Redistricting, Risk, and Representation: How Five State Gerrymanders Weathered the Tides of the 2000s

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ABSTRACT

This article uses a toy model of three “regimes” of legislative districting, accompanied by five state case studies from the 2000s decade, to demonstrate how measuring the impact of redistricting must be framed by two questions. First, what norm or dimension of representation is being measured? Second, what are the larger electoral conditions under which we are measuring? The article anecdotally shows how districting in five states impacted four different representation norms: bias, responsiveness, competitiveness, and congruence. On several of these dimensions, the success of a gerrymander depends on the national balance of tides in favor of one party in the specific cycle being measured. Especially of note, there is evidence that aggressive partisan gerrymanders perform poorly on most normative dimensions during closely contested elections, but represent voters much better under strong tides adverse to the districting party.

In the 2012 congressional elections, Republicans won the majority of seats in the House of Representatives despite narrowly losing the national popular vote. Several competing explanations have been advanced for this countermajoritarian outcome, but all address the possibility that it was largely produced by partisan gerrymandering (see e.g., Wang 2013, Sides and McGhee 2013), and many have repeated calls to implement nonpartisan reforms. Yet even if gerrymandering was a major factor in this cycle, elections with an evenly divided popular vote are actually relatively unusual. To truly evaluate the effectiveness of both partisan gerrymanders and their potential reforms, we must also examine those frequent cases where one party wins a significant majority. And anecdotally, it seems that gerrymanders do not always turn out as intended.

For example, Pennsylvania Republicans might have believed they had found the perfect gerrymander in 2004. The congressional map drawn by their legislators, yielding a 12–7 GOP majority in the elections seventeen months earlier, had just been upheld by the U.S. Supreme Court in Vieth v. Jubelirer (2004). Yet that same map must not have seemed so perfect in 2006, when Democrats regained control of Congress, by flipping 31 seats that included four Republican-crafted districts in Pennsylvania. While this was a strong night for Democrats on many fronts, their gains were not spread equally across the country: Democrats also gained two seats drawn by bureaucrats in Iowa and two seats drawn by a nonpartisan commission in Arizona, but the balance of the delegation in California, where the map had been approved by both parties working in close concert, remained unchanged.

When we evaluate the merits of a districting system, it is critical to frame our inquiry within the larger electoral environment. But perhaps more importantly, we must also clarify exactly what about the representational qualities of a redistricting regime we are evaluating. For example, a map that represents voters well at the district level might
not be responsive to changes at the state level. This article will discuss the various dimensions along which we can evaluate the results of a redistricting plan, and how national tides can potentially influence each of them.

Note that alongside evaluating the electoral results of a redistricting plan (in terms of the delegations they elect), we might also believe there are normative values to the districts themselves, such as their compactness or the extent to which they match other existing political boundaries. There may indeed be benefits to having districts of a certain shape (e.g., easily knowing what district you are in may enhance political knowledge and participation). But this article will focus on various ways of measuring election outcomes from these districts, rather than the shape of the districts themselves. Additionally, this article will not address ways in which we might measure a plan’s effectiveness in assuring descriptive representation for racial or ethnic minorities or other minority groups.

Four ways in which the normative results of a redistricting plan are commonly measured include:

- **Bias**: the extent to which the partisan balance of a delegation is or is not consistently skewed toward one party.
- **Responsiveness**: the extent to which shifts in the partisan preferences of the electorate are reflected in changes to the resulting delegation.
- **Competitiveness**: the number of seriously contested races produced by a map, measured by election margins or challenger quality.
- **Congruence**: how closely the policy preferences of individual legislators match the preferences of their own constituents.

Through reference to past research and case studies of recent election cycles in five states, this article explores the impact of partisan and nonpartisan gerrymandering on the each of the representation norms, with an emphasis on its interaction with short-term national shifts in political preference, which I will refer to as “partisan tides.” Thus, I differentiate between elections where the national congressional popular vote was closely contested (such as 2012, where the congressional popular vote was close to tied), and elections where one party won a significant majority of the national vote (such as 2010 in favor of the Republicans, or 2008 in favor of the Democrats). Despite scant attention to this factor in most redistricting research, I show that it often has a major impact on several representation measures. A gerrymandering regime that seems to serve voters well in a close election environment may fail on many of the same measures during a wave election cycle, and vice versa.

For the purpose of this article the “partisan tide” will be the margin by which one party wins the national congressional popular vote in a given year. Figure 1 depicts this national vote margin, along with the seat margin in the U.S. Congress, in elections from 1972 to 2010. The range of observed tides during some decades is narrow, such as the 1980s, where Democrats saw consistent but modest majorities. In contrast, the 2000s decade saw extremely close elections in its first two cycles, followed immediately by two increasingly strong Democratic waves and concluding with a large Republican wave. Thus, this last decade provides an ideal assortment of partisan tides conditions from which to draw our case studies.

I. THREE GERRYMANDERING REGIMES

We must first distinguish three different gerrymandering “regimes” to sort through predictions and evidence about how maps drawn under each of these regimes will respond to changes in national partisan trends. They represent conceptions for how institutions will tend to draw district lines to achieve particular goals:

- **Bipartisan Gerrymander**: A map is drawn to protect incumbents of both parties, usually when the state government is under split partisan control. Districts will tend to be ideologically homogenous, with few competitive elections, but a diverse group of legislators elected.
- **Nonpartisan Gerrymander**: A neutral committee draws a map designed to favor neither party. Incumbency may or may not be considered, but in general districts will not be drawn with the goal of electing a certain representative or type of representative. Instead, districts will be internally heterogeneous and competitive elections will be common.
- **Partisan Gerrymander**: One party controls the map-drawing process. They “pack” members of the opposed party into a small number of ideologically homogenous districts, creating some safe incumbents. But they also create a large number of districts that favor their own
party. If the map-drawers create districts that tilt only slightly in favor of the majority party, they risk having the map “backfire,” losing many seats in the event of a modestly averse partisan tide.

When maps are drawn by legislatures or committees, I posit that the partisan composition of that body will determine which “regime” the map should resemble, possibly influenced by other institutional factors. To better illustrate the difference among the three procedural gerrymandering regimes, examples of each regime are shown in both a “toy state” of 25 voters, and one or two short case studies from the 2000s redistricting cycle.

A. The bipartisan gerrymander

In further detailing each of these gerrymandering regimes, let us begin with a simple toy state: a state with 25 voters, to be apportioned into five legislative districts of equal population. As shown in Figure 2, the most liberal voters live on the left side of the state and the most conservative live on the right side. The 10 most liberal voters identify as Democrats, while the 10 most conservative identify as Republicans. Each district elects one representative, and these five representatives make up the legislature.

Under the “bipartisan regime,” districts are drawn to assure safe seats for representatives of both parties and are drawn to be as ideologically homogenous as possible. As shown in Figure 2a, districts are drawn “vertically” so that the most liberal voters are all in one district, all of the independent voters in one district, etc. The resulting legislature contains an even split of both parties, with all ideologies represented. Note that substantively competitive elections between candidates of different ideologies are unlikely, and the results are not sensitive to partisan swings: if one or two voters in any given district were to change their ideology or cast an unexpected vote, the outcome of the election would not change. Thus, this regime creates safe districts, little electoral competition, but a balanced and diverse legislature.

Bipartisan example: California 2002–2010. An excellent example of the “bipartisan gerrymander” would be the California congressional districts implemented in 2001. During the 1990s, a court-ordered plan kept the partisan balance close in California for most of the decade, but leftward trends finally caught up to Republicans in 2000, when...
Democrats defeated four Republican incumbents in that cycle to take a 32 to 20 advantage in seats. California gained one seat in the 2000 census, and Democrats held control of state government. Many expected the party to use this power to significantly expand their majority.

But the Democrats did not use this opportunity to draw an aggressively partisan map. Instead, they felt pressure from both the right and the left to be much more cautious. If they drew a map to gain as many seats as possible, they risked a Republican-backed ballot proposition to change the redistricting process, and the prospect of serious primary challenges from state legislators forced to retire due to legislative terms limits.\(^2\) Thus, leaders of the state congressional delegations of both parties reached an agreement to draw a map that would ensure the reelection of almost every incumbent, and designated the new seat for a Hispanic Democrat. Over the objections of almost half the Democrats in the state legislature, the plan passed with roughly even support from both parties.

The map worked exactly as expected. In the 2002 general election, every incumbent won with at least 58% of the vote, and the Democrats held a 33 to 20 advantage in the delegation. And over the course of the decade, these seats remained safe for incumbents. Out of 265 congressional elections that took place in California under this map, the incumbent party was defeated only once: Democrats had gained just one additional seat by 2009. Even in the face of the Republican tide in 2010, Democrats held on to all 34 of these seats, a sign that the map was resilient to tides in both directions.

B. The nonpartisan gerrymander

Let us return to our toy state of 25 voters. This time, the districts are drawn “horizontally,” with one voter from every ideological persuasion in each district, as shown in Figure 2b. This might represent the “nonpartisan gerrymander” where partisanship is not considered in the drawing of the map. The result is five districts with an even partisan balance. In such a case, two outcomes are possible.

If parties converge ideologically, we would expect each district to elect a moderate; but if parties maintain distinct ideologies, we would expect a series of close elections with unpredictable results.

Such districts would create intense electoral competition, and be very sensitive to partisan swings. If just one voter in each district switched parties, the ideology of every elected representative might change. Yet we might not expect a very diverse legislature; with “horizontal” districts, voters on either end of the ideological spectrum have little hope of ever electing one of their own into office, and one party could be completely excluded from the delegation given even a slight swing in favor of the other. In the United States, about a quarter of states (most of them small states) draw their state legislative districts using some form of non-partisan commission or process, with a smaller handful also using such a commission for creating congressional districts. The extent to which these states try to assure competitive elections varies; two examples in congressional districting are illustrative.

Nonpartisan examples: Iowa and Arizona, 2002–2010. Iowa is unique among all states in having a congressional map drawn by a completely nonpartisan Legislative Services Bureau (LSB). In contrast to most legislature-drawn maps, the LSB is not permitted to incorporate incumbency or voting data in creating their proposals. As shown in Figure 3, the map implemented in Iowa in 2011 looked starkly

\[^2\] In fact, California’s did adopt a nonpartisan commission to redistrict in the following decade as a result of a 2010 ballot proposition. As we would predict from a nonpartisan gerrymander as described below, the map became immediately more competitive and responsive in 2012, with four seats swinging to Democrats, and 19% of races decided by less than 10% (compared with 5% of races over the previous decade).
different from the typical maps in other states. In contrast to the irregular, snaking, and intertwined districts common in maps drawn to implement a particular political result, the Iowa districts look remarkably unremarkable: the four districts are largely drawn by bisecting the state East/West and North/South, while keeping the boundaries coincident with rectangular county lines. The boring shapes create intense competition: of the five congressional districts created in 2001, one drawn along Iowa’s western border was heavily Republican, but the other four are all ideologically balanced.

Indeed, Iowa has seen several of the most hotly contested congressional races during the previous decade. In 2002, Republicans retained a four-to-one advantage in the delegation, although no incumbent of either party received more than 57% of the vote. Helped by a national tide, Democrats turned two seats in 2006 to take control of a majority of the delegation.

As a second example, Arizona districts since the 2001 have been drawn through a nonpartisan commission, with an even stronger mandate to foster close elections: the Arizona Proposition creating that state’s districting commission requires “competitive districts are to be favored” as long as they comply with other constitutional requirements (Adams 2005, Kang 2004). And the electoral story over the course of the last decade suggests the commission took this requirement seriously: the state’s delegation flipped from a 6–2 Republican majority to a 5–3 Democratic majority between 2004 and 2008 before switching back to Republicans in 2010. On the surface, both of these maps have succeeded in producing competitive elections that are highly responsive to shifts in voter opinion, at least with respect to the partisan majorities of their delegation.

C. The partisan gerrymander

I finally turn to what many would consider the most normatively troubling regime: the partisan

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3This article uses data from Iowa maps from the previous decade (2002–2010), during which Iowa had five congressional districts, with similarly regular shapes.
gerrymander, where one party controlling the government tries to maximize the number of seats by “packing and cracking” minority party voters. Returning to the 25-voter example, Figure 2c represents a modest partisan gerrymander by the Democrats; all Republicans have been “packed” into two safe, homogenous conservative districts. The moderates, meanwhile, have been spread across the other three districts in a way such that the median voter in each district is a Democrat; the anticipated legislature would include three Democrats and two Republicans.

Note, however, that while the two Republican seats in Figure 2c are fairly invulnerable to modest shifts in party identification or public opinion, a change in one or two votes in one or two of the Democratic districts could easily cause the Democrats to lose their majority. So the map potentially creates opportunities for competitive elections depending on electoral trends, and these competitive elections will typically come at the expense of the majority party. Further, if the geographic distribution of voters was changed or districts did not have to be contiguous, the Democrats could construct an even more “aggressive” gerrymander composed of one solidly Republican seat and four slightly Democratic seats. Such a map would be even more vulnerable to a partisan tide adverse to the majority party. This result is important to highlight: the greater the gain from the gerrymander in good times, the greater the backfire in bad times.

Partisan examples: Pennsylvania and Florida, 2002–2010. For the first time in many post-census redistricting cycles, Republicans controlled all branches of state governments in several large states at the dawn of the 2000s, perhaps most importantly in Pennsylvania and Florida. The GOP would draw maps that would win them large majorities in both states at the start of the decade, but later backfire on the party in only one of them. Although the maps may have been superficially similar, the Pennsylvania map was actually much more risk-acceptant in its tactics, while the Florida map was more risk-averse, placing Republican incumbents in a much safer situation.

Republicans in Pennsylvania, faced with losing two seats due to reapportionment, sought to increase their advantage by packing incumbent Democrats together. The final plan was delayed by a series of inter-chamber disagreements and court challenges (see Vieth v. Jubilerer), but ultimately a map was adopted to give Republicans a thirteen-to-six advantage by eliminating a district in each of Pittsburgh and Philadelphia and placing six Democrats in districts with other incumbents. Two Democrats chose to retire and one lost in a primary, but one unexpectedly defeated a Republican incumbent, resulting in a 12–7 advantage for the Republicans following the 2002 election. Still, this was a result that pleased national Republican leaders.

But in drawing such a bold map, the governing party did not anticipate the partisan shifts that their state would experience over the decade, particularly as voters in suburban Philadelphia increasingly identified as Democrats. Few of the Republican-held seats could be called truly safe: President Bush received 52% of the vote or less in seven of these twelve seats in the 2000 election. So the Republicans, relying on the moderate party brand remaining viable in many of the suburban swing seats, were buried under the Democratic tide of 2006. That year, four incumbents were defeated (with another losing in 2008), some by scandal and others simply by changing demographics. The Republican wave of 2010 restored the map to a five-seat GOP advantage, a majority further exaggerated by another Republican gerrymander in 2012.

Republicans in Pennsylvania, attempting to win more than two-thirds of the seats in an evenly matched state, gambled on assembling swing districts that they hoped to win merely by running moderates or popular incumbents. So it is unsurprising that things did not go as planned for Pennsylvania Republicans when tides turned against them. Had the mapmakers not been so willing to take risks, dividing pockets of moderates into Republican districts in order to eliminate as many Democratic seats as possible, some of their doomed incumbents may have survived the massacres of 2006 and 2008.

The Republican map of Florida represents this alternative, a “moderate” partisan gerrymander compared to the more “aggressive” Pennsylvania. Florida’s Republicans already had a 15–8 advantage going into a decade in which the state would gain two seats. The party targeted only one Democratic incumbent, drew a new seat around Orlando for State House Speaker Tom Feeney, and drew another new seat in Southern Florida for a Cuban-American Republican, while still strengthening the districts of several of their senior incumbents. Fourteen of these seats were won by Bush with at least 54% of the
As a result, the GOP weathered the storms of 2006 and 2008 much more successfully than in Pennsylvania, losing only three seats and still retaining 60% of the state’s delegation. The seeming unresponsiveness and bias of this result led votes to approve a state constitutional amendment in 2010 prohibiting the legislature from drawing future district boundaries to benefit one party.

The range of “aggressiveness” (i.e., willingness to risk their own party’s seats to maximize expected seats) that partisan mapmakers chose in the 2000s is depicted in Figure 4 below, which gives a visual representation of two Republican-controlled gerrymanders (Pennsylvania and Florida) and one bipartisan gerrymander (California) used in the 2002 elections. The x-axis in these density plot figures represents how heavily Republican a congressional district is (measured by Cook PVI), while the y-axis represents the share of congressional districts in each state with that level of partisanship.

We immediately see the stark difference between the partisan maps and the bipartisan one. The Republican maps have a clear slightly pro-Republican peak, accompanied by several extremely safe Democratic districts (usually majority African-American). In contrast, California has no districts in the middle of the graph (indicating districts that would be competitive at the presidential level), and a clear bimodal distribution of both strongly Republican and strongly Democratic districts. In this map, we would expect very few competitive elections unless tides in favor of one party or the other were almost historically extreme.

Although each Republican map seems to have more districts on the Republican side of 0, the aggressiveness of each map differs, as does their propensity to withstand changes in political climate. In Pennsylvania, the bulk of congressional districts lie between D+2 and R+4; Republicans in Pennsylvania drew several swing districts that they were counting on factors like incumbency and continued close national elections to hold. But Florida, with a peak around R+6, is a much more risk-averse gerrymander, containing many districts reinforced from mild swings toward the Democratic Party.

**FIG. 4.** Partisan balance of districts in four states, 2002 (density plot).

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4Cook PVI is a measure of how strongly Democratic or Republican a congressional district leans in presidential elections compared to the nation as a whole. It is an average of the deviation of the district’s two-party presidential vote from the national vote over the two immediately preceding presidential elections. In the figure, PVI’s more extreme than 20 or –20 are coded as 20 and –20 respectively, and a simple smoothing function has been applied.
II. DIMENSIONS OF REPRESENTATION

The remainder of this article will discuss how these variations in aggression and partisan balance across gerrymanders, in interaction with partisan tides, impact four measures of normatively good representation.

A. Bias and responsiveness

The first two measures of representation to address relate solely to the partisan make-up of the delegation. In framing how votes for a political party translate into seats in a legislature, it is often useful to think about a line or curve with two parameters: a “slope” indicating the percentage of votes that must change in order to induce a percentage change in the number of seats, and an “intercept” indicating the number of seats that will be won by each party when the election in tied (Tufte 1973). We might term this slope as the “responsiveness” and the intercept as the “bias.” And, as advanced by Tufte, most would accept it to be normatively advantageous for an electoral system to be responsive (a positive slope) and unbiased (a bias of zero).

Bias is commonly measured by comparing the vote share in the median district when the vote share across the state is evenly split, or some other method of determining seat share in a tied election (e.g., Niemi and Deegan 1978, King and Browning 1987, McDonald et al. 2011). But asymmetric responsiveness is also a form of bias. Such methods ignore the fact that bias may also occur when the election is not tied: if one party wins 70% of seats when it wins 55% of the vote, but 45% of seats when it wins 45% of the vote, such a map should be considered biased even if the same party wins exactly 50% of seats with 50% of the votes (see Stephanopolous and McGhee 2015 for an analysis measuring bias averaged across elections over recent decades). Thus, we can evaluate both the bias and responsiveness of a map simultaneously by comparing seats won to some historical seat expectation at various levels of vote share.

Past research into the bias and responsiveness of partisan gerrymandering in particular has often reflected the short-term tides in the era they studied, yet it has been rare that such studies have taken a longer view and analyzed the effects of districting institutions across many decades and electoral environments. For example, research arguing that partisan maps during the mild and predictable tides of the 1980s were very effective at creating bias (Owen and Grofman 1988, Cain 1985) countered studies showing little effect of partisan gerrymandering in 1970s, which featured big swings toward both parties (Squire 1985, Glazer et al. 1987). With respect to nonpartisan commissions, Winburn (2004) and Hill (2008) find little effect of commissions on partisan bias, while Chen and Rodden (2013) find that neutral maps may in fact create unintended pro-Republican bias. Research has also shown the potential high responsiveness of partisan gerrymanders through backfires during adverse tides, but mostly though anecdotal examples of individual states and election years (e.g., Grofman and Brunell 2005, Seabrook 2010).

So how do partisan, nonpartisan, and bipartisan gerrymanders influence bias and responsiveness of congressional elections? It is commonly found that single-member majority-rule districts tend to translate vote majorities into larger seat majorities, indicating a slope great than one; the slope in U.S. congressional elections is often found to be around 2 (e.g., Tufte 1973, Goedert 2014a). The relationship between seats and votes under one regime could be considered unresponsive if it displays a responsiveness slope much below 2, and hyper-responsive if this slope is substantially greater than 2.

Table 1 below shows the mean GOP congressional vote by district in the five state examples from the previous section along with the share of seats won in each state in two contrasting election cycles: the very narrow Republican win in 2004 and the much larger Democratic wave in 2008. Alongside the percentages, I have calculated an “Expected GOP Seat %” given the vote share; this is based on the historical average 2:1 seats/votes slope in congressional elections with no bias present (see Tufte 1973, Goedert 2014a for details). This unbiased historical expectation allows us to estimate the bias in a map (the last column in Table 1) not just when the vote is tied, but under all electoral conditions. During wave elections, unresponsive maps will show bias against the winning party, while hyper-responsive maps will show bias in favor of the winning party.

Bipartisan Gerrymander (California): The gerrymander with essentially no swing districts is relatively unbiased under the close election
condition (2004; 3% GOP bias), but because its delegation does not adapt by electing more Democrats in 2008 it actually appears biased in favor of Republicans under strong Democratic tides. California thus follows the pattern of an unresponsive map.

- **Nonpartisan Gerrymanders (Iowa and Arizona):** In contrast to California, these maps are hyper-responsive to trends; with 38% of seats changing parties between 2004 and 2008. Thus, the maps appear biased toward Republicans under the mild Republican tides of 2004, but biased toward Democrats following the 2008 wave. Arizona and Iowa thus follow the pattern of hyper-responsive maps. Compared with other institutions, maps designed to create competitive elections may yield too much change, leaving partisan minorities underrepresented.

- **Partisan Gerrymanders (Pennsylvania and Florida):** As expected, both maps are biased toward Republicans when the national election is close to even. But under the Democratic wave of 2008, the more aggressive partisan map (Pennsylvania) backfires, yielding a Democratic-majority delegation that appears both responsive and unbiased. The less aggressive map (Florida), however, remained Republican-controlled, and thus tilts in an even more biased direction. So whether we view partisan map as biased and responsive or not depends both on the national tide and the specific tactics (i.e., the level of aggression) used by partisans in a particular state.

## B. Competitiveness

In addition to bias and responsiveness, we might also consider not just the partisan results, but the overall competitiveness of seats and individual races as a normative good: if candidates are forced to run in closely contested elections, they will be more responsive to voters, and races might more frequently draw high-quality candidates on both sides. There has been considerable research measuring the effect of gerrymandering on competition, in various cases using close races, turnover, or quality challengers as dependent variables, but with very mixed conclusions. This research has primarily focused on two questions: whether recent declines in congressional competition can be blamed on legislative districting, and whether reforms toward nonpartisan commissions or standards would increase it. However, very little research has examined how gerrymanders and partisan tides interact.

On the first question, legislative districting in the decades after the reapportionment revolution has been blamed for a reduction in marginal districts or close elections in several studies (e.g., Tuft 1973, Cox and Katz 2002, Hirsch 2003, Cain 2005, McDonald 2006). But other scholars remain much more skeptical about the effect of districting on competition (e.g., Glazer et al. 1987, Ferejohn 1977, Masket et al. 2012, Abramowitz 2006). Moreover, a few studies distinguish between partisan and bipartisan maps, and argue that partisan gerrymanders actually increase competition under certain circumstances (Gopoian and West 1984, Gelman and King 1994, Yoshinaka and Murphy 2011, Murphy...
with independent commissions found to increase competitiveness (Carson and Crespin 2004, Lindgren and Southwell 2013).

How did gerrymandering impact the competitiveness of our five case study states in the 2000s? Table 2 shows two measures of competitiveness for our five example states: close elections over the course of the entire decade (defined as one party winning with less than 55% of the vote), and partisan turnover in between 2004 and 2008. Both measures yield similar conclusions. As envisioned, the two nonpartisan states do yield more close elections than any of the maps drawn by legislators, with 23% of elections being close. In contrast, only 5% of elections in California over the past decade were close, with only one seat changing parties. The two partisan maps fall somewhere in the middle on both measures.

However, when we look at partisan maps in the bigger picture, their competitiveness is again deeply affected by short-term partisan tides, in ways that seems almost paradoxical. Recently, it seems that close national competition has lead to less competitiveness at the local level, and this phenomenon is borne out looking further into the past, at least as far back as the equal-population standard has been applied to congressional districts. The top left quadrant of Figure 5 shows the correlation of the proportions of close races (the number of races won by less than 10% of the vote) in each congressional election cycle from 1972–2010 with national tides (the margin of victory for the winning party in congressional popular vote); as the national popular vote gets closer, the number of competitive races tends to decline (significant at p < .05).

So what explains this “pseudo-paradox” that less national competitiveness correlates with greater local competition in congressional races? The remaining three quadrants of Figure 5, breaking down races by redistricting regime, reveal that the pseudo-paradox appears limited only to states with partisan gerrymanders. When we isolate only the partisan maps, the negative effect of national competitiveness on local competitiveness is strengthened (and significant at p < .02). But the magnitude of tides has no effect on competitive elections under bipartisan maps, which follows if these maps drew districts safe enough for both parties to withstand strong tides in either direction. Moreover, the coefficient for the nonpartisan maps is in the opposite direction of partisan maps, although not significant due to the high variance from the small sample size; this would also follow if such maps tended to draw many “naturally” competitive districts. While nonpartisan maps consistently yield many close elections, and the bipartisan maps consistently yield few, the number of close contests under partisan maps is very much influenced by the electoral environment, with national landslides leading to more close elections, particularly under maps drawn by the party adverse to the tide.

C. Congruence

In addition to the shape of the legislature as a whole or the competitiveness of elections, we might also think it is important for a voter to feel closely represented by the person or persons elected in district where the voter lives. Voters might feel more satisfaction with the electoral process if their own representative, who they voted for, was congruent with their own views, rather than needing to rely on a distant national party, with representatives elected from various other districts, to “virtually” represent them.

The contrast between “personal representation” and “virtual representation” in the U.S. legislature dates to the early stages of the American Revolution. Arguing against the claim of “taxation without representation,” members of the British Parliament countered that although American colonists had no direct power to elect members of Parliament, their interests were still “virtually represented” by other members who voted in line with American interests.

Under this definition, 14% of all congressional elections over the past 40 years have been close.

For the purpose of Figure 5, each state is coded for its redistricting method at the beginning of the relevant decade, and recoded in a few cases of mid-decade redistricting; states with three or fewer congressional districts or maps drawn purely by courts are excluded.
Regardless of whether the British were in fact looking out for the American colonies, we see the enduring desire to have congruent representatives under one’s direct electoral control, personally assigned to represent one’s own interests, in lieu of merely having someone in the legislature defending those interests.

The fact that single-member districts allow for such direct “actual” representation (that can be responsive through individual constituent services, for example), may be an advantage of the American system over systems more balanced toward national proportional representation. In the gerrymandering context, we might ask, should a voter care that their individual representative disagrees with them on most issues, as long as there are a sufficient number of agreeable members elected from other districts? Scholars advocating for “safe districts” in fact use the satisfaction of voters with their own representation as a crucial metric in their argument. Brunell (2008) argues that voters are happiest not when elections are competitive, but when a candidate ideologically close to them wins, thus maximizing satisfaction when all like voters are packed into homogenous districts where one party is nearly guaranteed election. Buchler (2005) constructs a model showing how safe districts maximize voter utility. And Brunell and Buchler (2009) show empirically that competitive elections reduce voter trust and efficacy, and increase ideological distance between voters and their representatives.

So although nonpartisan maps appear effective in creating responsiveness and competitiveness, they may perform worse on this measure. In the case studies, it does appear that the nonpartisan gerrymanders designed to create competitive elections have yielded highly polarized delegations that may alienate many voters in these moderate districts. Two of Iowa’s representatives at the start of the decade, Leonard Boswell and Jim Leach, were among the most centrist members of the House. But the tides of 2006 saw the unexpected defeat of Leach, and the election of two very liberal Democrats (as ranked by the National Journal) to serve alongside extreme Tea Party Republican Steve King. And the deliberate creation of competitive districts does not seem to have lead to moderation among Arizona’s delegation, which in the early 2000s featured four of the most conservative Republicans in the House (Franks, Shadegg, Hayworth, and Flake), along with the current co-chair of the House Progressive Caucus (Grijalva).

It appears that contentious elections in both Iowa and Arizona have yielded winners that will leave a large portion of voters in each district unhappy, although which portion that is changes from year to year. The nonpartisan process in Iowa has generated a map that seems to assure competition but not...
necessarily a balanced delegation. California’s delegation also includes several ideologically extreme members, but they are almost all elected from similarly ideologically extreme districts where voters are more likely to be satisfied with them.

As a more robust test in forthcoming research, I have quantified the congruence between constituents and their own representatives in the last 2000s by developing ideology scores for respondents of a large-scale Internet survey (the 2008 Cooperative Congressional Election Study) on a common scale with members of the 110th and 111th Congresses (see Authors 2014 for complete results and methodology). This method shows that Iowa and Arizona produced delegations that were significantly more ideologically distant from their constituents than either states with bipartisan gerrymanders or partisan gerrymanders; the “safe-seats” bipartisan gerrymanders produced delegations with the greatest congruence between voters and their representatives, in line with the claims of Buchler and Brunell.

III. CONCLUSION

This article has shown through five example states how our judgment about a redistricting regime can depend not only on what metric we evaluate it under, but also in what electoral environment we observe it. Nonpartisan commission states that succeed in creating competitive elections may fail to draw districts that closely link voters with their representative. Bipartisan maps that do draw homogenous districts may be unbiased when the national election is tied, but fail to appropriately respond to changes in voter preferences over time. And even aggressive partisan maps that are severely biased in one direction in a closely contested environment may backfire and swing the other way under strong national tides, promoting both competitiveness and congruence between voter and legislator at the same time. The patterns shown in this article are of course limited to just a handful of states during a single decade of elections, so much more research is necessary on a larger scale to convincingly demonstrate the causal interaction of tides and gerrymandering on various facets of representation.

Thus, there will always be trade-offs demanded in choosing districting methods or standards. I do not mean to suggest that proposed reforms cannot improve representation. Rather, such reforms must be made with two larger considerations in mind: the competing normative demands that voters will place on any system of representation, and the various national conditions under which elections might occur. Maximizing only one measure of representation, or only considering a small range of electoral environments, will often to lead to unanticipated consequences that breed more problems than they solve.

REFERENCES


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