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Comparing Redistricting Outcomes Across States: A Comparison of Commission, Court, and Legislative Plans*

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The question of redistricting reform has become an important topic in many states throughout the country. At the heart of the matter is how to effectively deal with the perceived detrimental effects of allowing legislators control over selecting their own constituencies. The most common prescription is to remove legislative influence by handing over control to nonpolitical or bipartisan commissions. However, little empirical evidence exists comparing the outcomes of commission plans versus legislative plans. In this paper, I address this question by examining the role of commissions throughout the states. I argue an important aspect to limiting the problems of redistricting and promoting strong representation between legislator and constituent is not necessarily who draws the lines, but rather the rules they must follow when putting the maps together. My results show that these rules do a better job of promoting of preserving important aspects of representation than does removing legislative control over the process.

Key Words: redistricting, redistricting reform, democratic representation

The question of redistricting reform has become an important topic in many states throughout the country. At the heart of the matter is how to effectively deal with the perceived detrimental effects of allowing legislators control over selecting their own constituencies or that elections may be made a process "in which the representatives have selected the people" rather than one "in which the people select their representatives" (Vera v. Richards; Thompson 2002). The most common prescription is to remove legislative influence by handing over control to nonpolitical or bipartisan commissions. However, little empirical evidence exists comparing the outcomes of commission plans versus legislative plans. In this paper, I address this question by examining the role of commissions throughout the states. I argue an important aspect to limiting the problems of redistricting and promoting strong representation between legislator and constituent is not necessarily in who draws the lines, but rather the rules they must follow when putting the maps together. My results show that these rules do a better job of promoting the continuity of representation than does removing legislative control over the process.

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COMMISSIONS

The controversy around redistricting often centers on the issues of how effectively those drawing the maps[1] can help themselves in the coming elections by drawing partisan or incumbent gerrymanders. As a result, most of the discussion of reform focuses on the use of neutral commissions[2] as a way of solving the ills of legislative redistricting. Kansas State Senator Derek Schmidt recently summed up this view when discussing a proposal in Kansas to move towards the use of a redistricting commission, "There is an inherent conflict of interest in allowing those of us in public office to draw our own districts, and we're trying to mitigate that conflict" (Grenz 2003). Most supporters of neutral commissions do not claim they are a panacea of reform that will completely remove all the legislative evils from the process and automatically produce fair and equitable maps for all involved. Rather, the common view is that the move to commissions is a viable and practical, but not perfect, solution for removing the inherent conflict of allowing legislators to pick their own constituencies (Kubin 1997; Morrill 1981).

Many argue that commissions are the most common and seemingly practical alternative to legislative redistricting (Kubin 1997; Confer 2004).[3] Theoretically, at least, the hope is that commissions will be fair and neutral bodies that do not draw lines for partisan gain but rather produce maps that are fair towards both parties and, more importantly, take better account of constituency sovereignty (Butler and Cain 1992; Kubin 1997). The main desired advantage to using a commission format is the reduction of partisan influences (often discussed in terms of partisan bias) and to produce more "fair" plans (Carson and Crespin 2004; Confer 2004)[4]

[1] I refer to those drawing the maps as remappers throughout the paper. This terms includes anyone controls the process including legislators, commissioners, and judges.
[2] The reference to neutral commissions most often refers to either commissions that have some type of bipartisan membership or selecting non-political/non-partisan members to serve on the commissions. I refer to both types as neutral commissions.
[3] Kubin (1997) and Confer (2004) present a detailed comparison the potential advantages and disadvantages of commission use.
[4] Other perceived advantages include an increase in legislative legitimacy and less

For the 2000 round of redistricting, twenty-two states used commissions in some capacity. Table 1 breaks these down into states that grant a commission primary redistricting authority, those that use commissions as a back-up if the legislature cannot complete the process, and those states that use commissions as an advisory body.

Table 1: The Use of Commissions in State Legislative Redistricting*

Primary	Backup	Advisory
Alaska	Connecticut	Iowa
Arizona	Illinois	Maine
Arkansas	Mississippi	Maryland**
Colorado	Oklahoma	Vermont
Hawaii	Oregon	
Idaho	Texas	
Missouri		
Montana		
New Jersey		
Ohio		
Pennsylvania		
Washington		

Overall, the primary commissions fared quite well in implementing plans for the 2002 elections. Only the commissions in Arizona and Missouri were unsuccessful as the courts drew the maps for the 2002 elections. As for the backup commissions, four of the six states relied on commission drawn plans with only the Mississippi and Oklahoma legislatures completing the process without help from the commissions.

court involvement (Confer 2004). In terms of legislative legitimacy, depending on the membership criteria, commissions do directly remove the self- interest problem. However, in terms of court involvement, results from the 2000 round of redistricting do not support this claim as six of the 12 states that grant commissions initial control had the courts involved in some manner. Legislative plans also saw roughly 50% court involvement as well.

* States in Bold use some form of bipartisan/nonpartisan commissions; Sources: NCSL (1999) and compiled by author.

** The Maryland advisory commission is an informal committee assigned by the governor, who controls legislative redistricting.

Another important component to theses commissions is the membership criteria. There are three main forms of membership: the bipartisan tiebreak method, general partisan methods, and the statewide official method. Eleven states use a bipartisan tiebreak method in which the parties appoint an even number of members and those members then select a chair of the committee. Six of the states use the general partisan method in which there are either an odd number of members appointed from various offices or an even number without the appointment of a chair. Colorado is a good example of a partisan commission in which of the eleven members appointed two each comes from the party leaders in the legislature, three from the executive, and four from the judiciary. The partisan split could be 9-2 if the executive and the judiciary appoint clearly partisan members to side with two of the members from the legislature. Finally, six states use the statewide official method in which the members come form various elected statewide offices. The most common being the governor, secretary of state, and attorney general. Oregon is an interesting case since it does not have an official commission, but if the legislature fails to act as it did in 2002, then the process falls completely to the Secretary of State's office. Of these methods, the bipartisan tiebreak appointment is closest to a neutral commission used throughout the states as both the statewide and partisan appointment methods can easily give one party control over redistricting.[5]

Clearly, there is no one set method to the use of commissions across the states. In all cases, legislators are losing power over redistricting to a third party; however, not all commissions necessarily take away the partisanship from the process. While each commission format takes away direct legislative control over the process, it does not necessarily eliminate partisan influence. The commissions made of statewide officials or members appointed by the leadership put one party in the majority on the commission. Only the bipartisan commission format takes both the direct influence of legislators out of the process and neutralizes party control.

REDISTRICTING RULES

Another potential constraint on the negative consequences of redistricting are the rules in place in a state that the remappers must follow. While the specific rules for redistricting vary throughout the country, over forty years of court decisions and state practices generally fall into seven traditional principles that attempt to maximize concepts of fair representation. These principles are (NCSL 1999):[6]

[5] See Kubin (1997) for a detailed discussion of the perceived strengths and weaknesses of these methods.

[6] Barabas and Jerit (2004) discuss these principles for Congressional redistricting. The general applicability is the same. Although, the practical applications of these

• Protect Political Subdivisions: This principle refers to drawing districts that adhere to local political subdivisions in a state. The most common of these is the county level, but others include city and townships and other election districts.

• Protect Communities of Interest: This principle refers to the concept of drawing districts that encompass groups of voters united by common social, political, ethnic, or economic characteristics.

• Compactness: This principle relates to drawing districts as to minimize geographic area around a district center.

• Contiguity: This principle refers to drawing districts that are completely within a single geographic unit. The general idea is to draw districts in which a person can walk the entire district without crossing into another district.

• Protect District Core: This principle relates to drawing new districts specifically based on the old districts in attempts to minimize district change.

• The use of Incumbency Information: This principle refers to using incumbent data in the process or attempting to protect incumbents. Some states specifically prohibit this practice while others either allow or require incumbent protection.

• Section 5 of the Voting Rights Act: Requires covered jurisdictions (either entire states or parts of states) with certain minority demographics to pre-clear their redistricting plans with the Justice Department. The Justice Department checks the plans for any attempts at diluting minority-voting strength.

Table 2 breaks down these rules by state. There is not a clear pattern to how the states use these rules throughout the country. Only South Carolina falls under each principle in some manner and three other states have six of the principles in place. Three states only have one principle in place (Indiana, Kentucky, and Rhode Island). Overall, the compactness, contiguity, and protection of political subdivisions are the most common principles with the principle of protecting the district core the least popular rule.

rules are more important in state legislative redistricting since the remappers have a 10% population deviation standard when drawing districts. For Congressional redistricting, the courts have upheld strict population equality as the overriding principle.

Table 2: Traditional Districting Principles for State Legislative Redistricting

State	Compactness	Continuity	Political Subdivisions	Communities of Interest	Protected District	Use Incumbent Data	Voting Rights Act Section 5
AK	R	R	R	R			R
AL	R	R	R	R	R		R
AR			R		R	A	
AZ	R	R					R
CA		R	R	A			R
CO	R		R	R			
CT		R	R				
DE		R				P	
FL		R					R
GA		R	R		R	A	R
HI	R	R	R	R		P	R
IA	R	R	R			P	
ID	R	R	R	R		P	
IL	R	R					
IN		R					
KS	R	R	R	R		P	
KY			R				
LA	R	R	R		R		R
MA		R	R				
MD	R	R	R	R	R	A	
ME	R	R	R				
MI	R	R	R				
MN	R	R	R	R			
MO	R	R					
MS	R	R	R				R
MT	R	R	R	R		P	
NC		R	R				R
ND	R	R	R				
NE	R	R	R	R		P	
NH		R	R				
NJ	R	R	R				
NM	R	R	R				
NV	R	R	R	R			R
NY	R	R	R				R (partial)
OH	R	R	R				
OK	R	R		R			
OR		R	R	R		P	R
PA	R	R	R				
RI	R						
SC	R	R	R	R	R	A	R
SD	R	R	R				R
TN		R	R				R

TX	R		R				R
UT	R	R	R	R		A	
VA	R	R	R	R		A	R

VT	R	R	R	R			
WA	R	R	R				
WI	R	R	R				
WV	R	R	R				
WY	R	R	R	R		R	

While some dispute the willingness of remappers to follow these principles or the courts to enforce them (Altman 1998; Engstrom 2002), Winburn (2005) finds these principles play an important role in limiting gerrymander and Barabas and Jerit (2004) find these principles can influence minority representation. However, few studies have tested for the influence of these principles on redistricting outcomes.

REPRESENTATION AND REDISTRICTING

In producing any redistricting plan, regardless of who draws the maps and the rules in place, the important theoretical question is what constitutes a fair plan that benefits the voters instead of the politicians. There appears to be two major concepts in attempting to construct a fair redistricting plan. One view pushes for more competitive districts as an avenue for increasing voter control over the elections. The general view is that an increase in competitive districts allows voters to gain the normative benefits of a strong democracy. Carson and Crespin (2004) find for Congressional redistricting removing legislative control, either in terms of commission or court drawn plans, does increase the number of competitiveness districts. At least two states, Arizona and Washington, have adopted commissions with specific instructions to focus on competitive districts; however, most states appear more focused on issues of fairness in general terms of geographical representation.

The second view calls for a focus on traditional districting principles that focus on the importance of geography in districting and representation. The importance of geography as it relates to representation is an important component for implementing fair redistricting plans. Perhaps the most important and straightforward political science argument for considering geography comes from Richard Fenno's Home Style (1978). According to Fenno, most incumbents first think of their districts in terms of geography and they value the geographic aspects of the districts they represent. As such, the geographic change a district undergoes during redistricting is an important component for incumbents, as they must compare the geography of their new districts with that of their old districts. This basic geographic change provides

a lot of information for most incumbents when evaluating their potential reelection bids as they know if they are representing the same core constituents that they have courted in previous years, if the constituents are new but the internal makeup is similar to their old districts, or if they have mostly new constituents in a new geographic, demographic, and partisan district.

Geographers generally make the case that geography is a key component of the representational link and is an important consideration in drawing district lines. Johnston (1979) argues while redistricting is inherently political it also inherently territorial as a matter of spatial arrangement and organization. Monmonier (2001) argues from a representational standpoint that geography and the shape of districts matter because geographic concerns often lead to political alliances among dispersed social and economic groups. Sprawling districts that weave throughout a state may make it harder for representatives to do their jobs. Further, modern conveniences such as better travel, increased media exposure, and the Internet make the representative's job of visiting their districts and their constituent's ability to obtain information easier. However, vastly spread out districts may deter the representatives from visiting the remotest parts of their districts and urban and suburban districts that weave in and out of cities and neighborhoods may make it more difficult for constituents to even know which district they live in and more confused and ignorant than they would otherwise be about their representatives (Butler and Cain 1992).

When redistricting the ultimate goal is to create districts with equal population for the purposes of a fair electoral system and equal representation for the voters. To promote fair and equal representative districts, one concept to consider is the continuity of representation. Gaddie and Bullock (2005) refer to the continuity of representation as the stability between incumbents and constituents from the old maps to the new maps. Another way to think of this argument is in terms of geographic district change and not necessarily in terms of incumbent stability. By focusing on geography, the potentially biasing issue of incumbency is removed from the discussion.[7] The continuity of representation should reflect an attempt to keep as many voters as possible in the same district during redistricting. As such, redistricting should not be a game where those in control are able to completely undue the previous

[7] Many reformers argue incumbent protection is one of evils of redistricting and for the removal of all incumbency considerations during redistricting. I do not totally agree with this point. I think the problem is more of a partisan gerrymandering issue of creating safe districts, and not necessarily one of general incumbent protection. I think it is impractical and possibly a negative to the system to advocate for removing incumbency data from the process. As the term limits movement is beginning to show, getting rid of incumbents does not guarantee a reformed legislature and may actually create more problems than it solves (Sarbaugh-Thompson, et al. 2004).

electoral boundaries and carve them up for their own political advantage. Rather, redistricting would better serve the electoral system as a tool for updating the boundaries, where necessary, due to population shifts and keeping the old districts as intact as possible. This district stability should put citizens in a better position to elect their representative of choice and not essentially predetermine the outcomes based on how some partisan elite decided to draw their district.

EXPLAINING REDISTRICTING OUTCOMES

I examine the control over drawing the maps and traditional redistricting principles in terms of influence on a plans overall change in the continuity of representation. If non-legislative redistricting focuses more on fair maps rather than partisan maps, I expect to find both commission and court drawn plans to show greater respect for the continuity of representation. When discussing legislative control, it is important to break down the important distinction of control of government. For plans drawn under unified partisan control, the majority party should be most likely to attempt a partisan gerrymander that is more likely to redraw the map for their gain. The strategy under divided government tends to be bipartisan or incumbent protection plans that will probably produce fewer changes than a partisan gerrymander.

The traditional districting principles are designed to protect the continuity of representation by limiting the remappers ability to draw districts that cut across geography. The one important exception to this is the rule that prohibits the remappers to consider incumbent information in the process. These plans should show less continuity as the remappers are presumably drawing the maps "blind" from the old maps, at least in terms of where incumbents lived in their old districts.

An important component to this study is the relationship between the control of redistricting and the rules the remappers must follow. From previous studies (see Winburn 2005), I expect the rules in place to be more important than the control of the process. Winburn (2005) found little evidence to support the idea that simply removing the process from the legislature does little to remove partisan politics and strategies from redistricting. Rather, I found the rules the remappers must follow offers some conditional limitations on the success of implementing gerrymandered plans.

DATA AND METHODS

I examine the influence of redistricting control and rules on redistricting outcomes in the state legislatures for the 2000 round of redistricting. I examine this for each plan implemented prior to the 2002 elections.[8] This includes 91

[8] Maine and Montana, by statute, did not draw new plans until the 2004 elections. I include those plans in the analysis.

plans. I exclude Oregon due to incomplete data, six states (Arizona, Idaho, North Dakota, New Jersey, South Dakota, and Washington) only draw one map since the house, and senate districts are coterminous.

To measure the continuity of representation, I construct a measure that accounts for district geographic change in each plan. I do this in terms of district intactness or core retention of a district. To measure district intactness, I determine the proportion of constituents shared between a new district and its parent district.[9] I develop this intactness score by calculating the number of precincts that the new district shares with its parent district and dividing by the total number of precincts in the new district.[10] For example, if 10 precincts fall into a district and nine of those came from the parent district then the new district would be 90% intact with its parent district. I then take the mean intactness measure for each plan as my dependent variable with higher scores showing more continuity and lower scores indicating greater amounts of geographic change in the new districts.

There are two primary reasons for a lack of district intactness between plans. The first is to move constituents between districts to account for population shifts within a state. For most districts, this involves shuffling a minority of constituents, by either adding or subtracting population, but allows for the majority of the district to remain intact between the plans. However, some districts must undergo either complete or almost complete boundary shifts to accommodate either concentrated population losses or gains in a state. The most common scenario involves the areas of population decline, the inner cities and/or rural areas, losing entire districts to the fastest growing suburban areas. The second reason for a small core retention of constituents is gerrymandering. In either a partisan gerrymander or controlling party incumbent gerrymander, the majority party will attempt to keep their incumbents districts intact while splitting the core districts of the out party incumbents. The reason is simple. Incumbents like to represent constituencies with which they are familiar. New constituents bring in more uncertainty for

[9] A parent district is the single largest contributor of population to a new district (Cox and Katz 2002). For purposes of analysis between plans, the use of a parent district allows for a comparison of the changes a district core undergoes. Comparing district numbers does not work since several states do not necessarily follow the same numbering scheme between plans.

[10] This is not the only method for computing district intactness. Other measures include using population change with either registration totals or census block data. A geographical measure of area change is also possible using GIS methods. See Schaffner, Wagner, and Winburn (2004) and Crespin (2006) for measures using GIS. A comparison of each method correlates between .90-.95. Therefore, I feel confident with the precinct measure employed.

the incumbents personal vote (Desposato and Petrocik 2003). Under a bipartisan incumbent gerrymander, the remappers will try to keep all incumbent's district as intact as possible while using open seats to equalize population and should have greater overall district intactness.

While this measure does not directly measure for partisan gerrymandering, it is worth noting that is probably a good indicator for whether a partisan gerrymander could be present. Plans with the greatest district intactness have little room for partisan gerrymanders since the districts underwent few changes during the process. Likewise, plans with the least amount of district intactness have a higher probability of a gerrymander given the districts underwent widespread change. However, this is a matter for future research.

Table 3 provides the summary statistics for the intactness measure and shows the average plan kept 71.61% of the old districts intact. In other words, nearly 72% of all precincts in a parent district moved together in the new maps. Table 3 highlights the range of district intactness as the standard deviation is 10.45 and the five most intact plans are all above 88% with the five least intact plans below 56%. This means the districts in the Vermont Senate kept the districts 95% intact with only about 5% of constituents shuffling between districts and the Illinois Senate only kept the districts 43% intact with 57% of constituents changing districts. Overall, the range of district intactness provides an interesting measure for which to test the influences of the rules in place and control of the process.

Table 3: Summary of District Intactness*

Most Intact	Intactness	Least Intact	Intactness
Vermont Senate	96.16	Illinois Senate	43.04
West Virginia House	91.64	Rhode Island Senate	48.38
West Virginia Senate	91.79	Hawaii Senate	48.77
Massachusetts Senate	88.70	Nevada Senate	54.85
Hawaii House	88.44	Iowa Senate	55.57

I test for the importance of redistricting control by coding for the control of the plans drawn for the 2002 elections. I break control into four groups: commissions, courts, divided legislative control, and unified legislative control. In the model, I use unified legislative control as the reference group with dummy variables for each variable being coded 1 for control and 0 if not. As McDonald (2004) and Winburn (2005) show control of drawing the maps does not necessarily equate into a specific outcome. As such, I also

* Mean Intactness: 71.62; Standard Deviation: 10.45; N = 91

code for the predicted outcome of the plan based on McDonald's (2004) study. In this group, there are three categories: neutral plans that did not appear to have any partisan/incumbent advantage, incumbent protection plans, and partisan plans that appear to be gerrymanders favoring the controlling party. I code these as a dummy variable with the partisan plans as the reference group.

Table 4 indicates the control of the process along with the type of plan implemented. It is clear that having a commission does not guarantee a neutral plan as even the neutral commissions produced only one neutral plan. Overall, the partisan commissions produced partisan plans while the neutral commissions implemented slightly more incumbent protection plans.

To test for the importance of the rules, I include dummy variables for whether or not a state prescribes to the principles of protecting political subdivisions, communities of interest, and the district core. Additionally, I code for whether or not a state prohibits the use of incumbent data and whether or not a state falls under the Voting Rights Act. I code these as dummy variables for the presence or absence of the principles (1 if the state has the rule, 0 if not). For the incumbency principle, I code this as 1 if the state prohibits the use of incumbency data and 0 if otherwise. In the analysis, I expect to find a positive relationship between political subdivisions, communities of interest, and district core if these rules protect the continuity of representation. The incumbency variable should be a negative direction as the inability to use incumbency data should lead to less district intactness. Finally, if a state falls under the Voting Rights Act, I expect to find less continuity of representation as the remappers must contend with producing fair maps in terms of racial composition and this may trump the need to preserve district intactness.

Table 4: Plan Control and Implementation*

	Partisan	Incumbent	Neutral
Commission Control			
AK	*		
AR	*		
CO	*		
CT		*	
HI		*	
ID		*	
IL	*		
MT	*		
NJ			*
OH	*		
PA	*		
TX	*		
WA		*	
Court Control			
AZ			*
ME - Senate		*	
MN			*
MO	*		
NC	*		
NH		*	
NM - House		*	
SC		*	
VA	*		
WI			*

	Partisan	Incumbent	Neutral
Legislative Control			
AL	*		
CA		*	
DE		*	
FL	*		
GA	*		
IA			*
IN		*	
KS	*		
KY		*	
LA		*	
MA	*		
MD	*		
ME - House		*	
MI	*		
MS	*		
ND	*		
NE	*		
NM - Senate		*	
NV		*	
NY		*	
OK	*		
RI		*	
SD	*		
TN		*	
UT	*		
VT		*	
WV	*		
WY	*		

Within the traditional districting principles, I do not include compactness and contiguity in the analysis. Generally, remappers accept contiguity as a part of drawing districts with a court accepted definition of being one in which "a person can go from any point within a district to any other point without leaving the district" (Engstrom 2002: 67). Forty-five of the fifty states include a provision calling for contiguous districts, and this does not appear to be a contentious issue in the other five states.

I exclude compactness for the opposite reason of not having a clear and accepted standard in redistricting practice. Throughout the years, the states and courts have relied on a variety of measures from the "eyeball approach" of picking out bizarre districts on the map to some of the two dozen measures developed by social scientists (Monmonier 2001). Neither the courts nor scholars have declared one measure the "best" for judging the compactness of districts. Recent decisions have held only that compactness is an important

* States are divided by control of the process and the columns indicate the type of plan implemented. Neutral commissions are in bold. Sources: McDonald (2004) and compiled by the author.

principle, but have not established a definition for measurement purposes. Hofeller (2000) concludes current compactness standards do not effectively limit gerrymandering and the courts are unlikely to enforce the standard.

I also include two important control variables. The first is the population growth in a state between 1990 and 2000 measured in terms of percent growth. This is crucial to control for given that population change is the impetus for redistricting. If a state underwent major population growth (or loss), the remappers first responsibility is to equalizing district population and not preserving the continuity of representation. Conversely, states that did not undergo much population change do not have the need to do much in terms of redistricting, at least in terms of equalizing population.[11] I should find the states with the largest population changes had the smallest overall district intactness.

I also control for whether or not control of drawing the maps changed between the last implemented plans from the 1990s and 2000. I code the variable as 1 for change in control and 0 if not. I expect chambers that underwent a change to have less district intactness as the new remappers, regardless of their goals, will probably have a different perspective for drawing the maps than those who previously controlled the process.

ANALYSIS

What influences the continuity of representation in state legislative redistricting? Table 5 presents the OLS regression results from five models that test for these influences. Model 1 establishes the base model by controlling for population change in a state. As expected, the more population change in a state the less district intactness in a plan. The redistricting control model (model 2) suggests that who drew the lines has little influence on how the plans change. There

are no significant differences between commission, court, and legislative drawn plans.[12] If we look at the perceived outcome of the plan, we once again see no difference between partisan, neutral, and incumbent protection plans. This finding is a bit surprising; however this is a general code for the outcomes in a state and does not provide much insight into the complexities and compromises of each individual plan. Or, this could accurately account for the importance of population change in the process suggesting the remappers first responsibility is to equalizing population and not gerrymandering the districts.

[11] This does not account for in-state migration and the change of population between districts.

[12] The findings do not change when controlling for bipartisan or partisan commission membership.

Table 5: Influences on District Intactness*

Independent Variables % Population Change	Model 1: Population Change -.354 (.0906)***	Model 2: Redistricting Control -.354 (.0914)***	Model 3: Plan Implementation -.364 (.0891)***	Model 4: Rules -.337 (.0947)***	Model 5: Full -.331 (.0940)***
Switch in Control	-4.10 (2.247)	-3.54 (2.391)	-4.14 (2.241)	-6.20 (2.231)**	-6.03 (2.340)**
Control					
Commission		-1.79 (2.792)			-1.60 (2.715)
Court		-1.40 (3.071)			-.135 (3.427)
Divided Legislative		1.573 (2.742)			1.576 (3.300)
Implementation					
Neutral			-5.88 (3.605)		-7.34 (4.075)
Incumbent protection			2.647 (2.119)		1.473 (2.610)
Rules					
Political Subdivisions				7.055 (2.694)***	8.179 (2.790)***
Communities of Interest				.3571 (2.187)	.3891 (2.209)
District Core				.3310 (2.931)	-.205 (2.913)
Incumbency Data				-7.93 (2.61)***	-7.31 (2.684)***
VRA				-1.88 (2.195)	-2.78 (2.214)
Constant	77.52 (1.670)***	77.63 (2.354)***	77.20 (1.894)***	73.99 (2.662)***	73.29 (3.276)***
N	91	91	91	91	91
Adj. R2	.16	.15	.20	.25	.28

The rules model shows a significant relationship for the principle of protecting political subdivisions and the use of incumbent data. As expected, remappers that must follow political boundaries produce plans with greater district intactness and in those plans that could not consider where the incumbents lived had lower levels of district intactness. Neither the community of interest standard nor the district core standard reaches significance and this is not surprising given the vagueness of the definitions of these principles in many states. Additionally, this model improves the model fit by nearly 10% suggesting the rules are nearly as important in explaining district intactness as the population change in a state.*

Finally, the full model supports the idea that the rules are more important in explaining district intactness than the method of drawing the lines as the control of the maps or the type of plan implemented adds no additional explanatory power to the rules model and does not greatly change the importance of the rules coefficients. Overall, the rules in place appear to be a significant factor in preserving the continuity of representation by limiting (or enabling in the case of not being allowed to consider incumbent data) the amount of change those drawing the lines can implement. Additionally, this suggests the rules can also limit the amount of partisan gerrymandering that can occur since a successful gerrymander generally requires the ability to draw district lines unimpeded across a state.

DISCUSSION

What do these findings suggest about redistricting reform? Clearly, the control of the process matters little when discussing the continuity of representation as commission, court, and legislative plans show no significant differences in levels of district intactness. This study also highlights that the use of commissions, even neutral commissions, does not appear to guarantee neutral redistricting plans. On the other hand, the use of traditional districting principles appears to be an important factor in preserving the continuity of representation for constituents in state legislative districts.

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* Notes:
OLS regression
Standard errors in parentheses

**p<.05 ***P<.01

N = All legislative plans enacted for the 2002 elections with the exception of Oregon. The data collection for Oregon is currently incomplete. Six states (AZ, ID, ND, NJ, SD, and WA) only complete one map as the house and senate districts are coterminous.

Unified legislative control and partisan implemented plans are the control groups.

However, not all principles seem to influence the remappers. In this analysis, the principle for protecting political subdivisions and the inability to use incumbency data stand out as significant influences. These findings are not surprising given the clear and rather unambiguous standards of these principles. Additionally, these findings support my earlier findings that for these principles to be an important part of the process a state needs to define clearly the parameters of the principles. A clear definition of these principles makes it more difficult for the remappers to ignore and easier for the courts to uphold.

Turning to the principle of protecting political subdivisions, I argue this is an important principle that enforces fair redistricting plans that benefits the voters and enhances representation. I base this on Grofman's concept of congizability, which he defines as "the ability to characterize the district boundaries in a manner that can be readily communicated to ordinary citizens of the district in commonsense terms based on geographical referents" (1993: 1262). Grofman's concept of congizability relies heavily on the central place of geography in the American political system. Central to Gofman's argument is the way that voters identify themselves with the geography within a state. Districting based on this concept would involve following natural geographic boundaries and political subdivisions within a state (Grofman 1993). An emphasis on congizability provides an option for a partisan neutral redistricting. A focus on congizability appears to be a fair method to distribute districts so that all constituents are able to identify which district they vote in based on clear geographic units within a state. I argue that geographic units are inherently politically neutral and shift the focus from political considerations to those of the voters.

Overall, this paper provides an important empirical test of the use of commissions in the redistricting process and shows that the rules, and not control of the pen (or computer program), do a better job of supporting fair maps and limiting the detrimental effects of gerrymandering. The next phase in this research is to delve into issues of partisan gerrymandering and district level changes that go beyond a succinct measure of overall plan change.

REFERENCES

Altman, Micah. 1998. *Districting Principles and Democratic Representation.* Doctoral Thesis, California Institute of Technology.

Barabas, Jason and Jennifer Jerit. 2004. "Redistricting Principles and Racial Representation." *State Politics and Policy Quarterly* 4: 415-435.

Butler, David and Bruce Cain. 1992. *Congressional Redistricting: Comparative and Theoretical Perspectives.* New York: MacMillan.

Carson, Jamie L. and Michael H. Crespin. 2004. "The Effects of State Redistricting Methods on Electoral Competition in United States Houses of Representative Races." *State Politics and Policy Quarterly* 4: 455-469.

Confer, Christopher C. 2004. "To Be About The People's Business: An Examination of the Utility of Nonpolitical/ Bipartisan Legislative Redistricting Commissions." *Kansas Journal of Law and Public Policy* 13: 195-240.

Crespin, Michael. 2005. "Using Geographic Information Systems to Measure District Change, 2000-02." *Political Analysis* 13: 253-260.

Desposato, Scott W. and John R. Petrocik. 2003. "The Variable Incumbency Advantage: New Voters, Redistricting, and the Personal Vote." *American Journal of Political Science* 47: 18-32.

Engstrom, Richard. 2002. "The Post-2002 Round of Redistricting: An Entangled Thicket within the Federal System." *Publius* 32: 51-70.

Fenno, Richard F., Jr. 1978. *Home Style: House Members in Their Districts.* Boston: Little Brown.

Gaddie, Ronald Keith and Charles S. Bullock III. 2005. "The Political Consequences of an Uncontrolled Redistricting." Paper Presented at the Annual Meeting of the Southern Political Science Association. New Orleans: January 6-8.

Grenz, Chris. 2003. "Panel Would be Picked from Pool." *The Topeka Capital-Journal.* February 10.

Grofman, Bernard. 1993. "Would Vince Lombardi Have Been Right if He Had Said: 'When it Comes to Redistricting, Race, Isn't Everything, It's the Only Thing'?" *Cardozo Law Review* 14: 1237-1276.

Hofeller, Thomas B. 2000. "Compactness in Redistricting Process." Presentation to the NCSL Redistricting and Elections Committee: May 26. http://www.ncsl.org/programs/legman/redmtg2/present3/index.htm (Accessed February 24, 2006.)

Johnston, R.J. 1979. *Political, Electoral and Spatial Systems.* London: Oxford University Press.

Kubin, Jeffrey C. 1997. "The Case for Redistricting Commissions." *Texas Law Review* 75: 837-872.

McDonald, Michael P. 2004. "A Comparative Analysis of Redistricting Institutions in the United States, 2001-02." *State Politics and Policy Quarterly* 4: 371-395.

Monmonier, Mark. 2001. *Bushmanders and Bullwinkles: How Politicians Manipulate Electronic Maps and Census Data to Win Elections.* Chicago: University of Chicago Press.

Morrill, Richard. 1981. *Political Redistricting and Geographic Theory.* Washington, D.C.: Association of American Geographers.

National Conference of State Legislatures. 1999. *Redistricting Law 2000.* Prepared by the Redistricting Task Force for the NSCL's National Redistricting Seminar. Denver: March 4-6.

Sarbaugh-Thompson, Marjorie, Lyke Thompson, Charles D. Elder, John Strate, and Richard Elling. 2004. *Political and Institutional Effects of Term Limits.* New york: Palgrave MacMillan.

Schaffner, Brian F., Michael W. Wagner, and Jonathan Winburn, 2004. "Incumbents Out, Party In? Term Limits and Partisan Redistricting in State Legislatures." *State Politics and Policy Quarterly* 4: 396-414.

Thompson, Dennis. 2002. *Just Elections: Creating a Fair Electoral Process in the United States.* Chicago: University of Chicago Press.

Vera v Richards, 1994. 861 F. Supp. 1304 (S.D. Tex.).

Winburn, Jonathan. 2005. *The Realities of Redistricting: Political Control andPartisan Consequences.* Doctoral Thesis, Indiana University.