

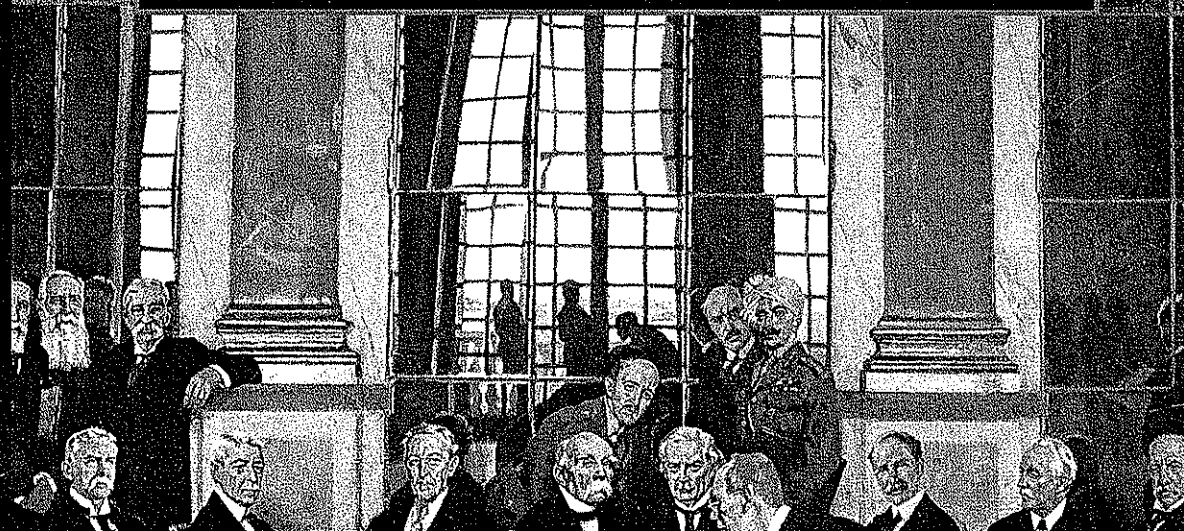
DESIGNING DEMOCRATIC GOVERNMENT

# DESIGNING DEMOCRATIC GOVERNMENT

*Making Institutions Work*

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# Chapter 5

## EVALUATING THE IMPACT OF REDISTRICTING ON DISTRICT HOMOGENEITY, POLITICAL COMPETITION, AND POLITICAL EXTREMISM IN THE U.S. HOUSE OF REPRESENTATIVES, 1962 TO 2006



*Thomas L. Brunell and Bernard Grofman*

*The increasing partisan use of redistricting means that there are fewer swing districts in the House, thus fewer lawmakers in the middle.*

—Robin Toner, “Political Memo,” *New York Times*, December 19, 2004

LANGUAGE MUCH LIKE Robin Toner’s has appeared in op-ed columns throughout the United States since the 1990s. It is now part of the common wisdom that the steady decline in the number of competitive congressional seats—a decline commonly linked to changes in redistricting practices—is one of the major reasons why American politics has become more polarized. Although it is clear that Congress has become more polarized (see Rohde 1991; Jacobson 2000), the underlying causal factors for this polarization are much less clear. The causal path that is most often proposed to link polarization and redistricting is something like the following three-step process:

1. Increases in average district homogeneity can be linked to changes in redistricting practices that make it more likely that politically homogeneous districts will be drawn. In particular, in each decade from the 1960s through the 1990s, an increasing number of majority-minority districts have been drawn as a result of actions taken under section 2 and section 5 of the Voting Rights Act of 1965 (as amended in 1982).<sup>1</sup> Such districts pack voters with similar characteristics and predilections into a single district, while bleaching neigh-

boring districts of minority voters and loyal Democrats, still further increasing average levels of district homogeneity. More generally, the post-*Reynolds v. Sims* focus on “one person, one vote” as an overriding factor in American elections has meant that districts need no longer be drawn entirely within existing political subunit boundaries—boundaries that often include somewhat heterogeneous populations. This process of “fine-tuned” gerrymandering is greatly facilitated by the new GIS (geographic information systems) technology. Thus, the potential for artful partisan gerrymandering—where the party in control of the process packs its opponents’ voting strength into a limited number of districts, while creating safe districts for its own candidates (Owen and Grofman 1988)—has been increased. At the same time, the potential for carefully crafted bipartisan gerrymanders—sweetheart deals with safe seats for incumbents of both parties whereby, often, representatives select their voters rather than voters selecting their representatives—has also been increased.

2. Reductions in the levels of district competition are caused in large part by increases in average district homogeneity, because homogeneous districts tend to be highly uncompetitive (Carson et al. 2004; Stonecash, Brewer, and Mariani 2003). However, now that regional realignments have more or less sorted themselves out—the Northeast has far fewer moderate Republicans and the South has far fewer moderate Democrats—the distinctiveness of the two major parties is more clear now, to both candidates and voters, than it has been in decades. This makes it quite difficult for one party to win a district that leans toward the other party.

3. Increases in political polarization are caused by declines in political competition, because representatives from safe seats can more safely disregard the views of minority party voters in their constituencies than can representatives from marginal seats. Thus, representatives from these seats will look more like the median or modal party member from their own party than like the overall median in their district (or in the nation as a whole). Moreover, even if the standard Downsian story were right, and the representative’s views resembled those of the overall median voter, in a homogeneous district that median voter will be much more of an ideological extremist than would be the case in a more politically divided constituency. Furthermore, the candidates who win in the primaries tend to be less moderate in these kinds of districts. There are far fewer “moderates” from either side of the aisle in part because even those who do win a party primary against a more ideological opponent will have a tougher time winning now that the parties are more clearly sorted ideologically.

#### EXAMINING THE LINKS

When we examine the links in this argument one by one, however, we find that there is at least one weak link in the chain connecting the last several

decades of changes in redistricting practices and the growing party polarization in the U.S. House. Although the initial link, that between changes in districting practices and increases in district homogeneity, is very strong, especially once we focus on the growth in majority-minority districts, and although the intermediate link between homogeneity and competition is also very real, especially in terms of the creation of majority-minority districts, the link between levels of competition and political extremism is not at all what would be suggested by the standard Downsian story.

#### CHANGES IN DISTRICT-LEVEL HOMOGENEITY

District-level homogeneity is a concept that needs precise explication, since it can be operationalized in many different ways, and is considerably broader than, say, white versus black comparisons. Moreover, if we are to make use of measures of homogeneity of House districts for purposes of longitudinal analyses, then we need to take into account how the underlying demography in the country has been changing. Here, following William Koetzle (1998), we operationalize homogeneity as involving five variables measured at the district or state level (percentage of the voters who are African American, proportion that is urban, percentage that is white, percentage that are high school graduates, and median income), each of which tends to tilt a district in either a pro-Democratic or a pro-Republican direction. Scores are calculated in a fashion such that a value is low if the district is politically heterogeneous and high if it is homogeneous, regardless of which party is being favored.<sup>2</sup>

We show in table 5.1 mean homogeneity values (ranging from 0 to 5) for each of six redistricting periods over the years 1962 to 2002, for both the House and the Senate. We see that states do not change much in their mean homogeneity (as per the Koetzle measure; see Koetzle 1998) over the period in question, but House districts increase their homogeneity significantly, with the greatest changes coming in the 1980s and 2000 rounds of redistricting, and a monotonic trend since the 1970s. Thus, although the evidence is only indirect, these aggregate differences are consistent with redistricting-driven increases over time in the homogeneity of House districts.

An important component of the diversity measure is the percentage of blacks in the district or the state. This percentage has changed very little at the state level, but has undergone important shifts at the constituency level. The number of districts with a more than 40 percent black population has risen steadily in response to section 5 preclearance decisions by the U.S. Department of Justice during the decades of the 1980s and 1990s (pre-1993), when the DOJ incorporated both a purposive discrimination test and an effects-based vote-dilution test in judging which plans in the Deep South and other covered jurisdictions would survive section 5 preclearance scrutiny, and in response to litigation brought by minority plaintiffs under the 1982 revised lan-

TABLE 5.1 DIVERSITY SCORES FOR THE HOUSE AND SENATE FOR EACH OF SIX REDISTRICTING PERIODS, 1962 TO 2002<sup>a</sup>

Year	Senate		House	
	Average	Standard Deviation	Average	Standard Deviation
1962	1.16	0.76	1.87	2.09
1968	1.24	0.78	1.89	2.05
1972	1.15	0.73	1.95	2.35
1982	1.21	0.75	2.15	2.45
1992	1.18	0.88	2.27	2.41
2002	1.23	0.88	2.42	2.33

Source: Authors' compilation.

<sup>a</sup> Higher scores indicate less diversity (more homogeneity). See appendix.

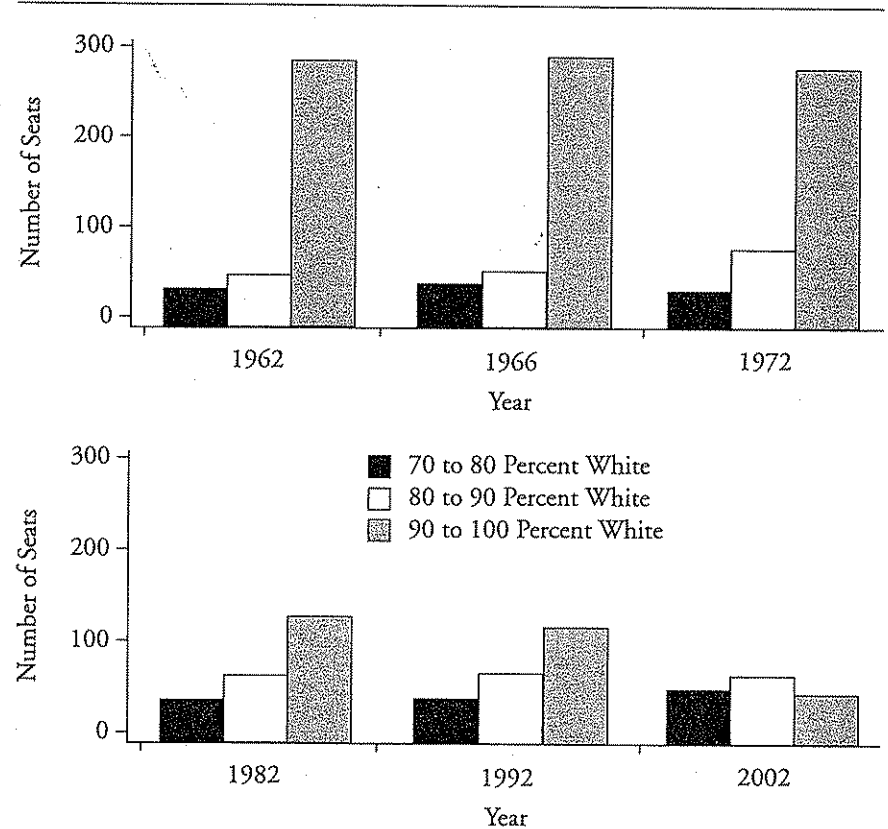
guage of section 2 of the Voting Rights Act of 1965 (see reviews in Grofman, Handley, and Niemi 1992; Grofman 1993; Grofman and Handley 1998). We show in table 5.2 the changes, by redistricting period, in the number of heavily black (40 to 45 percent, 45 to 50 percent, 50 to 55 percent, 55 to 60 percent, 60 to 65 percent, above 65 percent) districts; in figure 5.1 we show the changes by redistricting period in the number of overwhelmingly white districts (70 to 80 percent white, 80 to 90 percent white, 90 to 100 percent white). Throughout the 1970s there were hundreds of districts that were over 90 percent white, and just dozens that were 70 to 80 percent or 80 to 90 percent white. Since the 1980s, however, the number of these kinds of districts has more or less equalized.

TABLE 5.2 NUMBER OF CONGRESSIONAL DISTRICTS WITH DIFFERENT PERCENTAGES OF AFRICAN AMERICANS, BY REDISTRICTING PERIOD

Year	Percentage of African Americans in District							
	Less than 30	30 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 65	Greater than 65
1962	383	31	6	10	0	2	1	2
1966	389	26	8	3	4	0	1	4
1972	387	26	7	2	5	1	1	6
1982	388	22	6	4	4	1	2	8
1992	390	7	5	1	6	9	9	8
2002	383	18	5	3	4	10	10	2

Source: U.S. Census Bureau (1960–2000).

FIGURE 5.1 THE CHANGE IN THE NUMBER OF OVERWHELMINGLY WHITE SEATS IN THE HOUSE OF REPRESENTATIVES, 1962 TO 2002



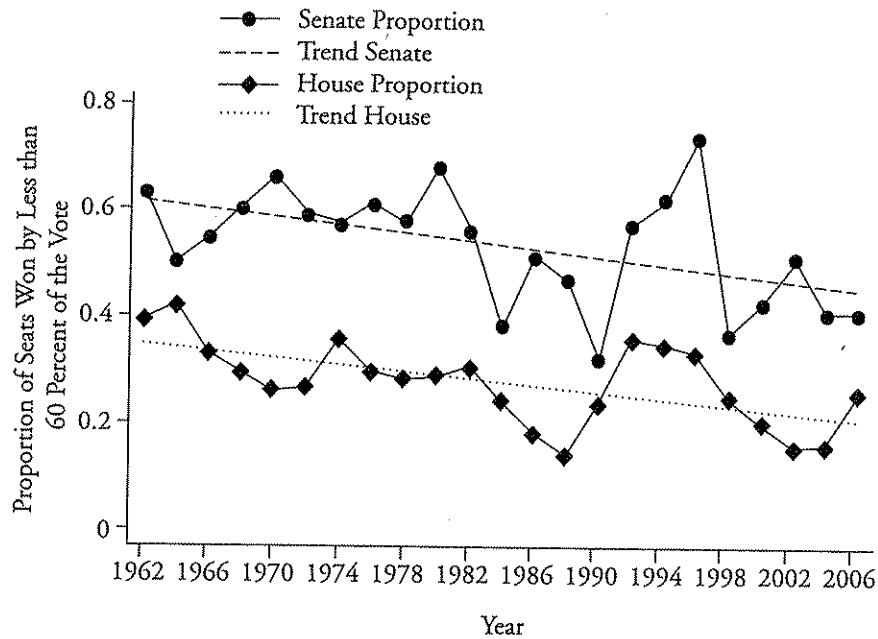
Source: U.S. Census Bureau (1960–2000).

Note: The figures indicate the number of seats in the U.S. House of Representatives that fit into each of the demographic categories based on Census data.

CHANGES IN POLITICAL COMPETITIVENESS

There has been a decline in political competition in the U.S. House, as judged by the proportion of districts that are won with less than 60 percent of the vote (see figure 5.2). In 2004, only 23 of 435 seats were won with a margin of less than 10 percent, and only 10 House seats were won with a margin of 5 percent or less. In contrast, in the Senate 7 races were decided by margins of 10 percent or less, and 6 of these margins were less than 5 percent (these make up roughly 20 percent of all Senate elections in 2004). Clearly

FIGURE 5.2 COMPETITIVE ELECTIONS IN THE U.S. CONGRESS, 1962 TO 2006



Source: Authors' compilation.

the Senate experiences significantly more competitive elections in terms of the sheer proportion that are close, compared to the House. However, the trend over time is downward in terms of the proportion of competitive elections, which matches the overall trend in the House. The most recent election, in 2006, does show a relatively large uptick in the proportion of competitive elections in the House, which is not too surprising, given the number of seats that changed hands. Although the Democrats were also successful in taking over the Senate as well, the proportion of competitive seats was not significantly higher in 2006 and the proportion is below the overall trend in the data.

Majority-minority districts by definition have a high minority population and thus a high proportion of loyal Democrats. Given the characteristics of proximate populations, *ceteris paribus*, most of the non-minority voters in majority-minority districts are likely to be white Democrats, so that such districts soak up Democratic strength. Because the loyal minority Democrats are

purged from neighboring districts, these districts are reduced in their proportion of loyal Democrats, and if the reductions are severe enough, some of these districts cease to be competitive, too—a bit of a double whammy as far as competition is concerned.

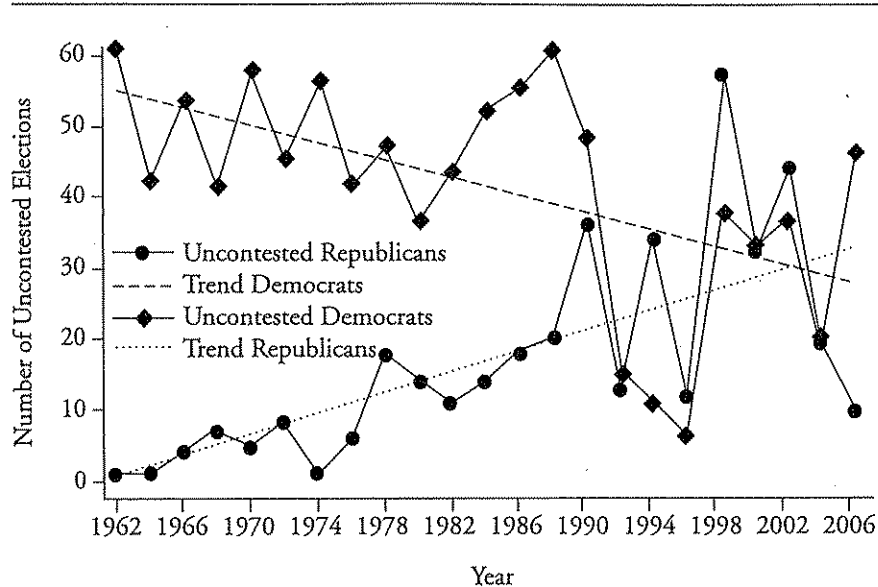
More generally, districts that are homogeneous in other partisan-related characteristics—say, heavily urban—also may be expected to be less competitive than districts that are more heterogeneous in character. Thus, *ceteris paribus*, as mean district homogeneity rises, we would expect to see average levels of competition decline. Of course, the link between increased number of homogeneous districts and a decline in overall homogeneity need not be perfect: in principle, we could imagine that in the same process whereby heavily homogenous and noncompetitive seats are being drawn, a large number of competitive seats are also being drawn—but the empirical reality appears otherwise.

Can we attribute the decline in marginal seats to the increase in the number of majority-minority districts, or to an increase in other forms of homogeneity? Well, the two trends go together, and, as we have seen, there exists a clear posited mechanism that links the two trends in a causal fashion. But in the Senate, homogeneity has not changed over time, since the borders of states remained unchanged, yet competitiveness has declined in the Senate as well. This may not be “beyond a reasonable doubt” proof, but it certainly suggests that redistricting may not be the culprit when it comes to assigning blame for less competitiveness in House elections over this time period.

To make better sense of the impact of redistricting on electoral competitiveness we must understand that the “redistricting revolution” has been occurring at the same time as pockets of secular realignment around the country, as areas of the country previously under one-party rule (the South for Democrats, New England for the Republicans) open up for genuine two-party competition, at least for some levels of government. At the same time as we see a decrease in the number of truly competitive seats, we also see an increase in the number of truly lopsided seats, including the number of those so expectedly lopsided that no member of the opposite party even bothers to run.

In terms of uncontested seats, the story is really quite interesting and serves as another reminder that in many cases the aggregate trends over time hide important differences between the parties. As figure 5.3 shows, in a period when the Republican party has enjoyed a marked increase in the number of their candidates for the House who have no Democrat running against them at all, over the same time period the number of Democrats who do not have to worry about a Republican opponent in the general election has decreased significantly. Overall, the number of elections won in a truly lopsided fashion, with the winner garnering at least 80 percent of the two-major-party

FIGURE 5.3 NUMBER OF UNCONTESTED ELECTIONS FOR DEMOCRATS AND REPUBLICANS IN THE HOUSE, 1962 TO 2006

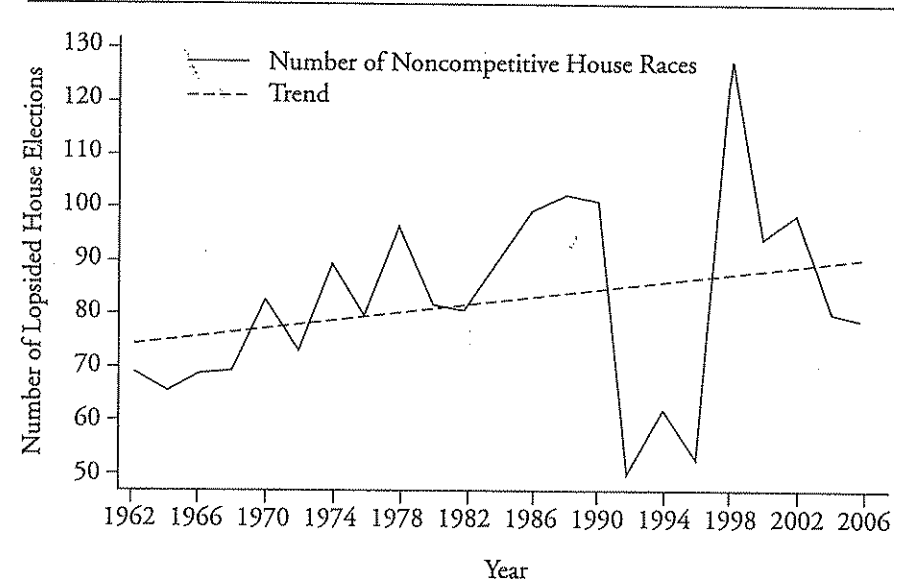


Source: Authors' compilation.

vote, has increased (see figure 5.4). For the 2006 election the data look much as one might expect: the number of uncontested Republican seats is way down (only ten) and the number of Democrats who went uncontested was significantly higher (forty-six seats). Given the political landscape at the time, there were huge incentives for quality Democrats to challenge incumbent Republicans, and for Republicans trying to unseat a Democrat, 2006 was simply not the best year to give it a go.

We might reasonably expect that redistricting should decrease competition, and that this would show up in a decrease in the number of competitive seats just after a redistricting. This would be the case if the common wisdom about bipartisan gerrymanders are true, where incumbents' districts are drawn so that their seats are safer. First and foremost, as Guillermo Owen and Bernard Grofman (1988) show, in a world of electoral uncertainty, optimal partisan gerrymanders do not involve drawing districts with "thin" margins; rather, they involve drawing a minority of seats that are overwhelmingly packed for the other side while still drawing a majority of seats quite safe for

FIGURE 5.4 THE NUMBER OF HOUSE ELECTIONS IN WHICH ONE CANDIDATE GARNERED AT LEAST 80 PERCENT OF THE TWO PARTY VOTE



Source: Authors' compilation.

Note: The correlation between the number of truly lopsided elections and year is .32.

your own incumbents. Thus optimal partisan gerrymanders are not that distinct from bipartisan incumbency protection gerrymanders in that both have lots of really safe seats. Second, if there is considerable uncertainty, or if parties are risk-averse, we may find a bipartisan agreement to create an incumbency-protection gerrymander. The more such bipartisan gerrymanders, the more we will see a reduction rather than an increase in the number of competitive districts found after a redistricting.

When we look at House data from 1960 through 2002, and compare the number of competitive seats (a seat won with 60 percent or less of the two-party vote) in years ending with 0 with the number of competitive seats in years ending with 2, we find that the mean number of competitive seats at the end of each redistricting decade is 128.2 ( $n = 5$ ); and the mean number of competitive seats at the beginning of the next redistricting decade is 137.4 ( $n = 5$ ). Although this difference is in the expected direction, it is not that large, and we find no statistically significant difference ( $p = .47$ ). Only from 1990 to 1992 do we find a substantial increase in the number of competitive

seats, from 109 to 162. Thus, another reason why we might think that the link between homogeneity and competition is not so strong is that we do not really see a decrease in the number of competitive seats after redistricting, as compared to the number of marginal seats found at the end of the previous redistricting decade.

Why might we not observe the expected redistricting effects in lowering levels of competition? First, we would note that redistricting “shakes up the lines,” and thus might reallocate voters familiar with a given incumbent’s record, thus harming that incumbent’s reelection chances. Second, to the extent that partisan gerrymandering efforts replace some seats previously won by the minority party with seats that lean slightly toward the majority party but are more competitive than those they replaced, redistricting would actually increase the number of competitive seats.

Third, and perhaps even more important, looking at redistricting effects only in the year of redistricting can be very misleading. The effects of redistricting do not necessarily manifest themselves immediately. In particular, because of the incumbent advantage, an incumbent may “hang on” for the immediate post-redistricting election—even though his seat has been redrawn to favor the other party if the electoral tides that year (those years) favor members of his party—but then go on to lose later in the decade. If the short-run consequences of redistricting include some incumbents who are hanging on barely, this increase in competition may compensate for increased safety in other seats, giving rise to little immediate evidence of redistricting effects. But as those now marginal incumbents are replaced by candidates of the opposite party, we should actually see a decline in the number of competitive seats over the course of a decade.

Indeed, when we look at the mean number of competitive seats across the four decades from the 1960s through the 1990s, we see values of 148.5, 154.2, 129.5, 110.5, and 119.0 as we move from years ending with 2 at the start of a redistricting decade, to years ending with 0 at the end of a redistricting decade. Note that the highest mean number of competitive seats is found in years ending with 4, just after the initial redistricting. When we again omit the 1960, 2000, and 2002 data and do a difference-of-means test comparing the number of seats in years ending with 2 with the number of competitive seats in that same decade in years ending with 0, we find that the difference between 148.5 ( $n = 4$ ), the number of competitive seats at the beginning of the redistricting, and 113 ( $n = 4$ ), the mean number of competitive seats at the end of the redistricting decade—though moving in the expected direction and relatively large—is not quite statistically significant ( $p = .06$ , using a one-tailed test). This is probably because of the small sample size. We would, however, also note that from 1972 to 1980, we actually find a slight increase in the number of competitive seats, from 121 to 130.

#### CHANGES IN PARTY POLARIZATION

The single most striking phenomenon about the contemporary House of Representatives is the level of polarization between the parties, with the almost complete elimination of a political “center.” Present levels of between-party polarization have not been seen for almost a century (Eric Schickler, quoted in Toner 2004, 41). In figure 5.5, for the House, and in figure 5.6, for the Senate, we show polarization for the 1962-to-2000 period in terms of a set of histograms of Poole-Rosenthal Common Space scores by redistricting era (see Poole and Rosenthal 1997; McCarty, Poole, and Rosenthal 2006).<sup>3</sup>

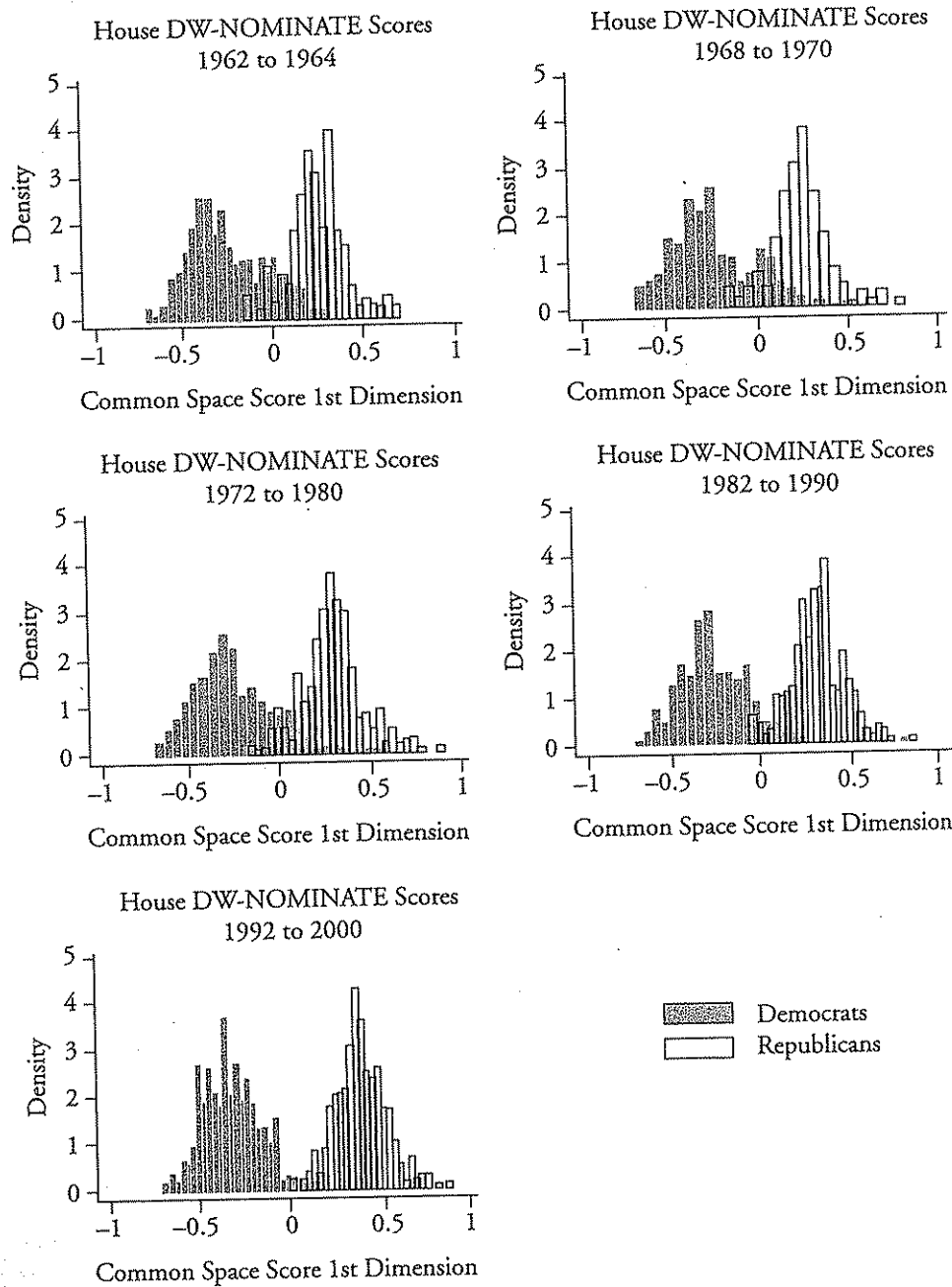
In Figures 5.7 and 5.8 we show median DW-NOMINATE scores for each chamber over the 1960 to 2000 period, for each party and for the whole chamber.

A critical question is the extent to which this pattern of increased polarization can be linked to redistricting. To our eyes, one of the most striking features of the House-Senate comparisons shown by looking at the data reported in these tables is the fact that changes in between-party polarization in the House and the Senate tended to move in tandem, but the magnitude of the changes over time is far greater in the House than in the Senate. Such a finding casts doubt on any purely redistricting-based story to account for overtime changes in polarization, but it also suggests that changes in the House may be indirectly driving those in the Senate—by spillover, when former House members enter the Senate, or when the tone of state politics is set by the polarization within the state’s House delegation.

As we saw from figure 5.2, although there was a decline in competitiveness of Senate seats, the proportion of Senate seats that are competitive still far outweighs those in the House. Furthermore, we find a pattern of increased polarization in the Senate that closely tracks what happened in the House (compare figure 5.5 with figure 5.6, and figure 5.7 with figure 5.8), even though the amount of movement is far less in the Senate. Last and most important, when we look at the data, we see that the direct positive connection between lack of competition and extremist ideology is considerably more complex than is often supposed. In particular, we discover quite different patterns of relationships between ideological extremism and the margins of victory among House members of the two parties, and we find patterns that have changed dramatically over the past five decades (see figures 5.9 and 5.10).

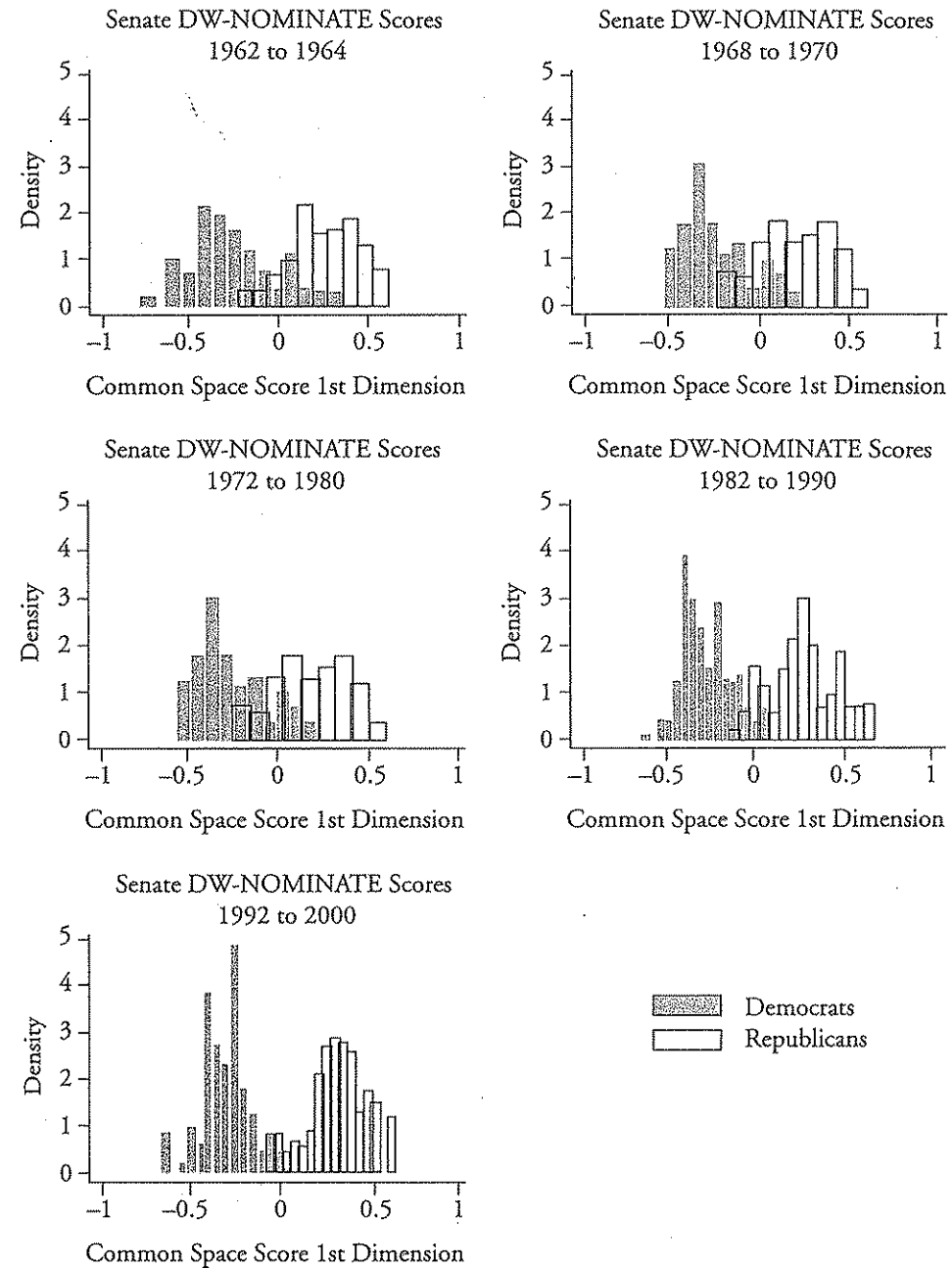
In figure 5.9 we have plotted member ideology DW-NOMINATE scores by vote percentage for data pooled for the years 1952 to 2000 for grouping of members into vingtile categories (0 to .05, .06 to .10, . . . , .90 to .95, .96 to 1). The x-axis is the Democratic proportion of the vote, so very small values indicate Republican victories by very large margins. In figure 5.9, where

FIGURE 5.5 HISTOGRAM OF IDEOLOGICAL SCORES FOR U.S. HOUSE MEMBERS, 1962 TO 2000



Source: Authors' compilation of NOMINATE data downloaded from Voteview.com.

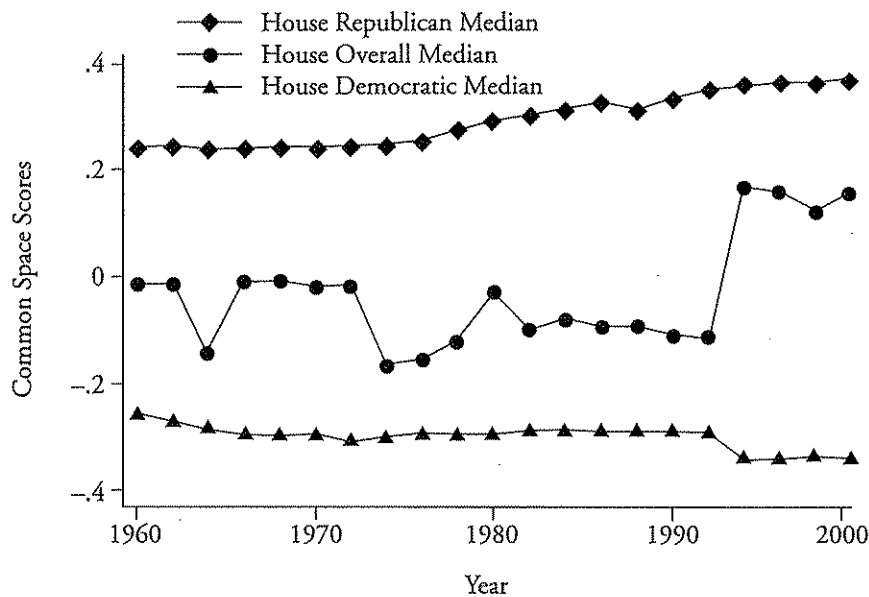
FIGURE 5.6 HISTOGRAMS OF IDEOLOGICAL SCORES FOR U.S. SENATORS, 1962 TO 2000 (SENATE COMMON SPACE SCORES)



Source: Authors' compilation of NOMINATE data downloaded from Voteview.com.



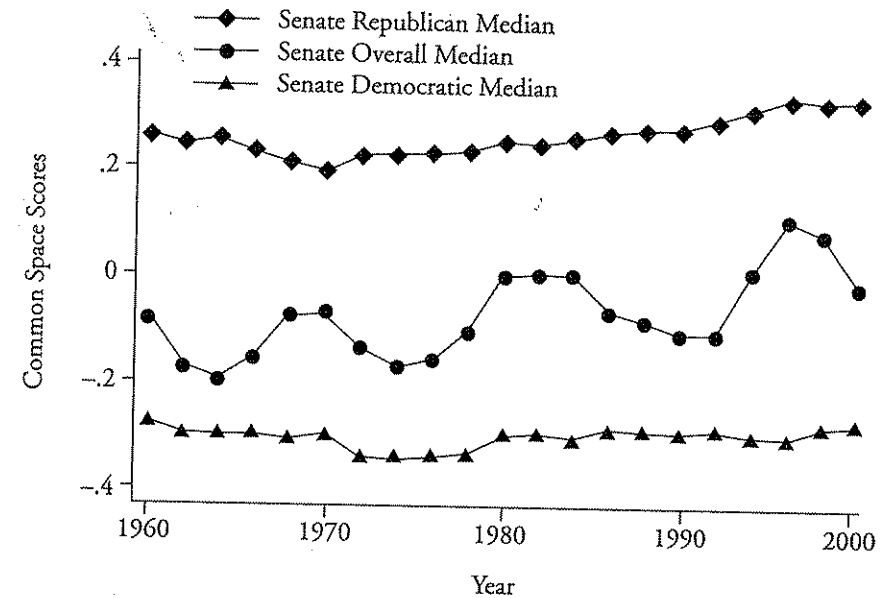
FIGURE 5.7 MEDIAN NOMINATE COMMON SPACE SCORES IN THE HOUSE, OVERALL AND BY PARTY, 1960 TO 2000



Source: Authors' compilation of NOMINATE data downloaded from Voteview.com.

the Democratic percentage is near .5, we have the competitive districts. Areas of the figure to the left represent Republican victories, and the areas to the right represent Democratic victories. The two solid lines, one for each party, are the predicted values from a quadratic regression for that party, and the shaded regions represent the 95 percent confidence region. If so-called "safe seats" elected more ideologically extreme members, we would expect the line for the Democrats to slope downward as we move along the x-axis toward 1, and the line for the Republicans to slope upward as we move along the x-axis toward 0. Yet for the pooled data, the Democratic line is more or less straight, with only a slight downward slope, while the estimated Republican line here is completely flat. Thus, as the margin of victory increases for members that are elected to the U.S. House, we see no real change in the ideology of the members that are elected, at least when we look at data pooled over the entire time period.<sup>4</sup> But when we disaggregate the data by redistricting epoch,

FIGURE 5.8 MEDIAN NOMINATE COMMON SPACE SCORES IN THE SENATE, OVERALL AND BY PARTY, 1960 TO 2000



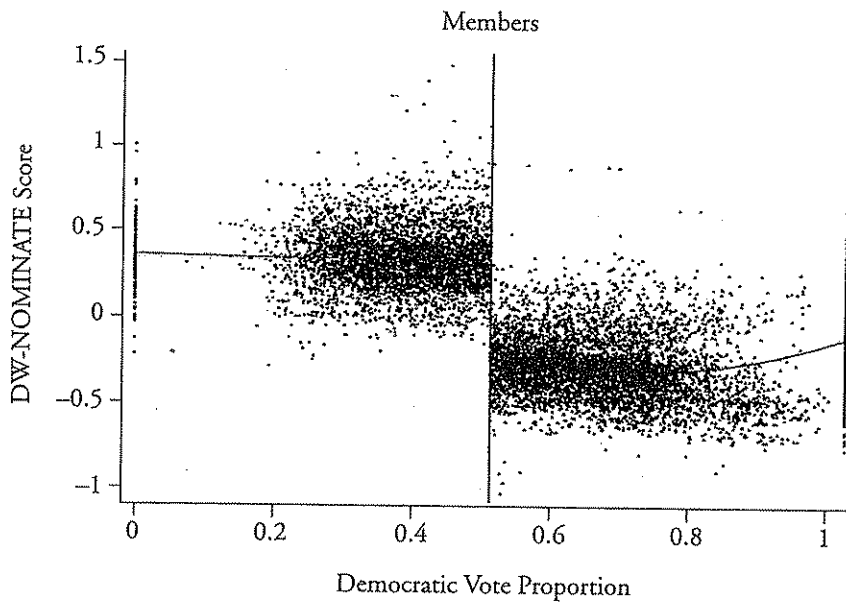
Source: Authors' compilation of NOMINATE data downloaded from Voteview.com.

we do discover a pattern for Democrats, but once again no relationship for Republicans.

In figure 5.10 we show correlations between DW-NOMINATE scores and victory margin by year, for each party separately in the House of Representatives.

The question is whether or not members who win by large margins are more extreme than their colleagues who win by relatively small margins. For Republicans we find from these two figures that there is essentially no relationship between district competitiveness and ideological extremism, either for the pooled data or for particular redistricting epochs. For Democrats, things are rather different. Although for Democrats, too, there is little or no relationship between homogeneity and competition for the pooled data, the nature of the relationship varies dramatically over the decade, changing in both sign and magnitude. In the 1950s and 1960s, the seats won overwhelmingly by Democrats were not held by ideologically extreme members, rather they were held mostly by relatively moderate white southern Democrats. In the 1970s and 1980s, among Democrats, there was little or no rela-

FIGURE 5.9 THE RELATIONSHIP BETWEEN VICTORY MARGIN AND IDEOLOGY FOR HOUSE MEMBERS

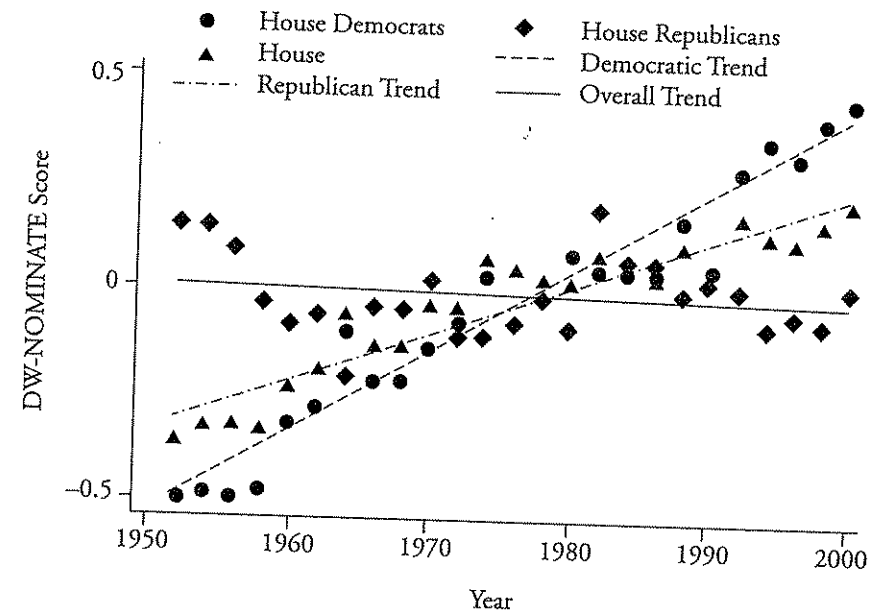


Source: Authors' compilation of NOMINATE data downloaded from Voteview.com.  
 Note: The graph depicts the quadratic regression line for DW-NOMINATE scores regressed on margin of victory (done separately for Democrats and Republicans). The vertical line at 0.5 separates Republicans (to the left of the line) from Democrats (to the right of the line). The sample sizes for the regression models are 4,627 for Republicans and 6,318 for Democrats.

relationship between Democratic margins of victory and ideological extremism at the aggregate level, since the seats being won by large margins now included the seats of both white conservatives and moderates and quite liberal black representatives. By the 1990s, the seats being won by large margins were disproportionately those held by African Americans who are by and large quite liberal, and thus we get a positive correlation between ideological extremism and homogeneity among the Democrats. But even with the most recent data, the magnitude of this correlation is not that great.

Figure 5.11 presents the same type of data for the U.S. Senate. The patterns are roughly the same as in the House, but much less pronounced. Democrats in the early time period that won by large margins tended to be more conservative, and those who won in more recent elections with huge

FIGURE 5.10 BIENNIAL CORRELATION BETWEEN DW-NOMINATE SCORE AND VICTORY MARGIN, U.S. HOUSE OF REPRESENTATIVES, 1952 TO 2000



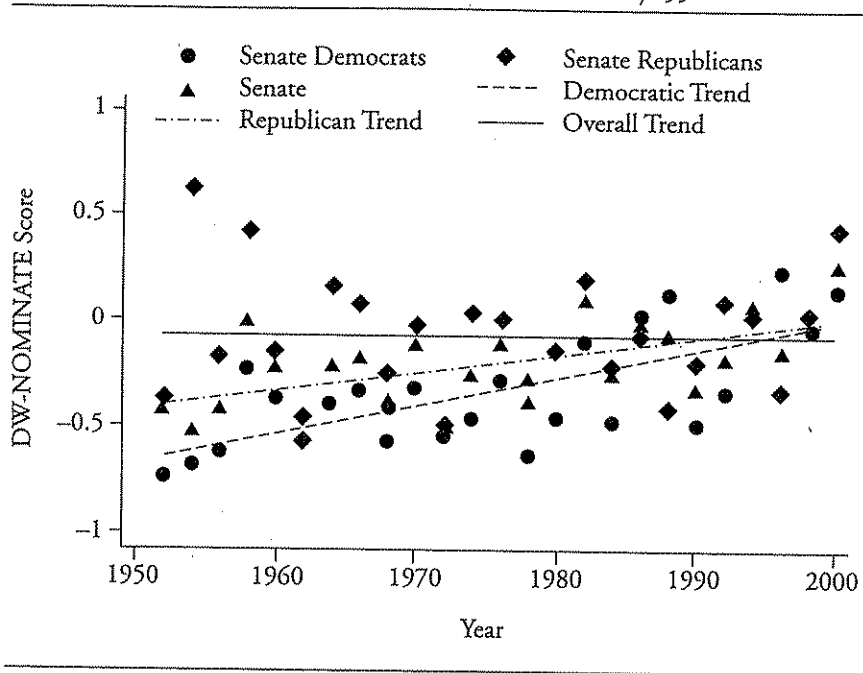
Source: Authors' compilation.

margins tended to be more liberal. Looking at the entire period, the Republicans do not exhibit any strong relationship between ideological extremism and competitiveness.

#### SUMMARY AND CONCLUSION

Our findings suggest that redistricting is not really to blame for the current levels of polarization in either the House of Representatives or the Senate. Certainly homogeneity in House districts has increased over time, and the number of competitive elections in the House has decreased, but the link between those changes and polarization is less than clear. For example, the Senate has undergone an increase in polarization and a decrease in competition in the last decade or two, without the benefit of redistricting or an increase in

FIGURE 5.II BIENNIAL CORRELATION BETWEEN DW-NOMINATE SCORE AND VICTORY MARGIN IN THE U.S. SENATE, 1952 TO 2000



Source: Authors' compilation.

district homogeneity. To the extent that redistricting effects are real, we believe that they are more likely to be indirect, tied to realignment. In particular, as party images become more distinct with the disappearance of conservative southern Democrats and liberal northern Republicans, it becomes harder for a candidate of one party to compete successfully to win votes among the partisans of the other party, regardless of the position she or he adopts. This means that we can get party polarization, even in relatively competitive seats.

Similarly, redistricting is only partly at fault in the decline in political competition. There are other effects that can only be attributed to realignment. The number of uncontested seats, for instance, has increased over time since the 1960s. We might be tempted to blame this change on redistricting, and it is a very likely suspect, given the number of bipartisan redistricting plans that get implemented across the country. But when we look at this trend by party, we see that the Republicans had virtually no uncontested seats in the early 1960s and that this number has increased significantly since that time. Yet the

Democrats have witnessed a large decrease in the number of these kinds of seats. Why? The answer has less to do with redistricting per se than with regional realignments. The Northeast, and to a larger extent the South, have both undergone partisan realignments. In the South, districts that were overwhelmingly Democratic have often been replaced with districts that are overwhelmingly Republican.

Our general dismissal of redistricting effects on competition and polarization is consistent with the recent work of other authors. For example, Michael P. McDonald (chapter 6, this volume) also studies the effect that redistricting has had on electoral competitiveness over time. More specifically, he develops a statistical model to explain the number of competitive House districts within the states over the last four decades. The most important independent variable in his model is the overall level of competitiveness in the state—the more competitive the state is in terms of presidential elections, the more competitive congressional districts are in that state. He also notes that overall levels of competition have decreased in the last two decades, which partially explains the decline in competitive House races. Although McDonald concludes that redistricting has had some impact on competitiveness, he, too, finds that the effects have been marginal and warns that “changing redistricting institutions will have minimal effects.”<sup>5</sup> Our views on redistricting effects are similar to McDonald’s: redistricting may have some small effect on competition—somewhere between trivial and modest.<sup>6</sup> It is our contention that redistricting is like a bit player in a Broadway show whose contributions to the show’s box office ratings are virtually invisible. In our view, factors such as regional realignments and the evolution of national party positions dwarf in significance the role of redistricting in shaping competition.

Jamie L. Carson et al. (2004) track changes in House districts over time and try to establish a link between district change and more extreme ideology in the House. They do find statistically significant effects, but when we look more closely at their findings, the over-time differences in ideological change in an extremist direction between members representing newly configured districts and those that represent districts that have not changed in composition is fairly modest. Yes, changes in district composition may matter, but such changes simply cannot account for the dramatic changes in mean and median ideological location of the two parties in Congress over the past several decades.

Richard Fleisher and Jon Bond (2004) also document the polarization in both the House and the Senate and by and large dismiss redistricting as the primary culprit. They show that moderate, cross-pressured members of both chambers were by and large replaced over time with more extreme members, while a small proportion of moderates in Congress were converted (they became more liberal or conservative on their own). Fleisher and Bond (2004)

speculate that these changes occurred because more extreme candidates began running for office; the parties began recruiting more extreme candidates to run for office; and voters have become more polarized themselves and in turn elect more polarized members of Congress.<sup>7</sup> Redistricting does not play a central role in Fleisher and Bond's argument, and they try to develop an argument that fits for both chambers of Congress.

Alan Abramowitz, Brad Alexander, and Matthew Gunning (2006) are also interested in explaining the declining number of competitive elections in the House of Representatives. They test three different hypotheses: redistricting, polarization, and incumbency effect. They find substantial support for the later two arguments and no evidence for blaming redistricting for this significant decrease in competition. They blame demographic change and ideological realignment for time trends in data.

The 2006 congressional elections offer further support for our point of view. Many pundits thought it impossible for the Republicans to lose their majority, given the small proportion of seats that "looked" competitive. Even though the Republicans may in 2006 have faced the political equivalent of "the perfect storm," it is clear that seats drawn to favor one party can be taken by the other side, given the right circumstances. It will be interesting to see how the distribution of ideological positions among members of Congress changes in the 110th Congress compared to other recent Congresses.

In sum, if we want to understand the links between redistricting, political competition, and polarization, we must do so in a nuanced way that takes into account realignment trends that affect the changing and party-specific relationships between safe seats and ideological extremism. However, we would also note that the failure to find strong redistricting effects on competition or polarization once we take into account the Voting Rights Act and realignment effects does not mean that redistricting choices cannot potentially have major consequences, for example, for partisan bias and legislative control (Grofman and King 2007) or for the descriptive representation of minorities (Grofman and Handley 1998; see also chapter 7, this volume, by Lublin and Segura).

#### APPENDIX: CREATING THE DIVERSITY MEASURE

There are five components to our measure of diversity all measured at the district or state level: percentage of population that is black, percentage that is white, percentage that are high school graduates, percentage of population that is urban, and the median income.

Step 1 is to standardize the variables. This is necessary because they are on very different scales. Median income is in the thousands and censored on one

side, whereas percentage white ranges from 0 to 100 and is censored on both sides. Standardization is carried out in typical fashion: subtract the mean from each observation and divide by the standard deviation. This is done for each variable, for each election year over the period from 1962 to 1996.

Step 2 is to calculate the median and then deviations from the median. This is done for each variable by year and separately for the southern and non-southern states. This last step is necessary because the South is very different on many of these variables. Therefore, the median for the southern states is calculated separately and then deviations from the median are calculated across all observations. We define the South as the states of Alabama, Arkansas, Georgia, Florida, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Virginia.

Next, we multiply all values for the variables on percentage black and percentage urban by  $-1$ . This is to make the values "match" with the other three. For instance, percentage white takes on high values in districts that typically support the Republicans. Percentage black will be just the opposite—high positive values will be in traditional Democratic districts.

To create the single diversity variable, one adds the absolute values of each of these variables together. This first transforms each variable to positive values (this takes away the partisan component of the variable) so that values close to zero are diverse and the higher the value of the variable the less diverse it is (remember, these are deviations from the median so high positive values on percentage white mean there is either a very high percentage of whites or an extremely low percentage of whites). Adding them up simply gives a single value that captures our notion of diversity.

We take one precautionary step before running our analyses: we remove 1970, 1980, and 1990 from the data set, because Senate data are updated those years and House data are not updated until two years later, which artificially overstates the differences between the House and the Senate.

#### NOTES

1. A majority-minority district is one in which African Americans or Hispanics are in the majority. On amendments to the Voting Rights Act, see Bernard Grofman (1993).
2. See the appendix for more detail on how we operationalize this diversity measure.
3. These scores allow us to compare the distribution of ideology in the House and the Senate over time.
4. For pooled data, this same lack of a relationship between competition and extremism holds, when a wide variety of ideological scores from

many different interest groups are used (see Lee, Moretti, and Butler 2004).

5. He concludes with a discussion of reforms to increase electoral competitiveness in the House. The lack of competitiveness in congressional elections is something McDonald would like to see change. He takes a balanced approach, arguing that we do not want all districts to be competitive, nor do we want no districts to be competitive. The authors disagree on this. Grofman tends to agree with McDonald, whereas Brunell is on record for reducing the number of competitive districts for a variety of reasons (see Brunell 2006, 2008).
6. McDonald also finds that the Voting Rights Act has important implications for competitiveness: states that draw at least one majority-minority district in order to comply with the VRA typically having fewer competitive elections than other states. We are in agreement with this finding.
7. There is a significant amount of disagreement among political scientists with respect to the level of polarization of the electorate as a whole. Morris Fiorina (2003) argues that voters are not polarized even if they are divided. Stephen Ansolabehere, Jonathan Rodden, and James M. Snyder Jr. (2005) show that "the difference between a typical strongly Republican state and a typical strongly Democratic state is just 8 percentage points: 54 percent for the dominant party; 46 percent for the weaker. This is hardly a great divide." On the other side, Abramowitz and Kyle Saunders (2005) demonstrate that there are some deep policy divides among Americans, and that these differences can involve a substantial proportion of the voting electorate.

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