

# **Comparing the Effects of Legislative, Commission, and Judicial Redistricting Plans on U.S. House Elections, 1972-2002**

**Jamie Carson**

Department of Political Science  
Florida International University  
University Park, DM-481B  
Miami, FL 33199  
[carson@fiu.edu](mailto:carson@fiu.edu)

**Michael H. Crespin**

Department of Political Science  
Michigan State University  
303 S. Kedzie Hall  
East Lansing, MI 48824  
[crespinm@msu.edu](mailto:crespinm@msu.edu)

## **Abstract**

Following a series of Supreme Court decisions in the 1960s, the states were required by law to redraw legislative and congressional district boundaries. During the past 40 years, states have adopted a variety of methods for redistributing internal population shifts and taking into account the addition or elimination of existing seats. In this paper, we examine how differences in redistricting plans have affected the competitiveness of U.S. congressional elections. Specifically, we focus on three commonly employed methods for redrawing districts: legislative, independent commission, and judicial plans. We find that the degree of electoral competition generally increases when commissions or courts are responsible for drawing new legislative districts. Moreover, we find a distinct pattern in partisan differences in redistricting strategy when Democratic or Republican controlled state governments seek to offset their minority party status in the U.S. House of Representatives. The effects vary when we control for the number of seats gained or lost in each state.

Paper prepared for presentation at the Western Political Science Association Annual Meeting, Portland, OR, March 11-13. We would like to thank Gary Jacobson for generously providing his congressional elections data, Chuck Bullock, Erik Engstrom, Nicol Rae and Jason Roberts for helpful comments and suggestions and especially Dave Rohde and the Political Institutions and Public Choice Program for actively supporting this research agenda.

*In a country as big as the United States, you can find fifty examples of anything.*  
-- Jeffery F. Chamberlain

## **Introduction**

In the spring of 2003, the Texas Rangers put out an “all points bulletin” for the missing Democratic members needed for a quorum to vote on a new congressional redistricting plan offered by the Republican controlled state legislature. The story read like a modern dime novel, complete with accusations of stolen maps, calls to the U.S. Homeland Security department, and pictures of the missing Democrats on milk cartons and decks of playing cards. Despite the comical picture of police officers searching statewide for the missing legislators, the reason for the mass exodus of Democrats across the border to Oklahoma was quite serious. They were trying to avoid taking a vote on a districting plan that was intended to favor the Republicans in the next election. The effort was part of a national strategy to increase the 24-seat margin held by the Republicans going into the 2004 elections. When asked about his involvement with the plans, House majority leader, Tom Delay (R-TX), responded, “I’m the majority leader, and I want more seats” (Cohen 2003).<sup>1</sup>

The preceding example illustrates how contentious the redistricting process has become in the United States. Following the Supreme Court rulings in *Baker v. Carr* (1962), *Reynolds v. Sims* (1964) and *Wesberry v. Sanders* (1964) the redistricting process for congressional seats changed dramatically.<sup>2</sup> These decisions, drawing on the fourteenth amendment’s equal protection clause, stated that the redistricting plans must make districts, “as nearly equal in population as practicable,” (*Wesberry V. Sanders*).

---

<sup>1</sup> In a rebuttal to Delay’s statement, State Representative Jim Dunnam (D-TX) remarked, “We have a message for Tom Delay: Don’t mess with Texas.” The Supreme Court has since rejected an appeal to have the Republican-sponsored redistricting plan stopped.

<sup>2</sup> This series of rulings also enforced altered redistricting at the state level by enforcing the “one person, one vote” rulings.

For the first time in as many as thirty or forty years, and then following each decennial census, states had to change district boundaries in order to comply with the new court rulings. However, it was left up to the states to decide how to implement this process and not all states go about drawing new districts lines in the same way. Frequently, lines are drawn by legislatures, but some state constitutions delegate the power to a commission in an attempt to make the process less political. Alternatively, courts or a panel of judges may be appointed to draw the lines if the legislature cannot agree on a plan, or produce one that is consistent with previous legal rulings.

In this paper, we examine whether differences in redistricting plans at the state-level affect the overall competitiveness of congressional elections. Drawing on data from the 1972-2002 redistricting cycles, we explore the extent to which different types of redistricting plans actually matter. We demonstrate that who controls the redistricting process has direct partisan implications in terms of the underlying competitiveness of House districts. We gain theoretical leverage of this important subject by linking control of state governments to majority status in the U.S. House of Representatives. Additionally, we move beyond the distinction in previous literature by investigating the extent to which *all* types of districting plans (legislative, judicial, and commission) affect the degree of competition in House races.

Further, by testing our theory of electoral competitiveness over four redistricting cycles, including a change in majority status in the U.S. House of Representatives, we gain empirical leverage over the question of interest. At the same time, our analysis has implications beyond the simple degree of the underlying competitiveness of House races. If states are able to alter the balance of power in the House through their redistricting plans, then how they draw the seats can

have far reaching policy consequences well into the future.<sup>3</sup> Our findings also have implications for scholars studying the incidence of careerism in the House as well as the strategic nature of candidate entry and exit decisions.

The organization of this paper is as follows. In the next section, we discuss the literature relevant to the partisan implications of redistricting. We then outline the theoretical expectations of the effects of redistricting on competitiveness in congressional contests. Next, we discuss the research design, test hypotheses, and present our central findings. The final section concludes by discussing the implications of our results.

### **Partisan Implications of Redistricting**

The literature on congressional redistricting is quite voluminous. One strand of research has sought to more systematically link redistricting to congressional stability (see, e.g., Bullock 1975; Gelman and King 1994a). Other students of Congress have investigated the effects of legislative redistricting on minority representation (see, e.g., Lublin 1997; Lublin and Voss 1997; Canon 1999; Epstein and O'Halloran 1999; Shotts 2001). Still others have addressed the issue of representative responsiveness in light of congressional redistricting (Tufté 1973; Ferejohn 1977; Gelman and King 1994b; Ansolabehere, Snyder, and Stewart 2000, 2001).<sup>4</sup>

More particular to the question at hand is how redistricting can influence competitiveness of individual House races over time. Prior scholars examining this issue have linked the decline in competitiveness to the growth in the incumbency advantage while others have focused on the partisan balance of seats in the House. One of the first scholars to identify redistricting as a

---

<sup>3</sup> See Aldrich and Rohde (1997-98) for a discussion of partisan implications of the most recent shift in majority control of the House of Representatives after the Republicans assumed control in 1995.

<sup>4</sup> See also Cox and Katz (2002) for a recent discussion of the impact of congressional redistricting on incumbents' entry and exit decisions.

possible cause for the increase in the incumbency advantage was Mayhew (1971). Soon after, Tufté (1973) reported a decline in competition in the first election after redistricting. He argued that "...a major element in the job security of incumbents is their ability to exert significant control over the drawing of district boundaries" (551). Tufté also posited that it is rational for members of Congress to work together to try to eliminate the competition by drawing themselves (or influencing others to draw) safe seats.<sup>5</sup>

Beyond the incumbency advantage, scholars have also focused on the *aggregate* effects of redistricting in terms of the partisan balance of seats in the House. Nevertheless, previous studies have largely focused on each redistricting cycle separately when exploring the effects of districting plans on election outcomes.<sup>6</sup> Abramowitz (1983), for instance, examines the partisan effects of redistricting in the 1982 elections to investigate the gains that Democratic candidates received in those states where the Democrats had complete control over the districting process. In a follow-up analysis, Niemi and Winsky (1992) extend this research design to the 1970s and find that in both decades, there is an initial partisan advantage for the political party that wielded control over the redistricting process in terms of House elections (see also Born 1985). In contrast, Niemi and Abramowitz (1994) discovered that party control of state governments in terms of the redistricting process yielded little partisan advantage in the context of the 1992 elections.

Cain (1985) and Butler and Cain (1992) also examine the partisan effects of redistricting, but seek to more fully develop a theoretical explanation for the expected partisan impact of

---

<sup>5</sup> For a response and critique of the Tufté argument, see Burnham (1974), Ferejohn (1977) and Cox and Katz (2002).

<sup>6</sup> See Erikson (1972), however, for an analysis of the effects of redistricting on the distribution of House seats from 1952-1970.

specific redistricting plans on electoral outcomes.<sup>7</sup> They argue that redistricting plans can be either *partisan* or *bipartisan*. Partisan political gerrymandering, which may have the goal of attempting to remove as many minority party incumbents as possible, actually strengthens the *average* electoral security of most minority party incumbents while causing only a few to lose their seats entirely. The idea is that greater safety for a few minority party members leads to a less efficient use of votes overall. This procedure causes the minority party as a whole to be worse off (as measured in terms of the effective number of wasted votes) since they are “packed” into highly partisan districts, while at the same time making individual members more secure.<sup>8</sup> Bipartisan plans, alternatively, just strive to make incumbents of both parties as safe as possible. This occurs with regularity under divided government where it is easier to maintain the status quo than instigate changes that benefit one party over the other (see also Lyons 2003).

In subsequent work, Butler and Cain (1992) consider alternatives to legislative districting plans such as those drawn by independent commissions or courts.<sup>9</sup> They argue that commissions are created for the purpose of focusing on factors such as compactness and equality when drawing district boundaries, rather than partisan politics. Butler and Cain explain that in Iowa, for instance, commissions responsible for new districts do not factor registration statistics into their decision when redistricting. This suggests that although increasing competitiveness is not the overriding goal of the commission, it may turn out to be a by-product of their efforts. While Butler and Cain (1992: 112) argue that it is more difficult to infer consequences of court-drawn

---

<sup>7</sup> On this topic see also Squire (1985), Cain and Campagna (1987), Basehart and Comer (1991), Lyons and Galderisi (1995) and Swain, Borrelli and Reed (1998).

<sup>8</sup> The idea that partisan redistricting plans actually makes minority party incumbents safer may seem on its face counterintuitive. However, the goal of these plans is to put as many of the minority party’s voters in as few districts as possible, hence forcing them to “waste” their votes, if one considers any vote beyond the majority threshold as wasted. With minority party voters packed into few districts, this makes the rest of the districts more competitive for the majority party.

<sup>9</sup> For an early analysis of redistricting commissions see Balitzer (1980).

plans, they do insinuate that if courts focus on any one factor, it may involve protecting the status quo. Nevertheless, they do not empirically test these particular claims.

In their recent analysis, Cox and Katz (2002) reevaluate the electoral consequences of the reapportionment revolution to show that redistricting has yielded partisan consequences for both Republican and Democratic incumbents. While their approach focuses on redistricting strategies in terms of reversion points (what would happen if the legislature fails to reach consensus on a specific districting plan, for instance), we are more interested in examining how court, commission, and legislative drawn plans differ in their outcomes.<sup>10</sup> More specifically, we seek to better understand whether extra-legislative districting plans lead to a greater degree of electoral competitiveness than plans drawn by more partisan actors.

### **Redistricting and Competitiveness in Congressional Races**

In order to examine the effects of redistricting plans on electoral competitiveness, it is necessary to understand the line drawers' strategies. In this study, we consider the expected political effects of plans drawn by state legislatures, commissions and the courts. During the past 40 years, these have become the most commonly employed plans in terms of redrawing district boundaries. Table 1 shows the distribution of state redistricting plans during each of the four districting cycles.<sup>11</sup> Over this period, we see a slight movement away from plans drawn by legislatures to one where commissions are becoming more responsible for redrawing district boundaries. Whereas only one state (Maryland) employed a commission in the 1972 districting

---

<sup>10</sup> In the case of courts and commission drawn plans, states have met the reversion points and are implicitly included in our study.

<sup>11</sup> We coded the type of plans from the appropriate issue of Congressional Quarterly's *Redistricting in the 1970s, 1980s, 1990s or 2000s*. See Table A of the Appendix for a list of plans for each state and decade.

cycle, by 2002, 11 states had begun using these non-legislative bodies to reorganize district boundaries. The involvement of the courts has remained stable over time.

For each type of plan, we assume players are rational actors who try to achieve their party's goals. However, we do not expect the goals to be the same across parties or elections. In certain circumstances, those responsible for drawing district boundaries may strive to increase the degree of electoral competitiveness in House races; at other times, they may simply want to maintain the status quo. Moreover, we believe the strategy that is ultimately pursued by unified state governments is strongly related to the relationship between the party that controls the districting process and the party in the majority in the House of Representatives. The different strategies are a function of the relative levels of risk they are willing to assume. Nevertheless, certain institutional constraints may exist making it difficult for parties to gerrymander seats to their candidates' advantage. These constraints may differ depending on the types of plans that are ultimately enacted by individual states.

### *Partisan and Bipartisan Plans in the Legislature*

Legislative plans can be either partisan or bipartisan (Cain 1985). Generally, partisan plans favor the majority party while bipartisan plans do not show a significant preference for either party in terms of competitiveness of House seats. However, these two types of plans are similar in that elected officials with ties to the political parties are the primary decision makers, and members of Congress can hope to influence their party allies in the system. Indeed, Butler and Cain (1992) argue that members of Congress will maintain relationships with members of their state legislators in order to have some say during redistricting and may be consulted in regards to different proposals. In addition, the map-makers are part of a continuously

functioning legislative body complete with formal rules and institutions where a majority party is pitted against the minority and the majority party may be able to gain leverage over the minority due the parliamentary rules and procedures.<sup>12</sup>

Partisan plans, enacted under unified partisan government, should have the primary goal of reelecting all their party's incumbents and the secondary goal of trying to win a few additional seats from the minority party (if possible). One way to accomplish this goal is by "packing" voters from the minority party into safe districts or pitting two minority party incumbents against each other in a primary election. The result may be one or two members of the minority party losing their seats; on average, however, the remaining members of the minority party have actually become safer. Alternatively, the party can attempt to make gains by "splintering" a safe minority party seat into several majority party seats by diluting the voting blocs. The recent efforts in Texas that were initially blocked by the Democrats attempted to employ both techniques by increasing the number of Hispanic districts, while at the same time, reducing the total number of districts held by white Democrats. Thus, while these strategies create the appearance of increasing competition in House races, there are actually important intra-party differences that tend to negate this effect.

When the parties are unified at the state level, we should expect to see differences between districting plans depending on which party controls this process. One should keep in mind that the goals of the line drawers at the state level may differ depending on whether their party is in the majority at the congressional level. More specifically, if the party controlling the state government and the party in control of the House are one and the same, we are less likely to observe an increase in competitiveness since both levels are most interested in maintaining the status quo - majority status in the House. In this type of situation, the "in-parties" in the state

---

<sup>12</sup> Nebraska is the only state with nonpartisan state legislative elections and a unicameral legislature.

and federal levels should coordinate efforts to maintain majority control at the congressional level since they may be more risk averse to possible unintended effects of changes (Benenson 1990).<sup>13</sup> For those states controlled by the minority party in the House, the “out-party”, we would expect them to draw more competitive seats since an increase in electoral competition is necessary to attempt to offset the majority party’s partisan advantage. Under these circumstances, parties at the state level may be more risk acceptant when designing new districting plans since the potential gains (i.e., majority status at the congressional level) are significantly greater. Butler and Cain (1992:78) sum this up nicely:

“...every group devising boundaries in its own interest faces a challenge; it can either make sure of its representation by creating safe seats or it can gamble on having a larger number of winnable seats that are more marginal.

The in-party states, we argue, will want to make sure of its representation while the out-party may want to gamble. During much of the period we examine when the Democrats were the majority party in the U.S. House prior to the 1994 elections, Democratic state governments, we argue, were content with the status quo. Meanwhile, the Republican controlled state governments, in an attempt to gain control of Congress, should have adopted districting plans that sought to increase their party’s chances of winning more seats by drawing more competitive districts. After the Republicans assumed control of the House in 1995, we should expect the opposite to occur with unified Democratic controlled state governments now drawing more competitive seats for the 2002 elections. By combining Republican and Democratic controlled state governments into one partisan plan category, the true effects may be “hidden” as state parties may be working in opposite directions. Since the 40-year period we examine includes a shift in partisan control of the House in 1995, we are able to test if this expectation fits a general

---

<sup>13</sup> Cox and Katz (2002: 32) argue that both parties are risk averse; however, we argue that levels of risk aversion are relative. See Cox and Magar (1999) for a discussion on the “value” of majority status in the House.

pattern between in-party and out-party versus one specific to the Democratic or Republican Party.

Bipartisan plans, which are more common under instances of divided government at the state level, simply seek to protect incumbents in both parties since it is unlikely that a plan which advantages one party over the other will pass all the relevant veto points. The only changes in districts may be at the margins to make members safer. It is much easier for legislatures to come to agreement on these types of plans since the status quo is maintained. These types of plans generally lead to a loss of competitive seats altogether. In both partisan and bipartisan legislative redistricting plans then, the overall outcome equates to an “incumbency protection act” (Tuft 1973) and we expect members in these types of seats will not experience an increase in competitiveness in elections to the House of Representatives. However, once we take into account which party controls the state government and their relationship with the majority party in the House, we should expect to see the party out of power at the national level drawing more competitive seats and the opposite for parties that hold majority status in the House.

#### *Commission and Court Drawn Districting Plans*

Commission and court drawn plans, which take the task of redistricting away from the state legislatures, can vary for states that employ these mechanisms in redrawing district lines. Among the states that employ commissions, for instance, variations persist in terms of the selection requirements, overriding objectives, and deadlines for submitting completed plans. Some states commissioners are elected officials, while others are appointed by judges, party leaders or constitutional authority. In some cases, commission members *cannot* hold elected office for a specified number of years before or after their term on the commission. While

members of Congress may try to influence commission members, when the commissioners are not elected officials they may not feel obligated to listen to their input.

Commissions have become more popular when redrawing legislative or congressional districts due to the inability of partisan legislatures to get the job done on time. According to one Colorado commissioner who described the ability of commissions to meet state constitutional deadlines:

The commission is the sole entity responsible for drawing legislative plans – there is no gubernatorial veto. It has a[n] odd number of members so there won't be tie votes. On the other hand, in the legislative process the senate, the house, and the governor must all agree to a plan, and each has the power to block action by the other two. The legislature is actually structured not to get the job done.<sup>14</sup>

Furthermore, the overriding goals of the commissions and their relative independence from the legislature should produce more “fair” and hence more competitive districts at either the state or congressional level (Kubin 1996-1997).<sup>15</sup>

Court and commissions are more likely to ignore traditional partisan variables when they draw district boundaries. For example, they may draw the lines without regard to where incumbents reside or the past voting tendencies of geographic units such as precincts or census blocks. Further, these types of plans traditionally favor compactness and previous political boundaries like county lines. Therefore, we expect congressional districts drawn by either courts or commissions to increase the degree of competition between the two major party candidates. This expectation stems from the goal of removing partisanship from the districting process and

---

<sup>14</sup> Report from the National Conference of State Legislatures annual meeting, July 24, 2002. “Should Legislatures Even be in the Redistricting Business?” <http://www.ncsl.org/programs/legman/redistrict/casecmsn.htm>. Emphasis in original. While this quote is in reference to a commission for drawing state legislative districts, the logic still applies to congressional districts.

<sup>15</sup> According to Kubin (1996-1997:851) the “most common redistricting criteria are (1) contiguous and compact districts, (2) respect for political subdivisions (especially counties), (3) respect for geographic or natural boundaries, and (4) coterminality between state house and state senate districts.” These goals then shape the redistricting process.

no longer promoting incumbency protection. Of course, these types of plans are not entirely non-partisan, only less so when compared to plans drawn and approved by elected officials in a legislative body.

While the type of plan is important in determining the degree of competitiveness, another dynamic is the number of seats gained or lost by a particular state. If seats are lost, it is often the case that two incumbents' districts are combined into one. When a state gains seats, new districts are created and are up for grabs. For partisan drawn plans, we would expect the out-party to take advantage of the new seats and try to win as many as possible. To accomplish this task, they should make them more competitive. As for the in-party, they may try to win a few more seats and will not want to risk losing them to the out-party, therefore, they will draw themselves safe seats. As for commission and court drawn plans, our theoretical expectations are not as clear when states gain or lose seats; however, it may still be important to control for seat changes.

In sum, we expect to see little or no increase in competition at the congressional level when seats are drawn by either partisan or bipartisan legislatures. That being said, we should expect to see some *inter-party* differences depending on majority control of the House. More specifically, the party out-of-power should seek to draw more competitive districts in an attempt to increase their chances of regaining majority control in Congress. Further, we expect to observe higher incidences of competition in House races when districting plans are enacted by commissions and courts since partisan factors are not routinely incorporated into their districting strategies.<sup>16</sup>

---

<sup>16</sup> Of course, we acknowledge that no districting plan will be completely nonpartisan. However, those districts drawn by either courts or commissions, on average, strive to accomplish this goal, at least in principle.

## Data and Methods

The data used to test our expectations cover states that changed district boundaries during the redistricting cycles from 1972-2002. The dependent variable we utilize is the degree of competition in individual House races, measured as 100 minus the absolute difference between the Republican and Democratic share of the two-party vote in each election in states where redistricting occurred.<sup>17</sup> This implies that larger numbers correspond to more competitive House races. In order to control for who was responsible for drawing congressional districts, we created a series of dummy variables that captures these distinctions. For instance, if the districting plan was drawn by a unified government at the state level, we code the variable *partisan* 1, 0 otherwise. We also break this variable into *Republican Partisan* and *Democratic Partisan* dummy variables as a further distinction to account for partisan control of the state legislature. For those districts drawn by *commissions* or *courts*, we utilize two dummy variables in our analysis where such plans are coded 1, and all others coded as 0. We used Congressional Quarterly's *Congressional District Books* in the 1970s, 1980s, and 1990s to determine who was responsible for drawing congressional districts. Since courts and commissions may differ over time in response to higher court rulings or changes in commission structure, we interact each of these variables with year dummies for each of the redistricting cycles in 1982, 1992, and 2002 and leave 1972 as the baseline category. To test if *seat change* influences competitiveness, we interact *partisan*, *Democratic* and *Republican Partisan*, *court* and *commission* with a variable that measures the number of seats won or lost for each state.

Table 2 displays the mean competitiveness for each type of districting plan for each of the four redistricting cycles. The first column represents bi-partisan plans which are drawn by

---

<sup>17</sup> Following the lead of Niemi and Abramowitz (1994), we also include uncontested races in our analysis. Failing to include these cases would tend to bias the estimates by artificially inflating the size of the coefficients.

states with any type of divided government at the state level. These types of plans represent the baseline comparison plan for most of our study. Generally, Republican and Democratic plans produce more competitive elections, compared to bi-partisan plans, with the exception of 1992. Republican unified plans were more competitive than bi-partisan plans in each of the four years and were also more competitive than Democratic plans in the three redistricting years where they were the out-party in the House. In two out of the three times when the Democrats were in control of Congress, 1972 and 1992, their plans were less competitive than bi-partisan plans. Further, during each of the cycles when the Democrats were the in-party, their seats were less competitive than the Republican plans. This pattern reverses itself when the Republicans were in control of the House during the 2002 redistricting cycle. Generally, the results match our theoretical expectations but we should not draw any concrete conclusions at this point because we do not yet control for any other factors that may affect the competitiveness of congressional elections.

In order to control for other factors that may influence candidate competition, we include several additional explanatory variables in our regression model that others have shown are theoretically important in terms of affecting election results (see, e.g., Jacobson 2004). First, we include a measure for whether or not a *quality challenger* emerged in a given House race since we should expect to see “stronger” candidates emerge in more competitive races.<sup>18</sup> We also include a variable measuring whether an incumbent was not seeking reelection (*open seat*) since these races are typically more competitive than those contested by an incumbent (Gaddie and Bullock 2000). To control for *uncontested* races that may potentially bias the results, we include a dummy variable tapping this measure. Since candidate *spending* is also an important predictor

---

<sup>18</sup> Following the seminal work of Jacobson (1980), we utilize previous electoral experience as a proxy for candidate quality.

of the degree of competitiveness in House races (Jacobson 2004), we control for this factor.<sup>19</sup> In particular, we operationalize this as the natural log of the total amount of money spent by both the Republican and Democratic candidates.<sup>20</sup>

Given that competitiveness may be a function of the constituency represented by each legislator, it is necessary to include a measure tapping underlying constituent preferences. As a proxy for this, we elected to employ the presidential vote for the Republican candidate in each congressional district. More specifically, we subtract the Republican presidential candidate's vote margin in the entire nation from his margin in each district for the 1972 and 1992 presidential elections. For 1982 and 2002, we use the same measure but utilize the 1980 and 2000 vote, in the *new* districts as reported by the respective edition of *Politics in America*. By doing this, we can compare the strength of the Republican Party in each district with its average strength in the nation across all the elections included in our analysis.<sup>21</sup> Given the need for pre-clearance under the Voting Rights Act of 1965 and the one-party dominance in the South throughout most of this time period, we also include a *south* dummy variable to control for any differences in the degree of competition that may be observed from this region of the country.<sup>22</sup> We also include election-specific fixed effects to control for any year-to-year differences that might otherwise bias the results. We employ heteroskedastic regression to test our hypotheses about the effects of each of these variables.

---

<sup>19</sup> In the congressional elections literature, several studies have examined the potential for endogeneity when including challenger quality and campaign spending on the right-hand side of the equation (see, e.g., Jacobson 1990; Green and Krasno 1988, 1990; Erikson and Palfrey 1998; Basinger and Ensley 2003). Nevertheless, we do not believe that endogeneity presents a problem in this analysis since our variables of interest are not highly correlated with the potentially endogenous variables. Moreover, Carson and Crespin (2004) have shown in the context of related research that the estimates are similar when the endogeneity problem is addressed.

<sup>20</sup> We employ the convention adopted by Jacobson (1980) in assuming a minimum of \$5000 spent by each candidate (of which we employ the natural logarithm).

<sup>21</sup> The advantage of employing district presidential vote is that it provides a more direct measure of the partisan or general ideological predisposition of each congressional district separate from the popularity of the incumbent representing the district (Ansolabehere, Snyder, and Stewart 2000, 2001; Jacobson 2004).

<sup>22</sup> See Hill (1995) for a more detailed analysis of the effects of the Voting Rights Act on the increase in the number of Republican representatives from the South.

## Results

In Table 3, we present the estimates from our regression model where we first examine the differences between partisan and non-partisan redistricting plans on electoral competition. The base model does not include a control for seat change while the seat change model does. Since each of our independent variables of interest is interacted with other variables, we cannot interpret them directly in terms of either their statistical or substantive significance. Joint F-tests that include each part of the interaction are necessary to determine statistical significance and we must add or subtract the coefficients over their ranges to interpret the substantive effects. In some cases, we use figures to better display the results. Recall that in each case, the effects are compared to our baseline category, bi-partisan plans. For the base model, we find that *partisan* plans are not significantly more competitive compared to bi-partisan plans and for the seat change model, we find that when this type plan is enacted, the effect is marginally significant ( $F_{2,1704} = 2.66$ , Prob. > F = 0.0703, two-tailed).<sup>23</sup> The estimated change in competitiveness ranges from an increase of 2.5 percent when two seats are lost and a decrease of 1.1 percent when a state gains four seats. This range of -2 to 4 represents cases where states actually gained or lost this number of seats. However, a gain of four seats is rare and the effect is only negative when three or four seats are gained, so we argue that for the most part, when partisan control of the state government is unified, competition increases at marginal levels of significance. We will reevaluate this conclusion when we control for the majority party in the House since, as indicated

---

<sup>23</sup> Here, we test the joint significance of partisan and partisan×seat change. In order to conserve space, we do not report all of the F-tests, however, if we refer to a result as significant, it is at least significant at the 0.05 level, two-tailed. Results are available upon request.

earlier, any results of partisan plans may be masked by inter-party differences that will not show up in this operationalization of the variable.<sup>24</sup>

As we anticipated, the results of the seat change model indicate that districting plans drawn by either commissions or the courts are jointly significant for each of the redistricting years, but we will hold off interpreting the substantive results until the full model is reported. In terms of the control variables in the model, we see that factors such as the presence of a quality challenger and spending both increase the degree of competition in House elections. In contrast, factors such as an increase in the presidential vote in the district, whether or not the race was held in the south, and uncontested races all contribute to a decline in competition across House races, as we would expect. The statistical significance of the election-specific fixed effects suggests both that there are differences across each of the four elections and that the negative coefficients indicate a trending decline in the overall degree of competitiveness since 1972 that has been documented by others (see Jacobson 2004).

In order to test the theoretical expectations regarding majority-minority differences of House control, we report three additional models in Table 4 where we separate the partisan variable into its Republican and Democratic controlled state legislative components. By doing this, we can evaluate whether differences in partisan control at the state level vis-à-vis the House are manifested in terms of divergent patterns of competition in House elections. The first model tests this theory over all four elections (in three of which the Democrats were the majority party in Congress) following a redistricting cycle whereby we include variables distinguishing between Republican and Democratic controlled state legislatures. For the entire time period, we see that when the Republicans are in control of the redistricting process, the result is an

---

<sup>24</sup> In order to test if a large state is driving our results, we ran the model while dropping a state such as Texas or California and the results were substantively similar.

increasing degree of competition. When the Democrats are in control, however, we do not observe the same effect as these Democratic and Democratic×Seat Change are not jointly significant ( $F_{2,1681} = 2.25$ , Prob. > F = 0.1056, two-tailed) at conventional levels, which suggests they are trying to maintain the status quo.

Once again, the effect of both types of non-partisan drawn plans is significant. Figures 1 and 2 display these effects for both court and commission plans respectively over the range of seats gained and lost. In each of these figures, the lines represent the slopes for each of the four elections following redistricting while the markers denote predicted cases. For example, in Figure 1 for 1972, the courts were only involved in states where there was no change in seats so the marker is placed on the line above the zero-change tick on the x-axis. For 1972 and 2002, the effect on competitiveness is always positive, no matter the change in seats. The effect was an increase of 6.7% in 1972 and in 2002 it ranged from 3.6 to 1.9%. In 1982, the effect while statistically significant, substantively hovers near zero. This is consistent with Butler and Cain (1992) who posited that the courts would try to maintain the status quo when they became involved. Finally, in 1992, the effect ranges from 1.45 to -0.83 percent. Overall, when courts become involved, the new districts are more competitive when compared to bi-partisan plans and this result supports our hypothesis. However, in a few instances when states gain seats there is a small negative effect.

Figure 2 displays the same type of results for commission drawn plans. Except for one outlier case, Maryland in 1972, the effect of commissions on competitiveness is positive and significant in each of the other three redistricting cycles.<sup>25</sup> The greatest effect is nearly 5 percent in 2002 when states gained two seats and the predicted trend would be even higher if the states

---

<sup>25</sup> This result is not surprising since Maryland has been a traditionally non-competitive state, so much so that Cox and Katz removed it from their analysis due to lack of two-party competition.

gained more seats. There is also an overall trend of an increase in competitiveness as states gain seats. This runs counter to court drawn plans where the slope is negative as seats are gained. The reason for this may be that when commissions draw district boundaries, they most likely try to increase the degree of competitiveness in all congressional districts, regardless of whether the number of seats stays the same or increases and with more seats comes more competitiveness. Courts, on the other hand, are probably more concerned about the competitiveness of certain districts within a state.

While these effects appear to be modest, one should keep in mind that 169 races have been decided by two percent or less in elections following redistricting since 1972. Thus, these variables are both statistically and substantively significant and may even play a role in explaining the number of incumbent defeats that are often observed in election years subsequent to a redistricting cycle (on this point, see Jacobson 2004).

To further examine the expectation that majority control of the House may influence the degree of risk acceptance/aversion, we run two additional models where we can analyze the impact of this changes. As our theory predicts, we expect the Republicans to seek to increase competition when they are the out-party (1972-1992) and we would expect this pattern to reverse in the redistricting cycle after the Democrats lose control of the House (2002 redistricting cycle). The results in the latter two columns of Table 4 bear these expectations out. When the Democrats are the majority party in Congress (middle column), we see as a result of Republican controlled state legislative plans an increase in the overall degree of competitiveness of House races. In contrast, the Democratic plans do not increase the level of competition, suggesting that they are simply trying to maintain the status quo. In fact, as Democratic controlled states gain

seats, this effect even becomes negative and is statistically significant ( $F_{2, 1258} = 3.42$ , Prob. > F = 0.0329, two-tailed).

Figure 3 displays this divergent (and striking) pattern. When either Republican or Democratic controlled states lose 2 seats, the effect is about a three percent increase in competitiveness. However, moving from left to right across the graph, the two lines move in opposite directions. The out-party Republicans draw consistently more competitive districts ranging from an increase of 2.6 percent to a high of 6.9 percent, hardly a small increase with the predicted trend continuing. On the other hand, the Democratic in-party is drawing “safer” seats compared to both the Republicans and bi-partisan plans.

In the last column of Table 4 representing the 2002 redistricting cycle, we see a similar pattern, but in reverse: Democrats, now the out-party, are seeking to increase the level of competition while Republicans are content with simply maintaining their majority status in the House with no significant change in competitiveness. While the effect for Democratic controlled plans is generally positive, the predicted trend over actual cases decreases from 8.0 percent when the Democrats experienced no seats change to 0.9 percent with a gain of two seats. This result may be due to limited cases since only Georgia gained two seats and was controlled by a unified Democratic state government. A more general conclusion from these findings is that this is not simply an artifact of either party, but rather a function of majority-minority differences with respect to which party is currently in control of the U.S. House of Representatives. This suggests deliberate coordination between state and national parties, a factor that is often overlooked in the contemporary era of candidate-centered politics. Our results indicate that legislators at the state-level are working with fellow partisans in Congress to try to offset the balance of power when

they are not in control of the House chamber, yet often work to maintain the status quo when they have already achieved majority status in the House.

## **Conclusion and Future Research**

In this paper, we examine a question that has often been overlooked in past studies that have sought to evaluate the electoral effects of various redistricting plans at the state level. Not only did we consider the effects of legislative districting plans, we also examined the effects of the commission and court-drawn plans that become increasingly popular since the 1970s. We find that while bi-partisan legislative-drawn plans tend to result in incumbency protection, plans that are designed by either commissions or courts tend to lead to a greater amount of overall competition in House races. While these results may not shocking be entirely counterintuitive, they are encouraging in that they suggest that commission and court-drawn plans can lead to more competitive elections, as they were designed to do. Our results also speak to a more fundamental normative question—whether or not it is still possible to have competitive elections.

In the words of one election scholar:

Elections are supposed to be the means by which the public exercises control over its government. If elections are competitive this system works well. People are faced with viable options and make their choices. But if the deck is somehow stacked so that one candidate is virtually guaranteed victory, then public accountability is undermined (Krasno 1994: 5).<sup>26</sup>

Our results also indicate that political parties may not always share the same overriding goals and these goals may vary depending on their status at the national level. When the party in

---

<sup>26</sup> In a recent *New York Times* editorial arguing for the increased use of redistricting commissions, Earl Blumenauer (D-Oregon) and Jim Leach (R-Iowa) echoed Krasno's sentiments stating, "If competitive elections matter – and to much of the world they are what America stands for – then redistricting also matters." (Blumenauer and Leach 2003)

control at the state level is seeking to regain majority status in the U.S. House, they may be willing to pursue a more aggressive electoral strategy in terms of drawing more competitive House districts in an attempt to take seats away from the other party. When they do control a majority of seats in the House, however, they may be conservative in their tactics, since the potential losses outweigh the minimal gains that they might pick-up from winning only a few additional seats. Thus, we should expect to see them maintain the status quo under these conditions since this represents a “safer” electoral strategy.<sup>27</sup> While we can only speculate, these redistricting tactics most likely helped the Republicans take back control of the House in 1995.

In seeking to build upon these findings, future work might benefit from a more detailed analysis of congressional redistricting to determine the degree of continuity or change between old and new seats. Our theory suggests that the out-party should be more likely to draw more competitive districts in their attempt to regain majority status in the House. By examining the degree of change in congressional districts, we can further examine how explicitly they pursue this strategy. Additionally, it would be interesting to see if our expectations work as well at the state level where there is also a partisan incentive to draw seats favorable to one party over the other. We believe that further exploration of these and other related questions should continue to enrich our understanding of electoral and partisan politics in the redistricting process.

---

<sup>27</sup> As Lublin (1997) among others has shown, redistricting can often have a number of unintended consequences despite the “best” intentions of those drawing the district boundaries.

## References

- Abramowitz, Alan I. 1983. "Partisan Redistricting and the 1982 Congressional Elections." *The Journal of Politics* 45: 767-770.
- Aldrich, John H. and David W. Rohde. 1997-98. "The Transition to Republican Rule in the House: Implications for Theories of Congressional Politics." *Political Science Quarterly* 112 541-567.
- Ansolabehere, Stephen, James M. Snyder, Jr., and Charles Stewart, III. 2000. "Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage." *American Journal of Political Science* 44: 17-34.
- Ansolabehere, Stephen, James M. Snyder, Jr., and Charles Stewart, III. 2001. "Candidate Positioning in U.S. House Elections." *American Journal of Political Science* 45: 136-159.
- Baker v. Carr*. 1962. 369 U.S. 186.
- Balitzer, Alfred. 1980. *The Commission Experience: Studies of Non-Legislative Approaches to Redistricting*. Claremont CA: The Rose Institute of State and Local Government.
- Basehart, Harry and John Comer. 1991. "Partisan and Incumbent Effects in State Legislative Redistricting." *Legislative Studies Quarterly* 16:65-79.
- Basinger, Scott and Michael Ensley. 2003. "Endogeneity Problems in Congressional Elections Research: District Competitiveness, Candidate Quality & Campaign Spending." Paper Presented at the Annual Meeting of the American Political Science Association.
- Benenson, Robert. 1990. *Jigsaw Politics: Shaping the House After the 1990 Census*. Washington DC: Congressional Quarterly Press.
- Blumenauer, Earl and Jim Leach. 2003. "Redistricting, a Bipartisan Sport." *The New York Times*. Accessible online: <http://www.earlblumenauer.com/display.cgi?page=nyteditorial>.
- Born, Richard. 1985. "Partisan Intentions and Election Day Realities in the Congressional Redistricting Process." *The American Political Science Review* 79: 305-319.
- Bullock, Charles S. 1975. "Redistricting and Congressional Stability, 1962-1972." *The Journal of Politics* 37: 569-575.
- Burnham, Walter Dean. 1974. "Theory and Voting Research: Some Reflections on Converse's 'Change in the American Electorate'" *The American Political Science Review* 68:1002-1023.

- Butler, David and Bruce Cain. 1992. *Congressional Redistricting: Comparative and Theoretical Perspectives*. New York: Macmillan Publishing Company.
- Canon, David T. 1999. *Race, Redistricting, and Representation: The Unintended Consequences of Black Majority Districts*. Chicago: University of Chicago Press.
- Cain, Bruce E. 1985. "Assessing the Partisan Effects of Redistricting." *The American Political Science Review* 79: 320-333.
- Cain, Bruce E. and Janet Campagna. "Predicting Partisan Redistricting Disputes." *Legislative Studies Quarterly* 12:265-274.
- Carson, Jamie L. and Michael H. Crespin. "Laboratories of Democracy: Evaluating the Effects of State Redistricting Plans on Electoral Competition in U.S. House Races." Forthcoming *State Politics and Policy Quarterly*.
- Cohen, Adam. 2003. "For Partisan Gain, Republicans Decide Rules Were Meant to Be Broken." *The New York Times*. Accessible online: [www.nytimes.com/2003/05/27/opinion/27TUE4.html](http://www.nytimes.com/2003/05/27/opinion/27TUE4.html).
- Congressional Quarterly. 1973. *Congressional Districts in the 1970s*. Washington D.C.: Congressional Quarterly Press.
- Congressional Quarterly. 1983. *Congressional Districts in the 1980s*. Washington D.C.: Congressional Quarterly Press.
- Congressional Quarterly. 1993. *Congressional Districts in the 1990s*. Washington D.C.: Congressional Quarterly Press.
- Congressional Quarterly. 2003. *Congressional Districts in the 2000s*. Washington D.C.: Congressional Quarterly Press.
- Cox, Gary W. and Jonathan N. Katz. 2002. *Elbridge Gerry's Salamander: The Electoral Consequences of the Reapportionment Revolution*. New York: Cambridge University Press.
- Cox, Gary W. and Eric Magar. 1999. "How Much is Majority Status in the U.S. Congress Worth?" *American Political Science Review* 93:299-310.
- Epstein, David and Sharyn O'Halloran. 1999. "A Social Science Approach to Race, Redistricting, and Representation." *The American Political Science Review* 93: 187-191.
- Erikson, Robert S. 1972. "Malapportionment, Gerrymandering, and Party Fortunes." *The American Political Science Review* 66: 1234-1245.

- Erikson, Robert S., and Thomas R. Palfrey. 1998. "Campaign Spending and Incumbency: An Alternative Simultaneous Equations Approach." *Journal of Politics* 60: 355-373.
- Ferejohn, John. 1977. "On the Decline of Competition in Congressional Elections." *The American Political Science Review* 71:166-176.
- Gaddie, Ronald Keith and Charles S. Bullock, III. 2000. *Elections to Open Seats in the U.S. House: Where the Action Is*. New York: Rowman & Littlefield Publishers, Inc.
- Gelman, Andrew and Gary King. 1994a. "A Unified Method of Evaluating Electoral Systems and Redistricting Plans." *American Journal of Political Science* 38: 514-554.
- Gelman, Andrew and Gary King. 1994b. "Enhancing Democracy Through Legislative Redistricting." *The American Political Science Review* 88:541-559.
- Green, Donald Philip, and Jonathan S. Krasno. 1988. "Salvation for the Spendthrift Incumbent: Reestimating the Effects of Campaign Spending in House Elections." *American Journal of Political Science* 32: 884-907.
- Green, Donald Philip, and Jonathan S. Krasno. 1990. "Rebuttal to Jacobson's New Evidence for Old Arguments." *American Journal of Political Science* 34: 363-372.
- Hill, Kevin A. 1985. "Does the Creation of Majority Black Districts Aid Republicans? An Analysis of the 1992 Congressional Elections in Eight Southern States." *The Journal of Politics* 57:384-401.
- Jacobson, Gary C. 1980. *Money in Congressional Elections*. New Haven: Yale University Press.
- Jacobson, Gary C. 1990. "The Effects of Campaign Spending in House Elections: New Evidence for Old Arguments." *American Journal of Political Science*, 34: 334-362.
- Jacobson, Gary C. 2004. *The Politics of Congressional Elections*. 6<sup>th</sup> edition. New York: Addison Wesley Longman.
- Krasno, Jonathan S. 1994. *Challengers, Competition, and Reelection: Comparing Senate and House Elections*. New Haven: Yale University Press.
- Kubin, Jeffrey C. 1996-1997. "The Case for Redistricting Commissions." *Texas Law Review* 75:837-872.
- Lublin, David. 1997. *The Paradox of Representation: Racial Gerrymandering and Minority Interests in Congress*. Princeton: Princeton University Press.

- Lublin, David and D. Stephen Voss. 1997. "Racial Redistricting and Realignment in Southern State Legislatures." *American Journal of Political Science* 44: 792-810.
- Lyons, Michael. 2003. "Win, Lose or Draw: Reapportionment, Redistricting Strategy, and Electoral Outcomes for the U.S. House Elections, 1972-2002." Paper presented at the Midwest Political Science Association annual meeting, Chicago, Illinois.
- Lyons, Michael and Peter F. Galderisi. 1995. "Incumbency, Reapportionment, and U.S. House Redistricting" *Political Research Quarterly* 48:857-871.
- Mayhew, David W. 1971. "Congressional Representation: Theory and Practice in Drawing the Districts." In *Reapportionment in the 1970's*, ed. Nelson W. Polsby. Berkeley: University of California Press.
- Niemi, Richard G. and Laura R. Winsky. 1992. "The Persistence of Partisan Redistricting Effects in Congressional Elections in the 1970s and 1980s." *The Journal of Politics* 54:565-572.
- Niemi, Richard G. and Alan I. Abramowitz. 1994. "Partisan Redistricting and the 1992 Congressional Elections." *The Journal of Politics* 56:811-817.
- Reynolds v. Sims*. 1964. 377 U.S. 533
- Shotts, Kenneth W. 2001. "The Effect of Majority-Minority Mandates on Partisan Gerrymandering." *American Journal of Political Science* 45: 120-135.
- Squire, Peverill. 1985. "Results of Partisan Redistricting in Seven U.S. States During the 1970s." *Legislative Studies Quarterly* 10:259-266.
- Swain, John W., Stephen A. Borrelli and Brian C. Reed. 1998. "Partisan Consequences of the Post-1990 Redistricting for the U.S. House of Representatives." *Political Research Quarterly* 51:945-967.
- Tufte, Edward R. 1973. "The Relationship between Seats and Votes in Two-Party Systems." *The American Political Science Review* 67:540-554.
- Wesberry v. Sanders*. 1964. 376 U.S. 1

**Table 1 – Distribution of State Redistricting Plans by Year**

| Plan             | 1972 | 1982 | 1992 | 2002 |
|------------------|------|------|------|------|
| No Redistricting | 9    | 6    | 7    | 8    |
| Legislative      | 34   | 29   | 27   | 25   |
| Commission       | 1    | 5    | 8    | 11   |
| Court            | 6    | 10   | 8    | 6    |

**Table 2 – Mean Competitiveness by Districting Plan by Year\***

| <b>Year</b> | <b>Bi-partisan</b> | <b>Republican</b> | <b>Democratic</b> | <b>Commission</b> | <b>Court</b> |
|-------------|--------------------|-------------------|-------------------|-------------------|--------------|
| <b>1972</b> | 62.45              | 68.77             | 51.13             | 65.75             | 69.62        |
| <b>1982</b> | 56.85              | 72.74             | 61.25             | 65.20             | 60.79        |
| <b>1992</b> | 71.14              | 79.04             | 62.73             | 70.59             | 66.21        |
| <b>2002</b> | 48.61              | 53.05             | 58.97             | 70.39             | 51.97        |

\*The dependent variable - 100 minus the absolute difference between the Republican and Democratic share of the two-party vote. Larger numbers correspond to increased competitiveness.

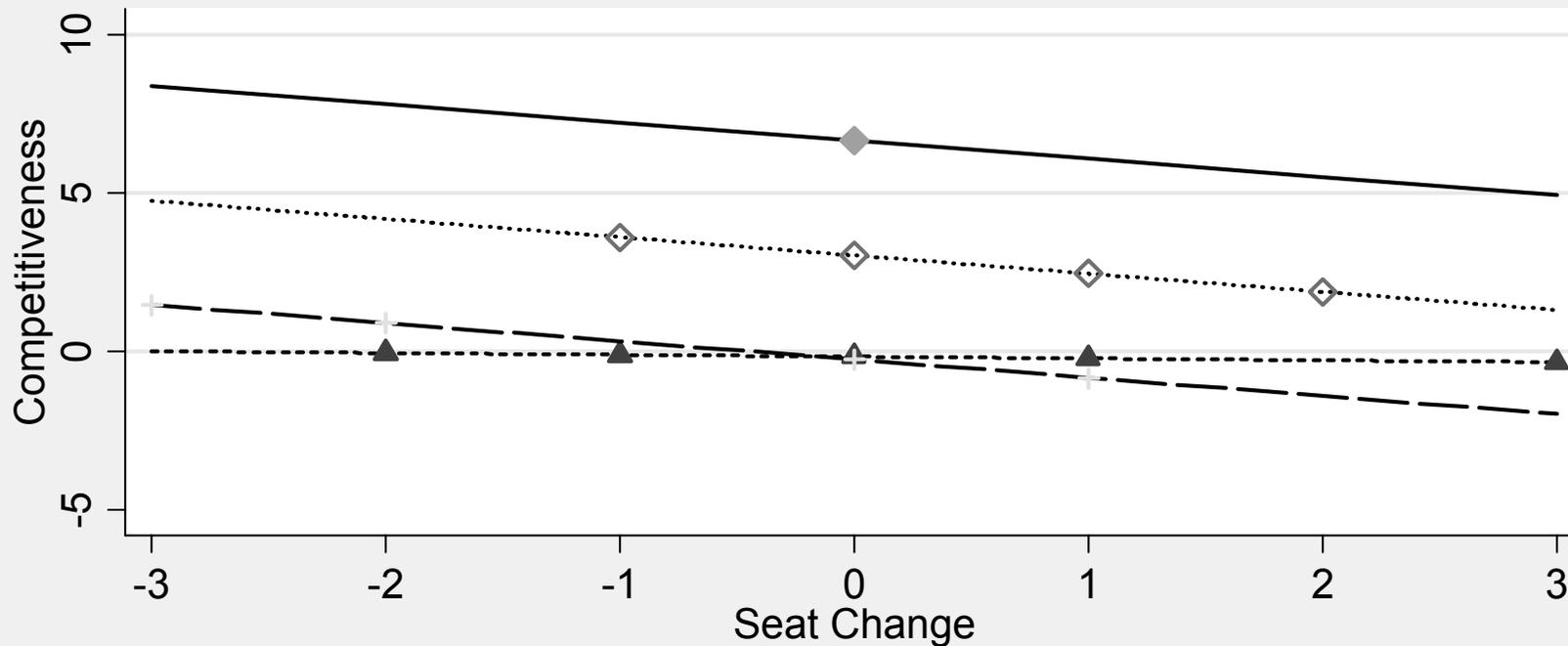
**Table 3 - Effects of Court, Commission and Partisan Redistricting Plans  
on Electoral Competition, 1972-2002**

| Variable                   | Coefficient (Standard Error in Parentheses) |                   |
|----------------------------|---|-------------------|
|                            | Base Model                                  | Seat Change       |
| Partisan                   | 1.29<br>(0.880)                             | 1.31<br>(.822)    |
| Partisan ×Seat Change      | ---   | -0.603<br>(.349)  |
| Court                      | 6.27*<br>(1.62)                             | 6.65*<br>(1.63)   |
| Court×Seat Change          | ---   | -0.567<br>(0.623) |
| 1982 Court                 | -6.05*<br>(2.20)                            | -6.65*<br>2.22    |
| 1992 Court                 | -5.31*<br>(2.25)                            | -6.70*<br>(2.46)  |
| 2002 Court                 | -3.66<br>(2.68)                             | -3.90<br>(-2.75)  |
| Commission                 | -8.92*<br>(2.77)                            | -8.58*<br>(2.77)  |
| Commission×Seat Change     | ---   | .164<br>(.365)    |
| 1982 Commission            | 11.16*<br>(4.52)                            | 10.78*<br>(4.52)  |
| 1992 Commission            | 10.52*<br>(3.13)                            | 9.46*<br>(3.40)   |
| 2002 Commission            | 10.35*<br>(3.21)                            | 10.05*<br>(3.22)  |
| Quality Challenger         | 9.28*<br>(0.806)                            | 9.21*<br>(0.804)  |
| District Presidential Vote | -0.308*<br>(0.037)                          | -.309*<br>(0.037) |
| Open Seat                  | -0.882<br>(1.10)                            | -.847<br>(1.10)   |
| Spending                   | 8.80*<br>(0.459)                            | 8.86*<br>(.459)   |
| South                      | -3.53*<br>(0.903)                           | -2.80*<br>(1.03)  |
| Uncontested                | -26.28*<br>(2.10)                           | -26.19*<br>(2.10) |
| 1982                       | -8.73*<br>(1.20)                            | -8.41*<br>(1.21)  |
| 1992                       | -10.59*<br>(1.53)                           | -10.38*<br>(1.53) |
| 2002                       | -18.86*<br>(1.57)                           | -18.70*<br>(1.57) |
| Constant                   | -34.24*<br>(5.15)                           | -35.17*<br>(5.16) |
| R <sup>2</sup>             | 0.78  | 0.78              |
| F-statistic                | 332.68                                      | 285.59            |
| Root MSE                   | 13.513                                      | 13.511            |
| N                          | 1705  | 1705              |

**Table 4 – Effects of Court, Commission, Democratic and Republican Redistricting Plans on Electoral Competition, 1972-2002**

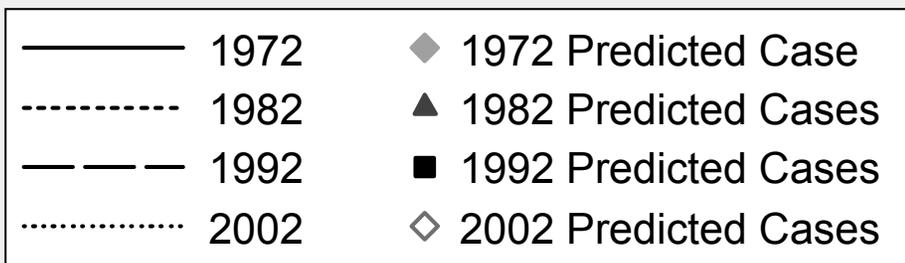
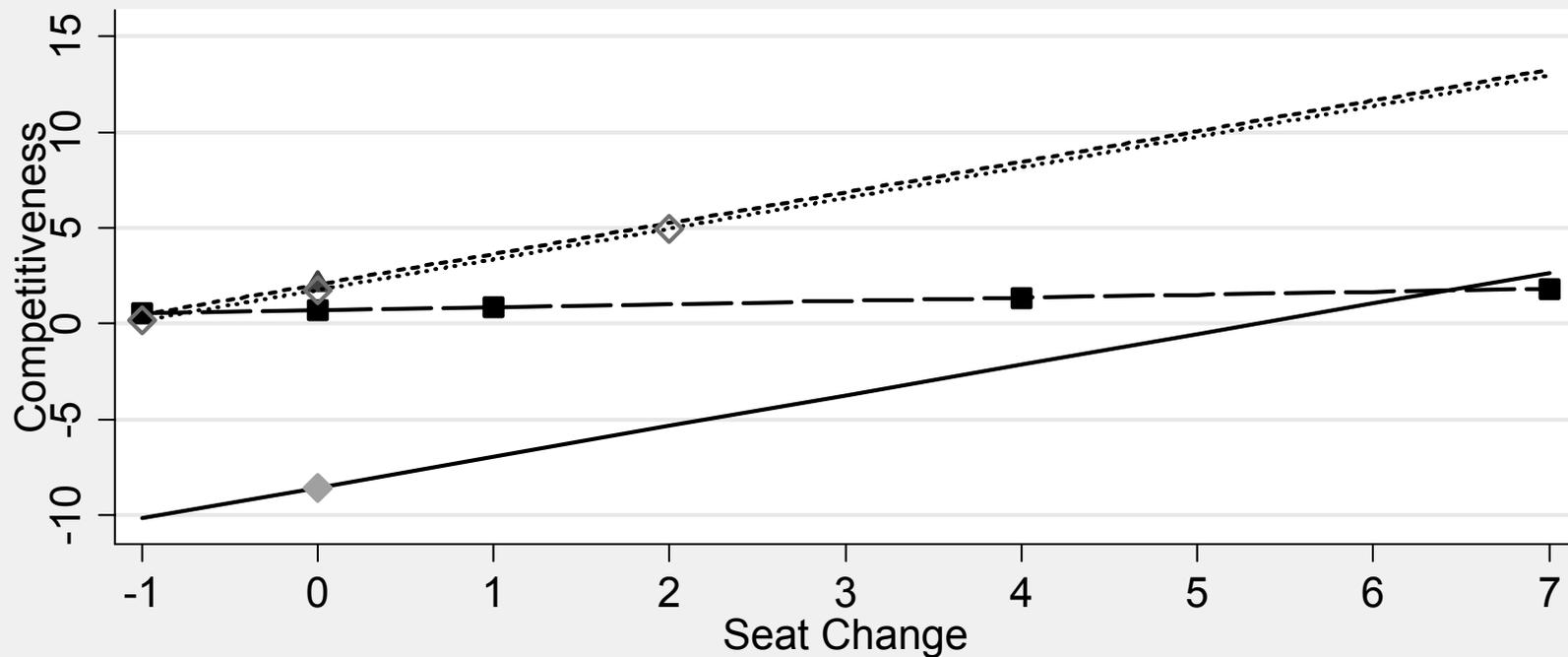
| Variable                         | Coefficient (Standard Error in Parentheses) |  |                                   |
|----------------------------------|---|--|-----------------------------------|
|                                  | 1972-2002                                   | Republican<br>“Out Party”<br>1972-1992 | Democratic<br>“Out Party”<br>2002 |
| Republican Partisan              | 3.10*<br>(1.16)                             | 4.75*<br>(1.50)                        | 2.04<br>(1.97)                    |
| Republican Partisan ×Seat Change | 0.674<br>(0.606)                            | 1.08<br>(0.918)                        | -.082<br>(1.02)                   |
| Democratic Partisan              | 1.14<br>(1.03)                              | 0.767<br>(1.07)                        | 8.00*<br>(3.33)                   |
| Democratic Partisan ×Seat Change | -0.883*<br>(0.436)                          | -1.15*<br>(.440)                       | -3.55<br>(2.76)                   |
| Court                            | 6.66*<br>(1.63)                             | 6.96*<br>(1.58)                        | 4.55<br>(2.63)                    |
| Court×Seat Change                | -0.576<br>(0.624)                           | -.0763<br>(0.671)                      | 0.232<br>(1.51)                   |
| 1982 Court                       | -6.82*<br>2.21                              | -7.43*<br>(2.17)                       | ---                               |
| 1992 Court                       | -6.91*<br>(2.46)                            | -7.09*<br>(2.44)                       | ---                               |
| 2002 Court                       | -3.62<br>(-2.76)                            | ---                                    | ---                               |
| Commission                       | -8.54*<br>(2.75)                            | -9.51*<br>(2.79)                       | 5.64*<br>(2.04)                   |
| Commission×Seat Change           | .159<br>(.365)                              | 0.204<br>(.374)                        | 1.18<br>(1.41)                    |
| 1982 Commission                  | 10.59*<br>(4.51)                            | 11.62*<br>(4.41)                       | ---                               |
| 1992 Commission                  | 9.26*<br>(3.39)                             | 10.00*<br>(3.44)                       | ---                               |
| 2002 Commission                  | 10.31*<br>(3.21)                            | ---                                    | ---                               |
| Quality Challenger               | 9.06*<br>(0.809)                            | 8.12*<br>(0.852)                       | 6.70*<br>(1.80)                   |
| District Presidential Vote       | -.307*<br>(0.037)                           | -0.408*<br>(0.045)                     | -0.062<br>(0.064)                 |
| Open Seat                        | -.759<br>(1.10)                             | -1.03<br>(1.16)                        | 0.884<br>(2.60)                   |
| Spending                         | 8.88*<br>(.459)                             | 10.23*<br>(0.528)                      | 10.95*<br>(1.08)                  |
| South                            | -2.76*<br>(1.04)                            | -2.06<br>(1.05)                        | -1.91<br>(2.35)                   |
| Uncontested                      | -26.13*<br>(2.10)                           | -28.39*<br>(2.19)                      | -0.842<br>(5.80)                  |
| 1982                             | -8.29*<br>(1.21)                            | -9.26*<br>(1.21)                       | ---                               |
| 1992                             | -10.26*<br>(1.52)                           | -12.28*<br>(1.64)                      | ---                               |
| 2002                             | -19.05*<br>(1.60)                           | ---                                    | ---                               |
| Constant                         | -35.39*<br>(5.16)                           | -49.92*<br>(5.95)                      | -87.86*<br>(14.70)                |
| R <sup>2</sup>                   | 0.78  | 0.80                                   | 0.79                              |
| F-statistic                      | 263.46                                      | 445.60                                 | 124.05                            |
| Root MSE                         | 13.5  | 12.69                                  | 13.409                            |
| N                                | 1705  | 1279                                   | 426                               |

Figure 1 - Competitiveness for Court Drawn Districts\*  
1972-2002



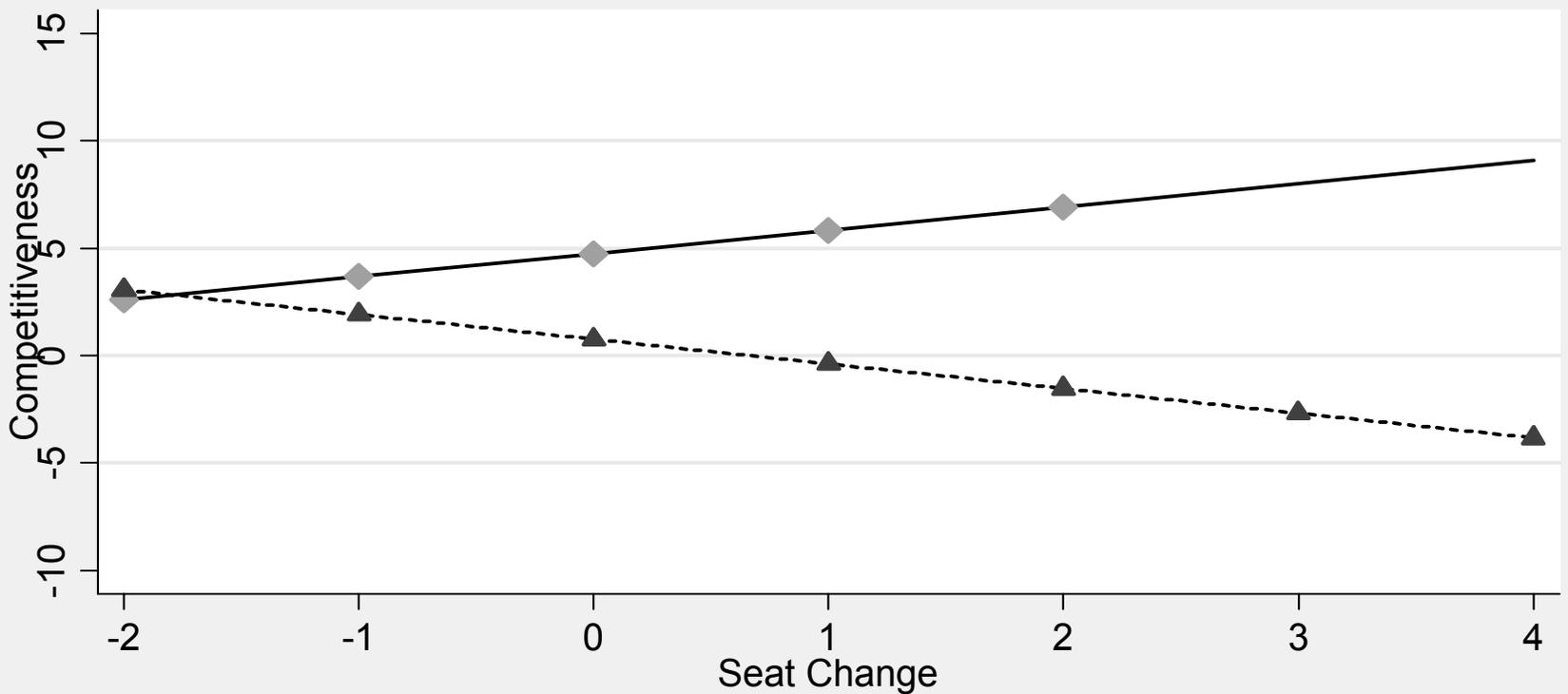
\*Relative to Bi-Partisan Plan

Figure 2 - Competitiveness in Commission Drawn Districts\*  
1972-2002



\*Relative to Bi-Partisan Plan

Figure 3 - Competitiveness in Democratic and Republican Plans\*  
1972-1992



— Republican Out Party      ◆ Predicted Cases  
- - - Democratic In Party      ▲ Predicted Cases

\*Relative to Bi-Partisan Plan

## Appendix

**Table A – States Using Commissions and Courts to Draw Congressional Districts\***

| Commissions  |                     | Courts         |                     |
|--------------|---------------------|----------------|---------------------|
| State        | Year                | State          | Year                |
| Arizona      | 2002                | Alabama        | 1992                |
| California   | 1992                | Arizona        | 1992                |
| Connecticut  | 1982, 2002          | Arkansas       | 1982                |
| Florida      | 1992                | Colorado       | 1982, 2002          |
| Hawaii       | 1982, 1992,<br>2002 | Connecticut    | 1972                |
| Idaho        | 2002                | Illinois       | 1972, 1982,<br>1992 |
| Indiana      | 1992, 2002          | Kansas         | 1982                |
| Iowa         | 1992, 2002          | Michigan       | 1972, 1982,<br>1992 |
| Maine        | 1982                | Minnesota      | 1982, 1992          |
| Maryland     | 1972, 1982,<br>2002 | Mississippi    | 1982, 2002          |
| Minnesota    | 2002                | Missouri       | 1972, 1982          |
| Montana      | 1982                | New Jersey     | 1972                |
| New Jersey   | 1992, 2002          | New Mexico     | 2002                |
| Oregon       | 1992                | New York       | 1992                |
| Rhode Island | 2002                | Pennsylvania   | 1992                |
| Washington   | 1992, 2002          | South Carolina | 1982, 1992,<br>2002 |
|              |                     | Texas          | 1982, 2002          |
|              |                     | Washington     | 1972                |
|              |                     | Wisconsin      | 2002                |

\*Note – This represents our interpretation of the description of plans as described by Congressional Quarterly’s *Congressional Districts in the 1970s, 1980s, 1990s, and 2000s*. At times, it was difficult to discern who was actually responsible for drawing the districts. For example, in 1992, the California plan was thrown into the courts. However, since the judges appointed a panel of retired judges to draw the plan we coded it as a commission. Since both types of non-partisan plans show an increase in competitiveness, we do not feel that our coding scheme is driving our results. In an alternative model, we combined both types of plans into a single dichotomous variable for non-partisan plans and found, not surprisingly, an increase in competitiveness. However, we feel that separating out the effects of commissions and courts on competitiveness gives us more analytical leverage on the question at hand.