Courts, Congress, and Public Policy, Part II: The Impact of the Reapportionment Revolution on Congress and State Legislatures

Jeffrey R. Lax* Mathew D. McCubbins**

TABLE OF CONTENTS

I.	INTRODUCTION	
II.	REAPPORTIONMENT AND REAPPORTIONMENT RESEARCH	
III.	RESEARCH DESIGN, PREDICTIONS, DATA, AND RESULTS OF	
	THE EVENT STUDY	
	A. Research Design	
	B. Events and Predictions	
	C. Data	
	D. Results	
	1. Event 1: Wesberry v. Sanders	
	2. Event 2: Reynolds v. Sims	
IV.	REDISTRICTING AND THE U.S. CONGRESS	
V.	REAPPORTIONMENT IN CALIFORNIA	
VI.	DISCUSSION OF RESULTS	

I. INTRODUCTION

Before the "reapportionment revolution," decades of precedent held that the legislative district boundaries were not justiciable, no matter how little the districts reflected population distributions. In *Baker v. Carr*,¹ a majority of justices declared for the first time that courts could

^{*} Department of Political Science, Columbia University, JRL2124@columbia.edu.

^{**} Department of Political Science, University of California, San Diego, mat@mccubbins.org.

^{1.} Baker v. Carr, 369 U.S. 186 (1962).

indeed address these disparities. Chief Justice Earl Warren thought his reapportionment decisions the most important of his tenure on the Supreme Court. This Article evaluates the impact of these decisions on legislative politics and policymaking.

We examine three indicators of change. In the first, we test the impact of two key reapportionment cases, Reynolds v. Sims² and Wesberry v. Sanders,³ on policies favoring rural and urban interests. We measure impact using the "event study" approach, which is a well-known and well-developed methodology within the finance literature. but one perhaps underused within political science and law (despite being a natural application of standard research designs).⁴ In an event study, significant "abnormal" changes in politically sensitive stock values (here, those of "rural" or "urban" stocks) immediately following important events are used to show that market traders anticipated large policy effects at key steps in the policymaking process-here, including decisions by the courts. In equilibrium, given the efficient markets hypothesis (discussed in greater detail below), these anticipated policy effects imply actual policy effects, as getting it wrong can be very costly. An event study provides an immediate and instant measure of anticipated policy change, one unclouded by other events that occur over time. Testing financial impact thus allows us to test political impact.

Our analysis shows that these decisions had significant impacts. Specifically, the changes in political composition brought about by *Baker v. Carr* and *Reynolds v. Sims* shifted the benefits of public policy toward urban interests and away from rural interests. Whether or not the courts are the *least* dangerous branch,⁵ informed investors clearly believed that they are indeed a potentially *dangerous* branch.

The second effect of reapportionment that we study is the relationship of Southern Democrats to the rest of the Democratic Party in the U.S. House of Representatives and in the U.S. Senate. The redistricting revolution can be seen as the last gasp of Southern reconstruction. Many of the most misaligned states were in the South and Southern representation would be most affected by the Court's orders. One effect would be that Southern Democrats would begin to have districts that were more like their Northern counterparts, and as a result we expect to

^{2.} Reynolds v. Sims, 377 U.S. 533 (1964).

^{3.} Wesberry v. Sanders, 376 U.S. 1 (1964).

^{4.} Specifically, we are employing multiple single-group regression point displacement tests. *See* William M.K. Trochim, *The Research Methods Knowledge Base* (Aug. 2, 2000), *available at* http://www.socialresearchmethods.net/kb/.

^{5.} See generally Alexander M. Bickel, The Least Dangerous Branch: The Supreme Court at the Bar of Politics (1962).

see the ideology and voting records of Southern Democrats begin to look more like rest of their party. For example, we expect to see Southern Democrats being "rolled" less frequently (that is, voting against bills that ultimately pass) after the redistricting decision than before the redistricting decisions take effect. This is a direct consequence of their shift in ideology toward the center of their party. Rohde documents that during the 1970s the voting behavior of Southern Democrats in the U.S. House began to resemble more closely the voting of the rest of the Democratic Party.⁶ Additionally, he argues that a variety of House reforms that empowered the majority party were a result of the greater ideological homogeneity of Democrats during the 1970s. He claims that this change in preferences within the Democratic Party was driven by the 1965 Voting Rights Act, which changed the constituencies of many Southern Democrats.⁷ In this Article, we argue that court-ordered, redistricting also had an effect on the voting behavior of Southern Democrats independent of the effect of the Voting Rights Act. If the cause of the change in ideology of Southern Democrats is court-ordered redistricting, then we should not see changes in voting among U.S. Senators whose constituent boundaries remained unaffected by the court decisions.

In our third test, we examine the political changes wrought by a similar set of cases affecting the California legislature. Specifically, we examine the shift in the legislature from division along urban-rural lines to division along partisan lines. We argue that this change can be seen by examining the change in agenda control exercised by the majority party between the 1960s and the 1990s. We predict that, in both the California Assembly and Senate, we should see that agenda control begins to reflect partisan divisions rather than the previous urban versus rural split.

II. REAPPORTIONMENT AND REAPPORTIONMENT RESEARCH

In *Colegrove v. Green*,⁸ the Supreme Court reiterated its long-standing doctrine that apportionment was not justiciable. This was the law of the land when a group of Tennessee voters brought suit to challenge the apportionment of their legislature which continued to use the 1901, apportionment, despite the requirement of reapportionment every ten

^{6.~} David W. Rohde, Parties and Leaders in the Postreform House 40-82 (1991).

^{7.} *Id*.

^{8.} Colgrove v. Green, 328 U.S. 549 (1946).

years under the state constitution. City and urban areas had as little as one-tenth the representation they were entitled to on the basis of population. Under Colegrove, however, courts could do nothing to remedy this. The overruling of Colegrove in Baker v. Carr,⁹ was only the first step in a revolution that would change the dynamics of representation throughout the country. Baker on its own, however, only declared state legislative reapportionment justiciable. It took a series of subsequent cases to flesh out the new doctrine of apportionment. Soon, the Court established a "one man, one vote" standard for state-wide primary elections in Gray v. Sanders,¹⁰ and then extended it to the U.S. House of Representatives in Wesberry v. Sanders¹¹ and to both houses of state legislatures in Reynolds v. Sims.¹² In the period immediately following Baker, the most commonly studied question was whether urban interests benefited and rural interests suffered from reapportionment. Most analyses showed little or no effect.¹³ Following in this line of research. McCubbins and Schwartz argued that the subsequent redistricting created a new metropolitan majority in the U.S. House of Representative, which lead to increased appropriations for urban interests and a reduction in appropriations directed at rural constituents.¹⁴ Using a time-series analysis of federal appropriations, they find changes in agricultural, regulatory and transportation policy that are driven by the change in congressional representation. During the 1970s, scholarly attention was then largely redirected to the relationship between apportionment and the incumbency effect¹⁵ and then in the 1980s to the partisan effects of redistricting.¹⁶

13. William E. Bicker, *The Effects of Malapportionment in the States: A Mistrial, in* REAPPORTIONMENT IN THE 1970'S 151 (N. Poslsby ed., 1971); TIMOTHY G. O'ROURKE, THE IMPACT OF REAPPORTIONMENT (1980); Robert S. Erikson, *Malapportionment, Gerrymandering, and Party Fortunes, in Congressional Elections,* 66 AM. POL. SCI. REV. 1234 (1972); Brian R. Fry & Richard F. Winters, *The Politics of Redistribution,* 64 AM. POL. SCI. REV. 508 (1970); Richard Hofferbert, *The Relation Between Public Policy and Some Structural and Environmental Variables in the American States,* 60 AM. POL. SCI. REV. 73 (1966); Herbert Jacob, *The Consequences of Malapportionment: A Note of Caution,* 43 SOC. FORCES 256 (1964); David Saffel, *Reapportionment and Public Policy: State Legislator's Perspectives, in* REPRESENTATION AND REDISTRICTING ISSUES 203 (Bernard Grofman, Arend Lijphart, Robert B. McKay, & Howard A. Scarrow eds., 1982).

14. Mathew D. McCubbins & Thomas Schwartz, Congress, the Courts, and Public Policy: Consequences of the One Man, One Vote Rule, 32 AM. J. POL. SCI. 388 (1988).

15. Charles S. Bullock, III, Redistricting and Congressional Stability, 1962-72, 37 J. POL. 569 (1975); John Ferejohn, The Decline of Competition in Congressional Elections, 71 AM. POL. SCI. REV. 166 (1977); Edward R. Tufte, The Relationship between Seats and Votes in Two-Party Systems, 67 AM. POL. SCI. REV. 540 (1973).

^{9.} Baker v. Carr, 369 U.S. 186 (1962).

^{10.} Gray v. Sanders, 372 U.S. 368 (1963).

^{11.} Wesberry v. Sanders, 376 U.S. 1 (1964).

^{12.} Reynolds v. Sims, 377 U.S. 533 (1964).

[Vol. 15: 199, 2006]

More recent work has focused on developing formal models of partisan gerrymandering¹⁷ and on using court-ordered redistricting as a natural experiment for testing the effect that changes in a county's state legislative representation has on that county's share of state revenue.¹⁸

Recently, scholars have again picked up on the relationship between redistricting and the incumbency advantage. Cox and Katz study how the redistricting decisions of the 1960s changed the electoral aspects of the political process.¹⁹ They present evidence that the redistricting decisions of the 1960s increased the incumbency advantage, because now incumbents could foresee regular redistricting and could retire strategically before they would be forced from office in a new district. Outside of the South, the authors also find that the redistricting decisions advantaged Democratic politicians at the expense of Republicans.

We turn now to assessing the political impact of the redistricting revolution.

III. RESEARCH DESIGN, PREDICTIONS, DATA, AND RESULTS OF THE EVENT STUDY

A. Research Design

For an overview of the research design and statistical model we employ, see Lax and McCubbins.²⁰

^{16.} Richard Born, Partisan Intentions and Election Day Realities in the Congressional Redistricting Process, 79 AM. POL. SCI. REV. 305, 307 (1985); Bruce E. Cain, Assessing the Partisan Effects of Redistricting, 79 AM. POL. SCI. REV. 320 (1985).

^{17.} GARY W. COX & JONATHAN N. KATZ, ELBRIDGE GERRY'S SALAMANDER: THE ELECTORAL CONSEQUENCES OF THE REAPPORTIONMENT REVOLUTION (2002); PHILIP MUSGROVE, THE GENERAL THEORY OF GERRYMANDERING (1977); Guillermo Owen & Bernard Grofman, Optimal Partisan Gerrymandering, 7 POL. GEOGRAPHY Q. 5, 6 (1988); Katerina Sherstyuk, How to Gerrymander: A Formal Analysis, 95 PUB. CHOICE 1 (1988); Thomas W. Gilligan & John G. Matsusaka, Structural Constraints on Bias Under the Efficient Partisan Gerrymander, 100 PUB. CHOICE 65 (1999).

^{18.} Stephen Ansolabehere, Alan Gerber, and James Snyder, Equal Votes, Equal Money: Court Ordered Redistricting and the Distribution of Public Expenditures in the American States, 96 AM. POL. SCI. REV. 767-77 (2002). Ansolabehere, Gerber, and Snyder in particular argue this as a demonstration of how courts can shape public policy. *Id.*

^{19.} Gary W. Cox & Jonathan N. Katz, *The Reapportionment Revolution and Bias in U.S. Congressional Elections*, 43 AM. J. POL. SCI. 812, 813 (1999).

^{20.} Jeffrey R. Lax & Mathew D. McCubbins, *Courts, Congress and Public Policy Part 1: The FDA, the Courts, and the Regulation of Tobacco*, 15 J. CONTEMP. LEGAL ISSUES 163 (2006).

B. Events and Predictions

The redistricting revolution suggests a number of key events to study. Specifically, we examine the effects of the Supreme Court's redistricting decisions on stock returns, concentrating on two decisions that were surprising.²¹ For each of these decisions, we make a pair of directional predictions (one for rural stocks and one for urban stocks) and use twoday event windows.²² The chance that there exist unnoticed confounding events on these exact days is vanishingly small and we have surveyed articles in the New York Times and Wall Street Journal archives to see if we could find any news reported at these times that would have affected the confidence of our findings. Furthermore, our predictions vary in size by type of stock, which makes for a more powerful test of our hypotheses. We also include an analysis of aircraft companies, which we expect to be unaffected by the Supreme Court's redistricting decisions, and therefore to act as a control group of stocks. If we find that the key stocks and the control stocks are affected as predicted, we increase our confidence that the court decision was the cause.

The events we study, as well as our (positive or negative) predictions for impact, are as follows:

^{21.} Wesberry v. Sanders, 376 U.S. 1 (1964). There were, of course, many other Supreme Court redistricting decisions—e.g., *Kirkpatrick v. Preisler*, 394 U.S. 526 (1969), and *White v. Weiser*, 412 U.S. 783 (1973). We examined many of these decisions and found few effects on urban and rural stocks, though this was to be expected. By the time these other cases reached the Court, the Court's decisions in *Baker, Wesberry*, and *Reynolds* had largely eliminated the surprise element that is required for an event to affect stock returns. Indeed, given the lack of surprise, if we had found significant results for these later cases, it would have suggested (in opposition to the efficient markets hypothesis) that the market moved simply in response to a court decision and not because the decision revealed new information related to firm profitability. We were not able to analyze the effects of the *Baker* decision, because the stock market data for the period immediately following *Baker*, is not readily available.

^{22.} We utilize a two-day event window to account for the (relatively) slower transmission of information in the 1960s.

EVENT	DATE	Urban	RURAL	AIRCRAFT
		PREDICTION	PREDICTION	PREDICTION
1. Wesberry v.	Feb. 17,	+	-	No effect
Sanders, decided	1964			
2. Reynolds v.	June 15,	+	-	No effect
Sims, decided	1964			

C. Data

To examine the impact on urban interests, we use two subsets of stocks that should be correlated with urban development: Steel Works composed of 27 stocks and Subdividers and Developers composed of 21 stocks. Rural interests are harder to capture with reference to publicly traded firms, but one clear choice is Coal (9 stocks). Our control group consists of aircraft manufacturing companies (9 stocks). The market's rate of return is taken from the standard source, the Center for Research in Securities Prices (CRSP)²³ equally-weighted index of all NYSE/AMEX stocks on the given day.²⁴ The list of urban and rural stocks comes from the U.S. Department of Labor's Standard Industrial Classification (SIC) codes.

D. Results

One must believe that the market traders make good (not perfect, but merely unbiased) predictions about the direction and magnitude of policy change, a safe assumption given their strong financial incentives to do so. If this is believed—and if the research design takes into account certain assumptions (as we have)²⁵—then the reactions of the

25. As McWilliams and Siegel point out,

readers can be confident that the conclusions from an event study are valid only if they are confident that the researcher has truly identified the abnormal returns

^{23.} This is the standard data; citations to the CRSP data number in the thousands.

^{24.} While it is possible to use an index with size-weighted returns with little change in the results, the equally-weighted index is the recommended choice. See Stephen Brown & Jerome B. Warner, Using Daily Stock Returns: The Case of Event Studies, 14 J. FIN. ECON. 3, 25 (1985); Chuck C.Y. Kwok & LeRoy D. Brooks, Examining Event Study Methodologies in Foreign Exchange Markets, 21 J. INT²L BUS. STUD. 189, 219 (1990). When the sample contains firms of only one size (which is not the case here), the equally-weighted index can bias against finding significant results using *t*-tests. See S.P. Kothari, & Charles E. Wasley, Measuring Security Price Performance in Size-Clustered Samples, 64 ACCT. REV. 228, 247 (1989); G. William Schwert, Size and Stock Returns, and Other Empirical Regularities, 12 J. FIN. ECON. 3 (1983).

market to events represent anticipated policy effects which must, in equilibrium, represent unbiased predictions of actual policy effects.²⁶

Tables 2A and 2B present, respectively, the *Wesberry* and *Reynolds* results.

Many of the effects for these two events were in the predicted directions, though not equally significant. Overall, the key results emerge for the *Wesberry* decision—a finding that is not surprising given that *Wesberry* came before *Reynolds* (thus reducing the surprise value of Reynolds) and given that *Wesberry* ordered the redrawing of congressional districts for the U.S. House of Representatives (as opposed to *Reynolds* for state legislatures).

1964	February 17 th and 18 th	
-	Aggregate Impact	Joint Impact
URBAN STOCKS (prediction +)	J	
2. Steel Works (3312)	1.58 (0.05)**	52.22 (0.01)***
5. Subdividers and Developers (6552)	.12 (0.45)	15.09 (0.77)

TABLE 2A: THE IMPACT OF WESBERRY V. SANDERS ON URBAN AND RURAL STOCKS

associated with the event [which] relies on the following assumptions: (1) markets are efficient, (2) the event was unanticipated, and (3) there were no confounding events during the event window.

Abigail McWilliams & Donald Siegel, Event Studies in Management Research: Theoretical and Empirical Issues, 40 ACAD. MGMT. J. 626, 629 (1997).

26. The event study methodology only captures the lower bound of policy effects. Any anticipated portion of the event's effects will have already been incorporated into market prices and will thus be part of the normal return. Accordingly, the results may very well understate the effects of the events. What we would emphasize in the results is that we have tested a pattern of predictions (positive for some stock samples and negative for others) and a number of them yield highly significant results. Our conclusions do not rest on any one test, but rather a pattern of results. When we do get significant results, the implication is that relevant and surprising information was revealed during the event window; where the results do not meet statistical significance, we cannot conclude that there was no effect, but rather that the event was not informative (either it was indeed irrelevant or simply not sufficiently surprising). Judicial decisions are not "informative" to the extent they have already been predicted; it is the resolution of residual uncertainty that provides new information. [Vol. 15: 199, 2006]

Courts, Congress, and Public Policy, Part II JOURNAL OF CONTEMPORARY LEGAL ISSUES

All Urban Stocks	1.18 (0.12)	72.43 (0.01)***
RURAL STOCKS (prediction -)		
1. Coal (1211)	-1.30* (0.10)	16.44* (0.06)
AIRCRAFT STOCKS (prediction 0)	-0.23 0.41	0.83 0.9997

* significant at 10% level ** significant at 5% level *** significant at 1% level Note: The coefficient for the aggregate test is the z-stat and for the joint test is the χ^2 -value. The p-values are in parentheses (one-tailed for the directional predictions of the aggregate tests, two-tailed for the joint tests).

TABLE 2B:	THE IMPACT OF <i>REYNOLDS V. SIMS</i> ON URBAN
	AND RURAL STOCK

1964	June 15 th and 16 th	
	Aggregate Impact	Joint Impact
URBAN STOCKS (prediction +)	· · · · · · · · · · · · · · · · · · ·	•
2. Steel Works (3312)	1.61** (0.05)	36.41 (0.11)
5. Subdividers and Developers (6552)	-0.95 (0.17)	9.77 (0.97)
All Urban Stocks	0.40 (0.35)	52.05 (0.28)
RURAL STOCKS (prediction -)		•
1. Coal (1211)	0.07 (0.47)	6.00 (0.74)
AIRCRAFT STOCKS (prediction 0)	0.43 (0.33)	6.35 (0.70)

* significant at 10% level ** significant at 5% level *** significant at 1% level.

Note: The coefficient for the aggregate test is the z-stat and for the joint test is the χ^2 -value. The p-values are in parentheses (one-tailed for the directional predictions of the aggregate tests, two-tailed for the joint tests).

1. Event 1: Wesberry v. Sanders

We find a number of significant results for the *Wesberry* decision. At the most general level, we find that urban stocks performed exactly as predicted—that is, there was a statistically significant increase for out sample of urban stocks using the joint impact test. The effect on rural stocks is weaker, but significant. Indeed, both of the aggregate impact tests for coal stocks showed a statistically significant decrease following the Court's decision. The aircraft stocks show no effect from the redistricting decisions. Thus, our predictions are borne out in our analysis of *Wesberry*.

2. Event 2: Reynolds v. Sims

The results for *Reynolds* are weaker than those for *Wesberry*, but one is worth noting. Steel stocks showed a significant increase. However, we find no significant results for rural stocks during the two days following this decision.

IV. REDISTRICTING AND THE U.S. CONGRESS

As previously discussed, a considerable amount of the scholarship on redistricting has focused on its effects in the U.S. Congress. In this Part, we again draw from the literature on congressional organization to examine two hypotheses about the effects of redistricting. The first prediction is that as congressional districts are redrawn and the constituents of Southern Democrats begin to resemble more closely those of Northern Democrats, we should observe the perceived ideology; of Southern Democrats becoming increasingly similar to the rest of their The second prediction is derived from Cox and McCubbins' party. model of legislative agenda setting.²⁷ They argue that members who are closer to their party median should also have lower roll rates (as defined above) than members who lie on the ideological fringes of their party.²⁸ We examine whether the roll rates of Southern Democrats begin to look more like the rest of their party after redistricting took effect. Because U.S. Senators were not affected by the Court's redistricting decisions, we should not see a change in the roll rates or ideology of the Senators from the South as a result of the Supreme Court's redistricting decisions. We test multiple predictions about the effect of congressional redistricting,

^{27.} GARY W. COX & MATHEW D. MCCUBBINS, SETTING THE AGENDA: RESPONSIBLE PARTY GOVERNMENT IN THE U.S. HOUSE OF REPRESENTATIVES (2005).

^{28.} See *id.* (offering an analysis of individual roll rates and ideological location in the U.S. Congress).

which makes this a non-equivalent dependent variables design, increasing the confidence we have in our findings.²⁹

To test the first prediction regarding the ideological location of House members we utilize DW-NOMINATE scores,³⁰ which are the standard measure of legislator preferences.³¹ In Figure 1, we present the difference between the DW-NOMINATE score of the Democratic Party median and the average of the Southern Democrats in both the House and Senate. For this analysis Southern Democrats were defined as members of Congress from the states Key considers to be within the South.³² During the time period under consideration, Congress also passed the 1965 Voting Rights Act, which by changing who votes in elections might also affect legislative behavior. The Senate and the House were both affected by the provisions of the Voting Rights Act, so we expect to see a change in the ideological distance in both houses of Congress. As expected, Figure 1 shows that Southern Democrats moved closer to the rest of their party in both the House and Senate. The dramatic decline in the distance between Southern Democrats and their party's median is consistent with the findings of Rohde³³ who finds that the party unity scores of Southern Democrats also begin to look much more like the rest of their party, although he attributes the change to the Voting Rights Act.

^{29.} Trochim, supra note 6.

^{30.} See generally Keith Poole & Howard Rosenthal, Congress: A Political Economic History of Roll Call Voting (1997).

^{31.} We do not take these measures to reveal true preferences, but rather as a measure of revealed preference that is a result of both true preferences and institutional setting. Regardless, if we see that Southern Democrats look more like their Northern counterparts we can conclude that either their true preferences were changing or some institutional factor (House rules, constituency characteristics, etc) was causing a change in their preferences. Both of these are consistent with the effects of reapportionment. The methodology for generating the DW-NOMINATE scores and the data used in this analysis can be obtained from Keith Poole's website http://www.voteview.com.

^{32.} Key classifies the following states as Southern: Virginia, Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, Texas, and Tennessee. *See generally* V.O. KEY, SOUTHERN POLITICS IN STATE AND NATION (1949).

^{33.} Rohde, *supra* note 8, at 40-82.

FIGURE 1: DISTANCE BETWEEN SOUTHERN DEMOCRATS AND DEMOCRATIC MEDIAN ON DW-NOMINATE SCALE



To sort out the impact of the Voting Rights Act and reapportionment/ redistricting we can compare changes in the House to those in the Senate. Members of both the Senate and House are affected by the Voting Rights Act, but only the House is affected by redistricting. Therefore, we can estimate the effect of redistricting by examining differences in behavior between the House and Senate. The amount of ideological movement is greater in the House than in the Senate.³⁴ Not only is the change greater in the House, but it also occurs much more quickly. This suggests that changes in legislative behavior are not solely a function of the Voting Rights Act, but that redistricting has an independent effect on legislative behavior.³⁵

^{34.} In the House the mean distance between Southern Democrats and the rest of the party drops 0.12 between 90th and 95th Congress and in the Senate the mean distance drops 0.025 between the 90th and 95th Congress. The Congresses chosen reflect the period before redistricting effects were felt and a period after we expect legislators to have changed their behavior.

^{35.} One might argue that the House changes more quickly than the Senate because of the difference in the electoral cycle. However, we would expect Senators to adapt their voting behavior prior to re-election, if they believed it would affect their electoral fortunes.

[Vol. 15: 199, 2006]

To test the second prediction, Figure 2 shows the average roll rate of Southern Democrats and the average roll rates of non-southern members in both the House and Senate. The roll rates of the Southern Democrats become much closer to their Northern counterparts after the 91st Congress. Furthermore, Table 3 demonstrates that the roll rates of Southern Democrats in the House are significantly lower during the 92nd to 96th Congresses than in the earlier period, whereas the roll rates of the rest of the party show no significant change as we would predict when the Democrats are the majority in all of the Congresses under consideration. The roll rates of U.S. Senators clearly decline during this period, but there does not appear to be a systematic change in the relationship between Southern and Northern Democrats in the Senate, as we would expect if redistricting were the cause. A comparison between the roll rates of Senators and Representatives also suggests that in the Senate, Southern Democrats never differed as much from the rest of their party as in the House.³⁶

FIGURE 2A AND 2B: AVERAGE INDIVIDUAL ROLL RATES, U.S. SENATE AND HOUSE



^{36.} The other obvious finding is that individual roll rates are generally higher in the Senate than in the House, although this has no import for redistricting.



TABLE 3: COMPARISON OF INDIVIDUAL ROLL RATES U.S. HOUSE,SOUTHERN VS. NON-SOUTHERN DEMOCRATS

	86 th -91 st	92 nd -96 th	Early period >
	congress	congress	Later period
			t-value
			(p-stat)
Southern	20.6%	16.6%	1.87
Democrats roll rate			(.05)
Non-southern	9.3%	9.8%	-0.27
Democrats roll rate			(.60)

V. REAPPORTIONMENT IN CALIFORNIA³⁷

The series of Court decisions that lead to the widespread redistricting across the country in the 1960s profoundly affected California politics as well. It took nearly two decades for California to fully respond to the Supreme Court decisions, but the changes wrought by redistricting gave

^{37.} Much of this Part is based on Beamer, which we have extended, reanalyzing the data she collected. See Melanie Beamer, Parties Divided The Struggle for Majority Status within the California Legislature (2000) (unpublished undergraduate honors thesis, UCSD) (on file with author).

the urban areas of California greater weight in the political process, and changed the primary dimension of California politics from an urbanrural divide in the 1960s to a partisan Democratic-Republican divide in the 1990s. In this Part, we examine evidence of the change in the primary dimension of political conflict and draw upon the model of legislative organization devised by Cox and McCubbins³⁸ to demonstrate that legislative politics changed profoundly after the 1960s.

On May 14, 1969, the *Los Angeles Times* reported: "The fall from power Tuesday of State Senate Leader Hugh Burns marks the end of more than a century of nonpartisan northern, rural control of California's Senate."³⁹ The *Times* noted that Senator Way, Burns' successor, like Burns, came from a "strongly agricultural district and was not big city-oriented in any manner.... However, the fact remained that despite the immediate causes that led to Way's move against Burns it all began with the historic 'one man, one vote' ruling of the U.S. Supreme Court in 1962."⁴⁰ The *Times* directly stated that Burns' ousting "would have never succeeded had the Senate not been forced into the reapportionment by the Supreme Court in 1965."⁴¹

L.A. Times reporter, Tom Goff, further explained that:

It began when the reapportioned Senate took office in 1967. In the 1966 election, when every Senate seat was laid on the line, only 18 of the old-timers survived. There were 22 new senators, mostly representing burgeoning, urban areas, anxious to be heard. Many of the newcomers had moved over from the Assembly, where party lines were tightly drawn as were issues. Many of the new senators— both Republican and Democrat, conservative and liberal—found to their increasing agitation that friendship and seniority counted more in the Senate. Their voices mostly fell on deaf ears. Committees remained tightly locked in the control of members of the old guard. And it was an old guard that knew the game and played it with skill.⁴²

Journalists writing about reapportionment in the 1960s clearly thought that the court decisions would have a considerable effect on the

42. *Id*.

^{38.} COX & MCCUBBINS, SETTING THE AGENDA, supra note 28.

^{39.} Tom Goff, Burns' Long Reign Over Upper House Rural Control Seen Fading, L.A. TIMES, May 14, 1969, front page [hereinafter Goff, Burn's Long Reign]; Tom Goff, GOP Legislators Hold Futile Talks, L.A. TIMES, Jan. 8, 1968, at 3; Tom Goff, Democrats Retain Legislative Control: But Republicans in Both Houses Put Up Battle, L.A. TIMES, Jan. 9, 1968, at 3; Miller, Key Democratic Leader in the Senate, Dies: Death Gives GOP Control of Upper House, 20 to 19, L.A. TIMES, Jan. 2, 1969, at 3.

^{40.} Goff, Burns' Long Reign, supra note 39.

^{41.} *Id*.

organization of the California legislature. We can more systematically test the effect by drawing from the literature on legislative organization. Specifically, we apply Cox and McCubbins' procedural cartel theory⁴³ to the California legislature: we examine the model's core prediction that if the majority party possesses agenda control they can protect themselves from floor votes on legislation that more than half of the party opposes. Conversely, if the minority party lacks the ability to protect its members, then it should face a considerable number of votes that a majority of the party would prefer not to pass.

Cox and McCubbins define votes on which a majority of a party votes against a bill, but the bill passes nonetheless, as a *roll*.⁴⁴ The theory predicts that the majority party, if it possesses agenda control, should never be rolled whereas the minority party can be rolled as it lacks control of the legislative agenda.⁴⁵ If we find that roll rates are equal between the majority and minority then we have reason to believe that the legislative process is instead not structured along party lines. Therefore, they argue that roll rates (number of rolls divided by number of non-unanimous final passage votes) are evidence of the presence or absence of agenda control.

An analysis of the majority party's ability to control the legislative agenda during the 1960s and 1990s reveals stark differences. Focusing on roll rates in the 1960s and 1990s makes it clear that in the 1960s votes were largely along non-partisan lines, whereas in the 1990s they are clearly along party lines.⁴⁶ The roll rates from the 1960s suggest that the majority did not control the legislative agenda, as both parties' roll rates are greater than zero and close to each other. In the 1990s, however, there is a dramatic change in roll rates. As shown in Table 4A for the Senate and 4B for the Assembly, the majority's roll rate declines significantly and the minority party sees a considerable increase in its roll rate in both the Assembly and Senate. The pattern of changes in roll rates is evidence that both California Assembly and Senate moved from a relatively non-partisan arrangement in the 1960s and 1970s to a clearly partisan division in the 1990s.

^{43.} Cox & McCubbins, *supra* note 28.

^{44.} Id.

^{45.} Id. (chapter 2 for the formal statement and derivation of these predictions).

^{46.} This analysis includes all non-unanimous third reading votes in the California Senate in 1967, 1968, 1969, 1991, and 1993. *Id.* In the Assembly our data include non-unanimous third reading votes from 1967-1972 and 1991, 1993, 1995, and 1996. *Id.*

	1960s and 1970	1990s
Majority Roll rate	5.6%	0.6%
Minority Roll rate	7.5%	34%
Minority Roll rate> Majority Roll rate t-value (p-stat)	0.71 (.26)	109 (.003)

TABLE 4A: COMPARISON OF ROLL RATES IN CALIFORNIA SENATE, 1960S AND 1990S

** two-tailed t-test values

TABLE 4B: COMPARISON OF ROLL RATES IN CALIFORNIA ASSEMBLY, 1960S AND 1990S

	1960s and 1970	1990s
Majority Roll rate	6.5%	9.3%
Minority Roll rate	17.5%	46.5%
Minority Roll rate> Majority Roll rate t-value (p-stat)	2.35 (.03)	2.10 (0.06)

**two tailed t-test values

While the three decade "event window" for this study allows many challenges to the internal validity of our argument, the data presented is consistent with both the writings of journalists during the 1960s and the findings from the event study and the subsequent Part on U.S. Congress. Taken together, the consistency of these results increases the confidence in our conclusion that redistricting is the cause of the change from an urban-rural divide to a partisan divide in the California legislature.

VI. DISCUSSION OF RESULTS

In this Article, we predict changes in public policy and politics that result from the Supreme Court's redistricting decisions. We presented three types of evidence here for the impact of the redistricting revolution on politics and policy. The first was an event study of the market reaction to key decisions. The second was an analysis of changes in Congress. The third examined changes in the California Legislature. Taken together, these results suggest that there were considerable political effects of redistricting. Our results from California suggest that redistricting led to a partisan alignment of the state legislature and the beginning of a highly partisan legislative environment. In the U.S. House of Representatives, it appears that redistricting brought Northern and Southern Democrats ideologically closer together.

By specifying a number of different predictions that involve multiple measures of the impact of the Court's decisions, we employ a nonequivalent dependent variable research design.⁴⁷ Such a design increases the confidence we have in our results, because we specify not just one prediction, but multiple predictions of varying directionality. This makes it less likely that an omitted variable is driving the results we observe. The results confirm that redistricting had an effect on both congressional politics and public policy.

^{47.} Trochim, supra note 6.

TABLE 1: "URBAN" AND "RURAL" STOCKS

URBAN STOCKS Steel Works (3312)

Bethlehem Steel Corp. Wheeling Steel Corp. Dominion Bridge Ltd. Phoenix Steel Corp. Pittsburgh Steel Co. Colorado Fuel & Iron Corp. Alan Wood Steel Co. United States Pipe & Foundry Co. National Steel Corp. Kropp Forge Co. United States Steel Corp. Inland Steel Co. Allegheny Ludlum Steel Corp. Shahmoon Industries Inc. Continental Steel Corp. Lukens Steel Co. Carpenter Steel Co. Woodward Iron Co. Interlake Iron Corp. Jones & Laughlin Steel Corp. Sharon Steel Corp. Continental Copper & Steel Inds. Mclouth Steel Corp. Republic Steel Corp. Armco Steel Corp. Detroit Steel Corp. Northwestern Steel & Wire Co.

Subdividers and Developers (6552)

American Realty & Pete Corp. Lee Rubber & Tire Corp. Gulf States Ln & Inds Inc. Kaufman & Broad Bldg Co. Bloomfield Bldg Inds Inc. Universal Marion Corp. Desilu Prons Inc. Canaveral International Corp. Southern Realty & Utilities Corp. All State Properties Inc. Gulf American Land Corp. Levitt & Sons Inc. Peel Elder Ltd. First National Realty & Construction Corp. General Development Corp. Roval American Industries Inc. Kavanau Corp. Presidential Realty Corp. Deltona Corp. Christiana Oil Corp. Presidential Realty Corp.

RURAL STOCKS Coal (1211)

Ayrshire Collieries Corp. Island Creek Coal Co. Pittston Co. North American Coal Corp. Virginia Iron Coal & Coke Co. Falcon Seaboard Drilling Co. Consolidation Coal Inc. Pa. Eastern Gas & Fuel Associate Peabody Coal Co.

AIRCRAFT STOCKS (3721)

McDonnell Aircraft Corp. Cessna Aircraft Corp. Beech Aircraft Corp. Fairchild Aircraft Corp. Northrup Corp. Howell Electric Motors Corp. General Dynamics Corp. Boeing Corp. Lockheed Corp.