Analyzing the Role of Income Inequality in American Political Polarization

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Literature Review

Income inequality and political polarization have been thought to be connected for centuries, as it was first proposed, formally, in the *10th Federalist Paper*, by James Madison, in 1787. Madison proposed the notion that when citizens become politically polarized, one must look towards individual ownership of property, or income. Political scientists have heeded Madison's claim, and have continued studying how income inequality and political polarization interact, yielding a wide spectrum of results. While some studies have lacked conclusive evidence to show correlation or causation, some have found statistical significance when examining the effect of income disparities on political polarization.

Political Polarization and Party Polarization

Bryan Dettrey, Pennsylvania State, and James Campbell, 2013, analyze the theory that income inequality has an effect on party polarization in their article *Has Growing Income Inequality Polarized the American Electorate? Class, Party, and Ideological Polarization*. Dettrey and Campbell examined data ranging from 1972 to 2008, providing a sizeable time period to record both the polarization of political ideology and the rate of income disparity; however, they discovered that while the United States' ideological polarization fluctuated, in was not consistent with the rate of income inequality. Neither correlation or causation was indicated through Dettrey and Campbell's work, when analyzing income inequality and political polarization, yet there was evidence supporting the notion that ideological polarization is tied to party polarization.

Alan Abramowitz, 2011, reached a conclusion similar to Dettrey and Campbell in his book *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. Abramowitz found that, although income is a notable factor, Congress itself is a major driving force in political polarization, stating that "the more polarized congressional members become, the more polarized the public becomes." Unlike Dettrey and Campbell, Abramowitz claims that Congress effectively contributes to polarizing the public, allowing for more ideologically extreme individuals to hold office. Identifying where political polarization stems from is crucial to addressing the issue at hand; however, science is not always concrete, and while future findings may be similar, the minute details are crucial and can shift the source of polarization.

Michael Barber, and Nolan McCarty, 2012, build from Abramowitz's conclusion in *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. Barber and McCarty found that while Abramowitz was correct in stating the Congress has an effect of the ideological polarization of the public; however, they continue on to state that the public plays a crucial role in polarization as well. Congress affects polarization, yet, simultaneously, the public affects the ideological polarization of Congressional members. While Congress influences the public to become more polarized, the public influences Congress to polarize further as well. Barber and McCarty found that a cycle of polarization is formed between the public and Congress, pushing ideological boundaries farther and farther out of the norm.

Details, specifically the slight variations between each conclusion, are crucial to furthering the understanding of the origin of political polarization in the United States. Although Dettrey, Campbell, Abramowitz, Barber, and McCarty, formed similar conclusions from their

studies, further studies have indicated that income inequality has a noticeable effect on political polarization.

Income Inequality and Political Polarization

John Voorheis, Nolan McCarty, and Boris Shor, 2015, found that "income inequality has a large, positive and statistically significant effect on political polarization. Economic inequality appears to cause state Democratic parties to become more liberal. Inequality, however, moves state legislatures to the right overall. Such findings suggest that the effect of income inequality impacts polarization by replacing moderate Democratic legislators with Republicans." in their joint research entitled *Unequal Incomes, Ideology and Gridlock: How Rising Inequality Increases Political Polarization.* Voorheis, McCarty, and Shor's conclusion presented information that contradicted prior work that suggested varying sources of polarization, breaking the trend set forth by its predecessors. Along with discovering a statistically significant effect on political polarization, the continuation of how this effect translates to party presence in state legislatures was extraordinary. Illustrating the ideological adjustment that pushes Democrats in the state legislature to become more liberal, yet being replaced by Republican candidates overall presented a new way of analyzing the relationship between income and polarization. Voorheis, McCarty, and Shor's findings leads back to James Madison's words from the *10th Federalist Paper*, "from the protection of different and unequal faculties of acquiring property, the possession of different degrees and kinds of property … ensues a division of the society into different interests and parties." The collective research leaves room for one to analyze

Madison's theory: how does income affect political party identification? This relationship is what my research seeks to address.

Research Questions

1. In a comparison of individuals, those with higher incomes will be Republican,those with lower incomes will be Democrat.

2. In a comparison of States, those with greater income polarization will have greater political polarization.
   a. Essentially, states that hold a higher amount of individual groupings of class concentrations will produce a greater amount of political polarization than states with a lower amount of individual groupings of class concentrations. Individual groupings refers to groups of either Republican or Democrat and class concentration refers to those in the high or low income range.

Prediction

Hypothesis #1 will indicate previous thought on income and party affiliation. I believe that income is a significant factor when generalizing one's party affiliation, for I believe rural individuals, specifically farmers and skilled laborers, have shifted from affiliating with the Democratic Party to the Republican Party, whereas high income markets, such as STEM programs, have attracted more Democratic leaning individuals; however, despite these differences, I believe that Republicans will still earn more than Democrats. Common thought

that Republicans make more than Democrats is an accurate assessment in the United State's developing society.

Hypothesis #2, I believe, is a practical evaluation of today's political polarization in comparison to class concentrations. The more divided income is amongst political parties will, in turn, drive polarization; however, I theorize that those with lower incomes will represent the majority of individuals in both the Republican and Democratic parties, whereas high income will account for a minority of the overall sample size. While class concentrations are key to discovering the relationship between income inequality and political polarization, the largest concentration, for each state, will be in the lower income bracket.

Analysis

Summary of Data

The Cooperative Congressional Election Study (CCES) is a survey conducted by Harvard University that has two facets: the pre-election survey, and the post-election survey. The pre-election survey is roughly ⅔ of the study, asking respondents questions about their political affiliation, state/congressional district they reside in, income, thoughts on key issues, etc. The post-election survey asks the same questions with the inclusion of how the respondents felt after the election of state and federal representatives/senators, and how their opinions on key issues have changed. The dataset used for the research portion of my thesis is the CCES data from 2014, which includes 56,200 respondents, of which, after selecting relevant values within each variable, 10,470 were viable.

Methodology

The variables used from the CCES 2014 dataset were "faminc" which contained scaled values that indicated annual income, "pid3" which consisted of three values, "Republican", "Independent", and "Democrat", and "inputstate" which specifies the state, or district, in which the respondent resides. While the CCES 2014 variables were viable as is, for sake of clarity and being concise, each variable was recoded accordingly. "Faminc" was recoded into "faminc_adjusted", effectively differentiating high and low income; "low income" refers to individuals earning <$29,999 annually and "high income" refers to those earning $100,000+

annually. "Pid3" was recoded to "pid3_recode", removing "Independent" as a value, leaving only "Republican" and "Democrat" as usable values, creating a clear ideological divide. "Inputstates" was deconstructed fully, establishing each state as a variable instead of utilizing the scale of values originally given by "inputstate". After each variable was recoded accordingly, I could begin setting up my thesis' research with legible formatting.

Gathering the data consisted of running cross tabulations on the recoded variables, allowing for each state to present the percentage of high and low income Republicans and Democrats. *(See Figure 1.1 below)*

New York Crosstabulation

New York			Ideology		Total
			Liberal	Conservative	
36	Income	Low Income	327	161	488
			76.6%	75.6%	76.3%
		High Income	100	52	152
			23.4%	24.4%	23.8%
	Total		427	213	640
			100.0%	100.0%	100.0%
Total	Income	Low Income	327	161	488
			76.6%	75.6%	76.3%
		High Income	100	52	152
			23.4%	24.4%	23.8%
	Total		427	213	640
			100.0%	100.0%	100.0%

(Table 1.1)

After the data is gathered from each state, the percentages given for high income Republicans and Democrats and low income Republicans and Democrats is taken and inputted into the following formula:

(HR - HD) + (LD - LR)

The formula above has four variables: HR represents the percentage of high income Republicans; HD represents the percentage of high income Democrats; LD refers to the percentage of low income Democrats; and LR refers to the percentage of low income Republicans.

Using the percentages given in *Table 1.1*, the formula operates as follows:

(HR - HD) + (LD - LR)

(24.4% - 23.4%) + (76.6% - 75.6%)

(1%) + (1%)

Polarization = 2%

This translates to New York having a polarization rate of 2%, meaning that, when comparing class concentrations and party affiliation, New York has little variation in how low and high income individuals vote. This indicates that income does not accurately show that income levels how Democrats and Republicans vote in the state of New York.

Hypothesis #1

Income and Ideology Crosstabulation

		Ideology		Total
		Democrat	Republican	
Income	Low Income	4913	3628	8541
		81.6%	81.5%	81.6%
	High Income	1105	824	1929
		18.4%	18.5%	18.4%
Total		6018	4452	10470
		100.0%	100.0%	100.0%

(Table 1.2)

Table 1.2, shown above, contains the output from a cross tabulation of "pid3_recode" and "faminc_adjusted", providing the percentages of high and low income Republicans and Democrats. My prediction of hypothesis #1 was accurate, stating that party affiliation can, and should, not be generalized based off of one's annual income. However, I was not expecting a 0.1% variance between Republicans and Democrats, I anticipated a noticeable gap between the parties, but being almost identical percentage wise shows that preconceived notions are not always accurate. The hypothesis: "In a comparison of individuals, a greater percentage of those with higher incomes will be Republican, and a greater percentage of those with lower incomes will be Democrat" was correct.

Hypothesis #2

Operationalizing the formula allowed me to calculate the polarization percentage for each state, and obtain a clearer image of how polarization ranges from state to state. *Table 1.3 and 1.4*, shown below, depicts the polarization percentage for 30 states; these states had the highest number of respondents, providing a more accurate image of how states vary with class concentrations and party affiliation.

	High Inc Rep/AllRep	Low Inc Rep/AllRep	High Inc Dem/AllDem	Low Inc Dem/AllDem	Polarization
Washington	9.02%	90.98%	24.46%	75.54%	-30.89%
Colorado	17.00%	83.00%	26.44%	73.56%	-18.87%
Arizona	17.50%	82.50%	24.35%	75.65%	-13.70%
Kentucky	0.00%	100.00%	5.71%	94.29%	-11.43%
Massachusetts	28.81%	71.19%	33.33%	66.67%	-9.04%
Minnesota	20.37%	79.63%	24.24%	75.76%	-7.74%
Nevada	6.00%	94.00%	9.68%	90.32%	-7.35%
Oregon	10.59%	89.41%	13.56%	86.44%	-5.94%
Ohio	12.57%	87.43%	15.25%	84.75%	-5.38%
Wisconsin	11.88%	88.12%	13.91%	86.09%	-4.06%
California	27.92%	72.08%	29.60%	70.40%	-3.37%
Pennsylvania	15.03%	84.97%	15.10%	84.90%	-0.14%
Arkansas	3.70%	96.30%	3.66%	96.34%	0.09%
Georgia	13.18%	86.82%	13.13%	86.87%	0.09%
Connecticut	31.58%	68.42%	31.34%	68.66%	0.47%

(Table 1.3)

	High Inc Rep/AllRep	Low Inc Rep/AllRep	High Inc Dem/AllDem	Low Inc Dem/AllDem	Polarization
Florida	13.89%	86.11%	13.65%	86.35%	0.48%
Michigan	8.90%	91.10%	8.30%	91.70%	1.21%
New York	24.41%	75.59%	23.42%	76.58%	1.99%
Indiana	10.38%	89.62%	9.16%	90.84%	2.43%
Missouri	11.69%	88.31%	9.32%	90.68%	4.73%
Tennessee	11.21%	88.79%	8.42%	91.58%	5.59%
Illinois	24.61%	75.39%	17.30%	82.70%	14.61%
Maryland	43.94%	56.06%	36.21%	63.79%	15.46%
Texas	28.07%	71.93%	20.19%	79.81%	15.76%
Alabama	12.16%	87.84%	4.17%	95.83%	15.99%
North Carolina	15.07%	84.93%	6.74%	93.26%	16.67%
New Jersey	41.58%	58.42%	32.37%	67.63%	18.42%
Virginia	39.42%	60.58%	29.50%	70.50%	19.85%
South Carolina	14.81%	85.19%	4.82%	95.18%	19.99%
Louisiana	16.95%	83.05%	5.66%	94.34%	22.58%

(Table 1.4)

Class concentrations amongst the 30 states given show interesting variances in terms of

dispersion. Washington's low income Republican respondents account for 90.98% of all

Republicans in the state, compared to low income Democrats which account for 75.54% of the

state's Democrats. Meaning, Washington has 15.44% more low income Republicans than low

income Democrats, yet still holds a polarization percentage of -30.89%. Arkansas, being the

least polarized state in the study, varies by only 0.4%, while 96.30% of the Republicans in the

state are in the low income bracket, and 96.34% of Arkansas' Democrats are classified as low

income, giving the state a polarization percentage of 0.09%. Connecticut is similar to Arkansas

in terms of a polarization percentage, ranking 4th lowest at 0.47%, while the dispersion shifted to

being closer to even across the board. Connecticut's high income Republicans account for 31.58% of the state's Republicans, and high income Democrats account for 31.34% of Connecticut's Democrat population, while maintaining a rather low polarization percentage. New Jersey's dispersion was unexpected; low income individuals were still the majority, yet the class concentrations were closer to being even. Although the concentrations of class were close, high income Republicans held 41.58% of the Republican population and high income Democrats account for 32.37% of the Democratic population, the polarization percentage is drastically higher than Connecticut's, ranking them 25th amongst the top 30 states with a polarization percentage of 18.42%.

"In a comparison of States, those with higher individual groupings of class concentrations will produce greater political polarization." The second hypothesis does not have sufficient evidence, as provided in *Figure 1.3 and 1.4*, to indicate that class polarization is present. While the output data was able to be scaled from negative to positive polarization, the scale did not exhibit similar dispersions of class concentrations and party affiliation to adequately conclude that income affects how one votes.

Conclusion

Hypothesis #1 was correct by 0.1%, but correct nonetheless; however, due to the miniscule difference between percentage of high and low income Republicans and Democrats, I would refrain from assuming that income is a strong enough indicator to assess one's party affiliation, Hypothesis #2 was inconclusive, there was not sufficient evidence to back the claim: "States with higher individual groupings of class concentrations will produce greater political polarization." While states were able to receive a polarization percentage based off of the likeness of those who are high or low income voting similarly, the dispersions of class concentrations, and the varying outputs given for states with similar dispersions, is not sufficient evidence for tying income inequality to political polarization.

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