

# Is an Ideological Generational Gap a Driving Factor Behind Polarization in Congress?

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**P**olarization in Congress is at its highest level in 100 years, and research has offered numerous explanations in an attempt to propose solutions to the subsequent gridlock and lack of legislative productivity. Scholarship suggests that most political ideologies are formed early in life, leading to a distinct political identity among generations, and I predict that polarization in Congress is caused by this ideological generational gap. Using an analysis of Poole and Rosenthal's DW-NOMINATE scores as applied to a generational model proposed by Ghitza and Gelman, I find, however, that while generation can provide significant information about ideology, polarization among members of Congress cannot be fully explained by this generational gap. I speculate that another salient factor driving polarization may be the effect of wave elections on member replacement in Congress.

## INTRODUCTION

**O**n June 26, 2018, 10-term incumbent and Democratic Representative Joe Crowley was defeated in the primary for New York's 14th congressional district by political newcomer Alexandria Ocasio-Cortez. Crowley's defeat by a margin of nearly fifteen points was shocking to many; the House Democratic Caucus chair had been marked by many as a potential successor to Minority Leader Nancy Pelosi, and his opponent's lack

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of political experience and significant financial disadvantage seemed to belie her status as a serious challenger.

Ocasio-Cortez's victory received widespread media coverage, with the New York Times<sup>1</sup> describing her election as “the most significant loss for a Democratic incumbent in more than a decade, and one that will reverberate across the party and the country.” One such reverberation was the renewed energy lent to discussion surrounding the Democratic Party's split between progressives and centrists, and perceptions of growing polarization in the party. The contest between Crowley, a fifty-six-year-old senior member of party leadership, and Ocasio-Cortez, an unabashed Democratic Socialist nearly thirty years his junior, could not have better illustrated this divide.

An article in the Washington Post<sup>2</sup> heralded her victory as proof of the growing desire for liberal policies, especially among young voters, and Ocasio-Cortez was joined by a number of candidates — Ayanna Pressley, Jahana Hayes, and Rashida Tlaib<sup>3</sup> — who won in districts that were previously held by much older and more moderate Democratic congressmen. Despite this, unease<sup>4</sup> that a shift in the left could have policy and electoral drawbacks persisted<sup>5</sup>, with a New York Times op-ed blasting democratic socialism as “political hemlock.”<sup>6</sup> In a less aggressive analysis, Nate Cohn of The Upshot worried that a more polarized electoral outcome would

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<sup>1</sup> <https://www.nytimes.com/2018/06/26/nyregion/joseph-crowley-ocasio-cortez-democratic-primary.html>

<sup>2</sup> [https://www.washingtonpost.com/news/politics/wp/2018/06/27/the-blue-wave-already-crashed-on-the-democratic-party/?utm\\_term=.b07444dac0e8](https://www.washingtonpost.com/news/politics/wp/2018/06/27/the-blue-wave-already-crashed-on-the-democratic-party/?utm_term=.b07444dac0e8)

<sup>3</sup> While Tlaib has been elected to succeed Brenda Jones in Michigan's 13th Congressional district, Jones has only been serving since November 6th as the winner of a special election to fill John Conyers' seat. Here, Conyers is the older and more moderate congressman referred to.

<sup>4</sup> <https://www.cnn.com/2018/07/18/politics/alexandria-ocasio-cortez-democrats/index.html>

<sup>5</sup> <https://www.nbcnews.com/politics/elections/sanders-wing-party-terrifies-moderate-dems-here-s-how-they-n893381>

<sup>6</sup> <https://www.nytimes.com/2018/07/06/opinion/democratic-socialism-alexandria-ocasio-cortez.html>

amplify polarization in Congress, reducing the number of moderate Republicans in the House and emboldening Senate Republicans with a larger majority.<sup>7</sup>

Concerns about a more polarized and divided legislature are not without foundation, and polarization is hardly a modern phenomenon. A 2013 Pew Research Center Report<sup>8</sup> bemoaning an American public at previously unreached heights of polarization is clearly still relevant in 2018, with a president who has been marked<sup>9</sup> as the most polarizing in U.S. history. Congress is by no means immune to this pattern, and when calling every Congress since the 112th the least productive in history, the Washington Post cited polarization<sup>10</sup> as the cause<sup>11</sup> every<sup>12</sup> time.<sup>13</sup>

While there has been extensive research on political polarization, much of the scholarship focuses on the general public rather than political elites (Iyengar and Westwood 2014; Klar, Krupnikov, and Ryan 2018). But polarization and divisiveness in Congress is an issue equally deserving of research. After all, if the parties can't agree, a party must have secured both the legislative and executive branches to make any progress. Given this imperative, it's unfortunate that Congress is at its most polarized in the last century (Theriault 2008; Loomis and Schiller 2018), and with the incoming class, Pressley, Tlaib and Ocasio-Cortez included, we have a chance

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<sup>7</sup> <https://www.nytimes.com/2018/10/16/upshot/midterms-polarization-republicans-polls.html>

<sup>8</sup> <http://www.pewresearch.org/fact-tank/2013/07/17/partisan-polarization-in-congress-and-among-public-is-greater-than-ever/>

<sup>9</sup> <https://www.brookings.edu/blog/fixgov/2018/03/20/comparing-trump-to-the-greatest-and-the-most-polarizing-presidents-in-u-s-history/>

<sup>10</sup> [https://www.washingtonpost.com/news/wonk/wp/2013/01/17/its-official-the-112th-congress-was-the-most-polarized-ever/?utm\\_term=.3e03e02316e2](https://www.washingtonpost.com/news/wonk/wp/2013/01/17/its-official-the-112th-congress-was-the-most-polarized-ever/?utm_term=.3e03e02316e2)

<sup>11</sup> [https://www.washingtonpost.com/news/the-fix/wp/2013/09/26/the-113th-congress-more-partisan-than-the-112th-congress-thanks-to-republicans/?utm\\_term=.ff67e1872616](https://www.washingtonpost.com/news/the-fix/wp/2013/09/26/the-113th-congress-more-partisan-than-the-112th-congress-thanks-to-republicans/?utm_term=.ff67e1872616)

<sup>12</sup> [https://www.washingtonpost.com/news/the-fix/wp/2016/12/21/farewell-to-the-most-polarized-congress-in-over-100-years/?utm\\_term=.00ce7b5130ee](https://www.washingtonpost.com/news/the-fix/wp/2016/12/21/farewell-to-the-most-polarized-congress-in-over-100-years/?utm_term=.00ce7b5130ee)

<sup>13</sup> [https://www.washingtonpost.com/news/politics/wp/2017/12/22/why-the-senate-is-getting-more-polarized/?utm\\_term=.19089fa33d85](https://www.washingtonpost.com/news/politics/wp/2017/12/22/why-the-senate-is-getting-more-polarized/?utm_term=.19089fa33d85)

to anticipate and understand the causes of polarization in Congress. Does age provide an explanation for the growing ideological divide in Congress?

## THEORY

It's hardly a new idea that political ideology and age are intertwined. The quote "Not to be a republican at 20 is proof of want of heart; to be one at 30 is proof of want of head," has gone through countless rephrasings and been attributed to Winston Churchill, George Bernard Shaw, and François Guizot.

But it's not just hearsay- the mechanisms through which voters form political preferences and the way that those preferences shift over their life has been the subject of extensive research. There are several offered explanations for the formation of political preferences: age, or the theory that an inherent social or psychological factor pushes voters towards conservatism later in life; generational cohort, or the theory that the common life experiences of people born in a certain period led them to identify more strongly with the Republican party; and period effects, or the national events that occasionally have a universal effect on political participation or attitudes.

Crittenden (1962) provided a defense of the aging theory behind political behavior using survey data. Dividing respondents into age cohorts, he concluded that there was a steady and identifiable pattern of increasing Republicanism, and argued that personal effects were insignificant because of the similarity in effect across cohorts over the same four-year interval, as well as the size of the sample. Campbell et al. (1964) propose a similar model in *The American Voter*, their funnel model of political behavior. The authors argue that voter behavior is tied to party identification, which is formed through social influences such as one's family. According to

this model, a voter's party identification shapes their attitudes to match the party's on various issues, ultimately acting as the cues through which voters evaluate issue positions and strengthening party loyalties as individuals moved through various stages of life.

Both models have various weaknesses, however. Campbell et al. rely on voter self-identification to reach their conclusions, and in addition, though one basis for the authors' conclusion was the observation that older voters identified more strongly as Republicans, their data spans only 8 years, a relatively short period to cover for a model attempting to map one's entire life. Crittenden's data, considering 12 years, is hardly more comprehensive.

Following research attempted to address these difficulties with examining the relationship between age and political preferences. Access to a larger data set provided a solid rebuttal to the life-cycle and aging models with the proposal that period effects were also essential. The significance of period effects were built upon the idea that there existed specific historical forces with severe political shocks, such as the American Civil Rights movement, which have a universal effect on political participation, attitudes, and partisan identification (Abramson 1979).

Another compelling argument was the generational cohort model. Researchers argued that political preferences were formed as a result of a common experience shared with others of a similar age, rather than being the result of a general process experienced by all people at a given stage in life (Cutler 1970; Glenn and Hefner 1972).

As the scholarship expanded, a more nuanced and multivariable conception of political preference formation emerged. Rather than being the result of any one factor, political preferences began to be viewed as a complex confluence where generational effects (variations in partisanship due to differences at the time cohorts entered the electorate), life-cycle effects (variation in

partisanship over time as cohorts age) and period effects (historical factors that caused a simultaneous shift among cohorts) came together (Shively 1979). This led to a new problem. Because age, time period, and birth cohort are linearly dependent on each others, analyses considering all three effects often lead to misleading results (Mason et al. 1973).

In response to these shortcomings, Bartels and Jackman (2014) develop the “running tally” model, which estimates individuals’ partisan identification as an evaluation of the parties’ performance over the course of the individual’s life (Achen 2006). They frame the model mathematically, with all events receiving equal weights. This fails to consider that political events occurring at different life stages may have different effects on the formation of partisan opinions, a shortcoming that is addressed by Ghitza and Gelman’s generational model (2014).

In their study, Ghitza and Gelman reject the “running tally” model. Instead, they suggest that partisan voting trends are most influenced around the ages of 14-24, and presidential approval during those ages create generational trends in partisan ideology. Their study identifies five main generations of presidential voters, each shaped by political events during their formative years: New Deal Democrats, Eisenhower Republicans, Baby Boomers, Reagan Conservatives and Millennials. Their model is thus able to explain and predict more variation in ideology than previous models that only account for period or age effects, and does so more accurately than the unweighted “running tally” model.

Ghitza and Gelman’s model provides us with a possible explanation for the growing polarization among political elites. Investigations into the driving forces behind polarization in the United States Congress found that two-thirds of party polarization was explained by member replacement (Theriault 2006), or the election of new members to seats opened by member defeat,

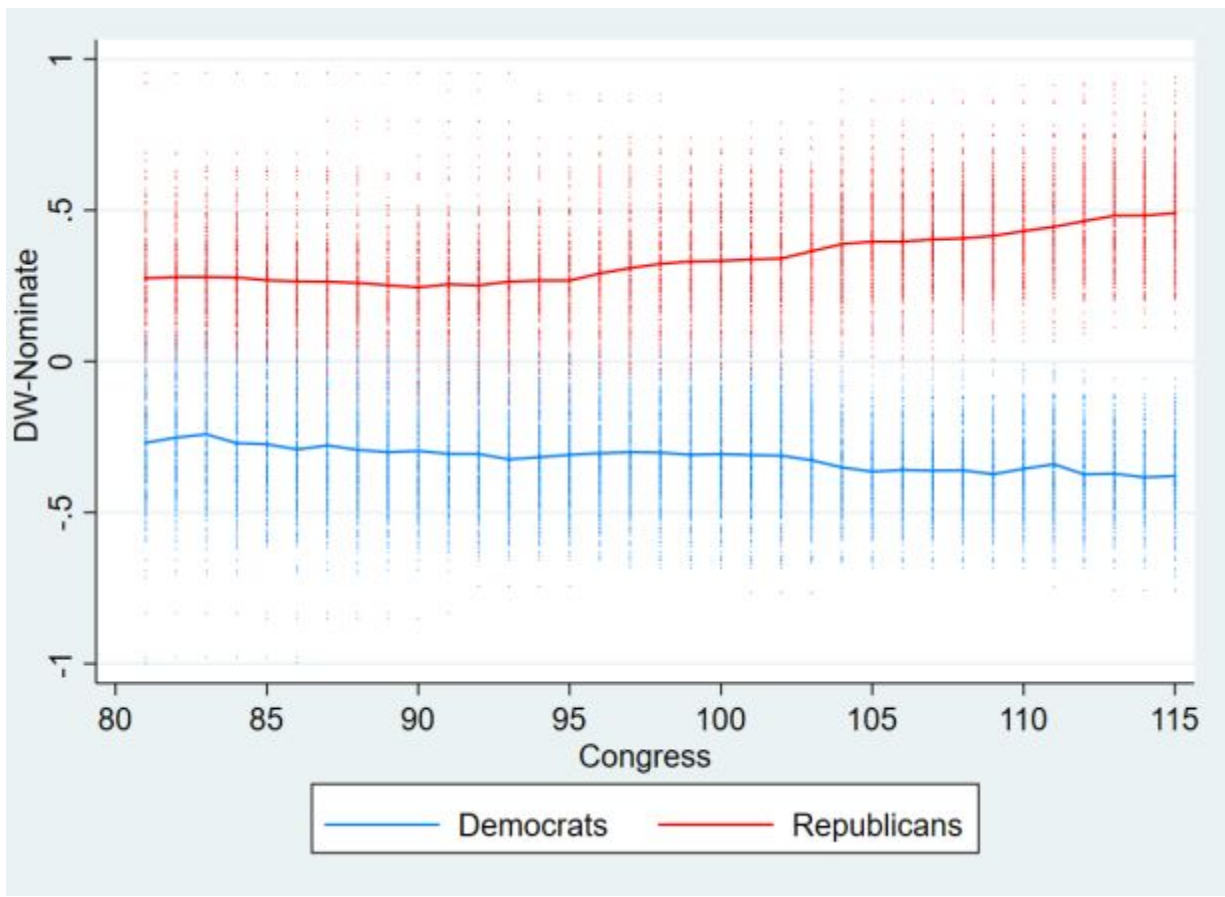
death or retirement. In examining the explanations for member replacement-driven polarization, Theriault only considers geography, arguing that the replacement of southern Democrats by more conservative Republicans was the driving factor of polarization in Congress. If Ghitza and Gelman's generational model of political ideology applies to congressmen, however, it may provide a compelling alternative explanation for the increasing partisan divide in the legislature.

In this section, I have explained the background behind creating an accurate model for predicting political preferences and placed this model in the context of explaining legislative polarization. This paper will proceed by creating a theoretical framework with testable hypotheses. I then describe the data and prove that Congress has indeed grown more polarized over time. I examine the generational and ideological breakdown of Congress, and provide testable mechanisms to identify whether generational cohort is a predictor of variance in ideology. I now proceed to describe the details of my empirical approach and its results.

## **HYPOTHESIS**

Using the DW-NOMINATE model developed by Poole and Rosenthal to represent ideology, I hypothesize that when grouping congressmen by Ghitza and Gelman's generational cohort, there will be close to no observational variation in the generation's DW-NOMINATE values over time. I further hypothesize that a multivariate regression analysis of generational cohorts and DW-NOMINATE values will reveal age as a statistically significant explanation for the observed variance.

**FIGURE 1. Visualizing the Increasing Polarization in Congress**



Notes: This figure illustrates the growing ideological divide in Congress. Each legislator is assigned a DW-NOMINATE value based on roll-call voting, where scores close to 1 are conservative and scores close to -1 are liberal. Legislators are coded by party, and the mean DW-NOMINATE score for each party is plotted. Blue points are part of the Democratic party; Red points are part of the Republican party. Note the increase in distance between Democratic and Republican values at more recent sessions of Congress.

## DATA AND METHODS

### Measuring Ideology and Polarization

To determine a measure of ideology for members of Congress, I follow a strong history in scholarship by relying on the DW-NOMINATE measure (Lewis, Poole, Rosenthal, Boche, Rodkin and Sonnet 2018). The measure, first developed by Poole and Rosenthal in the 1980s, is a "scaling procedure", using roll call voting records to place legislators close to others with similar voting

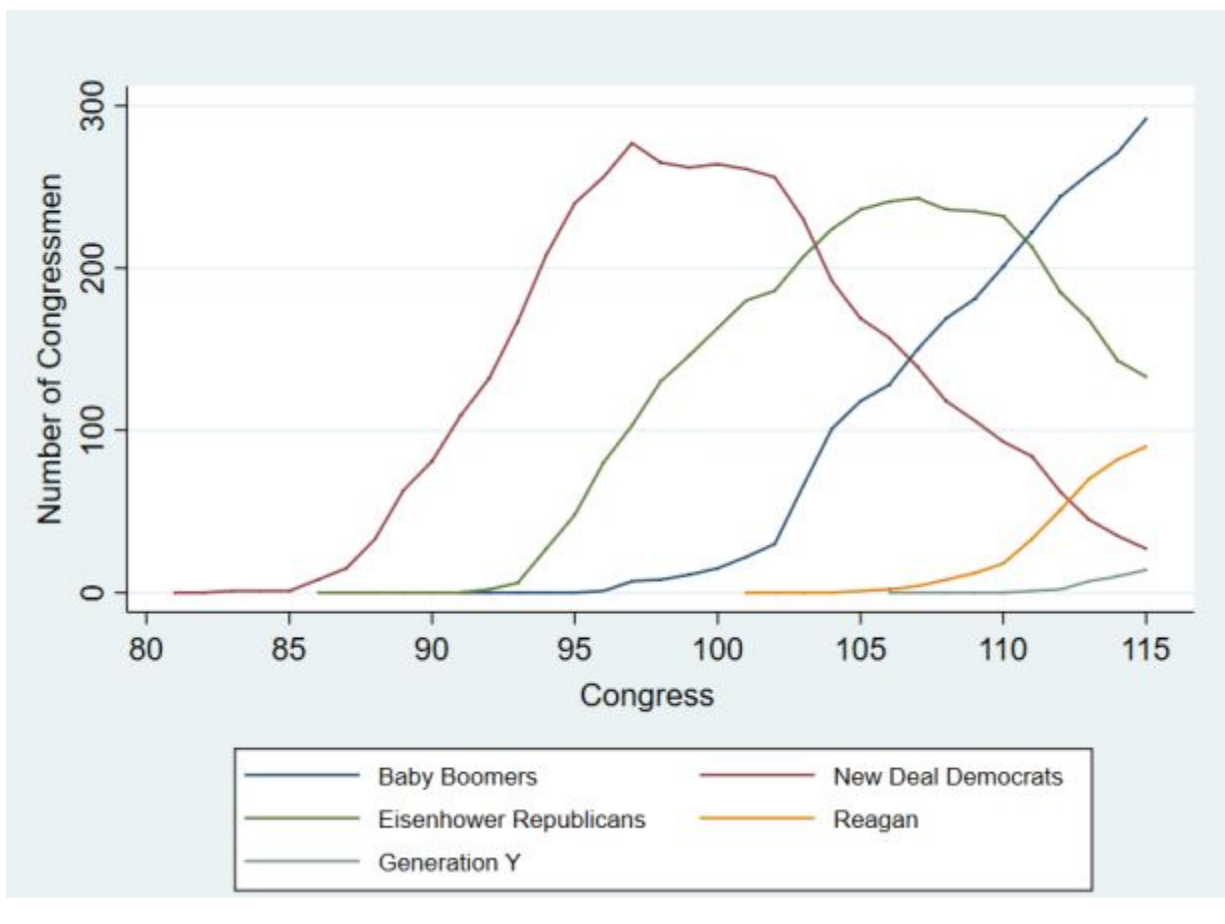


records and further from those with dissimilar voting records. Using this measure of distance, DW-NOMINATE creates a model of ideology for every legislator based on the economic understanding of liberal and conservative. To validate the observational assertion that polarization in Congress has been increasing, Figure 1 codes legislators by party and compares their DW-NOMINATE values by Congress. Because the generational model restricts the sample of Congressmen, the data starts at the 81st Congress. Notably, while there is considerable overlap between the two parties at the beginning of the sample, by the 115th Congress there is no overlap in DW-NOMINATE scores. In addition, there is a strong and constant increase in the distance between mean DW-NOMINATE scores over time, though this trend is stronger among Republicans than it is among the Democrats.

## **Determining Generational Breakdown**

Establishing the generational breakdown of Congress is critical to my attempt to apply Ghitza and Gelman's generational model to Congress (Lewis, Poole, Rosenthal, Boche, Rodkin and Sonnet 2018). Following their model, I use the DW-NOMINATE biographical data and define a member of the New Deal Democrat generation as a person born before 1941, a member of the Eisenhower Republican generation as a person born between 1941 and 1951, a member of the Baby Boomer generation as a person born between 1952 and 1967, a member of the Reagan Conservative generation as a person born between 1968 and 1979, and a member of the Generation Y cohort as a person born between 1980 and the present day. Generational cohorts were coded as a binary

**FIGURE 2. Characteristics of the Sample: Generational Breakdown of Congress**



Notes: Plots the number of congressmen belonging to a given generation, by Congress. Over time, the number of congressmen from the Baby Boomer, Reagan Conservative, and Generation Y cohorts increase. The New Deal Democrat cohort increases in size until the 97th Congress, after which it decreases. The Eisenhower Republican cohort peaks in number at the 107th Congress, and has been declining since then.

variable, where 0=born outside a cohort's criteria and 1=belonging to a cohort. Using Stata, I found the sum of members serving from each cohort in a given Congress, and by plotting these sums as a function of Congress I established the generational composition and replacement in Congress.

Examining Figure 2 shows that the two oldest generations, New Deal Democrats and Eisenhower

**FIGURE 3. Visualizing Ideology by Generation**

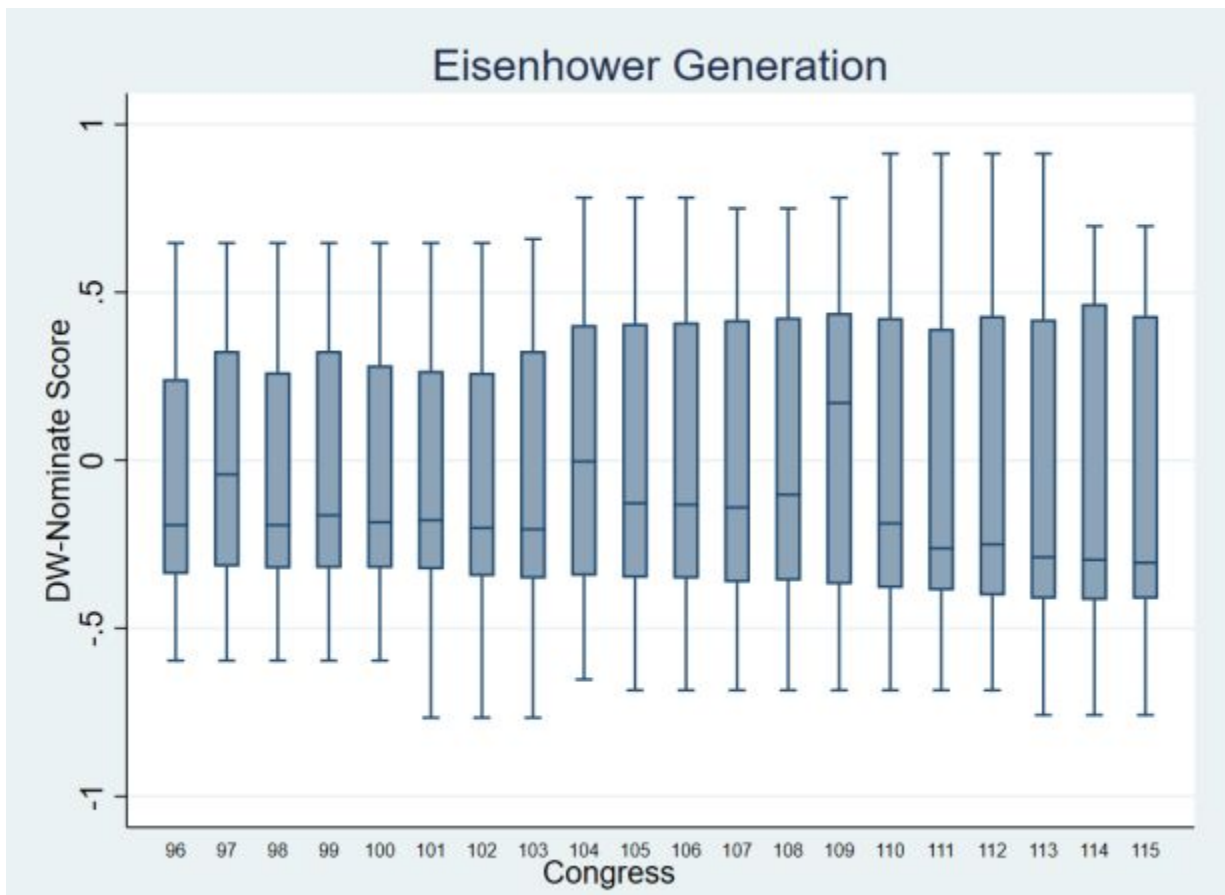


*Notes:* This figure shows the distribution of DW-NOMINATE scores among Congressional members of the New Deal Democrat generational cohort (defined as those born earlier than 1940) by Congress. Note that while the median has shifted, the ideological spread has remained generally constant.

Republicans, have been declining in number since their peaks while the three youngest generations have only increased in number.

Having assigned members of Congress to a generational cohort as defined by Ghitza and Gelman's generational model, I created Figures 3 through 6 using the same methods multiple times. To do so, I utilized the binary generational cohort variables to plot DW-NOMINATE scores where

**FIGURE 4. Visualizing Ideology by Generation**



*Notes:* This figure shows the distribution of DW-NOMINATE scores among Congressional members of the Eisenhower Republican generational cohort (defined as those born between 1941 and 1951) by Congress. Note that the median and IQR are relatively constant, though there are two notable shifts in the 104th and 109th Congresses.

membership of a given cohort=1 against Congress to visualize the distribution of DW-NOMINATE scores for a cohort across time. Overall, the generational model appeared to apply to Congressmen. By examining the interquartile range (IQR) of the box plots, I found that the majority of DW-NOMINATE scores in a generational cohort were within the same range across time, though there were mild shifts in the median values and a few instances where there were major shifts in the median values.

## Do Generational Cohorts Explain Polarization?

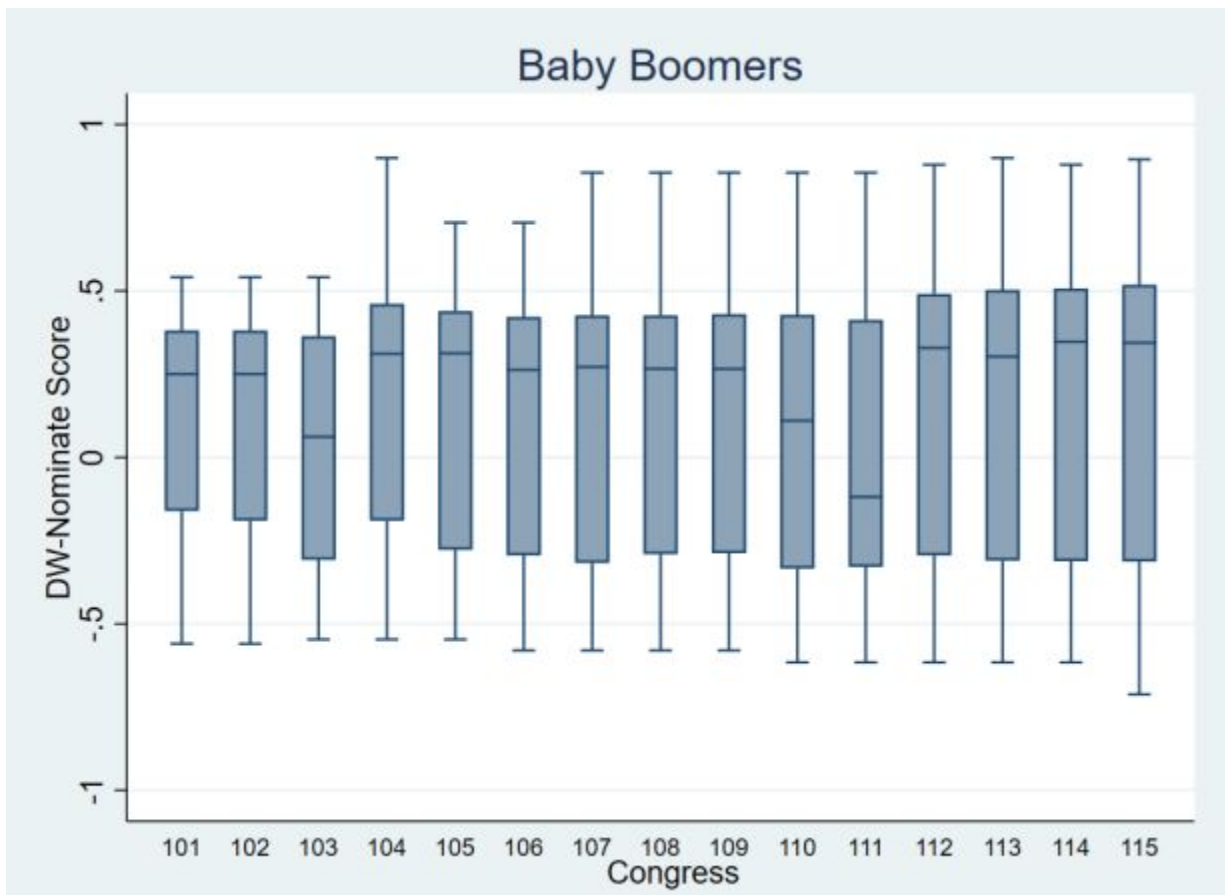
Finally, I tested my hypothesis that generational cohort is a causal factor behind ideological variance in Congress. I did so by performing a multivariate regression analysis on the dependent variable, DW-NOMINATE values, with the generational cohorts as independent variables. I controlled for collinearity by performing each regression again separately as a univariable regression by generational cohort and comparing the regression coefficients.

## RESULTS

Figures 3 through 6 seem to provide strong evidence in favor of my hypothesis, but the regression analysis reveal that ultimately generational cohort is not a strong explaining factor behind variation in ideology.

Figure 1 indicates that polarization begins to more markedly increase after the 102nd Congress. Examining Figure 3, I first test my hypothesis that generational ideology remains constant over time on the oldest cohort, the New Deal Democrats. Looking at the median, it would appear at first that my hypothesis is disproven; there is a persistent liberal trend that is interrupted by a major conservative shift between the 103rd and 109th Congresses. However, there are several converging factors that explain these apparent shifts in ideology and suggest that the generational model still applies. First, the number of Congressmen belonging to the New Deal Democrat cohort peaked at the 97th Congress and has decreased since then, which makes the sample generally more vulnerable to apparent trends. In addition, despite the cohort shrinking 25 percent between just the 102nd and 104th Congresses, the IQR barely increases in variability, and does not significantly

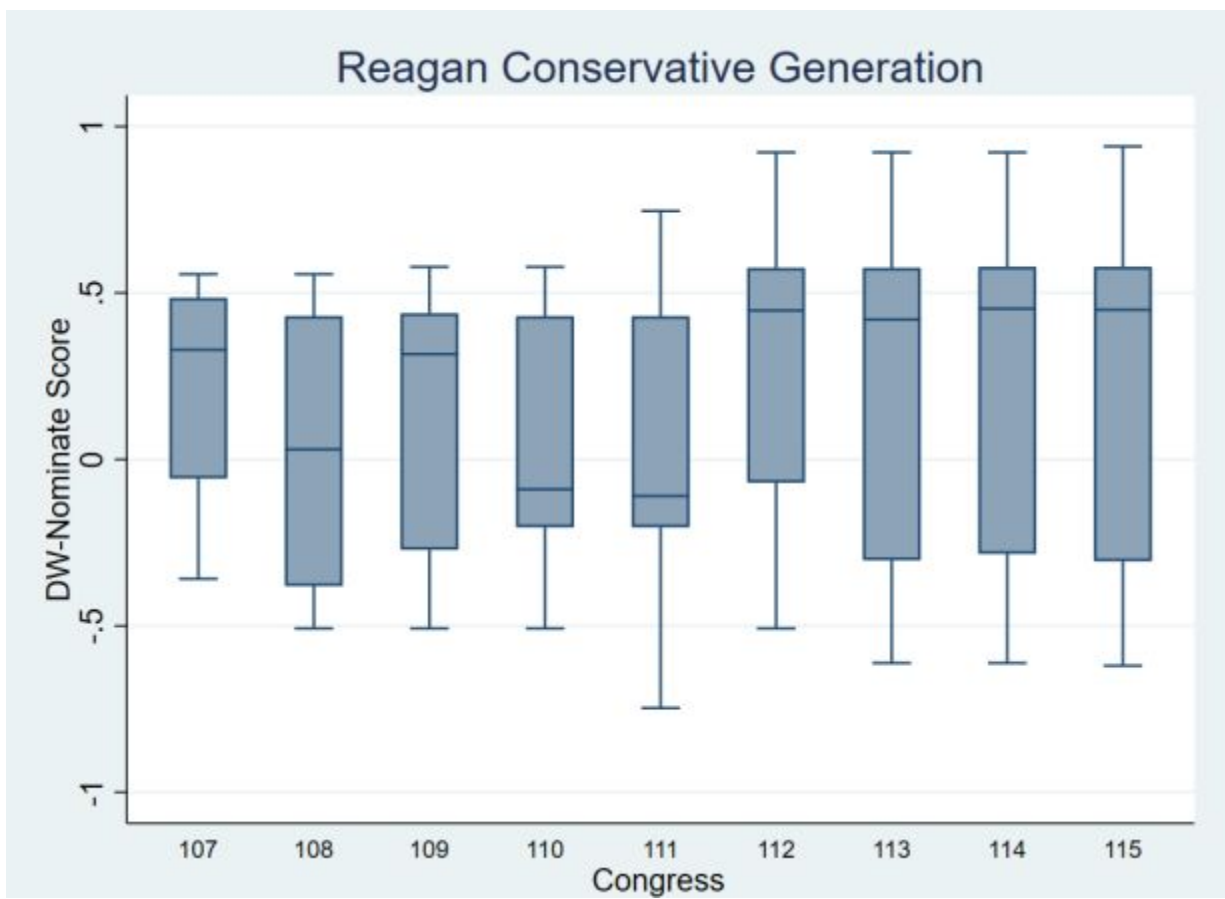
**FIGURE 5. Visualizing Ideology by Generation**



*Notes:* This figure shows the distribution of DW-NOMINATE scores among Congressional members of the Baby Boomer generational cohort (defined as those born between 1952 and 1967) by Congress. Note that the median and IQR are relatively constant, with shifts in the 110th and 111th Congress.

do so during the rest of the cohort's decline. Because of the decreased sample size, I suggest that it was also more vulnerable to the shift in ideology caused by the Gingrich revolution (Theriault 2011), though the lack of movement seen in the quartile ranges despite the conservative skew is a testament to the general immutability of ideology among generational cohort. The median ideological score shifts back to pre-Gingrich levels at the election of the 109th Congress. I suggest that this is explained by electoral consequences to the war in Iraq, which was felt to the greatest extent in "blue" states (Karol 2007).

**FIGURE 6. Visualizing Ideology by Generation**



*Notes:* This figure shows the distribution of DW-NOMINATE scores among Congressional members of the Reagan Conservative generational cohort (defined as those born between 1968 and 1979) by Congress. Note that the median and IQR remain relatively constant after the 111th Congress.

Figure 4 more strongly supports my hypothesis that generational cohorts will display little variance in ideology. Across the Eisenhower Republican generation, there is very little change in the interquartile ranges between Congresses. There are two clear shifts in the median occurring at the 109th and 104th Congresses, though I suggest that these are caused by the same interfering factors I described in the New Deal Democrat generation.

Figure 5 also appears to support my hypothesis. The Baby Boomer generational cohort shows an even smaller shift in the median or interquartile range, with notable outliers at the 103rd,

110th and 111th Congress. I suggest that because the number of congressmen from the Baby Boomer generational cohort was 30 in the 102nd Congress, 66 in the 103rd, and 101 in the 104th, the sample size may explain the variance between ideological distribution of Baby Boomer congressmen in the 103rd Congress in comparison to later Congresses. The marked liberal shift in the 110th and 111th Congresses is likely a result of the wave elections that saw the Democrats obtain their first majority since 1995 and establish it further in 2008. Notably, the return to a Republican majority in the 112th Congress did not result in a conservative shift past the previous distributions.

Considering congressmen from the Reagan Conservative generation in Figure 6 seems at first to disprove my hypothesis of a lack of generational variance, as the medians and IQRs vary greatly before the 112th Congress. However, as the second-youngest generation, the sample size is only 4 during the 107th Congress, and is only 33 during the 111th Congress. Notably, the effects of the Democratic wave elections seen in Figure 5 are prominent here too, and the sample shows considerably low variance among the most recent Congresses, despite a still relatively low sample size. I predict that as the number of congressmen from the Reagan Conservative generational cohort are elected, the distribution of their DW-NOMINATE scores will continue to follow a pattern similar to that observed in the 113th, 114th, and 115th Congresses, barring any large confounding events.

While Generation Y / Millennials are part of the Ghitza and Gelman generational model, the generational cohort is too young to create a statistically significant distribution model. There are still two years remaining before the entire cohort is eligible to hold office in the House of Representatives, and the oldest members of the cohort have only been eligible for Senate office for



**TABLE 1. Effects of Generational Cohort Exist But Cannot Explain Variance in Ideology**

	New Deal Democrats	Eisenhower Republicans	Baby Boomers	Reagan Conservatives	Generation Y
Difference from Ideological Mean	-.045**** [.006]	-.020** [.007]	.117**** [.008]	.210**** [.023]	.154* [.068]
95% confidence	(-.056, -.033)	(-.033, -.008)	(.102, .132)	(.172, .248)	(.028, .278)
N	4357	2495	3767	371	34
$r^2=0.009$					

Note: This table demonstrates that while a very statistically significant effect exists between generational cohort and ideology, it fails to explain a vast majority of the variance in DW-NOMINATE values and thus is unlikely to be an explanation for polarization. Independent variables were coded as binary from 0 to 1. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\*\* $p < 0.0001$ . Robust standard errors in brackets.

7 years. There are only 14 members of the Generation Y cohort in the 115th Congress, far too few to draw any meaningful conclusions from. Despite this, I have included a visualization of the ideological spread of Generation Y in the appendix. When DW-NOMINATE data is released for the 116th Congress, I look forward to seeing if the data creates a reasonable distribution model as seen among older generations in previous Congresses.

Finally, examining Table 1 gives us the results of the multivariate regression analysis testing if generational cohort is a causal factor driving ideological variance in Congress. Notably, all of the regression coefficients exhibited statistical significance, with even Generation Y, despite the low sample size, returning a p value of less than 0.05, and most of the generational cohorts having a p value less than 0.0001. The 95 percent confidence intervals were all small, indicating that the statistical analysis was fairly precise. In addition, the results of the univariable regression tests yielded very similar results to the multivariable regression, supporting the results as statistically significant.

But while the regression indicates that we can conclude significant information about DW-NOMINATE scores from generational cohort, the extremely low r-squared value shows that generational cohort overwhelmingly fails to explain the vast majority of the variance in DW-NOMINATE values. As a result, I am ultimately forced to reject my hypothesis, as less than 1 percent of the ideological spread can be explained as an effect of generational cohort.

## CONCLUSION

Is an ideological generational gap a driving factor behind polarization in Congress? As many decry the rising polarization in Congress and we find ourselves on the tail end of the 2018 midterm election, which saw numerous young and progressive candidates win election to office, this question seems especially relevant. It is difficult to answer, however, because of the many factors that can influence ideology. I attempt to address these difficulties by isolating Congressmen by generational cohort, but ultimately the statistical analysis proves that while generational cohort influences ideology, it does not explain the increase in polarization in Congress.

One possible limitation to my methods lies in the data set. While DW-NOMINATE is a revolutionary way to provide quantitative illustrations of ideology, the first-dimension analysis relies on a rigid economic conception of liberal and conservative, and fails to account holistically for social factors. With more time and statistical knowledge, I might be able to build a more complex model that accounts for the second degree of DW-NOMINATE scores, which could potentially change the results.

In addition, DW-NOMINATE assumes constant ideology across a legislator's career, which fails to account for member adaption, which is estimated to account for up to a third of

polarization (Theriault 2006). Introducing member adaption to the NOMINATE model might create a more accurate polarization model, though I predict that allowing NOMINATE scores to reflect the adaption of ideologically variant views over time might also decrease the accuracy of the generational models, where a constant ideology over time per member strengthens the model.

Part of my theory is the application of Ghitza and Gelman's generational model to legislators. But as their model is built to predict ideology in the form of presidential voting habits, as shaped by presidential approval during particularly formative years, and I'm attempting to predict ideology in the form of roll-call voting, it's possible that legislative ideology isn't subject to the same influences that govern the general public's presidential choice. After all, the counter-argument that roll-call voting reflects the constituents' ideology rather than the individual legislator's seems intuitive. This line of reasoning is flawed, however, as scholarship finds that most legislators are not especially responsive to constituent preferences (Clinton 2006).

A possible alternate explanation to the rising polarization in Congress could be that the legislature is becoming more polarized as it changes to reflect a more polarized American public. But the previously cited scholarship stating that legislators are unresponsive to constituent preferences, the inability of DW-NOMINATE to convey ideological changes over time, as well as literature which shows a lack of polarization in the public makes pursuing such an explanation unlikely to end in fruition (Layman, Carsey, and Horowitz 2006; Fiorina and Abrams 2008).

One confounding factor observed in the generational distribution of ideology might provide an alternate explanation for the increase in polarization: wave elections. For example, nearly half of the 56 Republican House pickups in the "Gingrich Revolution" were by congressmen belonging to the Baby Boomer generation. All but two of the rest were part of the

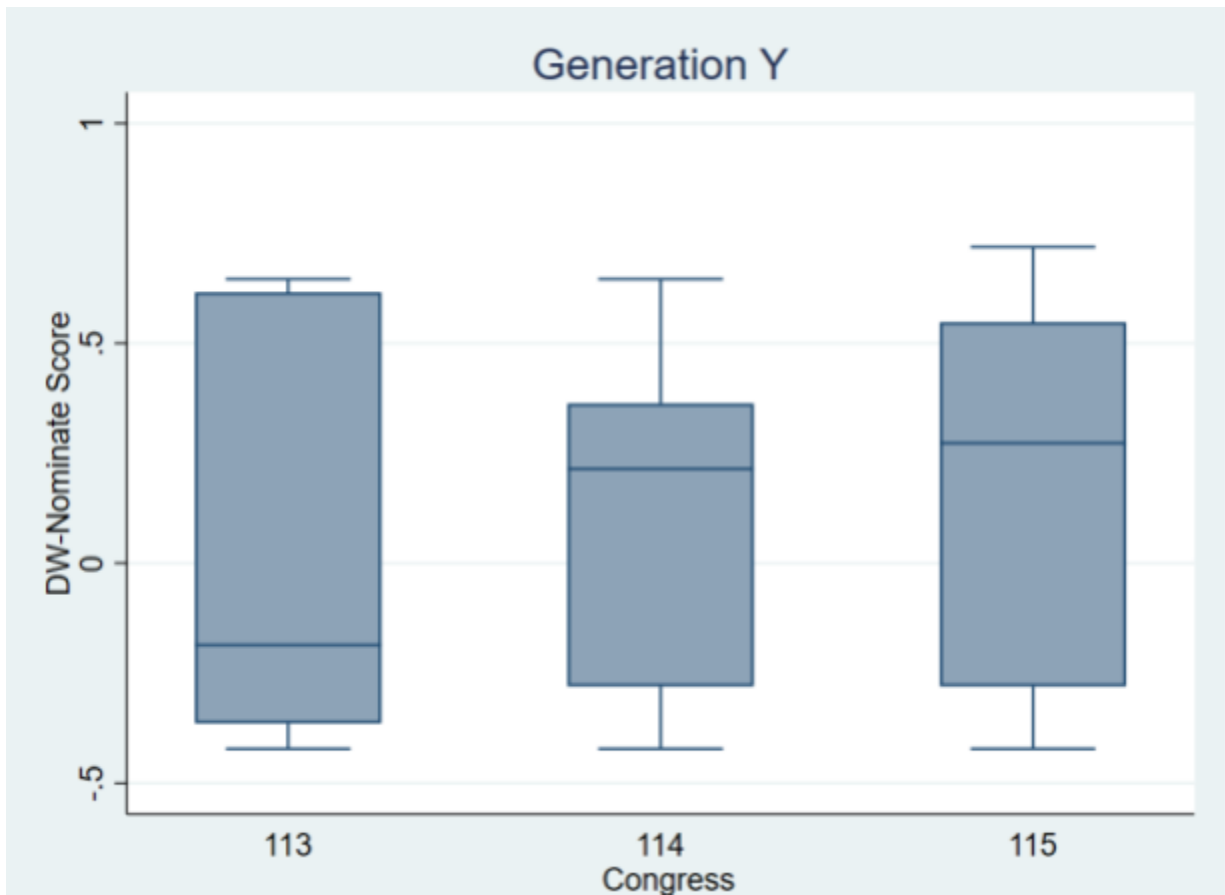
Eisenhower Republican generation. The distribution of ideologies in both generations displayed a noticeable effect during the 104th Congress, elected in the “Gingrich Revolution.” Similarly, a large proportion of the Democrats elected to the 110th and 111th Congresses belonged to the Baby Boomer and Reagan Conservative generations, whose medians also displayed inconsistent behavior during the relevant congresses. Given the frequent description of the 2018 midterm elections as a “blue wave,” the effects of these large incoming classes on ideology is more pertinent than ever. With more time and a more advanced knowledge of Stata, I would be interested to see how being a participant in these wave elections affected ideology.

Finally, with more time, I would consider running this analysis while controlling for repeated measures. In the dataset, each individual Congress is listed, leading several members to be counted multiple times for every Congress they served in, though their DW-NOMINATE score does not change to reflect any changing ideology over the course of their career. Eliminating these repeated data is difficult, however, as members are coded as descriptive rather than quantitative variables and thus the only solution would be to enter by hand an analysis that considers each given ID only once. Though this would be labor intensive, it should reduce variance and increase the r-squared value, likely improving the results of my model.

The scholarship investigating the causes of polarization demonstrates the need for an analysis that is able to consider the multiple variables that affect ideology among political elites as well as the complex decision making behind the legislature voting process. While generational ideology provides a compelling lens to explain the growing polarization in Congress, it ultimately fails to do so. As the nation prepares to welcome a younger, possibly more progressive class to the 116th Congress, only time will tell if this divide will grow or begin to shrink.

## APPENDIX A: GENERATION Y

**FIGURE A.1 Visualizing Ideology by Generation**



Notes: This figure shows the distribution of DW-NOMINATE scores among Congressional members of the Generation Y generational cohort (defined as those born more recent than 1980) by Congress. N = 7 for 113th Congress, N = 10 for 114th Congress, and N = 14 for 115th Congress.

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