# Preventative Polarization: <br> Republican Senators' Positional Adaptation in the Tea Party Era 

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Republicans in Congress have become significantly more conservative during the twentyfirst century. This shift accelerated at exactly the point that they had the fewest seats in Congress since the 1970s. We propose that the changing pressures they faced when seeking reelection undergirded this trend. Rather than moderating towards the general election median voter as they had previously, Republican senators became relatively more conservative when seeking reelection to avoid the emergence of, or mitigate the threat from, primary challengers in the Tea Party era ( $109^{\text {th }}$ to $113^{\text {th }}$ Congresses). We label this phenomenon preventative polarization. We also show that retiring Republican senators moderated their voting behavior in this period, suggesting incongruence between their personal and expressed preferences at other times. In the Trump era, we report null results, suggesting that other factors structured behavior. Combined, these findings suggest that Republican senators responded to shifting electoral incentives across distinct periods since the 1980s.

Keywords: Republican Party, Senate, polarization, Tea Party, primary elections

It used to be they're looking over their shoulders to see who their general opponent is. Now they're looking over to see who their primary opponent is.

Former Speaker Dennis Hastert ${ }^{1}$

Republicans had different reactions to the 2008 elections that brought Barack Obama to the White House, a filibuster-proof majority (eventually) for the Democrats in the Senate, and an almost eighty-seat advantage for Democrats in the House. Some prominent Republicans advocated for the conventional wisdom, as handed down by Downs (1957), which suggests that a party should moderate to capture the median voter. In in a New York Times opinion piece, David Brooks wrote that the party had to moderate in order "to appeal more to Hispanics, independents and younger voters" (2008). Ken Mehlman, who managed George W. Bush's 2004 reelection effort resulting in the highest number of Republicans in Congress since the 1930s shared that opinion: "The way you do that, in part, is by being a party that is less reliant on white guys and expands it support among Hispanics, among African-Americans" (Martin, Allen, and Vandehei 2007).

That opinion was not universally shared. Typifying the opposition to the moderation strategy, Senator Jim DeMint (South Carolina) declared: "I would rather have thirty Republicans in the Senate who really believe in principles of limited government, free markets, free people, than to have sixty that don't have a set of beliefs" (Carney 2009). At a time when direct confrontation was not as common, DeMint personalized his preferences more explicitly: "I'd rather lose with Pat Toomey than win with Arlen Specter any day" (Moore 2010). ${ }^{2}$ These radically different reactions underscore the dilemma Republican candidates faced at their lowest point since the late 1970s.

As the elections after 2008 played out, it became clear that moderation was not part of the Republican playbook. In fact, quite the opposite. Since Reagan was elected president in 1980, the two largest increases in conservative roll-call voting among Republican senators occurred after the 2010 (0.048) and 2012 (0.032) elections. The average change after the other

[^0]eighteen elections was nearly one-sixth that at $0.007 .{ }^{3}$ Before these shifts, Republican senators were only seventeen percent further from the ideological midpoint than Democratic senators. After these two shifts, that distance doubled (to thirty-six percent) and increased that amount again over the next four elections (to forty-eight percent). These conservative jumps in the Republican Party point to this period as being key for understanding how the parties have operated during the twenty-first century.

We think this disjoint between the conventional wisdom and the Republican reality can at least partially be explained by the changing incentives that senators faced during their elections. As primaries became more threatening than general elections, Republican senators shifted their voting behavior. In part because of this tension, the relationship between primary elections and congressional polarization has come under significant scrutiny in recent years (Boatright 2013; Cowburn 2022). Though data suggest that primary voters are no more "extreme" than parties' general electorates (Hirano et al. 2010; Sides et al. 2020), candidates at this early stage may be incentivized to take non-centrist positions consistent with donors, activists, and other groups crucial during the nomination process (Masket 2009). Though the Republican Party's growing conservativism has been disproportionately responsible for the growing ideological distance between the parties in Congress for more than two decades (Hacker and Pierson 2006; Mann and Ornstein 2008; Theriault 2013), the emergence of the Tea Party accelerated the Republican's rightward shift (Blum 2020; Blum and Cowburn 2023; Gervais and Morris 2018). During the Tea Party era-defined here as 2009 to 2015 (the $109^{\text {th }}$ to $113^{\text {th }}$ Congresses) - Tea Party-endorsed primary candidates increasingly challenged incumbents for being insufficiently conservative and won primaries without incumbents (Blum 2020; Boatright 2013; Cowburn 2022).

The presence of the Tea Party Caucus in the House of Representatives has meant scholarship measuring its influence has been disproportionately focused on the House (Bailey, Mummolo, and Noel 2012; Blum and Cowburn 2023; Gervais and Morris 2018). Yet, studies demonstrate important cross-chamber connections in questions of party identity, strategic approaches, and ideological positioning (Theriault 2013). We therefore consider the influence of the Tea Party movement in compelling Republican senators to vote more conservatively. We

[^1]are also able to use the Senate's staggered election cycles to examine variation that is unavailable in the House.

Republicans' growing radicalization in Congress may occur through two distinct processes (see also Theriault 2006): more conservative candidates may oust-either in primary or general elections-comparatively moderate incumbents in a process of replacement; alternatively, members of Congress may remain in office but move rightward in a process of adaptation. We focus specifically on the adaptive effect here, which is less studied because it may not be as significant as replacement, and is harder to test. Nevertheless, we think it may play a more critical role during this key period of change. By explicitly considering the growing conservatism of Republican senators when seeking reelection, we gain leverage in understanding how the Tea Party radicalized members even in a chamber in which it was not formally established (see also Meyer 2021).

Accordingly, we test senators' positional adaptation in roll-call voting when they face reelection using a series of fixed effects models. Prior to the emergence of the Tea Party, senators adopted more moderate roll-call voting behavior during the congress in which they sought reelection. During the Tea Party era, Republican senators reversed this behavior and adopted more conservative positions when facing reelection. Contrary to our expectations about the resilience of this relationship, this pattern did not hold into the Trump era, when senators seeking reelection were no more or less moderate. In the Tea Party era, we demonstrate that this relationship is likely a response to outside pressures rather than the senators' personal preference with evidence that retiring senators moderated their roll-call voting record once they were alleviated of electoral incentives. This relationship was not present in either the pre-Tea Party or Trump eras.

These results indicate that specific dynamics and incentives structured Republican intraparty competition during the Tea Party era. The presence of an organized faction on the party's right-which used (the threat of) ideological primary challenges-appears to have incentivized incumbent senators to adapt more conservative roll-call voting behavior. In line with other recent research on party factions (Bloch Rubin 2017; Blum 2020; Blum and Cowburn 2023; Clarke 2020; DiSalvo 2012; Noel 2016a), our findings suggest that the sub-party groups play an important role in orienting parties along the ideological spectrum. Our results also provide evidence of what might be termed preventative polarization-where incumbents adapt more
extreme or consistently partisan voting positions to ward off the emergence of, or lessen the threat posed by, factional primary challengers - at least on the right of the political spectrum. Unlike other scholarship on this subject (Cowburn 2022; Hirano et al. 2008; Meyer 2021), which tests incumbent responses once a primary challenger emerges, ${ }^{4}$ our empirical design also enables us to assess responses to potential primary challenges on ideological grounds, revealing this preventative effect.

We proceed as follows. First, we briefly summarize the relationship between congressional polarization, Republican radicalization, and the role of the nomination process. We also highlight the importance of the Tea Party in these ongoing processes to justify the temporal segmentation into pre-Tea Party, Tea Party, and Trump eras in forming our hypotheses. Next, we introduce our data and approach before presenting the results of our empirical models. We end by discussing the implications of our findings for the remaking of the Republican Party, the functioning of the contemporary Senate, and the changing dynamics of primary elections.

## Republican Radicalization in The Tea Party Era

Elite partisan polarization, commonly defined as the ideological distance between Democrats and Republicans in Congress, has increased consistently since the late 1970s and reached unprecedented levels in recent years (Lewis et al. 2021; McCarty, Poole, and Rosenthal 2006; Theriault 2008). Adaptation, the process through which individual members move towards an ideological pole during their career, accounts for roughly one-third of congressional polarization between the 1970s and the 2000s (Theriault 2006). It is this process that we study here.

Given recent critiques of the narrative of polarization as the central challenge facing U.S. politics (Kreiss and McGregor 2023), the clear asymmetry in positional movement between the Republican and Democratic Parties in Congress (Hacker and Pierson 2006; Mann and Ornstein 2008; Theriault 2013), and the Republican Party's adoption of authoritarian rhetoric and racialized anti-democratic sentiment (Bartels 2020; Cowburn and Oswald 2020), we focus exclusively on Republicans' growing conservativism. Indeed, the comparative lack of movement in roll-call voting among Democratic senators during this period would likely produce null

[^2]results in all of our empirical analyses. The Democratic senators who served after Biden's election in 2020 were only seventeen percent further from the ideological midpoint than the Democrats who served after Reagan's election in 1980; the Republicans, in contrast, moved nearly four times as much (sixty-four percent). Our focus on Republican radicalization is therefore both normatively and empirically motivated.

One key mechanism for groups such as the Tea Party to incentivize incumbent members of Congress to move away from the center is the nomination process. The United States has one of, if not the, most open system of legislative candidate selection in the world (Cowburn and Kerr 2023; Hazan and Rahat 2010), meaning factions can easily field their own candidates to challenge incumbents. Ideological and factional primary challenges have become increasingly common in the twenty-first century (Boatright 2013; Cowburn 2022). These challenges to incumbents occur because some part of the party coalition desires a more consistent partisan in Congress and believes that the incumbent is not ideologically sufficiently extreme (Jewitt and Treul 2019).

Following Obama's election as president, DeMint pushed the Republican conference to adopt several rule changes that would strike at the seniority system and the power of the Appropriations Committee. In a number of votes, DeMint's changes attracted no more than a handful of supporters. After one vote, Republican Minority Leader Mitch McConnell (Kentucky) commented, "Jim, you can't change the Senate" (DeMint 2011). In an effort to prove McConnell wrong, DeMint implemented a strategy of trying to change the senators as a way of changing the Senate. In nine Senate races in 2010, DeMint endorsed a candidate that was running against the Republican establishment's preferred candidate (see Theriault 2013). ${ }^{5}$ His candidates won five of those primaries, though only Marco Rubio (Florida), Rand Paul (Kentucky), and Mike Lee (Utah) won their general elections. In four other races, DeMint and the Republican establishment agreed on the same candidates; two of whom won their general elections (Johnson in Wisconsin and Coburn in Oklahoma). In total, DeMint's efforts resulted in nearly $\$ 7$ million dollars flowing to his endorsed candidates in the 2010 cycle. Of course, DeMint was not alone in his war against the Republican establishment. This period was associated with intense

[^3]factional conflict as the Tea Party and its candidates sought to reorient both the party and conservatism ideologically rightward (Blum 2020; Skocpol and Williamson 2012).

Incumbent senators were not passive observers as DeMint engaged in their primaries. In fact, the strong positioning of Toomey among Republicans both in Washington, D.C., and Pennsylvania, eventually compelled Specter to switch parties, though he ended up losing in the Democratic primary. Short of switching parties, members of Congress can adopt issue positions that prevent a challenger from emerging, or negating the challengers' claims when they do so. One oft-cited example of this positional movement is the late Arizona Senator John McCain's adoption of more conservative positions on climate change (Anderson, Butler, and HarbridgeYong 2020) and the southern border fence (Meyer 2021) after being challenged from the right by former House member J.D. Hayworth in a Republican primary in 2010. Though primary voters are themselves unlikely to directly monitor the voting behavior of the elected officials in Congress, ${ }^{6}$ organizations such as Tea Party Express, Tea Party Patriots, Americans for Prosperity, and FreedomWorks - crucial actors supporting the Tea Party faction (Skocpol and Williamson 2012)—were keenly aware of senators' voting behavior and adherence to conservative policy goals. In short, though the public are unlikely to notice how their elected officials are casting their votes on the chambers' floors, groups that constitute the "informal party network" (Masket 2009) do. Because these groups support or limit factional primary challengers in relation to incumbents' voting behavior, evidence from the House of Representatives suggests that ideological extremity in roll-call voting helped incumbents avoid primary challenges (Brady, Han, and Pope 2007; Pyeatt 2013)

In their move to the right, senators may adopt strategies to limit the threat from intraparty challengers including campaign messaging and advertising, seeking endorsements from these groups, introducing bills in Congress, or making press statements that align with the goals and concerns of the faction. We think these strategies extend to how they behave on the Senate floor. Because roll-call votes are much easier to observe, record, and analyze, we restrict our analysis to this one activity not because the others are not important, but because we have good roll-call voting records and we think they are consistent with the other strategies.

[^4]Whether and how primaries contribute to polarization in Congress remains contested in the literature (Abramowitz 2008; Brady, Han, and Pope 2007; Burden 2001; Cowburn 2022; Fiorina and Levendusky 2006; Sides et al. 2020). Examining data from 1936 to 2006, Hirano et al. $(2010,169)$ find "little evidence that...the threat of primary competition [is] associated with partisan polarization in congressional roll call voting." We argue that these findings across this seventy-year period of relatively stable party dynamics may need to be reconsidered in light of the shifting electoral incentives Republicans faced during the Tea Party era.

We test whether this shift should be added to the relatively short list of conditions under which we find legislators adapting their voting behavior in response to the conditions they face. Members of Congress have long been said to "die in their ideological boots" (Poole 2007), that is, based upon the roll-call voting record, once elected to Congress, members adopt an ideological position and maintain that positions through their careers. Neither redistricting (Poole 2007; Poole and Romer 1993) nor a switch in office (Grofman, Griffin, and Berry 1995) has been shown to alter the way members vote. Hibbing (1986) does find that House members change their voting behavior once they announce a Senate run, and Kousser, Lewis, and Masket (2007) find that Democratic legislators in California started voting more conservatively after Governor Gray Davis was recalled in 2003. In this paper, we test whether the Tea Party struck a similar fear of reprisal among Republican senators as Davis's recall did among Democratic legislators.

The Tea Party movement remained important beyond its demise in 2015, when the rightward ideological shift, reduced organizational capacity of establishment party forces, and the engagement of grassroots supporters allied with conservative megadonors all contributed to an increasingly Trumpian Republican Party. Most obviously, the rightward movement produced a party at both the elite and mass levels that was less openly hostile to Trump's populist and nationalistic rhetoric and a policy platform that shared much in common with the Tea Party movement that preceded him. Intra-party conflict in Congress has further been identified as weakening the established party structures that might otherwise have coordinated to prevent Trump from winning the nomination in 2016 (Noel 2016b). The Tea Party movement has been defined as an alliance of grassroots conservative supporters and megadonors (Skocpol and Williamson 2012), an approach that was also followed by Trump and his supporters from 2015 onwards with many former Tea Party supporters quickly aligning with his candidacy (Pew Research Center 2019). In the Trump era-defined here as the $114^{\text {th }}$ to $117^{\text {th }}$ Congresses (2015-
23)—elite Republican intra-party conflict largely followed the parameters established in the Tea Party era, where members of Congress who were deemed insufficiently supportive of a conservative agenda or of Trump were branded as Republicans in Name Only (RINOs) and targeted in primary challenges. Though we analyze the Tea Party and Trump eras separately, we expect that the behavioral incentives established in the Tea Party era continued into the Trump era.

Given anecdotal accounts by congressional insiders such as Dennis Hastert in the epigraph, we expect that, prior to the emergence of the Tea Party, senators were more attentive to the general election median voter (Downs 1957) in the congress that they sought reelection, resulting in more moderate voting behavior. Once DeMint and the Tea Party began exerting pressure from the right, we expect that senators changed their behavior and moved rightward in an attempt to appeal to the "coalitions of policy demanders" (Bawn et al. 2012) that held significant sway over their "primary constituency" (Fenno 1978). Consequently, we expect Republican senators' voting behavior to become more conservative when seeking reelection. Given the literature on the long-term effects of the Tea Party (Gervais and Morris 2018; Skocpol 2020), we expect this pattern to continue into the post-2016 Trump era. We expect that the adaptation of some senators was sufficient to prevent challengers who might otherwise have emerged, meaning we examine the behavioral responses to any potential challenger rather than only testing senators' responses to challengers who materialize:

## Reelection Hypotheses

Pre-Tea Party Era: To appeal to the general electorate, Republican senators moderate (move left) during the congress in which they seek reelection.
Tea Party Era: To appeal to the primary electorate, Republican senators become more conservative during the congress in which they seek reelection.
Trump Era: To appeal to the primary electorate, Republican senators become more conservative during the congress in which they seek reelection.

If senators' observed roll-call voting behavior balances their personal preferences with their constituencies' preferences, we would expect the latter to be dominant during the final two years of their terms in office. During the previous four years, they are comparatively less constrained by their constituents. The conclusion of this logic suggests that they should be
almost completely unconstrained to exercise their personal preferences after they announce that they are not seeking reelection.

Under the conventional wisdom, we would expect that these long-standing members of the Republican Party hold more conservative policy positions than their general electorates (Bafumi and Herron 2010). Consequently, Republican senators express more moderate positions than they would personally prefer so as to align with their general election voters. Yet, the form of preventative polarization we hypothesize for the Tea Party era and beyond incentivizes senators to move further rightward in their roll-call voting behavior than they would otherwise choose.

As a further test of our argument, we compare reelection-seeking senators with those senators who are retiring. ${ }^{7}$ Because most senators announce their retirement early in their final congress in an attempt to help the party retain their seat by allowing time for quality candidates to emerge as their potential successor (Karol 2015), scholars have found a last-term effect in how their voting behavior changes (Lott and Bronars 1993; Tien 2001; Vanbeek 1991). If senators feel pressured to align with their general election voters through the adoption of more moderate positions, then we should expect that retirees are more conservative in their voting in their final congress. Conversely, if senators feel incentivized to be further to the right due to pressure from policy demanders and potential primary challengers, then retirees should moderate once this electoral pressure is obviated. In short, we expect that retirees to move in the opposite direction to those senators facing reelection. Consistent then with our expectations from our reelection hypotheses, we expect that the behavior of retirees varies based on the time period:

## Retirement Hypotheses

Pre-Tea Party Era: Relieved of the electoral pressure to align with their general electorate, retiring senators become more conservative in their final congress.
Tea Party Era: Relieved of the electoral pressure to align with their primary constituency, retiring senators moderate in their final congress.

[^5]Trump Era: Relieved of the electoral pressure to align with their primary constituency, retiring senators moderate in their final congress.

Put simply, we anticipate that senators retiring before 2009 became more conservative and those retiring after 2009 moderated in their final congresses as the electoral pressure shifts from the general to the primary electorate following the emergence of the Tea Party. Relieved of this pressure, retirees adopted positions more congruent with their personal preferences in their final congress.

## Data

To assess Republican senators' ideological movement over the course of their term, we construct an original dataset from a combination of well-established sources. Given our interest in the growing conservativism of Republican senators, we consider their positioning since the 1980s, commonly conceived as the start of the polarized period (McCarty, Poole, and Rosenthal 2006; Theriault 2006). We therefore include data for all Republican senators since the $97^{\text {th }}$ Congress (1981-83) up to and including the $117^{\text {th }}$ Congress (2021-23), which in total comprises 178 senators and 1,065 senator-congress level observations.

Partisan polarization in Congress is commonly measured using roll-call votes. The most common method to produce ideal point estimates from voting behavior is NOMINATE (Poole and Rosenthal 1985), which scales members of Congress along a singular dimension from -1 (liberal) to 1 (conservative). ${ }^{8}$ Because DW-NOMINATE scores are based on senators' entire careers, we instead use the one-congress-at-a-time version of this measure (Nokken and Poole 2004), commonly referred to as Nokken-Poole scores, which enable us to capture the immediate change in senators voting behavior in the congress in which they seek reelection or retire. Accordingly, we use Nokken-Poole scores as our dependent variable in all models.

Our key independent variables for both hypotheses are dichotomous. For the Reelection Hypotheses, our independent variable takes the value " 1 " for each congress in which a senator seeks reelection and " 0 " otherwise. We consider all senators who make it as far as the primary ballot or party convention as having sought reelection. Similarly, any senator who is reselected

[^6]as the party's candidate unopposed is considered as having sought reelection, including senators who are defeated by a same-party opponent in a primary or convention, and those who are renominated and then not reelected for any reason. ${ }^{9}$ For the Retirement Hypotheses, we consider all senators who actively chose not to seek reelection as having retired. ${ }^{10}$ Our interest here is in the change in behavior once senators no longer face reelection to the Senate, meaning we do not differentiate between senators who retire from politics and public office completely and those who retire to run for alternative office such as governor or president.

Republican senators may adjust their roll-call voting behavior for a variety of reasons. Given our specific interest in the dynamics of reelection and retirement, we attempt to mitigate the influence of alternative explanations by controlling for them in our empirical models. Most obviously, senators may adjust their positions if the preferences of their voters change. If a senator's state moves meaningfully leftward or rightward during the course of their career, we might reasonably expect that they update their voting behavior to align with their constituents. In line with this expectation, senators from very red states likely pay more attention to their primary constituency, knowing that they are highly unlikely to lose reelection to a Democratic opponent. Conversely, senators from swing or Democratic-leaning states must be comparatively attentive to the preferences of their general electorate. To account for these possibilities, we control for the state's partisanship, operationalized as Republican vote share in the most recent presidential election, taking election results collected directly from the Federal Election Commission (FEC) website (FEC 2023). The presidency is the only office in which all voters decide between the same candidates, removing any inter-state differences in candidate quality. Presidential vote share has long been used as a reliable indicator of state partisanship (Cook Political Report 2017).

We also control for variation in several key economic and demographic indicators at the state level. Median income has been theorized as motivating more conservative voter behavior through greater economic anxiety, despite decades of wealthier Americans being more supportive of Republican presidential candidates (Gelman et al. 2007). Racial patterns of

[^7]partisan support are less ambiguous, where white Americans have long been more supportive of the Republican Party in the modern era than any other racial group (see e.g., Phillips 2016). Accordingly, senators in states that are getting whiter may feel incentivized to adopt more conservative voting positions to align with the perceived preferences of their voters. An associated pattern is present in partisan support across urban and rural areas, where urban populations are far more supportive of the Democratic Party and the Republican Party faring better in rural areas (Parker et al. 2018). Accordingly, we include controls for median household income, the percentage of white voters in a state, and the percentage of the state's population which lives in an urban area. We take these figures from the relevant versions of the U.S. Census American Community Survey (ACS) estimates.

We further note that Senate voting is strongly conditioned by majority party status (Gailmard and Jenkins 2007; Roberts 2007). We therefore include an indicator variable that takes the value " 1 " when the Republican Party has a working majority in the chamber and " 0 " otherwise. ${ }^{11}$ Given that we seek to identify patterns of adaptation in relation to reelection and retirement within this broader trend, we include an additional control for the time trend in our data, denoted by the inclusion of the congress as a continuous variable in our model. ${ }^{12}$

## Results

Before presenting our full empirical results, we demonstrate the voting behavior of the six Republican senators who served more than thirty years as a prima facie test of our hypotheses. We find their voting patterns largely confirm our expectations when seeking reelection, at least in the periods prior to the Trump era (see Figure 1). In the Pre-Tea Party era, McCain's voting record was 0.047 more moderate when he sought reelection compared to the congresses in which he did not face the voters. During the Tea Party era, the shift was even bigger (0.066) in the opposite direction - that is, he became more substantially more conservative. These shifts were typical of these long-serving senators. During the Pre-Tea Party era, they were, on average, 0.035 more moderate when seeking reelection. As with McCain, these senators became more

[^8]conservative during the Tea Party era (0.046). Only half the sample had a congress of both types during the Trump era. While McCain's shifts were noticeable, they were not as big as Senator Hatch of Utah, who had the biggest voting behavior shift going from being 0.027 more moderate when facing the voters to being 0.196 more conservative. Interestingly, the senator whose voting record was least subject his reelection status was Mitch McConnell (Kentucky) who moved in the opposite direction than expected in all three periods. Senator Grassley (Iowa) adopted more moderate positions when seeking reelection in all three periods.

Figure 1: Ideological Shifts in Voting Behavior of Long-Serving Republican Senators Pre-Tea Party Era




Having demonstrated face validity, we turn to a comprehensive test of our hypotheses. To identify positional adaptation by senators in the congress in which they stand for reelection or choose to retire we use a series of fixed effects models. In this, the congress ( $97^{\text {th }}, 98^{\text {th }}$, and so on) serves as our time variable, with senators' (unchanging) identifiers as the panel variable. Our results therefore compare senators' positions in the congress in which they sought reelection
to those where they did not. We report the results for all models using robust standard errors clustered at the individual (senator) level. ${ }^{13}$

We find that, consistent with the Reelection Hypotheses during the pre-Tea Party era, senators moderated in an attempt to align with the general election median voter in their state and to ward off claims from their Democratic opponent that they are too conservative. Controlling for other potential covariates, we find that senators have, on average, Nokken-Poole scores of -0.036 (give or take 0.004 ) in the congresses that they sought reelection compared to their voting record in other congresses (Table 1, column A).

Table 1: Seeking Reelection \& Republican Senators' Voting Behavior.

|  | $(A)$ <br> Pre-Tea Party Era <br> $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress $)$ | $(\mathrm{B})$ <br> Tea Party Era <br> $\left(110^{\text {th }}-113^{\text {th }}\right.$ Congress $)$ | $(\mathrm{C})$ <br> $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress $)$ |
| :--- | :---: | :---: | :---: |
| Reelection | $-0.036^{* * *}$ | $0.021^{* *}$ | -0.011 |
| Republican Pres Vote Share | $(0.004)$ | $(0.010)$ | $(0.010)$ |
|  |  |  |  |
| Median Household Income | 0.025 | 0.043 | 0.036 |
|  | $(0.040)$ | $(0.056)$ | $(0.081)$ |
| White \% | $-0.016^{*}$ | -0.007 | -0.007 |
|  | $(0.008)$ | $(0.007)$ | $(0.007)$ |
| Urban \% | -0.045 | 0.264 | 0.243 |
|  | $(0.232)$ | $(0.249)$ | $(0.269)$ |
| Majority | -0.056 | 0.084 | 0.127 |
| Congress (Time) | $(0.199)$ | $(0.220)$ | $(0.231)$ |
|  | 0.006 | 0.009 | 0.005 |
| Constant | $(0.005)$ | $(0.006)$ | $(0.007)$ |
|  | $0.006^{* * *}$ | $0.004^{* *}$ | $0.005^{* * *}$ |
| Observations | $(0.002)$ | $(0.002)$ | $(0.002)$ |
| R 2 | -0.108 | -0.295 | -0.385 |
| Number of Senators | $(0.364)$ | $(0.396)$ | $(0.380)$ |

Robust standard errors in parentheses
${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,^{*} \mathrm{p}<0.1$
Also consistent with our Reelection Hypotheses, we find that senators during the Tea Party era moved 0.021 (give or take 0.010 ) rightward in their roll-call voting score in the congress in which they face re-election (see Table 1, column B). Substantively, this radicalization

[^9]is more than five times the average rightward movement of the entire Republican cohort between congresses in this period (0.004). Given that senators were previously adjusting their voting towards the center, we can consider them to be a full 0.043 further to the right during this period than they would otherwise have been before the Tea Party. Not only are senators not adjusting their position leftward in this period but, as theorized, that are instead adopting more conservative voting positions when facing re-election.

While we find evidence consistent with the Reelection Hypotheses for the first two periods, the evidence for the Trump era is not what we expected. Not only is the reelection variable not statistically significant, but it is negative ( -0.011 ) suggesting that senators during the Trump era acted more consistently with Republican senators before the Tea Party era than they did to Republican senators during the Tea Party era (Table 1, column C), though this negative coefficient is not statistically significant.

Table 2: Retiring \& Republican Senators' Voting Behavior

|  | $(\mathrm{A})$ <br> Pre-Tea Party Era <br> $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress) $)$ | $(\mathrm{B})$ <br> Tea Party Era <br> $\left(110^{\text {th }}-113^{\text {th }}\right.$ Congress $)$ | $(\mathrm{C})$ <br> Trump Era <br> $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress $)$ |
| :--- | :---: | :---: | :---: |
| Retirement | 0.013 | $-0.050^{* * *}$ |  |
|  | $(0.013)$ | $(0.016)$ | -0.004 |
| Republican Pres Vote Share |  |  | $(0.028)$ |
|  | 0.027 | 0.044 | 0.032 |
| Median Household Income | $(0.041)$ | $(0.056)$ | $(0.081)$ |
|  | $-0.018^{* *}$ | -0.007 | -0.006 |
| White \% | $(0.009)$ | $(0.007)$ | $(0.007)$ |
|  | 0.001 | 0.335 | 0.280 |
| Urban \% | $(0.228)$ | $(0.256)$ | $(0.272)$ |
|  | -0.029 | 0.127 | 0.136 |
| Majority | $(0.201)$ | $(0.223)$ | $(0.238)$ |
|  | 0.005 | 0.003 | 0.004 |
| Congress (Time) | $(0.005)$ | $(0.006)$ | $(0.007)$ |
|  | $0.007^{* * *}$ | $0.005^{* *}$ | $0.005^{* * *}$ |
| Constant | $(0.002)$ | $(0.002)$ | $(0.002)$ |
|  | -0.264 | -0.421 | -0.396 |
|  | $(0.366)$ | $(0.400)$ | $(0.377)$ |
| Observations |  |  |  |
| $\mathrm{R}^{2}$ | 867 | 614 | 462 |
| Number of Senators | 0.032 | 0.041 | 0.039 |

Turning to the Retirement Hypotheses that argues senators make the opposite ideological shift from those choosing to run for reelection we likewise find results consistent with our
expectations for some periods. Before the emergence of the Tea Party, when senators who sought reelection became more moderate, we uncover some evidence that retiring senators vote more conservatively (0.013), but the coefficient is not statistically significant ${ }^{14}$ (Table 2, column A). This null finding suggests that senators were either voting in line with their personal preferences or that they felt continued pressure to maintain their previous positions following their retirement announcement.

The Retirement Hypothesis held during the Tea Party era. Senators who retired during this period shifted 0.050 (give or take 0.016 ) further to the left in their roll-call voting scores in their final congress. This finding suggests that, in the Tea Party era, senators felt pressured to adopt positions further to the right than they personally preferred.

Given that the Reelection Hypothesis did not hold during the Trump era, we were not surprised we also got null results for the Retirement Hypothesis in this period. Senators who retired between the $114^{\text {th }}$ and $117^{\text {th }}$ Congresses did not moderate their roll-call voting positions in their final congress as they had done in the Tea Party era, suggesting a distinct dynamic in terms of the relationship between personal preferences and roll-call voting.

Figure 2: Ideological Shifts of Republican Senators


We find the most evidence for our hypotheses during the Tea Party era (see Figure 2). Republican senators who sought reelection shifted right while those who retired shifted left. Both findings are statistically significant. The results during the Pre-Tea Party era are consistent with our expectations, though they are only significant among senators seeking for reelection. Our findings are weakest in both sets of analyses during the Trump era.

## Discussion

Because elected officials prioritize their position in public office and the associated retention of power (Mayhew 1974), we expect them to respond to electoral incentives. As those incentives change, we should expect their behavior to likewise change. Consistent with classic accounts of spatial voting behavior (Downs 1957), Republican senators who sought reelection during the Pre-Tea Party era moderated roll-call voting behavior to align with the preferences of their states' median voters as a means to neutralize ideological attacks from Democratic opponents during the general election campaigns.

The Tea Party changed those dynamics. Whereas Republican senators previously, in Hastert's terms, looked over their left shoulder to see who their general election opponent was, they instead became more conservative during the Tea Party era, looking over their right shoulder to guard against a potential primary opponent. Tea Party-supported candidates, whether they materialized or not, incentivized reelection-seeking senators to adapt their rollcall voting behavior rightward to neutralize the emergence of same-party opponents and undercut the credibility of these claims among those who did manifest. We term this movement preventative polarization, and demonstrate how it played out during the period when Republican senators lurched to the right in their voting behavior.

It is important to note these findings are not evidence that Republican primary voters preferred extreme candidates during this period. Rather, these findings indicate that Republican senators perceived benefits from more conservative roll-call voting at this time. Senators might expect a range of advantages of more ideological voting, including non-ideological benefits such as a decreased likelihood of a high-quality challenger from adopting further-right positions. Policy demanders in the party network play a key role in this process. Unlike primary voters (Bawn et al. 2019), these groups are highly attentive to politicians' policy positions and liable
to mobilize against those that do not align with their views (Masket 2009). These and other findings (Anderson, Butler, and Harbridge-Yong 2020; Cowburn 2022; DeCrescenzo 2020) suggest that elite behavior is central to this story.

Senators' beliefs about the preferences of their primary voters are also likely important. Despite evidence that primary voters do not hold meaningfully distinct policy preferences positions from a party's general election voters (Boatright 2014; Hirano et al. 2010; Sides et al. 2020), media coverage of primary voters commonly depicts primary voters as ideologically extreme and unrepresentative (Elving 2022; Rubin 2021), with evidence of adhering to this narrative among (at least some) senators during this period (Schumer 2014). If Republican politicians perceive that their primary voters are to their right, then they may adapt their positions to be more congruent with these perceived preferences. Primaries may therefore have exacerbated Republican radicalization during this period, not due to the preferences of primary electorates but as a result of the perceptions of political elites (see also Anderson, Butler, and Harbridge-Yong 2020; DeCrescenzo 2020), likely connected to media narratives about these voters.

Given that ideological primary challenges and factional intra-party conflict outlasted the Tea Party, we expected that senators would continue to adapt into the Trump era. The results for our hypotheses in this era do not support this expectation and we report null findings in both cases. In Hastert's terms, senators do not appear to be looking over either shoulder during this period; perhaps just waiting for an endorsement from Trump.

## Conclusion

Once the Tea Party began exerting pressure from the right of the ideological spectrum, Republican senators shifted their voting behavior from looking over their left shoulders at their general election opponent to looking over their right shoulders to see if a primary opponent would materialize. We find clear evidence of a voting behavior shift from moderation to conservativism in the congress that senators seek reelection during the Tea Party era. While the conventional wisdom may have been conventional earlier, we find clear evidence that no longer was during the Tea Party era.

This shift in how Republican senators behaved during the congress in which they sought reelection is critical for understanding the radicalization of the Republican conference during this key time period when they were polarizing at a much greater rate than they were previously (or subsequently) and much more than Democratic senators. We think this finding is an important step in understanding how Republicans behave in the Senate today. While the findings from the Pre-Tea Party and Tea Party eras are consistent with our expectations, it is the null findings from the Trump era that provides the critical second step for our understanding.

We proffer two explanations for the null results we report for the Trump era. First, by the $114^{\text {th }}$ Congress, senators may have moved so far to the right that little space existed for them to move even further in signaling their conservative bona fides. Indeed, these members might perceive that they have done all they can to adhere to the now more radical Republican Party and so have little to fear from attacks further to their right. This explanation aligns with evidence that Republican candidates, unlike their Democratic opponents, did not attempt to communicate more radical positions during the primary phase of the 2020 electoral cycle (Cowburn and Sältzer 2023). Because no Republican senator failed to advance from their primary in the four election cycles after the Tea Party era (2016, 2018, 2020, 2022), incumbents may have perceived less of an ideological threat once Trump led the party. Though the Tea Party helped usher in a more Trumpian congressional Republican Party, these results demonstrate an important distinction between these periods and the limitation of understanding intra-party conflict as ideologically based in the Trump era as it was during the Tea Party era.

Second, it could be that when Donald Trump took the oath of office the Republican Party's fealty to a person replaced its adherence to an ideology. Trump's lack of a consistent conservative ideology (Lawless and Theriault 2021) gave him the space to prioritize personal loyalty. This preference ordering was seen most obviously in the shifting power dynamics in the House of Representatives in 2021, when the conservative Representative Liz Cheney ${ }^{15}$ was stripped of her leadership position as Chair of the House Republican Conference and then targeted and defeated in a primary, the comparatively moderate Elise Stefanik ${ }^{16}$ was promoted into leadership and supported by former president Trump. Whereas Cheney supported his

[^10]impeachment and served as the vice chair of the January $6^{\text {th }}$ committee, Stefanik identified as "ultra-MAGA and...proud of it" (Stefanik 2022), with Trump praising her as "one of my killers" (Karni 2022) during his first impeachment trial. Given these changing contours of internal conflict, senators likely used tools other than roll-call voting to signal their position within the party. In the Trump era, senators might therefore be more likely to adopt Trumpian rhetoric (see also Cowburn and Knüpfer 2023) or signal personal allegiance to the former president to prevent or neutralize a primary challenger. ${ }^{17}$

Instead of looking over their left shoulder as they did in the Pre-Tea Party era or looking over their right shoulder during the Tea Party era, Republican senators during the Trump era are looking online to be sure that they are not being targeted by the former president as they ponder another term in the Senate.

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## Supplementary Material

In the following we present the descriptive statistics of our data as well as a series of robustness tests that demonstrate that our main findings are not a consequence of our model specification.

## Descriptive Statistics

Table A.1: Descriptive Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Nokken-Poole | 1,065 | .393 | .184 | -.076 | .985 |
| Re-Election | 1,065 | .293 | .455 | 0 | 1 |
| Retire | 1,065 | .056 | .231 | 0 | 1 |
| Median Income | 1,065 | 4.162 | 1.443 | 1.504 | 9.234 |
| White \% | 1,065 | .727 | .134 | .381 | .965 |
| Urban \% | 1,065 | .683 | .129 | .338 | .947 |
| Majority | 1,065 | .561 | .497 | 0 | 1 |
| Congress | 1,065 | 107.008 | 6.095 | 97 | 117 |

Figure A.1: Temporal Change


## Robustness Checks

Below we present a series of robustness checks to our main results, the re-election models are (1) through (3) and the retirement models are (4) through (6). As in the main results, the results are segmented into eras as noted in each table. We present our results without controls, with the additional of time (congress) fixed effects, segmented by pre- and post-periods (in these tables, models (2) and (4) are the post-Tea Party era results), and with the inclusion of a lagged version of our dependent variable as an additional control.

Table A.2: Results without Controls

|  | $\begin{gathered} (1) \\ \text { Pre-Tea Party } \\ \left(97^{\text {th }}-109^{\text {th }}\right. \\ \text { Congress }) \end{gathered}$ | (2) <br> Tea Party $\left(110^{\text {th }}-113^{\text {th }}\right.$ Congress) | (3) <br> Trump $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress) | (4) <br> Pre-Tea Party $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress) | (5) <br> Tea Party <br> $\left(110^{\text {th }}-113^{\text {th }}\right.$ <br> Congress) | (6) <br> Trump $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Re-Election | $\begin{gathered} -0.038^{* * *} \\ (0.004) \end{gathered}$ | $\begin{gathered} 0.020^{* *} \\ (0.009) \end{gathered}$ | $\begin{gathered} -0.003 \\ (0.010) \end{gathered}$ |  |  |  |
| Retire |  |  |  | $\begin{gathered} 0.019 \\ (0.014) \end{gathered}$ | $\begin{gathered} -0.040^{* * *} \\ (0.013) \end{gathered}$ | $\begin{gathered} 0.012 \\ (0.026) \end{gathered}$ |
| Constant | $\begin{gathered} 0.371 * * * \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.408^{* * *} \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.461 * * * \\ (0.001) \end{gathered}$ | $\begin{gathered} 0.361^{* * *} \\ (0.000) \end{gathered}$ | $\begin{gathered} 0.411^{* * *} \\ (0.000) \end{gathered}$ | $\begin{gathered} 0.460^{* * *} \\ (0.001) \end{gathered}$ |
| Observations | 867 | 614 | 462 | 867 | 614 | 462 |
| $\mathrm{R}^{2}$ | 0.077 | 0.009 | 0.000 | 0.003 | 0.010 | 0.001 |
| Number of Senators | 125 | 74 | 71 | 125 | 74 | 71 |

Table A.3: Results with Time (Congress) Fixed Effects

|  | (1) <br> Pre-Tea Party $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress) | (2) <br> Tea Party $\left(110^{\text {th }}-113^{\text {th }}\right.$ Congress) | (3) <br> Trump $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress) | (4) <br> Pre-Tea Party $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress) | (5) <br> Tea Party <br> $\left(110^{\text {th }}-113^{\text {th }}\right.$ <br> Congress) | (6) <br> Trump $\left(114^{\text {th }}-117^{\text {th }}\right.$ Congress) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Re-Election | $\begin{gathered} -0.037^{* * *} \\ (0.005) \end{gathered}$ | $\begin{aligned} & 0.018^{*} \\ & (0.010) \end{aligned}$ | $\begin{gathered} -0.004 \\ (0.010) \end{gathered}$ |  |  |  |
| Retire |  |  |  | $\begin{gathered} 0.014 \\ (0.014) \end{gathered}$ | $\begin{gathered} -0.058^{* * *} \\ (0.015) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.027) \end{gathered}$ |
| Republican Pres Vote Share | $\begin{gathered} 0.084 \\ (0.089) \end{gathered}$ | $\begin{gathered} 0.107 \\ (0.080) \end{gathered}$ | $\begin{gathered} 0.107 \\ (0.082) \end{gathered}$ | $\begin{gathered} 0.106 \\ (0.093) \end{gathered}$ | $\begin{gathered} 0.100 \\ (0.082) \end{gathered}$ | $\begin{gathered} 0.107 \\ (0.082) \end{gathered}$ |
| Median Household Income | $\begin{gathered} -0.012 \\ (0.011) \end{gathered}$ | $\begin{gathered} -0.002 \\ (0.010) \end{gathered}$ | $\begin{aligned} & -0.000 \\ & (0.010) \end{aligned}$ | $\begin{gathered} -0.016 \\ (0.011) \end{gathered}$ | $\begin{gathered} -0.002 \\ (0.010) \end{gathered}$ | $\begin{gathered} 0.000 \\ (0.010) \end{gathered}$ |
| White \% | $\begin{gathered} 0.075 \\ (0.259) \end{gathered}$ | $\begin{gathered} 0.125 \\ (0.314) \end{gathered}$ | $\begin{gathered} 0.060 \\ (0.340) \end{gathered}$ | $\begin{gathered} 0.023 \\ (0.256) \end{gathered}$ | $\begin{gathered} 0.070 \\ (0.312) \end{gathered}$ | $\begin{gathered} 0.074 \\ (0.344) \end{gathered}$ |
| Urban \% | $\begin{gathered} -0.057 \\ (0.216) \end{gathered}$ | $\begin{gathered} -0.072 \\ (0.291) \end{gathered}$ | $\begin{gathered} -0.106 \\ (0.302) \end{gathered}$ | $\begin{gathered} -0.062 \\ (0.219) \end{gathered}$ | $\begin{gathered} -0.099 \\ (0.289) \end{gathered}$ | $\begin{gathered} -0.094 \\ (0.305) \end{gathered}$ |
| 26 |  |  |  |  |  |  |


| Majority | 0.011 | 0.001 | 0.000 | 0.015 | 0.001 | -0.000 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $(0.024)$ | $(0.019)$ | $(0.017)$ | $(0.025)$ | $(0.019)$ | $(0.017)$ |
| Constant | -0.132 | 0.238 | 0.076 | -0.188 | 0.288 | 0.083 |
|  | $(0.483)$ | $(0.559)$ | $(0.541)$ | $(0.479)$ | $(0.562)$ | $(0.549)$ |
| Observations |  |  |  |  |  |  |
| $R^{2}$ | 867 | 614 | 462 | 867 | 614 | 462 |
| Number of Senators $^{\text {Congress Fixed Effects }}$ | 0.116 | 0.055 | 0.091 | 0.048 | 0.069 | 0.091 |

Robust standard errors in parentheses

$$
{ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1
$$

Table A.4: All Results Collapsed $\left(97^{\text {th }}-109^{\text {th }}\right.$ Congress)

|  | (1) | (2) |
| :---: | :---: | :---: |
|  | $97^{\text {th }}-117^{\text {th }}$ Congress | $97^{\text {th }}-117^{\text {th }}$ Congress |
| Re-Election | $-0.022^{* * *}$ |  |
|  | (0.004) |  |
| Retire |  | -0.009 |
|  |  | (0.011) |
| Republican Pres Vote Share | 0.033 | 0.027 |
|  | (0.038) | (0.040) |
| Median Household Income | -0.011* | -0.011* |
|  | (0.006) | (0.006) |
| White \% | 0.058 | 0.079 |
|  | (0.201) | (0.201) |
| Urban \% | 0.008 | 0.015 |
|  | (0.175) | (0.176) |
| Majority | 0.005 | 0.004 |
|  | (0.004) | (0.005) |
| Congress (Time) | $0.005^{* * *}$ | $0.005^{* * *}$ |
|  | (0.002) | (0.002) |
| Constant | -0.178 | -0.223 |
|  | (0.313) | (0.314) |
| Observations | 1,066 | 1,066 |
| $\mathrm{R}^{2}$ | 0.054 | 0.024 |
| Number of Senators | 178 | 178 |

Robust standard errors in parentheses ${ }^{* * *} \mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05,{ }^{*} \mathrm{p}<0.1$

Table A.5: Inclusion of Lagged Nokken-Poole as Additional Control

|  | (1)Pre-Tea Party$\left(97^{\text {th }}-109^{\text {th }}\right.$Congress $)$ | (2) | (3) | (4) | (5) | (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Tea Party $\left(110^{\text {th }}-113^{\text {th }}\right.$ | $\begin{gathered} \text { Trump } \\ \left(114^{\mathrm{th}}-117^{\mathrm{th}}\right. \end{gathered}$ | Pre-Tea Party $\left(97^{\text {th }}-109^{\text {th }}\right.$ | Tea Party $\left(110^{\text {th }}-113^{\text {th }}\right.$ | $\begin{aligned} & \text { Trump } \\ & \left(114^{\text {th }}-117^{\text {th }}\right. \end{aligned}$ |
|  |  | Congress) | Congress) | Congress) | Congress) | Congress) |
| Re-Election | $\begin{gathered} -0.039^{* * *} \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.019^{* *} \\ (0.010) \end{gathered}$ | $\begin{aligned} & -0.007 \\ & (0.011) \end{aligned}$ |  |  |  |
| Retire |  |  |  | $\begin{gathered} 0.009 \\ (0.014) \end{gathered}$ | $\begin{gathered} -0.040^{* *} \\ (0.015) \end{gathered}$ | $\begin{gathered} -0.011 \\ (0.024) \end{gathered}$ |
| Republican Pres Vote Share | $\begin{aligned} & -0.002 \\ & (0.035) \end{aligned}$ | $\begin{gathered} 0.012 \\ (0.053) \end{gathered}$ | $\begin{aligned} & -0.014 \\ & (0.082) \end{aligned}$ | $\begin{gathered} 0.004 \\ (0.038) \end{gathered}$ | $\begin{gathered} 0.010 \\ (0.053) \end{gathered}$ | $\begin{aligned} & -0.017 \\ & (0.083) \end{aligned}$ |
| Median Income | $\begin{gathered} -0.014^{*} \\ (0.008) \end{gathered}$ | $\begin{gathered} -0.009 \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.005 \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.018^{* *} \\ (0.008) \end{gathered}$ | $\begin{gathered} -0.008 \\ (0.006) \end{gathered}$ | $\begin{aligned} & -0.005 \\ & (0.006) \end{aligned}$ |
| White \% | $\begin{gathered} -0.092 \\ (0.208) \end{gathered}$ | $\begin{gathered} 0.177 \\ (0.214) \end{gathered}$ | $\begin{gathered} 0.365 \\ (0.265) \end{gathered}$ | $\begin{aligned} & -0.054 \\ & (0.205) \end{aligned}$ | $\begin{gathered} 0.251 \\ (0.227) \end{gathered}$ | $\begin{gathered} 0.382 \\ (0.268) \end{gathered}$ |
| Urban \% | $\begin{gathered} -0.115 \\ (0.160) \end{gathered}$ | $\begin{gathered} 0.046 \\ (0.184) \end{gathered}$ | $\begin{gathered} 0.173 \\ (0.233) \end{gathered}$ | $\begin{gathered} -0.099 \\ (0.165) \end{gathered}$ | $\begin{gathered} 0.091 \\ (0.193) \end{gathered}$ | $\begin{gathered} 0.163 \\ (0.244) \end{gathered}$ |
| Majority | $\begin{gathered} 0.006 \\ (0.004) \end{gathered}$ | $\begin{gathered} 0.005 \\ (0.006) \end{gathered}$ | $\begin{gathered} 0.001 \\ (0.007) \end{gathered}$ | $\begin{gathered} 0.004 \\ (0.005) \end{gathered}$ | $\begin{gathered} -0.001 \\ (0.006) \end{gathered}$ | $\begin{gathered} -0.000 \\ (0.008) \end{gathered}$ |
| Congress | $\begin{gathered} 0.004^{* *} \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.004^{* *} \\ & (0.002) \end{aligned}$ | $\begin{gathered} 0.004^{* * *} \\ (0.002) \end{gathered}$ | $\begin{gathered} 0.0066^{* * *} \\ (0.002) \end{gathered}$ | $\begin{gathered} 0.004^{* * *} \\ (0.002) \end{gathered}$ | $\begin{aligned} & 0.004^{* *} \\ & (0.002) \end{aligned}$ |
| Lagged Nokken-Poole | $\begin{gathered} 0.237^{* * *} \\ (0.050) \end{gathered}$ | $\begin{gathered} 0.231^{* * *} \\ (0.059) \end{gathered}$ | $\begin{gathered} 0.217^{* * *} \\ (0.070) \end{gathered}$ | $\begin{gathered} 0.221^{* * *} \\ (0.052) \end{gathered}$ | $\begin{gathered} 0.225^{* * *} \\ (0.058) \end{gathered}$ | $\begin{gathered} 0.2177^{* * *} \\ (0.070) \end{gathered}$ |
| Constant | $\begin{gathered} 0.036 \\ (0.301) \end{gathered}$ | $\begin{gathered} -0.249 \\ (0.325) \end{gathered}$ | $\begin{aligned} & -0.451 \\ & (0.353) \end{aligned}$ | $\begin{gathered} -0.187 \\ (0.303) \end{gathered}$ | $\begin{gathered} -0.378 \\ (0.336) \end{gathered}$ | $\begin{gathered} -0.455 \\ (0.351) \end{gathered}$ |
| Observations | 738 | 537 | 388 | 738 | 537 | 388 |
| $\mathrm{R}^{2}$ | 0.166 | 0.089 | 0.083 | 0.083 | 0.093 | 0.082 |
| Number of Senators | 118 | 72 | 64 | 118 | 72 | 64 |

Table A.6: Inclusion of NOMINATE as Additional Control



[^0]:    ${ }^{1}$ Quoted in Ryan (2013).
    ${ }^{2}$ Toomey and Specter, who was the incumbent, were competing in the Republican primary until Specter switched parties.

[^1]:    ${ }^{3}$ In the twenty elections since 1980 , Democratic senators only became on average 0.003 more liberal after each election, often described as asymmetric polarization.

[^2]:    ${ }^{4}$ See e.g., Meyer (2021, 2) "This study examines the voting behavior of incumbent senators in both parties while they are actively being primaried" [emphasis added].

[^3]:    ${ }^{5}$ Only one of the nine (Arlen Spector) was an incumbent, the rest were all running in open seats or to challenge a Democratic senator.

[^4]:    ${ }^{6}$ It is also unclear whether primary voters would reward more extreme roll-call voting were they cognizant of it (Abramowitz 2008; Hill 2015; Hirano et al. 2010; Porter 2021).

[^5]:    7 This group likely remains subject to at least some external pressures such that even retirees' roll-call voting is unlikely to represent senators' 'true' personal preference, especially if they choose to run for an alternative public office. We therefore consider this group as the best available proxy of senators' personal preferences, with comparatively few electoral concerns.

[^6]:    ${ }^{8}$ In line with the literature on the subject, we use the first dimension to identify positions. A second dimension of these scales identifies cross-cutting issues such as slavery.

[^7]:    ${ }^{9}$ Most commonly, losing the general election. Other examples include dying between the primary and the general election or resigning from office during this period.
    ${ }^{10}$ We do not consider deaths as retirements given the impossibility of determining whether these senators expected not to live until their next re-election and adjusted their roll-call voting in relation to that belief.

[^8]:    ${ }^{11}$ In a fifty-fifty Senate, majority status is denoted by control of the presidency.
    ${ }^{12}$ In the supplementary material, we demonstrate the robustness of our findings to the inclusion of time (congress) fixed effects. We also demonstrate the temporal change in our data visually in the supplementary material.

[^9]:    ${ }^{13}$ We report the results of a series of robustness checks in the supplementary material, including: running our main models without any controls, adding congress fixed effects, reporting the collapsed results, including a lagged version of our dependent variable, and including NOMINATE scores as an additional control. In all cases, our results remain substantively significant and align with the main results reported here.

[^10]:    ${ }^{15}$ DW-NOMINATE score of 0.405 .
    ${ }^{16}$ DW-NOMINATE score of 0.263 .

[^11]:    ${ }^{17}$ In the 2022 cycle, many Republican primaries featured multiple candidates who claimed to be the most-Trumpian candidate in the field, including some candidates whose opponents had been formally endorsed by Trump (Blum, Cowburn, and Masket 2023).

