of course, the study will be at the congressional district level. In a perfect world, congressional districts would be drawn along county lines so that a county is entirely contained within one district. For a number of reasons, this is impractical. Large cities, which are often contained in one county, can have a great number of districts within them. Also, redistricting along population lines to create even districts also prohibits such neat, sensible drawing of district lines. But for these reasons and many others, district lines cannot match existing county lines. So, a method must be devised for translating numbers from the county level to the district level.

The Census Bureau has detailed data for each Congress on population in counties. In many occasions, a county is contained wholly in one congressional district. But the rest of the time, a county is divided amongst two or more districts. In these instances, it is necessary to determine the proportion of the county's population in every district in which that county lies.

What I have done to determine the proportions of a county's population in each district is to simply take the population totals for the district and divide it by the total population in the entire county. Again, this is only necessary for districts that exist in two or more districts. The county's population total in the district is divided by the total county population and then the quotient is multiplied by 100 to give us a percentage. The percentage I determine is that of the county's population in a particular district. From here, I can begin plugging in the raw data I have gathered on income or housing.

Households and housing units are not exactly the same thing. Households, by definition, are housing units that are occupied and have been counted by the census. All a housing unit has to be, to satisfy the census definition, is a structure that can hold one household. Because of vacancies, the housing unit number will always be higher than the household number. For proof of this, all one needs to do is walk into a housing development or take a drive down a street and take note of for sale signs on brand new lots. There are several housing units that have not yet been made into households.

The problem that presents itself here is that median income is in household measurements. To construct the mean income component, it would be ideal for me to divide aggregate income by total number of households in a county or a district. But seeing as this project has been operating under less than ideal statistical circumstances thus far, it saw no reason to change course now. Housing unit data is available through the census at the county level where we need it, household data is not. Thus, a situation presents itself in that housing unit numbers are higher than household numbers anywhere from 30,000 to 1,000,000 units off.

For two reasons, I can still move forward. For one, this will only alter the mean figures in shrinking them slightly. This will give us more conservative mean/median ratios that should not significantly alter the final results (although it will be mentioned in the error section regardless). The other reason is that I simply must move forward at this point. The numbers are not so dramatically different that I must now scrap this whole process. Whether it proves or disproves my hypothesis, this situation will still be mentioned in my post-analysis error section. But I do not believe there is any significant theoretical or statistical damage done to the study by these circumstances. (See appendix for figures and definitions)

As promised, here is a preliminary look at national numbers using the new figures that I have described in my research design. These will complete my proof of concept argument and will serve as a segue into the main section of the paper, that being the data analysis and final assessment of the project.

First, I will look at a chart comparing national mean income to national median income spanning the last 33 years. Census data on income disparity exists for the years 1975 to 2007. Over these years, you can see, as I will illustrate in Figure 4, that both numbers are rising rather significantly over this time as the nation accumulates more and more wealth. It is important to note that all figures are adjusted for inflation into 2007 dollars. What is more startling to note is the difference between the two figures.

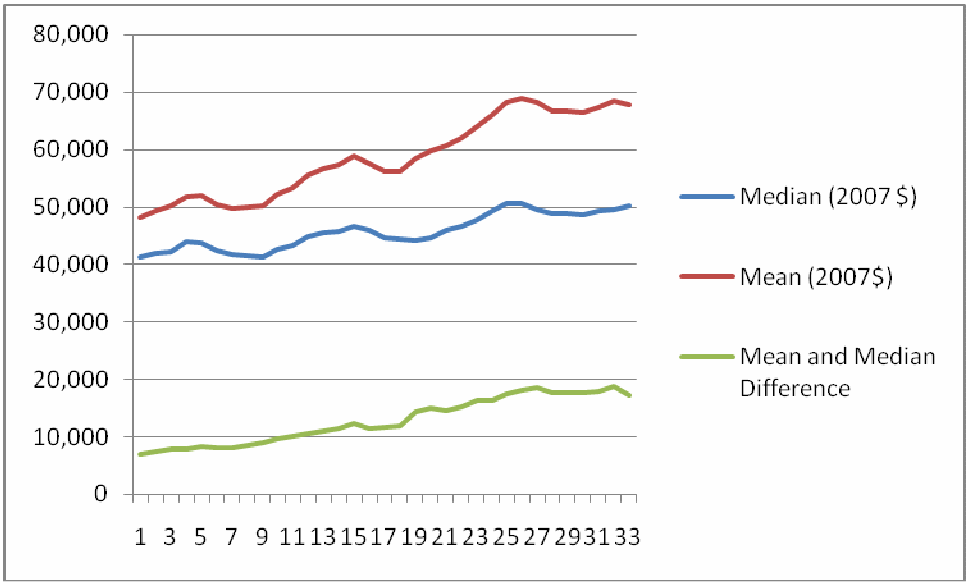


Figure 4

The median rises at a gentle slope with fairly regular variations. On closer examination, the rise in median income can even be compared with the pattern of the political business cycle with its own regular peaks and valleys. The mean, however, is not so even a slope. It rises significantly, especially around the 20 mark on the x-axis, or the early 1990's. The difference, however, is almost continually rising, suggesting that there was no sudden break between the

mean and the median, and instead the gap was always increasing. This is not the measure I choose to use, however. I will use a ratio of the mean compared to the median, shown below in Figure 5.

The ratio shows the same increase that the difference seemed to show. However, the slope of the ratio appears sharper than that of the difference, suggesting even worse income inequality. When compared with the polarization chart, it is even more surprising. This comparison, too, is shown in Figure 5.

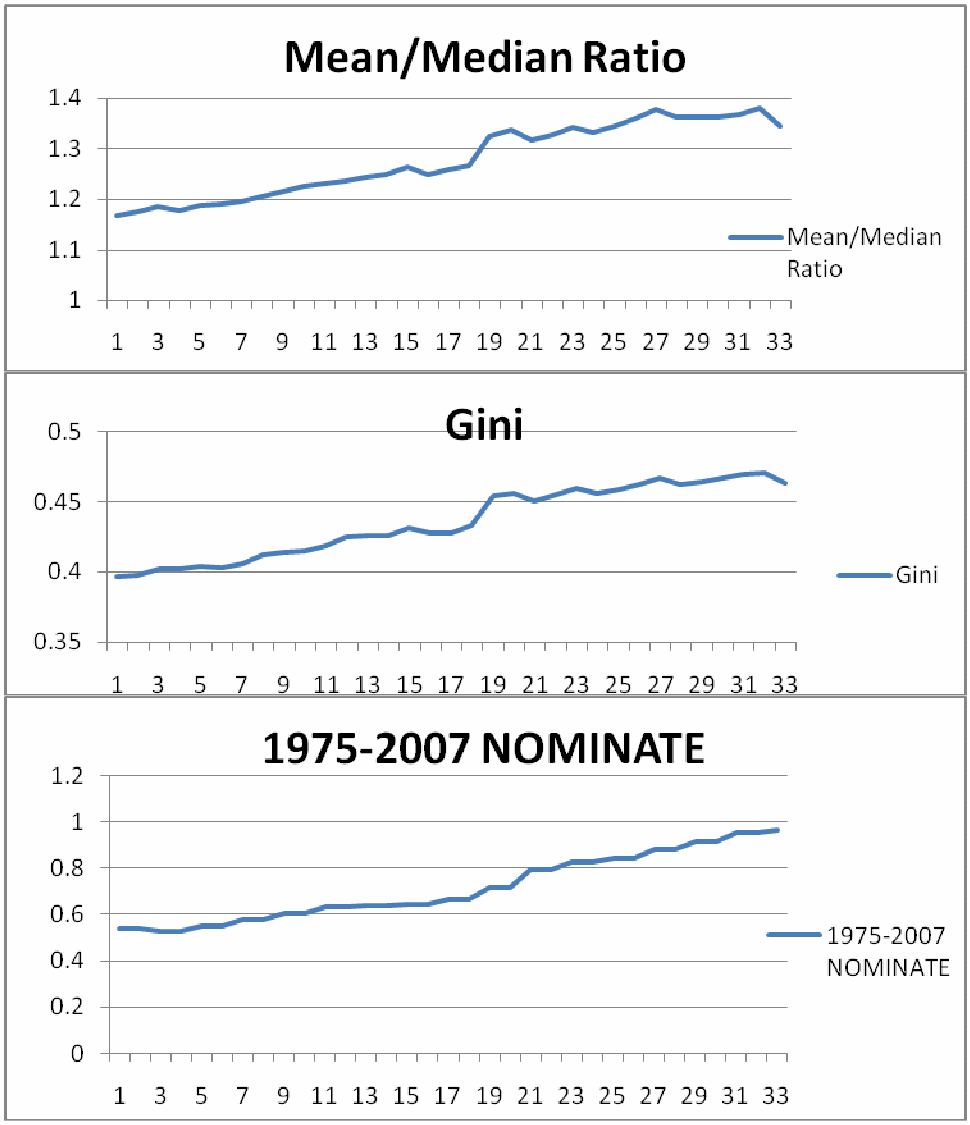


Figure 5

In the comparison between these figures, many things can be ascertained. The first, and perhaps most important for the validity of the experiment, is the similarity between the 1975-2007 Gini Index and the 1975-2007 Mean/Median Ratio. Not only are the slopes nearly matching but the figures themselves even follow the same pattern of peaks and valleys. This is proof of the concept that the mean/median ratio is an acceptable substitute for the gini ratio in this experiment. Also, the comparison between NOMINATE scores and the mean/median ratio is validating to the experiment. They follow a similar upward path with sudden rises at corresponding points in time. All these findings are very encouraging. So we move on now to the actual data and analysis.

Part II

Out of necessity, due to unexpected results, two separate tests were run using all the data once it was collected. I should note before I begin that all tests were run using standard regression analysis. The first test was a simple correlation between income inequality and NOMINATE scores. Because of the results of this test, it was necessary to run a second test. As I previously mentioned in my research design, I was only concerned with overall polarization of the Member of Congress (herein referred to as MC). For my second test, I ignored this self-imposed restriction upon the scope of my data tests. The second test was a correlation between income inequality and NOMINATE scores in the true sense that Poole and Rosenthal intended them to be interpreted in. In other words, the NOMINATE scores in the second test were from the left-right spectrum that measured a score from -1 to 1. Remember, in my research design I noted how I would be taking the absolute value of all scores in order to make sure they were all positive and negate whether they would be considered liberal or conservative. This is what I did for my first test, but the absolute value portion of the equation for my second test. I will explain

this shortly. Before I present tables showing my findings, I will remove the suspense from the process. I cannot confirm nor deny my original hypothesis. I will explain why in my analysis, but this development does explain why it was necessary to run a second test. From these results I can develop a new analysis and make some conclusions.

Data Results

The chart below is a correlation between the absolute value of the DW-NOMINATE score for the average Member of Congress (from here on "MC") and the measure of income inequality I have developed, specifically the ratio between mean and median income for the average Congressional District.

ideologica~y	Coef.	Std. Err	P>|z|
income_ine~y	.002	.018	0.911
unemployme~e	.002	.002	0.269
retire	.009	.008	0.253
party	.097	.011	*
seniority	-.001	.001	0.397
winner_vot~c	.019	.012	0.092
the_south	-.020	.011	0.070
prez_vote~y2	.229	.029	*
ho~j_inparty	.014	.006	0.017
se~j_inparty	-.000	.003	0.925
pr~y_inparty	.003	.004	0.453
congress104	.022	.005	*
congress105	.031	.007	*
congress106	.043	.008	*
congress107	.044	.008	*
congress108	.055	.009	*
congress109	.064	.010	*
_cons	.190	.034	*
R-Squared		0.22	
Chi-Squared		477.08*	
Number of Observations		3005	
Number of Groups (MCs)		795	

Chart 1

Before I proceed, I would like to note that on the chart, in column 3 which indicates the probability of the variables' significance, an asterisk is taken to mean that the probability for that variable's significance is less than 0.05. Aside from income inequality, which I will discuss momentarily, there are three sets of variables in this chart. Retirement, party, seniority, and

winner's vote share (how big a margin a MC won his/her last election by) are all member specific variables meant to control for and variations. Unemployment, living in the south, and presidential vote share in each election are all controls for constituent variables. The House majority party, Senate majority party, the party of the President, and finally a dummy variable for each Congress involved in the study are all institutional variables. For the Senate and the President, House members who are of the same party as the Senate Majority and the Presidency should be more moderate because they are more likely to cooperate with the more moderate Senate and President. The final variable in the table is a simple mathematical constant needed for the regression.

The regression shows little to no correlation between my two primary variables. The coefficient for income inequality in the regression is 0.002. It is just slightly positive, but unfortunately it is barely non-zero. What this tells me is that income inequality does not appear to have a direct effect on overall polarization. I am not ready to say that my hypothesis is totally wrong, but given the results of this test, there is no way that I can confirm it.

So, forward we go. Given that I have hit something of a wall with the failure to confirm my original hypothesis, there must be something that can be done. After all, given what the proof of concept sections of this paper have already shown, there does appear to be a strong correlation between income inequality and political polarization, if not in the way that I predicted it would then at least in some other way. So, I have decided to run another test with one variable from my first test slightly tweaked. For the first test, I took the absolute value of each MC's DW-NOMINATE score. For this test, I will use the actual score as Poole and Rosenthal originally measured it. In other words, I will use scores ranging from -1 to 1 instead of only using numbers from 0 to 1. This will measure the scores on the traditional liberal-to-

conservative scale. In making this comparison, hopefully there will be different results from last time. By using these different numbers, I hope that something will present itself so that I can make some valuable conclusions and I can salvage some (or perhaps a great deal) of my original hypothesis. Below are the results of the second regression with an altered polarization variable.

dw_special~1	Coef.	Std. Err.	P>|z|
income_ine~y	-.0716	.0086	*
unemployme~e	-.0022	.0021	0.277
retire	.0220	.0078	0.005
party	.7764	.0112	*
seniority	-.0043	.0011	*
winner_vot~c	.0303	.0115	0.009
the_south	.0723	.0112	*
rep_prez_p~t	.1453	.0276	*
ho~j_inparty	.0145	.0061	0.017
se~j_inparty	.0170	.0033	*
pr~y_inparty	.0353	.0034	*
congress104	.0056	.0050	0.274
congress105	.0135	.0066	0.040
congress106	.0217	.0080	0.007
congress107	.0319	.0078	*
congress108	.0357	.0078	*
congress109	.0364	.0090	*
_cons	-.3412	.0217	*
R-Squared		0.90	
Chi-Squared		8191.86	
Number of Observations		3005	
Number of Groups (MCs)		795	

Chart 2

Now we have something. All of the same variables, member-based, constituent-based, and institutionally based are the same. The asterisks in the third column have the same meaning as in Chart 1. But the biggest development in this second test is the correlation between income inequality and polarization as it has been modified. The correlation is significantly larger than under the conditions of the first regression. It is also negative.

This negativity is of considerable note. Remember, in NOMINATE terms, negative numbers denote liberalness. There is, according to this regression, a strong correlation between income inequality in a district and the likelihood of a MC to be a polarized liberal. This

development does not match my original thesis, which concerned only overall polarization. Thus I cannot interpret these developments to mean that my thesis was entirely valid. Nevertheless, there exists a considerable relationship between political polarization and income inequality. It simply appears that income inequality may have a closer relationship with liberalness than with overall polarization. The explanation for this is worth examination. Shortly in this paper, I will make an attempt to give some explanation.

Errors and Suggestions

Before I move on, I would like to take a moment and explain some things about my experiment. Given that I have just presented the results, I feel this is the appropriate time. In a moment I will be discussing the results of the tests I ran. I will analyze these tests, attempting to clarify just what they mean, why they occurred, and what exactly caused these conditions to occur. Before I do that, however, I want to complain to you.

This thesis only got this far because of the extraordinary help of my advisor, Dr. Jeffrey W. Ladewig, whom I would like to mention now and extend my immeasurable gratitude. When I originally conceived this experiment, I had no idea exactly what was going to happen. My original idea was far, far simpler to do. As I mentioned in my research design, the gini index is, in my opinion, an absolutely wonderful tool to measure income inequality, possibly even the best, and it had always been my intention to use the gini index as the inequality variable in the regressions. Five minutes later, the sky fell down on my head when I realized that the index is unavailable on a district (or even county) level prior to the 2006 ACS estimates. My response was to try to find acceptable substitutes at this point. It was at this point that Dr. Ladewig gave me the idea to use the mean-to-median income ratio for each district as an alternate measure of inequality. Soon, I realized that this would also be impossible to do seeing as those numbers do

not exist at the district level. So finally we used the county level numbers and translated them into district numbers. I would again like to thank Dr. Ladewig for his enormous help in seeing my way through this process and doing the translations himself from the data I was able to collect.

The data is not perfect. While I stand by the results of the regressions and the conclusions I will make later in this paper, I have to admit the numbers could be more concrete if only better data existed. The problem is that such data simply is not available. I had to do the best I could with what data exists. I believe that the data I collected is accurate and reliable, nevertheless there are a few areas in which errors could develop, and I would like to address those areas now. The first is that the complex gini formula is a better measure than any other out there of income inequality, and personally, I think the ratio I used as a substitute is a pretty good measure in and of itself. Gini just would have been better (and exponentially easier for me to use). Another source of error could come from discrepancies in my housing numbers. As I stated earlier, I had to use housing units instead of households. Households would have been a far more accurate variable to include, but adequate numbers for the scope of my experiment do not exist. Housing units are more numerous that households, but they are not all residences in which the Census counts median income. Therefore, my numbers will be slightly skewed and, if anything, they would have more conservative (not politically conservative, however) estimates for mean income. This could possibly be a cause for the statistically insignificant relationship between polarization and income inequality.

A final cause of error could lie in the sample size of this study. I have used numbers for the 104th through the 109th Congresses (roughly 1994 to roughly 2005). When scholars study developments or anomalies in Congress, they tend to use large sample sizes in order to make

sure they are not making improper assumptions based on only a snapshot in time. Imagine of someone studied military spending only from 1941 to 1945 and made assumptions about long term trends based only on this study. This is not going to provide you with an accurate sense of overall trends in military spending by Congress. It is important to take appropriate samples and, when talking about a 200-plus year old legislative body, bigger is better. It is easy to say this, of course, but not so easy to do. For my purposes, appropriate income data was not available for all necessary variables prior to 1993. Some variables went back to the 1960's, some went through about 2007. But the baseline, median household income, was only available at the sufficiently detailed level (i.e. the county level) from 1993 through 2005. Therefore, the limits for my study were 1993 and 2005. I could just be looking at a snapshot and admittedly the 1990's and 2000's have been a time of historically high partisanship (though by no means the highest considering the 1890's or the far worse Civil War period). I believe that this 6-Congress sample is sufficiently large, but error could definitely come from not having a larger sample.

For the future, I have some suggestions as to how to make this project less difficult to compile before the far more interesting tests that have long been the focus yet took so long to finally put together. At one point, we experimented with mapping software that would have allowed for easy integration of county level data into district form. The ArcGIS mapping technology, however, is very complicated and difficult to master, especially for a first-time user. We were never able to quite figure out how to utilize this software and had we not already had adequate maps to translate data, it would have taken much longer to finish just putting the data together in its final package for analysis. My suggestion for future experiments involving data only available at the county level that you need translated to into district data is to figure out how this mapping software can make your life easier.

Also, I would like students doing an experiment along these lines 15 to 20 years down the line or later to know how much easier they will find this task than I have. The main reason for this is the data set the American Community Survey should have available by that time. Not only will data be available for the district level at this time, better data will be available at the district level. I mentioned before that the gini index is catalogued so far on the district level for 2006 and 2007 in the ACS. Seeing as I have about a 12-year sample that I am working with, by 2018, a sample of equal size will be available with a better measurement of income inequality. Downloading one variable for 435 districts over 12 years will be all that is required whereas I downloaded 3 variables for about 3,100 counties over the same span of time. One can only imagine the amount of time that will be saved. So, to the student of tomorrow, you have my congratulations and utmost contempt.

Finally, I would suggest setting aside a large amount of time to finish this project. I needed every day of the approximately eight months it took to conduct this study. Time is essential, but it is also necessary to have the patience and guidance of some very helpful professors. So, to Professors Ladewig and Dudas, my many, many thanks.

Analysis of results

So what in the world does all of this mean? In the coming section I will present a few possible causes of this result. In the next section, my final one, I will discuss the cause I think is to blame for this phenomenon and try to extrapolate where this anomaly will lead. I will only be presenting theories and conjecture, using some of what I know to try and explain where this correlation between inequality and polarization came from. Nothing that I say will be confirmed here, but I will make an educated guess as to what the likely cause is. But I want to state beforehand that more research needs to be done. Whatever truly is causing this correlation to

happen is a highly important development in American politics. The true cause of it needs to be determined, and I strongly encourage testing the theories I am about to discuss, the likely far more plausible and intelligent theories I will not be talking about, and anything else a political scientist may find worth studying. One thing is for sure: further study is needed.

What is going on in the districts? Polarization's exponential rise since the middle of the century corresponds with the dramatic rise in income inequality. One must look at the historical factors that could be responsible for the rise in both variables. This, I believe, is the best place to begin a search for the cause of the correlation. So, I will begin with the Presidency of Ronald Reagan. In the 1980's, under President Reagan's administration, there was a substantial rise in income inequality in the United States. This is best explained by Reaganomics, the President's economic policies that he and a large conservative following came into office championing. Tax rates on the wealthiest Americans were cut from well over 60% to about 30% on Mr. Reagan's watch. Social spending was cut as Reagan conservatives cut funds for many New Deal and Great Society programs that they fundamentally opposed on an ideological level. The trickle-down economic theory gave the vast majority of benefits to the very wealthy and left out the poor and middle class, believing that benefits would stay true to the theory's name and trickle down. Thus, inevitably, the gap between rich and poor exploded.

These were also Tip O'Neill's Congresses. O'Neill and many of his Democratic colleagues were cut from the liberal molds of the New Deal and the Great Society that Reagan's conservatives abhorred. Obviously, this presents a highly possible source of increased polarization that seethed in the 1980's and burst out into the open in the 1990's and into today. A partisan, ideological clash over the country's core economic principles and policies certainly seem like a plausible breeding ground for the phenomenon I have documented, but I must admit

I have my doubts. I do not believe that an economic debate alone is responsible for the rise in polarization over the years, and it does not explain any rise in polarization in the 1970's. Also, it does not appear as if there is an intimate relationship between income inequality and polarization, and there certainly is not enough evidence to declare it a definitive cause and effect relationship. I feel that pointing the fight between President Reagan and Congressional Democrats is inappropriate, but of course it is worth testing in a future study.

So, that makes one theory. But another lies beneath the Mason-Dixon Line in a politically mystifying region of the United States. The South has long been a fascinating area for political research and political history. From the Civil Rights fight to the beginning of the Civil War, from Nixon's Southern Strategy to the creation of majority-minority districts, the South is a treasure trove of political history and phenomena. One of the crucial events in American political history has been the massive Southern realignment of the late 20th Century. This could be an explanation of the results of my tests in this study. Before as early as twenty years ago, the Democratic Party considered among its members several conservative southerners. These Democrats were often in powerful positions in committees and were numerous enough to ensure Democratic majorities in the House for decades. The majority was a highly fractious caucus that eventually did splinter and lose the majority in the 1994 elections. This was in part due to the fact that Republicans began winning in southern districts that had previously sent these conservative Democrats to the House.

The South is also home to some of the poorest districts in the United States. Of course, in some of these districts are some very wealthy citizens, and that makes for a high inequality rate in these districts. Thus on the surface there appears to be a connection between income inequality and polarization. But I cannot say for sure if one is causing the other and therefore I

cannot reliably point to this as the cause of the test results. For one thing, the districts were largely conservative before Republicans took over most of the seats coming out of the South to Washington. It does not appear likely that severe poverty or inequality is directly responsible for the high levels of polarization that currently exist. It is even less likely that this inequality has caused the highly conservative atmosphere that persists in these districts, especially since conservative economic policies are not often favorable to those in the lower middle class or people living in extreme poverty. So, while there is probably some relationship between inequality and polarization as they relate to the South, I do not believe that such a relationship is responsible for what we see in the test results of this study.

I think perhaps the answer may be more complex than either of these possibilities make it. Remember when we looked at the results, it showed that inequality is not strictly related to polarization. Instead, it does correlate strongly with liberal polarization. I cannot point to one specific cause for the correlation, so I will stop trying at this point. Instead, I think that the effects are far more worth looking at. Inequality causing liberalness creates a situation that could throw the electorate into great turmoil. But why is inequality causing a trend towards liberalness? There are severely unequal districts in conservative districts represented by Republicans, but inequality in districts has not been shown to effect conservativeness in any significant way.

At the aggregate level, it is easy to see the simultaneous rise in both polarization and inequality. How do we respond, then, to the fact that it does not make sense? We cannot reconcile this with the fact that each party has its own policies and that, in reaction to this inequality, they should not be polarizing as whole parties. If anything, there should be individual reactions to polarization, not mass party ideological movement to the left of to the right. So, if

we are looking at it this way, then there could be one of two things happening. Either individuals are acting alone, away from party guidance and philosophy or there are in fact two completely different reactions to the problem by the parties. I think that the answer may lie in the actual reactions to what is going on. This, taken on a larger level over time, is what in all likelihood is causing the massive polarization that we are seeing as it relates to income inequality.

Conclusion

Given the data, I believe we are seeing a difference in reactions by Members of Congress to the fact that there is not only significant income inequality in their districts but that it is a pervasive problem across the country. We need only look at the platforms and policies of each party and the ideology that drives these parties. The Republican Party is, and has for a long time, been a fiscally conservative, pro-business party that often pushes policies that favor the wealthy and those involved in big business. On the flip side of the coin, the Democratic Party is fiscally liberal and offers policies that are generally preferable to the poor and to the working and middle classes. Whatever originally caused the parties to take on these identities is irrelevant to the scope of this study. I believe a historical analysis of these developments would be fascinating, but I would rather focus in this paper on how this plays into the results of the tests in this experiment.

I believe that based on the party ideologies and the economic policies of both Republicans and Democrats income inequality has had a very different effect on each Member. Liberal Democrats have reacted to inequality in their districts by becoming more and more liberal and pushing further away from the policies and core beliefs of the Republican Party. In other words, Democrats have recognized the fact that there is a chasm between the rich and poor

and they have adopted policies that move to rectify this gap, or at the very least try to stop it from expanding even further.

Some Republicans have also noted the dramatic change. Conservative fiscal policy is very friendly to the wealthy and in districts in which nearly all voters are in the upper tax brackets, it makes perfect sense for them to elect Republicans. But many Republicans come from exceptionally poor districts and highly unequal districts. These Republicans are also moving to the left of the spectrum, according to my tests, reacting to income inequality by moving in a liberal direction. In short, Republicans exhibit similar voting behavior in the House that responds to income inequality in a way that their Democratic counterparts do.

What would happen with a huge shift to the left? Would massive inequality eventually decrease polarization by pushing every Member of Congress to the left? We cannot know this at this time, but what we do know is that inequality shifting Members towards liberalness, regardless of party, seems to be the result of the increase in polarization. Yet despite all the voting behavior by Members pushing their NOMINATE scores to the left, the rhetoric is more and more polarized. Republicans have moved left but continue to not only espouse a conservative philosophy but take immense pride in calling themselves conservatives in a way that liberals never seem willing to so openly and proudly proclaim. Republican Members still pine, with an unmistakable sense of longing, for the glory days of supply-side economics in the Reagan and George W. Bush administrations. Their voting actions, however, are not matching their words. They are telling their constituents that they want to do the opposite from what they are in fact doing in terms of fiscal policy.

So why are they allowed to keep their seats? What enables them to get away with promoting policies that are clearly not only not in the best interests of their constituents but seem

to ignore altogether the fact that their constituents have a problem? My theory is that it is not easy to tell someone to give up on the wildest version of the American Dream. There is no way in which you can do this and hope to win reelection. No matter how successful Congress is at shrinking income inequality, should they ever choose to put it at the forefront of the legislative agenda, the people in the middle and lower classes will most likely never be as rich as those who push ever higher district and county mean income. But part of the dream that politicians like to sell to voters is that someday they might be that rich. In fact, in the 2008 election, a major Republican talking point was how Barack Obama would raise taxes if elected President. In fact that is part of his plan, raising the income tax on the top earnings bracket from 36% to 39% (that oft-mentioned difference between freedom and socialism, 3%). Yet for about 95% of American families, he would provide tax relief. But if everyone believes that one day they might be in that top bracket and that somehow the money in the pockets of people in that top bracket might somehow get to them, then that tax represents an assault on your wildest, most hopeful version of the American Dream. So, Republicans can convince their constituents that their fiscal policies do really represent them, then turn around and respond to those constituents who inequality seriously afflicts. Combined with a hawkish foreign policy, a commitment to a strong national defense, and adherence to strictly conservative social policies, the Republicans make it exceptionally difficult for these constituents to vote against them. They then remain in office, elected by people whose best economic interests they might not really want to represent.

Nevertheless, Republicans actually are moving left in what appears to be their constituents' best interests. Democrats are also moving left, only harder and faster. So the split appears to be growing between the parties while a simultaneous and uni-directional shift in partisanship occurs. Can there really be, someday, a decrease in polarization if inequality

continues to grow? This would be far, far off in the future and the levels of inequality would be nightmarish. But where does it end? What are the consequences? These are questions that I believe future researchers should devote substantial projects to.

There is great polarization. I cannot tell you why inequality came about. I could not chart the historical trends or attitudes that led the parties to adopt their specific philosophies. But what I do see is one issue being handled completely differently by the various Members of the United States House of Representatives. This has led to shifts towards extreme ends of the political spectrum in an effort to address the issue. Finally, these shifts have created an exceptionally polarized House of Representatives, one in which the division between the parties is as high as it has been in about a century. Why this happens when many move left for one reason is a puzzle that must be addressed. A real solution needs to be reached before the resulting polarization worsens and the House finds itself incapable of addressing any real, pressing issue.

I believe that solutions can be found in the academic arena. I have put forth a number of reasons to believe this phenomenon really is happening. I have presented theories that have led me to these conclusions and I have given data to support both these borrowed theories and my own conclusions. I have even attempted to offer suggestions and outlines for the future of research in this field. But this work is by no means finished. Not only do I invite future scholars to investigate what I have left open for such investigation, I welcome challenges to everything I have offered as conclusions and theories of my own. Some real, definitive answer needs to be obtained for what is happening in the country and what exact effect it is having on Capitol Hill. I have taken this as far as I can, but it can be taken farther from here. In the near future, broader, more reliable, and overall better data will be available for tests like the ones I have run for this

thesis. I truly hope someone will put this data to good use. Whether I am verified or vilified by the results of these experiments, I will be happy knowing someone put the data to good use.

I would like to just say that I believe that my conclusions are correct. So, when data has been gathered and tests have been run, I hope something in terms of policy and political change can be done to not only close this unfair gap in income but also this dangerous split in partisanship. Working together, this country can solve any problem presented to it. The biggest problem seems to be working together in the first place. If we try hard enough, however, I think we can get around the problems that tie us up and keep us from addressing the real issues of the day. We just have to try and let the pieces fall into place after that.

Bibliography

103rd Congressional District Summary Files. U.S. Census Bureau. www.census.gov

109th Congressional District Summary Files. U.S. Census Bureau. www.census.gov

"2000 and 1990 Censuses". U.S. Census Bureau. www.census.gov.

Aldrich, John. *Why parties? The origin and transformation of party politics in America*. Chicago: University of Chicago Press, 1995.

Almanac of American Politics. 2006. Washington, D.C.: National Journal Group, 2005.

"American Community Survey". U.S. Census Bureau. http://www.census.gov/acs

Brady, David, and Clem Brooks. "Income, Economic Voting, and Long-Term Political Change in the U.S., 1952- 1996." *Social Forces*, no. 77 (1999): 1339-1374.

"Bureau of Economic Analysis". U.S. Department of Commerce. www.bea.gov.

Coleman, John J. "The Decline and Resurgence of Congressional Party Conflict." *The Journal of Politics*, no. 59 (1997): 165-184.

Downs, Anthony. *An Economic Theory of Democracy*. New York: Harper and Brothers, 1957.

Fiorina, Morris P. "Parties and Partisanship: A 40-Year Retrospective." *Political Behavior*, no. 24 (2002): 93-115.

Gelman, Andrew. "Rich State, Poor State, Red State, Blue State: What's the Matter with Connecticut?." *Quarterly Journal of Political Science*, no. 2 (2007): 345-367.

Huber, John D. and Piero Stanig. "Voting Polarization on Redistribution Across Democracies." Technical report, Department of Political Science, Columbia University. 2006.

Ladewig, Jeffrey W. "Conditional Party Government and the Homogeneity of Constituent Interests." *The Journal of Politics*, Vol. 67, No. 4, November 2005, Pp. 1006–1029.

McCarty, Nolan, Keith Poole, and Howard Rosenthal. *Polarized America: The Dance of Ideology and Unequal Riches*. Cambridge, MA: The MIT Press, 2006.

Rohde, David. *Parties and Leaders in the Postreform House*. Chicago: University of Chicago Press, 1991.

Poole, Keith. "Voteview". University of California, San Diego. www.voteview.com.

Poole, Keith T.; Howard Rosenthal. *Congress: A Political-Economic History of Roll Call Voting*. New York, NY: Oxford University Press, 1997.

"Small Area Income and Poverty Estimate". U.S. Census Bureau. http://www.census.gov/hhes/www/saipe/county.html.

Stonecash, Jeffrey, and Nicole Lindstrom. "Emerging Party Cleavages in the House of Representatives, 1962-1996." *American Politics Research*, no. 27 (1999): 58-88.

Theriault, Sean M. "Party Polarization in the US Congress: Member Replacement and Member Adaptation." *Party Politics*, (2006): 483-503.