

# Gerrymandering Reform in Pennsylvania

## Introduction

Every ten years, after the census, every legislative district in the United States must be redrawn, and someone must do the drawing. This process is fraught with theoretical, practical, and political concerns, and there is no easy solution. However, while biased redistricting is impossible to eliminate, minimizing the partisan effects is still worthwhile.

In particular, redistricting is hard because there are many goals: equal population districts, preserving communities and political divisions, geographical compactness and contiguity, and fairly representing minority voters, to name a few. These concerns often end up at cross-purposes: solving one problem can create others. Many types of redistricting reform have been tested in the states, and many have been successful, so there is hope to at least ameliorate the current problems with the legislative redistricting process.

This paper begins by discussing the theoretical foundations of gerrymandering, and the issues that make redistricting hard to do fairly. From there, I continue on to an examination of the empirical literature on redistricting and related issues. Next, I discuss a number of the gerrymandering reforms that have been tested in the states. Finally, I propose a set of recommendations for Pennsylvania: in short, expanding existing redistricting reforms and including Congressional redistricting in the existing special processes. These reforms are, I hope, both feasible and a significant improvement in the representation of Pennsylvanians in the state legislatures and the U.S. House.

## **Theoretical foundations**

Redistricting is a fundamentally complex and important problem for several reasons. It is a problem with many conflicting goals, both political and nonpolitical, and the results ultimately matter to the core of our democracy – the representation of citizens in the legislature.

### **The difficulties of redistricting**

Many concerns enter into redistricting. Even before politics enters into the picture, many different goals are often at odds. First, one might desire districts which keep intact traditional political divisions, such as cities, counties, townships. This is convenient for the purposes of tabulating votes, and allows representatives to coordinate with local officials and respond to local community leaders. It also makes it easier for voters to tell who their representative is, and therefore, presumably, to hold them accountable.

In a more abstract sense, the courts have upheld districting plans with the intent to organize districts around “communities of interest” – groups which would not necessarily be able to elect a candidate of their own in a statewide election, but which can, given a district of their own. For example, the Voting Rights Act requires the creation of so-called majority-minority districts, where a majority of the voters in a single district belong to a particular minority group. This is designed to allow minority candidates who might never get elected by white voters a chance, giving minorities representation in the legislature.

Finally, many state districting rules articulate a desire for geographically compact districts. Justifications for compactness vary, but the most common is that oddly-shaped districts are indicators of political maneuvering. On an issue where voter perceptions can matter as much as the actual motives of those in power, appearance matters, and compact districts have a natural aesthetic appeal. For similar reasons, many states also require that districts be contiguous, although the treatment of water in connecting disparate parts of

districts often stretches this criterion. (Levitt 2008, 50) Compactness in particular is interesting in that defining it in practice is difficult. Many different mathematical measures have been proposed, some more sophisticated than others. The simplest is perhaps the ratio of the perimeter of the district to its area, a ratio which is minimized by a hypothetical circular district. Michael McDonald's *Midwest Mapping Project* uses that and six more metrics (McDonald 2009, 14–15); his “Better Automated Redistricting” program uses three other, fairly sophisticated statistical measures (Altman and McDonald 2011, 11). Rather than choosing a particular mathematical measure, courts have often relied on an approach of “I’ll know it when I see it” (McDonald 2009, 13).

Once deliberate political manipulation enters into the process, even more goals emerge. Given a state with a substantial majority of one party, depending on how districts are drawn, this could translate into an overwhelming majority for that party, or into a majority for the opposition. Consider for example a state with 60 Democrats, who will always vote for the Democratic candidate, and 40 Republicans, who will always vote for the Republican candidate; suppose ten districts must be assigned. One obvious assignment is to assign six all-Democratic districts, and four all-Republican districts; then the legislature will exactly reflect the population, although it will have no competitive districts. If the each district contains six Democrats and four Republicans, the Democrats will have literally unanimous support in the legislature. On the other hand, if the districts are assigned such that there are six districts with six Republicans and four Democrats each, and the remaining four districts have a single Republican and nine Democrats each, the Republicans will gain control of in the legislature even in the absence of a popular majority. This strategy, of packing opponents into a few districts to minimize their electoral power, is one of the standard keys to partisan gerrymandering.

## The importance of representation

There is a litany of literature on whether legislators are responsive to their constituents. It is unclear whether citizens even know how their legislators are voting, and whether they have the capability and the desire to translate that information into accountability. However, there is good evidence that legislators do have at least some accountability to their constituents. Ansolabehere and Jones give evidence that legislators take constituents' views into account, especially when voting against their party leaders (Ansolabehere and Jones 2010). Gilens, on the other hand, finds that legislators respond to upper-income voters, and to lower-income voters only if they agree with their more affluent peers (Gilens 2012). In any case, most of the empirical literature agrees that, at least under some circumstances, politicians are responsive to at least some of their constituents. Then if some voters are being underrepresented due to gerrymandered districts, we may expect that this will have real policy consequences. If the drawing of districts consistently gives voters of a particular ideology an advantage, it is likely that that ideology will be overrepresented in the decisions of the elected government.

Another issue is the makeup of the ideal district, even independently of concerns about the makeup of the whole legislature. One can imagine several types of district. One district might consist almost entirely of strong partisans from a single party; in this case, the legislator is likely to hew to the views of the median primary voter in that party. Another district might have a bimodal distribution of ideology, with strong partisans of both parties and few moderates. In this district, whichever party controls a simple majority of the votes will get to choose the candidate; the views of the minority partisans will be ignored as long as they remain in the minority. Finally, another district may have a unimodal distribution of ideology, with mostly moderates and some partisans on each side. In this case, at least ignoring the complex effects of the primary process (Brady, Han, and Pope 2007), we expect to see a fairly moderate legislator. Even in a net-unbiased legislature, the first model should

result in a fairly polarized legislature with few competitive races; the second, a polarized legislature, albeit with more competitive races; and the third, we may hope, a legislature with more moderates. These moderate districts may be difficult to construct: while America is to a surprising extent mixed ideologically at the national and state level (Ansolabehere, Rodden, and Snyder Jr. 2006), at the more local level, there are many pockets of dense partisanship, especially urban pockets of Democrats (Rodden 2010).

The representation of minorities and regional interests is one where the normative goals may be unclear. Consider for example a state with equal parts white Democrats, white Republicans, and black Democrats, and suppose that each group prefers its own candidate, but the whites prefer any white candidate to any black candidate, and the black Democrats prefer Democratic candidates to Republicans. If the state is split equally into three districts, all three representatives will be Democrats, but there will be no minority representatives. In order to secure the black Democrats a representative of their own by means of a majority-minority district like those required by the Voting Rights Act, the Republicans must also be able to carry one district; now each group will get a single legislator (Brace, Grofman, and Handley 1987). This puts descriptive minority representation, that is, a legislature which looks demographically like its constituents, in conflict with substantive representation, that is, a legislature which maximally represents the ideological preferences of minority voters. Similar arguments may be made for other communities of interest or regional voting blocs.

Just as the goal for minorities in redistricting may be unclear, so incumbent legislators have their own incentives which may conflict with those of their legislative allies or their party. When given the choice, incumbents generally prefer to keep much of their current districts; furthermore, they are averse to competition with other incumbents. Since most states require that representatives reside in the district they represent, this means that incumbent protection can become a very real part of the gerrymandering process. Incumbents must choose between maximizing representation for their party and drawing themselves safe

districts – the very safe, “packed” districts that incumbents most prefer are exactly those that gerrymanderers try to assign to their opponents!

Thus, from both the perspective of the intermediate goals of the districting itself, and the root goals of representation in the legislature, both prospective partisan gerrymanderers and concerned citizens often see multiple possible conflicting goals. Resolving these is one of the challenges of redistricting.

## **The realities of gerrymandering**

Clearly district-drawing is complex in theory, and gerrymandering is possible. The question remains: to what extent does it happen in reality? Are districts drawn in biased ways? Is this due to intentional gerrymandering? The empirical literature comes to several conclusions. First, there is a consistent Republican bias in districting across the country due to political geography. Second, this bias is moderated or exacerbated by the party in control of the redistricting process – both parties gerrymander when they get the chance. The questions raised in the previous section about the efficacy of majority-minority districts also admit empirical analysis; here the conclusions are more mixed. In this section, I review the national literature on these points, then look in particular at the situation in Pennsylvania.

### **Seats-votes curves and partisan bias**

The simplest way to look for evidence of partisan bias in a districting plan is to simply look at the vote margins in each district. If one party consistently wins with fairly close margins, where the other wins by large margins, then whether or not the gerrymandering was intentional, the plan likely has a bias towards the former party; the latter party’s supporters are packed into a few districts.

One tool for looking at the effects of a districting plan is its seats-votes curve. In short,

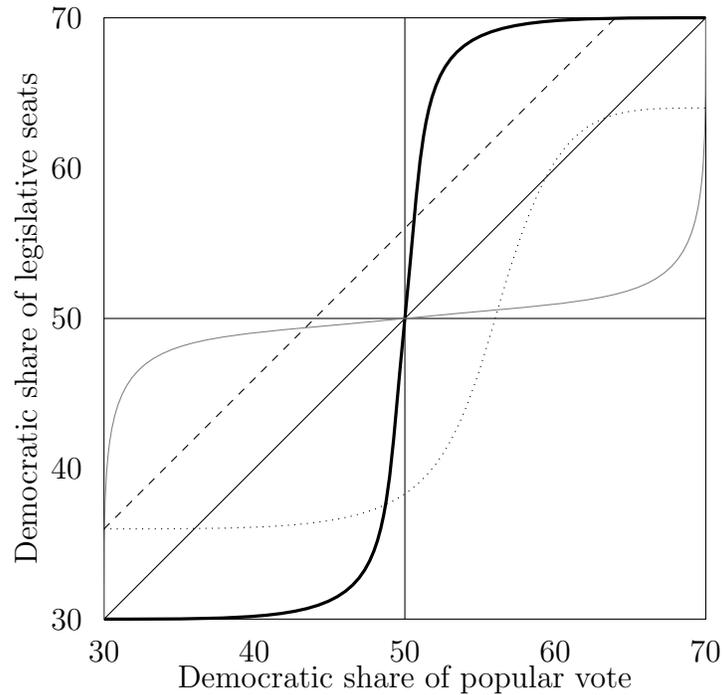


Figure 1: Seats-votes curves in a hypothetical legislature. The solid diagonal line represents a perfect proportional representation. The thick line represents an unbiased legislature which is very responsive to small shifts in the vote, as might result from a plan with many evenly split districts. The gray line represents an unbiased legislature which is very unresponsive to small shifts in the vote, as might result from a plan with many polarized districts. The dashed line corresponds to representation biased towards the Democrats, and the dotted line corresponds to a very responsive legislature biased towards the Republicans, as might result from partisan gerrymanders.

the seats-votes curve is a graph of the number of seats in the legislature assigned to one party as a function of its aggregate popular vote. This allows us to look at both the responsiveness of the legislature to shifts in popular opinion, and at a potential partisan bias in the plan overall. Figure 1 shows some sample seats-votes curves in a hypothetical legislature.

Goedert uses national popular vote data to compute a national seats-votes curve for congressional elections in the last forty years. Over the full period, the seats-votes curve is slightly above the diagonal line, representing a Democratic bias. However, recent elections lie below the line, representing a Republican bias; 2012 is a particular outlier to the Republicans'

benefit. (Goedert 2013)

However, the seats-votes curve alone reveals only bias, not intention. Goedert repeats his analysis on the 2012 elections in the states where the redistricting process was controlled by each party, or by a bipartisan or court process. He finds that while there is a significant Republican bias across the board, the party that controls the process can either wipe out that bias, in the case of the Democrats, or double it, in the case of the Republicans. While the evidence presented is on a small number of cases – at most a dozen states fall into each category – it is strong enough to lend some support to the hypothesis that partisan gerrymandering can strongly bias the seats-votes curve.

## **The effect of political geography**

This begs the question: why is there a net Republican bias even across plans with different authors? While Democratic gerrymanders were able to extract some partisan bias, they were nowhere near the magnitudes extracted by several Republican legislatures. The explanation proposed by several authors is political geography. Democrats tend to be clustered in denser pockets in urban areas, while Republicans are spread across the suburbs, and generally mixed with Democrats. This effect has existed to some extent for a long time, but in the last 20 years has become fairly strong – in most congressional election years, there are a substantial number of districts which swing more than 90% towards the Democratic candidate, but few that swing more than 70% towards the Republican candidate (Rodden 2010). These ultradense urban concentrations naturally pack Democrats into a few districts, biasing the results towards Republicans.

One way of looking at the effects of geography is through simulated redistricting. While drawing plans that fit all legal criteria can sometimes be complex (Altman and McDonald 2011), it is possible to write a computer program that randomly assigns precincts to dis-

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<http://www-personal.umich.edu/~jowei/UnintentionalGerrymandering/SupplementaryMaterials.pdf>

Figure 2: Sample districts drawn by Chen and Rodden. The left map shows an example of their algorithm to draw compact districts; the right one shows an example of their algorithm to draw districts independent of compactness. Both represent potential maps for Florida's congressional delegation of 25 members. (Chen and Rodden 2013, Figure A1)

districts, possibly with certain criteria to ensure compactness. Chen and Rodden conduct such a simulation, for two districting algorithms: one designed to ensure compactness and one designed to ignore it; sample districts are shown in Figure 2. Using votes from the 2000 presidential election, they conduct a detailed analysis of Florida districting. Running hundreds of simulations for every possible legislature size from 2 to 200, they find few plans that give a Democratic advantage; the average plans for each legislature size give Republicans advantages varying from 55% to 62%. However, some Republican advantage remains. This is consistent with the fact that, according to their data, even the real Democrat-proposed plans result in a fairly even split of the legislature: this is the result of Republican geographic advantages, not a stronger Republican attempt to gerrymander. (Chen and Rodden 2013)

## Majority-minority districts and the Voting Rights Act

In order to allow minority voters to elect candidates of their choice, the Voting Rights Act requires that, when possible, geographic concentrations of minority voters with generally

similar views be aggregated into districts where they represent a majority, in order to allow them to elect candidates of their choice. This poses a problem, since packing minority voters into a few districts is, according to conventional gerrymandering wisdom, exactly what their political opponents should aim to do.

Cameron, Epstein, and O'Halloran analyze the effects of majority-minority districts on representation. They compute the likelihood of electing Republicans, nonblack Democrats, and black Democrats as a function of the percentage of district population which is black. To impute the black support for nonblack candidates, they used the scores of the representatives given by the Leadership Conference on Civil Rights (LCCR) and their support for measures in which more than 60% of black representatives voted alike. By computing the expected representative LCCR score as a function of the percentage of the voting age population that is black, they are able to determine the district assignments which maximize the expected LCCR score of the legislature. In the South, they find that near-majority-minority districts, i.e., those with just under a majority of black voters (since some white voters will vote with the blacks), are the most advantageous. However, outside the South, they find that equal distribution of black voters is actually better for substantive representation. The exact optimal percentages are dependent on the national tide, but the qualitative advice remains the same. While the sheer number of black representatives may be increased by majority-minority districts, their policy goals will actually be furthered by being spread out. (Cameron, Epstein, and O'Halloran [1996](#))

## **A look at Pennsylvania districts**

Figures [3](#), [4](#), and [5](#) show the Pennsylvania House, Senate, and Congressional districts for both the current and previous redistricting cycles. Just by looking at the maps, few egregiously noncompact districts stick out on the House and Senate maps. Both the current and

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<http://aws.redistricting.state.pa.us/Redistricting/Resources/GISData/Districts/Legislative/House/2001/MAP-IMAGES/House-StateWide.jpg>

<http://aws.redistricting.state.pa.us/Redistricting/Resources/GISData/Districts/Legislative/House/201-2011-Revised-Final/PDF/2011-Revised-Final-Plan-Map-House.pdf>

Figure 3: Pennsylvania State House districts, 2001–2 and 2011–2 redistricting cycles. (PA Legis. Data Proc. Center 2012a)

Content removed due to copyright restrictions. To view the maps which make up Figure 4, go to:  
[http://aws.redistricting.state.pa.us/Redistricting/Resources/GISData/Districts/Legislative/Senate/2001/PDF/SenateDistricts\\_2001.pdf](http://aws.redistricting.state.pa.us/Redistricting/Resources/GISData/Districts/Legislative/Senate/2001/PDF/SenateDistricts_2001.pdf)

<http://aws.redistricting.state.pa.us/Redistricting/Resources/GISData/Districts/Legislative/Senate/2011-2012-Revised-Final/PDF/FinalSenatePlan2012.pdf>

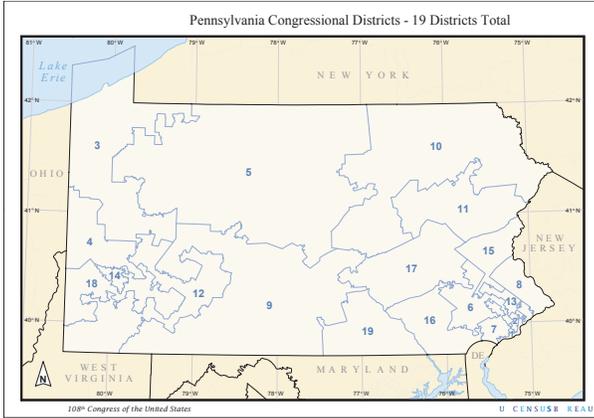
Figure 4: Pennsylvania State Senate districts, 2001–2 and 2011–2 redistricting cycles. (PA Legis. Data Proc. Center 2012b)

previous Congressional maps include quite oddly shaped districts; see for example the 12th district in the 2002 plan or the 7th district in the current plan. In addition, the districts do not follow traditional political or community boundaries. For example, in the 2002 and previous districting plans, the 15th Congressional district contained the entire Lehigh Valley (Lehigh and Northampton counties); in the 2012 plan it cut it apart, even cutting through municipalities to get the right proportions of voters.<sup>1</sup> The 6th district stretches all the way from the Philadelphia suburbs to the farmlands in the middle of the state, with no clear reason for doing so.

The vote totals (shown in Table 1) from the last several Congressional elections also suggest gerrymandering at work. In the 2002 districting plan, used through the 2010 elections,

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1. This is the author's home district.



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<http://www.redistricting.state.pa.us/Resources/GISData/Districts/Congressional/2011/PDF/2011-PA-Congressional-Map.pdf>

Figure 5: Pennsylvania Congressional districts, 2001–2 and 2011–2 redistricting cycles. (Census Bureau 2011)

Year	Total		Winners	
	Dem	Rep	Dem	Rep
2002	43.8%	56.2%	7 (71.4%)	12 (78.3%)
2004	53.8%	46.2%	8 (86.5% <sup>2</sup> )	11 (66.9%)
2006	56.1%	43.9%	12 (68.7%)	7 (59.1%)
2008	55.8%	44.2%	12 (65.8%)	7 (60.3%)
2010	48.1%	51.9%	7 (67.7%)	12 (61.8%)
2012	50.8%	49.2%	5 (76.3%)	13 (59.5%)

Table 1: Vote totals from Pennsylvania Congressional delegation, 2002–2012. The first pair of columns gives the total statewide popular vote for each party. The second pair of column gives the number of winners from each party, and their average winning majorities. The data omits minor party and independent voters and counts unopposed candidates as having 100% of the vote. (Data from PA Dept. of State 2012)

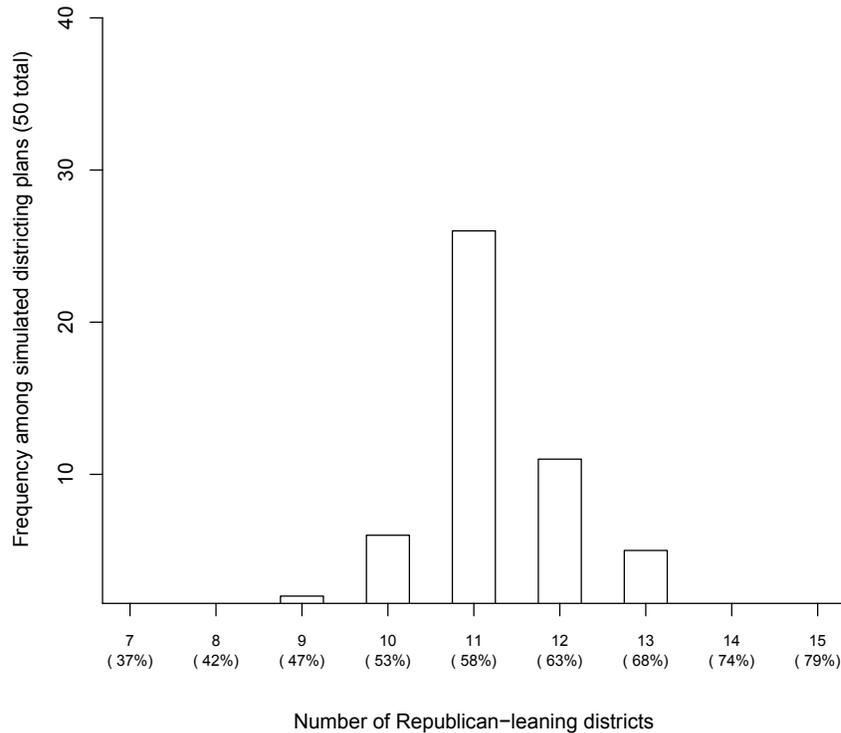


Figure 6: Number of Republican-leaning districts in simulations of districting in Pennsylvania. (Simulation data and graph-drawing code from Chen and Rodden 2013 supplementary materials, available on Chen’s website or with the article online.) Note that the 2012 elections were close to tied statewide, but resulted in 13 out of 18 seats going to the Republican candidate.

there appear to be a slight Republican bias, which could plausibly be explained by geography alone. However, in 2012, the Democrats did significantly better in the popular vote than in 2010, but won fewer seats; the winning margins also suggest an increase in gerrymandering which is unlikely to be explained solely by changes in political geography over just two years.

The simulations of Chen and Rodden support this hypothesis.<sup>3</sup> In their noncompact sim-

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3. Chen and Rodden focus on Florida, but they do run a limited number of simulations on the actual state House and Senate and Congressional districts for a number of other states including Pennsylvania. More detailed data on those simulations is available in their supplementary materials, on Chen’s website or with the article online; it is from this data that we work.

ulations of Pennsylvania districting, the majority resulted in 11 Republican-leaning districts, so geography alone can explain the moderate Republican bias of the 2000s. However, the amount of bias in the 2012 plan, in which a slight Democratic popular majority resulted in 13 Republican seats, is near the margin of the outcomes obtained from Chen and Rodden’s algorithm.

In summary, gerrymandering is clearly a problem in the current Pennsylvania Congressional districting. The empirical evidence from looking directly at the vote totals and from Chen and Rodden’s simulations backs up the intuition from looking at the district map that, in the words of a *Real Clear Politics* commentator, Pennsylvania may be the “gerrymander of the decade” (Trende [2011](#)).

## Institutions and reforms

Different states draw new legislative districts in a variety of ways, which have different effects on the districts drawn. Some states use normal legislative process to pass a redistricting bill. Some states appoint a special partisan commission; some states appoint a bipartisan commission to draw the districts; some appoint a nonpartisan commission. In addition, some states impose requirements on the districts drawn, either on geography (e.g. compactness and contiguity) or on outcomes (e.g. competitive districts). Finally, some states require court review of redistricting plans. Pennsylvania currently uses legislative process for congressional districting and a bipartisan commission for state legislative districts.

### Legislative process and partisan commissions

The most basic of redistricting institutions is the legislature, which generally controls redistricting unless another body is specified. When under the control of a single party, legislative process generally results in a partisan gerrymander which also protects its incumbents – the

majority party has no incentive to compromise with the minority, but must help its own members to keep their support. A partisan commission, on the other hand, generally consists of party leaders or their designees, so generally responds directly to the leadership. Thus partisan commission gerrymanders tend to favor the party in power, but not necessarily its individual incumbents. (Winburn 2008, 43–44) This is consistent with the experience in Pennsylvania. The 2012 Pennsylvania districts are, as previously discussed, gerrymandered in favor of the Republicans who held control of the state government at the time. The claim about incumbent protection does not apply since the state legislators are drawing districts for federal representatives.

## **Bipartisan and nonpartisan commissions**

Some states use one of several schemes for a bipartisan or nonpartisan commission to draw districts. For example, Pennsylvania’s Legislative Reapportionment Commission (LRC) consists of the majority and minority party leaders from the state House and Senate (or their designees) and a single tiebreaking member, who must not hold a paid public office, and must be either elected by a majority of the other members of the commission, or, as a backup, chosen by the state Supreme Court. The final plan must be reviewed by the state Supreme Court. (PA LRC 2013) In Arizona, sometimes considered a model in the use of nonpartisan redistricting commissions, the state panel for selecting appellate judges chooses 25 candidates, of which the legislative majority and minority leaders each choose one. Finally, a nonmember is chosen by majority, or by the state Supreme Court if none can be appointed. (Levitt 2008)

Bipartisan and nonpartisan commissions have met with mixed success in the states where they have been used. Washington’s first bipartisan commission met with much public scandal, after its officials loudly ignored their legal requirements, flouted their partisanship, and

openly protected incumbents. However, all things considered, the maps they drew were generally considered reasonable, if somewhat incumbent-friendly. Idaho's first commission drew plans without much event, but they then met with legal challenges based on population discrepancies; it was not until the third proposed plan that one passed the legal challenges. (Winburn 2008)

Pennsylvania's bipartisan commission appears to work fairly well, at least in comparison to the legislative process. The districts that result are imperfect in many ways, but they do not appear to radically skew in one direction or the other, nor are there the same types of bizarrely-shaped districts that one can find in the Congressional map. This suggests that the Legislative Reapportionment Commission is generally working, and could be both tweaked and expanded to cover Congressional redistricting.

Some states impose additional constraints on the processes the commission may use. Some require that the commission only meet in public hearings, to encourage transparency. Others limit the information that can be used at certain points in the process. For example, Washington prohibits the commission from consulting party registrations and other political data, in addition to information about where incumbent legislators live. Such requirements can be difficult to enforce, but can also positively affect the perception of the process, if not the reality.

## **Geographic and outcome-based requirements**

No matter who proposes maps, many states impose requirements on the final product of these maps. First, all states must abide by the federal criteria from *Baker v. Carr* of equal population representation (to within 1% for Congressional districts and approximately 10% for legislative districts, although some states set stricter standards). Second, all states must abide by the constraints in the Voting Rights Act. In addition to its prohibition of

certain statutes like poll taxes, the Voting Rights Act requires that, when a racial group tends to vote as a bloc and will be unable to elect its candidates of choice if spread across many districts, it must, if possible, be organized into majority-minority districts to maximize minority representation. Some states extend these requirements with their own Voting Rights Acts.

Many states impose additional requirements on the final maps drawn. Many of these are geographic. Most states require that districts be contiguous, although they vary in how they deal with water – Hawaii only allows water to count towards contiguity if it includes a transit route such as a bridge or ferry, for example. Some states also require that the districts be as compact as possible. As previously discussed, there are many measures for compactness, but many states do not specify one, and leave it up to the courts' discretion. Many states also impose requirements on preserving political boundaries if possible. For example, Pennsylvania requires that counties, cities, towns, and wards may not be divided unless necessary when drawing legislative districts. Finally, some states require that redistricters aim to make districts competitive. For all such outcome-based requirements, enforcement can be an issue; usually it comes in the form of litigation by concerned parties. Some courts are eager to enforce such regulations; some are more hesitant.

Other forms of redistricting reform do exist, but bipartisan or nonpartisan commissions, process constraints, and geographic or outcome requirements constitute most of them. None of the potential reforms is a panacea, but especially when combined, many can have a significant positive impact on the redistricting process.

## **Policy recommendations**

So, while geography is a significant cause of partisan bias in redistricting, gerrymandering often exacerbates it, and creates other problems of its own. Thus, if redistricting reform is

feasible and likely to be effective, it should be implemented. The examples of other states such as Arizona which have taken the lead on redistricting reform, and even of Pennsylvania's own Legislative Reapportionment Commission suggest that redistricting reform can be both feasible and effective.

I recommend that Pennsylvania focus any redistricting reform on reducing systemic bias in districting. As secondary goals, we should aim to keep together geographic and minority communities, improve minority party representation, and promote competitive and moderate districts to improve responsiveness. The former requirement is a fundamental value judgement: that the political system should not favor one party over another. Promoting competitive and moderate districts, on the other hand, is important for practical reasons: it improves responsiveness and decreases polarization, which can be difficult to accomplish with methods such as primary reform.

In order to accomplish these goals, I recommend that Pennsylvania expand the commission that currently draws legislative districts to also draw Congressional districts. While this, like any reform, would not be a panacea, the state legislative districts are, at least to the eye, much less concerning than the Congressional districts; they show much less clear evidence of deliberate gerrymandering.

In addition, the current requirements on outcomes should be extended to the Congressional districting process and expanded. For example, the requirement to keep together political units when possible currently only applies to legislative districting, but would make equal sense for Congressional districting, and prevent districts like PA-7. A compactness requirement of some sort would be a welcome addition; I will leave it to the implementers to quibble about the particular metric, or to simply default to leaving it unspecified. These should come with enforcement mechanisms for court review – the current Supreme Court review of the legislative districts before adoption is a good model from which to build.

These changes may not be easy to implement, as they require legislators to voluntarily

give up power. Pennsylvania has no initiative process, which is how many such reforms have been enacted. However, there is precedent for adoption of redistricting reform even under such conditions. For example, after the Republican party leadership in Idaho took control of the redistricting process in 1980s to gerrymander to the benefit of the party, rather than incumbents, the legislature itself chose to enact reforms. (Winburn 2008) While an exact parallel does not present itself in Pennsylvania, the possibility remains open. Indeed, the Legislative Reapportionment Commission itself was established through the usual Constitutional amendment process.

## Conclusion

In short, gerrymandering is a very real problem in the United States in general and Pennsylvania specifically. While geography plays a significant role in partisan bias, it is not the sole problem, and gerrymandering is both effective and detectable. Since existing reforms both elsewhere and in Pennsylvania have, to at least some extent, limited the extent of gerrymandering, they are worthwhile to implement. I recommend that the Legislative Reapportionment Commission be expanded to take charge of congressional redistricting, that the other outcome-based requirements imposed on legislative redistricting also be expanded to Congressional redistricting, and that both processes have additional constraints on geographic factors like compactness. Such reforms could have a real positive impact on the representation of Pennsylvanians in both Harrisburg and Washington.

## References

- Altman, Micah, and Michael P. McDonald. 2011. Bard: Better Automated Redistricting. *Journal of Statistical Software* 42, no. 4 (June 14): 1–28.

- Ansolabehere, Stephen, and Philip Edward Jones. 2010. Constituents' responses to congressional roll-call voting. *American Journal of Political Science* 54 (3): 583–597. doi:[10.1111/j.1540-5907.2010.00448.x](https://doi.org/10.1111/j.1540-5907.2010.00448.x).
- Ansolabehere, Stephen, Jonathan Rodden, and James M. Snyder Jr. 2006. Purple America. *Journal of Economic Perspectives* 20 (2): 97–118. doi:[10.1257/jep.20.2.97](https://doi.org/10.1257/jep.20.2.97).
- Brace, Kimball, Bernard Grofman, and Lisa Handley. 1987. Does redistricting aimed to help blacks necessarily help Republicans?. *Journal of Politics* 49 (1): 169.
- Brady, David W., Hahrie Han, and Jeremy C. Pope. 2007. Primary elections and candidate ideology: out of step with the primary electorate? *Legislative Studies Quarterly* 32 (1): 79–105. doi:[10.3162/036298007X201994](https://doi.org/10.3162/036298007X201994).
- Cameron, Charles, David Epstein, and Sharyn O'Halloran. 1996. Do majority-minority districts maximize substantive black representation in Congress? *The American Political Science Review* 90 (4): pp. 794–812.
- Chen, Jowei, and Jonathan Rodden. 2013. Unintentional gerrymandering: political geography and electoral bias in legislatures. *Quarterly Journal of Political Science* 8 (3): 239–269. doi:[10.1561/100.00012033](https://doi.org/10.1561/100.00012033).
- Epstein, David, and Sharyn O'Halloran. 1999. Measuring the electoral and policy impact of majority-minority voting districts. *American Journal of Political Science*:367–395.
- Gilens, Martin. 2012. *Affluence & influence*. Princeton: Princeton University Press.
- Goedert, Nicholas. 2013. Gerrymandering or geography?: How Democrats won the popular vote but lost the congress in 2012. *Working Paper*.
- Levitt, Justin. 2008. *A citizen's guide to redistricting*. New York: Brennan Center for Justice.
- McCarty, Nolan, Keith T. Poole, and Howard Rosenthal. 2009. Does gerrymandering cause polarization?. *American Journal of Political Science* 53 (3): 666–680. doi:[10.1111/j.1540-5907.2009.00393.x](https://doi.org/10.1111/j.1540-5907.2009.00393.x).
- McDonald, Michael P. 2007. Regulating redistricting. *PS: Political Science & Politics* (04): 675–679. doi:[10.1017/S1049096507071077](https://doi.org/10.1017/S1049096507071077).
- . 2009. *The Midwest mapping project*.
- Nagel, Stuart S. 1965. Simplified bipartisan computer redistricting. *Stanford Law Review* 17 (5): pp. 863–899.
- Pennsylvania Department of State. 2012. General election official returns.
- Pennsylvania Legislative Data Processing Center. 2012a. Composite listing of House of Representatives districts.
- . 2012b. Composite listing of Senate districts.

- Pennsylvania Legislative Reapportionment Commission. 2013. Pennsylvania redistricting.
- Rodden, Jonathan. 2010. The geographic distribution of political preferences. *Annual Review of Political Science* 13:321–340. doi:[10.1146/annurev.polisci.12.031607.092945](https://doi.org/10.1146/annurev.polisci.12.031607.092945).
- Shotts, Kenneth W. 2001. The effect of majority-minority mandates on partisan gerrymandering. *American Journal of Political Science*:120–135.
- . 2003. Does racial redistricting cause conservative policy outcomes? policy preferences of southern representatives in the 1980s and 1990s. *Journal of Politics* 65 (1): 216–226. doi:[10.1111/1468-2508.t01-1-00010](https://doi.org/10.1111/1468-2508.t01-1-00010).
- Trende, Sean. 2011. In Pennsylvania, the gerrymander of the decade? *Real Clear Politics* (Dec. 14).
- U.S. Census Bureau. 2011. American Community Survey 1-year estimates.
- Winburn, Jonathan. 2008. *The realities of redistricting: Following the rules and limiting gerrymandering in state legislative redistricting*. New York: Lexington Books.

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