IN THE SUPREME COURT OF PENNSLYVANIA

KERRY BENNINGHOFF, individually, and as Majority Leader of the Pennsylvania House of Representatives,

Petitioner,

vs.

2021 LEGISLATIVE REAPPORTIONMENT COMMISSION,

Respondent.

PETITION FOR REVIEW

In the Nature of an Appeal from the Final Plan of the
2021 Legislative Reapportionment Commission

Pursuant to Section 17(d) of Article II of the Pennsylvania Constitution and Pennsylvania Rule of Appellate Procedure 3321, The Honorable Kerry A. Benninghoff, in his capacities as Majority Leader of the Pennsylvania House of Representatives, a Member of the Legislative Reapportionment Commission, and a registered voter in Centre County (the "Petitioner") files this Petition for Review, seeking this Court's review of the February 4, 2022 final reapportionment plan

("2021 Final Plan")[1] approved by the 2021 Legislative Reapportionment Commission ("Commission"). In support of the Petition, Petitioner states as follows:

INTRODUCTION

1. This Court has stated that "[i]t is a core principle of our republican form of government 'that the voters should choose their representatives, not the other way around.'" *League of Women Voters of Pa. v. Commonwealth*, 645 Pa. 1, 8 (2018). The 2021 Final Plan eviscerates that principle. It subordinates the nonpartisan redistricting criteria required by Article II, Section 16 of the Pennsylvania Constitution to "political factors" – i.e., maximizing the number of Democratic-leaning districts – in a manner contrary to the Constitution. *Holt v. 2011 Legislative Reapportionment Comm'n* (*Holt II*), 620 Pa. 373, 413 (2013). Statistical evidence of the nature endorsed by this Court in *LWV*, including simulation analysis, mean-median, and efficiency gap measures further discussed below, confirm that the 2021 Final Plan is an extreme partisan outlier. One Commission Member, the House Minority Leader, put it bluntly in an October 2021 televised public statement: she expected to achieve a Democratic Party takeover of the House in 2022 through

[1] The 2021 Final Plan was adopted on February 4, 2022, but since the Commission Chair has referred to it as the 2021 Final Plan, it will be referred to that way herein for consistency. But in concert with the practice of prior Commissions and the date of passage, it should actually be labelled the 2022 Final Plan.

"redistricting."[2] The 2022 Plan appears to be the attempted fulfillment of her promise.

2. Although some Members of the Commission have attempted to defend the goal of the 2021 Final Plan as merely being to engineer a sufficient number of Democratic Party-leaning districts to approximate the two-party statewide vote share of the Commonwealth (i.e., proportional representation), a balancing of representational political interests is neither required by the Pennsylvania Constitution, nor can it trump the constitutional redistricting criteria of population equality, compactness and avoiding political subdivision splits except where absolutely necessary. But that is exactly what this map does—and, in so doing, adoption of the plan would violate Article II, Section 16 of the Pennsylvania Constitution as well as the guarantee of Article I, Section 5's "Free and Equal Elections Clause" that requires that "an individual's electoral power not be diminished through any law which discriminatorily dilutes the power of his or her vote..." *LWV*, 645 Pa. at 120.

3. The updated report of Michael Barber, Ph.D, attached as **Appendix A**,[3] establishes that the 2021 Final Plan is an extreme partisan outlier when compared to

[2] Remarks of Hon. Joanna E. McClinton, Oct. 18, 2021, available at https://s3.us-east-2.amazonaws.com/pagopvideo/634363247.mp4 (last visited Feb. 9, 2022).

[3] Dr. Barber submitted his original report based upon the 2021 Preliminary Plan to the Commission on January 7, 2022. His updated report reflects the same analysis, but it is based upon the 2021 Final Plan and the Benninghoff Amendment that were not available at the time he submitted his original report.

a representative sample of 50,000 computer-simulated plans of the House districts drawn using only the constitutional criteria set forth in Article II, Section 16 of the Pennsylvania Constitution and no partisan or racial data. Updated Barber Rep. at 5, 11, Fig. 3. Professor Barber's 50,000 simulated plans are consistent with the 2021 Final Plan in terms of population deviation, county and municipal splits, contiguity, and compactness. *Id.* at 7, Table 1. However, the unbiased simulations reflect that the 2021 Final Plan generates more Democratic-leaning districts than **99.998%** of the simulated maps. *Id.* at 10-11, Fig. 3. The most common outcome in the simulations is 97 Democratic seats, yet the 2021 Final Plan is predicted to result in 107 Democratic seats using an index of 2012-2020 elections. *Id.* This is a statistically significant finding demonstrating that the dramatically large number of Democratic-leaning districts in the plan cannot be explained by adherence to the constitutional redistricting criteria set forth in Article II, Section 16 of the Constitution. Kosuke Imai, Ph.D., an expert submitted by the Democratic Caucus of the House, confirmed this finding in his January 14, 2022 testimony.[4]

4. In addition, other partisan fairness metrics, such as mean-median and efficiency gap, demonstrate that the 2021 Final Plan has a significant partisan bias in favor of Democrats when compared to the simulated plans. Dr. Barber's

[4] *See* Jan. 14, 2022 LRC Hearing at 1:02, available at: http://aws.redistricting.state.pa.us/Redistricting/Resources/Video/11422-LRC-2.mp4 (last visited Feb. 9, 2022).

additional analysis reflects that the 2021 Final Plan has a mean-median that is more favorable to Democrats than all but one of the 50,000 simulated plans. Updated Barber Rep. at 55-56, Fig. 27. Similarly, the 2021 Final Plan has an efficiency gap of -.027 that is more favorable to Democrats than **any** of the 50,000 simulated plans. *Id*. at 56-59, Fig. 28. By any definition, these metrics demonstrate that the 2021 Final Plan is an extreme partisan outlier.

5. The Commission has attempted to defend the strong partisan bias exhibited in the 2021 Final Plan by arguing that it can be explained by the Commission's goal of intentionally creating a series of districts to supposedly afford more opportunities for minorities to elect candidates of their choice. On multiple occasions, the Chair of the Commission conceded as much. And throughout the process, the Chair and Democratic members of the Commission, as well as their staff, frequently discussed a desire or need to draw districts predominantly on the basis of race—even "scoring" proposed districts based, in part, on how many 35% minority voting-age population districts were created. However, there was *no evidence* in the Commission's record—let alone a strong basis in evidence—of legally significant racially-polarized voting to justify drawing districts on the basis of race. Therefore, there was no compelling state interest to classify voters based upon race (a suspect classification that triggers strict scrutiny), and the districts in question run afoul of the Fourteenth and Fifteenth Amendments to the United States

Constitution as a matter of controlling federal law. These districts also offend Article I, Section 29 of the Pennsylvania Constitution.

6. But setting that aside, a desire to enhance minority voting strength is *not* an explanation of the 2021 Final Plan's partisanship. In the House, the 2021 Final Plan unnecessarily reduces minority voting strength in many areas rather than increasing it. Dr. Barber's testimony and updated report demonstrate that a similar number of majority-minority and "opportunity" districts are generated by his simulated plans simply by following traditional redistricting criteria. Updated Barber Rep. at 8-9, Figs. 1 & 2. Thus, Dr. Barber's conclusion that the 2021 Final Plan is a partisan outlier cannot be explained away by any claimed desire to draw districts based on race.

7. In addition, the Commission received significant public feedback and public testimony asking the Commission to honor the integrity of communities of interest—including historical communities of interest—throughout the Commonwealth in the creation of the 2021 Final Plan. Despite this significant testimony, the Commission unnecessarily split several communities of interest, including but not limited to those located in the Cities of Harrisburg and Lancaster, the Borough of State College, and Montgomery Township.

8. The amendment offered by Leader Benninghoff to the House Plan during the February 4, 2022 Commission meeting addressed many of the above

problems but was not adopted. It lowered the population deviation from 8.65% to 7.99%. *See* Updated Barber Rep. at 61, Tbl 4. It lowered the total municipalities split from 56 to 42, and eliminated the unnecessary splits in Allentown, Lancaster, Reading, Harrisburg and State College. *Id*. *See also* LDPC Report of 2.4.22 Benninghoff Amendment ("Benninghoff Am."), attached as **Appendix B.** And in doing so, it increased the voting strength of minority voters. The amendment contained eight majority Black districts, five majority Hispanic districts, and 26 overall majority-minority districts without subordinating traditional redistricting criteria. Updated Barber Rep. at 61-62. It also creates 17 minority opportunity districts, including four Hispanic "opportunity" districts with a Hispanic voting age population between 35% and 50%. And it did so without explicit consideration of race.

STATEMENT OF JURISDICTION

9. The basis for the jurisdiction of this Court is Section 17(d) of Article II of the Pennsylvania Constitution and 42 Pa. C.S. 725(1), which provides that the Supreme Court shall have exclusive jurisdiction of appeals from the final orders of the Legislative Reapportionment Commission.

10. This appeal is addressed to the Court's appellate jurisdiction and is in the nature of a petition for review pursuant to Rule of Appellate Procedure 3321.

PARTIES

11. Representative Benninghoff is the duly-elected representative for the 171st House District and the Majority Leader of the Pennsylvania House of Representatives and in that capacity is a member of the Commission. He is also a registered voter in Centre County, Pennsylvania. Majority Leader Benninghoff brings this Petition in his capacity as an elected official and as an individual registered voter who is aggrieved by the 2021 Final Plan.

12. The Respondent is the 2021 Legislative Reapportionment Commission.

13. Pursuant to Section 17(b) of Article II of the Pennsylvania Constitution, the Commission is composed of Representative Kerry Benninghoff, the majority leader of the House of Representatives, Representative Joanna McClinton, minority leader of the House of Representatives, Senator Kim Ward, majority leader of the Senate, Senator Jay Costa, minority leader in the Senate, and Mark A. Nordenberg, the fifth member selected by this Court after the other four Commission members were unable to agree on a fifth member. Mr. Nordenberg served as Chair of the Commission.

DETERMINATION TO BE REVIEWED

14. The determination for which Petitioner seeks review is the constitutionality of the 2021 Final Plan of the Commission approved on February 4, 2022. A copy of the 2021 Final Plan for the Pennsylvania House and the map reflecting the 2021 Final Plan for the House are attached as **Appendices C and D.** A copy of the 2021 Final Plan for the Pennsylvania Senate and the map reflecting the 2021 Final Plan for the Senate are attached as **Appendices E and F.**

CONTROLLING CONSTITUTIONAL PROVISIONS

15. Section 16 of Article II of the Pennsylvania Constitution states:

> The Commonwealth shall be divided into 50 senatorial and representative districts, which shall be composed of compact and contiguous territory as nearly equal in population as practicable. Each senatorial district shall elect one Senator, and each representative district one Representative. Unless absolutely necessary no county, city, incorporated town, borough, township or ward shall be divided in forming either a senatorial or representative district.

Pa Const., art. II, § 16.

16. Section 5 of Article I of the Pennsylvania Constitution states:

> Elections shall be free and equal; and no power, civil or military, shall at any time interfere to prevent the free exercise of the right of suffrage.

Pa. Const., art. I, § 5.

17. Section 29 of Article I of the Pennsylvania Constitution states:

> Equality of rights under the law shall not be denied or abridged in the Commonwealth of Pennsylvania because of the race or ethnicity of the individual.

Pa. Const., art. I, § 29.

PROCEDURAL BACKGROUND

18. Pursuant to Section 17(a) of Article II of the Pennsylvania Constitution, in 2021, the year following the Federal decennial census, the 2021 Legislative Reapportionment Commission was constituted for the purposes of reapportioning the Commonwealth.

19. Due to delays resulting from the COVID-19 pandemic, the U.S. Census Bureau failed to deliver the decennial census data by the April 1, 2021 deadline. Rather, it did not make the P.L. 94-171 data available for download until August 12, 2021 and the full redistricting toolkit until September 16, 2021.

20. Under Section 17(c) of Article II of the Pennsylvania Constitution, the Commission must file a preliminary reapportionment plan within 90 days after the Commission has duly certified the population data.

21. On August 24, 2021, the Commission by a vote of 3 to 2, decided to reallocate certain prisoners to their address prior to incarceration rather than the address of the prison where they were located. This is the first time in history that the Commission has reallocated prisoners to addresses different from those contained in the Census data.

22. Thus, while the Commission received the Census data on August 12, 2021, and the data was available for use by the Commission on September 17, 2021,

the decision to reallocate prisoners caused further significant delays in the process. The data necessary to reapportion the state based upon reallocated prisoners was not complete and certified by the Commission for use until October 25, 2021.

23. Pursuant to Section 17(c) of Article II of the Pennsylvania Constitution, the Commission approved a preliminary reapportionment plan on December 16, 2021 by a 3 to 2 vote for the House map, with Commission Members Ward and Benninghoff dissenting, and a 5-0 vote for the Senate map (collectively, "2021 Preliminary Plan").

24. The Commission held eight public hearings on the 2021 Preliminary Plan between December 16, 2021 and February 4, 2022. During the course of the hearings, citizens and government officials objected to the 2021 Preliminary Plan and/or voiced their opinions about it.

25. Thousands of comments and exceptions to the 2021 Preliminary Plan were submitted by January 18, 2022 online, by mail and to the Commission by the House Republican Policy Committee. In particular, Majority Leader Benninghoff timely submitted his exceptions to the 2021 Preliminary Plan on January 15, 2022.

26. On February 4, 2022, the Commission held a public meeting to vote on the 2021 Final Plan. Before the Commission voted on the 2021 Final Plan, Majority Leader Benninghoff presented the Commission with an amendment that addressed many of the issues with the 2021 Final Plan's failure to comply with the Article II,

Section 16 criteria and other issues relating to violations of the Voting Rights Act, the 14th and 15th Amendments to the United States Constitution, and Article I, Sections 5 and 29 of the Pennsylvania Constitution. *See* Benninghoff Am. Majority Leader Benninghoff's amendment to the 2021 Final Plan was defeated by a three to two vote.

27. With a four to one vote, the Commission approved the 2021 Final Plan on February 4, 2022. Petitioner was the lone dissenting vote, though Leader Ward expressed her reservations about the House Plan in the 2021 Final Plan.

OBJECTIONS TO THE 2021 FINAL PLAN

28. The Pennsylvania Constitution provides that House and Senate districts should be "as nearly equal in population as practicable." Pa. Const., art. II, § 16. It further provides that "[u]nless absolutely necessary no county, city, incorporated town, borough, township or ward shall be divided in forming either a senatorial or representative district." *Id*.

29. The evidence submitted to the Commission demonstrates that there are numerous political subdivisions that were unnecessarily split, including unnecessary divisions of the cities of Allentown, Lancaster, Reading, and Harrisburg, and in the Borough of State College. The Commission divided these municipalities purely for partisan gain to create more Democratic-leaning seats.

30. To achieve the goal of "one person, one vote" the average House district should contain approximately 64,053 persons, and the average Senate district should contain approximately 260,054 persons.

31. With total population deviations of 8.65%[5] and 8.11%, respectively for the House and Senate maps, the 2021 Final Plan also fails to create districts that are as nearly equal in population as practicable.

32. Moreover, several House districts in the 2021 Final Plan were drawn predominantly based upon race without a narrowly tailored compelling state interest in violation of the 14th and 15th Amendments to the United States Constitution and Article I, Section 29 of the Pennsylvania Constitution. The 2021 Final Plan thus unnecessarily subjects itself to liability for racial gerrymandering claims.

A. The 2021 Final Plan Divides Numerous Political Subdivisions Where It is Not Absolutely Necessary.

33. The 2021 Final Plan fails to comply with the requirement of Article II, Section 16 of the Constitution that "unless absolutely necessary no county, city, incorporated town, borough, township or ward shall be divided in forming either a senatorial or representative district."

34. The updated report of Dr. Michael Barber demonstrates how the plan unnecessarily divides up cities to combine highly Democratic areas with Republican

[5] If analyzed using the non-adjusted Census data, the population deviation is 9.88%.

suburban areas to spread out packed Democratic votes in violation of Article II, Section 16, and Article I, Section 5, of the Pennsylvania Constitution.

35. "Scholarship in political science has noted that the spatial distribution of voters through-out a state can have an impact on the partisan outcomes of elections when a state is, by necessity, divided into a number of legislative districts. This is largely the case because Democratic-leaning voters tend to cluster in dense, urban areas while Republican-leaning voters tend to be more equally distributed across the remainder of the state." Updated Barber Rep. at 14.

36. "One prominent study of the topic (Chen and Rodden, 2013) finds that 'Democrats are highly clustered in dense central city areas, while Republicans are scattered more evenly through the suburban, exurban, and rural periphery...Precincts in which Democrats typically form majorities tend to be more homogenous and extreme than Republican-leaning precincts. When these Democratic precincts are combined with neighboring precincts to form legislative districts, the nearest neighbors of extremely Democratic precincts are more likely to be similarly extreme than is true for Republican precincts. As a result, when districting plans are completed, Democrats tend to be inefficiently packed into homogenous districts.'" *Id*. (quoting Rodden, Jonathan A. Why cities lose: The deep roots of the urban-rural political divide. Hachette UK, 2019).

37. "This inefficient distribution of votes would not be a problem for Democrats if district boundaries were able to amble about the state and divide municipalities so as to create districts that had less overwhelming Democratic support. Rodden (2019) notes this by saying: 'Democrats would need a redistricting process that intentionally carved up large cities like pizza slices or spokes of a wheel, so as to combine some very Democratic urban neighborhoods with some Republican exurbs in an effort to spread Democrats more efficiently across districts' (pg. 155). However, the laws governing redistricting in Pennsylvania run counter to either of these strategies. Pennsylvania's redistricting rules that require districts to be geographically compact and to avoid county and municipal divisions prohibit the type of meandering districts described above." Updated Barber Rep. at 17.

38. The 2021 Final Plan does exactly this in the House Plan as well as the Senate Plan.

1. Allentown

39. Allentown is a heavily Democratic city with a population of 126,364. Updated Barber Rep. at 21. Thus, it must be divided into two districts, but the House Plan divides it unnecessarily into three. Figures 8 & 9 on pages 24-25 of Dr. Barber's updated report illustrates how the 2021 Final Plan carves up Allentown by combining the Democratic areas in Allentown with more Republican areas in the exurbs to create three safe Democratic seats instead of two more homogeneous

Democratic-leaning seats—but at the expense of splitting Allentown into three pieces, which is more than is necessary and in violation of the constitution. In addition, the Senate Plan unnecessarily splits Allentown into two districts—SD-14 and SD-16—not because the population of the City requires such a split (it does not), but rather to carve-up Allentown to create an additional Democratic-leaning district and for partisan political gain. This division also appears to have been performed with race as a predominant motive (as SD-14, one of the districts included in the split, was created as an alleged "minority opportunity district" for Hispanic voters, that the Voting Rights Act does not require, and contains approximately 26.37% Hispanic voting-age population).

2. Lancaster

40. Another example is found in the City of Lancaster, population 58,431, which is divided in half even though its population is small enough that the entire City can be held in one district. Updated Barber Rep. at 27-31, Figs. 12-13. And as a result, heavily Democratic precincts in the City can be combined with more Republican precincts in the City's suburbs. *Id*.

3. Reading

41. Yet another example is the City of Reading, which was divided into three House districts even though, based on population, it only needed to be split into two House districts. Updated Barber Rep. at 33. The City was unnecessarily split four times into three House districts to gain an additional Democratic-leaning

seat by combining portions of the City with more Republican-leaning voters in the suburbs. *Id.* at 33-35 Figs. 15-16.

4. Harrisburg

42. Even the Commonwealth's Capitol City is not spared. Harrisburg, population of 50,679, can be easily contained within a single House district yet is split—in order to create another Democratic-leaning seat by combining strongly Democratic areas of the City of Harrisburg with more Republican-favoring areas outside the City limits. Updated Barber Rep. at 38-39. This creates two Democratic districts with comfortable margins at the expense of splitting the State Capitol and a community of interest in violation of the Constitution. Updated Barber Rep. at 38-43, Figs. 19-20.

5. State College

43. State College, home of the Pennsylvania State University, with a population of 40,508 could easily be placed in a single House district but was split into two districts—even dividing the campus of the University—all to draw more and more Democratic districts. Updated Barber Rep. at 47-51, Figs. 25-26. The Commission received well over 100 comments about the splitting of State College but ignored this important feedback.

6. Scranton

44. In the 2021 Preliminary Plan, Scranton was shockingly divided into four House districts despite the fact that by its population it can be contained in only

two. Updated Barber Rep. at 44. Although the 2021 Final Plan revised the House districts in this area to divide Scranton into only two House districts, it does so in a manner that generates more Democratic-leaning districts than in 98% of the 50,000 simulated plans. *Id*. at 44-45 & Fig. 22.

7. Pittsburgh

45. The City of Pittsburgh was also divided into three Senate districts—SD-38, SD-42, and SD-43—for partisan political gain even though, based on population, it only needed to be split once.

8. South Whitehall Township

46. South Whitehall Township in Lehigh County was unnecessarily divided into two districts in the Senate Plan—SD-14 and SD-16—even though the Township could have been kept whole inside one district. This unnecessary division of South Whitehall Township was also performed for partisan political gain.

47. The Commission provided no credible justifications for the division of these cities, townships, and boroughs.

48. Rather, the aggregate of the above examples demonstrates how the 2021 Final Plan gerrymanders districts in urban areas throughout the Commonwealth to pinwheel and pie-up these municipalities to more "efficiently" spread Democratic voters out to maximize the number of Democratic-leaning seats.

49. Drawing lines to intentionally benefit one political party over another, whether to negate a natural disadvantage or not, is still a gerrymander and a violation of Article II, Section 16 and the Free and Equal Elections Clause under Article I, Section 5 of the Pennsylvania Constitution.

50. Article II, Section 16 does not speak of equalizing representation. It "speaks of the 'integrity' of political subdivisions, which bespeaks history and geography, not party affiliation or expectations." *Holt II*, 620 Pa. at 413-14. The 2021 Final Plan historically and unconstitutionally splits numerous cities across the state for the purpose of creating extra Democratic-leaning districts and discriminating against Republican-leaning voters throughout the Commonwealth.

51. The 2021 Final Plan contains multiple divisions of political subdivisions that are not "absolutely necessary."

52. At no time did the Commission demonstrate that these divisions were "absolutely necessary" and evidence presented to the Commission proves the contrary.

53. The Commission failed to address, consider or adjust the 2021 Final Plan in accordance with requests from the public regarding these unnecessary splits and generally failed to comply with the mandates of Article II, Section 16 of the Pennsylvania Constitution.

54. The 2021 Final Plan's House Plan splits 56 municipalities a total of 92 times. However, the amendment offered by Petitioner on February 4, 2022 splits only 42 municipalities a total of 76 times – significantly less. Benninghoff Am., Places Split By House Districts at 1. Most notably, the Benninghoff Amendment does not split Harrisburg, Lancaster or State College, and contains the minimum number of splits in Reading and Allentown. *Id*.; *see also* Updated Barber Rep. at 61. The offered amendment demonstrates that numerous splits in the 2021 Final Plan are not absolutely necessary.

B. The 2021 Final Plan Fails To Comply With The One-Person, One-Vote Standard Because It Has Excessive Population Deviation.

55. Article II, Section 16 states that House and Senate districts "shall be . . . as nearly equal in population as practicable." Equality of population is the primary directive in the efforts of the Commission. *Holt v. 2011 Legislative Reapportionment Commission ("Holt I")*, 614 Pa. 364, 437 (2012). Although a range is permissible, the Supreme Court of Pennsylvania warned that it would not "direct the LRC to develop a reapportionment plan that tests the outer limits of acceptable deviations." *Id.* at 445.

56. The total population deviation in the 2021 Final Plan for the House is 8.65%. That is significantly higher than the deviation under the current reapportionment plan, approved in *Holt II*, which is 7.88%. As such, the total population deviation of the 2021 Final Plan for the House districts unnecessarily

stretches the bounds of what is permissible. The amendment offered by Petitioner had a population deviation of only 7.99%. *See* Benninghoff Am.; Updated Barber Rep. at 61. And given that the amendment likewise contains fewer subdivision splits, it cannot be said that a higher population deviation was needed to lower the number of political subdivision splits.

57. This unnecessary and excessive population deviation reflects yet another subordination of constitutional, traditional districting criteria for partisan advantage. *See LWV,* 645 Pa. at 122. This is especially true where there is a strong partisan skew to the population deviation that systematically disadvantages Republican voters. The ideal population of a House district is 64,053. Of the 25 most underpopulated districts in the plan, only six are Republican-leaning and 19 are Democratic-leaning. By contrast, of the 25 most overpopulated districts in the plan, 20 are Republican-leaning and only five are Democratic leaning. See Report of 25 Most Under- and Overpopulated Districts, attached as **Appendix G**. This further demonstrates the intentional spreading out of Democratic voters to generate more Democratic-leaning seats.

58. This skew shows that the district lines were drawn for partisan gain and not based on traditional redistricting principles, and also shows a violation of the Equal Protection Clauses of the U.S. and Pennsylvania Constitutions. *See Larios v. Cox*, 300 F. Supp.2d 1320 (N.D. Ga. 2004) (three-judge panel), *aff'd*, 524 U.S. 947

(finding a plan that systematically underpopulated districts in rural areas and overpopulated districted in suburban areas in order to favor Democrats and disfavor Republicans was unconstitutional).

59. The total population deviation in the 2021 Final Plan for the Senate is 8.11%. That is higher than the deviation under the current reapportionment plan, approved in *Holt II*, which is 7.96%. As such, the total population deviation of the 2021 Final Plan for the Senate unnecessarily stretches the bounds of what is permissible.

60. Finally, the Commission drew the 2021 Final Plan using 2020 census data that was altered to "reallocate" tens of thousands of prisoners from the prisons where they were counted in the Census, to what is purported to be their pre-incarceration residence.[6] The United States Census Bureau counts incarcerated persons as residents of the district where they are incarcerated and there was no reason to depart from this practice. *See Evenwel v. Abbott*, 136 S. Ct. 1120 (2016) (approving status quo of using total population from Census for apportionment); *Davidson v. City of Cranston, Rhode Island*, 873 F.3d 125, 144 (1st Cir. 2016) (concluding that since the U.S. Supreme Court held that use of unadjusted total

[6] The Commission's decision to "reallocate" prison populations caused significant delays in a reapportionment process already behind schedule due to the four-and-a-half month delay in the release of Census data. These delays have placed into jeopardy the ability to have a legislative reapportionment plan in place for the 2022 elections.

population is constitutional, there is no reason to think that inclusion of prisoners in total population for apportions is constitutionally suspect).

61. The Pennsylvania Constitution establishing the Commission repeatedly refers to the Federal decennial Census and mentions nothing of any adjustments to that data. Pa. Const., art. II, § 17. Any change to this practice should have been done through a constitutional amendment or statutory enactment by the General Assembly.

62. No state has established a policy regarding prisoner reallocation for reappointment purposes absent legislative action.

63. The use of this altered Census data to reapportion the General Assembly has resulted in further departures from the population equality requirements of the Pennsylvania and U.S. Constitution, further violating the rights of voters throughout the Commonwealth. Indeed, if analyzed using the original, unaltered Census data, the total population deviation in the 2021 Final Plan's House Plan is 9.88% and in the 2021 Final Plan's Senate Plan is 8.49%.

64. Moreover, it caused further delays with the adoption of the 2021 Final Plan, placing the ability to use such districts for the 2022 election cycle in jeopardy.

C. The 2021 Final Plan Excessively Pairs Republican Incumbents in the House Plan, Which Further Demonstrates That The 2021 Final Plan Was Drawn Intentionally for Unfair Partisan Gain

65. As additional evidence that the 2021 Final Plan was drawn for the benefit of Democrats, it pits eight Republican incumbents against each other and only two Democrat incumbents against each other in the House. *See* Report of Paired Incumbents, **Appendix H**. In addition, it creates five districts where a Republican incumbent is paired against a Democratic incumbent in the House. But in all five of those districts, the Democrat incumbent has a significant advantage, whether measured by having a greater percentage of that Democrat incumbent's prior district included in the new district or by way of having more registered Democratic voters than registered Republican voters in the district. This cannot have been by accident, and the deliberate and excessive pairing of Republican incumbents is further evidence of discrimination against Republican voters and the subordination of traditional and constitutional redistricting criteria for partisan favoritism. If the Commission is going to pair incumbents, it should not systematically favor one political party. *See Larios*, 300 F. Supp.2d 1320 (recognizing that the plans also systematically paired Republican incumbents while reducing the number of Democrat incumbents who were paired).

D. The 2021 Final Plan Violates The Fourteenth and Fifteenth Amendments to the United States Constitution, The Voting Rights Act, And Article I, Section 29 of the Pennsylvania Constitution

66. Proponents of the 2021 Final Plan have *argued* that the plan for the House was drawn with the intent and design of creating more opportunities for minority voters to elect the representatives of their choice. Thus, race was purported to be the predominant factor governing the creation of the 2021 Final Plan for the House.

67. The U.S. Supreme Court has held that "the Fourteenth Amendment requires state legislation that expressly distinguishes among citizens because of their race to be narrowly tailored to further a compelling governmental interest." *Shaw v. Reno*, 509 U.S. 642, 643 (1993). "[A] plaintiff challenging a reapportionment statute under the Equal Protection Clause may state a claim by alleging that the legislation, though race neutral on its face, rationally cannot be understood as anything other than an effort to separate voters into different districts on the basis of race, and that the separation lacks sufficient justification." *Id*. at 649. A plaintiff alleging a racial gerrymandering claim need only show that race was the "predominant factor motivating the legislature's decision" which requires proving that the legislature subordinated traditional race-neutral districting criteria to racial considerations. *Bethune-Hill v. Va. State Bd. of Elections*, 137 S. Ct. 788, 792 (2017).

68. It has been posited that the racial intent driving the creation of the 2021 Final Plan for the House is consistent with the federal Voting Rights Act of 1965. "But in the context of a Fourteenth Amendment challenge, courts must bear in mind the difference between what the law permits and what it requires." *Shaw*, 509 U.S. at 654. And if the state is going to invoke the Voting Rights Act to justify race-based redistricting, it must show that it has "a strong basis in evidence" for concluding it was required. *Alabama Legislative Black Caucus v. Alabama*, 125 S. Ct. 1257, 191 L. Ed. 2d 314, 335 (2015).

69. Further, Article I, Section 29 of the Pennsylvania Constitution, adopted by the voters in 2021, provides that "[e]quality of rights under the law shall not be denied or abridged in the Commonwealth of Pennsylvania because of the race or ethnicity of the individual." In the Plain English Statement describing this new amendment, Pennsylvania's Attorney General wrote: "Inclusion of this amendment within the Pennsylvania Constitution signifies that freedom from discrimination based on race or ethnicity is an essential principle of liberty and free government. This amendment applies to all Pennsylvania state, county and local governmental entities, and guarantees equality of rights under the law. ... This equal right to be free from racial or ethnic discrimination will exist independent from any such rights under the United States Constitution or corresponding federal law."

70. Throughout the Commission's work, there was a clear focus on drawing districts on the basis of race. For example, during one meeting on November 16, 2021, a member of Leader McClinton's staff circulated a sheet analyzing certain proposed districts in or about Bucks County. The sheet included rows listing the number of "35% or Higher 18+ Black Seats," "35% or Higher 18+ Hispanic Seats," and "35% or Higher 18%+ Coalition (Black, Hispanic, Asian Combined) Seats." See **Appendix I.** This fixation on the creation of districts throughout the Commonwealth with threshold levels of minority group voting-age population permeated the Commission's work.

71. The Commission Chair has acknowledged that it drew several House districts on the basis of race. Chair Nordenberg testified at the December 16, 2021 hearing that "the plan includes seven minority opportunity districts—true VRA districts, minority influence districts, and collation districts—in which there is no incumbent, creating special opportunities [for] the election of minority representatives."[7] Those districts included Districts 10[8], 22, 54, 104, 116, and 203. *Id.*[9] As the Chair further testified, "there is no incumbent-advantage that will need

[7] Written Testimony of the Commission Chair, Dec. 16, 2021, p. 12, available at https://www.redistricting.state.pa.us/resources/press/20211216%20Chairman's%20Statement%20LRC%20Meeting%20121621.pdf.
[8] Was House District 9 in the 2021 Preliminary Plan.
[9] The Commission Chair only listed six districts in his written remarks. However, House Districts 19 and 49 (was House District 50 in the 2021 Preliminary Plan) also appear to satisfy the Chair's criteria, getting to a total of eight districts.

to be overcome in any of these districts, which should give the minority communities residing in them a special opportunity." *Id.* at 13. Thus, the Chair has openly stated that these districts were drawn with race as the predominant factor.

72. At the February 4, 2022 hearing at which the Commission voted to adopt the 2021 Final Plan, Chair Nordenberg stated:

> When circumstances permitted us to do so, and after ensuring compliance with state and federal law, we fashioned districts to create additional opportunities **beyond the minimum requirements of the Voting Rights Act**, positioning voters in racial and ethnic minority groups to influence the election of candidates of their choice. Going beyond those minimum requirements not only is consistent with the Voting Rights Act, but is consistent with, and perhaps required by, both the Free and Equal Elections Clause and the Racial and Ethnic Equality Clause of the Pennsylvania Constitution.[10] (emphasis added).

This is a tacit admission that the 2021 Final Plan drew voters into districts based upon their race and when not required by the Voting Rights Act.

73. In addition, during conversations with the Chair's map drawer following adoption of the 2021 Preliminary Plan, proposed changes to House Districts 105 and 125 in Dauphin County to reduce municipal splits were rejected because any changes would purportedly lower the minority voting age population to an unidentified unacceptable number. This further demonstrates that the 2021 Final Plan illegally draws to a racial target.

[10] *See* Feb. 4, 2022 LRC Hearing at 0:09, available at http://aws.redistricting.state.pa.us/Redistricting/Resources/Press/2022-02-04%20LRC.mp4

74. In particular, certain members of the Commission have been outspoken regarding the creation of "coalition" districts that are nowhere required by the Voting Rights Act. As Chair Nordenberg testified at the February 4, 2022 hearing: "In addition to preserving and expanding districts in which a racial minority group makes up the majority of the population, the preliminary plan takes the important step of including coalition districts."[11]

75. In this case, the only evidence proffered to justify the Commission's explicit and predominant use of race in the construction of the 2021 Final Plan for the House was an expert report by Matthew Barreto, Ph.D. But as a matter of law, Professor Barreto's report fails to show the existence of legally significant racially polarized voting, in part because he has not studied a sufficient number of elections (including primary elections) to generate a reliable pattern of voting behavior by any of his groups; because he has improperly lumped together Black, Hispanic, and other minority voters into an aggregate all-minority metric for his analysis, which means he cannot demonstrate each racial group votes cohesively as a group, and with the other minority groups in the coalition; and because he has not shown evidence that all three *Gingles* preconditions are satisfied anywhere in the Commonwealth. *Thornburg v. Gingles*, 478 U.S. 30, 50-51 (1986). Most notably of all, Professor Barreto admitted, under questioning by Leader Benninghoff on January 14, 2022,

[11] *Id.* at 42:20.

that his analysis did not identify legally significant racially polarized voting in the Commonwealth—meaning, that there was no evidence that white-bloc oppositional voting prevented minority voters from usually being able to elect the representatives of their choice.[12]

76. Further, Professor Barreto's report has been criticized by a leading political methodologist and Voting Rights Act expert, Professor Jonathan Katz, who issued a report dated Jan. 14, 2022 (the "Katz Report," provided to the Commission at the January 14, 2022 hearing**),** concluding that due to several methodological flaws, more fully set forth in his report, "Dr. Barreto's analysis of racially polarized voting is statistically flawed and no scientifically valid inferences may be drawn from it." Katz Rep. at 1. Dr. Katz updated his report after analyzing the 2021 Final Plan and concluded that nothing about the 2021 Final Plan changed his original analysis. *See* Updated Katz Report, dated Feb. 4, 2022, attached as **Appendix J**.

77. The analysis performed by Professor Barreto does not constitute a strong basis in evidence for the creation of majority-minority districts anywhere in the Commonwealth, let alone "coalition" districts. And the Commission has no other evidence to support its predominant use of race in drawing House districts in the 2021 Final Plan.

[12] *See* Jan. 14, 2022 LRC Hearing at 1:53, available at: http://aws.redistricting.state.pa.us/Redistricting/Resources/Video/11422-LRC-2.mp4 (last visited Feb. 9, 2022).

78. The Commission has also attempted to justify the extreme partisan bias exhibited by the 2021 Final Plan for the House due to racial considerations, a position it supported with written testimony dated Jan. 14, 2022 and an expert report dated Jan. 7, 2022 from Kosuke Imai, Ph.D. (the "Imai Testimony" and the "Imai Report"). Professor Imai ran a set of computer simulations and purports to demonstrate that the partisan bias exhibited in the Preliminary House Plan was explained by the fact that the Preliminary House Plan contains 25 majority-minority districts, including several so-called "coalition" districts (i.e., districts drawn so that a combination of racial groups together makes up 50% or more of the citizen voting-age population), even though the Third Circuit has never held that claims under the Voting Rights Act may be brought by a "coalition" of multiple racial groups, and the Sixth Circuit has rejected that claim outright. *Nixon v. Kent Cty.*, 76 F.3d 1381 (6th Cir. 1996) (en banc).

79. But as Professor Barber demonstrated in his testimony (Barber Presentation Deck, Jan. 14, 2022, at p. 21), and in his updated report (at 8-9 & Figs. 1-2) more than 50% of his race-blind computer simulated plans contained at least 24 majority-minority districts (the 2021 Final Plan has 25), and more than 50% of his race-blind computer simulated plans generated 17 or more districts with at least 35%, but less than 50%, minority voting-age population (the 2021 Final Plan has 19). Professor Barber showed that drawing districts on the basis of race was not

necessary to achieve a wealth of majority-minority districts or districts with 35% minority voting-age population. Thus, the number of Democratic-leaning seats generated by the 2021 Final Plan was not the result of attempting to generate districts that gave minorities more opportunities to elect candidates of their choice.

80. In addition, the amendment offered by Leader Benninghoff contained eight majority Black districts (one more than the 2021 Final Plan), five majority Latino districts (one more than the 2021 Final Plan), and 26 overall majority-minority districts (one more than the 2021 Final Plan) without subordinating traditional redistricting criteria. Updated Barber Rep. at 8, 61-62. It also creates 17 minority opportunity districts, including four districts with a Hispanic voting age population between 35% and 50% - two more than the 2021 Final Plan. *See id*. at 8, 61-63. And it did so without explicit consideration of race.

81. Moreover, as other evidence has shown, the 2021 Final Plan's splitting of various cities and urban areas in numerous House districts acts to "crack" and dilute minority communities for the purpose of Democratic partisan gain.

82. In Allentown, the 2021 Final Plan divides the city three different ways and cracks the Hispanic vote into three different House districts. Updated Barber Rep. at 26, Fig. 10. District 22 is a majority-Hispanic district, but has a lower Hispanic voting age population (53.3%) than the current district at 54.5%. *Id*. Thus, despite the growth of the Hispanic population in Allentown and the surrounding

area, HD-22 in the 2021 Final Plan has a lower HVAP than the current plan. The Benninghoff amendment eliminates the extra, unnecessary split of Allentown. *Id*. at 61.

83. The Commission received written testimony from LatinoJustice raising concerns with the Latino Community's ability to elect candidates of their choice given the way its members are cracked in Allentown under the 2021 Preliminary Plan.[13]

84. The Commission received further testimony from the Hispanic community that while on paper the 2021 Preliminary Plan creates districts that may look good for the Hispanic community, it does not create districts that enhance the opportunity of Hispanics to elect the candidates of their choice.[14] Nothing in the 2021 Final Plan addresses these concerns raised with the 2021 Preliminary Plan.

85. As one example, in the 2020 primary election, Representative Schweyer defeated Enid Santiago – a Hispanic candidate – **by just 55 votes** in the primary for HD-22. Yet, the 2021 Final Plan reduces the percentage of HVAP in HD-22 and the remaining two districts which include a part of Allentown and have

[13] *See* Written Testimony from LatinoJustice at 2-3, **attached as Appendix K.**
[14] Testimony of Victor Martinez, Jan. 6, 2022 LRC Hearing at 2:09, available at http://aws.redistricting.state.pa.us/Redistricting/Resources/Video/1-6-22%20LRC%20Session%201.mp4.

an HVAP of just 38.4% and 15.1%, respectively. Updated Barber Rep. at 26, Fig. 10.

86. Despite this testimony, the 2021 Final Plan failed to address these concerns.

87. Similarly, HD-180 in Philadelphia has an Hispanic voting age population of 27,701 in the current plan, but was reduced to only 27,008 people in the 2021 Final Plan – 693 less potential Hispanic voters.

88. The same is also true in Lancaster. The City of Lancaster has an Hispanic voting age population of 35.9%. Yet instead of keeping Lancaster whole, the 2021 Final Plan divides it and creates two house districts with *lower* Hispanic voting age populations of 12.8% and 34.3%, respectively. Updated Barber Rep. at 32, Fig. 14. Thus, rather than strengthen the minority vote here, the 2021 Final Plan reduces it. The Benninghoff amendment eliminates the split of Lancaster. *Id.* at 61.

89. The City of Reading, which has an Hispanic voting age population of 64%, is similarly divided in a way that reduces the voting strength of the Hispanic community. The City of Reading is divided into three House districts, each with a significantly lower HVAP: 33.2% in HD-126, 34.4% in HD-129, and 52.1% in HD-127. Updated Barber Rep. at 37, Fig. 17. The Benninghoff amendment eliminates the unnecessary split of Reading. *Id.* at 61.

90. In particular, the 2021 Final Plan reduced the Hispanic voting age population in HD-127 from 31,822 people in the current plan to 23,915 people in the 2021 Final Plan.

91. As LatinoJustice submitted via their written testimony to the Commission regarding these reductions: "A reduction in the voting age population of Latinos will impede the ability of Latinos to elect a candidate of their choice."[15]

92. The Black community is likewise cracked in certain areas. For example, the City of Harrisburg has a Black voting age population of 47.3%. Yet, despite the fact that the City of Harrisburg and its Black population could be contained all in one House district, it is split into two districts with a BVAP of 19.1% and 27.4%, respectively. Updated Barber Rep. at 43 Fig. 21. The Benninghoff amendment eliminates the split of Harrisburg. *Id*. at 61.

93. For all these reasons, the 2021 Final Plan infringes the rights guaranteed to citizens of the Commonwealth under the Fourteenth and Fifteenth Amendments to the United States Constitution, the federal Voting Rights Act, and Article I, Section 29 of the Pennsylvania Constitution.

E. Specific Additional Objections

94. Many municipal splits throughout the 2021 Final Plan are not absolutely necessary and reflect a subordination of traditional, constitutional

[15] *See* LatinoJustice Written Testimony at 3.

districting criteria for partisan advantage—including, without limitation, the following: (a) Plum Township and Upper St. Clair Township in Allegheny County; (b) Lancaster City in Lancaster County; (c) two municipal splits in House District 189: Stroud Township and Middle Smithfield Township in Monroe County; and (d) Harrisburg in Dauphin County.

95. The separation of the City of Johnstown in Cambria County from HD-71 was not justified by traditional, constitutional redistricting criteria and reflects a subordination of those criteria for partisan advantage.

96. Remove the municipal split of State College Borough in Centre County that is not absolutely necessary, and remove the Harrisburg based HD-103 from Cumberland County, in order to comply with the population equality requirement of Article II, Section 16 of the Pennsylvania Constitution and the U.S. Constitution and to not subordinate such criteria to partisan gain.

97. It is necessary to reduce the three district splits in Allentown and Reading to two district splits in each city, because these excessive municipal splits are not absolutely necessary and reflect a subordination of traditional, constitutional districting criteria for partisan advantage. Additionally, reducing these splits will avoid diluting the Hispanic voting age population for the two Reading districts and the two Allentown districts and will additionally remove the municipal split of Upper Macungie Township in Lehigh County that is not absolutely necessary.

98. Remove the split of Montgomery Township in HD-151 that was done for partisan gain and that unnecessarily splits the Wissahickon School District and reduces the Korean population in this House district over hundreds of exceptions, including exceptions by several Korean citizens requesting that the Assi Plaza be kept with the rest of Montgomery Township, Horsham and Upper Dublin.

REQUEST FOR RELIEF

99. For the foregoing reasons, Petitioner asks this Court to determine that the 2021 Final Plan is contrary to law under Article I, Section 5, Article I, Section 29, and Article II, Section 16 of the Pennsylvania Constitution, the Voting Rights Act, and the Fourteenth and Fifteenth Amendments to the United States Constitution and to remand the 2021 Final Plan to the Commission with direction to make the following revisions:

a. Eliminate the unnecessary splits of political subdivisions including in the cities of Allentown, Lancaster, Reading, Harrisburg, and the Borough of State College in the House map and within Allegheny County, Lancaster, and South Whitehall Township in the Senate map;

b. Reduce the total population deviation in both the House and Senate maps;

c. Redraw the legislative district lines without race as a predominant factor unless and until there is an identified compelling state interest;

d. Redraw the legislative districts so that they do not subordinate traditional redistricting criteria for partisan gain;

e. Address the remaining issues raised in this Petition.

100. Issue an order that because the Commission failed to timely adopt a reapportionment plan that meets the requirements of the Pennsylvania Constitution, the 2022 elections for the Pennsylvania General Assembly must occur under the districts adopted in 2012 pursuant to the Application for Relief to be submitted forthwith in this action.

Dated: Philadelphia, Pennsylvania
February 17, 2022

/s/ Jeffry Duffy

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(*) *Pro hac vice applications forthcoming*

Counsel for The Honorable Kerry A. Benninghoff, individually, and as the Majority Leader of the Pennsylvania House of Representatives

CERTIFICATE OF COMPLIANCE

I hereby certify that this filing complies with the provisions of the Case Records Public Access Policy of the Unified Judicial System of Pennsylvania that require filing confidential information and documents differently than non-confidential information and documents.

/s/ Jeffry Duffy
Jeffry Duffy (PA No. 081670)

CERTIFICATE OF SERVICE

I certify that a true and correct copy of the within PETITION FOR REVIEW was served this 17th day of February, 2022, by the methods indicated upon the following:

BY CERTIFIED MAIL, RETURN-RECEIPT REQUESTED

2021 Legislative Reapportionment Commission
Attn. G. Reynolds Clark, Executive Director
209 Irvis Office Building
Harrisburg, PA 17120

BY CERTIFIED MAIL, RETURN-RECEIPT REQUESTED

The Honorable Josh Shapiro
Office of Attorney General of Pennsylvania
c/o Torts Litigation Unit
15th Floor, Strawberry Square
Harrisburg, Pennsylvania 17120

BY CERTIFIED MAIL, RETURN-RECEIPT REQUESTED, AND E-MAIL

2021 Legislative Reapportionment Commission
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INDEX OF APPENDICES

Report on Redistricting Plan for the Pennsylvania House of Representatives of the Pennsylvania Legislative Reapportionment Commission

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APPENDIX A

1 Introduction and Qualifications

I have been asked by counsel to review the Legislative Reapportionment Commission's proposed redistricting plan and compare it to a set of simulated redistricting plans across a number of factors commonly considered in the redistricting process and in redistricting litigation.

I am an associate professor of political science at Brigham Young University and faculty fellow at the Center for the Study of Elections and Democracy in Provo, Utah. I received my PhD in political science from Princeton University in 2014 with emphases in American politics and quantitative methods/statistical analyses. My dissertation was awarded the 2014 Carl Albert Award for best dissertation in the area of American Politics by the American Political Science Association.

I teach a number of undergraduate courses in American politics and quantitative research methods.[1] These include classes about political representation, Congressional elections, statistical methods, and research design.

I have worked as an expert witness in a number of cases in which I have been asked to analyze and evaluate various political and elections-related data and statistical methods. Cases in which I have testified at trial or by deposition are listed in my CV, which is attached to the end of this report. I have previously provided expert reports in a number of cases related to voting, redistricting, and election-related issues: *Nancy Carola Jacobson, et al., Plaintiffs, vs. Laurel M. Lee, et al., Defendants. Case No. 4:18-cv-00262 MW-CAS (U.S. District Court for the Northern District of Florida); Common Cause, et al., Plaintiffs, vs. Lewis, et al., Defendants. Case No. 18-CVS-14001 (Wake County, North Carolina); Kelvin Jones, et al., Plaintiffs, v. Ron DeSantis, et al., Defendants, Consolidated Case No. 4:19-cv-300 (U.S. District Court for the Northern District of Florida); Community Success Initiative, et al., Plaintiffs, v. Timothy K. Moore, et al., Defendants, Case No. 19-cv-15941 (Wake County, North Carolina); Richard Rose et al., Plaintiffs, v. Brad Raffensperger,*

[1]The political science department at Brigham Young University does not offer any graduate degrees.

Defendant, Civil Action No. 1:20-cv-02921-SDG (U.S. District Court for the Northern District of Georgia); Georgia Coalition for the People's Agenda, Inc., et. al., Plaintiffs, v. Brad Raffensberger, Defendant. Civil Action No. 1:18-cv-04727-ELR (U.S. District Court for the Northern District of Georgia); Alabama, et al., Plaintiffs, v. United States Department of Commerce; Gina Raimondo, et al., Defendants. Case No. CASE NO. 3:21-cv-00211-RAH-ECM-KCN (U.S. District Court for the Middle District of Alabama Eastern Division); League of Women Voters of Ohio, et al., Relators, v. Ohio Redistricting Commission, et al., Respondents. Case No. 2021-1193 (Supreme Court of Ohio); Harper, et al., Plaintiffs, v. Hall et al., Defendants. Case No. 21-CVS-015426 (Wake County North Carolina)

In my position as a professor of political science, I have conducted research on a variety of election- and voting-related topics in American politics and public opinion. Much of my research uses advanced statistical methods for the analysis of quantitative data. I have worked on a number of research projects that use "big data" that include millions of observations, including a number of state voter files, campaign contribution lists, and data from the US Census. I have also used geographic information systems and other mapping techniques in my work with political data.

Much of this research has been published in peer-reviewed journals. I have published nearly 20 peer-reviewed articles, including in our discipline's flagship journal, *The American Political Science Review* as well as the inter-disciplinary journal, *Science Advances*. My CV, which details my complete publication record, is attached to this report as Appendix A.

The analysis and opinions I provide in this report are consistent with my education, training in statistical analysis, and knowledge of the relevant academic literature. These skills are well-suited for this type of analysis in political science and quantitative analysis more generally. My conclusions stated herein are based upon my review of the information available to me at this time. I reserve the right to alter, amend, or supplement these conclusions based upon further study or based upon the availability of additional information. The opinions in this report are my own, and do not represent the view of Brigham Young

University.

2 Methods

To gauge the degree to which the Commission's proposed map is a partisan gerrymander, I conduct simulated districting analyses to allow me to produce a large number of districting plans that follow traditional redistricting criteria using small geographic units as building blocks for hypothetical legislative districts (election precincts). This simulation process ignores all partisan and racial considerations when drawing districts. Instead, the computer simulations are programmed to create districting plans that follow traditional districting goals without paying attention to partisanship, race, or the location of incumbent legislators. Despite drawing districts without regard to race, the simulations nevertheless generates a similar number of majority-minority districts and minority opportunity districts as the Commission's proposal. This is due to the geographic clustering of minority populations in the state such that a race-blind simulation will nevertheless create many of these districts. I discuss this in more detail in a later section of the report. This set of simulated districts is helpful because it provides a set of maps to which we can compare the Commission's proposed map to see if it is biased in favor of either political party. This is because in comparing the Commission's map to the simulated districts, we are comping a map to a set alternative maps that we know to be unbiased. If the Commission's map produces a similar outcome as the alternative set of maps, we may reasonably conclude that the Commission's plan is also unbiased. Alternatively, if the Commission's proposed plan significantly diverges from the set of simulated maps, it may be the case that the proposed plan is biased in favor of one party.

The process of simulating districting plans has been recognized and used in a variety of redistricting cases, including in Pennsylvania.[2] While different people employ slightly

[2]See League of Women Voters of Ohio v. Ohio Redistricting Commission (2021); Harper v. Hall (2021); Common Cause v. Lewis (2019); Harper v. Lewis (2019); League of Women Voters of Pennsylvania v.

different methods, the overall process is much the same. For my simulations, I use a program developed by Fifield et al. (2020).[3] This algorithm has been validated and accepted or relied upon in a number of recent redistricting cases, including in Ohio, Alabama, North Carolina, and in Pennsylvania.

A significant advantage of the simulation-based approach is the ability to provide a representative sample of possible districting plans that accounts for the unique political geography of a state, such as the spatial distribution of voters or the location and number of administrative boundaries, such a counties. Simulation methods can also to a degree incorporate each state's unique redistricting rules. The simulation-based approach therefore permits us to compare a particular plan to a large number of representative districting plans in Pennsylvania. In the simulations I run, I instruct the model to generate plans that adhere to the redistricting criteria contained in the Pennsylvania Constitution.

Specifically, the model is constrained to conduct 50,000 simulations in which each simulation generates 203 districts that are of roughly equal population (<4.25% deviation above or below the target population of 64,053, which is the same range as in the commission's proposal). The algorithm does this by assembling small geographic units — electoral precincts — into larger groups of precincts until a group of precincts is large enough to constitute a new legislative district. The model does this 203 times to create a full redistricting plan containing 203 legislative districts. It then repeats this process 50,000 times, generating a different set of 203 districts with each run of the model. In each of the 50,000 iterations, the model is instructed to generate districts that cross county boundaries as few times as possible. Of course, county populations do not always add up to round units of districts,

Commonwealth of Pennsylvania (2018).

[3]Fifield, Benjamin, , Michael Higgins, Kosuke Imai, and Alexander Tarr. "Automated redistricting simulation using Markov chain Monte Carlo." Journal of Computational and Graphical Statistics 29, no. 4 (2020): 715-728.

Fifield, Benjamin, Kosuke Imai, Jun Kawahara, and Christopher T Kenny. 2020. "The essential role of empirical validation in legislative redistricting simulation." Statistics and Public Policy 7 (1): 52–68.

Kenny, Christopher T., Cory McCartan, Benjamin Fifield, and Kosuke Imai. 2020. redist: Computational Algorithms for Redistricting Simulation. https://CRAN.R-project.org/package= redist.

McCartan, Cory, and Kosuke Imai. 2020. "Sequential Monte Carlo for sampling balanced and compact redistricting plans." arXiv preprint arXiv:2008.06131.

and so of necessity some county boundaries will be split. The model is further instructed that when a county boundary needs to be crossed, it should avoid splitting the county more times than necessary. The model also includes instructions to generate districts that are geographically compact. The final constraint is an instruction to avoid splitting city, town, borough, and township boundaries (I refer to these collectively as municipalities in the rest of the report).

Once the simulated district plans are complete, only then do I compute the partisan composition of each district in each plan. For the partisan composition of each district I rely on the election results from statewide elections disaggregated to the level of the precinct. I then reassemble these election results for each of the simulated districts in each of the 50,000 simulations to compute the proportion of votes across all statewide elections conducted between 2012 and 2020 that were won by the Democratic and Republican candidates in those districts.[4] Creating a partisan index is common when measuring the general partisan tendency of a district and has frequently been used in other redistricting cases. In other words, the partisan index is the average vote share for Democratic candidates in each district for the statewide elections considered between 2012-2020. I choose 2012 as the starting date as this a full set of elections between the decennial census. Furthermore, averages of multiple elections have the benefit of "washing out" the impact of any particular election, since individual elections can vary due to particular candidate features and other idiosyncrasies, and particular years can vary due to national electoral waves (i.e. 2018 was an especially good year for Democrats while 2016 was an especially good year for Republicans nationwide).

[4]The particular races are 2020: President, Auditor, Attorney General, Treasurer; 2018: Governor, US Senate; 2016: President, US Senate, Auditor, Attorney General, Treasurer; 2014: Governor; 2012: President, US Senate, Auditor, Attorney General, Treasurer. I do not include statewide judicial elections in the index. It is uncommon in political science to use judicial elections to measure voters' partisan preferences as research suggests voters treat judicial elections very differently, even when judges run under party labels, than they do partisan elections to legislative and executive positions. Other commonly used measures indices such as Dave's Redistricting and PlanScore.com also omit judicial elections from their partisan indices.

3 Results

3.1 Population, Boundary Splits, and Compactness

Table 4 below compares the Commission proposal to the distribution of simulations for population deviation, boundary splits, and compactness. The Commission proposal and the simulations are within the same range of district population deviations from the target district size. The proposal splits 45 counties 186 times. This is in line with the simulations in terms of the number of counties split. The proposal divides 56 municipalities 92 times. This is lower than the range produced by the simulations. On the whole, the proposal appears to perform well at having few municipal splits. However, later in the report I will show how the choice of *which* municipalities to split is informative of why the Commission's proposal is such an extreme partisan outlier compared to the set of simulation results. With regards to district compactness, the Commission proposal is similarly compact and largely in line with the results of the simulations.

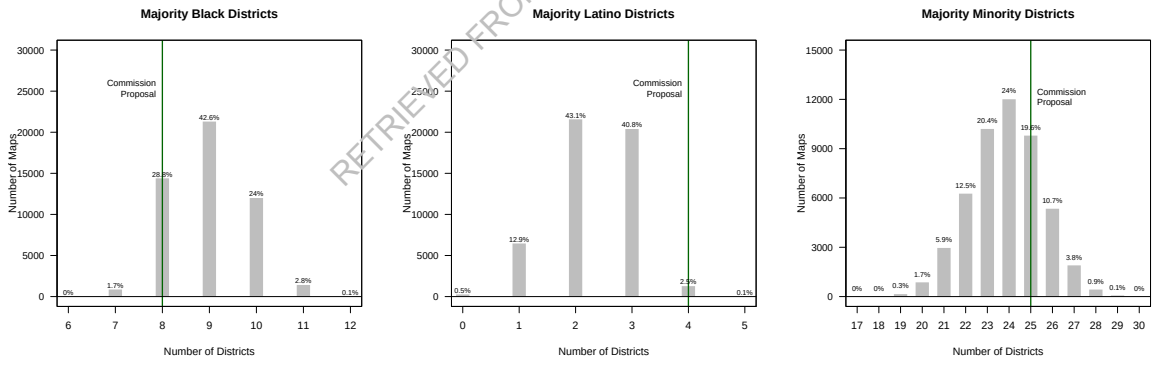
Table 1: Commission Proposal and 50,000 Simulations: Population, Splits, and Compactness

	Commission Final Proposal	Simulations Median	Simulations Range
Population Deviation			
Smallest District:	-4.24%	-4.22%	[-4.25., -3.91]
Largest District:	4.40%	4.23%	[3.93, 4.25]
Boundary Splits			
Counties Split:	45	46	[42, 52]
Total County Splits:	186	195	[184, 208]
Municipalities Split:	56	82	[61, 105]
Total Municipal Splits:	92	119	[98, 140]
Compactness			
Median Polsby-Popper:	0.35	0.32	[0.29, 0.34]

3.2 Race

Figure 1 displays the distribution of districts according to three different measures of the racial composition of districts commonly used in redistricting litigation - the number of majority Black districts, the number of majority Latino districts, and the number of majority-minority districts in the simulations as well as the Commission's proposal. The left panel shows the number of majority Black districts, the middle panel shows the number of majority Hispanic districts, and the right panel shows the number of majority-minority districts. The grey bars show the distribution of these districts in the simulations and the green vertical line shows the results for the Commission proposal according to each metric. The Commission proposal generates eight majority Black districts, four majority-Hispanic districts, and 25 majority-minority districts throughout the state. These are all within the range produced by the simulations even though the simulations do not explicitly consider race when drawing district lines.

Figure 1: **Racial Composition of Districts and Simulations - Majority Minority Districts**



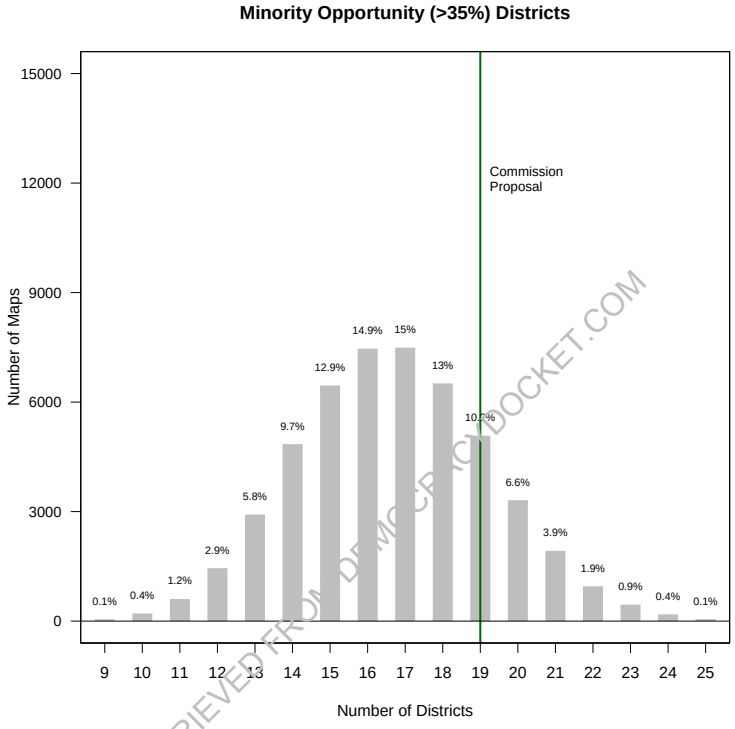
Note: The grey distributions are the number of majority Black (left panel), Hispanic (middle panel), and minority (right panel) districts generated from the 50,000 simulations. The vertical green line is the respective number in the Commission's final proposal.

An additional consideration is the creation of coalition majority "opportunity" districts where the proportion of minority voters is not over 50% but is large enough that they can exert substantial influence in the selection of candidates.[5] Figure 2 shows the results for

[5]The proportion of minority population necessary to constitute an effective "opportunity" district,

these coalition minority opportunity districts. The green line shows the results for the Commission proposal according to each metric. The Commission proposal generates 19 minority coalition opportunity districts, which is within the range of the simulation results as well.

Figure 2: **Racial Composition of Districts and Simulations - Coalition Minority Opportunity Districts**



Note: The grey distribution is the number of coalition minority opportunity districts generated from the 50,000 simulations. The vertical green line is the respective number in the Commission's final proposal.

whether or not a majority-minority district is necessary, and the number and location of these districts first requires an analysis of racially polarized voting in the different regions of the state, the degree of White crossover voting, as well as consideration of the other *Gingles* factors. I have not seen any such analysis of the LRC proposal.

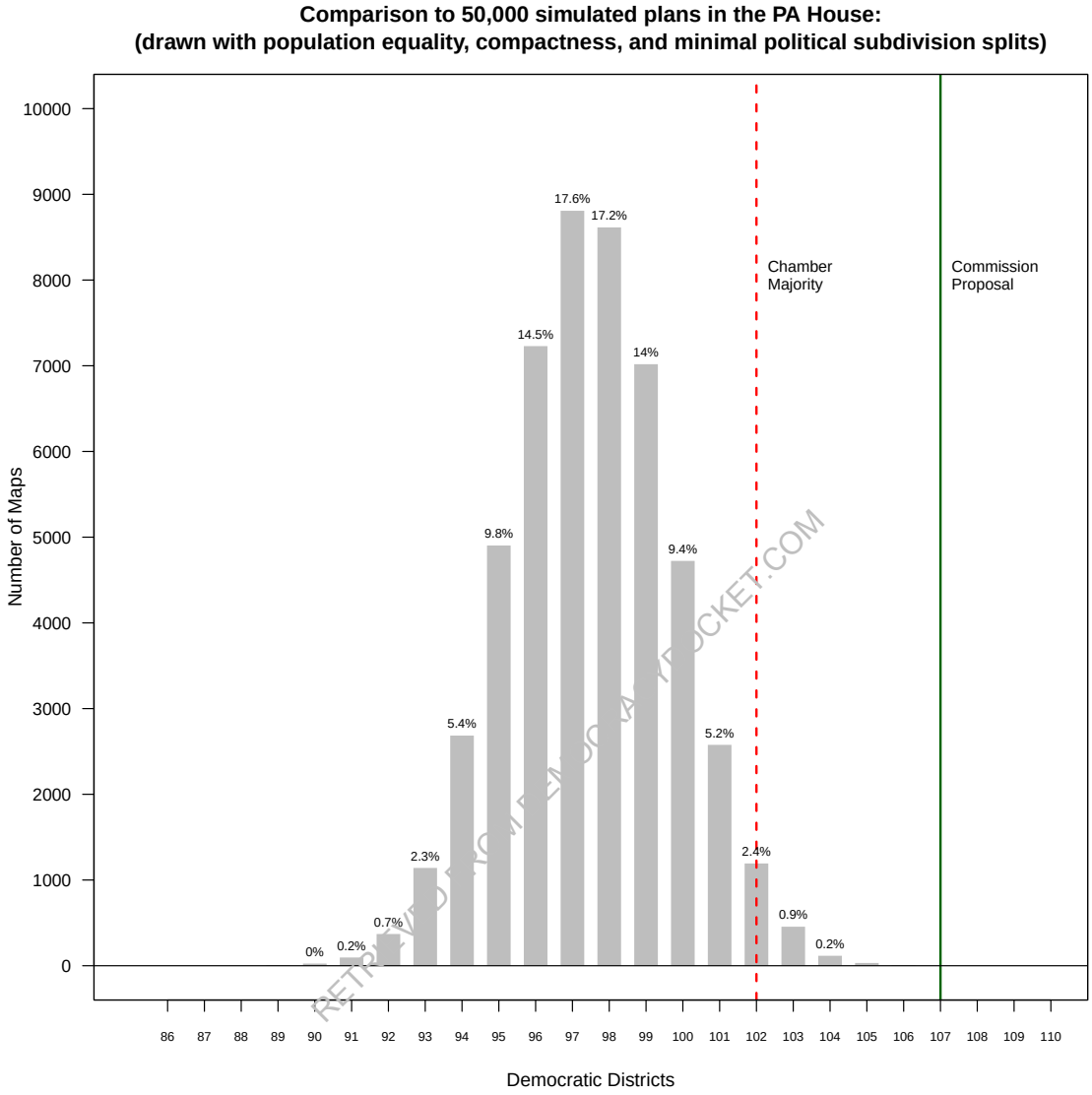
3.3 Partisanship

Figure 3 displays the distribution of Democratic leaning districts in both the simulations and the Commission's proposal using the partisan index discussed above. For reference the red dashed line in the plot is at 102, the number of seats needed for a majority in the Pennsylvania House of Representatives. The green line shows the results of calculating the partisan index for the Commission proposal. The Commission proposal generates 107 Democratic leaning districts (districts with a partisan index greater than 0.50), which is 10 seats larger than the most common outcome generated by the simulations, 97. The numbers above each bar in the histogram display the relative frequency of each outcome in the simulations. Beginning from the far left side of the figure and adding those numbers up as one moves to the right, we would find that the Commission's plan generates more Democratic leaning districts than 99.998% of the simulations.

Recall that in using the simulations we are comparing the Commission's proposed map to a set of maps drawn by the computer using only those criteria that I instructed the algorithm to follow - namely the pre-specified nonpartisan criteria of equal population, contiguity, geographic compactness and a preference for fewer county and municipal splits. And yet the degree to which the Commission's proposal diverges from the distribution of simulation results is extreme and represents a significant deviation from a fair outcome. Thus, the significant deviation observed here strongly suggests that the Commission's plan was drawn using some other, or additional criteria. This could, of course, include a motivation for Democratic partisan advantage given the incredibly large deviation between the number of Democratic districts generated by the proposal and the range of Democratic-leaning districts generated by the simulations.

One question raised in the LRC hearings was whether the Commission's proposed map is a partisan outlier compared to the simulations due to the presence (or absence) of a particular number of majority-minority districts. Dr. Imai testified that when we restrict the simulation algorithm to generate a certain number of majority minority districts that

Figure 3: **Partisan Composition of Commission Proposal and Simulations**



Note: The grey distribution is the number of Democratic districts generated from the 50,000 simulations. The vertical green line is the number of Democratic leaning districts in the Commission's proposal. The Commission's proposal generates more Democratic leaning districts than 99.998% of the simulations. The red dashed line is placed at 102, the number of seats needed for majority control in the Pennsylvania House of Representatives. The partisan lean of districts in the simulations and the Commission proposal are calculated as the two-party vote share of statewide partisan elections from 2012-2020.

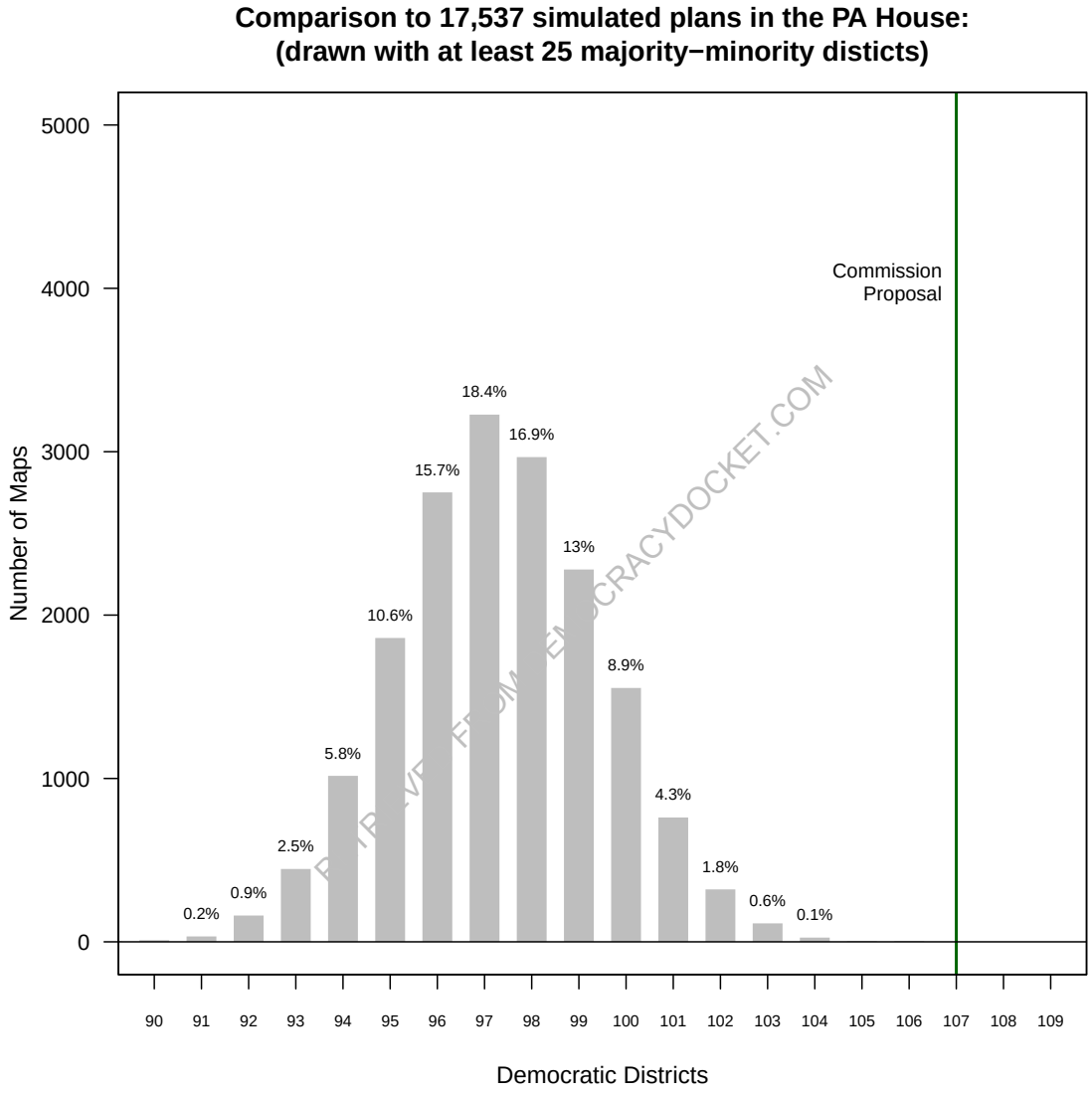
the simulations and the Commission's proposal become much more closely aligned. We can test this in my simulations by limiting the 50,000 simulations to only those that produce at least as many majority-minority districts as the Commission's proposal (25) and compare

this new distribution with the Commission's proposal in terms of the number of Democratic-leaning districts generated. Of the 50,000 simulations, there are 17,537 that contain at least 25 majority-minority districts, which is the same as the number created in the commission's proposal.

Figure 4 shows the partisan results of the simulations among this "race filtered" set of simulations. We see that the distribution of partisanship does not shift dramatically from the original set of 50,000 simulations, and the commission's proposal remains a partisan outlier. Thus, the results presented by Dr. Imai suggest that some other factor is causing the shift between the simulations and the commission's proposal aside from the constraint to contain a certain number of majority-minority districts.[6] These results also show that it is entirely possible to create a large number of majority-minority districts without also creating a plan that is systematically tilted towards benefiting the Democratic Party.

[6]Given the lack of detailed information about Professor Imai's simulation analysis in his report, I am unable to identify the precise reasons for this difference between my and Professor Imai's race-conscious simulation analyses. Additional factors could include the fact that Dr. Imai's simulations are much less geographically compact than my simulations (see Table 1 of this report and Figures A7-8 of Dr. Imai's written testimony at the LRC hearing). Dr. Imai's simulations also contain many more municipal splits than the Commission proposal or my simulations (see Table 1 of this report and Figures A9-11 of Dr. Imai's written testimony at the LRC hearing.)

Figure 4: **Partisan Composition of Simulations Containing at Least 25 Majority-Minority Districts**



Note: The grey distribution is the number of Democratic seats generated from the 17,537 simulations that contained at least 25 majority-minority districts. The vertical green line is the number of Democratic leaning seats in the Commission's proposal. Even after considering the racial composition of districts, the Commission's proposal remains a statistical outlier. The partisan lean of districts in the simulations and the Commission proposal are calculated as the two-party vote share of statewide partisan elections from 2012-2020.

4 Political Geography of Pennsylvania

Where are the discrepancies in partisanship arising? Given the geographic distribution of voters in Pennsylvania and the clustering of Democrats within the large and medium-sized cities of the state, there are only relatively few locations in which Democratic districts can be constructed.

Scholarship in political science has noted that the spatial distribution of voters throughout a state can have an impact on the partisan outcomes of elections when a state is, by necessity, divided into a number of legislative districts. This is largely the case because Democratic-leaning voters tend to cluster in dense, urban areas while Republican-leaning voters tend to be more equally distributed across the remainder of the state.[7] One prominent study of the topic (Chen and Rodden, 2013) finds that "Democrats are highly clustered in dense central city areas, while Republicans are scattered more evenly through the suburban, exurban, and rural periphery...Precincts in which Democrats typically form majorities tend to be more homogenous and extreme than Republican-leaning precincts. When these Democratic precincts are combined with neighboring precincts to form legislative districts, the nearest neighbors of extremely Democratic precincts are more likely to be similarly extreme than is true for Republican precincts. As a result, when districting plans are completed, Democrats tend to be inefficiently packed into homogenous districts."[8]

Rodden (2019) further discusses this with specific reference to Pennsylvania.[9] He

[7]See for example Stephanopoulos, N. O. and McGhee, E. M., Partisan Gerrymandering and the Efficiency Gap, *The University of Chicago Law Review* 82: 831-900, (2015); Chen, J. and Rodden, J., Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures, *Quarterly Journal of Political Science* 8: 239-269, (2013); Nall, C., The Political Consequences of Spatial Policies: How Interstate Highways Facilitated Geographic Polarization, *Journal of Politics*, 77(2): 394-406, (2015); Gimple, J. and Hui, I., . Seeking politically compatible neighbors? The role of neighborhood partisan composition in residential sorting, *Political Geography* 48: 130-142 (2015); Bishop, B., *The Big Sort: Why the Clustering of Like-Minded America is Tearing Us Apart*, Houghton Mifflin Press (2008); and Jacobson, G. C., and Carson, J. L., *The Politics of Congressional Elections*, 9th ed. Lanham, MD: Rowman and Littlefield (2016).

[8]Chen, J. and Rodden, J., Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures, *Quarterly Journal of Political Science* 8: 239-269, (2013)

[9]Rodden, Jonathan A. Why cities lose: The deep roots of the urban-rural political divide. Hachette UK, 2019.. While Rodden is specifically discussing Pennsylvania in this quote, the statement is true of any location with Democrats clustered in urban areas.

states:

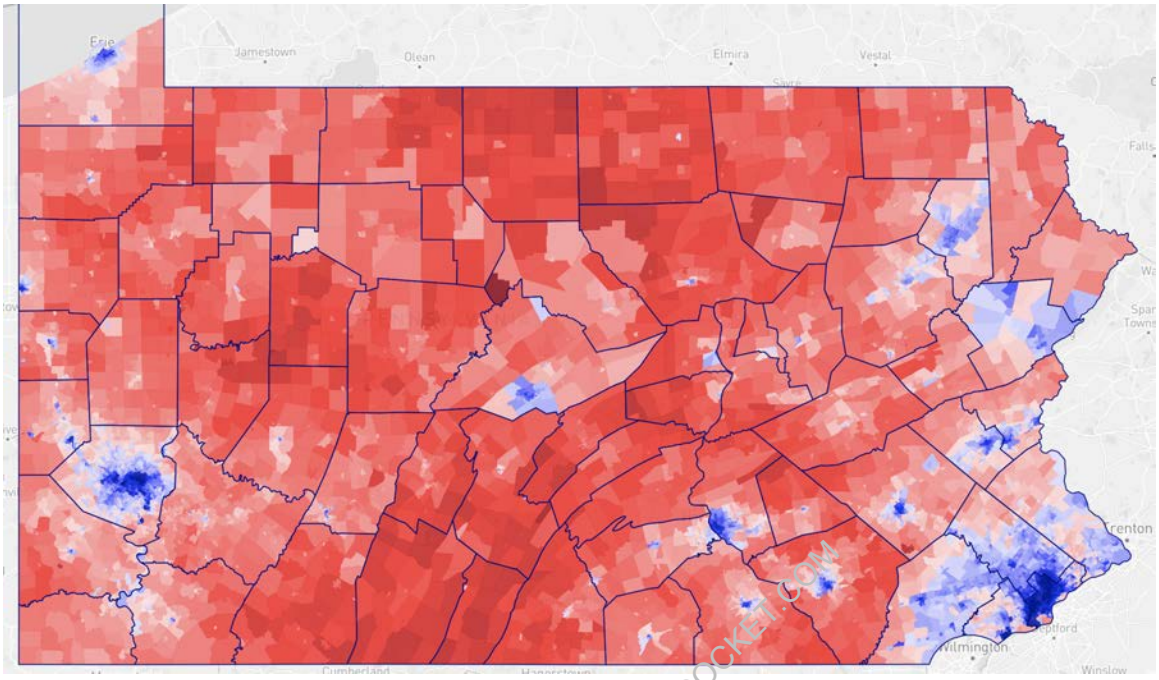
> Then and now, the Democrats have been plagued by a problem with geography. In the years following the New Deal, their supporters became concentrated in the core urban neighborhoods of Pennsylvania's nineteenth-century industrial cities and along the surrounding railroad tracks. They remain so today....Because of the scale and geographic arrangement of Pennsylvania's nineteenth-century cities, the Democrats' problem is severe when districts are very small—as in the state house of representatives—and even worse when they are medium-sized, as in the state senate.

The map below confirms that this is the case in Pennsylvania. We see large Democratic majorities shown in blue in and around Philadelphia and Pittsburgh as well as small pockets of densely populated Democratic voters in the other medium-sized industrial cities of the state. These areas are surrounded by large swaths of the state that are solidly Republican.

The upshot of this pattern is that political parties stand at a disadvantage when their voters are not "efficiently" distributed across the state. To understand what I mean by efficient, imagine two different scenarios. First, imagine a party with a slim majority of voters statewide in which every precinct's vote share perfectly reflected the overall state. In other words, the party has a slight majority in every precinct that adds up to a slight majority statewide. In this case, this party's voters are extremely efficiently distributed in such a way that the party will win every single district despite only a slim majority statewide. Now imagine a different arrangement, a party who still holds a slim majority statewide, but whose voters are heavily concentrated in a few areas and sparsely populated throughout the rest of the state. In this case, despite holding a majority of votes statewide, the party will only win a few seats where their voters are heavily concentrated. The political geography of Pennsylvania closely resembles the second scenario.

The geographic concentration of a party's voters tends to harm that party when single-member districts are drawn by creating districts that favor that party by very large

Figure 5: **Distribution of People and Partisan Preferences in Pennsylvania**



Note: Distribution of Partisan Preferences in Pennsylvania based on the average of statewide partisan elections. Blue = Democratic, Red = Republican

majorities, thus "wasting" many votes in running up large majorities far beyond 50%+1.[10] This occurs in Pennsylvania in the large and medium-sized cities of the state. These overwhelming margins for the party are what drives "wasted votes," which, in turn translate to fewer seats than the statewide proportion of the vote would suggest.[11]

Another way to consider this is to look at a lower level of geography, electoral precincts. Figure 6 shows the distribution of partisan preferences for recent statewide partisan elections for all precincts in Pennsylvania. The top panel notes precincts where there are strong majorities for either party and labels them as "inefficient" precincts (those precincts towards the outer edges of the figure). They are inefficient based on the discussion above

[10]McGhee, E. (2017). Measuring Efficiency in Redistricting. Election Law Journal: Rules, Politics, and Policy, 16(4), 417–442. doi:10.1089/elj.2017.0453

[11]The term "wasted votes" in political science is not to imply that a person's vote is not important or counted, but rather that the vote is less helpful in gaining an additional seat for their preferred party if it is an additional vote in favor of a candidate that has already won a substantial majority of the votes in their district. Technically, all votes beyond 50%+1 would be, as a result, "wasted". However, parties are interested in winning by majorities larger than 50%+1, but not by margins much beyond that point at which their candidate is all but assured to win.

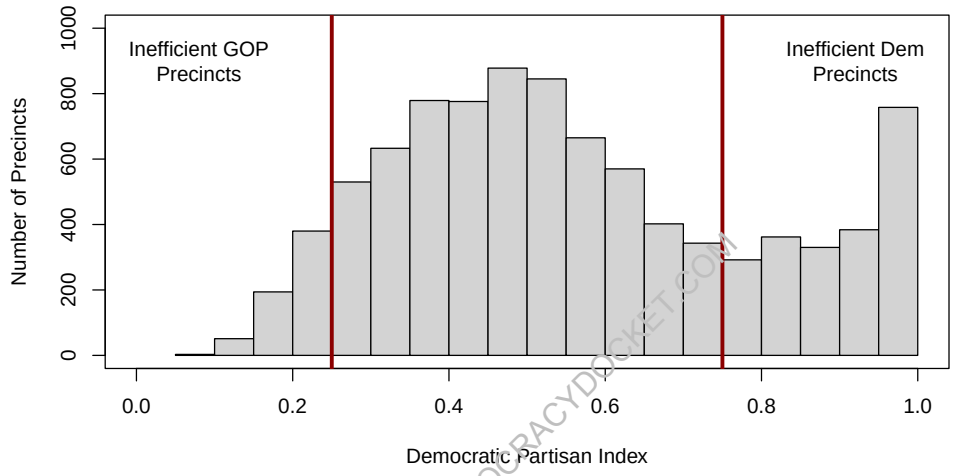
that a party wastes votes if it builds majorities far beyond the needed 50%+1. Note that the distribution is not symmetric and that there are many more precincts with very large Democratic majorities than there are precincts with equally large Republican majorities. The lower panel shows the same distribution but labels "efficient" precincts — those where a party has a majority, but not an overwhelming majority. Note here that there are many more precincts with efficient Republican majorities than there are precincts with efficient Democratic majorities.

This inefficient distribution of votes would not be a problem for Democrats if district boundaries were able to amble about the state and divide municipalities so as to create districts that had less overwhelming Democratic support. Rodden (2019) notes this by saying: "Democrats would need a redistricting process that intentionally carved up large cities like pizza slices or spokes of a wheel, so as to combine some very Democratic urban neighborhoods with some Republican exurbs in an effort to spread Democrats more efficiently across districts" (pg. 155).[12] However, the laws governing redistricting in Pennsylvania run counter to either of these strategies. Pennsylvania's redistricting rules that require districts to be geographically compact and to avoid county and municipal divisions prohibit the type of meandering districts that Rodden describes above. In the end, this means that Republicans begin the redistricting process with a natural geographic advantage due to the combination of laws requiring where and how districts are drawn combined with the particular spatial distribution of their voters.

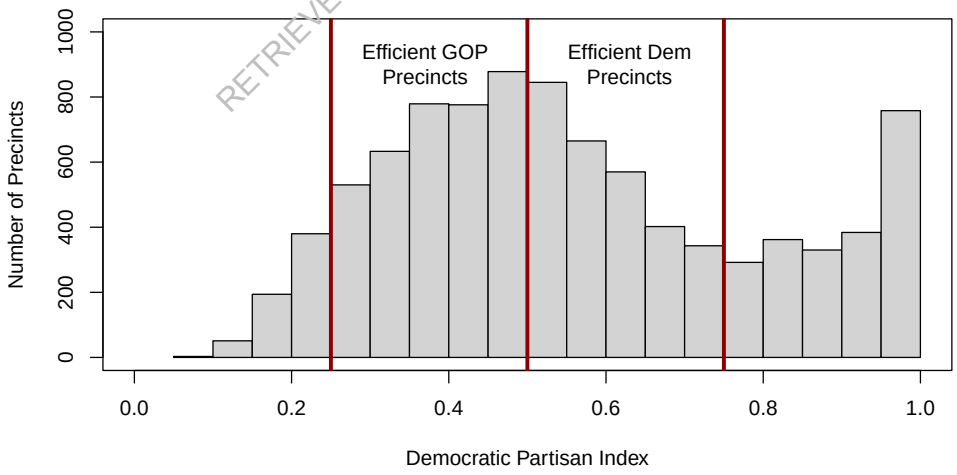
[12]Rodden, Jonathan A. Why cities lose: The deep roots of the urban-rural political divide. Hachette UK, 2019.

Figure 6: **Distribution of Votes Across Precincts in Pennsylvania**

(a) Inefficient precincts



(b) Efficient Precincts



Note: Partisan Index based on the average of statewide partisan races between 2012-2020.

5 Looking at Subsets of Pennsylvania

Given the discussion above, it is instructive to look at locations in the state that have urban clusters of Democratic voters. If the Commission's proposal is attempting to enact a Democratic gerrymander, we should see evidence of what Rodden (2019) discusses above, i.e. the intentional division of Democratic cities that are used to spread Democratic voters out more efficiently to overwhelm Republican votes in the adjacent suburbs and exurbs in order to create more Democratic districts than would otherwise be produced by keeping these municipalities whole.

To do this I focus on a number of counties (or groups of counties) in the state that contain large and medium-sized cities and compare the partisan outcomes in the Commission's proposed plan to the plans generated by the simulations. The table below summarizes these results. Looking at the table shows that the differences we observed between the simulations and the Commission's proposal are due to a systematic overrepresentation of Democrats in these counties with urban cores. Across the 7 groups of counties considered here, in 3 of the 7 cases the Commission's proposal generates one additional Democratic district than the most common outcome in the simulations, and in two regions the Commission's proposal generates 2 more Democratic seats than the most common outcome in the simulations. These deviations add up across the urban areas of the state to a collective deviation of seven seats, which accounts for a significant portion of the difference between the Commission's proposal and the most common outcome in the distribution of Democratic seats generated by the simulations statewide.

How does the Commission's proposed map generate an extra Democratic leaning seat in most of these counties considered in the table above? In the analysis below I show that the Commission's proposal follows exactly the strategy discussed by Rodden (2019) for how the Democratic party would have to work to overcome the disadvantage they face due to the geographic concentration of their voters. Recall the strategy he outlines, "Democrats would need a redistricting process that intentionally carved up large cities like pizza slices or

Table 2: County-by-County Analysis of Commission Proposal and 50,000 Simulations

	Number of Democratic Leaning Districts		
County:	Commission Proposal	Simulations Modal Outcome	% of Simulations Generating Fewer Democratic Seats Than Commission's Map
Philadelphia	25	25	0%
Allegheny	16	16	25.0%
Lehigh and Bucks	11	9	99.8%
Schuylkill, Berks, Lancaster, and Lebanon	5	4	80.8%
Dauphin, and Cumberland	3	2	76.4%
Susquehanna, Lackawanna, and Luzerne	12	10	97.7%
Centre and Clinton	2	1	71.7%

spokes of a wheel, so as to combine some very Democratic urban neighborhoods with some Republican exurbs in an effort to spread Democrats more efficiently across districts" (pg. 155).[13] This is exactly what the Commission's proposed plan does. In many of the largest cities in these counties the Commission unnecessary divides these cities when the population of these cities would not otherwise require them to be divided. The following section proceeds through each of these counties and shows the results of the simulations in the districts in these counties and compares them to the Commission's proposed districts in these counties. I then present maps of the Commission's map's district boundaries in these counties and show how in each case a heavily Democratic city is divided into more districts than its population would otherwise necessitate in order to more efficiently distribute Democratic voters across more districts and produce more districts with Democratic majorities. Furthermore, this is often accomplished by dividing cities that contain substantial minority populations. As a result, many of the districts created using this strategy crack minority populations and dilute their influence in the resulting districts.

[13]Rodden, Jonathan A. Why cities lose: The deep roots of the urban-rural political divide. Hachette UK, 2019.. While Rodden is specifically discussing Pennsylvania in this quote, the statement is true of any location with Democrats clustered in urban areas.

5.1 Lehigh and Bucks Counties

The combined population of Lehigh and Bucks counties is equal to approximately 16 legislative districts. In the 16 districts that cover this area, the Commission's proposal generates 11 Democratic leaning districts. The distribution of Democratic leaning districts based on the statewide partisan elections index calculated for each of the simulation results is shown in Figure 7. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the counties shown below each bar. The most common outcome in the simulations is 9 Democratic districts. The red vertical line at 11 represents the number of Democratic leaning seats in the Commission's map in the portion of the state. In 99.8% of the simulations there are fewer than 11 Democratic leaning districts in these counties. In less than 1% of the simulations are there 11 Democratic leaning districts in these counties, as is the case in the Commission's proposed map.

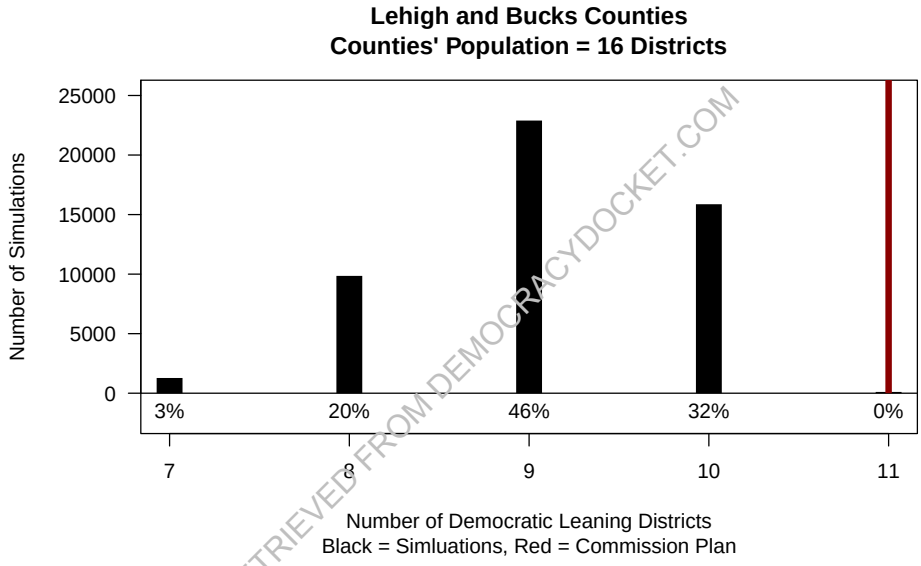
The Commission's plan achieves this by dividing the city of Allentown in Lehigh County more than is necessary so as to more evenly distribute the Democratic voters that live in the city across more districts. Allentown is heavily Democratic and has a population of 126,364, which when divided by the target district size of 64,053 comes to approximately 1.97 districts. Thus, Allentown is too large to be completely contained in one district and will need to be divided into two districts. However, the Commission's plan divides the city into three districts. Figure 8 below shows this using two maps. The top panel shows a map of the Commission's proposed district boundaries in Lehigh County where Allentown is located. The bottom panel focuses exclusively on the city of Allentown and shows how the city is split into three different districts.

The next set of maps shows how this division follows the gerrymandering strategy of dividing Democratic cities into "pinwheel" shapes where Democratic voters in the city can be combined with less Democratic areas outside of the city to make more Democratic districts with comfortable margins, but not the overwhelmingly Democratic margins that would occur

if fewer districts were drawn that were more geographically compact and split the city fewer times. In some cases this approach also has the effect of dividing minority communities that live in these cities and diluting their influence by distributing them across multiple legislative districts. Figure 9 shows a map of each of the three districts that intersect Allentown (HD-22, HD-134, HD-132). Each district is colored based on the partisan lean of the precincts in the district. The pattern we see, particularly in Districts 134 and 132, is exactly what I described earlier — the combination of heavily Democratic precincts in the center of the city with more Republican leaning precincts in the suburbs of the city. While Allentown itself is heavily Democratic (its partisan index based on the 2012-2020 statewide elections is 0.72), the inclusion of the more Republican leaning suburbs distributes Democrats more efficiently to create three Democratic leaning districts, two of which (HD-134 and HD-132) have less Democratic support, but are still comfortably Democratic.

The final map, Figure 10, shows that this approach also divides the Latino population in the city. As a whole, Allentown has a Hispanic voting age population of 48.9%. While District 22 is majority Latino, Districts 134 and 132 have substantially lower Latino populations (38.4% and 15.1%, respectively) as a result of the districts dividing the city and reaching into more suburban areas with a lower concentration of Latinos.

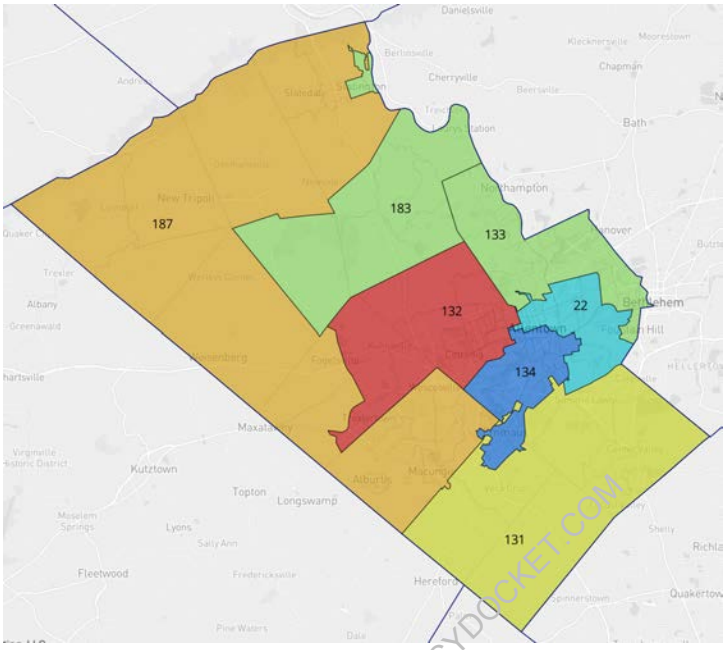
Figure 7: **Distribution of Partisan Districts from Simulations in Lehigh and Bucks Counties**



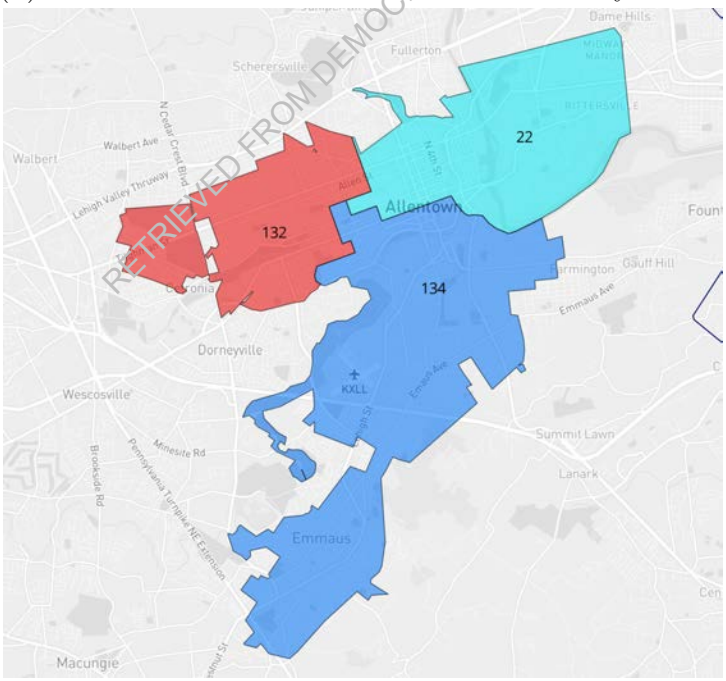
Note: Distribution of likely district partisanship based on the statewide partisan elections index calculated for each of the simulation results. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the cluster shown below each bar. The red vertical line shows the number of Democratic leaning seats in the Commission's proposed map in the same county.

Figure 8: **Commission Proposed Districts in Lehigh County**

(a) Proposal District Boundaries in Lehigh County

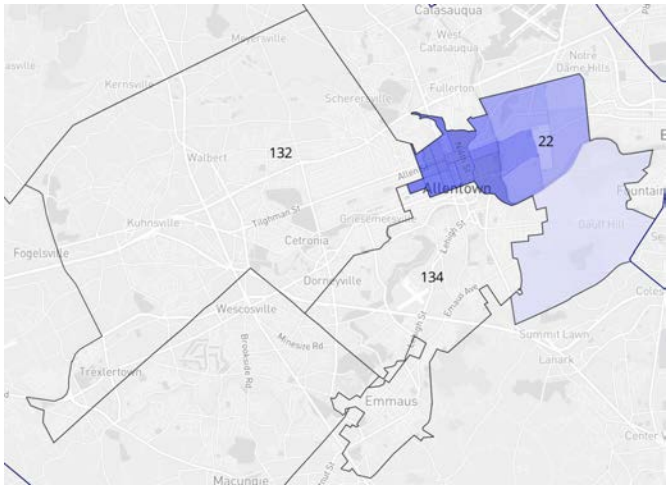


(b) District Boundaries within Allentown City Limits

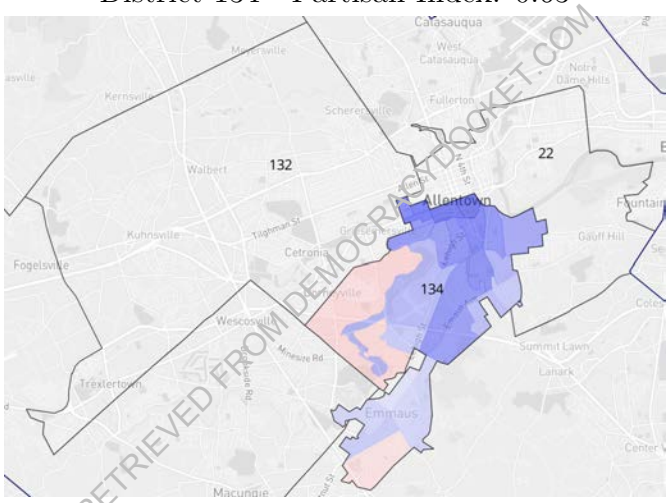


Note: The top figure shows the district boundaries within Lehigh County. The bottom figure shows how the city of Allentown is divided across three districts despite having a population that only requires it to be split into two districts. In each district we see a combination of heavily Democratic urban center with less Democratic suburban areas at the outer edges of the district.

District 22 - Partisan Index: 0.74



District 134 - Partisan Index: 0.63



District 132 - Partisan Index: 0.56

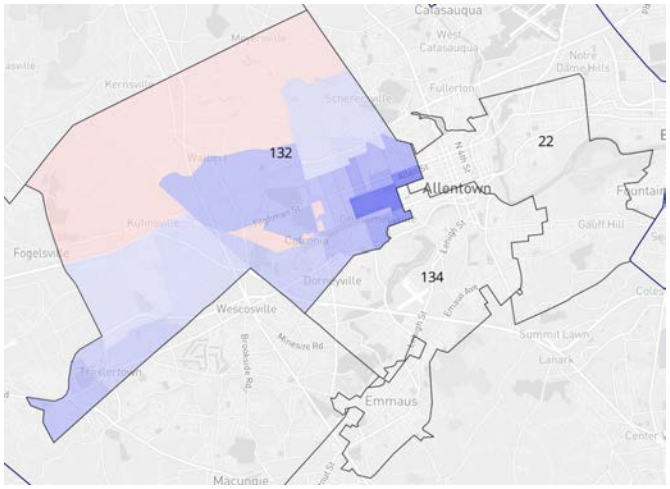
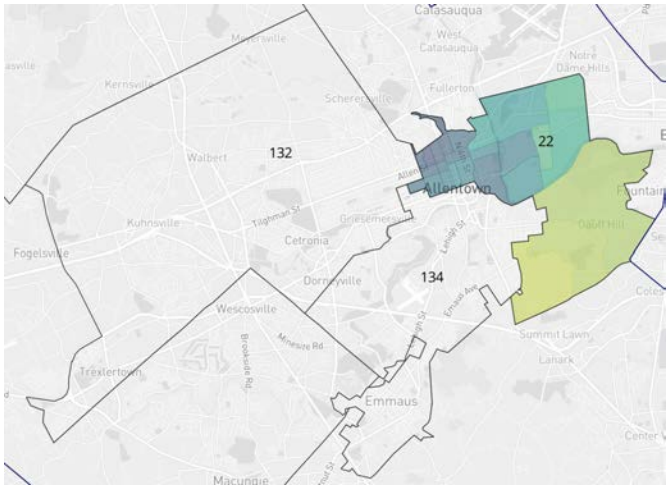
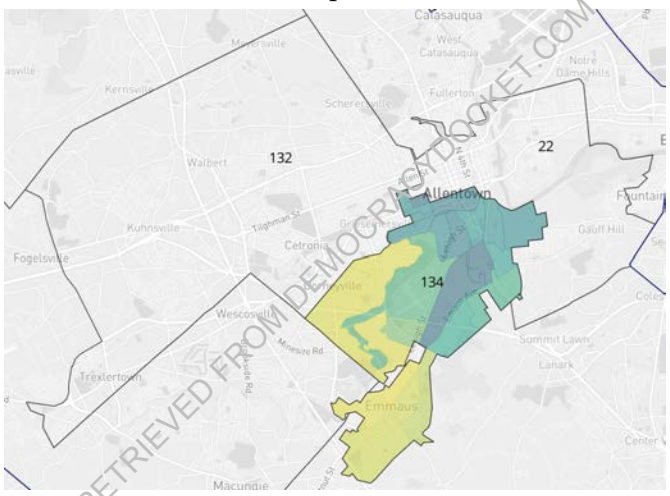


Figure 9: Note: Each panel shows one of the districts that intersect Allentown. The maps are colored according to the partisan composition of precincts in the district.

District 22 - Hispanic VAP: 53.3%



District 134 - Hispanic VAP: 38.4%



District 132 - Hispanic VAP: 15.1%

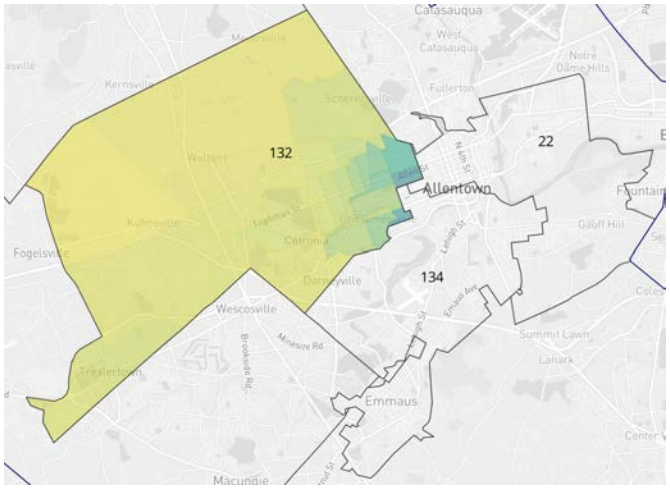


Figure 10: Each panel shows one of the districts that intersect Allentown. The maps are colored according to the Hispanic composition of precincts in the district. Darker shades indicate a greater proportion of Latinos. The city of Allentown has a 48.9% Hispanic voting age population.

5.2 Schuylkill, Berks, Lancaster, and Lebanon Counties

The combined population of Schuylkill, Berks, Lancaster, and Lebanon counties is equal to approximately 20 legislative districts. In the 20 districts that cover this area, the Commission's proposal generates 5 Democratic leaning districts. The distribution of Democratic leaning districts based on the statewide partisan elections index calculated for each of the simulation results is shown in Figure 11. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the counties shown below each bar. The most common outcome in the simulations is 4 Democratic districts. The red vertical line at 5 represents the number of Democratic leaning seats in the Commission's map in the portion of the state. In 80.8% of the simulations there are fewer than 5 Democratic leaning districts in these counties. In only 19% of the simulations are there 5 or more Democratic leaning districts in these counties, as is the case in the Commission's proposed map.

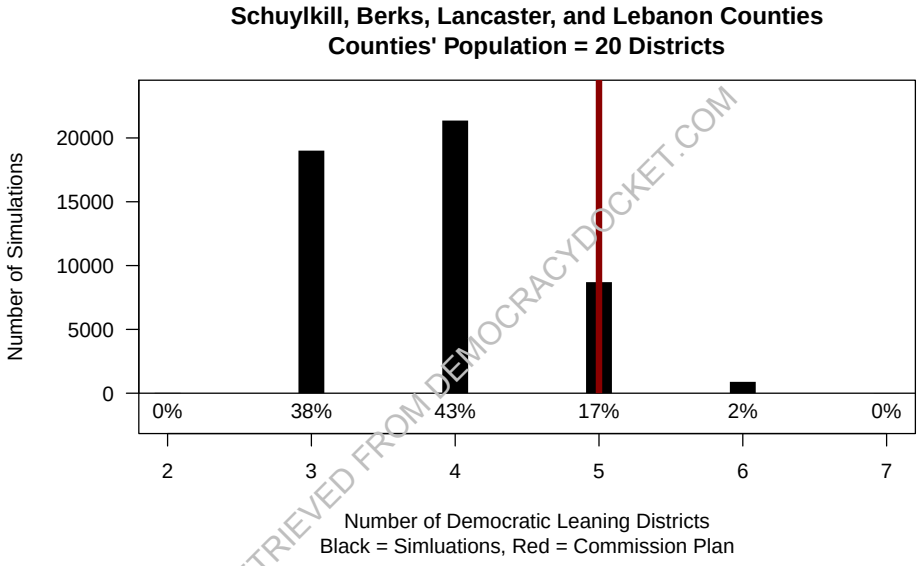
The Commission's plan achieves this by dividing the cities of Lancaster in Lancaster County and Reading in Berks County more than is necessary so as to more evenly distribute the Democratic voters that live in these cities across more districts. Lancaster is heavily Democratic and has a population of 58,431, which when divided by the target district size of 64,053 comes to approximately 0.91 districts. Thus, Lancaster is not larger than the target district population and could be kept whole. However, the Commission's plan divides the city nearly evenly into two districts. Figure 12 below shows this using two maps. The top panel shows a map of the Commission's proposed district boundaries in Lancaster County where the city of Lancaster is located. The bottom panel focuses exclusively on the city of Lancaster and shows how the city is split into two different districts.

The next set of maps shows how this division follows the gerrymandering strategy of dividing heavily Democratic cities and combining them with less Democratic areas outside of the city to make more Democratic districts with comfortable margins, but not the overwhelmingly Democratic margins that would occur if the city were kept whole. In Lancaster

this approach also has the effect of dividing and diluting the influence of the Latino community that lives in the city by distributing them across multiple legislative districts. Figure 13 shows a map of each of the two districts that intersect Lancaster (HD-50, HD-96). Each district is colored based on the partisan lean of the precincts in the district. The pattern we see is familiar — the combination of heavily Democratic precincts in the center of the city with more Republican leaning precincts in the suburbs of the city. While Lancaster itself is heavily Democratic (its partisan index based on the 2012-2020 statewide elections is 0.76), the inclusion of the more Republican leaning suburbs distributes Democrats more efficiently to create two Democratic leaning districts rather than one district that is overwhelmingly Democratic.

The final map, Figure 14, shows that this approach also divides the Latino population in the city. As a whole, Lancaster has a Latino voting age population of 35.9%. Both Districts 96 and 49 have a lower Latino population (12.8% and 34.3%, respectively) as a result of the districts dividing the city and reaching into more suburban areas with a lower concentration of Latinos.

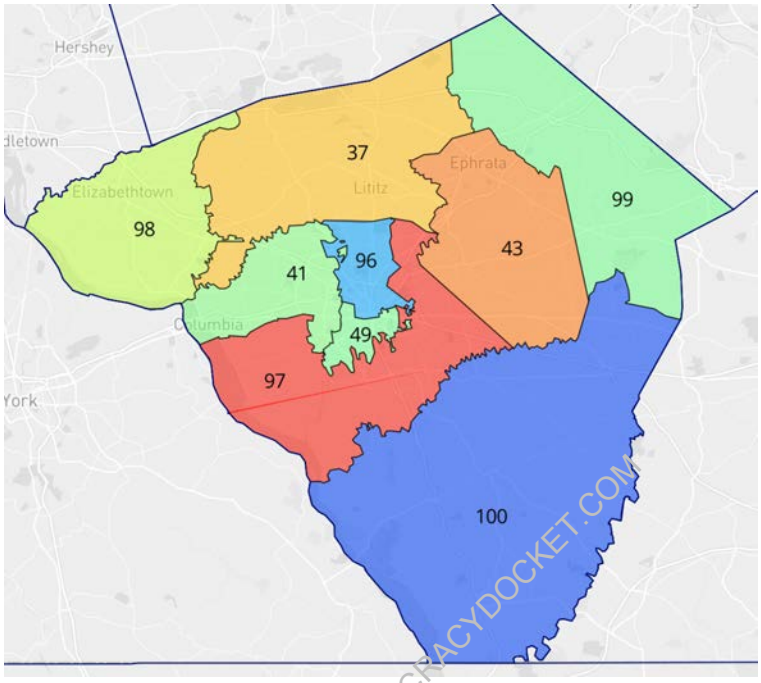
Figure 11: **Distribution of Partisan Districts from Simulations in Schuylkill, Berks, Lancaster, and Lebanon Counties**



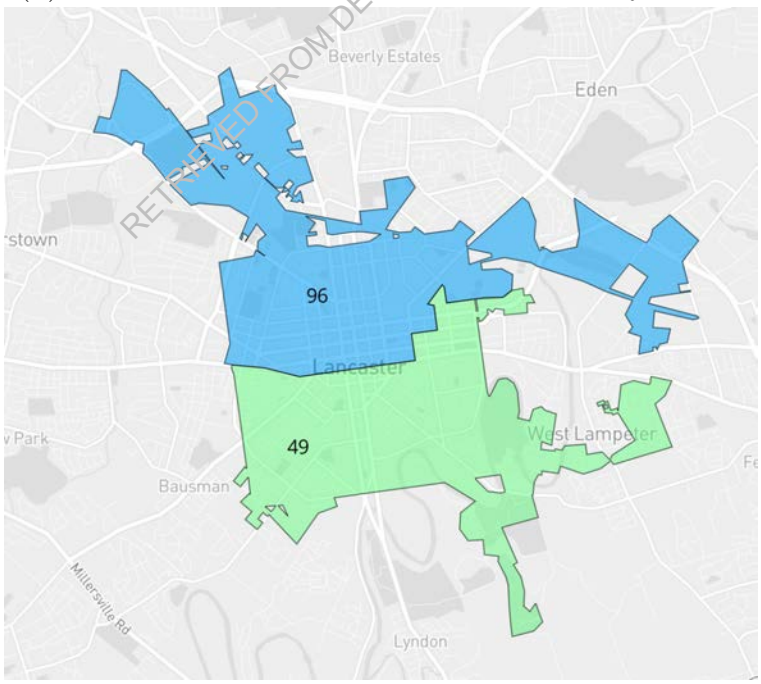
Note: Distribution of likely district partisanship based on the statewide partisan elections index calculated for each of the simulation results. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the cluster shown below each bar. The red vertical line shows the number of Democratic leaning seats in the Commission's proposed map in the same county.

Figure 12: **Commission Proposed Districts in Lancaster County**

(a) Proposal District Boundaries in Lancaster County

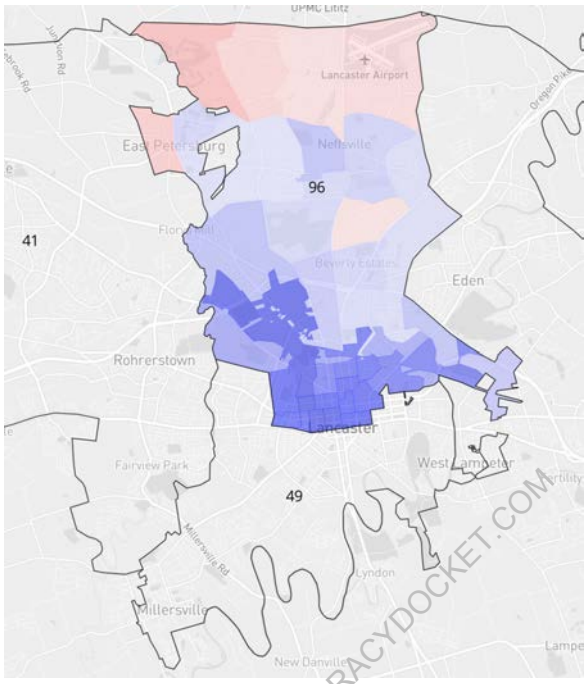


(b) District Boundaries within Lancaster City Limits



Note: The top figure shows the district boundaries within Lancaster County. The bottom figure shows how the city of Lancaster is divided nearly equally across two districts despite having a population that would allow the city to be entirely contained in one district.

District 96 - Partisan Index: 0.57



District 49 - Partisan Index: 0.69

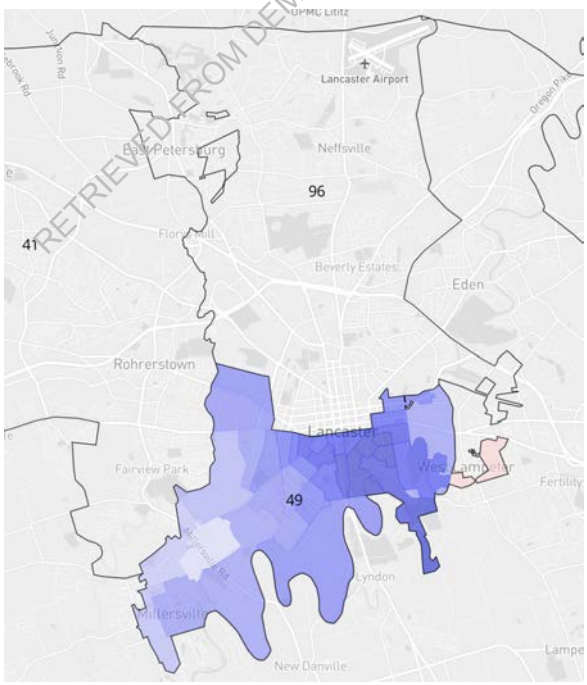
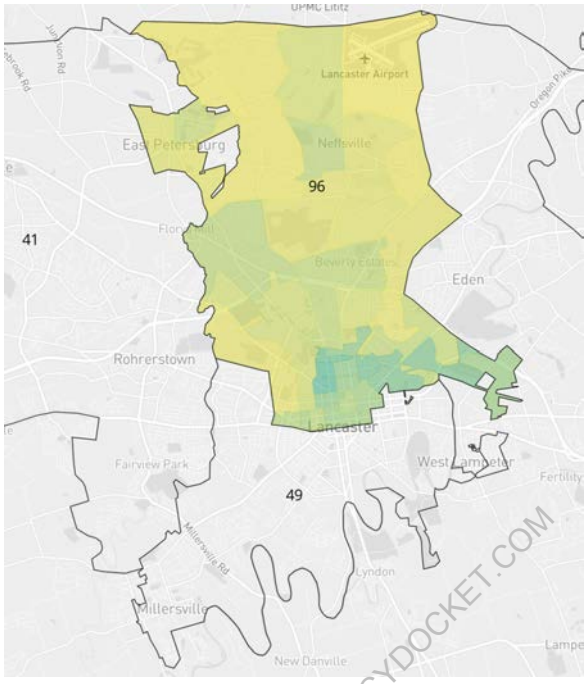


Figure 13: Each panel shows one of the districts that intersect Lancaster. The maps are colored according to the partisan composition of precincts in the district.

District 96 - Hispanic VAP: 12.8%



District 49 - Hispanic VAP: 34.3%

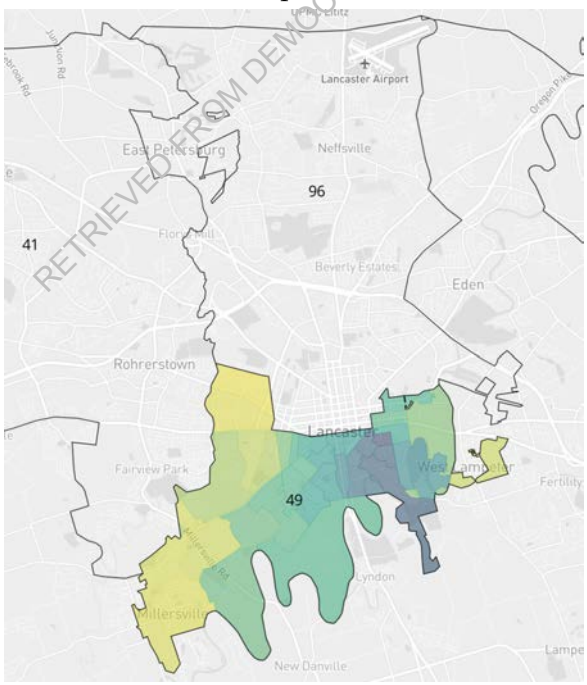


Figure 14: Each panel shows one of the districts that intersect Lancaster. The maps are colored according to the Hispanic composition of precincts in the district. Darker shades indicate a greater proportion of Latinos. The city of Lancaster has a 35.9% Hispanic voting age population.

In Berks County the Commission's plan creates an additional Democratic district by dividing the city of Reading more than is necessary. Reading is heavily Democratic and has a population of 95,719, which when divided by the target district size of 64,053 comes to approximately 1.49 districts. Thus, Reading is too large to be completely contained in one district and will need to be divided into two districts. However, the Commission's plan divides the city four different times into three different districts. Figure 15 below shows this using two maps. The top panel shows a map of the Commission's proposed district boundaries in Berks County where Reading is located. The bottom panel focuses exclusively on the city of Reading and shows how the city is split four times into three different districts.

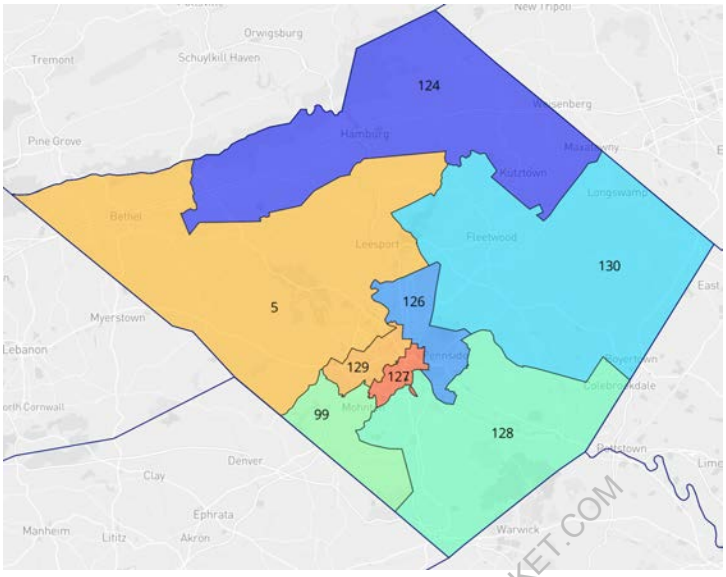
The next set of maps shows how this division follows the gerrymandering strategy of dividing Democratic cities into "pinwheel" shapes where Democratic voters in the city can be combined with less Democratic areas outside of the city to make more Democratic districts with comfortable margins, but not the overwhelmingly Democratic margins that would occur if fewer districts were drawn that were more geographically compact and split the city fewer times. In Reading this approach also has the effect of dividing and diluting the influence of the Latino community that lives in the city by distributing them across multiple legislative districts. Figure 16 shows a map of each of the three districts that intersect Reading (HD-126, HD-127, and HD-129). Each district is colored based on the partisan lean of the precincts in the district. The pattern we see is again repeated — the combination of heavily Democratic precincts in the center of the city with more Republican leaning precincts in the suburbs. While Reading itself is heavily Democratic (its partisan index based on the 2012-2020 statewide elections is 0.79), the inclusion of the more Republican leaning suburbs distributes Democrats more efficiently to create three Democratic leaning districts which all have less Democratic support than the city overall, but are still comfortably Democratic.

The final map, Figure 17, shows that this approach also divides the Latino population in the city. As a whole, Reading has a Latino voting age population of 64.0%. All three Districts that intersect Reading have a lower Latino population (33.2% in HD-126, 34.4%

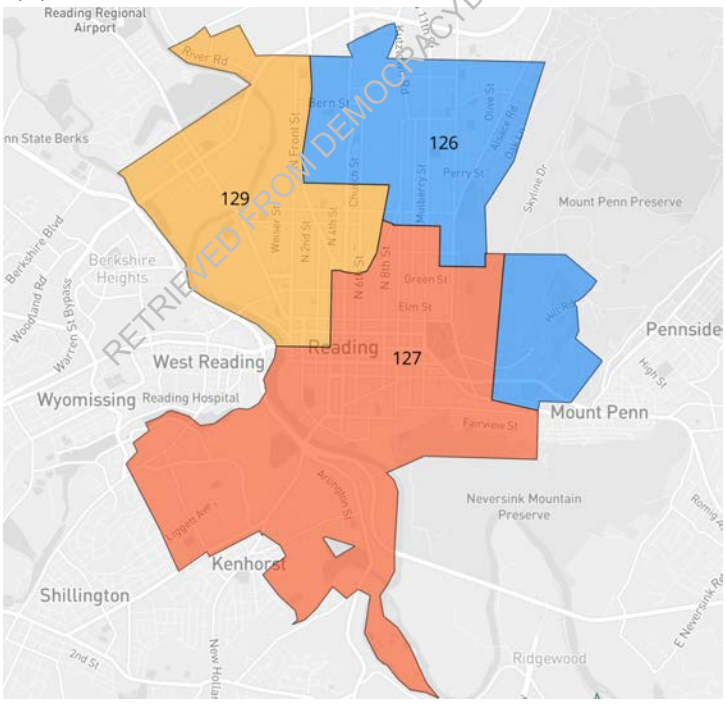
in HD-129, and 52.1% in HD-127) as a result of the districts dividing the city and reaching into more suburban areas with a lower concentration of Latinos.

Figure 15: **Commission Proposed Districts in Berks County**

(a) Proposal District Boundaries in Berks County

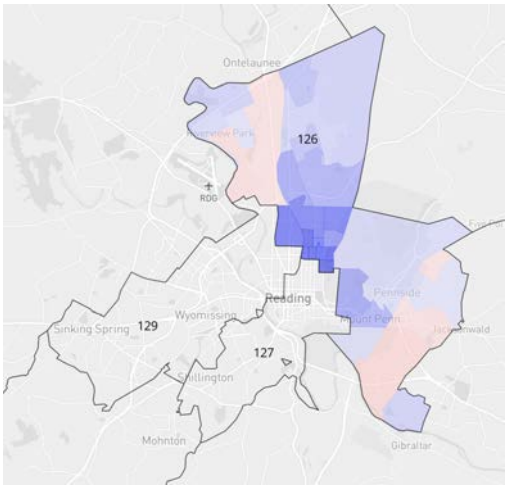


(b) District Boundaries within Reading City Limits

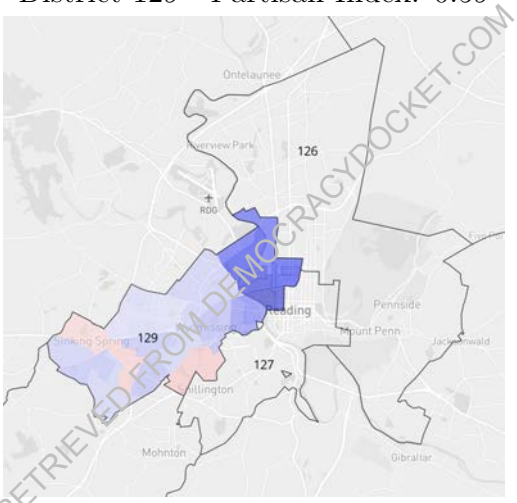


Note: The top figure shows the district boundaries within Berks County. The bottom figure shows how the city of Reading is divided four times into three districts despite having a population that would only require the city to be split into two districts.

District 126 - Partisan Index: 0.59



District 129 - Partisan Index: 0.59



District 127 - Partisan Index: 0.70

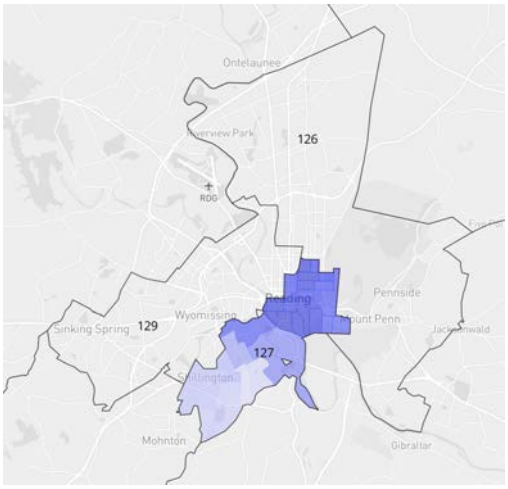
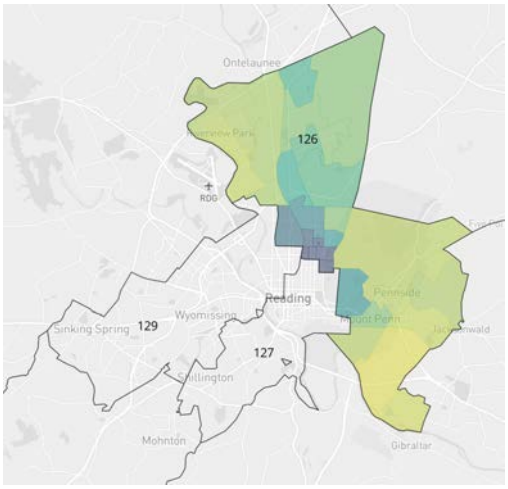
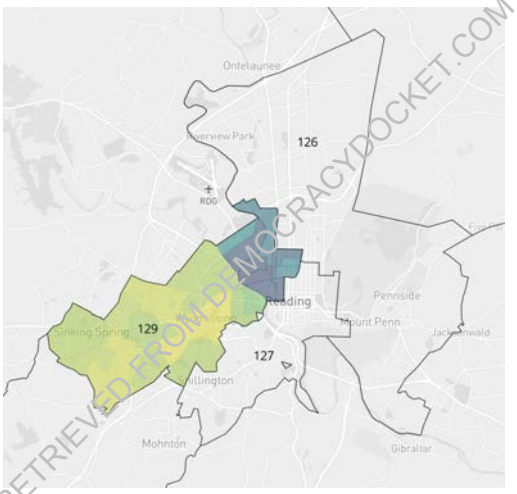


Figure 16: Each panel shows one of the districts that intersect Reading. The maps are colored according to the partisan composition of precincts in the district.

District 126 - Hispanic VAP: 33.2%



District 129 - Hispanic VAP: 34.4%



District 127 - Hispanic VAP: 52.1%

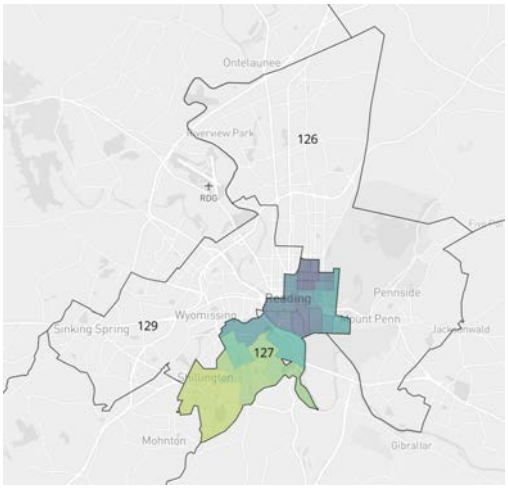


Figure 17: Each panel shows one of the districts that intersect Reading. The maps are colored according to the Hispanic composition of precincts in the district. Darker shades indicate a greater proportion of Latinos. The city of Reading has a 64.0% Hispanic voting age population.

5.3 Dauphin and Cumberland Counties

The combined population of Dauphin and Cumberland counties is equal to approximately 8.5 legislative districts. In the 8 complete districts that cover this area, the Commission's proposal generates 3 Democratic leaning districts. The distribution of Democratic leaning districts based on the statewide partisan elections index calculated for each of the simulation results is shown in Figure 18. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the counties shown below each bar. The most common outcome in the simulations is 2 Democratic districts. The red vertical line at 3 represents the number of Democratic leaning seats in the Commission's map in the portion of the state. In 76% of the simulations there are 2 Democratic leaning districts in these counties. There are 3 Democratic leaning districts in only 24% of the simulations in these counties, which is what the Commission's proposed map produces.

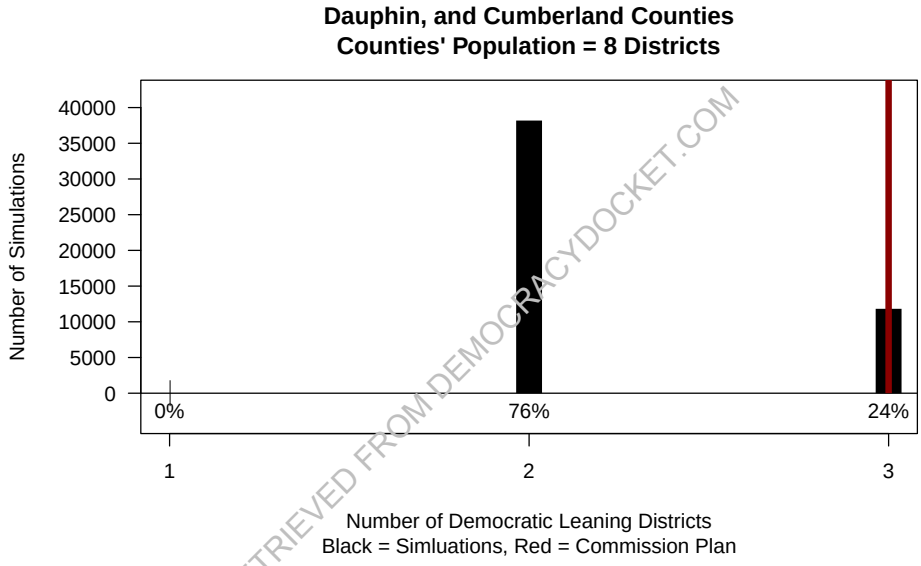
The Commission's plan achieves this by dividing the city of Harrisburg in Dauphin County more than is necessary so as to more evenly distribute the Democratic voters that live in Harrisburg across more districts. Harrisburg is heavily Democratic and has a population of 50,679, which when divided by the target district size of 64,053 comes to approximately 0.79 districts. Thus, Harrisburg is not larger than the target district population and could be kept whole. However, the Commission's plan divides the city into two districts. Figure 19 below shows this using two maps. The top panel shows a map of the Commission's proposed district boundaries in Dauphin County where the city of Harrisburg is located. The bottom panel focuses exclusively on the city of Harrisburg and shows how the city is split into two districts.

The next set of maps shows how this division follows the gerrymandering strategy of dividing Democratic cities into "pinwheel" shapes where Democratic voters in the city can be combined with less Democratic areas outside of the city to make more Democratic districts with comfortable margins, but not the overwhelmingly Democratic margins that

would occur if fewer districts were drawn that were more geographically compact and split the city fewer times. In Harrisburg this approach also has the effect of dividing the Black community that lives in the city and distributes them across multiple legislative districts. Figure 20 shows a map of each of the two districts that intersect Harrisburg (HD-103, HD-104). Each district is colored based on the partisan lean of the precincts in the district. The pattern we see is again repeated — the combination of heavily Democratic precincts in the center of the city with more Republican leaning precincts in the suburbs. While Harrisburg itself is heavily Democratic (its partisan index based on the 2012-2020 statewide elections is 0.86), the inclusion of the more Republican leaning suburbs distributes Democrats more efficiently to create two Democratic leaning districts that have less Democratic support, but are still comfortably Democratic-leaning.

Figure 21 shows that this approach also divides the Black population in the city. As a whole, Harrisburg has a Black voting age population of 41.7%. Both districts that intersect Harrisburg have a lower Black population (19.1% in HD-103, 27.4% in HD-104) as a result of the districts dividing the city and reaching into more suburban areas with a lower Black population.

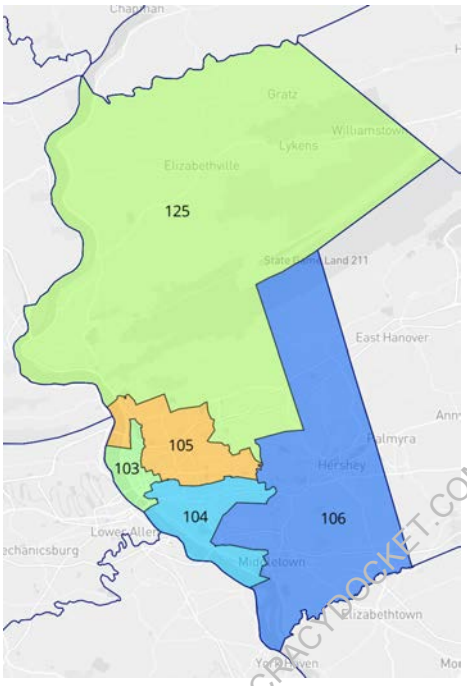
Figure 18: **Distribution of Partisan Districts from Simulations in Dauphin, and Cumberland Counties**



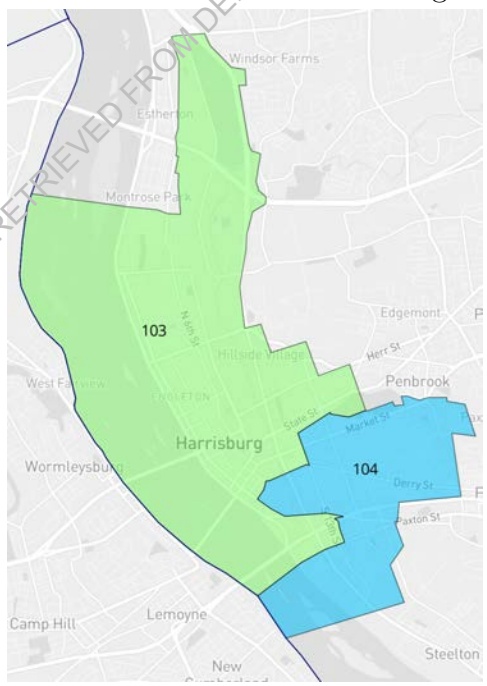
Note: Distribution of likely district partisanship based on the statewide partisan elections index calculated for each of the simulation results. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the cluster shown below each bar. The red vertical line shows the number of Democratic leaning seats in the Commission's proposed map in the same county.

Figure 19: **Commission Proposed Districts in Dauphin County**

(a) Proposal District Boundaries in Dauphin County

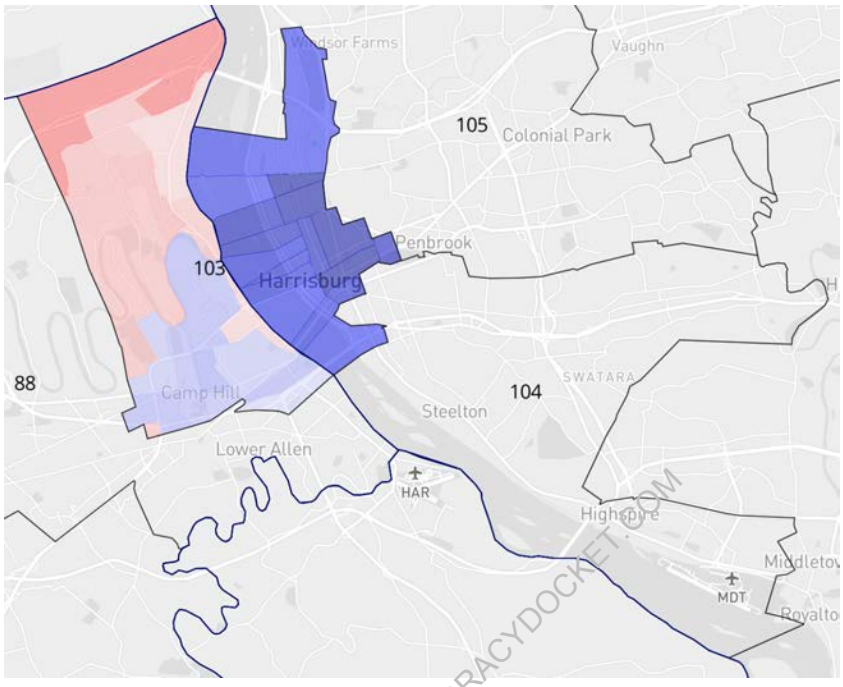


(b) District Boundaries within Harrisburg City Limits



Note: The top figure shows the district boundaries within Dauphin County. The bottom figure shows how the city of Harrisburg is divided across two districts despite having a population that would allow the city to be entirely contained in one district.

District 103 - Partisan Index: 0.62



District 104 - Partisan Index: 0.68

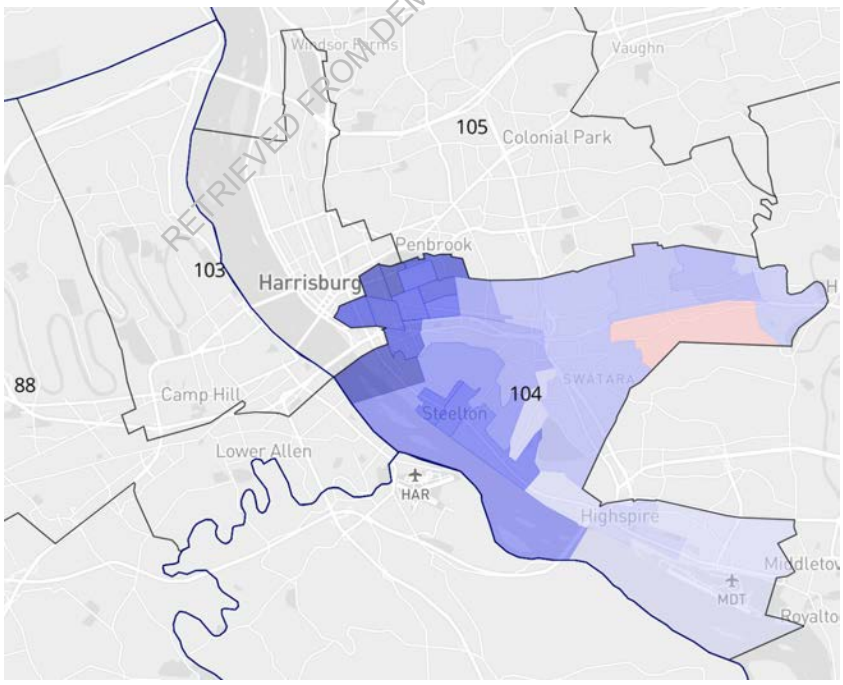
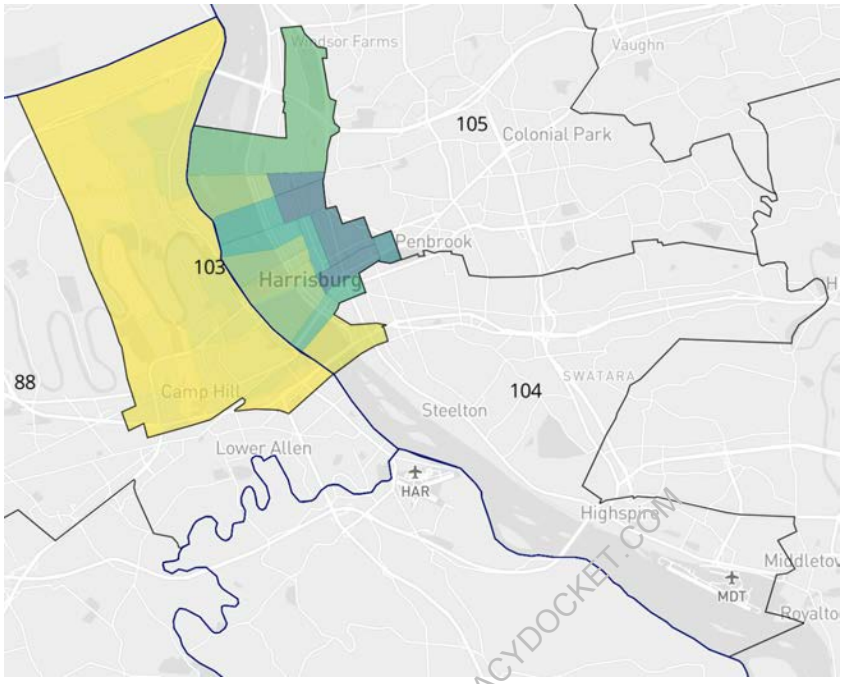


Figure 20: Each panel shows one of the districts that intersect Harrisburg. The maps are colored according to the partisan composition of precincts in the district.

District 103 - Black VAP: 19.1%



District 104 - Black VAP: 27.4%

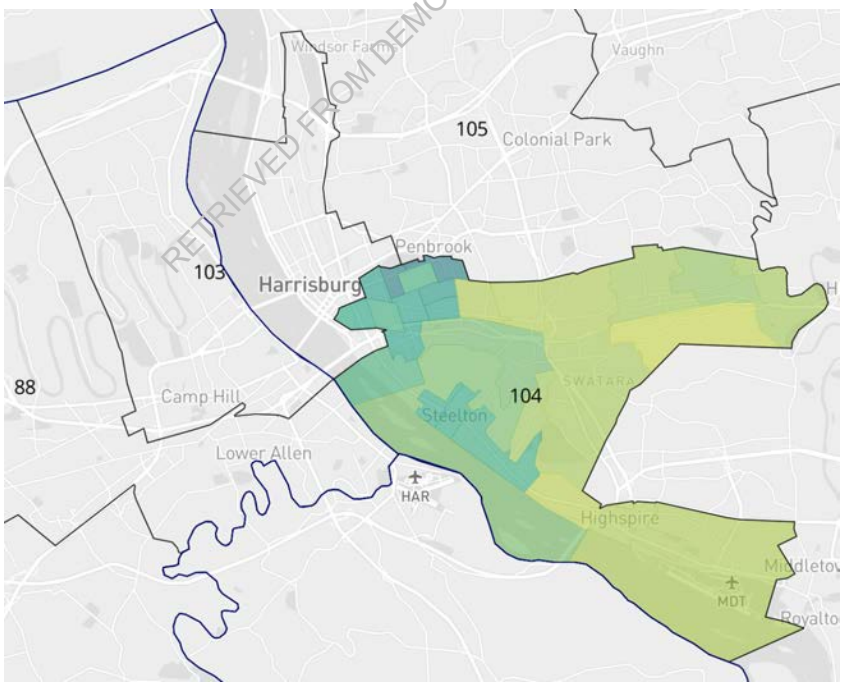


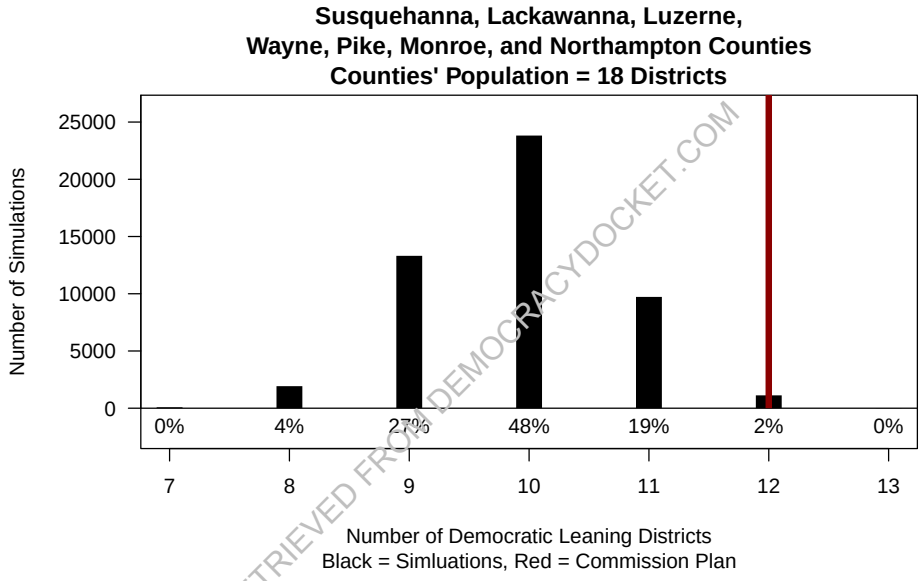
Figure 21: Each panel shows one of the districts that intersect Harrisburg. The maps are colored according to the Black composition of precincts in the district. Darker shades indicate a greater Black population. The city of Harrisburg has a 41.7% Black voting age population.

5.4 Northeastern Counties

In this section I consider Susquehanna, Lackawanna, Luzerne, Wayne, Pike, Monroe, and Northampton counties. These counties are grouped together in the northeastern part of the state, and their combined population is equal to approximately 18 legislative districts. In the 18 complete districts that cover this area, the Commission's proposal generates 12 Democratic leaning districts. The distribution of Democratic leaning districts based on the statewide partisan elections index calculated for each of the simulation results is shown in Figure 22. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the counties shown below each bar. The most common outcome in the simulations is 10 Democratic districts. The red vertical line at 12 represents the number of Democratic leaning seats in the Commission's map in the portion of the state. In 98% of the simulations there are 11 or fewer Democratic leaning districts in these counties. In only 2% of the simulations are there 12 Democratic leaning districts in these counties, as is the case in the Commission's proposed map.

In a previous version of the Commission's proposal, the city of Scranton was divided five different times across four different districts. Figure 23 shows a map of each of the four districts that intersected Scranton (HD-112, HD-113, HD-114, HD-118). The bottom panel shows the final proposal. The final proposal shows improvement on this issue and only divides Scranton twice. Scranton is too large to be completely contained in one district and will need to be divided into two districts, so the final Commission proposal contains the minimum division of Scranton necessary. Even with this adjustment, which is an improvement over the previous proposal, the Commission's map generates more Democratic-leaning districts than the simulations in nearly all cases due to the particular way in which cities and townships are grouped together in these counties so as to maximize the distribution of Democratic voters.

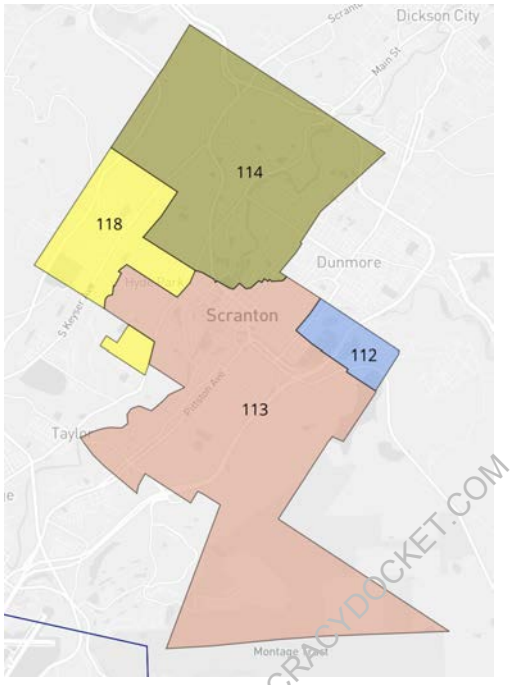
Figure 22: **Distribution of Partisan Districts from Simulations in Susquehanna, Lackawanna, and Luzerne Counties**



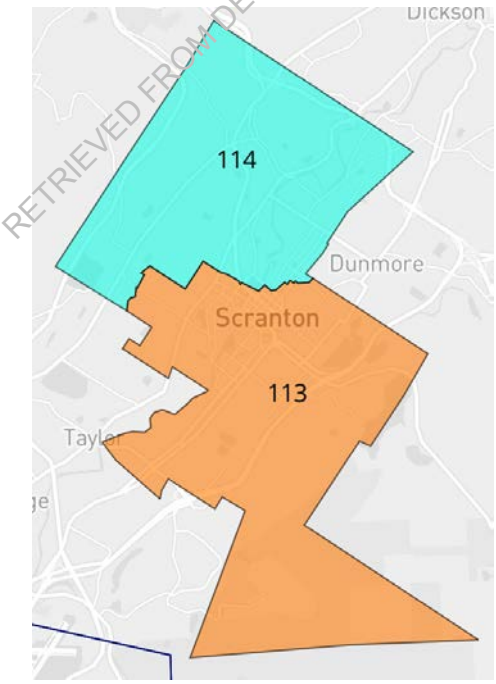
Note: Distribution of likely district partisanship based on the statewide partisan elections index calculated for each of the simulation results. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the cluster shown below each bar. The red vertical line shows the number of Democratic leaning seats in the Commission's proposed map in the same county.

Figure 23: **Commission Proposed Districts in Scranton**

(a) Previous Proposed District Boundaries within Scranton City Limits



(b) Final Proposal District Boundaries within Scranton City Limits



Note: The top figure shows the district boundaries that intersect Scranton in the previous Commission proposal. The bottom figure shows how the city of Scranton is divided across two districts in the final proposal.

5.5 Centre and Clinton Counties

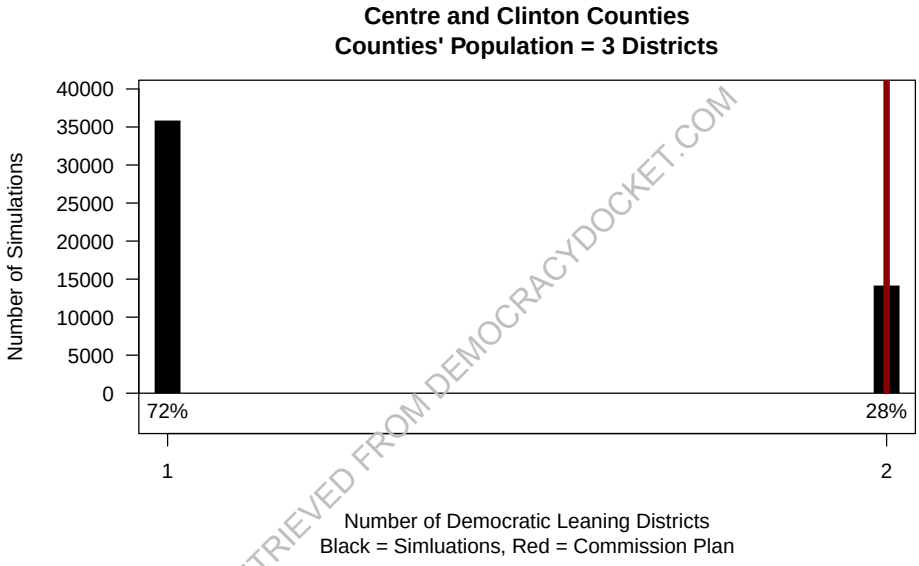
The final area I consider is the middle of the state in Centre and Clinton counties. The combined population of Centre and Clinton counties is equal to approximately 3 legislative districts. In the 2 complete districts that are included in these counties and the 2 additional districts that are partially in these counties, the Commission's proposal generates 2 Democratic leaning districts. The distribution of Democratic leaning districts based on the statewide partisan elections index calculated for each of the simulation results is shown in Figure 24. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the counties shown below each bar. The most common outcome in the simulations is 1 Democratic district. The red vertical line at 2 represents the number of Democratic leaning seats in the Commission's map in the portion of the state. The simulations generate 1 Democratic leaning district in these counties 72% of the time. There are 2 Democratic leaning districts in only 28% of the simulations, as is the case in the Commission's proposed map.

The Commission's plan achieves this by dividing the borough of State College in Centre County more than is necessary so as to more evenly distribute the Democratic voters that live in this city across more districts. State College is heavily Democratic and has a population of 40,508, which when divided by the target district size of 64,053 comes to approximately 0.63 districts. Thus, State College is not larger than the target district population and could be kept whole. However, the Commission's plan divides the city nearly equally into two districts. Figure 25 below shows two maps. The top panel shows a map of the Commission's proposed district boundaries in Centre County where the borough of State College is located. The bottom panel focuses exclusively on the city of State College and shows how the city is split into two different districts. The Commission's plan divides the Penn State University campus nearly in half. In fact, students in the southern portion of the Westgate Building, which houses the College of Information Sciences and Technology,

will be in District 77 but if a student were to walk down the hall to the northern portion of the building, they would cross over into District 82 without leaving the building.

The next set of maps shows how this division follows the gerrymandering strategy of dividing Democratic cities into "pinwheel" shapes where Democratic voters in the city can be combined with less Democratic areas outside of the city to make more Democratic districts with comfortable margins, but not the overwhelmingly Democratic margins that would occur if fewer districts were drawn that were more geographically compact and split the city fewer times. Figure 26 shows a map of each of the two districts that intersect State College (HD-77, HD-82). Each district is colored based on the partisan lean of the precincts in the district. The pattern we see is yet again repeated — the combination of heavily Democratic precincts in the center of the city with more Republican leaning precincts in the suburbs. While State College itself is heavily Democratic (its partisan index based on the 2012-2020 statewide elections is 0.70), the inclusion of the more Republican leaning suburbs distributes Democrats more efficiently to create two Democratic leaning districts that have less Democratic support, but are still comfortably Democratic-leaning. State College does not have a large or geographically concentrated minority population to warrant a specific analysis on how the districts in this county divide specific minority groups in the city (the city has a 77.6% White voting age population, 5.5% Hispanic VAP, 2.8% Black VAP, and 9.7% Asian VAP).

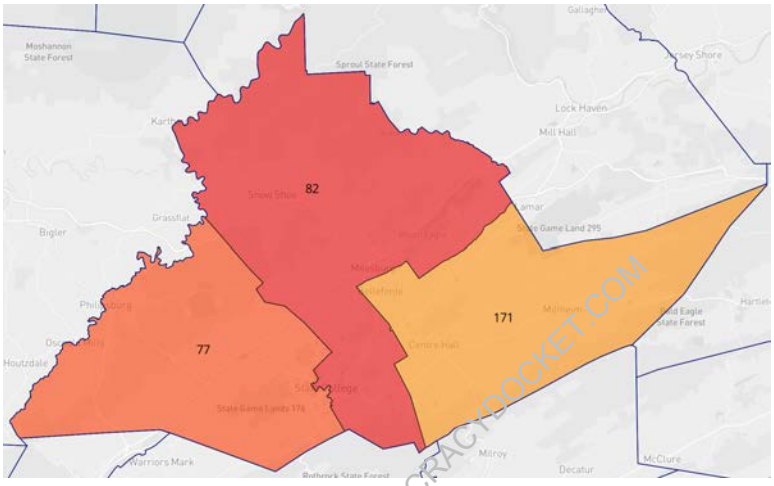
Figure 24: **Distribution of Partisan Districts from Simulations in Centre and Clinton Counties**



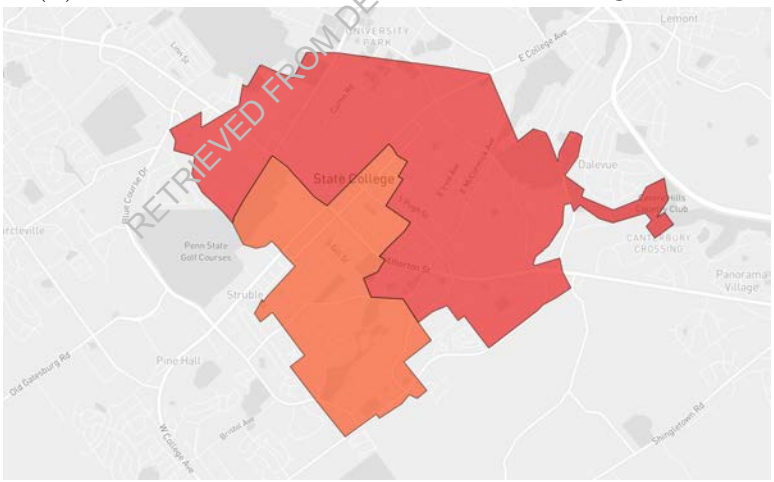
Note: Distribution of likely district partisanship based on the statewide partisan elections index calculated for each of the simulation results. The black bars show the distribution from the simulation results, with the percentage of simulations that generate each of the various possible number of Democratic seats in the cluster shown below each bar. The red vertical line shows the number of Democratic leaning seats in the Commission's proposed map in the same county.

Figure 25: **Commission Proposed Districts in Centre County**

(a) Proposal District Boundaries in Centre County

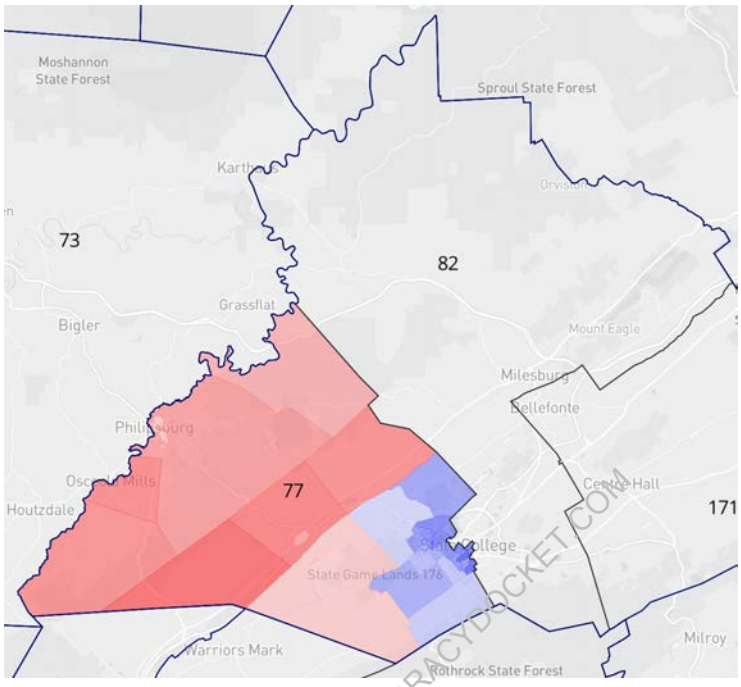


(b) District Boundaries within State College Limits



Note: The top figure shows the district boundaries within Centre County. The bottom figure shows how the city of State College is divided across two districts despite having a population that would allow it to be kept entirely within one district.

District 77 - Partisan Index: 0.57



District 82 - Partisan Index: 0.54

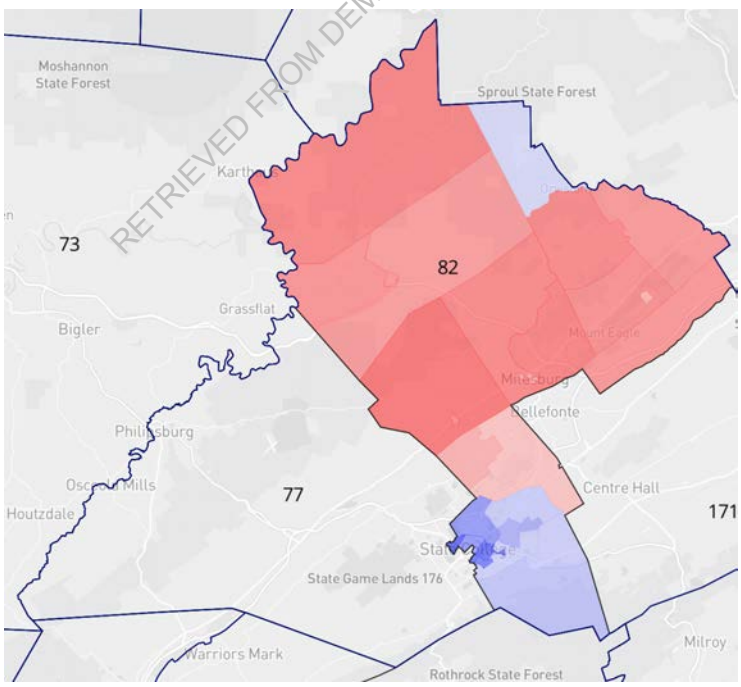


Figure 26: Each panel shows one of the districts that intersect State College. The maps are colored according to the partisan composition of precincts in the district.

6 Comparison to Other District Scoring Programs

To validate the predicted seat shares produced by my analysis, I upload the proposed plan into a commonly used redistricting program - Dave's Redistricting (DRA).[14] This program has been used extensively in redistricting and in redistricting litigation. After uploading the plans, I compare the number of seats the program predicts will lean Democratic to the predictions produced by my analysis. There is perfect agreement when the same elections are used. Table 3 shows the results. In each case I take the proportion of the total two-party vote cast in the elections being included for each district. I then classify each district as a Democratic-leaning district if the Democratic two-party vote share is larger than 0.50.

The DRA uses an index of elections to generate predictions, in a similar way to the indices I described using above. As I noted above, the benefit of an index is that it helps to "wash out" the idiosyncratic features of any particular election, the specific issues in that race, the candidate's qualities (for better or worse), and other factors of the electoral environment. However, the DRA program uses a different combination of elections. The DRA index uses a combination of the 2020 and 2016 presidential elections, the 2018 and 2016 US Senate elections, the 2020 attorney general election, and the 2018 gubernatorial election. When I compute partisan measures that match the DRA index, I get the same results as they do. The DRA index predicts 106 Democratic leaning seats.

Because the choice of elections can have an impact on the predicted seat share for a party, my preferred method is to include all available elections. As discussed above, the main results I present throughout this report use all statewide elections between 2012-2020.[15] I choose 2012 as a starting point because that range incorporates an entire decade, or one decennial census period in which population enumeration and reapportionment take place.

[14] https://davesredistricting.org

[15] I do not include statewide judicial elections in the index. It is uncommon in political science to use judicial elections to measure voters' partisan preferences as research suggests voters treat judicial elections very differently, even when judges run under party labels, than they do partisan elections to legislative and executive positions. Other commonly used measures indices such as Dave's Redistricting and PlanScore.com also omit judicial elections from their partisan indices.

For completeness, I also present the results of the Commission's plan and the distribution of simulations using two alternative indices of statewide elections. First, I recompute an average for all statewide races between 2014-2020 to start after the Holt case in which districts in Pennsylvania were altered as a result of litigation. Finally, I consider an index of statewide elections held in 2020. This measure gives weight to more recent elections and does not include elections from cycles prior to 2020. However, it has the drawback of being heavily influenced by the national political environment of a single election year. Using these indices the Commission's plan contains between 103-107 Democratic leaning districts.

I note that these predictions are independent of the simulations discussed earlier. The predicted seat shares shown below are only a function of different election results and the map put forward by the Legislative Reapportionment Commission. The simulations discussed above provide a comparison of alternative maps that are drawn without consideration of any criteria other than population equality, compactness, and minimizing splits of political subdivisions. They are helpful because they provide a benchmark by which to make an "apples-to-apples" comparison to other districts that are drawn using the same geographic distribution of voters in the state.

Table 3: Comparison of Seat Composition Under Different Elections/Indices

	Commission Plan		% of Simulations Generating Fewer Democratic Seats Than Commission's Map
Election Indices:	Number D Districts	Number R Districts	
DRA index	106	97	
Barber Replication of DRA Index	106	97	
Barber 2012-2020 index	107	96	99.998%
Barber 2014-2020 index	104	99	99.794%
Barber 2020 index	103	100	99.956%

7 Other Measures of Partisan Bias

The written expert testimony submitted by Dr. Warshaw to the LRC computes a number of measures of partisan bias for the Commission's proposed plan. However, the report does not compare these measures of partisan bias to any simulation results. Instead, the comparison is largely to historical plans in Pennsylvania as well as plans enacted throughout the country. This is problematic because if a proposed map contains apparent bias, we do not know if it is in fact biased until we compare it to a set of maps that we know were drawn using unbiased inputs. Furthermore, comparisons to historical plans do not accurately consider the unique contemporary political geography of Pennsylvania, nor do comparisons to other states that have very different political dynamics. Without this benchmark, we cannot disentangle any measures of partisan bias from impacts due to political geography or other unique factors in a particular state. As I noted at the beginning of this report, it is well established that the contemporary political geography of Pennsylvania is beneficial to Republicans. Thus, we need to know how much of bias is due, if at all, to geography, and how much is actually partisan bias from the map drawer.

With that in mind, Figure 27 shows the median-mean difference for the Commission's proposed plan compared to the median-mean difference for each of the 50,000 simulations.[16] The median-mean measure is calculated by taking the median value of the partisan index across all 203 districts in a plan (the value for which half of the observations are smaller and half the observations are larger) and subtracting from that the mean partisan index (the simple average) of all of the districts from the median. Consider a simple example in which there are three districts in a plan with partisan indices of 0.91, 0.46, and 0.40. To find the median we simply look for the district for which there is one district larger and one district

[16]See Best, Robin E., Shawn J. Donahue, Jonathan Krasno, Daniel B. Magleby, and Michael D. McDonald. "Considering the prospects for establishing a packing gerrymandering standard." Election Law Journal 17, no. 1 (2018): 1-20. Warrington, Gregory S. "A comparison of partisan-gerrymandering measures." Election Law Journal: Rules, Politics, and Policy 18, no. 3 (2019): 262-281. Wang, Samuel S-H. "Three tests for practical evaluation of partisan gerrymandering." Stan. L. Rev. 68 (2016): 1263. McDonald, Michael D., and Robin E. Best. "Unfair partisan gerrymanders in politics and law: A diagnostic applied to six cases." Election Law Journal 14, no. 4 (2015): 312-330.

smaller (0.46 in this case). To find the mean, we simply take the average by dividing the sum of the partisan indices by the number of districts. In this case, (0.91+0.46+0.40)/3 = 0.59. The median-mean value would then be 0.46-0.59 = -0.13.[17]

Negative numbers indicate plans where the median district is less Democratic than the mean district, indicating the presence of heavily-Democratic districts that are pulling the mean up and away from the median district.[18] This indicates that the party that is packed into the districts with overwhelming majorities will have a harder time translating their votes into seats.[19]

One drawback of the median-mean test is that it does not account for the natural clustering of voters that occurs in Pennsylvania and other states. This can be remedied by also computing the median-mean difference for the simulated districting plans that also consider for the geographic distribution of voters in the state. This allows us to make an apples-to-apples comparison that holds the political geography of the state constant. Figure 27 displays the results of the median-mean measure for the simulations (in grey) and the Commission plan (solid vertical line). The fact that the distribution of results from the simulations is mostly less than zero shows that the geography of Pennsylvania leads to a natural advantage for Republicans due to the dense clustering of Democratic voters in cities even when districts are drawn using strictly non-partisan criteria.

In comparison to the simulations, the Commission's proposed plan is more favorable to Democrats than all but 1 of the 50,000 simulations - it has a score of -0.015. This is in line with the partisan results presented above in which the Commission's proposed plan was more Democratic leaning than nearly all of the simulation results. The median-mean measures is sensitive to the value of the median district (and is less sensitive to the mean district value

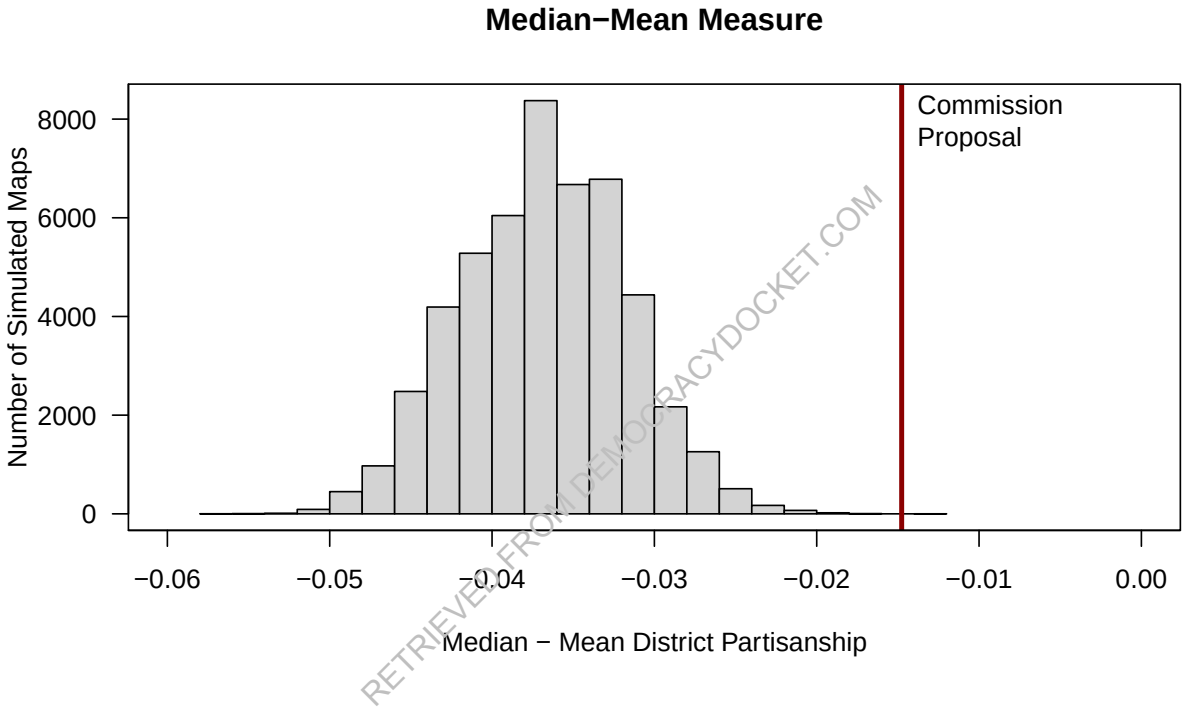
[17]A helpful analogy is to imagine a representative group of 100 Americans gathered at a restaurant. The median and mean incomes of the 100 customers are likely quite similar. If Bill Gates walks into the restaurant, the median income of the now 101 patrons will not shift by much at all, but the mean income will jump significantly, possibly by several million dollars.

[18]Professor Warshaw's written testimony in the LRC expert hearing provides an excellent summary of the median-mean measure.

[19]McDonald, Michael D., and Robin E. Best. "Unfair partisan gerrymanders in politics and law: A diagnostic applied to six cases." Election Law Journal 14, no. 4 (2015): 312-330.

because the mean is the average of 203 different data points whereas the median is a single value), and thus, small variations in the median-mean measure are to be expected as the median district's value changes across plans. However, the Commissions' proposed plan is systematically more Democratic than the entire distribution of plans in the simulations.

Figure 27: **Median-Mean Measures of Partisan Bias in Non-Partisan Simulations and Commission Proposal**



Note: The grey distribution shows the values of the median-mean measure for the 50,000 non-partisan simulations. The solid vertical line shows the value of the median-mean measure for the Commission's proposal. The Commission's proposal has a median-mean value of -0.015, which is more favorable to Democrats than all but 1 of the 50,000 non-partisan simulations.

The efficiency gap is another common redistricting metric and is similar to the median-mean measure in that it looks for the degree to which a party's votes statewide are translated into seats in each district.[20] A description of this measure provided by the Brennen Center

[20]McGhee, Eric. "Measuring efficiency in redistricting." Election Law Journal: Rules, Politics, and Policy 16, no. 4 (2017): 417-442. Veomett, Ellen. "Efficiency gap, voter turnout, and the efficiency principle." Election Law Journal: Rules, Politics, and Policy 17, no. 4 (2018): 249-263. Plener Cover, Benjamin. "Quantifying partisan gerrymandering: An evaluation of the efficiency gap proposal." Stan. L. Rev. 70 (2018): 1131.

for Justice summarizes it well: "[T]he efficiency gap counts the number of votes each party wastes in an election to determine whether either party enjoyed a systematic advantage in turning votes into seats. Any vote cast for a losing candidate is considered wasted, as are all the votes cast for a winning candidate in excess of the number needed to win."[21] In other words, the ideal strategy for a political party to maximize the impact of their voters is to distribute them as evenly as possible across districts so as to win by a narrow margin in the district they win and lose by very large margins in the districts where they lose. Put another way, "win by a little, lose by a lot" is the ideal strategy for a party to maximize their impact of their voters.[22]

The Brennen Center provides a simple example of how the efficiency gap is calculated:

> To understand how the efficiency gap works, consider a hypothetical state with 500 residents that is divided into five legislative districts, each with 100 voters. In the most recent election cycle, Democrats won Districts 1 and 2 by wide margins, while Republicans won Districts 3, 4, and 5 in closer races. Overall, Democratic candidates received 55 percent of the statewide vote but won just 40 percent of the legislative seats, while Republican candidates received 45 percent and won 60 percent of the seats. The table below shows the election results for each district.[23]

District	D votes	R Votes	Result
1	75	25	D wins
2	60	40	D wins
3	43	57	R wins
4	48	52	R wins
5	49	51	R wins
Total:	275	225	

Once we have the election results, the first step is to consider the number of "wasted votes" in each district. Because the Republican candidate in this example lost in District 1,

[21] https://www.brennancenter.org/sites/default/files/legal-work/How_the_Efficiency_Gap_Standard_Works.pdf

[22] Of course, parties have other priorities and winning by a single vote might not be their ideal scenario in reality.

[23] https://www.brennancenter.org/sites/default/files/legal-work/How_the_Efficiency_Gap_Standard_Works.pdf

all 25 of the votes cast for that candidates are wasted. The Democratic candidate in District 1 won, but by 24 more votes than would be necessary (since all that is needed is 51 votes to win). Thus, there are 24 wasted Democratic votes in this district. Taking the difference indicates that there was a net of 1 Republican wasted vote in this district.

The efficiency gap is then calculated as Efficiency Gap = (Total Democratic Wasted Votes - Total Republican Wasted Votes) / Total Votes. In order to account for uneven turnout across districts and elections, the efficiency gap formula can be re-expressed as the following equation: Efficiency Gap = (Seat Margin – 50%) – 2(Vote Margin – 50%) where the seat margin is the fraction of seats won by Democrats minus 0.50 and the vote margin is the fraction of votes won by Democratic candidates statewide minus 0.50.[24]

In this example and in Figure 28 I use the Democratic seat and vote margins which means that negative efficiency gap numbers indicate a districting plan that favors Republicans and positive numbers indicate a plan that favors Democrats. As with the median-mean test, the efficiency gap has the drawback of not accounting for the natural clustering of Democratic voters in Pennsylvania and other states. However, as before I remedy this by also computing the efficiency gap for the simulated districting plans that also must account for the geographic distribution of voters in the state. This allows us to make an apples-to-apples comparison that accounts for political geography. Figure 28 displays the results of the efficiency-gap measure for the simulations (in grey) and the Commission's proposed plan (solid black line). The distribution of results from the simulations show that the geography of Pennsylvania leads to a naturally arising advantage for Republicans due to the dense clustering of Democratic voters in Philadelphia, Pittsburgh, and the other medium-sized cities throughout the state.[25]

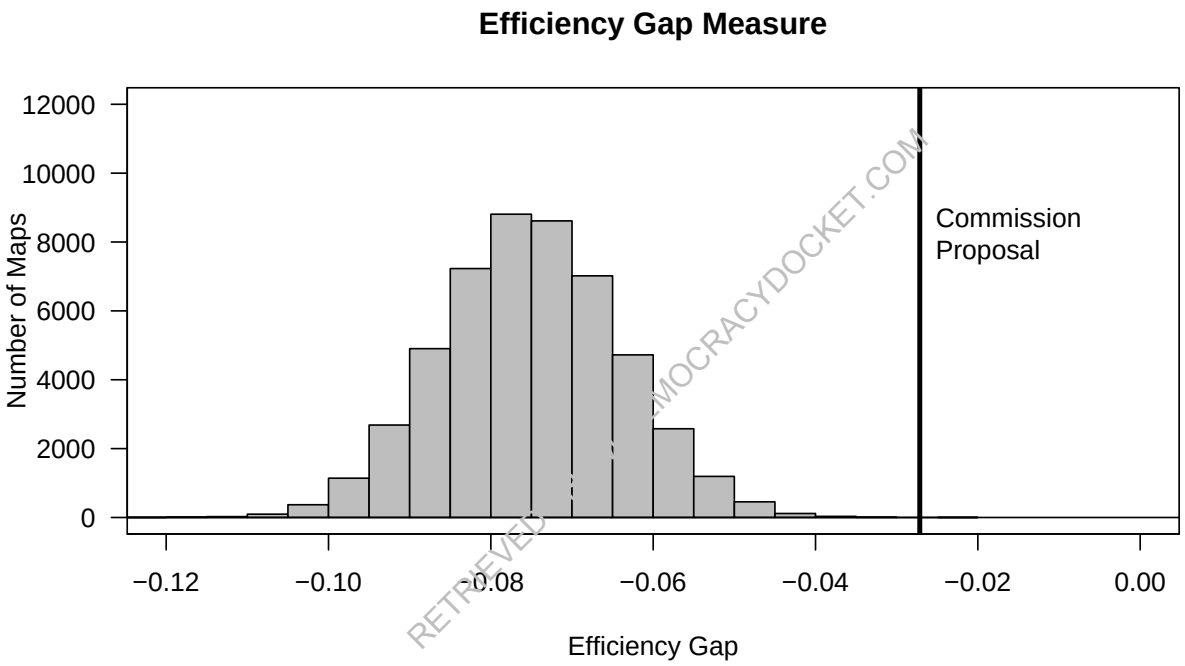
The solid black line shows the results of the Commission's proposed plan. There are

[24]See McGhee, Eric. "Measuring efficiency in redistricting." Election Law Journal: Rules, Politics, and Policy 16, no. 4 (2017): 417-442.

[25]Because the efficiency gap is a measure of seat shares, it will be a 'chunky' measure with values for each seat won or lost in a plan, unlike the median-mean measure which is a more continuous measure that changes based on small changes in the margin of victory in each district.

two major points to take away from the results. The efficiency gap for the Commission's proposed plan is -0.027. The simulations range from -0.12 to -0.027, with the median simulation producing a value of -0.076. These are all relatively small in magnitude.[26] However, when comparing the Commission's proposed plan to the simulations, the Commission's proposed plan is more favorable to Democrats than all 50,000 of the simulations.

Figure 28: **Efficiency Gap Measure of Non-Partisan Simulations and Commission Proposal**



Note: Distribution of efficiency gap among simulations shown in grey and the Commission's proposed plan shown as the solid vertical line. Negative values indicate plans that are have a Republican advantage and positive values indicate plans that have a Democratic advantage. The Commission's proposed plan has an efficiency gap of -0.027 and is more favorable to Democrats than all 50,000 of the non-partisan simulations, which have larger (more negative) efficiency gap values.

Both the efficiency gap and median-mean scores show that the Commission's proposed plan is more favorable to Democrats than nearly every simulated districting plan drawn using only the non-partisan criteria outlined in the Pennsylvania Constitution. This is largely an

[26]For reference, the congressional plan that was challenged in the *League of Women Voters of Pennsylvania* case in 2018 showed the congressional district plan had a pro-Republican efficiency gap of between -0.15 and -0.20.

active effort to overcome, or "correct for", the contemporary political geography of the state. However, an attempt to overcome the structural tilt to make "fairer" maps is unfair and misguided for two reasons. First, this strategy explicitly considers partisanship in the creation of districts. This is as close as one can come to the definition of gerrymandering - the drawing of maps to obtain a partisan advantage. Second, even if the effort is to undo a naturally occurring disadvantage to a party that is due to the contemporary geographic distribution of voters, there is no reason to believe that the particular arrangement of voters will persist into the future, even the near future. Previous decades show us that partisan preferences can be dynamic and will likely be so in the future as well. A better approach to redistricting would be to not consider partisanship when drawing the boundaries and let the chips fall where they may as the geography of politics shifts and changes over time.

8 Benninghoff Amendment

In this section I compare the map put forward to the LRC by Majority Leader Benninghoff on the metrics used above. I first consider population deviation and political subdivision splits. The Benninghoff amendment is equal to or superior to the Commission's plan across all of these measures. The Benninghoff amendment has smaller population deviation, splits counties by a nearly equal amount, and divides significantly fewer municipalities fewer total times. These numbers are reported in the table below. Furthermore, the Benninghoff amendment is slightly more compact, on average, than the Commission's proposal. Across each of these traditional non-partisan criteria the Benninghoff amendment is equivalent or superior to the Commission's proposal.

The significant reduction in municipal splits while maintaining majority-minority districts, which I discuss below, shows that the decision to divide particular cities was made not for minority representation but rather for partisan gain. This becomes especially apparent when we look at the particular cities that are divided by the Commission's plan and are

Table 4: Commission Proposal, Benninghoff Amendment, and 50,000 Simulations:

	Commission Final Proposal	Benninghoff Amendment	Simulations Range
Population Deviation			
Smallest District:	-4.24%	-4.02%	[-4.25., -3.91]
Largest District:	4.40%	3.97%	[3.93, 4.25]
Boundary Splits			
Counties Split:	45	46	[42, 52]
Total County Splits:	186	186	[184, 208]
Municipalities Split:	56	42	[61, 105]
Total Municipal Splits:	92	76	[98, 140]
Compactness			
Median Polsby-Popper:	0.35	0.36	[0.29, 0.34]

discussed above in this report. Figure 29 shows that the Benninghoff amendment does not split the cities of Harrisburg, Lancaster, or State College. These cities are small enough to be contained in a single district. However, as discussed above, the Commission's proposal unnecessarily divides these districts for partisan gain by generating more Democratic-leaning districts. Similarly, Figure 30 shows how the cities of Reading and Allentown are divided across only two districts (they are too large to be in a single district) in the Benninghoff amendment. As shown earlier in this report, the Commission's proposal divides each of them across three districts, again to create more Democratic-leaning districts.

One alternative justification for the additional municipal divisions in the Commission's proposal is that these particular municipal splits are necessary to create a sufficient number of majority-minority, or minority-opportunity districts. However, the Benninghoff amendment achieves a dramatic reduction in municipal splits without sacrificing minority representation. The Benninghoff proposal contains 26 majority-minority districts (the Commission's proposal contains 25), 5 majority-Latino districts (the Commission's proposal contains 4), 8 majority-Black districts (the Commission's proposal contains 8), and 17 coalition

(a) Harrisburg (b) Lancaster (c) State College

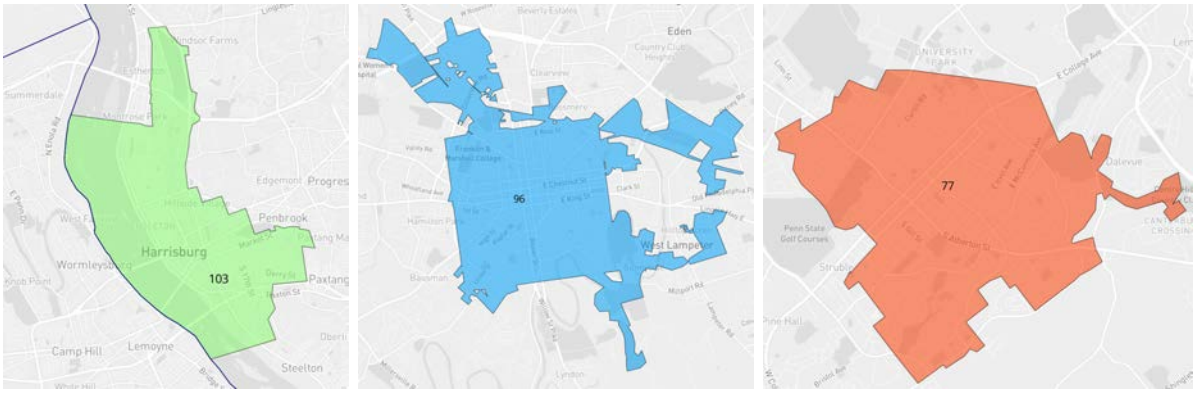


Figure 29: Each of these cities is small enough to be contained in a single district. The Benninghoff amendment does this. The Commission's plan, as discussed above, divides each of these cities unnecessarily.

(a) Reading (b) Allentown

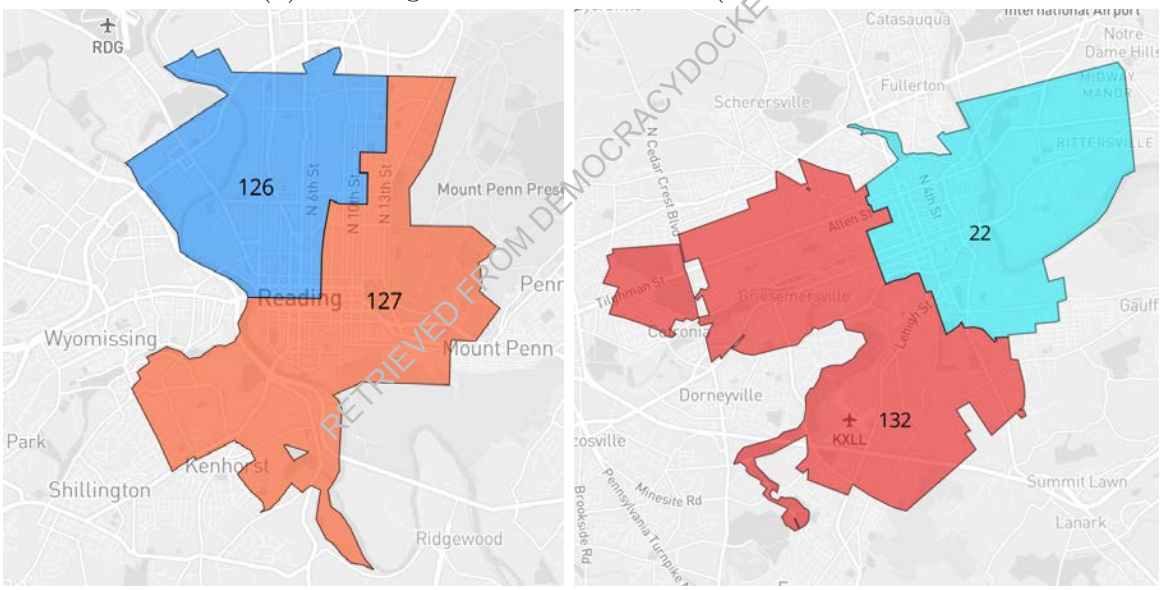


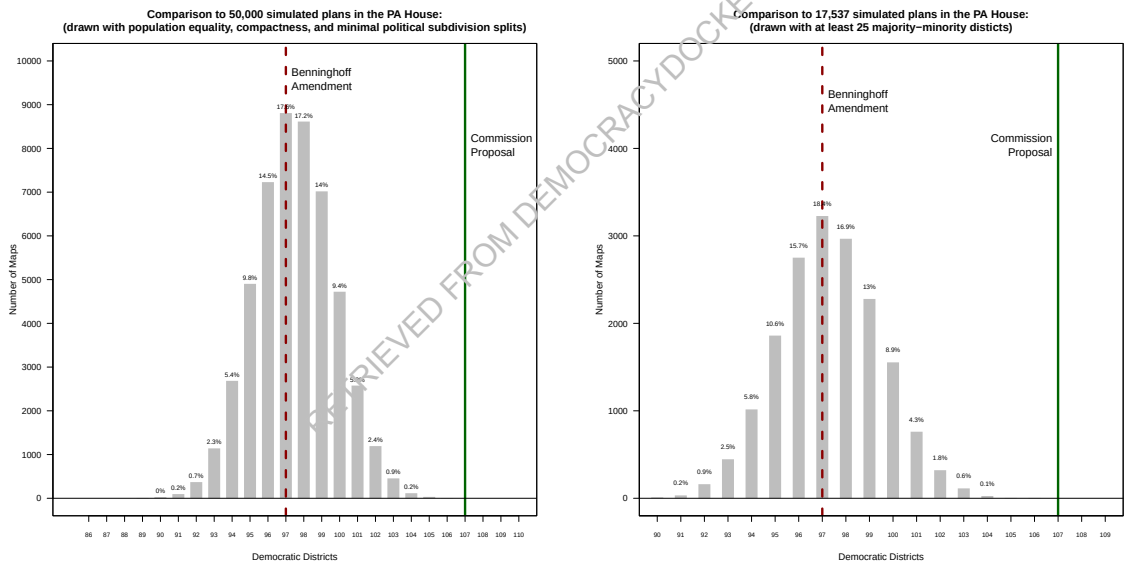
Figure 30: Each of these cities is small enough to be contained in two districts. The Benninghoff amendment does this. The Commission's plan, as discussed above, divides each of these cities unnecessarily across three districts.

minority opportunity districts (the Commission's proposal contains 19) where the minority voting age population is between 35% and 50% of the district population. Again, the Benninghoff amendment performs equally well on these measures compared to the Commission's proposal while dramatically outperforming it on the traditional non-partisan criteria of mu-

nicipal divisions. This shows that the decision to divide particular cities in the Commission's proposal is not driven by minority representation, but instead by partisan considerations.

On partisan metrics the Benninghoff amendment is less biased than the Commission's proposal. Figure 31 shows the distribution of Democratic-leaning districts from the simulations discussed above (race-blind on the left and race-filtered on the right). The vertical lines indicate the location of the Commission's proposal (solid green line) and the Benninghoff amendment (dashed red line). The Benninghoff amendment is in line with the modal outcome of the non-partisan simulations while the Commission's proposal is a Democratic partisan outlier.

Figure 31: Comparison of Partisanship of Commission Proposal and Benninghoff Amendment to Non-Partisan Simulation Results

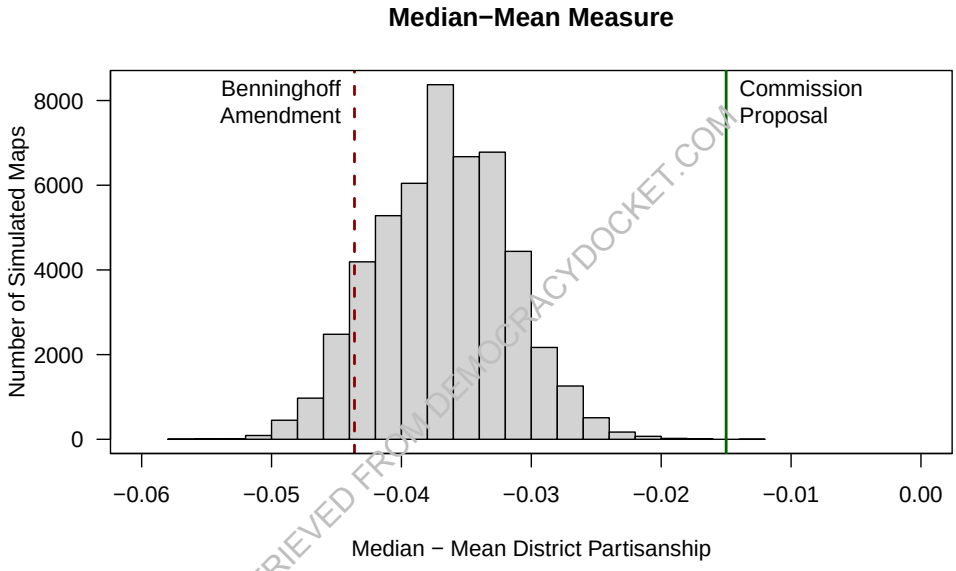


Note: Compared to the set of non-partisan simulations, the Benninghoff amendment is in line with the most common outcome in the simulations. This is true of when looking at all 50,000 simulations (left panel) and when focusing on only those simulations that contain at least 25 majority-minority districts (right panel). In both cases the Commission's proposal is a Democratic partisan outlier.

The alternative measures of partisan bias discussed above — the median-mean and efficiency gap — also show that the Benninghoff amendment is in line with the non-partisan simulations while the Commission's proposal, as discussed above, is an outlier. Figure 32 presents the median-mean measures for the simulations and the Commission's proposal,

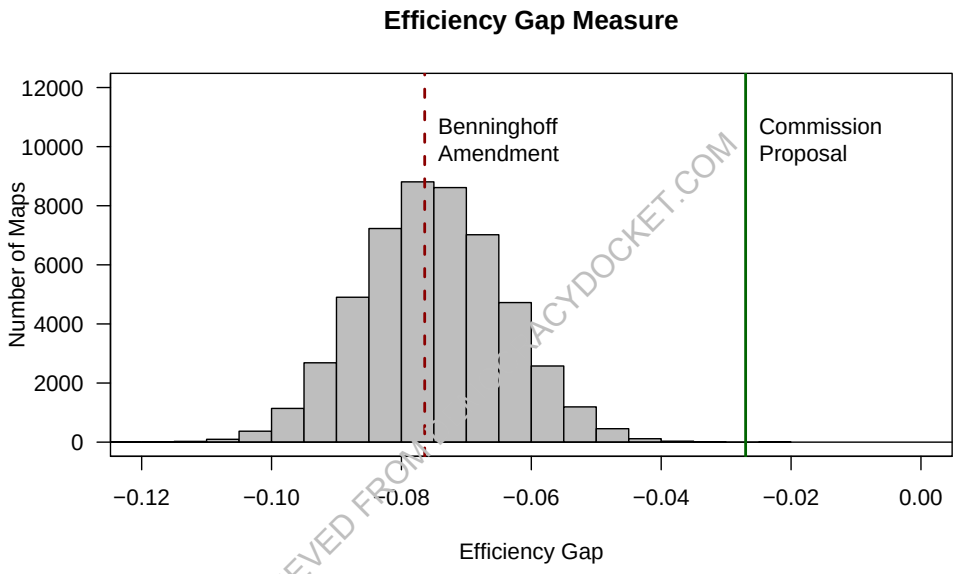
but now adds the Benninghoff amendment's median-mean score as well. The Benninghoff amendment is within the distribution of simulations. The same is not true of the Commission's proposal. Figure 33 presents the efficiency gap measures for the simulations and the Commission's proposal, but now adds the Benninghoff amendment's efficiency gap score. Again, the Benninghoff amendment is well within the distribution of simulations while the Commission's proposal is an outlier.

Figure 32: **Median-Mean Measures of Partisan Bias**



Note: The grey distribution shows the values of the median-mean measure for the 50,000 non-partisan simulations. The solid vertical line shows the value of the median-mean measure for the Commission's proposal. The dashed vertical line shows the median-mean measure for the Benninghoff amendment. The Commission's proposal has a median-mean value of -0.015, which is more favorable to Democrats than all but 1 of the 50,000 non-partisan simulations. The Benninghoff amendment has a median-mean value of -0.044, which is more favorable to Democrats than 9.15% of the simulations.

Figure 33: **Efficiency Gap Measures of Partisan Bias**



Note: The grey distribution shows the values of the efficiency gap measure for the 50,000 non-partisan simulations. The solid vertical line shows the value of the efficiency gap measure for the Commission's proposal. The dashed vertical line shows the efficiency gap measure for the Benninghoff amendment. The Commission's proposal has an efficiency gap value of -0.027, which is more favorable to Democrats than all 50,000 non-partisan simulations. The Benninghoff amendment has an efficiency gap value of -0.076, which is exactly in the middle of the non-partisan simulations.

Overall, the Benninghoff amendment improves on population deviation, maintains compact districts with a low number of county divisions, and dramatically improves on municipal splits compared to the Commission's proposal. Furthermore, the Benninghoff amendment is in line with the set of non-partisan districting simulations while the Commission's proposal is a Democratic partisan outlier. The Benninghoff amendment is not a partisan outlier while maintaining minority representation equivalent to that of the Commission's proposal.

Michael Jay Barber

Appendix A: Curriculum Vitae

Michael Jay Barber

CONTACT INFORMATION

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ACADEMIC APPOINTMENTS

Brigham Young University, Provo, UT

August 2020 - present Associate Professor, Department of Political Science
2014 - July 2020 Assistant Professor, Department of Political Science
2014 - present Faculty Scholar, Center for the Study of Elections and Democracy

EDUCATION

Princeton University Department of Politics, Princeton, NJ

Ph.D., Politics, July 2014

- Advisors: Brandice Canes-Wrone, Nolan McCarty, and Kosuke Imai
- Dissertation: "Buying Representation: the Incentives, Ideology, and Influence of Campaign Contributions on American Politics"
- 2015 Carl Albert Award for Best Dissertation, Legislative Studies Section, American Political Science Association (APSA)

M.A., Politics, December 2011

Brigham Young University, Provo, UT

B.A., International Relations - Political Economy Focus, April, 2008

- *Cum Laude*

RESEARCH INTERESTS

American politics, congressional polarization, political ideology, campaign finance, survey research

PUBLICATIONS

19. **"Ideological Disagreement and Pre-emption in Municipal Policymaking"** with Adam Dynes
Forthcoming at *American Journal of Political Science*
18. **"Comparing Campaign Finance and Vote Based Measures of Ideology"**
Forthcoming at *Journal of Politics*
17. **"The Participatory and Partisan Impacts of Mandatory Vote-by-Mail"**, with John Holbein
Science Advances, 2020. Vol. 6, no. 35, DOI: 10.1126/sciadv.abc7685
16. **"Issue Politicization and Interest Group Campaign Contribution Strategies"**, with Mandi Eatough
Journal of Politics, 2020. Vol. 82: No. 3, pp. 1008-1025

15. **"Campaign Contributions and Donors' Policy Agreement with Presidential Candidates"**, with Brandice Canes-Wrone and Sharece Thrower
Presidential Studies Quarterly, 2019, 49 (4) 770–797

14. **"Conservatism in the Era of Trump"**, with Jeremy Pope
Perspectives on Politics, 2019, 17 (3) 719–736

13. **"Legislative Constraints on Executive Unilateralism in Separation of Powers Systems"**, with Alex Bolton and Sharece Thrower
Legislative Studies Quarterly, 2019, 44 (3) 515–548
Awarded the Jewell-Loewenberg Award for best article in the area of subnational politics published in *Legislative Studies Quarterly* in 2019

12. **"Electoral Competitiveness and Legislative Productivity"**, with Soren Schmidt
American Politics Research, 2019, 47 (4) 683–708

11. **"Does Party Trump Ideology? Disentangling Party and Ideology in America"**, with Jeremy Pope
American Political Science Review, 2019, 113 (1) 38–54

10. **"The Evolution of National Constitutions"**, with Scott Abramson
Quarterly Journal of Political Science, 2019, 14 (1) 89–114

9. **"Who is Ideological? Measuring Ideological Responses to Policy Questions in the American Public"**, with Jeremy Pope
The Forum: A Journal of Applied Research in Contemporary Politics, 2018, 16 (1) 97–122

8. **"Status Quo Bias in Ballot Wording"**, with David Gordon, Ryan Hill, and Joe Price
The Journal of Experimental Political Science, 2017, 4 (2) 151–160.

7. **"Ideologically Sophisticated Donors: Which Candidates Do Individual Contributors Finance?"**, with Brandice Canes-Wrone and Sharece Thrower
American Journal of Political Science, 2017, 61 (2) 271–288.

6. **"Gender Inequalities in Campaign Finance: A Regression Discontinuity Design"**, with Daniel Butler and Jessica Preece
Quarterly Journal of Political Science, 2016, Vol. 11, No. 2: 219–248.

5. **"Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate"**
Public Opinion Quarterly, 2016, 80: 225–249.

4. **"Donation Motivations: Testing Theories of Access and Ideology"**
Political Research Quarterly, 2016, 69 (1) 148–160.

3. **"Ideological Donors, Contribution Limits, and the Polarization of State Legislatures"**
Journal of Politics, 2016, 78 (1) 296–310.

2. **"Online Polls and Registration Based Sampling: A New Method for Pre-Election Polling"** with Quin Monson, Kelly Patterson and Chris Mann.
Political Analysis 2014, 22 (3) 321–335.

1. **"Causes and Consequences of Political Polarization"** In *Negotiating Agreement in Politics*. Jane Mansbridge and Cathie Jo Martin, eds., Washington, DC: American Political Science Association: 19–53. with Nolan McCarty. 2013.

- Reprinted in *Solutions to Political Polarization in America*, Cambridge University Press. Nate Persily, eds. 2015
- Reprinted in *Political Negotiation: A Handbook*, Brookings Institution Press. Jane Mansbridge and Cathie Jo Martin, eds. 2015

Available Working Papers

"Misclassification and Bias in Predictions of Individual Ethnicity from Administrative Records" (Revise and Resubmit at *American Political Science Review*)

"Taking Cues When You Don't Care: Issue Importance and Partisan Cue Taking"
with Jeremy Pope (Revise and Resubmit)

"A Revolution of Rights in American Founding Documents"
with Scott Abramson and Jeremy Pope (Conditionally Accepted)

"410 Million Voting Records Show the Distribution of Turnout in America Today"
with John Holbein (Revise and Resubmit)

"Partisanship and Trolleyology"
with Ryan Davis (Under Review)

"Who's the Partisan: Are Issues or Groups More Important to Partisanship?"
with Jeremy Pope (Revise and Resubmit)

"Race and Realignment in American Politics"
with Jeremy Pope (Revise and Resubmit)

"The Policy Preferences of Donors and Voters"

"Estimating Neighborhood Effects on Turnout from Geocoded Voter Registration Records."
with Kosuke Imai

"Super PAC Contributions in Congressional Elections"

Works in Progress

"Collaborative Study of Democracy and Politics"
with Brandice Canes-Wrone, Gregory Huber, and Joshua Clinton

"Preferences for Representational Styles in the American Public"
with Ryan Davis and Adam Dynes

"Representation and Issue Congruence in Congress"
with Taylor Petersen

"Education, Income, and the Vote for Trump"
with Edie Ellison

Invited Presentations

"Are Mormons Breaking Up with Republicanism? The Unique Political Behavior of Mormons in the 2016 Presidential Election"

- Ivy League LDS Student Association Conference - Princeton University, November 2018, Princeton, NJ

"Issue Politicization and Access-Oriented Giving: A Theory of PAC Contribution Behavior"

- Vanderbilt University, May 2017, Nashville, TN

"Lost in Issue Space? Measuring Levels of Ideology in the American Public"

- Yale University, April 2016, New Haven, CT

"The Incentives, Ideology, and Influence of Campaign Donors in American Politics"

- University of Oklahoma, April 2016, Norman, OK

"Lost in Issue Space? Measuring Levels of Ideology in the American Public"

- University of Wisconsin - Madison, February 2016, Madison, WI

"Polarization and Campaign Contributors: Motivations, Ideology, and Policy"

- Hewlett Foundation Conference on Lobbying and Campaign Finance, October 2014, Palo Alto, CA

"Ideological Donors, Contribution Limits, and the Polarization of State Legislatures"

- Bipartisan Policy Center Meeting on Party Polarization and Campaign Finance, September 2014, Washington, DC

"Representing the Preferences of Donors, Partisans, and Voters in the U.S. Senate"

- Yale Center for the Study of American Politics Conference, May 2014, New Haven, CT

Conference Presentations

Washington D.C. Political Economy Conference (PECO):

- 2017 discussant

American Political Science Association (APSA) Annual Meeting:

- 2014 participant and discussant, 2015 participant, 2016 participant, 2017 participant, 2018 participant

Midwest Political Science Association (MPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2018 participant

Southern Political Science Association (SPSA) Annual Meeting:

- 2015 participant and discussant, 2016 participant and discussant, 2017 participant

Teaching Experience

Poli 315: Congress and the Legislative Process

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017

Poli 328: Quantitative Analysis

- Winter 2017, Fall 2017, Fall 2019, Winter 2020, Fall 2020, Winter 2021

Poli 410: Undergraduate Research Seminar in American Politics

- Fall 2014, Winter 2015, Fall 2015, Winter 2016, Summer 2017

Awards and Grants

2019 BYU Mentored Environment Grant (MEG), American Ideology Project, $30,000

2017 BYU Political Science Teacher of the Year Award

2017 BYU Mentored Environment Grant (MEG), Funding American Democracy Project, $20,000

2016 BYU Political Science Department, Political Ideology and President Trump (with Jeremy Pope), $7,500

2016 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Hayden Galloway, Jennica Peterson, Rebecca Shuel

2015 BYU Office of Research and Creative Activities (ORCA) Student Mentored Grant x 3

- Michael-Sean Covey, Hayden Galloway, Sean Stephenson

2015 BYU Student Experiential Learning Grant, American Founding Comparative Constitutions Project (with Jeremy Pope), $9,000

2015 BYU Social Science College Research Grant, $5,000

2014 BYU Political Science Department, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), $3,000

2014 BYU Social Science College Award, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), $3,000

2014 BYU Center for the Study of Elections and Democracy, 2014 Washington DC Mayoral Pre-Election Poll (with Quin Monson and Kelly Patterson), $2,000

2012 Princeton Center for the Study of Democratic Politics Dissertation Improvement Grant, $5,000

2011 Princeton Mamdouha S. Bobst Center for Peace and Justice Dissertation Research Grant, $5,000

2011 Princeton Political Economy Research Grant, $1,500

Other Scholarly Activities

Expert Witness in Nancy Carola Jacobson, et al., Plaintiffs, vs. Laurel M. Lee, et al., Defendants. Case No. 4:18-cv-00262 MW-CAS (U.S. District Court for the Northern District of Florida)

Expert Witness in Common Cause, et al., Plaintiffs, vs. LEWIS, et al., Defendants. Case No. 18-CVS-14001 (Wake County, North Carolina)

Expert Witness in Kelvin Jones, et al., Plaintiffs, v. Ron DeSantis, et al., Defendants, Consolidated Case No. 4:19-cv-300 (U.S. District Court for the Northern District of Florida)

Expert Witness in Community Success Initiative, et al., Plaintiffs, v. Timothy K. Moore, et al., Defendants, Case No. 19-cv-15941 (Wake County, North Carolina)

Expert Witness in Richard Rose et al., Plaintiffs, v. Brad Raffensperger, Defendant, Civil Action No. 1:20-cv-02921-SDG (U.S. District Court for the Northern District of Georgia)

Georgia Coalition for the People's Agenda, Inc., et. al., Plaintiffs, v. Brad Raffensberger, Defendant. Civil Action No. 1:18-cv-04727-ELR (U.S. District Court for the Northern District of Georgia)

Expert Witness in Alabama, et al., Plaintiffs, v. United States Department of Commerce; Gina Raimondo, et al., Defendants. Case No. CASE No. 3:21-cv-00211-RAH-ECM-KCN (U.S. District Court for the Middle District of Alabama Eastern Division)

Expert Witness in League of Women Voters of Ohio, et al., Relators, v. Ohio Redistricting Commission, et al., Respondents. Case No. 2021-1193 (Supreme Court of Ohio)

Expert Witness in Regina Adams, et al., Relators, v. Governor Mike DeWine, et al., Respondents. Case No. 2021-1428 (Supreme Court of Ohio)

Expert Witness in Rebecca Harper, et al., Plaintiffs, v. Representative Destin Hall, et al., Defendants (Consolidated Case). Case No. 21 CVS 500085 (Wake County, North Carolina)

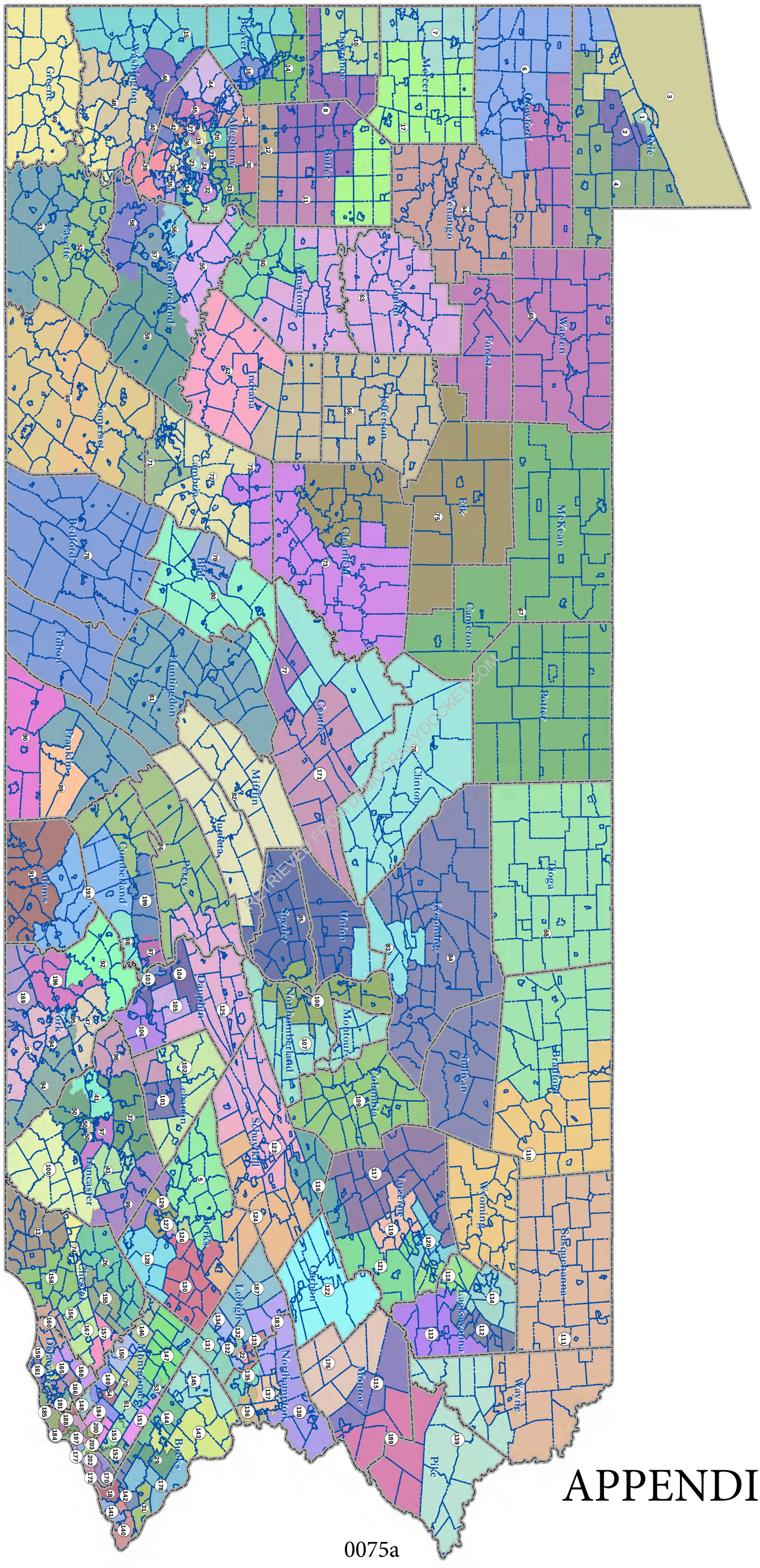
Additional Training

EITM 2012 at Princeton University - Participant and Graduate Student Coordinator

Computer Skills

Statistical Programs: R, Stata, SPSS, parallel computing

Updated January 7, 2022



APPENDIX B

The Statewide population = 13,002,700		
The Average population per district = 64,053		
DISTRICT	**POPULATION**	**DEVIATION**
1	65,227	+1,174 (1.83%)
2	65,660	+1,607 (2.51%)
3	66,287	+2,234 (3.49%)
4	65,611	+1,558 (2.43%)
5	64,650	+597 (0.93%)
6	61,702	-2,351 (3.67%)
7	66,477	+2,424 (3.78%)
8	64,717	+664 (1.04%)
9	62,422	-1,631 (2.55%)
10	63,610	-443 (0.69%)
11	65,999	+1,946 (3.04%)
12	62,962	-1,091 (1.70%)
13	64,075	+22 (0.03%)
14	66,108	+2,055 (3.21%)
15	65,744	+1,691 (2.64%)
16	65,722	+1,669 (2.61%)
17	66,291	+2,238 (3.49%)
18	63,773	-280 (0.44%)
19	65,400	+1,347 (2.10%)
20	64,405	+352 (0.55%)
21	64,010	-43 (0.07%)
22	62,987	-1,066 (1.66%)
23	61,478	-2,575 (4.02%)
24	62,003	-2,050 (3.20%)
25	65,694	+1,641 (2.56%)
26	63,933	-120 (0.19%)
27	61,865	-2,188 (3.42%)
28	62,454	-1,599 (2.50%)
29	65,458	+1,405 (2.19%)
30	64,187	+134 (0.21%)
31	64,739	+686 (1.07%)
32	63,055	-998 (1.56%)

33	61,859	-2,194 (3.42%)
34	62,215	-1,838 (2.87%)
35	65,753	+1,700 (2.65%)
36	64,828	+775 (1.21%)
37	66,593	+2,540 (3.97%)
38	63,445	-608 (0.95%)
39	65,697	+1,644 (2.57%)
40	65,323	+1,270 (1.98%)
41	64,649	+596 (0.93%)
42	65,481	+1,428 (2.23%)
43	64,434	+381 (0.60%)
44	66,419	+2,366 (3.69%)
45	61,671	-2,382 (3.72%)
46	62,010	-2,043 (3.19%)
47	64,984	+931 (1.45%)
48	65,526	+1,473 (2.30%)
49	63,427	-626 (0.98%)
50	64,965	+912 (1.42%)
51	65,033	+980 (1.53%)
52	63,125	-928 (1.45%)
53	64,084	+31 (0.05%)
54	63,471	-582 (0.91%)
55	66,435	+2,382 (3.72%)
56	64,562	+509 (0.80%)
57	66,577	+2,524 (3.94%)
58	65,876	+1,823 (2.85%)
59	65,281	+1,228 (1.92%)
60	64,259	+206 (0.32%)
61	66,292	+2,239 (3.50%)
62	64,920	+867 (1.35%)
63	65,048	+995 (1.55%)
64	62,365	-1,688 (2.63%)
65	61,937	-2,116 (3.30%)
66	62,378	-1,675 (2.61%)
67	61,546	-2,507 (3.91%)
68	63,772	-281 (0.44%)

69	63,457	-596 (0.93%)
70	63,333	-720 (1.12%)
71	63,341	-712 (1.11%)
72	62,830	-1,223 (1.91%)
73	62,237	-1,816 (2.83%)
74	63,175	-878 (1.37%)
75	63,767	-286 (0.45%)
76	65,995	+1,942 (3.03%)
77	64,469	+416 (0.65%)
78	62,267	-1,786 (2.79%)
79	63,269	-784 (1.22%)
80	62,295	-1,758 (2.74%)
81	64,708	+655 (1.02%)
82	66,532	+2,479 (3.87%)
83	62,828	-1,225 (1.91%)
84	65,104	+1,051 (1.64%)
85	61,716	-2,337 (3.65%)
86	65,895	+1,842 (2.88%)
87	66,335	+2,282 (3.56%)
88	64,403	+350 (0.55%)
89	66,531	+2,478 (3.87%)
90	64,923	+870 (1.36%)
91	65,612	+1,559 (2.43%)
92	66,531	+2,478 (3.87%)
93	65,319	+1,266 (1.98%)
94	63,281	-772 (1.20%)
95	66,193	+2,140 (3.34%)
96	65,314	+1,261 (1.97%)
97	61,824	-2,229 (3.48%)
98	66,591	+2,538 (3.96%)
99	65,120	+1,067 (1.67%)
100	64,207	+154 (0.24%)
101	65,615	+1,562 (2.44%)
102	65,771	+1,718 (2.68%)
103	62,914	-1,139 (1.78%)
104	62,333	-1,720 (2.68%)

105	64,283	+230 (0.36%)
106	64,605	+552 (0.86%)
107	62,119	-1,934 (3.02%)
108	62,141	-1,912 (2.98%)
109	64,825	+772 (1.21%)
110	63,536	-517 (0.81%)
111	62,770	-1,283 (2.00%)
112	62,127	-1,926 (3.01%)
113	61,487	-2,566 (4.01%)
114	61,604	-2,449 (3.82%)
115	63,531	-522 (0.81%)
116	64,355	+302 (0.47%)
117	62,062	-1,991 (3.11%)
118	62,791	-1,262 (1.97%)
119	62,000	-2,053 (3.20%)
120	62,297	-1,756 (2.74%)
121	61,490	-2,563 (4.00%)
122	64,866	+813 (1.27%)
123	65,595	+1,542 (2.41%)
124	63,028	-1,025 (1.60%)
125	64,597	+544 (0.85%)
126	65,073	+1,020 (1.59%)
127	64,461	+408 (0.64%)
128	65,308	+1,255 (1.96%)
129	65,537	+1,484 (2.32%)
130	63,535	-518 (0.81%)
131	64,719	+666 (1.04%)
132	63,377	-676 (1.05%)
133	65,425	+1,372 (2.14%)
134	63,586	-467 (0.73%)
135	65,793	+1,740 (2.72%)
136	64,662	+609 (0.95%)
137	62,680	-1,373 (2.14%)
138	65,668	+1,615 (2.52%)
139	62,320	-1,733 (2.71%)
140	63,350	-703 (1.10%)

141	64,322	+269 (0.42%)
142	64,367	+314 (0.49%)
143	65,273	+1,220 (1.91%)
144	66,562	+2,509 (3.92%)
145	65,894	+1,841 (2.87%)
146	65,943	+1,890 (2.95%)
147	65,292	+1,239 (1.93%)
148	62,430	-1,623 (2.53%)
149	65,567	+1,514 (2.36%)
150	63,738	-315 (0.49%)
151	63,470	-583 (0.91%)
152	65,966	+1,913 (2.99%)
153	64,916	+863 (1.35%)
154	63,038	-1,015 (1.58%)
155	63,655	-398 (0.62%)
156	63,235	-818 (1.28%)
157	65,350	+1,297 (2.03%)
158	62,792	-1,261 (1.97%)
159	61,801	-2,252 (3.52%)
160	63,956	-97 (0.15%)
161	63,804	-249 (0.39%)
162	64,947	+894 (1.40%)
163	63,755	-298 (0.46%)
164	63,129	-924 (1.44%)
165	62,800	-1,253 (1.96%)
166	63,050	-1,003 (1.57%)
167	66,546	+2,493 (3.89%)
168	62,978	-1,075 (1.68%)
169	64,977	+924 (1.44%)
170	62,164	-1,889 (2.95%)
171	62,730	-1,323 (2.07%)
172	62,968	-1,085 (1.69%)
173	62,913	-1,140 (1.78%)
174	64,791	+738 (1.15%)
175	63,492	-561 (0.88%)
176	62,863	-1,190 (1.86%)

177	64,541	+488 (0.76%)
178	63,391	-662 (1.03%)
179	62,240	-1,813 (2.83%)
180	63,123	-930 (1.45%)
181	63,310	-743 (1.16%)
182	64,526	+473 (0.74%)
183	65,360	+1,307 (2.04%)
184	64,108	+55 (0.09%)
185	61,863	-2,190 (3.42%)
186	62,436	-1,617 (2.52%)
187	62,319	-1,734 (2.71%)
188	63,288	-765 (1.19%)
189	64,476	+423 (0.66%)
190	61,787	-2,266 (3.54%)
191	64,501	+448 (0.70%)
192	62,293	-1,760 (2.75%)
193	66,314	+2,261 (3.53%)
194	62,791	-1,262 (1.97%)
195	63,221	-832 (1.30%)
196	65,953	+1,900 (2.97%)
197	62,999	-1,054 (1.65%)
198	62,387	-1,666 (2.60%)
199	65,406	+1,353 (2.11%)
200	63,389	-664 (1.04%)
201	62,053	-2,000 (3.12%)
202	64,695	+642 (1.00%)
203	61,873	-2,180 (3.40%)

LEGISLATIVE DATA PROCESSING CENTER

COMPOSITE LISTING

OF

HOUSE OF REPRESENTATIVES DISTRICTS

DISTRICT NUMBER	DESCRIPTION
Dist. 1	ERIE County. Part of ERIE County consisting of the CITY of Erie (PART, Wards 01, 02, 03, 04 and 06) and the TOWNSHIP of Lawrence Park. Total population: 65,227
Dist. 2	ERIE County. Part of ERIE County consisting of the CITY of Erie (PART, Ward 05) and the TOWNSHIPS of Greene, McKean, Millcreek (PART, Districts 01, 18, 19, 20 and 21) and Summit and the BOROUGHS of McKean and Wesleyville. Total population: 65,660
Dist. 3	ERIE County. Part of ERIE County consisting of the TOWNSHIPS of Fairview, Franklin, Girard, Lake Erie and Millcreek (PART, Districts 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 22, 23, 24 and 25) and the BOROUGHS of Girard, Lake City and Platea. Total population: 66,287
Dist. 4	ERIE County. Part of ERIE County consisting of the CITY of Corry and the TOWNSHIPS of Amity, Concord, Elk Creek, Greenfield, Harborcreek, Leboeuf, North East, Union, Venango, Washington, Waterford and Wayne and the BOROUGHS of Cranesville, Edinboro, Elgin, Mill Village, North East, Union City, Waterford and Wattsburg. Total population: 65,611

Dist. 5 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Bern, Bethel, Centre, Heidelberg, Jefferson, Lower Heidelberg, Maidencreek, Marion, North Heidelberg, Ontelaunee, Penn, Perry, Tilden, Tulpehocken, Upper Bern and Upper Tulpehocken and the BOROUGHS of Bernville, Centerport, Leesport, Robesonia, Shoemakersville and Womelsdorf.
Total population: 64,650

Dist. 6 CRAWFORD and ERIE Counties.
Part of CRAWFORD County consisting of the CITY of Meadville and the TOWNSHIPS of Beaver, Conneaut, East Fairfield, East Fallowfield, East Mead, Fairfield, Greenwood, Hayfield, North Shenango, Pine, Randolph, Sadsbury, South Shenango, Spring, Summerhill, Summit, Union, Vernon, Wayne, West Fallowfield, West Mead and West Shenango and the BOROUGHS of Cochranton, Conneaut Lake, Conneautville, Linesville and Springboro and Part of ERIE County consisting of the TOWNSHIPS of Conneaut and Springfield and the BOROUGH of Albion.
Total population: 61,702

Dist. 7 MERCER County.
Part of MERCER County consisting of the CITIES of Farrell, Hermitage and Sharon and the TOWNSHIPS of Delaware, Greene, Hempfield, Pymatuning, Shenango, South Pymatuning, Sugar Grove and West Salem and the BOROUGHS of Clark, Greenville, Jamestown, Sharpsville, West Middlesex and Wheatland.
Total population: 66,477

Dist. 8 BUTLER and LAWRENCE Counties.
Part of BUTLER County consisting of the TOWNSHIPS of Brady, Center, Clay, Connoquenessing, Forward, Franklin, Jackson, Lancaster, Muddycreek and Worth and the BOROUGHS of Connoquenessing, Evans City, Harmony, Portersville, Prospect, West Liberty, West Sunbury and Zelienople and Part of LAWRENCE County consisting of the TOWNSHIPS of Little Beaver, Perry, Plain Grove, Scott, Slippery Rock, Washington and Wayne and the BOROUGHS of Ellport, Ellwood City (Lawrence County Portion), Enon Valley, New Beaver, Volant and Wampum.
Total population: 64,717

Dist. 9 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 04 [PART, Divisions 01, 07, 08 and 12], 06 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 16 and 18], 08 [PART, Divisions 17, 18, 19, 22, 23 and 29], 24, 44 [PART, Divisions 03, 04, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17 and 18] and 60 [PART, Divisions 04, 05, 06, 07, 17, 18, 19, 20, 21 and 22]).
Total population: 62,422

Dist. 10 LAWRENCE County.
Part of LAWRENCE County consisting of the CITY of New Castle and the TOWNSHIPS of Hickory, Mahoning, Neshannock, North Beaver, Pulaski, Shenango, Taylor, Union and Wilmington and the BOROUGHS of Bessemer, New Wilmington, S.N.P.J. and South New Castle.
Total population: 63,610

Dist. 11 BUTLER County.
Part of BUTLER County consisting of the CITY of Butler and the TOWNSHIPS of Buffalo, Butler, Clearfield, Donegal, Jefferson, Oakland, Penn, Summit and Winfield and the BOROUGHS of East Butler and Saxonburg.
Total population: 65,999

Dist. 12 BUTLER County.
Part of BUTLER County consisting of the TOWNSHIPS of Adams, Clinton, Cranberry and Middlesex and the BOROUGHS of Callery, Mars, Seven Fields and Valencia.
Total population: 62,962

Dist. 13 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Nottingham, Elk, Franklin, Highland, London Britain, London Grove, Londonderry, Lower Oxford, New London, Penn, Upper Oxford, West Fallowfield and West Nottingham and the BOROUGHS of Oxford and West Grove.
Total population: 64,075

Dist. 14 BEAVER County.
Part of BEAVER County consisting of the CITY of Beaver Falls and the TOWNSHIPS of Chippewa, Darlington, Daugherty, Franklin, Marion, New Sewickley, North Sewickley, Patterson, Pulaski and White and the BOROUGHS of Big Beaver, Darlington, Eastvale, Economy, Ellwood City (Beaver County Portion), Fallston, Homewood, Koppel, New Brighton, New Galilee, Patterson Heights and West Mayfield.
Total population: 66,108

Dist. 15 BEAVER and WASHINGTON Counties.
Part of BEAVER County consisting of the TOWNSHIPS of Brighton, Greene, Hanover, Independence, Potter, Raccoon, South Beaver and Vanport and the BOROUGHS of Beaver, Frankfort Springs, Georgetown, Glasgow, Hookstown, Industry, Midland, Ohioville and Shippingport and Part of WASHINGTON County consisting of the TOWNSHIPS of Blaine, Buffalo, Canton, Cross Creek, Donegal, East Finley, Hanover, Hopewell, Independence, Jefferson, Smith and West Finley and the BOROUGHS of Burgettstown, Claysville and West Middletown.
Total population: 65,744

Dist. 16 **BEAVER County.**
Part of BEAVER County consisting of the CITY of Aliquippa and the TOWNSHIPS of Center, Harmony, Hopewell and Rochester and the BOROUGHS of Ambridge, Baden, Bridgewater, Conway, East Rochester, Freedom, Monaca, Rochester and South Heights.
Total population: 65,722

Dist. 17 **BUTLER and MERCER Counties.**
Part of BUTLER County consisting of the TOWNSHIPS of Allegheny, Cherry, Concord, Fairview, Marion, Mercer, Parker, Slippery Rock, Venango and Washington and the BOROUGHS of Bruin, Cherry Valley, Chicora, Eau Claire, Fairview, Harrisville, Karns City, Petrolia and Slippery Rock and Part of MERCER County consisting of the TOWNSHIPS of Coolspring, Deer Creek, East Lackawannock, Fairview, Findley, French Creek, Jackson, Jefferson, Lackawannock, Lake, Liberty, Mill Creek, New Vernon, Otter Creek, Perry, Pine, Salem, Sandy Creek, Sandy Lake, Springfield, Wilmington, Wolf Creek and Worth and the BOROUGHS of Fredonia, Grove City, Jackson Center, Mercer, New Lebanon, Sandy Lake, Sheakleyville and Stoneboro.
Total population: 66,291

Dist. 18 **BUCKS County.**
Part of BUCKS County consisting of the TOWNSHIP of Bensalem and the BOROUGH of Hulmeville.
Total population: 63,773

Dist. 19 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 01, 02 [PART, Division 01], 03 [PART, Division 04], 04 [PART, Divisions 01, 02, 17 and 19], 15 [PART, Divisions 13, 14, 15, 16, 17, 18 and 19], 17 [PART, Divisions 01, 02 and 03], 18 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10 and 11], 20 [PART, Divisions 07, 08, 09, 10, 11, 12, 13 and 14], 21, 22, 23 [PART, Division 02], 24 [PART, Division 01], 25, 26 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 10 and 11], 27 [PART, Divisions 09, 10, 11, 12 and 13], 28 [PART, Division 07] and 30) and the BOROUGH of McKees Rocks.
Total population: 65,400

Dist. 20 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 26 [PART, Divisions 12, 13, 14, 15 and 16] and 27 [PART, Divisions 01, 02, 03, 04, 05, 06, 07 and 08]) and the TOWNSHIP of Ross and the BOROUGHS of Avalon, Bellevue and West View.
Total population: 64,405

Dist. 21 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 02 [PART, Division 02], 06, 08 [PART, Division 01], 09 [PART, Divisions 01, 02, 03, 04, 05, 06, 07 and 08], 10 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09 and 10], 11 [PART, Divisions 09 and 10], 23 [PART, Divisions 01 and 03], 24 [PART, Divisions 02, 03, 04, 05 and 06] and 26 [PART, Divisions 09 and 17]) and the TOWNSHIPS of Reserve and Shaler and the BOROUGHS of Etna and Millvale.
Total population: 64,010

Dist. 22 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 01, 02, 03, 04, 05, 06, 07, 08 [PART, Divisions 01, 03 and 06], 09, 10, 12 [PART, Division 01], 14, 15 and 16).
Total population: 62,987

Dist. 23 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 04 [PART, Divisions 05, 08, 09, 10, 11, 12, 13, 14, 15 and 16], 07 [PART, Divisions 01, 02, 05, 06, 07, 10, 13 and 14], 14 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 and 41] and 15 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12]).
Total population: 61,478

Dist. 24 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 03 [PART, Divisions 01, 02, 03 and 05], 04 [PART, Divisions 03, 04, 06, 07 and 18], 05, 07 [PART, Divisions 03, 04, 08, 09, 11 and 12], 08 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13], 09 [PART, Division 09], 10 [PART, Divisions 11, 12, 13, 14, 15, 16, 17, 18 and 19], 11 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 14, 15, 16, 17 and 18], 12 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 11, 12, 13, 14, 15 and 16] and 13 [PART, Divisions 02, 03, 04, 05, 06, 07, 09, 11, 12, 15, 16, 17, 18 and 19]).
Total population: 62,003

Dist. 25 ALLEGHENY County.
Part of ALLEGHENY County consisting of the BOROUGHS of Monroeville, Oakmont, Pitcairn and Plum.
Total population: 65,694

Dist. 26 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Coventry, East Nantmeal, East Vincent, Honey Brook, North Coventry, South Coventry, Wallace, Warwick, West Brandywine, West Caln and West Nantmeal and the BOROUGHS of Elverson and Honey Brook.
Total population: 63,933

Dist. 27 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 19 [PART, Divisions 01, 02, 03, 04, 05, 06 and 28], 20 [PART, Divisions 01, 02, 03, 04, 05, 06, 15, 16, 17 and 18] and 28 [PART, Divisions 01, 02, 03, 04, 05, 06, 08, 09, 10 and 11]) and the TOWNSHIP of Scott and the BOROUGHS of Crafton, Dormont, Green Tree, Ingram and Rosslyn Farms.
Total population: 61,865

Dist. 28 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Kilbuck, Marshall, McCandless (PART, Wards 03 and 04), Ohio and Pine and the BOROUGHS of Ben Avon, Ben Avon Heights, Bradford Woods, Emsworth and Franklin Park.
Total population: 62,454

Dist. 29 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Buckingham (PART, Districts Lower, Middle and Upper [PART, Divisions 02 and 04]), Warminster and Warwick and the BOROUGH of Ivyland.
Total population: 65,458

Dist. 30 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Hampton, McCandless (PART, Wards 01, 02, 05, 06 and 07), Richland and West Deer.
Total population: 64,187

Dist. 31 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Lower Makefield and Newtown and the BOROUGHS of Morrisville (PART, Wards 01, 02 and 03), Newtown and Yardley.
Total population: 64,739

Dist. 32 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 12 [PART, Division 08], 13 [PART, Divisions 01, 08, 10, 13 and 14] and 14 [PART, Divisions 12, 13, 14 and 16]) and the TOWNSHIP of Penn Hills and the BOROUGHS of Verona and Wilkinsburg.
Total population: 63,055

Dist. 33 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of East Deer, Fawn, Frazer, Harmar, Harrison, Indiana, O'Hara and Springdale and the BOROUGHS of Aspinwall, Blawnox, Brackenridge, Cheswick, Fox Chapel, Sharpsburg, Springdale and Tarentum.
Total population: 61,859

Dist. 34 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Ward 14 [PART, Divisions 15, 18 and 19]) and the TOWNSHIPS of North Versailles and Wilkins and the BOROUGHS of Braddock, Braddock Hills, Chalfant, Churchill, East McKeesport, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Rankin, Swissvale, Trafford (Allegheny County Portion), Turtle Creek, Wall and Wilmerding.
Total population: 62,215

Dist. 35 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITIES of Clairton, Duquesne and McKeesport and the TOWNSHIP of South Versailles and the BOROUGHS of Homestead, Liberty, Lincoln, Munhall, Port Vue, Versailles, West Homestead, West Mifflin (PART, Districts 01, 03, 04 and 15), Whitaker and White Oak.
Total population: 65,753

Dist. 36 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 16, 17 [PART, Divisions 04, 05, 06, 07 and 08], 18 [PART, Division 01], 19 [PART, Divisions 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37 and 38], 29 and 32) and the BOROUGHS of Brentwood and Mount Oliver.
Total population: 64,828

Dist. 37 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Clay, Elizabeth, Penn, Rapho and Warwick and the BOROUGHS of Lititz and Manheim.
Total population: 66,593

Dist. 38 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Ward 31) and the BOROUGHS of Baldwin, Dravosburg, Glassport, West Mifflin (PART, Districts 02, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20 and 21) and Whitehall.
Total population: 63,445

Dist. 39 ALLEGHENY and WASHINGTON Counties.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Elizabeth, Forward and South Park (PART, Districts 01, 02, 05, 08 and 09) and the BOROUGHS of Elizabeth, Jefferson Hills, Pleasant Hills and West Elizabeth and Part of WASHINGTON County consisting of the CITY of Monongahela and the TOWNSHIPS of Carroll and Union and the BOROUGHS of Donora, Finleyville and New Eagle.
Total population: 65,697

Dist. 40 ALLEGHENY and WASHINGTON Counties.
Part of ALLEGHENY County consisting of the TOWNSHIP of South Park (PART, Districts 03, 04, 06, 07, 10, 11, 12 and 13) and the BOROUGH of Bethel Park and Part of WASHINGTON County consisting of the TOWNSHIP of Peters.
Total population: 65,323

Dist. 41 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of East Hempfield, Manor (PART, Districts Hershey Mill and Washington Boro) and West Hempfield and the BOROUGHS of Columbia, East Petersburg and Mountville.
Total population: 64,649

Dist. 42 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Baldwin, Mount Lebanon and Upper St. Clair and the BOROUGH of Castle Shannon.
Total population: 65,481

Dist. 43 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Earl, Ephrata, Leacock, Upper Leacock and West Earl and the BOROUGHS of Akron, Ephrata and New Holland.
Total population: 64,434

Dist. 44 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Aleppo, Crescent, Findlay, Leet, Moon and North Fayette and the BOROUGHS of Bell Acres, Edgeworth, Glen Osborne, Glenfield, Haysville, Leetsdale, Sewickley, Sewickley Heights and Sewickley Hills.
Total population: 66,419

Dist. 45 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Collier, Kennedy, Neville, Robinson and Stowe and the BOROUGHS of Bridgeville, Carnegie, Coraopolis, Heidelberg, Pennsbury Village and Thornburg.
Total population: 61,671

Dist. 46 ALLEGHENY and WASHINGTON Counties.
Part of ALLEGHENY County consisting of the TOWNSHIP of South Fayette and the BOROUGHS of McDonald (Allegheny County Portion) and Oakdale and Part of WASHINGTON County consisting of the TOWNSHIPS of Cecil, Chartiers, Mount Pleasant and Robinson and the BOROUGHS of Canonsburg, Houston, McDonald (Washington County Portion) and Midway.
Total population: 62,010

Dist. 47 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Conewago, East Manchester, Hellam, Manchester and Springettsbury (PART, Districts 02, 03 and 07) and the BOROUGHS of Hallam, Manchester, Mount Wolf and Wrightsville.
Total population: 64,984

Dist. 48 WASHINGTON County.
Part of WASHINGTON County consisting of the CITY of Washington and the TOWNSHIPS of Amwell, Fallowfield, Morris, North Bethlehem, North Franklin, North Strabane, Nottingham, Somerset, South Franklin and South Strabane and the BOROUGHS of Cokeburg, East Washington, Ellsworth and Green Hills.
Total population: 65,526

Dist. 49 GREENE and WASHINGTON Counties.
All of GREENE County and Part of WASHINGTON County consisting of the TOWNSHIPS of East Bethlehem, West Bethlehem and West Pike Run and the BOROUGHS of Allenport, Beallsville, Bentleyville, California, Centerville, Charleroi, Coal Center, Deemston, Dunlevy, Elco, Long Branch, Marianna, North Charleroi, Roscoe, Speers, Stockdale, Twilight and West Brownsville.
Total population: 63,427

Dist. 50 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Conestoga, Lancaster (PART, Districts 01, 02, 03, 05, 06, 07 and 09), Manor (PART, Districts Bethel, Hambright, Indiantown, Leisure, Manor, New, New East and West Lancaster), Pequea and West Lampeter and the BOROUGH of Millersville.
Total population: 64,965

Dist. 51 FAYETTE County.
Part of FAYETTE County consisting of the CITY of Uniontown and the TOWNSHIPS of Georges, German, Henry Clay, Menallen, Nicholson, North Union, South Union, Springhill and Wharton and the BOROUGHS of Fairchance, Markleysburg, Masontown, Point Marion and Smithfield.
Total population: 65,033

Dist. 52 FAYETTE County.
Part of FAYETTE County consisting of the CITY of Connellsville and the TOWNSHIPS of Brownsville, Bullskin, Connellsville, Dunbar, Franklin, Jefferson, Lower Tyrone, Luzerne, Perry, Redstone, Saltlick, Springfield, Stewart, Upper Tyrone and Washington and the BOROUGHS of Belle Vernon, Brownsville, Dawson, Dunbar, Everson, Fayette City, Newell, Ohiopyle, Perryopolis, Seven Springs (Fayette County Portion), South Connellsville and Vanderbilt.
Total population: 63,125

Dist. 53 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Franconia (PART, Precincts 05, 06, 07 and 08), Hatfield (PART, Districts 03 [PART, Division 02], 04 and 05 [PART, Division 01]) and Towamencin and the BOROUGHS of Hatfield, Lansdale, Souderton and Telford (Montgomery County Portion).
Total population: 64,084

Dist. 54 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIP of Plymouth and the BOROUGHS of Conshohocken and Norristown.
Total population: 63,471

Dist. 55 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITIES of Arnold, Lower Burrell (PART, Ward 04 [PART, Division 01]) and New Kensington and the TOWNSHIPS of Bell, Derry (PART, Districts Alters and Simpsons), Loyalhanna, Salem, Upper Burrell and Washington and the BOROUGHS of Avonmore, Delmont, Export, Murrysville, New Alexandria and Oklahoma.
Total population: 66,435

Dist. 56 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Jeannette and the TOWNSHIPS of North Huntingdon (PART, Wards 01, 02, 04 [PART, Divisions 01, 03 and 04], 05, 06 and 07) and Penn and the BOROUGHS of Irwin, Manor, North Irwin, Penn and Trafford (Westmoreland County Portion).
Total population: 64,562

Dist. 57 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Greensburg and the TOWNSHIP of Hempfield and the BOROUGHS of Adamsburg, Arona, New Stanton, South Greensburg, Southwest Greensburg and Youngwood.
Total population: 66,577

Dist. 58 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Monessen and the TOWNSHIPS of East Huntingdon, Mount Pleasant (PART, Districts Bridgeport, Duncan, Heccla, Spring Garden and Westmoreland), North Huntingdon (PART, Wards 03 and 04 [PART, Division 02]), Rostraver, Sewickley and South Huntingdon and the BOROUGHS of Hunker, Madison, Mount Pleasant, North Belle Vernon, Scottdale, Smithton, Sutersville and West Newton.
Total population: 65,876

Dist. 59 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Latrobe and the TOWNSHIPS of Cook, Derry (PART, Districts Bradenville, Cokeville, Cooperstown, Kingston, Loyalhanna, Millwood, New Derry, Peanut, Saxman, Scalp Level and Torrance), Donegal, Fairfield, Ligonier, Mount Pleasant (PART, Districts Laurel Run, Mammoth, Pleasant Valley, Ridgeview and United), St. Clair and Unity and the BOROUGHS of Bolivar, Derry, Donegal, Laurel Mountain, Ligonier, New Florence, Seward and Youngstown.
Total population: 65,281

Dist. 60 ARMSTRONG and WESTMORELAND Counties.
Part of ARMSTRONG County consisting of the TOWNSHIPS of Bethel, Burrell, Cadogan, East Franklin, Gilpin, Kiskiminetas, Manor, North Buffalo, Parks, South Bend and South Buffalo and the BOROUGHS of Apollo, Applewold, Ford City, Ford Cliff, Freeport, Leechburg, Manorville, North Apollo and West Kittanning and Part of WESTMORELAND County consisting of the CITY of Lower Burrell (PART, Wards 01, 02, 03 and 04 [PART, Division 02]) and the TOWNSHIP of Allegheny and the BOROUGHS of East Vandergrift, Hyde Park, Vandergrift and West Leechburg.
Total population: 64,259

Dist. 61 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Gwynedd, Upper Dublin (PART, Districts 01 [PART, Divisions 02 and 03] and 07), Upper Gwynedd and Whitpain and the BOROUGHS of Ambler and North Wales.
Total population: 66,292

Dist. 62 INDIANA County.
Part of INDIANA County consisting of the TOWNSHIPS of Armstrong, Blacklick, Brush Valley, Buffington, Burrell, Center, Cherryhill, Conemaugh, East Wheatfield, Pine, Washington, West Wheatfield, White and Young and the BOROUGHS of Armagh, Blairsville, Clymer, Creekside, Homer City, Indiana, Saltsburg and Shelocta.
Total population: 64,920

Dist. 63 ARMSTRONG and CLARION Counties.
Part of ARMSTRONG County consisting of the CITY of Parker City and the TOWNSHIPS of Boggs, Bradys Bend, Cowanshannock, Hovey, Kittanning, Madison, Mahoning, Perry, Pine, Plumcreek, Rayburn, Redbank, Sugarcreek, Valley, Washington, Wayne and West Franklin and the BOROUGHS of Atwood, Dayton, Elderton, Kittanning, Rural Valley, South Bethlehem and Worthington and All of CLARION County.
Total population: 65,048

Dist. 64 CRAWFORD and VENANGO Counties.
Part of CRAWFORD County consisting of the CITY of Titusville and the TOWNSHIPS of Oil Creek, Rome, Steuben and Troy and the BOROUGHS of Hydetown and Townville and All of VENANGO County.
Total population: 62,365

Dist. 65 CRAWFORD, FOREST and WARREN Counties.
Part of CRAWFORD County consisting of the TOWNSHIPS of Athens, Bloomfield, Cambridge, Cussewago, Richmond, Rockdale, Sparta, Venango and Woodcock and the BOROUGHS of Blooming Valley, Cambridge Springs, Centerville, Saegertown, Spartansburg, Venango and Woodcock; All of FOREST County and All of WARREN County.
Total population: 61,937

Dist. 66 INDIANA and JEFFERSON Counties.
Part of INDIANA County consisting of the TOWNSHIPS of Banks, Canoe, East Mahoning, Grant, Green, Montgomery, North Mahoning, Rayne, South Mahoning and West Mahoning and the BOROUGHS of Cherry Tree, Ernest, Glen Campbell, Marion Center, Plumville and Smicksburg and All of JEFFERSON County.
Total population: 62,378

Dist. 67 CAMERON, MCKEAN and POTTER Counties.
All of CAMERON County; All of MCKEAN County and All of POTTER County.
Total population: 61,546

Dist. 68 BRADFORD and TIOGA Counties.
Part of BRADFORD County consisting of the TOWNSHIPS of Armenia, Burlington, Canton, Columbia, Franklin, Granville, Leroy, Monroe, North Towanda, Overton, Ridgebury, Smithfield, South Creek, Springfield, Towanda, Troy, Wells and West Burlington and the BOROUGHS of Alba, Burlington, Canton, Monroe, Sylvania and Troy and All of TIOGA County.
Total population: 63,772

Dist. 69 SOMERSET County.
Part of SOMERSET County consisting of the TOWNSHIPS of Addison, Allegheny, Black, Brothersvalley, Conemaugh, Elk Lick, Fairhope, Greenville, Jefferson, Jenner, Larimer, Lincoln, Lower Turkeyfoot, Middlecreek, Milford, Northampton, Quemahoning, Shade, Somerset, Southampton, Stonycreek, Summit and Upper Turkeyfoot and the BOROUGHS of Addison, Benson, Berlin, Boswell, Callimont, Casselman, Central City, Confluence, Garrett, Hooversville, Indian Lake, Jennerstown, Meyersdale, New Baltimore, New Centerville, Rockwood, Salisbury, Seven Springs (Somerset County Portion), Shanksville, Somerset, Stoystown, Ursina and Wellersburg.
Total population: 63,457

Dist. 70 **MONTGOMERY County.**
Part of MONTGOMERY County consisting of the TOWNSHIPS of East Norriton, Perkiomen, Skippack, West Norriton and Worcester and the BOROUGH of Schwenksville.
Total population: 63,333

Dist. 71 **CAMBRIA and SOMERSET Counties.**
Part of CAMBRIA County consisting of the CITY of Johnstown and the TOWNSHIPS of Adams, Croyle, Richland, Stonycreek and Upper Yoder and the BOROUGHS of Daisytown, Dale, Ehrenfeld, Ferndale, Geistown, Lorain, Scalp Level, South Fork and Summerhill and Part of SOMERSET County consisting of the TOWNSHIPS of Ogle and Paint and the BOROUGHS of Paint and Windber.
Total population: 63,341

Dist. 72 **CAMBRIA County.**
Part of CAMBRIA County consisting of the TOWNSHIPS of Allegheny, Barr, Blacklick, Cambria, Clearfield, Conemaugh, Cresson, Dean, East Taylor, Gallitzin, Jackson, Lower Yoder, Middle Taylor, Munster, Portage, Summerhill, Washington and West Taylor and the BOROUGHS of Ashville, Brownstown, Cassandra, Chest Springs, Cresson, East Conemaugh, Ebensburg, Franklin, Gallitzin, Lilly, Loretto, Nanty Glo, Portage, Sankertown, Southmont, Tunnelhill (Cambria County Portion), Vintondale, Westmont and Wilmore.
Total population: 62,830

Dist. 73 CAMBRIA and CLEARFIELD Counties.
Part of CAMBRIA County consisting of the TOWNSHIPS of Chest, East Carroll, Elder, Reade, Susquehanna, West Carroll and White and the BOROUGHS of Carrolltown, Hastings, Northern Cambria and Patton and Part of CLEARFIELD County consisting of the TOWNSHIPS of Beccaria, Bigler, Boggs, Bradford, Burnside, Chest, Cooper, Covington, Decatur, Girard, Goshen, Graham, Gulich, Jordan, Karthaus, Knox, Lawrence, Morris, Pine and Woodward and the BOROUGHS of Brisbin, Burnside, Chester Hill, Clearfield, Coalport, Glen Hope, Houtzdale, Irvona, Osceola Mills, Ramey, Wallaceton and Westover.
Total population: 62,237

Dist. 74 CHESTER County.
Part of CHESTER County consisting of the CITY of Coatesville and the TOWNSHIPS of Caln, East Caln, Sadsbury, Valley and West Sadsbury and the BOROUGHS of Atglen, Downingtown, Modena, Parkesburg and South Coatesville.
Total population: 63,175

Dist. 75 CLEARFIELD and ELK Counties.
Part of CLEARFIELD County consisting of the CITY of Dubois and the TOWNSHIPS of Bell, Bloom, Brady, Ferguson, Greenwood, Huston, Penn, Pike, Sandy and Union and the BOROUGHS of Curwensville, Falls Creek (Clearfield County Portion), Grampian, Mahaffey, New Washington, Newburg and Troutville and All of ELK County.
Total population: 63,767

Dist. 76 CENTRE and CLINTON Counties.
Part of CENTRE County consisting of the TOWNSHIPS of Burnside, Curtin, Huston, Liberty, Patton, Rush and Snow Shoe and the BOROUGHS of Philipsburg and Snow Shoe and All of CLINTON County.
Total population: 65,995

Dist. 77 **CENTRE County.**
Part of CENTRE County consisting of the TOWNSHIPS of Ferguson, Halfmoon, Taylor and Worth and the BOROUGHS of Port Matilda and State College.
Total population: 64,469

Dist. 78 **BEDFORD and FULTON Counties.**
All of BEDFORD County and All of FULTON County.
Total population: 62,267

Dist. 79 **BLAIR County.**
Part of BLAIR County consisting of the CITY of Altoona and the TOWNSHIPS of Allegheny and Logan and the BOROUGH of Tunnelhill (Blair County Portion).
Total population: 63,269

Dist. 80 **BLAIR and HUNTINGDON Counties.**
Part of BLAIR County consisting of the TOWNSHIPS of Antis, Blair, Catharine, Frankstown, Freedom, Greenfield, Huston, Juniata, North Woodbury, Snyder, Taylor, Tyrone and Woodbury and the BOROUGHS of Bellwood, Duncansville, Hollidaysburg, Martinsburg, Newry, Roaring Spring, Tyrone and Williamsburg and Part of HUNTINGDON County consisting of the TOWNSHIPS of Franklin and Warriors Mark and the BOROUGH of Birmingham.
Total population: 62,295

Dist. 81 **FRANKLIN and HUNTINGDON Counties.**
Part of FRANKLIN County consisting of the TOWNSHIPS of Fannett, Letterkenny, Lurgan, Metal, Southampton and St. Thomas and the BOROUGHS of Orrstown and Shippensburg (Franklin County Portion) and Part of HUNTINGDON County consisting of the TOWNSHIPS of Barree, Brady, Carbon, Cass, Clay, Cromwell, Dublin, Henderson, Hopewell, Jackson, Juniata, Lincoln, Logan, Miller, Morris, Oneida, Penn, Porter, Shirley, Smithfield, Springfield, Spruce Creek, Tell, Todd, Union, Walker, West and Wood and the BOROUGHS of Alexandria, Broad Top City, Cassville, Coalmont, Dudley, Huntingdon, Mapleton, Marklesburg, Mill Creek, Mount Union, Orbisonia, Petersburg, Rockhill, Saltillo, Shade Gap, Shirleysburg and Three Springs.
Total population: 64,708

Dist. 82 **JUNIATA and MIFFLIN Counties.**
Part of JUNIATA County consisting of the TOWNSHIPS of Beale, Delaware, Fayette, Fermanagh, Greenwood, Lack, Milford, Spruce Hill, Turbett, Tuscarora and Walker and the BOROUGHS of Mifflin, Mifflintown, Port Royal and Thompsontown and All of MIFFLIN County.
Total population: 66,532

Dist. 83 **LYCOMING and UNION Counties.**
Part of LYCOMING County consisting of the CITY of Williamsport and the TOWNSHIPS of Armstrong, Brady, Clinton, Loyalsock and Washington and the BOROUGHS of Duboistown, Montgomery and South Williamsport and Part of UNION County consisting of the TOWNSHIPS of Gregg and White Deer.
Total population: 62,828

Dist. 84 LYCOMING and SULLIVAN Counties.
Part of LYCOMING County consisting of the TOWNSHIPS of Anthony, Bastress, Brown, Cascade, Cogan House, Cummings, Eldred, Fairfield, Franklin, Gamble, Hepburn, Jackson, Jordan, Lewis, Limestone, Lycoming, McHenry, McIntyre, McNett, Mifflin, Mill Creek, Moreland, Muncy, Muncy Creek, Nippenose, Old Lycoming, Penn, Piatt, Pine, Plunketts Creek, Porter, Shrewsbury, Susquehanna, Upper Fairfield, Watson, Wolf and Woodward and the BOROUGHS of Hughesville, Jersey Shore, Montoursville, Muncy, Picture Rocks and Salladasburg and All of SULLIVAN County.
Total population: 65,104

Dist. 85 JUNIATA, SNYDER and UNION Counties.
Part of JUNIATA County consisting of the TOWNSHIPS of Monroe and Susquehanna; Part of SNYDER County consisting of the TOWNSHIPS of Adams, Beaver, Center, Chapman, Franklin, Jackson, Middlecreek, Perry, Spring, Union, Washington, West Beaver and West Perry and the BOROUGHS of Beavertown, Freeburg, McClure and Middleburg and Part of UNION County consisting of the TOWNSHIPS of Buffalo, East Buffalo, Hartley, Kelly, Lewis, Limestone, Union and West Buffalo and the BOROUGHS of Hartleton, Lewisburg, Mifflinburg and New Berlin.
Total population: 61,716

Dist. 86 CUMBERLAND and PERRY Counties.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Hopewell, Lower Mifflin, North Newton, Shippensburg, Southampton, Upper Frankford, Upper Mifflin and West Pennsboro and the BOROUGHS of Newburg, Newville and Shippensburg (Cumberland County Portion) and Part of PERRY County consisting of the TOWNSHIPS of Carroll, Centre, Greenwood, Jackson, Juniata, North East Madison, Oliver, Rye, Saville, South West Madison, Spring, Toboyne, Tuscarora and Tyrone and the BOROUGHS of Blain, Bloomfield, Landisburg, Marysville, Millerstown and Newport.
Total population: 65,895

Dist. 87 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of East Pennsboro, Hampden and Silver Spring (PART, Precinct 07) and the BOROUGH of Camp Hill.
Total population: 66,335

Dist. 88 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Lower Allen, Monroe and Upper Allen and the BOROUGHS of Lemoyne, New Cumberland, Shiremanstown and Wormleysburg.
Total population: 64,403

Dist. 89 FRANKLIN County.
Part of FRANKLIN County consisting of the TOWNSHIPS of Greene, Guilford and Hamilton and the BOROUGH of Chambersburg.
Total population: 66,531

Dist. 90 FRANKLIN County.
Part of FRANKLIN County consisting of the TOWNSHIPS of Antrim, Montgomery, Peters, Quincy, Warren and Washington and the BOROUGHS of Greencastle, Mercersburg, Mont Alto and Waynesboro.
Total population: 64,923

Dist. 91 ADAMS County.
Part of ADAMS County consisting of the TOWNSHIPS of Conewago, Cumberland, Franklin, Freedom, Germany, Hamiltonban, Highland, Liberty, Mount Joy, Mount Pleasant, Straban and Union and the BOROUGHS of Bonneauville, Carroll Valley, Fairfield, Gettysburg, Littlestown and McSherrystown.
Total population: 65,612

Dist. 92 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Carroll, Dover (PART, District 02), Fairview, Franklin, Monaghan, Newberry, Warrington and Washington and the BOROUGHS of Dillsburg, Franklintown, Goldsboro, Lewisberry, Wellsville and York Haven.
Total population: 66,531

Dist. 93 YORK County.
Part of YORK County consisting of the TOWNSHIPS of East Hopewell, Fawn, Hopewell, North Hopewell, Springfield and York and the BOROUGHS of Cross Roads, Dallastown, Fawn Grove, Jacobus, Loganville, Shrewsbury, Stewartstown, Winterstown and Yoe.
Total population: 65,319

Dist. 94 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Chanceford, Lower Chanceford, Lower Windsor, Peach Bottom, Springettsbury (PART, Districts 01, 04, 05, 06 and 08) and Windsor and the BOROUGHS of Delta, East Prospect, Felton, Red Lion, Windsor and Yorkana.
Total population: 63,281

Dist. 95 YORK County.
Part of YORK County consisting of the CITY of York and the TOWNSHIP of Spring Garden and the BOROUGHS of North York and West York.
Total population: 66,193

Dist. 96 LANCASTER County.
Part of LANCASTER County consisting of the CITY of Lancaster and the TOWNSHIP of Lancaster (PART, Districts 04 and 08).
Total population: 65,314

Dist. 97 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of East Lampeter and Manheim.
Total population: 61,824

Dist. 98 LANCASTER and LEBANON Counties.
Part of LANCASTER County consisting of the TOWNSHIPS of Conoy, East Donegal, Mount Joy and West Donegal and the BOROUGHS of Elizabethtown, Marietta and Mount Joy and Part of LEBANON County consisting of the TOWNSHIPS of South Annville and South Londonderry.
Total population: 66,591

Dist. 99 BERKS and LANCASTER Counties.
Part of BERKS County consisting of the TOWNSHIPS of Brecknock, Cumru (PART, District 03) and South Heidelberg and the BOROUGHS of Adamstown (Berks County Portion) and Wernersville and Part of LANCASTER County consisting of the TOWNSHIPS of Brecknock, Caernarvon, East Cocalico, East Earl, Salisbury (PART, District Cambridge) and West Cocalico and the BOROUGHS of Adamstown (Lancaster County Portion), Denver and Terre Hill.
Total population: 65,120

Dist. 100 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Bart, Colerain, Drumore, East Drumore, Eden, Fulton, Little Britain, Martic, Paradise, Providence, Sadsbury, Salisbury (PART, Districts Gap and White Horse) and Strasburg and the BOROUGHS of Christiana, Quarryville and Strasburg.
Total population: 64,207

Dist. 101 LEBANON County.
Part of LEBANON County consisting of the CITY of Lebanon and the TOWNSHIPS of North Cornwall, North Lebanon, South Lebanon, West Cornwall and West Lebanon and the BOROUGHS of Cornwall and Mount Gretna.
Total population: 65,615

Dist. 102 LEBANON County.
Part of LEBANON County consisting of the TOWNSHIPS of Annville, Bethel, East Hanover, Heidelberg, Jackson, Millcreek, North Annville, North Londonderry, Swatara and Union and the BOROUGHS of Cleona, Jonestown, Myerstown, Palmyra and Richland.
Total population: 65,771

Dist. 103 DAUPHIN County.
Part of DAUPHIN County consisting of the CITY of Harrisburg and the TOWNSHIP of Swatara (PART, District 03) and the BOROUGHS of Highspire and Steelton.
Total population: 62,914

Dist. 104 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Middle Paxton, Susquehanna and Swatara (PART, Districts 01, 02, 04, 05, 06, 07, 08, 09 and 10) and the BOROUGHS of Dauphin, Paxtang and Penbrook.
Total population: 62,333

Dist. 105 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Lower Paxton and West Hanover.
Total population: 64,283

Dist. 106 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Conewago, Derry, Londonderry, Lower Swatara and South Hanover and the BOROUGHS of Hummelstown, Middletown and Royalton.
Total population: 64,605

Dist. 107 MONTOUR and NORTHUMBERLAND Counties.
All of MONTOUR County and Part of NORTHUMBERLAND County consisting of the CITY of Shamokin and the TOWNSHIPS of Coal, East Cameron, Jordan, Lower Mahanoy, Mount Carmel, Ralpho, Rush, Shamokin, Upper Mahanoy, Washington, West Cameron and Zerbe and the BOROUGHS of Kulpmont, Marion Heights, Mount Carmel and Riverside.
Total population: 62,119

Dist. 108 NORTHUMBERLAND and SNYDER Counties.
Part of NORTHUMBERLAND County consisting of the CITY of Sunbury and the TOWNSHIPS of Delaware, East Chillisquaque, Jackson, Lewis, Little Mahanoy, Lower Augusta, Point, Rockefeller, Turbot, Upper Augusta and West Chillisquaque and the BOROUGHS of Herndon, McEwensville, Milton, Northumberland, Snydertown, Turbotville and Watsontown and Part of SNYDER County consisting of the TOWNSHIPS of Monroe and Penn and the BOROUGHS of Selinsgrove and Shamokin Dam.
Total population: 62,141

Dist. 109 COLUMBIA County.
; All of COLUMBIA County.
Total population: 64,825

Dist. 110 BRADFORD and WYOMING Counties.
Part of BRADFORD County consisting of the TOWNSHIPS of Albany, Asylum, Athens, Herrick, Litchfield, Orwell, Pike, Rome, Sheshequin, Standing Stone, Stevens, Terry, Tuscarora, Ulster, Warren, Wilmot, Windham, Wyalusing and Wysox and the BOROUGHS of Athens, Leraysville, New Albany, Rome, Sayre, South Waverly, Towanda and Wyalusing and All of WYOMING County.
Total population: 63,536

Dist. 111 SUSQUEHANNA and WAYNE Counties.
All of SUSQUEHANNA County and Part of WAYNE County consisting of the TOWNSHIPS of Buckingham, Canaan, Clinton, Damascus, Dyberry, Lebanon, Manchester, Mount Pleasant, Oregon, Preston, Scott and Texas and the BOROUGHS of Bethany, Honesdale, Prompton, Starrucca and Waymart.
Total population: 62,770

Dist. 112 LACKAWANNA County.
Part of LACKAWANNA County consisting of the CITIES of Carbondale and Scranton (PART, Ward 10 [PART, Divisions 01 and 03]) and the TOWNSHIPS of Carbondale and Fell and the BOROUGHS of Archbald, Blakely, Dunmore, Jermyn, Jessup, Mayfield, Olyphant, Throop and Vandling.
Total population: 62,127

Dist. 113 LACKAWANNA County.
Part of LACKAWANNA County consisting of the CITY of Scranton (PART, Wards 05, 06, 09, 10 [PART, Division 02], 11, 12, 14, 15, 16, 17, 19, 20 and 24) and the TOWNSHIPS of Clifton, Covington, Elmhurst, Jefferson, Madison, Roaring Brook, Spring Brook and Thornhurst and the BOROUGHS of Moosic (PART, Ward 02) and Moscow.
Total population: 61,487

Dist. 114 LACKAWANNA County.
Part of LACKAWANNA County consisting of the CITY of Scranton (PART, Wards 01, 02, 03, 07, 13, 21 [PART, Divisions 01, 02 and 03] and 23) and the TOWNSHIPS of Benton, Glenburn, Greenfield, La Plume, North Abington, Scott, South Abington, Waverly and West Abington and the BOROUGHS of Clarks Green, Clarks Summit, Dalton and Dickson City.
Total population: 61,604

Dist. 115 MONROE County.
Part of MONROE County consisting of the TOWNSHIPS of Coolbaugh, Paradise, Pocono and Stroud and the BOROUGHS of Mount Pocono and Stroudsburg.
Total population: 63,531

Dist. 116 LUZERNE and SCHUYLKILL Counties.
Part of LUZERNE County consisting of the CITY of Hazleton and the TOWNSHIP of Hazle and the BOROUGH of West Hazleton and Part of SCHUYLKILL County consisting of the TOWNSHIPS of Delano, East Union, Kline, Mahanoy, North Union and Union and the BOROUGHS of Mahanoy City, McAdoo, Ringtown and Shenandoah.
Total population: 64,355

Dist. 117 LUZERNE County.
Part of LUZERNE County consisting of the TOWNSHIPS of Black Creek, Butler, Conyngham, Dallas, Dorrance, Fairmount, Franklin, Hollenback, Hunlock, Huntington, Lake, Lehman, Nescopeck, Ross, Salem, Slocum, Sugarloaf and Union and the BOROUGHS of Conyngham, Dallas, Harveys Lake, Nescopeck, New Columbus and Shickshinny.
Total population: 62,062

Dist. 118 LACKAWANNA and LUZERNE Counties.
Part of LACKAWANNA County consisting of the CITY of Scranton (PART, Wards 04, 21 [PART, Division 04] and 22) and the TOWNSHIPS of Newton and Ransom and the BOROUGHS of Moosic (PART, Wards 01, 03 and 04), Old Forge and Taylor and Part of LUZERNE County consisting of the CITY of Pittston and the TOWNSHIPS of Jenkins and Pittston and the BOROUGHS of Avoca, Dupont, Duryea, Hughestown, Laflin, West Pittston (PART, Wards 01 and 02) and Yatesville.
Total population: 62,791

Dist. 119 LUZERNE County.
Part of LUZERNE County consisting of the CITY of Nanticoke and the TOWNSHIPS of Fairview, Hanover, Newport, Plymouth, Rice and Wright and the BOROUGHS of Ashley, Edwardsville, Larksville, Nuangola, Plymouth, Sugar Notch and Warrior Run.
Total population: 62,000

Dist. 120 LUZERNE County.
Part of LUZERNE County consisting of the TOWNSHIPS of Exeter, Jackson, Kingston and Plains and the BOROUGHS of Courtdale, Exeter, Forty Fort, Kingston, Luzerne, Pringle, Swoyersville, West Pittston (PART, Ward 03), West Wyoming and Wyoming.
Total population: 62,297

Dist. 121 LUZERNE County.
Part of LUZERNE County consisting of the CITY of Wilkes-Barre and the TOWNSHIPS of Bear Creek, Buck, Dennison, Foster and Wilkes-Barre and the BOROUGHS of Bear Creek Village, Freeland, Jeddo, Laurel Run, Penn Lake Park and White Haven.
Total population: 61,490

Dist. 122 CARBON County.
; All of CARBON County.
Total population: 64,866

Dist. 123 SCHUYLKILL County.
Part of SCHUYLKILL County consisting of the CITY of Pottsville and the TOWNSHIPS of Barry, Blythe, Branch, Butler, Cass, East Norwegian, Foster, New Castle, North Manheim, Norwegian, Reilly, Washington and West Mahanoy and the BOROUGHS of Ashland (Schuylkill County Portion), Cressona, Frackville, Gilberton, Girardville, Gordon, Mechanicsville, Middleport, Minersville, Mount Carbon, New Philadelphia, Palo Alto, Port Carbon, Schuylkill Haven and St. Clair.
Total population: 65,595

Dist. 124 BERKS and SCHUYLKILL Counties.
Part of BERKS County consisting of the TOWNSHIPS of Albany, Greenwich, Maxatawny and Windsor and the BOROUGHS of Hamburg, Kutztown, Lenhartsville and Lyons and Part of SCHUYLKILL County consisting of the TOWNSHIPS of East Brunswick, Rush, Ryan, Schuylkill, South Manheim, Walker, Wayne, West Brunswick and West Penn and the BOROUGHS of Auburn, Coaldale, Deer Lake, Landingville, New Ringgold, Orwigsburg, Port Clinton and Tamaqua.
Total population: 63,028

Dist. 125 DAUPHIN, PERRY and SCHUYLKILL Counties.
Part of DAUPHIN County consisting of the TOWNSHIPS of East Hanover, Halifax, Jackson, Jefferson, Lykens, Mifflin, Reed, Rush, Upper Paxton, Washington, Wayne, Wiconisco and Williams and the BOROUGHS of Berrysburg, Elizabethville, Gratz, Halifax, Lykens, Millersburg, Pillow and Williamstown; Part of PERRY County consisting of the TOWNSHIPS of Buffalo, Howe, Liverpool, Miller, Penn, Watts and Wheatfield and the BOROUGHS of Duncannon, Liverpool and New Buffalo and Part of SCHUYLKILL County consisting of the TOWNSHIPS of Eldred, Frailey, Hegins, Hubley, Pine Grove, Porter, Tremont and Upper Mahantongo and the BOROUGHS of Pine Grove, Tower City and Tremont.
Total population: 64,597

Dist. 126 BERKS County.
Part of BERKS County consisting of the CITY of Reading (PART, Wards 06, 07, 13 [PART, Divisions 01 and 02], 14, 15, 17 [PART, Divisions 01 and 05] and 19) and the TOWNSHIP of Muhlenberg and the BOROUGH of Laureldale.
Total population: 65,073

Dist. 127 BERKS County.
Part of BERKS County consisting of the CITY of Reading (PART, Wards 01, 02, 03, 04, 05, 08, 09, 10, 11, 12, 13 [PART, Division 05], 16, 17 [PART, Divisions 02, 07 and 08] and 18) and the BOROUGHS of Kenhorst and West Reading.
Total population: 64,461

Dist. 128 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Amity, Caernarvon, Douglass, Exeter, Robeson and Union and the BOROUGHS of Birdsboro, New Morgan and St. Lawrence.
Total population: 65,308

Dist. 129 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Cumru (PART, Districts 01, 02, 04, 05, 06 and 07) and Spring and the BOROUGHS of Mohnton, Shillington, Sinking Spring and Wyomissing.
Total population: 65,537

Dist. 130 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Alsace, Colebrookdale, District, Earl, Hereford, Longswamp, Lower Alsace, Oley, Pike, Richmond, Rockland, Ruscombmanor and Washington and the BOROUGHS of Bally, Bechtelsville, Boyertown, Fleetwood, Mount Penn and Topton.
Total population: 63,535

Dist. 131 LEHIGH, MONTGOMERY and NORTHAMPTON Counties.
Part of LEHIGH County consisting of the TOWNSHIPS of Lower Milford, Upper Milford and Upper Saucon and the BOROUGH of Coopersburg; Part of MONTGOMERY County consisting of the TOWNSHIP of Upper Hanover and the BOROUGHS of East Greenville, Pennsburg and Red Hill and Part of NORTHAMPTON County consisting of the TOWNSHIP of Lower Saucon (PART, Districts 01, 02, 04, 06, 07 and 08) and the BOROUGH of Hellertown.
Total population: 64,719

Dist. 132 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 08 [PART, Divisions 02, 04, 05 and 07], 11, 12 [PART, Divisions 02, 03, 04 and 05], 13, 17, 18 and 19).
Total population: 63,377

Dist. 133 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Bethlehem (Lehigh County Portion) and the TOWNSHIPS of Hanover and Whitehall and the BOROUGHS of Catasauqua, Coplay and Fountain Hill.
Total population: 65,425

Dist. 134 LEHIGH County.
Part of LEHIGH County consisting of the TOWNSHIPS of Lower Macungie and Salisbury and the BOROUGHS of Alburtis, Emmaus and Macungie.
Total population: 63,586

Dist. 135 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the CITY of Bethlehem (Northampton County Portion) and the TOWNSHIP of Hanover (PART, Districts 01, 02, 03, 04 and 06).
Total population: 65,793

Dist. 136 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the CITY of Easton and the TOWNSHIPS of Bethlehem (PART, Wards 02, 03 [PART, Divisions 01, 03, 04 and 05] and 04 [PART, Divisions 01 and 02]), Lower Saucon (PART, Districts 03 and 05) and Williams and the BOROUGHS of Freemansburg, Glendon, West Easton and Wilson.
Total population: 64,662

Dist. 137 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the TOWNSHIPS of Bethlehem (PART, Wards 01, 03 [PART, Division 02] and 04 [PART, Divisions 03 and 04]), Forks (PART, District Western [PART, Division 02]), Lower Nazareth, Palmer and Upper Nazareth and the BOROUGHS of Bath, Nazareth, Stockertown and Tatamy.
Total population: 62,680

Dist. 138 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the TOWNSHIPS of Bushkill, Forks (PART, Districts Eastern and Western [PART, Division 01]), Lower Mount Bethel, Moore, Plainfield, Upper Mount Bethel and Washington and the BOROUGHS of Bangor, Chapman, East Bangor, Pen Argyl, Portland, Roseto and Wind Gap.
Total population: 65,668

Dist. 139 PIKE and WAYNE Counties.
Part of PIKE County consisting of the TOWNSHIPS of Blooming Grove, Dingman, Lackawaxen, Milford, Palmyra, Shohola and Westfall and the BOROUGHS of Matamoras and Milford and Part of WAYNE County consisting of the TOWNSHIPS of Berlin, Cherry Ridge, Dreher, Lake, Lehigh, Palmyra, Paupack, Salem, South Canaan and Sterling and the BOROUGH of Hawley.
Total population: 62,320

Dist. 140 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Falls and Middletown (PART, District Lower [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13]) and the BOROUGHS of Morrisville (PART, Ward 04) and Tullytown.
Total population: 63,350

Dist. 141 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIP of Bristol and the BOROUGH of Bristol.
Total population: 64,322

Dist. 142 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Lower Southampton, Middletown (PART, Districts Lower [PART, Division 01] and Upper) and Upper Southampton and the BOROUGHS of Langhorne, Langhorne Manor and Penndel.
Total population: 64,367

Dist. 143 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Bedminster, Bridgeton, Buckingham (PART, District Upper [PART, Divisions 01 and 03]), Doylestown, Durham, Haycock, Nockamixon, Plumstead and Tinicum and the BOROUGHS of Doylestown and Riegelsville.
Total population: 65,273

Dist. 144 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Hilltown, New Britain and Warrington and the BOROUGHS of Chalfont, Dublin, New Britain, Silverdale and Telford (Bucks County Portion).
Total population: 66,562

Dist. 145 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of East Rockhill, Milford, Richland, Springfield and West Rockhill and the BOROUGHS of Perkasie, Quakertown, Richlandtown, Sellersville and Trumbauersville.
Total population: 65,894

Dist. 146 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Limerick, Lower Pottsgrove, Upper Pottsgrove and West Pottsgrove and the BOROUGH of Pottstown.
Total population: 65,943

Dist. 147 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Douglass, Franconia (PART, Precincts 01, 02, 03 and 04), Lower Frederick, Lower Salford, Marlborough, New Hanover, Salford, Upper Frederick and Upper Salford and the BOROUGH of Green Lane.
Total population: 65,292

Dist. 148 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIP of Lower Merion (PART, Wards 01, 02 [PART, Divisions 01 and 03], 03, 04, 05, 06 [PART, Division 01], 07, 08, 09, 10, 11 [PART, Divisions 01 and 02], 12, 13 and 14) and the BOROUGH of Narberth.
Total population: 62,430

Dist. 149 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Merion (PART, Wards 02 [PART, Division 02], 06 [PART, Divisions 02 and 03] and 11 [PART, Division 03]), Upper Merion and Whitemarsh and the BOROUGHS of Bridgeport and West Conshohocken.
Total population: 65,567

Dist. 150 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Providence and Upper Providence and the BOROUGHS of Collegeville, Royersford and Trappe.
Total population: 63,738

Dist. 151 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Hatfield (PART, Districts 01, 02, 03 [PART, Division 01] and 05 [PART, Division 02]), Horsham and Montgomery.
Total population: 63,470

Dist. 152 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Abington (PART, Wards 01 [PART, Divisions 01 and 03], 02, 03 [PART, Divisions 01 and 02], 04 [PART, Division 01] and 10 [PART, Division 01]), Lower Moreland and Upper Moreland and the BOROUGHS of Bryn Athyn, Hatboro and Rockledge.
Total population: 65,966

Dist. 153 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Abington (PART, Wards 01 [PART, Division 02], 03 [PART, Division 03], 04 [PART, Division 02], 05, 06, 07, 08, 09, 10 [PART, Divisions 02 and 03], 11, 12, 13, 14 and 15) and Upper Dublin (PART, Districts 01 [PART, Division 01], 02, 03, 04, 05 and 06).
Total population: 64,916

Dist. 154 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Cheltenham and Springfield and the BOROUGH of Jenkintown.
Total population: 63,038

Dist. 155 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Brandywine, East Pikeland, Upper Uwchlan, Uwchlan, West Pikeland and West Vincent and the BOROUGH of Spring City.
Total population: 63,655

Dist. 156 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Bradford, East Goshen (PART, Precincts 02, 03, 04, 07 and 09) and West Goshen and the BOROUGH of West Chester.
Total population: 63,235

Dist. 157 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of Charlestown, Schuylkill and Tredyffrin and the BOROUGH of Phoenixville.
Total population: 65,350

Dist. 158 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Fallowfield, East Marlborough, Kennett, New Garden, Newlin, Pocopson, West Bradford and West Marlborough and the BOROUGHS of Avondale and Kennett Square.
Total population: 62,792

Dist. 159 DELAWARE County.
Part of DELAWARE County consisting of the CITY of Chester and the TOWNSHIPS of Lower Chichester and Upper Chichester and the BOROUGHS of Eddystone, Marcus Hook, Parkside and Trainer.
Total population: 61,801

Dist. 160 **CHESTER and DELAWARE Counties.**
Part of CHESTER County consisting of the TOWNSHIPS of Birmingham, Pennsbury, Thornbury and Westtown and Part of DELAWARE County consisting of the TOWNSHIPS of Bethel, Chadds Ford, Concord and Thornbury and the BOROUGH of Chester Heights.
Total population: 63,956

Dist. 161 **DELAWARE County.**
Part of DELAWARE County consisting of the TOWNSHIPS of Aston, Chester, Middletown (PART, Districts 01 and 02 [PART, Divisions 01 and 02]), Nether Providence and Ridley (PART, Wards 01 [PART, Divisions 01 and 03], 02, 05 [PART, Division 01] and 07) and the BOROUGHS of Brookhaven, Rose Valley and Upland.
Total population: 63,804

Dist. 162 **DELAWARE County.**
Part of DELAWARE County consisting of the TOWNSHIPS of Darby (PART, Wards 01 and 02) and Ridley (PART, Wards 01 [PART, Division 02], 03, 04, 05 [PART, Division 02], 06, 08 and 09) and the BOROUGHS of Folcroft, Glenolden, Norwood, Prospect Park, Ridley Park, Rutledge and Sharon Hill.
Total population: 64,947

Dist. 163 **DELAWARE County.**
Part of DELAWARE County consisting of the TOWNSHIPS of Darby (PART, Wards 03, 04 and 05) and Upper Darby (PART, Districts 01, 02, 03 [PART, Divisions 01, 02, 03, 04, 05, 08, 09, 10 and 11] and 05 [PART, Divisions 04, 06, 08 and 09]) and the BOROUGHS of Aldan, Clifton Heights and Collingdale.
Total population: 63,755

Dist. 164 **DELAWARE County.**
Part of DELAWARE County consisting of the TOWNSHIP of Upper Darby (PART, Districts 03 [PART, Divisions 06 and 07], 04, 05 [PART, Divisions 01, 02, 03, 05, 07 and 10], 06 and 07) and the BOROUGHS of East Lansdowne, Lansdowne and Millbourne.
Total population: 63,129

Dist. 165 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Marple (PART, Wards 04 [PART, Division 02], 05, 06 and 07), Springfield and Upper Providence and the BOROUGHS of Media, Morton and Swarthmore.
Total population: 62,800

Dist. 166 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Haverford and Marple (PART, Wards 01, 02, 03 and 04 [PART, Divisions 01 and 03]).
Total population: 63,050

Dist. 167 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Goshen (PART, Precincts 01, 05, 06 and 08), East Whiteland, Easttown, West Whiteland and Willistown and the BOROUGH of Malvern.
Total population: 66,546

Dist. 168 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Edgmont, Middletown (PART, Districts 02 [PART, Division 03], 03 and 04), Newtown and Radnor.
Total population: 62,978

Dist. 169 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Codorus, Manheim, Penn, Shrewsbury and West Manheim and the BOROUGHS of Glen Rock, Hanover, Jefferson, New Freedom and Railroad.
Total population: 64,977

Dist. 170 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 58 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 12, 15, 20, 21, 22, 24, 25, 29, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41 and 43] and 66 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 11, 12, 13, 14, 15, 16, 17, 20, 22, 23, 24, 30, 33, 34, 35, 38, 39, 41, 42 and 44]).
Total population: 62,164

Dist. 171 **CENTRE County.**
Part of CENTRE County consisting of the TOWNSHIPS of Benner, Boggs, College, Gregg, Haines, Harris, Howard, Marion, Miles, Penn, Potter, Spring, Union and Walker and the BOROUGHS of Bellefonte, Centre Hall, Howard, Milesburg, Millheim and Unionville.
Total population: 62,730

Dist. 172 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 56 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 13, 14, 15, 16, 33, 34, 36, 37 and 40], 58 [PART, Divisions 01, 09, 10, 11, 13, 14, 16, 17, 18, 19, 23, 26, 27, 28, 30, 42 and 44] and 63).
Total population: 62,968

Dist. 173 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 41 [PART, Divisions 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26], 57 [PART, Divisions 01, 13, 14, 17, 18, 22 and 28], 64 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 13, 14, 15, 16, 17 and 18] and 65).
Total population: 62,913

Dist. 174 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 56 [PART, Divisions 11, 12, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 35, 38, 39 and 41], 57 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 15, 16, 19, 20, 21, 23, 24, 25, 26 and 27] and 66 [PART, Divisions 10, 18, 19, 21, 25, 26, 27, 28, 29, 31, 32, 36, 37, 40, 43, 45 and 46]).
Total population: 64,791

Dist. 175 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 02 [PART, Divisions 01, 02, 03, 12, 13, 14, 15, 16, 25, 26, 27, 28 and 29], 05 [PART, Divisions 01, 02, 03, 04, 05, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36 and 37], 18 [PART, Divisions 01, 02, 04, 05, 06, 07, 10, 11, 12, 18 and 19] and 31 [PART, Divisions 04, 05, 06, 07 and 15]).
Total population: 63,492

Dist. 176 MONROE County.
Part of MONROE County consisting of the TOWNSHIPS of Chestnuthill, Eldred, Hamilton, Jackson, Polk, Ross, Tobyhanna and Tunkhannock.
Total population: 62,863

Dist. 177 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 23 [PART, Divisions 09 and 13], 25 [PART, Divisions 01, 03, 04, 05, 06, 07, 08, 10, 11, 12, 22 and 23], 31 [PART, Divisions 16, 17, 18 and 19], 41 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 13 and 14], 45 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 12, 15, 20, 22, 23, 24 and 25], 55 [PART, Divisions 01 and 02] and 62 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 15, 16, 17, 18 and 19]).
Total population: 64,541

Dist. 178 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Northampton, Solebury, Upper Makefield and Wrightstown and the BOROUGH of New Hope.
Total population: 63,391

Dist. 179 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 23 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23], 33 [PART, Division 05], 35 [PART, Divisions 21, 22, 23, 24, 26, 27, 28, 29 and 30] and 42 [PART, Divisions 01, 02, 05, 06, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25]).
Total population: 62,240

Dist. 180 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 07 [PART, Divisions 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 21, 22 and 23], 25 [PART, Divisions 02, 09, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 24], 31 [PART, Divisions 08, 10, 11, 12, 13 and 14], 33 [PART, Divisions 01, 02, 03, 04, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24] and 45 [PART, Divisions 08, 09, 10, 11, 13, 14, 16, 17, 18, 19 and 21]).
Total population: 63,123

Dist. 181 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 08 [PART, Divisions 25, 26, 30 and 32], 14, 15 [PART, Divisions 03, 07 and 10], 18 [PART, Divisions 03, 08, 09, 13, 14, 15, 16 and 17], 20, 37 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 14] and 47).
Total population: 63,310

Dist. 182 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 02 [PART, Divisions 04, 05, 06, 07, 08, 09, 10, 11, 17, 18, 19, 20, 21, 22, 23 and 24], 05 [PART, Divisions 06, 07, 08, 09, 11, 14, 22, 28 and 29], 08 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 20, 21, 27, 28, 33, 34 and 35] and 30 [PART, Divisions 01, 02, 03, 06, 07, 08, 09, 15 and 16]).
Total population: 64,526

Dist. 183 LEHIGH and NORTHAMPTON Counties.
Part of LEHIGH County consisting of the TOWNSHIPS of North Whitehall and Washington and the BOROUGH of Slatington and Part of NORTHAMPTON County consisting of the TOWNSHIPS of Allen, East Allen, Hanover (PART, District 05) and Lehigh and the BOROUGHS of North Catasauqua, Northampton and Walnutport.
Total population: 65,360

Dist. 184 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 01 and 39).
Total population: 64,108

Dist. 185 DELAWARE and PHILADELPHIA Counties.
Part of DELAWARE County consisting of the TOWNSHIP of Tinicum and the BOROUGH of Colwyn and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 26, 40 [PART, Divisions 01, 03, 04, 06, 12, 13, 14, 15, 16, 17, 18, 19, 22, 27, 28, 29, 30, 31, 32, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50 and 51] and 48 [PART, Divisions 08, 12 and 17]).
Total population: 61,863

Dist. 186 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 30 [PART, Divisions 04, 05, 10, 11, 12, 13, 14 and 17], 36, 48 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 22 and 23] and 51 [PART, Divisions 03, 09, 10, 11, 12, 21, 22, 24 and 25]).
Total population: 62,436

Dist. 187 LEHIGH County.
Part of LEHIGH County consisting of the TOWNSHIPS of Heidelberg, Lowhill, Lynn, South Whitehall, Upper Macungie and Weisenberg.
Total population: 62,319

Dist. 188 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 27, 46 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22 and 23], 51 [PART, Divisions 02, 05, 06, 07, 08, 14 and 15] and 60 [PART, Divisions 01, 02, 03, 08, 09, 10, 11, 12, 13, 14, 15, 16 and 23]).
Total population: 63,288

Dist. 189 MONROE and PIKE Counties.
Part of MONROE County consisting of the TOWNSHIPS of Barrett, Middle Smithfield, Price and Smithfield and the BOROUGHS of Delaware Water Gap and East Stroudsburg and Part of PIKE County consisting of the TOWNSHIPS of Delaware, Greene, Lehman and Porter.
Total population: 64,476

Dist. 190 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 06 [PART, Divisions 13, 14, 15 and 17], 11, 13 [PART, Divisions 20, 21, 22, 23, 24 and 25], 28 [PART, Divisions 04, 05, 06, 09, 10, 11, 12, 13, 14, 16, 17 and 18], 38, 44 [PART, Divisions 01, 02, 05 and 19] and 52 [PART, Divisions 01, 02, 03, 04, 06, 07, 08, 09, 10, 11, 12, 13, 17, 21, 22, 24 and 28]).
Total population: 61,787

Dist. 191 DELAWARE and PHILADELPHIA Counties.
Part of DELAWARE County consisting of the BOROUGHS of Darby and Yeadon and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 03, 40 [PART, Divisions 02, 05, 07, 08, 09, 10, 11, 20, 21, 23, 24, 25, 26, 33, 34 and 47], 46 [PART, Division 21] and 51 [PART, Divisions 01, 04, 13, 16, 17, 18, 19, 20, 23, 26, 27 and 28]).
Total population: 64,501

Dist. 192 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 04 [PART, Divisions 02, 03, 04, 05, 06, 09, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21], 34 and 52 [PART, Divisions 05, 14, 15, 16, 18, 19, 20, 23, 25, 26 and 27]).
Total population: 62,293

Dist. 193 ADAMS and CUMBERLAND Counties.
Part of ADAMS County consisting of the TOWNSHIPS of Berwick, Butler, Hamilton, Huntington, Latimore, Menallen, Oxford, Reading and Tyrone and the BOROUGHS of Abbottstown, Arendtsville, Bendersville, Biglerville, East Berlin, New Oxford and York Springs and Part of CUMBERLAND County consisting of the TOWNSHIPS of Cooke, Dickinson, Penn, South Middleton and South Newton and the BOROUGH of Mount Holly Springs.
Total population: 66,314

Dist. 194 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 09 and 21).
Total population: 62,791

Dist. 195 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 08 [PART, Divisions 24 and 31], 15 [PART, Divisions 01, 02, 04, 05, 06, 08, 09, 11, 12, 13, 14, 15, 16, 17, 18 and 19], 16, 28 [PART, Divisions 01, 02, 03, 07, 08 and 15], 29 and 32).
Total population: 63,221

Dist. 196 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Dover (PART, Districts 01, 03 and 04), Heidelberg, Jackson, North Codorus, Paradise and West Manchester and the BOROUGHS of Dover, New Salem, Seven Valleys and Spring Grove.
Total population: 65,953

Dist. 197 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 07 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09 and 17], 19, 31 [PART, Divisions 01, 02, 03 and 09], 37 [PART, Divisions 13, 15, 16, 17, 18, 19, 20 and 21], 42 [PART, Divisions 03, 04 and 07], 43 and 49 [PART, Divisions 01, 09, 13, 14, 15 and 19]).
Total population: 62,999

Dist. 198 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 10 [PART, Divisions 01, 07, 08, 09, 10, 11, 12 and 21], 12 [PART, Divisions 08, 11, 19, 20 and 21], 13 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19], 49 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 10, 11, 12, 16, 17, 18, 20, 21 and 22] and 61 [PART, Divisions 01, 02, 03, 04, 06, 07, 08, 09, 10, 13, 17, 18, 21, 22, 23, 24, 25 and 26]).
Total population: 62,387

Dist. 199 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Lower Frankford, Middlesex, North Middleton and Silver Spring (PART, Precincts 01, 02, 03, 04, 05, 06, 08 and 09) and the BOROUGHS of Carlisle and Mechanicsburg.
Total population: 65,406

Dist. 200 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 10 [PART, Divisions 02, 03, 04, 05, 06, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28 and 29], 22 and 50).
Total population: 63,389

Dist. 201 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 12 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 12, 13, 14, 15, 16, 17, 18, 22, 23 and 24], 17 and 59).
Total population: 62,053

Dist. 202 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 41 [PART, Division 12], 54, 55 [PART, Divisions 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29], 62 [PART, Divisions 14, 20, 21, 22, 23, 24, 25 and 26] and 64 [PART, Division 12]).
Total population: 64,695

Dist. 203 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 35 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 31 and 32], 53 and 61 [PART, Divisions 05, 11, 12, 14, 15, 16, 19, 20, 27 and 28]).
Total population: 61,873

Population of all districts: 13,002,700

COUNTIES SPLIT BY HOUSE DISTRICTS

46 TOTAL COUNTIES 186 TOTAL SPLITS

ADAMS	091 193
ALLEGHENY	019 020 021 023 024 025 027 028 030 032 033 034 035 036 038 039 040 042 044 045 046
ARMSTRONG	060 063
BEAVER	014 015 016
BERKS	005 099 124 126 127 128 129 130
BLAIR	079 080
BRADFORD	068 110
BUCKS	018 029 031 140 141 142 143 144 145 178
BUTLER	008 011 012 017
CAMBRIA	071 072 073
CENTRE	076 077 171
CHESTER	013 026 074 155 156 157 158 160 167
CLEARFIELD	073 075
CRAWFORD	006 064 065
CUMBERLAND	086 087 088 193 199

COUNTIES SPLIT BY HOUSE DISTRICTS

DAUPHIN	103 104 105 106 125
DELAWARE	159 160 161 162 163 164 165 166 168 185 191
ERIE	001 002 003 004 006
FAYETTE	051 052
FRANKLIN	081 089 090
HUNTINGDON	080 081
INDIANA	062 066
JUNIATA	082 085
LACKAWANNA	112 113 114 118
LANCASTER	037 041 043 050 096 097 098 099 100
LAWRENCE	008 010
LEBANON	098 101 102
LEHIGH	022 131 132 133 134 183 187
LUZERNE	116 117 118 119 120 121
LYCOMING	083 084
MERCER	007 017
MONROE	115 176 189
MONTGOMERY	053 054 061 070 131 146 147 148

COUNTIES SPLIT BY HOUSE DISTRICTS

	149 150 151 152 153 154
NORTHAMPTON	131 135 136 137 138 183
NORTHUMBERLAND	107 108
PERRY	086 125
PHILADELPHIA	009 170 172 173 174 175 177 179 180 181 182 184 185 186 188 190 191 192 194 195 197 198 200 201 202 203
PIKE	139 189
SCHUYLKILL	116 123 124 125
SNYDER	085 108
SOMERSET	069 071
UNION	083 085
WASHINGTON	015 039 040 046 048 049
WAYNE	111 139
WESTMORELAND	055 056 057 058 059 060
YORK	047 092 093 094 095 169 196

PLACES SPLIT BY HOUSE DISTRICTS

42 TOTAL PLACES 76 TOTAL SPLITS

ALLEGHENY COUNTY		
PITTSBURGH	CITY	019 020 021 023 024 027 032 034 036 038
MCCANDLESS	TOWNSHIP	028 030
SOUTH PARK	TOWNSHIP	039 040
WEST MIFFLIN	BOROUGH	035 038
BERKS COUNTY		
READING	CITY	126 127
CUMRU	TOWNSHIP	099 129
BUCKS COUNTY		
BUCKINGHAM	TOWNSHIP	029 143
MIDDLETOWN	TOWNSHIP	140 142
MORRISVILLE	BOROUGH	031 140
CHESTER COUNTY		
EAST GOSHEN	TOWNSHIP	156 167
CUMBERLAND COUNTY		
SILVER SPRING	TOWNSHIP	087 199
DAUPHIN COUNTY		
SWATARA	TOWNSHIP	103 104
DELAWARE COUNTY		
DARBY	TOWNSHIP	162 163
MARPLE	TOWNSHIP	165 166
MIDDLETOWN	TOWNSHIP	161 168
RIDLEY	TOWNSHIP	161 162
UPPER DARBY	TOWNSHIP	163 164
ERIE COUNTY		
ERIE	CITY	001 002
MILLCREEK	TOWNSHIP	002 003
LACKAWANNA COUNTY		
SCRANTON	CITY	112 113 114 118
MOOSIC	BOROUGH	113 118

PLACES SPLIT BY HOUSE DISTRICTS

LANCASTER COUNTY		
LANCASTER	TOWNSHIP	050 096
MANOR	TOWNSHIP	041 050
SALISBURY	TOWNSHIP	099 100
LEHIGH COUNTY		
ALLENTOWN	CITY	022 132
LUZERNE COUNTY		
WEST PITTSTON	BOROUGH	118 120
MONTGOMERY COUNTY		
ABINGTON	TOWNSHIP	152 153
FRANCONIA	TOWNSHIP	053 147
HATFIELD	TOWNSHIP	053 151
LOWER MERION	TOWNSHIP	148 149
UPPER DUBLIN	TOWNSHIP	061 153
NORTHAMPTON COUNTY		
BETHLEHEM	TOWNSHIP	136 137
FORKS	TOWNSHIP	137 138
HANOVER	TOWNSHIP	135 183
LOWER SAUCON	TOWNSHIP	131 136
PHILADELPHIA COUNTY		
PHILADELPHIA	CITY	009 170 172 173 174 175 177 179 180 181 182 184 185 186 188 190 191 192 194 195 197 198 200 201 202 203
WESTMORELAND COUNTY		
LOWER BURRELL	CITY	055 060
DERRY	TOWNSHIP	055 059
MOUNT PLEASANT	TOWNSHIP	058 059
NORTH HUNTINGDON	TOWNSHIP	056 058
YORK COUNTY		
DOVER	TOWNSHIP	092 196
SPRINGETTSBURY	TOWNSHIP	047 094

WARDS SPLIT BY HOUSE DISTRICTS

88 TOTAL WARDS 97 TOTAL SPLITS

ALLEGHENY COUNTY		
PITTSBURGH	CITY	
WARD 02		019 021
WARD 03		019 024
WARD 04		019 023 024
WARD 07		023 024
WARD 08		021 024
WARD 09		021 024
WARD 10		021 024
WARD 11		021 024
WARD 12		024 032
WARD 13		024 032
WARD 14		023 032 034
WARD 15		019 023
WARD 17		019 036
WARD 18		019 036
WARD 19		027 036
WARD 20		019 027
WARD 23		019 021
WARD 24		019 021
WARD 26		019 020 021
WARD 27		019 020
WARD 28		019 027
BERKS COUNTY		
READING	CITY	
WARD 13		126 127
WARD 17		126 127
BUCKS COUNTY		
BUCKINGHAM	TOWNSHIP	
WARD UPPER		029 143
MIDDLETOWN	TOWNSHIP	
WARD LOWER		140 142
DELAWARE COUNTY		
MARPLE	TOWNSHIP	
WARD 04		165 166
MIDDLETOWN	TOWNSHIP	
WARD 02		161 168

WARDS SPLIT BY HOUSE DISTRICTS

RIDLEY	TOWNSHIP	
WARD 01		161 162
WARD 05		161 162
UPPER DARBY	TOWNSHIP	
WARD 03		163 164
WARD 05		163 164
LACKAWANNA COUNTY		
SCRANTON	CITY	
WARD 10		112 113
WARD 21		114 118
LEHIGH COUNTY		
ALLENTOWN	CITY	
WARD 08		022 132
WARD 12		022 132
MONTGOMERY COUNTY		
ABINGTON	TOWNSHIP	
WARD 01		152 153
WARD 03		152 153
WARD 04		152 153
WARD 10		152 153
HATFIELD	TOWNSHIP	
WARD 03		053 151
WARD 05		053 151
LOWER MERION	TOWNSHIP	
WARD 02		148 149
WARD 06		148 149
WARD 11		148 149
UPPER DUBLIN	TOWNSHIP	
WARD 01		061 153
NORTHAMPTON COUNTY		
BETHLEHEM	TOWNSHIP	
WARD 03		136 137
WARD 04		136 137
FORKS	TOWNSHIP	
WARD WESTERN		137 138
PHILADELPHIA COUNTY		
PHILADELPHIA	CITY	
WARD 02		175 182
WARD 04		009 192

WARDS SPLIT BY HOUSE DISTRICTS

WARD 05		175 182
WARD 06		009 190
WARD 07		180 197
WARD 08		009 181 182 195
WARD 10		198 200
WARD 12		198 201
WARD 13		190 198
WARD 15		181 195
WARD 18		175 181
WARD 23		177 179
WARD 25		177 180
WARD 28		190 195
WARD 30		182 186
WARD 31		175 177 180 197
WARD 33		179 180
WARD 35		179 203
WARD 37		181 197
WARD 40		185 191
WARD 41		173 177 202
WARD 42		179 197
WARD 44		009 190
WARD 45		177 180
WARD 46		188 191
WARD 48		185 186
WARD 49		197 198
WARD 51		186 188 191
WARD 52		190 192
WARD 55		177 202
WARD 56		172 174
WARD 57		173 174
WARD 58		170 172
WARD 60		009 188
WARD 61		198 203
WARD 62		177 202
WARD 64		173 202
WARD 66		170 174
WESTMORELAND COUNTY		
LOWER BURRELL	CITY	
WARD 04		055 060
NORTH HUNTINGDON	TOWNSHIP	
WARD 04		056 058

APPENDIX C

The Statewide population = 13,002,700		
The Average population per district = 64,053		
DISTRICT	**POPULATION**	**DEVIATION**
1	65,227	+1,174 (1.83%)
2	65,669	+1,616 (2.52%)
3	65,250	+1,197 (1.87%)
4	64,282	+229 (0.36%)
5	65,035	+982 (1.53%)
6	64,059	+6 (0.01%)
7	65,917	+1,864 (2.91%)
8	65,051	+998 (1.56%)
9	63,610	-443 (0.69%)
10	61,532	-2,521 (3.94%)
11	64,833	+780 (1.22%)
12	64,712	+659 (1.03%)
13	64,075	+22 (0.03%)
14	66,854	+2,801 (4.37%)
15	66,277	+2,224 (3.47%)
16	64,976	+923 (1.44%)
17	65,933	+1,880 (2.94%)
18	63,773	-280 (0.44%)
19	61,450	-2,603 (4.06%)
20	61,715	-2,338 (3.65%)
21	62,076	-1,977 (3.09%)
22	62,468	-1,585 (2.47%)
23	61,580	-2,473 (3.86%)
24	61,444	-2,609 (4.07%)
25	64,844	+791 (1.24%)
26	64,162	+109 (0.17%)
27	61,874	-2,179 (3.40%)
28	63,153	-900 (1.40%)
29	65,554	+1,501 (2.34%)
30	63,488	-565 (0.88%)
31	66,821	+2,768 (4.32%)
32	64,205	+152 (0.24%)

33	61,859	-2,194 (3.42%)
34	61,582	-2,471 (3.86%)
35	64,711	+658 (1.03%)
36	61,727	-2,326 (3.63%)
37	66,593	+2,540 (3.97%)
38	64,487	+434 (0.68%)
39	65,835	+1,782 (2.78%)
40	66,305	+2,252 (3.52%)
41	64,434	+381 (0.60%)
42	63,959	-94 (0.15%)
43	64,434	+381 (0.60%)
44	66,419	+2,366 (3.69%)
45	65,880	+1,827 (2.85%)
46	66,666	+2,613 (4.08%)
47	64,984	+931 (1.45%)
48	65,851	+1,798 (2.81%)
49	62,983	-1,070 (1.67%)
50	66,562	+2,509 (3.92%)
51	65,033	+980 (1.53%)
52	63,125	-928 (1.45%)
53	64,733	+680 (1.06%)
54	63,471	-582 (0.91%)
55	66,435	+2,382 (3.72%)
56	64,562	+509 (0.80%)
57	66,577	+2,524 (3.94%)
58	64,556	+503 (0.79%)
59	66,601	+2,548 (3.98%)
60	64,259	+206 (0.32%)
61	63,924	-129 (0.20%)
62	64,920	+867 (1.35%)
63	65,048	+995 (1.55%)
64	62,365	-1,688 (2.63%)
65	61,937	-2,116 (3.30%)
66	62,378	-1,675 (2.61%)
67	61,546	-2,507 (3.91%)
68	63,772	-281 (0.44%)

69	63,457	-596 (0.93%)
70	65,364	+1,311 (2.05%)
71	62,849	-1,204 (1.88%)
72	64,105	+52 (0.08%)
73	61,454	-2,599 (4.06%)
74	64,829	+776 (1.21%)
75	63,767	-286 (0.45%)
76	62,712	-1,341 (2.09%)
77	61,876	-2,177 (3.40%)
78	62,267	-1,786 (2.79%)
79	63,269	-784 (1.22%)
80	62,295	-1,758 (2.74%)
81	64,708	+655 (1.02%)
82	62,294	-1,759 (2.75%)
83	63,798	-255 (0.40%)
84	64,134	+81 (0.13%)
85	66,424	+2,371 (3.70%)
86	64,092	+39 (0.06%)
87	66,300	+2,247 (3.51%)
88	64,646	+593 (0.93%)
89	66,531	+2,478 (3.87%)
90	64,923	+870 (1.36%)
91	65,612	+1,559 (2.43%)
92	66,531	+2,478 (3.87%)
93	65,319	+1,266 (1.98%)
94	63,281	-772 (1.20%)
95	66,193	+2,140 (3.34%)
96	63,476	-577 (0.90%)
97	65,859	+1,806 (2.82%)
98	66,784	+2,731 (4.26%)
99	64,103	+50 (0.08%)
100	64,207	+154 (0.24%)
101	65,422	+1,369 (2.14%)
102	65,771	+1,718 (2.68%)
103	64,346	+293 (0.46%)
104	65,491	+1,438 (2.25%)

105	62,825	-1,228 (1.92%)
106	66,872	+2,819 (4.40%)
107	65,921	+1,868 (2.92%)
108	65,258	+1,205 (1.88%)
109	64,825	+772 (1.21%)
110	63,536	-517 (0.81%)
111	65,251	+1,198 (1.87%)
112	62,766	-1,287 (2.01%)
113	62,709	-1,344 (2.10%)
114	62,413	-1,640 (2.56%)
115	62,673	-1,380 (2.15%)
116	63,945	-108 (0.17%)
117	61,755	-2,298 (3.59%)
118	61,770	-2,283 (3.56%)
119	61,334	-2,719 (4.24%)
120	61,645	-2,408 (3.76%)
121	61,466	-2,587 (4.04%)
122	64,866	+813 (1.27%)
123	65,886	+1,833 (2.86%)
124	64,846	+793 (1.24%)
125	64,693	+640 (1.00%)
126	63,936	-117 (0.18%)
127	62,627	-1,426 (2.23%)
128	62,731	-1,322 (2.06%)
129	63,444	-609 (0.95%)
130	65,179	+1,126 (1.76%)
131	65,219	+1,166 (1.82%)
132	63,677	-376 (0.59%)
133	65,425	+1,372 (2.14%)
134	62,882	-1,171 (1.83%)
135	65,793	+1,740 (2.72%)
136	63,648	-405 (0.63%)
137	65,856	+1,803 (2.82%)
138	66,215	+2,162 (3.38%)
139	63,297	-756 (1.18%)
140	61,806	-2,247 (3.51%)

141	64,322	+269 (0.42%)
142	65,233	+1,180 (1.84%)
143	65,742	+1,689 (2.64%)
144	65,208	+1,155 (1.80%)
145	63,152	-901 (1.41%)
146	65,008	+955 (1.49%)
147	65,711	+1,658 (2.59%)
148	63,587	-466 (0.73%)
149	64,410	+357 (0.56%)
150	63,779	-274 (0.43%)
151	63,765	-288 (0.45%)
152	61,386	-2,667 (4.16%)
153	62,313	-1,740 (2.72%)
154	63,038	-1,015 (1.58%)
155	64,311	+258 (0.40%)
156	66,169	+2,116 (3.30%)
157	62,988	-1,065 (1.66%)
158	62,792	-1,261 (1.97%)
159	61,801	-2,252 (3.52%)
160	63,956	-97 (0.15%)
161	63,804	-249 (0.39%)
162	64,947	+894 (1.40%)
163	63,755	-298 (0.46%)
164	63,129	-924 (1.44%)
165	62,800	-1,253 (1.96%)
166	63,050	-1,003 (1.57%)
167	63,435	-618 (0.96%)
168	62,978	-1,075 (1.68%)
169	64,977	+924 (1.44%)
170	62,661	-1,392 (2.17%)
171	65,554	+1,501 (2.34%)
172	64,450	+397 (0.62%)
173	62,913	-1,140 (1.78%)
174	62,812	-1,241 (1.94%)
175	62,108	-1,945 (3.04%)
176	62,863	-1,190 (1.86%)

177	62,232	-1,821 (2.84%)
178	65,518	+1,465 (2.29%)
179	61,563	-2,490 (3.89%)
180	62,540	-1,513 (2.36%)
181	62,079	-1,974 (3.08%)
182	66,317	+2,264 (3.54%)
183	66,148	+2,095 (3.27%)
184	64,108	+55 (0.09%)
185	61,863	-2,190 (3.42%)
186	62,436	-1,617 (2.52%)
187	66,296	+2,243 (3.50%)
188	61,778	-2,275 (3.55%)
189	61,876	-2,177 (3.40%)
190	61,771	-2,282 (3.56%)
191	62,629	-1,424 (2.22%)
192	61,419	-2,634 (4.11%)
193	64,302	+249 (0.39%)
194	62,236	-1,817 (2.84%)
195	62,205	-1,848 (2.88%)
196	65,953	+1,900 (2.97%)
197	62,586	-1,467 (2.29%)
198	63,729	-324 (0.51%)
199	64,111	+58 (0.09%)
200	65,563	+1,510 (2.36%)
201	66,430	+2,377 (3.71%)
202	64,695	+642 (1.00%)
203	65,519	+1,466 (2.29%)

LEGISLATIVE DATA PROCESSING CENTER

COMPOSITE LISTING

OF

HOUSE OF REPRESENTATIVES DISTRICTS

DISTRICT NUMBER	DESCRIPTION
Dist. 1	ERIE County. Part of ERIE County consisting of the CITY of Erie (PART, Wards 01, 02, 03, 04 and 06) and the TOWNSHIPS of Lake Erie and Lawrence Park. Total population: 65,227
Dist. 2	ERIE County. Part of ERIE County consisting of the CITY of Erie (PART, Ward 05) and the TOWNSHIPS of Greene, Harborcreek and Summit and the BOROUGH of Wesleyville. Total population: 65,669
Dist. 3	ERIE County. Part of ERIE County consisting of the TOWNSHIPS of Fairview and Millcreek. Total population: 65,250
Dist. 4	ERIE County. Part of ERIE County consisting of the CITY of Corry and the TOWNSHIPS of Amity, Concord, Franklin, Girard, Greenfield, Leboeuf, McKean, North East, Union, Venango, Washington, Waterford and Wayne and the BOROUGHS of Edinboro, Elgin, Girard, Lake City, McKean, Mill Village, North East, Platea, Union City, Waterford and Wattsburg. Total population: 64,282
Dist. 5	BERKS County. Part of BERKS County consisting of the TOWNSHIPS of Bern, Bethel, Centre, Heidelberg, Jefferson, Lower Heidelberg, Marion, North Heidelberg, Ontelaunee, Penn, Perry, South Heidelberg, Spring (PART, Districts 05, 07 and 08) and Tulpehocken and the BOROUGHS of Bernville, Centerport, Leesport, Robesonia, Shoemakersville, Wernersville and Womelsdorf. Total population: 65,035

Dist. 6 CRAWFORD and ERIE Counties.
Part of CRAWFORD County consisting of the CITY of Meadville and the TOWNSHIPS of Beaver, Conneaut, East Fairfield, East Fallowfield, East Mead, Fairfield, Greenwood, Hayfield, North Shenango, Pine, Randolph, Sadsbury, South Shenango, Spring, Summerhill, Summit, Union, Vernon, Wayne, West Fallowfield, West Mead and West Shenango and the BOROUGHS of Cochranton, Conneaut Lake, Conneautville, Linesville and Springboro and Part of ERIE County consisting of the TOWNSHIPS of Conneaut, Elk Creek and Springfield and the BOROUGHS of Albion and Cranesville.
Total population: 64,059

Dist. 7 MERCER County.
Part of MERCER County consisting of the CITIES of Farrell, Hermitage and Sharon and the TOWNSHIPS of Greene, Hempfield, Lackawannock, Pymatuning, Shenango, South Pymatuning and West Salem and the BOROUGHS of Clark, Greenville, Jamestown, Sharpsville, West Middlesex and Wheatland.
Total population: 65,917

Dist. 8 BUTLER and LAWRENCE Counties.
Part of BUTLER County consisting of the TOWNSHIPS of Brady, Center, Clay, Connoquenessing, Forward, Franklin, Lancaster, Middlesex, Muddycreek, Penn and Worth and the BOROUGHS of Connoquenessing, Portersville, Prospect, West Liberty and West Sunbury and Part of LAWRENCE County consisting of the TOWNSHIPS of Little Beaver, Perry, Plain Grove, Scott, Slippery Rock, Washington and Wayne and the BOROUGHS of Ellport, Ellwood City (Lawrence County Portion), Enon Valley, New Beaver, Volant and Wampum.
Total population: 65,051

Dist. 9 LAWRENCE County.
Part of LAWRENCE County consisting of the CITY of New Castle and the TOWNSHIPS of Hickory, Mahoning, Neshannock, North Beaver, Pulaski, Shenango, Taylor, Union and Wilmington and the BOROUGHS of Bessemer, New Wilmington, S.N.P.J. and South New Castle.
Total population: 63,610

Dist. 10 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 04 [PART, Divisions 01, 07, 08 and 12], 06 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 16], 08 [PART, Divisions 17, 18, 19, 22, 23 and 29], 24, 44 [PART, Divisions 03, 04, 06, 08, 09, 10, 13, 14, 15 and 16] and 60 [PART, Divisions 04, 05, 06, 07, 11, 14, 15, 16, 17, 18, 19, 20, 21 and 22]).
Total population: 61,532

Dist. 11 **BUTLER County.**
Part of BUTLER County consisting of the CITY of Butler and the TOWNSHIPS of Buffalo, Butler, Clearfield, Clinton, Donegal, Jefferson, Oakland, Summit and Winfield and the BOROUGHS of Chicora, East Butler and Saxonburg.
Total population: 64,833

Dist. 12 **BUTLER County.**
Part of BUTLER County consisting of the TOWNSHIPS of Adams, Cranberry and Jackson and the BOROUGHS of Callery, Evans City, Harmony, Mars, Seven Fields, Valencia and Zelienople.
Total population: 64,712

Dist. 13 **CHESTER County.**
Part of CHESTER County consisting of the TOWNSHIPS of East Nottingham, Elk, Franklin, Highland, London Britain, London Grove, Londonderry, Lower Oxford, New London, Penn, Upper Oxford, West Fallowfield and West Nottingham and the BOROUGHS of Oxford and West Grove.
Total population: 64,075

Dist. 14 **BEAVER County.**
Part of BEAVER County consisting of the CITY of Beaver Falls and the TOWNSHIPS of Chippewa, Darlington, Daugherty, Franklin, Marion, New Sewickley, North Sewickley, Patterson, Pulaski and White and the BOROUGHS of Big Beaver, Bridgewater, Darlington, Eastvale, Economy, Ellwood City (Beaver County Portion), Fallston, Homewood, Koppel, New Brighton, New Galilee, Patterson Heights and West Mayfield.
Total population: 66,854

Dist. 15 **BEAVER and WASHINGTON Counties.**
Part of BEAVER County consisting of the TOWNSHIPS of Brighton, Greene, Hanover, Independence, Potter, Raccoon, South Beaver and Vanport and the BOROUGHS of Beaver, Frankfort Springs, Georgetown, Glasgow, Hookstown, Industry, Midland, Ohioville and Shippingport and Part of WASHINGTON County consisting of the TOWNSHIPS of Blaine, Buffalo, Canton, Cross Creek, Donegal, Hanover, Hopewell, Independence, Jefferson, Robinson and Smith and the BOROUGHS of Burgettstown, Claysville, Midway and West Middletown.
Total population: 66,277

Dist. 16 **BEAVER County.**
Part of BEAVER County consisting of the CITY of Aliquippa and the TOWNSHIPS of Center, Harmony, Hopewell and Rochester and the BOROUGHS of Ambridge, Baden, Conway, East Rochester, Freedom, Monaca, Rochester and South Heights.
Total population: 64,976

Dist. 17 BUTLER and MERCER Counties.
Part of BUTLER County consisting of the TOWNSHIPS of Allegheny, Cherry, Concord, Fairview, Marion, Mercer, Parker, Slippery Rock, Venango and Washington and the BOROUGHS of Bruin, Cherry Valley, Eau Claire, Fairview, Harrisville, Karns City, Petrolia and Slippery Rock and Part of MERCER County consisting of the TOWNSHIPS of Coolspring, Deer Creek, Delaware, East Lackawannock, Fairview, Findley, French Creek, Jackson, Jefferson, Lake, Liberty, Mill Creek, New Vernon, Otter Creek, Perry, Pine, Salem, Sandy Creek, Sandy Lake, Springfield, Sugar Grove, Wilmington, Wolf Creek and Worth and the BOROUGHS of Fredonia, Grove City, Jackson Center, Mercer, New Lebanon, Sandy Lake, Sheakleyville and Stoneboro.
Total population: 65,933

Dist. 18 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIP of Bensalem and the BOROUGH of Hulmeville.
Total population: 63,773

Dist. 19 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 01, 02 [PART, Division 01], 03, 04 [PART, Divisions 01, 02, 17 and 19], 05 [PART, Divisions 01, 02 and 16], 15 [PART, Divisions 13, 14, 15, 16, 17, 18 and 19], 17 [PART, Divisions 01, 02 and 03], 18 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10 and 11], 20 [PART, Divisions 08, 09, 10, 11, 12 and 13], 21, 22, 23 [PART, Division 02], 25, 26 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 10, 11, 14 and 16], 27 [PART, Divisions 06, 09, 10, 11, 12 and 13] and 30).
Total population: 61,450

Dist. 20 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 26 [PART, Divisions 12, 13 and 15] and 27 [PART, Divisions 01, 02, 03, 04, 05, 07 and 08]) and the TOWNSHIP of Ross and the BOROUGHS of Avalon, Bellevue and West View.
Total population: 61,715

Dist. 21 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 02 [PART, Division 02], 06, 09, 10 [PART, Divisions 01, 02, 03, 04, 05, 06, 07 and 10], 23 [PART, Divisions 01 and 03], 24 and 26 [PART, Divisions 09 and 17]) and the TOWNSHIPS of Reserve and Shaler and the BOROUGHS of Etna and Millvale.
Total population: 62,076

Dist. 22 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 01, 04, 05, 06, 07, 08 [PART, Divisions 01, 02, 03, 05 and 06], 09, 10, 11 [PART, Division 02], 14 and 15) and the TOWNSHIP of Salisbury (PART, Wards 01, 02 and 03 [PART, Division 02]).
Total population: 62,468

Dist. 23 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 04 [PART, Divisions 05, 08, 09, 10, 11, 12, 13, 14, 15 and 16], 07 [PART, Divisions 01, 02, 05, 06, 07, 10, 13 and 14], 14 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40 and 41] and 15 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12]).
Total population: 61,580

Dist. 24 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 04 [PART, Divisions 03, 04, 06, 07 and 18], 05 [PART, Divisions 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 17 and 18], 07 [PART, Divisions 03, 04, 08, 09, 11 and 12], 08, 10 [PART, Divisions 08, 09, 11, 12, 13, 14, 15, 16, 17, 18 and 19], 11, 12 and 13 [PART, Divisions 02, 03, 04, 05, 06, 07, 09, 11, 12, 15, 16, 17, 18 and 19]).
Total population: 61,444

Dist. 25 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIP of North Versailles and the BOROUGHS of East McKeesport, Monroeville, Pitcairn, Plum (PART, Districts 04, 05, 06, 08, 09, 10, 11, 12, 13, 14, 15 and 16), Trafford (Allegheny County Portion), Turtle Creek, Wall and Wilmerding.
Total population: 64,844

Dist. 26 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Coventry, East Nantmeal, East Pikeland, East Vincent, North Coventry, South Coventry, Warwick and West Nantmeal and the BOROUGHS of Elverson, Phoenixville and Spring City.
Total population: 64,162

Dist. 27 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 19 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 13 and 28], 20 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 14, 15, 16, 17 and 18] and 28) and the TOWNSHIP of Scott and the BOROUGHS of Crafton, Green Tree, Heidelberg, Ingram, Rosslyn Farms and Thornburg.
Total population: 61,874

Dist. 28 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Hampton (PART, Districts 01, 02, 06, 07, 08, 09, 10 and 11), Marshall, Pine, Richland and West Deer and the BOROUGH of Bradford Woods.
Total population: 63,153

Dist. 29 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Buckingham, Doylestown and Solebury and the BOROUGHS of Chalfont, Doylestown, New Britain and New Hope.
Total population: 65,554

Dist. 30 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Hampton (PART, Districts 03, 04, 05, 12 and 13), Kilbuck, McCandless and Ohio and the BOROUGHS of Ben Avon, Ben Avon Heights, Emsworth and Franklin Park.
Total population: 63,488

Dist. 31 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Lower Makefield, Newtown and Upper Makefield and the BOROUGHS of Newtown and Yardley.
Total population: 66,821

Dist. 32 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIP of Penn Hills and the BOROUGHS of Oakmont, Plum (PART, Districts 01, 02, 03, 07, 17, 18, 19, 20 and 21) and Verona.
Total population: 64,205

Dist. 33 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of East Deer, Fawn, Frazer, Harmar, Harrison, Indiana, O'Hara and Springdale and the BOROUGHS of Aspinwall, Blawnox, Brackenridge, Cheswick, Fox Chapel, Sharpsburg, Springdale and Tarentum.
Total population: 61,859

Dist. 34 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 13 [PART, Divisions 01, 08, 10, 13 and 14] and 14 [PART, Divisions 12, 13, 14, 15, 16, 17 and 18]) and the TOWNSHIP of Wilkins and the BOROUGHS of Braddock, Braddock Hills, Chalfant, Churchill, East Pittsburgh, Edgewood, Forest Hills, North Braddock, Rankin, Swissvale and Wilkinsburg.
Total population: 61,582

Dist. 35 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITIES of Clairton, Duquesne and McKeesport and the TOWNSHIP of South Versailles and the BOROUGHS of Homestead, Liberty, Lincoln, Munhall, Port Vue, Versailles, West Homestead, West Mifflin (PART, Districts 03, 04 and 15), Whitaker and White Oak.
Total population: 64,711

Dist. 36 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 16, 17 [PART, Divisions 04, 05, 06, 07 and 08], 18 [PART, Division 01], 19 [PART, Divisions 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37 and 38], 29 and 32) and the BOROUGHS of Brentwood and Mount Oliver.
Total population: 61,727

Dist. 37 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Clay, Elizabeth, Penn, Rapho and Warwick and the BOROUGHS of Lititz and Manheim.
Total population: 66,593

Dist. 38 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Ward 31) and the BOROUGHS of Baldwin, Dravosburg, Glassport, West Mifflin (PART, Districts 01, 02, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20 and 21) and Whitehall.
Total population: 64,487

Dist. 39 ALLEGHENY and WASHINGTON Counties.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Elizabeth, Forward and South Park and the BOROUGHS of Elizabeth, Jefferson Hills, Pleasant Hills and West Elizabeth and Part of WASHINGTON County consisting of the CITY of Monongahela and the TOWNSHIPS of Carroll (PART, Districts 01 and 02) and Union and the BOROUGHS of Finleyville and New Eagle.
Total population: 65,835

Dist. 40 ALLEGHENY and WASHINGTON Counties.
Part of ALLEGHENY County consisting of the TOWNSHIP of Upper St. Clair (PART, Wards 03 [PART, Divisions 01 and 02], 04 [PART, Divisions 02, 03 and 04] and 05) and the BOROUGH of Bethel Park and Part of WASHINGTON County consisting of the TOWNSHIP of Peters.
Total population: 66,305

Dist. 41 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of East Hempfield, Manor (PART, Districts Bethel, Hambright and West Lancaster) and West Hempfield and the BOROUGHS of Columbia and Mountville.
Total population: 64,434

Dist. 42 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Baldwin, Mount Lebanon and Upper St. Clair (PART, Wards 01, 02, 03 [PART, Division 03] and 04 [PART, Division 01]) and the BOROUGHS of Castle Shannon and Dormont.
Total population: 63,959

Dist. 43 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Earl, Ephrata, Leacock, Upper Leacock and West Earl and the BOROUGHS of Akron, Ephrata and New Holland.
Total population: 64,434

Dist. 44 ALLEGHENY County.
Part of ALLEGHENY County consisting of the TOWNSHIPS of Aleppo, Crescent, Findlay, Leet, Moon and North Fayette and the BOROUGHS of Bell Acres, Edgeworth, Glen Osborne, Glenfield, Haysville, Leetsdale, Sewickley, Sewickley Heights and Sewickley Hills.
Total population: 66,419

Dist. 45 **ALLEGHENY County.**
Part of ALLEGHENY County consisting of the TOWNSHIPS of Collier, Kennedy, Neville, Robinson and Stowe and the BOROUGHS of Bridgeville, Carnegie, Coraopolis, McKees Rocks and Pennsbury Village.
Total population: 65,880

Dist. 46 **ALLEGHENY and WASHINGTON Counties.**
Part of ALLEGHENY County consisting of the TOWNSHIP of South Fayette and the BOROUGHS of McDonald (Allegheny County Portion) and Oakdale and Part of WASHINGTON County consisting of the TOWNSHIPS of Cecil, Chartiers, Mount Pleasant and North Strabane (PART, Districts 06, 07, 08 and 09) and the BOROUGHS of Canonsburg, Houston and McDonald (Washington County Portion).
Total population: 66,666

Dist. 47 **YORK County.**
Part of YORK County consisting of the TOWNSHIPS of Conewago, East Manchester, Hellam, Manchester and Springettsbury (PART, Districts 02, 03 and 07) and the BOROUGHS of Hallam, Manchester, Mount Wolf and Wrightsville.
Total population: 64,984

Dist. 48 **WASHINGTON County.**
Part of WASHINGTON County consisting of the CITY of Washington and the TOWNSHIPS of Amwell, Carroll (PART, Districts 03, 04 and 05), East Finley, Fallowfield, Morris, North Franklin, North Strabane (PART, Districts 01, 02, 03, 04 and 05), Nottingham, Somerset, South Franklin, South Strabane and West Finley and the BOROUGHS of Donora, East Washington and Green Hills.
Total population: 65,851

Dist. 49 **LANCASTER County.**
Part of LANCASTER County consisting of the CITY of Lancaster (PART, Wards 02 [PART, Division 02], 03, 04, 06 [PART, Division 08], 07 and 08) and the TOWNSHIP of Lancaster and the BOROUGH of Millersville.
Total population: 62,983

Dist. 50 **GREENE and WASHINGTON Counties.**
All of GREENE County and Part of WASHINGTON County consisting of the TOWNSHIPS of East Bethlehem, North Bethlehem, West Bethlehem and West Pike Run and the BOROUGHS of Allenport, Beallsville, Bentleyville, California, Centerville, Charleroi, Coal Center, Cokeburg, Deemston, Dunlevy, Elco, Ellsworth, Long Branch, Marianna, North Charleroi, Roscoe, Speers, Stockdale, Twilight and West Brownsville.
Total population: 66,562

Dist. 51 **FAYETTE County.**
Part of FAYETTE County consisting of the CITY of Uniontown and the TOWNSHIPS of Georges, German, Henry Clay, Menallen, Nicholson, North Union, South Union, Springhill and Wharton and the BOROUGHS of Fairchance, Markleysburg, Masontown, Point Marion and Smithfield.
Total population: 65,033

Dist. 52 **FAYETTE County.**
Part of FAYETTE County consisting of the CITY of Connellsville and the TOWNSHIPS of Brownsville, Bullskin, Connellsville, Dunbar, Franklin, Jefferson, Lower Tyrone, Luzerne, Perry, Redstone, Saltlick, Springfield, Stewart, Upper Tyrone and Washington and the BOROUGHS of Belle Vernon, Brownsville, Dawson, Dunbar, Everson, Fayette City, Newell, Ohiopyle, Perryopolis, Seven Springs (Fayette County Portion), South Connellsville and Vanderbilt.
Total population: 63,125

Dist. 53 **MONTGOMERY County.**
Part of MONTGOMERY County consisting of the TOWNSHIPS of Franconia (PART, Precincts 02, 05 and 08), Hatfield and Montgomery (PART, Districts 01, 02 and 03) and the BOROUGHS of Hatfield, Lansdale, Souderton and Telford (Montgomery County Portion).
Total population: 64,733

Dist. 54 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIP of Plymouth and the BOROUGHS of Conshohocken and Norristown.
Total population: 63,471

Dist. 55 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITIES of Arnold, Lower Burrell (PART, Ward 04 [PART, Division 01]) and New Kensington and the TOWNSHIPS of Bell, Derry (PART, Districts Alters and Simpsons), Loyalhanna, Salem, Upper Burrell and Washington and the BOROUGHS of Avonmore, Delmont, Export, Murrysville, New Alexandria and Oklahoma.
Total population: 66,435

Dist. 56 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Jeannette and the TOWNSHIPS of North Huntingdon (PART, Wards 01, 02, 04 [PART, Divisions 01, 03 and 04], 05, 06 and 07) and Penn and the BOROUGHS of Irwin, Manor, North Irwin, Penn and Trafford (Westmoreland County Portion).
Total population: 64,562

Dist. 57 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Greensburg and the TOWNSHIP of Hempfield and the BOROUGHS of Adamsburg, Arona, New Stanton, South Greensburg, Southwest Greensburg and Youngwood.
Total population: 66,577

Dist. 58 WESTMORELAND County.
Part of WESTMORELAND County consisting of the CITY of Monessen and the TOWNSHIPS of East Huntingdon, Mount Pleasant (PART, Districts Bridgeport, Duncan, Heccla and Spring Garden), North Huntingdon (PART, Wards 03 and 04 [PART, Division 02]), Rostraver, Sewickley and South Huntingdon and the BOROUGHS of Hunker, Madison, Mount Pleasant, North Belle Vernon, Scottdale, Smithton, Sutersville and West Newton.
Total population: 64,556

Dist. 59 **WESTMORELAND County.**
Part of WESTMORELAND County consisting of the CITY of Latrobe and the TOWNSHIPS of Cook, Derry (PART, Districts Bradenville, Cokeville, Cooperstown, Kingston, Loyalhanna, Millwood, New Derry, Peanut, Saxman, Scalp Level and Torrance), Donegal, Fairfield, Ligonier, Mount Pleasant (PART, Districts Laurel Run, Mammoth, Pleasant Valley, Ridgeview, United and Westmoreland), St. Clair and Unity and the BOROUGHS of Bolivar, Derry, Donegal, Laurel Mountain, Ligonier, New Florence, Seward and Youngstown.
Total population: 66,601

Dist. 60 **ARMSTRONG and WESTMORELAND Counties.**
Part of ARMSTRONG County consisting of the TOWNSHIPS of Bethel, Burrell, Cadogan, East Franklin, Gilpin, Kiskiminetas, Manor, North Buffalo, Parks, South Bend and South Buffalo and the BOROUGHS of Apollo, Applewold, Ford City, Ford Cliff, Freeport, Leechburg, Manorville, North Apollo and West Kittanning and Part of WESTMORELAND County consisting of the CITY of Lower Burrell (PART, Wards 01, 02, 03 and 04 [PART, Division 02]) and the TOWNSHIP of Allegheny and the BOROUGHS of East Vandergrift, Hyde Park, Vandergrift and West Leechburg.
Total population: 64,259

Dist. 61 **MONTGOMERY County.**
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Gwynedd, Towamencin, Upper Gwynedd and Whitpain (PART, Districts 01, 02, 03, 04, 05, 06, 07 and 12) and the BOROUGH of North Wales.
Total population: 63,924

Dist. 62 **INDIANA County.**
Part of INDIANA County consisting of the TOWNSHIPS of Armstrong, Blacklick, Brush Valley, Buffington, Burrell, Center, Cherryhill, Conemaugh, East Wheatfield, Pine, Washington, West Wheatfield, White and Young and the BOROUGHS of Armagh, Blairsville, Clymer, Creekside, Homer City, Indiana, Saltsburg and Shelocta.
Total population: 64,920

Dist. 63 **ARMSTRONG and CLARION Counties.**
Part of ARMSTRONG County consisting of the CITY of Parker City and the TOWNSHIPS of Boggs, Bradys Bend, Cowanshannock, Hovey, Kittanning, Madison, Mahoning, Perry, Pine, Plumcreek, Rayburn, Redbank, Sugarcreek, Valley, Washington, Wayne and West Franklin and the BOROUGHS of Atwood, Dayton, Elderton, Kittanning, Rural Valley, South Bethlehem and Worthington and All of CLARION County.
Total population: 65,048

Dist. 64 **CRAWFORD and VENANGO Counties.**
Part of CRAWFORD County consisting of the CITY of Titusville and the TOWNSHIPS of Oil Creek, Rome, Steuben and Troy and the BOROUGHS of Hydetown and Townville and All of VENANGO County.
Total population: 62,365

Dist. 65 **CRAWFORD, FOREST and WARREN Counties.**
Part of CRAWFORD County consisting of the TOWNSHIPS of Athens, Bloomfield, Cambridge, Cussewago, Richmond, Rockdale, Sparta, Venango and Woodcock and the BOROUGHS of Blooming Valley, Cambridge Springs, Centerville, Saegertown, Spartansburg, Venango and Woodcock; All of FOREST County and All of WARREN County.
Total population: 61,937

Dist. 66 **INDIANA and JEFFERSON Counties.**
Part of INDIANA County consisting of the TOWNSHIPS of Banks, Canoe, East Mahoning, Grant, Green, Montgomery, North Mahoning, Rayne, South Mahoning and West Mahoning and the BOROUGHS of Cherry Tree, Ernest, Glen Campbell, Marion Center, Plumville and Smicksburg and All of JEFFERSON County.
Total population: 62,378

Dist. 67 **CAMERON, MCKEAN and POTTER Counties.**
All of CAMERON County; All of MCKEAN County and All of POTTER County.
Total population: 61,546

Dist. 68 BRADFORD and TIOGA Counties.
Part of BRADFORD County consisting of the TOWNSHIPS of Armenia, Burlington, Canton, Columbia, Franklin, Granville, Leroy, Monroe, North Towanda, Overton, Ridgebury, Smithfield, South Creek, Springfield, Towanda, Troy, Wells and West Burlington and the BOROUGHS of Alba, Burlington, Canton, Monroe, Sylvania and Troy and All of TIOGA County.
Total population: 63,772

Dist. 69 SOMERSET County.
Part of SOMERSET County consisting of the TOWNSHIPS of Addison, Allegheny, Black, Brothersvalley, Conemaugh, Elk Lick, Fairhope, Greenville, Jefferson, Jenner, Larimer, Lincoln, Lower Turkeyfoot, Middlecreek, Milford, Northampton, Quemahoning, Shade, Somerset, Southampton, Stonycreek, Summit and Upper Turkeyfoot and the BOROUGHS of Addison, Benson, Berlin, Boswell, Callimont, Casselman, Central City, Confluence, Garrett, Hooversville, Indian Lake, Jennerstown, Meyersdale, New Baltimore, New Centerville, Rockwood, Salisbury, Seven Springs (Somerset County Portion), Shanksville, Somerset, Stoystown, Ursina and Wellersburg.
Total population: 63,457

Dist. 70 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of East Norriton, Perkiomen, Skippack, West Norriton (PART, Districts 01, 02 and 04), Whitpain (PART, Districts 08, 09, 10 and 11) and Worcester and the BOROUGH of Schwenksville.
Total population: 65,364

Dist. 71 **CAMBRIA and SOMERSET Counties.**
Part of CAMBRIA County consisting of the TOWNSHIPS of Adams, Allegheny, Chest, Clearfield, Cresson, Dean, Gallitzin, Munster, Portage, Reade, Richland, Stonycreek, Summerhill, Washington and White and the BOROUGHS of Ashville, Cassandra, Chest Springs, Cresson, Ferndale, Gallitzin, Geistown, Lilly, Loretto, Portage, Sankertown, Scalp Level, South Fork, Tunnelhill (Cambria County Portion) and Wilmore and Part of SOMERSET County consisting of the TOWNSHIPS of Ogle and Paint and the BOROUGHS of Paint and Windber.
Total population: 62,849

Dist. 72 **CAMBRIA County.**
Part of CAMBRIA County consisting of the CITY of Johnstown and the TOWNSHIPS of Blacklick, Cambria, Conemaugh, Croyle, East Taylor, Jackson, Lower Yoder, Middle Taylor, Upper Yoder and West Taylor and the BOROUGHS of Brownstown, Daisytown, Dale, East Conemaugh, Ebensburg, Ehrenfeld, Franklin, Lorain, Nanty Glo, Southmont, Summerhill, Vintondale and Westmont.
Total population: 64,105

Dist. 73 **CAMBRIA and CLEARFIELD Counties.**
Part of CAMBRIA County consisting of the TOWNSHIPS of Barr, East Carroll, Elder, Susquehanna and West Carroll and the BOROUGHS of Carrolltown, Hastings, Northern Cambria and Patton and Part of CLEARFIELD County consisting of the TOWNSHIPS of Beccaria, Bigler, Boggs, Bradford, Burnside, Chest, Cooper, Covington, Decatur, Girard, Goshen, Graham, Gulich, Jordan, Karthaus, Knox, Lawrence, Morris, Pine and Woodward and the BOROUGHS of Brisbin, Burnside, Chester Hill, Clearfield, Coalport, Glen Hope, Houtzdale, Irvona, Osceola Mills, Ramey, Wallaceton and Westover.
Total population: 61,454

Dist. 74 CHESTER County.
Part of CHESTER County consisting of the CITY of Coatesville and the TOWNSHIPS of Caln (PART, Districts 01, 02 and 03), Honey Brook, Sadsbury, Valley, West Caln and West Sadsbury and the BOROUGHS of Atglen, Honey Brook, Modena, Parkesburg and South Coatesville.
Total population: 64,829

Dist. 75 CLEARFIELD and ELK Counties.
Part of CLEARFIELD County consisting of the CITY of Dubois and the TOWNSHIPS of Bell, Bloom, Brady, Ferguson, Greenwood, Huston, Penn, Pike, Sandy and Union and the BOROUGHS of Curwensville, Falls Creek (Clearfield County Portion), Grampian, Mahaffey, New Washington, Newburg and Troutville and All of ELK County.
Total population: 63,767

Dist. 76 CLINTON and UNION Counties.
All of CLINTON County and Part of UNION County consisting of the TOWNSHIPS of Buffalo, Hartley, Kelly, Lewis, Limestone and West Buffalo and the BOROUGHS of Hartleton, Lewisburg, Mifflinburg and New Berlin.
Total population: 62,712

Dist. 77 CENTRE County.
Part of CENTRE County consisting of the TOWNSHIPS of Ferguson, Halfmoon, Huston, Patton, Rush, Taylor and Worth and the BOROUGHS of Philipsburg, Port Matilda and State College (PART, Districts East Central [PART, Division 02], Northwest, South [PART, Division 01], West and West Central).
Total population: 61,876

Dist. 78 BEDFORD and FULTON Counties.
All of BEDFORD County and All of FULTON County.
Total population: 62,267

Dist. 79 BLAIR County.
Part of BLAIR County consisting of the CITY of Altoona and the TOWNSHIPS of Allegheny and Logan and the BOROUGH of Tunnelhill (Blair County Portion).
Total population: 63,269

Dist. 80 BLAIR and HUNTINGDON Counties.
Part of BLAIR County consisting of the TOWNSHIPS of Antis, Blair, Catharine, Frankstown, Freedom, Greenfield, Huston, Juniata, North Woodbury, Snyder, Taylor, Tyrone and Woodbury and the BOROUGHS of Bellwood, Duncansville, Hollidaysburg, Martinsburg, Newry, Roaring Spring, Tyrone and Williamsburg and Part of HUNTINGDON County consisting of the TOWNSHIPS of Franklin and Warriors Mark and the BOROUGH of Birmingham.
Total population: 62,295

Dist. 81 FRANKLIN and HUNTINGDON Counties.
Part of FRANKLIN County consisting of the TOWNSHIPS of Fannett, Letterkenny, Lurgan, Metal, Southampton and St. Thomas and the BOROUGHS of Orrstown and Shippensburg (Franklin County Portion) and Part of HUNTINGDON County consisting of the TOWNSHIPS of Barree, Brady, Carbon, Cass, Clay, Cromwell, Dublin, Henderson, Hopewell, Jackson, Juniata, Lincoln, Logan, Miller, Morris, Oneida, Penn, Porter, Shirley, Smithfield, Springfield, Spruce Creek, Tell, Todd, Union, Walker, West and Wood and the BOROUGHS of Alexandria, Broad Top City, Cassville, Coalmont, Dudley, Huntingdon, Mapleton, Marklesburg, Mill Creek, Mount Union, Orbisonia, Petersburg, Rockhill, Saltillo, Shade Gap, Shirleysburg and Three Springs.
Total population: 64,708

Dist. 82 CENTRE County.
Part of CENTRE County consisting of the TOWNSHIPS of Benner, Boggs, Burnside, College, Curtin, Harris, Howard, Liberty, Marion, Snow Shoe and Union and the BOROUGHS of Howard, Milesburg, Snow Shoe, State College (PART, Districts East, East Central [PART, Division 03], North, Northeast, Penn State Univ. (hub), South [PART, Division 02], South Central and Southeast) and Unionville.
Total population: 62,294

Dist. 83 LYCOMING and UNION Counties.
Part of LYCOMING County consisting of the CITY of Williamsport and the TOWNSHIPS of Armstrong, Brady, Clinton, Loyalsock, Susquehanna and Washington and the BOROUGHS of Duboistown, Montgomery and South Williamsport and Part of UNION County consisting of the TOWNSHIPS of Gregg and White Deer.
Total population: 63,798

Dist. 84 LYCOMING and SULLIVAN Counties.
Part of LYCOMING County consisting of the TOWNSHIPS of Anthony, Bastress, Brown, Cascade, Cogan House, Cummings, Eldred, Fairfield, Franklin, Gamble, Hepburn, Jackson, Jordan, Lewis, Limestone, Lycoming, McHenry, McIntyre, McNett, Mifflin, Mill Creek, Moreland, Muncy, Muncy Creek, Nippenose, Old Lycoming, Penn, Piatt, Pine, Plunketts Creek, Porter, Shrewsbury, Upper Fairfield, Watson, Wolf and Woodward and the BOROUGHS of Hughesville, Jersey Shore, Montoursville, Muncy, Picture Rocks and Salladasburg and All of SULLIVAN County.
Total population: 64,134

Dist. 85 JUNIATA, MIFFLIN, SNYDER and UNION Counties.
Part of JUNIATA County consisting of the TOWNSHIPS of Fayette and Monroe; Part of MIFFLIN County consisting of the TOWNSHIPS of Decatur and Derry and the BOROUGH of Burnham; All of SNYDER County and Part of UNION County consisting of the TOWNSHIPS of East Buffalo and Union.
Total population: 66,424

Dist. 86 JUNIATA and PERRY Counties.
Part of JUNIATA County consisting of the TOWNSHIPS of Beale, Delaware, Fermanagh, Greenwood, Lack, Milford, Spruce Hill, Susquehanna, Turbett, Tuscarora and Walker and the BOROUGHS of Mifflin, Mifflintown, Port Royal and Thompsontown and All of PERRY County.
Total population: 64,092

Dist. 87 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Lower Allen (PART, Precinct 02), Monroe, Silver Spring, South Middleton (PART, Precincts 01, 02, 06, 07, 08 and 09) and Upper Allen and the BOROUGH of Mount Holly Springs.
Total population: 66,300

Dist. 88 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Hampden and Lower Allen (PART, Precincts 01, 03, 04, 05 and 06) and the BOROUGHS of Mechanicsburg, New Cumberland and Shiremanstown.
Total population: 64,646

Dist. 89 FRANKLIN County.
Part of FRANKLIN County consisting of the TOWNSHIPS of Greene, Guilford and Hamilton and the BOROUGH of Chambersburg.
Total population: 66,531

Dist. 90 FRANKLIN County.
Part of FRANKLIN County consisting of the TOWNSHIPS of Antrim, Montgomery, Peters, Quincy, Warren and Washington and the BOROUGHS of Greencastle, Mercersburg, Mont Alto and Waynesboro.
Total population: 64,923

Dist. 91 ADAMS County.
Part of ADAMS County consisting of the TOWNSHIPS of Conewago, Cumberland, Franklin, Freedom, Germany, Hamiltonban, Highland, Liberty, Mount Joy, Mount Pleasant, Straban and Union and the BOROUGHS of Bonneauville, Carroll Valley, Fairfield, Gettysburg, Littlestown and McSherrystown.
Total population: 65,612

Dist. 92 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Carroll, Dover (PART, District 02), Fairview, Franklin, Monaghan, Newberry, Warrington and Washington and the BOROUGHS of Dillsburg, Franklintown, Goldsboro, Lewisberry, Wellsville and York Haven.
Total population: 66,531

Dist. 93 YORK County.
Part of YORK County consisting of the TOWNSHIPS of East Hopewell, Fawn, Hopewell, North Hopewell, Springfield and York and the BOROUGHS of Cross Roads, Dallastown, Fawn Grove, Jacobus, Loganville, Shrewsbury, Stewartstown, Winterstown and Yoe.
Total population: 65,319

Dist. 94 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Chanceford, Lower Chanceford, Lower Windsor, Peach Bottom, Springettsbury (PART, Districts 01, 04, 05, 06 and 08) and Windsor and the BOROUGHS of Delta, East Prospect, Felton, Red Lion, Windsor and Yorkana.
Total population: 63,281

Dist. 95 YORK County.
Part of YORK County consisting of the CITY of York and the TOWNSHIP of Spring Garden and the BOROUGHS of North York and West York.
Total population: 66,193

Dist. 96 LANCASTER County.
Part of LANCASTER County consisting of the CITY of Lancaster (PART, Wards 01, 02 [PART, Division 01], 05, 06 [PART, Divisions 01, 02, 03, 04, 05, 06 and 07] and 09) and the TOWNSHIP of Manheim (PART, Districts 01, 03, 04, 05, 07 A, 07 B, 08, 09, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23) and the BOROUGH of East Petersburg.
Total population: 63,476

Dist. 97 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Conestoga, East Lampeter, Manheim (PART, Districts 02, 06, 12 and 13), Manor (PART, Districts Hershey Mill, Indiantown, Leisure, Manor, New, New East and Washington Boro), Pequea and West Lampeter.
Total population: 65,859

Dist. 98 LANCASTER and LEBANON Counties.
Part of LANCASTER County consisting of the TOWNSHIPS of Conoy, East Donegal, Mount Joy and West Donegal and the BOROUGHS of Elizabethtown, Marietta and Mount Joy and Part of LEBANON County consisting of the TOWNSHIPS of South Annville and South Londonderry and the BOROUGH of Mount Gretna.
Total population: 66,784

Dist. 99 BERKS and LANCASTER Counties.
Part of BERKS County consisting of the TOWNSHIPS of Brecknock, Cumru (PART, Districts 03 and 05) and Spring (PART, Districts 11 and 12) and the BOROUGHS of Adamstown (Berks County Portion) and Mohnton and Part of LANCASTER County consisting of the TOWNSHIPS of Brecknock, Caernarvon, East Cocalico, East Earl, Salisbury (PART, District Cambridge) and West Cocalico and the BOROUGHS of Adamstown (Lancaster County Portion), Denver and Terre Hill.
Total population: 64,103

Dist. 100 LANCASTER County.
Part of LANCASTER County consisting of the TOWNSHIPS of Bart, Colerain, Drumore, East Drumore, Eden, Fulton, Little Britain, Martic, Paradise, Providence, Sadsbury, Salisbury (PART, Districts Gap and White Horse) and Strasburg and the BOROUGHS of Christiana, Quarryville and Strasburg.
Total population: 64,207

Dist. 101 LEBANON County.
Part of LEBANON County consisting of the CITY of Lebanon and the TOWNSHIPS of North Cornwall, North Lebanon, South Lebanon, West Cornwall and West Lebanon and the BOROUGH of Cornwall.
Total population: 65,422

Dist. 102 LEBANON County.
Part of LEBANON County consisting of the TOWNSHIPS of Annville, Bethel, East Hanover, Heidelberg, Jackson, Millcreek, North Annville, North Londonderry, Swatara and Union and the BOROUGHS of Cleona, Jonestown, Myerstown, Palmyra and Richland.
Total population: 65,771

Dist. 103 CUMBERLAND and DAUPHIN Counties.
Part of CUMBERLAND County consisting of the TOWNSHIP of East Pennsboro and the BOROUGHS of Camp Hill, Lemoyne and Wormleysburg and Part of DAUPHIN County consisting of the CITY of Harrisburg (PART, Wards 01 [PART, Division 01], 03, 04, 05, 06, 07, 08, 09 [PART, Division 01], 10, 11, 12, 14 and 15).
Total population: 64,346

Dist. 104 DAUPHIN County.
Part of DAUPHIN County consisting of the CITY of Harrisburg (PART, Wards 01 [PART, Divisions 02 and 03], 02, 09 [PART, Divisions 02, 03, 04 and 05] and 13) and the TOWNSHIPS of Lower Swatara (PART, District 03) and Swatara and the BOROUGHS of Highspire, Paxtang and Steelton.
Total population: 65,491

Dist. 105 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Lower Paxton (PART, Districts 01, 02, 05, 06, 07, 08, 10, 11, 12, 13, 14, 17, 18, 20, 23, 25 and 26) and Susquehanna and the BOROUGH of Penbrook.
Total population: 62,825

Dist. 106 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Conewago, Derry, East Hanover, Londonderry, Lower Swatara (PART, Districts 01, 02 and 04) and South Hanover and the BOROUGHS of Hummelstown, Middletown and Royalton.
Total population: 66,872

Dist. 107 NORTHUMBERLAND and SCHUYLKILL Counties.
Part of NORTHUMBERLAND County consisting of the CITY of Shamokin and the TOWNSHIPS of Coal, East Cameron, Jackson, Jordan, Little Mahanoy, Lower Augusta, Lower Mahanoy, Mount Carmel, Ralpho, Shamokin, Upper Mahanoy, Washington, West Cameron and Zerbe and the BOROUGHS of Herndon, Kulpmont, Marion Heights and Mount Carmel and Part of SCHUYLKILL County consisting of the TOWNSHIPS of Barry, Eldred, Foster, Frailey, Hegins, Hubley, Pine Grove, Porter, Reilly, Tremont, Upper Mahantongo and Washington and the BOROUGHS of Pine Grove, Tower City and Tremont.
Total population: 65,921

Dist. 108 MONTOUR and NORTHUMBERLAND Counties.
All of MONTOUR County and Part of NORTHUMBERLAND County consisting of the CITY of Sunbury and the TOWNSHIPS of Delaware, East Chillisquaque, Lewis, Point, Rockefeller, Rush, Turbot, Upper Augusta and West Chillisquaque and the BOROUGHS of McEwensville, Milton, Northumberland, Riverside, Snydertown, Turbotville and Watsontown.
Total population: 65,258

Dist. 109 COLUMBIA County.
; All of COLUMBIA County.
Total population: 64,825

Dist. 110 **BRADFORD and WYOMING Counties.**
Part of BRADFORD County consisting of the TOWNSHIPS of Albany, Asylum, Athens, Herrick, Litchfield, Orwell, Pike, Rome, Sheshequin, Standing Stone, Stevens, Terry, Tuscarora, Ulster, Warren, Wilmot, Windham, Wyalusing and Wysox and the BOROUGHS of Athens, Leraysville, New Albany, Rome, Sayre, South Waverly, Towanda and Wyalusing and All of WYOMING County.
Total population: 63,536

Dist. 111 **SUSQUEHANNA and WAYNE Counties.**
All of SUSQUEHANNA County and Part of WAYNE County consisting of the TOWNSHIPS of Berlin, Buckingham, Canaan, Clinton, Damascus, Dyberry, Lebanon, Manchester, Mount Pleasant, Oregon, Preston, Scott and Texas and the BOROUGHS of Bethany, Honesdale, Prompton, Starrucca and Waymart.
Total population: 65,251

Dist. 112 **LACKAWANNA County.**
Part of LACKAWANNA County consisting of the CITY of Carbondale and the TOWNSHIPS of Carbondale, Fell and Jefferson and the BOROUGHS of Archbald, Blakely, Dunmore, Jermyn, Jessup, Mayfield, Olyphant, Throop and Vandling.
Total population: 62,766

Dist. 113 **LACKAWANNA County.**
Part of LACKAWANNA County consisting of the CITY of Scranton (PART, Wards 04 [PART, Division 01], 05, 06, 09, 10, 11, 12, 14, 15, 16, 17, 19, 20, 22 and 24) and the TOWNSHIPS of Clifton, Covington, Elmhurst, Madison, Roaring Brook, Spring Brook and Thornhurst and the BOROUGH of Moscow.
Total population: 62,709

Dist. 114 **LACKAWANNA County.**
Part of LACKAWANNA County consisting of the CITY of Scranton (PART, Wards 01, 02, 03, 04 [PART, Division 02], 07, 13, 21 and 23) and the TOWNSHIPS of Benton, Greenfield, North Abington, Scott, South Abington and Waverly and the BOROUGHS of Clarks Green, Clarks Summit and Dickson City.
Total population: 62,413

Dist. 115 **MONROE County.**
Part of MONROE County consisting of the TOWNSHIPS of Barrett, Coolbaugh, Middle Smithfield (PART, District West), Paradise, Pocono, Price and Stroud (PART, Districts 02, 04 and 05) and the BOROUGH of Mount Pocono.
Total population: 62,673

Dist. 116 **LUZERNE and SCHUYLKILL Counties.**
Part of LUZERNE County consisting of the CITY of Hazleton and the TOWNSHIP of Hazle and the BOROUGH of West Hazleton and Part of SCHUYLKILL County consisting of the TOWNSHIPS of East Union, Kline, Mahanoy, North Union and Union and the BOROUGHS of Mahanoy City, McAdoo, Ringtown and Shenandoah.
Total population: 63,945

Dist. 117 **LUZERNE County.**
Part of LUZERNE County consisting of the TOWNSHIPS of Black Creek, Butler, Conyngham, Dennison, Dorrance, Fairmount, Foster, Hollenback, Hunlock, Huntington, Lake, Lehman, Nescopeck, Ross, Salem, Slocum, Sugarloaf and Union and the BOROUGHS of Conyngham, Dallas, Freeland, Harveys Lake, Jeddo, Nescopeck, New Columbus, Nuangola, Penn Lake Park, Shickshinny and White Haven.
Total population: 61,755

Dist. 118 LACKAWANNA and LUZERNE Counties.
Part of LACKAWANNA County consisting of the TOWNSHIPS of Glenburn, La Plume, Newton, Ransom and West Abington and the BOROUGHS of Dalton, Moosic, Old Forge and Taylor and Part of LUZERNE County consisting of the CITY of Pittston and the TOWNSHIPS of Jenkins and Pittston and the BOROUGHS of Avoca, Dupont, Duryea, Hughestown, Laflin, West Pittston and Yatesville.
Total population: 61,770

Dist. 119 LUZERNE County.
Part of LUZERNE County consisting of the CITY of Nanticoke and the TOWNSHIPS of Fairview, Hanover, Newport, Plymouth, Rice and Wright and the BOROUGHS of Ashley, Edwardsville, Larksville, Plymouth, Sugar Notch and Warrior Run.
Total population: 61,334

Dist. 120 LUZERNE County.
Part of LUZERNE County consisting of the TOWNSHIPS of Dallas, Exeter, Franklin, Jackson and Kingston and the BOROUGHS of Courtdale, Exeter, Forty Fort, Kingston, Luzerne, Pringle, Swoyersville, West Wyoming and Wyoming.
Total population: 61,645

Dist. 121 LUZERNE County.
Part of LUZERNE County consisting of the CITY of Wilkes-Barre and the TOWNSHIPS of Bear Creek, Buck, Plains and Wilkes-Barre and the BOROUGHS of Bear Creek Village and Laurel Run.
Total population: 61,466

Dist. 122 CARBON County.
; All of CARBON County.
Total population: 64,866

Dist. 123 SCHUYLKILL County.
Part of SCHUYLKILL County consisting of the CITY of Pottsville and the TOWNSHIPS of Blythe, Branch, Butler, Cass, East Norwegian, New Castle, North Manheim, Norwegian, Wayne and West Mahanoy and the BOROUGHS of Ashland (Schuylkill County Portion), Cressona, Frackville, Gilberton, Girardville, Gordon, Mechanicsville, Middleport, Minersville, Mount Carbon, New Philadelphia, Palo Alto, Port Carbon, Schuylkill Haven and St. Clair.
Total population: 65,886

Dist. 124 BERKS and SCHUYLKILL Counties.
Part of BERKS County consisting of the TOWNSHIPS of Albany, Greenwich, Maxatawny, Tilden, Upper Bern, Upper Tulpehocken and Windsor and the BOROUGHS of Hamburg, Kutztown and Lenhartsville and Part of SCHUYLKILL County consisting of the TOWNSHIPS of Delano, East Brunswick, Rush, Ryan, Schuylkill, South Manheim, Walker, West Brunswick and West Penn and the BOROUGHS of Auburn, Coaldale, Deer Lake, Landingville, New Ringgold, Orwigsburg, Port Clinton and Tamaqua.
Total population: 64,846

Dist. 125 DAUPHIN County.
Part of DAUPHIN County consisting of the TOWNSHIPS of Halifax, Jackson, Jefferson, Lower Paxton (PART, Districts 03, 04, 09, 15, 16, 19, 21, 22, 24 and 27), Lykens, Middle Paxton, Mifflin, Reed, Rush, Upper Paxton, Washington, Wayne, West Hanover, Wiconisco and Williams and the BOROUGHS of Berrysburg, Dauphin, Elizabethville, Gratz, Halifax, Lykens, Millersburg, Pillow and Williamstown.
Total population: 64,693

Dist. 126 BERKS County.
Part of BERKS County consisting of the CITY of Reading (PART, Wards 12 [PART, Division 05], 13, 14 [PART, Division 06], 16 [PART, Division 05] and 17) and the TOWNSHIPS of Exeter (PART, Precincts 04, 05 and 11), Lower Alsace and Muhlenberg and the BOROUGHS of Laureldale, Mount Penn and St. Lawrence.
Total population: 63,936

Dist. 127 BERKS County.
Part of BERKS County consisting of the CITY of Reading (PART, Wards 01, 02, 03, 04, 05, 07, 08, 09, 10, 11, 12 [PART, Divisions 01 and 03], 16 [PART, Divisions 01, 02 and 04] and 18) and the TOWNSHIP of Cumru (PART, Districts 06 and 07) and the BOROUGHS of Kenhorst and Shillington.
Total population: 62,627

Dist. 128 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Amity, Caernarvon, Cumru (PART, Districts 01, 02 and 04), Douglass, Exeter (PART, Precincts 01, 02, 03, 06, 07, 08, 09 and 10), Robeson and Union and the BOROUGHS of Birdsboro and New Morgan.
Total population: 62,731

Dist. 129 BERKS County.
Part of BERKS County consisting of the CITY of Reading (PART, Wards 06, 14 [PART, Divisions 01, 04 and 05], 15 and 19) and the TOWNSHIP of Spring (PART, Districts 01, 02, 03, 04, 06, 09, 10 and 13) and the BOROUGHS of Sinking Spring, West Reading and Wyomissing.
Total population: 63,444

Dist. 130 BERKS County.
Part of BERKS County consisting of the TOWNSHIPS of Alsace, Colebrookdale, District, Earl, Hereford, Longswamp, Maidencreek, Oley, Pike, Richmond, Rockland, Ruscombmanor and Washington and the BOROUGHS of Bally, Bechtelsville, Boyertown, Fleetwood, Lyons and Topton.
Total population: 65,179

Dist. 131 LEHIGH, MONTGOMERY and NORTHAMPTON Counties.
Part of LEHIGH County consisting of the TOWNSHIPS of Lower Milford, Salisbury (PART, Ward 03 [PART, Division 01]), Upper Milford and Upper Saucon and the BOROUGH of Coopersburg; Part of MONTGOMERY County consisting of the TOWNSHIPS of Marlborough, Salford and Upper Hanover and the BOROUGHS of East Greenville, Green Lane, Pennsburg and Red Hill and Part of NORTHAMPTON County consisting of the TOWNSHIP of Lower Saucon (PART, Districts 01, 02, 04, 07 and 08).
Total population: 65,219

Dist. 132 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 08 [PART, Divisions 04 and 07], 11 [PART, Divisions 04, 05, 06 and 07], 13 [PART, Division 04], 17 and 18) and the TOWNSHIPS of South Whitehall and Upper Macungie (PART, Districts 01, 02, 04, 05 and 06).
Total population: 63,677

Dist. 133 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Bethlehem (Lehigh County Portion) and the TOWNSHIPS of Hanover and Whitehall and the BOROUGHS of Catasauqua, Coplay and Fountain Hill.
Total population: 65,425

Dist. 134 LEHIGH County.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 02, 03, 11 [PART, Divisions 01 and 03], 12, 13 [PART, Divisions 01, 02 and 03], 16 and 19) and the TOWNSHIP of Salisbury (PART, Wards 04 and 05) and the BOROUGH of Emmaus.
Total population: 62,882

Dist. 135 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the CITY of Bethlehem (Northampton County Portion) and the TOWNSHIP of Hanover (PART, Districts 01, 02, 03, 04 and 06).
Total population: 65,793

Dist. 136 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the CITY of Easton and the TOWNSHIPS of Lower Saucon (PART, Districts 03, 05 and 06), Palmer (PART, Districts Eastern and Western [PART, Division 01]) and Williams and the BOROUGHS of Freemansburg, Glendon, Hellertown, West Easton and Wilson.
Total population: 63,648

Dist. 137 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the TOWNSHIPS of Bethlehem, Hanover (PART, District 05), Lower Nazareth, Palmer (PART, Districts Middle, Upper Eastern, Upper Western and Western [PART, Division 02]) and Upper Nazareth and the BOROUGHS of Nazareth and Tatamy.
Total population: 65,856

Dist. 138 NORTHAMPTON County.
Part of NORTHAMPTON County consisting of the TOWNSHIPS of Bushkill, Forks, Lower Mount Bethel, Moore (PART, Districts Eastern and Pt. Phillips), Plainfield, Upper Mount Bethel and Washington and the BOROUGHS of Bangor, Chapman, East Bangor, Pen Argyl, Portland, Roseto, Stockertown and Wind Gap.
Total population: 66,215

Dist. 139 PIKE and WAYNE Counties.
Part of PIKE County consisting of the TOWNSHIPS of Blooming Grove, Dingman, Greene, Lackawaxen, Milford, Palmyra, Shohola and Westfall and the BOROUGHS of Matamoras and Milford and Part of WAYNE County consisting of the TOWNSHIPS of Cherry Ridge, Dreher, Lake, Lehigh, Palmyra, Paupack, Salem, South Canaan and Sterling and the BOROUGH of Hawley.
Total population: 63,297

Dist. 140 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Falls and Middletown (PART, District Lower [PART, Divisions 03, 04, 05, 06, 07, 08, 09, 10, 11 and 12]) and the BOROUGHS of Morrisville and Tullytown.
Total population: 61,806

Dist. 141 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIP of Bristol and the BOROUGH of Bristol.
Total population: 64,322

Dist. 142 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Lower Southampton, Middletown (PART, Districts Lower [PART, Divisions 01, 02 and 13] and Upper) and Northampton (PART, Districts 09, 10 and 14) and the BOROUGHS of Langhorne, Langhorne Manor and Penndel.
Total population: 65,233

Dist. 143 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Bedminster, Hilltown, New Britain (PART, Districts East and West), Plumstead and Tinicum and the BOROUGHS of Dublin, Perkasie, Sellersville and Silverdale.
Total population: 65,742

Dist. 144 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of New Britain (PART, District South), Warminster and Warrington and the BOROUGH of Ivyland.
Total population: 65,208

Dist. 145 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Bridgeton, Durham, East Rockhill, Haycock, Milford, Nockamixon, Richland, Springfield and West Rockhill and the BOROUGHS of Quakertown, Richlandtown, Riegelsville, Telford (Bucks County Portion) and Trumbauersville.
Total population: 63,152

Dist. 146 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Limerick, Lower Pottsgrove and West Pottsgrove and the BOROUGHS of Pottstown and Royersford.
Total population: 65,008

Dist. 147 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Douglass, Franconia (PART, Precincts 01, 03, 04, 06 and 07), Lower Frederick, Lower Salford, New Hanover, Upper Frederick, Upper Pottsgrove and Upper Salford.
Total population: 65,711

Dist. 148 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Merion (PART, Wards 01, 02, 03, 05 [PART, Divisions 01 and 02], 07, 09, 12, 13 and 14) and Whitemarsh and the BOROUGH of Narberth.
Total population: 63,587

Dist. 149 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Merion (PART, Wards 04, 05 [PART, Division 03], 06, 08, 10 and 11) and Upper Merion and the BOROUGHS of Bridgeport and West Conshohocken.
Total population: 64,410

Dist. 150 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Providence, Upper Providence and West Norriton (PART, District 03) and the BOROUGHS of Collegeville and Trappe.
Total population: 63,779

Dist. 151 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Horsham, Montgomery (PART, Districts 04, 05, 06, 07 and 08) and Upper Dublin (PART, Districts 01 [PART, Division 02], 02 [PART, Division 03], 03, 06 and 07) and the BOROUGH of Ambler.
Total population: 63,765

Dist. 152 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Abington (PART, Wards 05, 08, 10 [PART, Division 02], 14 [PART, Division 01] and 15 [PART, Division 02]), Lower Moreland and Upper Moreland and the BOROUGHS of Bryn Athyn and Hatboro.
Total population: 61,386

Dist. 153 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Abington (PART, Wards 01, 02, 03, 04, 06, 07, 09, 10 [PART, Divisions 01 and 03], 11, 12, 13, 14 [PART, Division 02] and 15 [PART, Division 01]) and Upper Dublin (PART, Districts 01 [PART, Divisions 01 and 03], 02 [PART, Divisions 01 and 02], 04 and 05) and the BOROUGH of Rockledge.
Total population: 62,313

Dist. 154 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Cheltenham and Springfield and the BOROUGH of Jenkintown.
Total population: 63,038

Dist. 155 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of Caln (PART, District 04), East Brandywine, Upper Uwchlan, Uwchlan, Wallace and West Brandywine and the BOROUGH of Downingtown.
Total population: 64,311

Dist. 156 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Bradford, East Goshen (PART, Precincts 01, 02, 03, 04, 07, 08 and 09) and West Goshen and the BOROUGH of West Chester.
Total population: 66,169

Dist. 157 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of Easttown, Schuylkill, Tredyffrin and Willistown.
Total population: 62,988

Dist. 158 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of East Fallowfield, East Marlborough, Kennett, New Garden, Newlin, Pocopson, West Bradford and West Marlborough and the BOROUGHS of Avondale and Kennett Square.
Total population: 62,792

Dist. 159 DELAWARE County.
Part of DELAWARE County consisting of the CITY of Chester and the TOWNSHIPS of Lower Chichester and Upper Chichester and the BOROUGHS of Eddystone, Marcus Hook, Parkside and Trainer.
Total population: 61,801

Dist. 160 CHESTER and DELAWARE Counties.
Part of CHESTER County consisting of the TOWNSHIPS of Birmingham, Pennsbury, Thornbury and Westtown and Part of DELAWARE County consisting of the TOWNSHIPS of Bethel, Chadds Ford, Concord and Thornbury and the BOROUGH of Chester Heights.
Total population: 63,956

Dist. 161 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Aston, Chester, Middletown (PART, Districts 01 and 02 [PART, Divisions 01 and 02]), Nether Providence and Ridley (PART, Wards 01 [PART, Divisions 01 and 03], 02, 05 [PART, Division 01] and 07) and the BOROUGHS of Brookhaven, Rose Valley and Upland.
Total population: 63,804

Dist. 162 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Darby (PART, Wards 01 and 02) and Ridley (PART, Wards 01 [PART, Division 02], 03, 04, 05 [PART, Division 02], 06, 08 and 09) and the BOROUGHS of Folcroft, Glenolden, Norwood, Prospect Park, Ridley Park, Rutledge and Sharon Hill.
Total population: 64,947

Dist. 163 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Darby (PART, Wards 03, 04 and 05) and Upper Darby (PART, Districts 01, 02, 03 [PART, Divisions 01, 02, 03, 04, 05, 08, 09, 10 and 11] and 05 [PART, Divisions 04, 06, 08 and 09]) and the BOROUGHS of Aldan, Clifton Heights and Collingdale.
Total population: 63,755

Dist. 164 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIP of Upper Darby (PART, Districts 03 [PART, Divisions 06 and 07], 04, 05 [PART, Divisions 01, 02, 03, 05, 07 and 10], 06 and 07) and the BOROUGHS of East Lansdowne, Lansdowne and Millbourne.
Total population: 63,129

Dist. 165 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Marple (PART, Wards 04 [PART, Division 02], 05, 06 and 07), Springfield and Upper Providence and the BOROUGHS of Media, Morton and Swarthmore.
Total population: 62,800

Dist. 166 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Haverford and Marple (PART, Wards 01, 02, 03 and 04 [PART, Divisions 01 and 03]).
Total population: 63,050

Dist. 167 CHESTER County.
Part of CHESTER County consisting of the TOWNSHIPS of Charlestown, East Caln, East Goshen (PART, Precincts 05 and 06), East Whiteland, West Pikeland, West Vincent and West Whiteland and the BOROUGH of Malvern.
Total population: 63,435

Dist. 168 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Edgmont, Middletown (PART, Districts 02 [PART, Division 03], 03 and 04), Newtown and Radnor.
Total population: 62,978

Dist. 169 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Codorus, Manheim, Penn, Shrewsbury and West Manheim and the BOROUGHS of Glen Rock, Hanover, Jefferson, New Freedom and Railroad.
Total population: 64,977

Dist. 170 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 58 [PART, Divisions 03, 04, 05, 06, 07, 08, 12, 20, 21, 22, 23, 24, 25, 29, 30, 31, 32, 33, 34, 35, 37, 38, 39, 40, 41 and 43] and 66 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 11, 12, 13, 14, 15, 16, 17, 20, 22, 23, 24, 30, 33, 34, 35, 36, 38, 39, 41, 42, 44 and 45]).
Total population: 62,661

Dist. 171 CENTRE and MIFFLIN Counties.
Part of CENTRE County consisting of the TOWNSHIPS of Gregg, Haines, Miles, Penn, Potter, Spring and Walker and the BOROUGHS of Bellefonte, Centre Hall and Millheim and Part of MIFFLIN County consisting of the TOWNSHIPS of Armagh, Bratton, Brown, Granville, Menno, Oliver, Union and Wayne and the BOROUGHS of Juniata Terrace, Kistler, Lewistown, McVeytown and Newton Hamilton.
Total population: 65,554

Dist. 172 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 56 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 13, 14, 15, 16, 33, 34, 36, 37 and 40], 58 [PART, Divisions 01, 02, 09, 10, 11, 13, 14, 15, 16, 17, 18, 19, 26, 27, 28, 36, 42 and 44] and 63).
Total population: 64,450

Dist. 173 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 41 [PART, Divisions 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26], 57 [PART, Divisions 01, 13, 14, 17, 18, 22 and 28], 64 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 13, 14, 15, 16, 17 and 18] and 65).
Total population: 62,913

Dist. 174 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 56 [PART, Divisions 11, 12, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 35, 38, 39 and 41], 57 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 15, 16, 19, 20, 21, 23, 24, 25, 26 and 27] and 66 [PART, Divisions 10, 18, 19, 21, 25, 26, 27, 28, 29, 31, 32, 37, 40, 43 and 46]).
Total population: 62,812

Dist. 175 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 02 [PART, Divisions 01, 02, 13, 14, 15, 16, 25, 26, 27, 28 and 29], 05 [PART, Divisions 01, 02, 03, 04, 05, 10, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 30, 31, 32, 33, 34, 35, 36 and 37], 18 [PART, Divisions 01, 02, 04, 05, 06, 07, 10, 11, 12, 18 and 19] and 31 [PART, Divisions 03, 04, 05, 06, 13 and 15]).
Total population: 62,108

Dist. 176 MONROE County.
Part of MONROE County consisting of the TOWNSHIPS of Chestnuthill, Eldred, Hamilton, Jackson, Polk, Ross, Tobyhanna and Tunkhannock.
Total population: 62,863

Dist. 177 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 23 [PART, Division 13], 25 [PART, Divisions 01, 03, 04, 05, 06, 07, 08, 10, 11, 12, 22 and 23], 31 [PART, Divisions 07, 08, 10, 11, 12, 14, 16, 17, 18 and 19], 41 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 13 and 14], 45 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 12, 15, 20, 22, 23, 24 and 25], 55 [PART, Divisions 01 and 02] and 62 [PART, Divisions 03, 05, 07, 10, 11, 12, 13, 15, 16, 17, 18 and 19]).
Total population: 62,232

Dist. 178 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Northampton (PART, Districts 01, 02, 03, 04, 05, 06, 07, 08, 11, 12, 13, 15, 16, 17 and 18), Upper Southampton, Warwick and Wrightstown.
Total population: 65,518

Dist. 179 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 23 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23], 33 [PART, Divisions 01 and 05], 35 [PART, Divisions 21, 22, 23, 24, 26, 27, 28, 29 and 30], 42 [PART, Divisions 01, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24 and 25] and 62 [PART, Divisions 01, 02, 04, 06, 08 and 09]).
Total population: 61,563

Dist. 180 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 07 [PART, Divisions 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22 and 23], 25 [PART, Divisions 02, 09, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 24], 33 [PART, Divisions 02, 03, 04, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24] and 45 [PART, Divisions 08, 09, 10, 11, 13, 14, 16, 17, 18, 19 and 21]).
Total population: 62,540

Dist. 181 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 08 [PART, Divisions 25, 26, 30 and 32], 14, 15 [PART, Divisions 03, 07 and 10], 18 [PART, Divisions 09, 14, 15 and 16], 20, 37 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 14, 17 and 18] and 47).
Total population: 62,079

Dist. 182 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 02 [PART, Divisions 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 17, 18, 19, 20, 21, 22, 23 and 24], 05 [PART, Divisions 06, 07, 08, 09, 11, 14, 22, 28 and 29], 08 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 20, 21, 27, 28, 33, 34 and 35] and 30 [PART, Divisions 01, 02, 03, 06, 07, 08, 09, 15 and 16]).
Total population: 66,317

Dist. 183 **LEHIGH and NORTHAMPTON Counties.**
Part of LEHIGH County consisting of the TOWNSHIPS of Lowhill and North Whitehall and the BOROUGH of Slatington and Part of NORTHAMPTON County consisting of the TOWNSHIPS of Allen, East Allen, Lehigh and Moore (PART, Districts Beersville and Klecknersville) and the BOROUGHS of Bath, North Catasauqua, Northampton and Walnutport.
Total population: 66,148

Dist. 184 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 01 and 39).
Total population: 64,108

Dist. 185 DELAWARE and PHILADELPHIA Counties.
Part of DELAWARE County consisting of the TOWNSHIP of Tinicum and the BOROUGH of Colwyn and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 26, 40 [PART, Divisions 01, 03, 04, 06, 12, 13, 14, 15, 16, 17, 18, 19, 22, 27, 28, 29, 30, 31, 32, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50 and 51] and 48 [PART, Divisions 08, 12 and 17]).
Total population: 61,863

Dist. 186 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 30 [PART, Divisions 04, 05, 10, 11, 12, 13, 14 and 17], 36, 48 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 11, 13, 14, 15, 16, 18, 19, 20, 21, 22 and 23] and 51 [PART, Divisions 03, 09, 10, 11, 12, 21, 22, 24 and 25]).
Total population: 62,436

Dist. 187 LEHIGH County.
Part of LEHIGH County consisting of the TOWNSHIPS of Heidelberg, Lower Macungie, Lynn, Upper Macungie (PART, Districts 03, 07 and 08), Washington and Weisenberg and the BOROUGHS of Alburtis and Macungie.
Total population: 66,296

Dist. 188 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 27, 46, 51 [PART, Divisions 01, 02, 05, 06, 07, 08, 14, 15 and 23] and 60 [PART, Divisions 01, 02, 03, 08, 09, 10, 12, 13 and 23]).
Total population: 61,778

Dist. 189 MONROE and PIKE Counties.
Part of MONROE County consisting of the TOWNSHIPS of Middle Smithfield (PART, District East), Smithfield and Stroud (PART, Districts 01, 03, 06 and 07) and the BOROUGHS of Delaware Water Gap, East Stroudsburg and Stroudsburg and Part of PIKE County consisting of the TOWNSHIPS of Delaware, Lehman and Porter.
Total population: 61,876

Dist. 190 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 06 [PART, Divisions 13, 14, 15, 17 and 18], 11, 13 [PART, Divisions 16, 18, 20, 21, 22, 23, 24 and 25], 28 [PART, Divisions 01, 04, 05, 06, 09, 10, 11, 12, 13, 14, 15, 16, 17 and 18], 38 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 17 and 21], 44 [PART, Divisions 01, 02, 05, 07, 11, 12, 17, 18 and 19] and 52 [PART, Divisions 01, 02, 03, 04, 06, 07, 08, 09, 10, 11, 12, 13, 17, 21, 22, 23, 24 and 28]).
Total population: 61,771

Dist. 191 **DELAWARE and PHILADELPHIA Counties.**
Part of DELAWARE County consisting of the BOROUGHS of Darby and Yeadon and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 03, 40 [PART, Divisions 02, 05, 07, 08, 09, 10, 11, 20, 21, 23, 24, 25, 26, 33, 34 and 47] and 51 [PART, Divisions 04, 13, 16, 17, 18, 19, 20, 26, 27 and 28]).
Total population: 62,629

Dist. 192 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 04 [PART, Divisions 02, 03, 04, 05, 06, 09, 10, 11, 13, 14, 15, 16, 17, 18, 19, 20 and 21], 34 and 52 [PART, Divisions 05, 14, 15, 16, 18, 19, 20, 25, 26 and 27]).
Total population: 61,419

Dist. 193 **ADAMS and CUMBERLAND Counties.**
Part of ADAMS County consisting of the TOWNSHIPS of Berwick, Butler, Hamilton, Huntington, Latimore, Menallen, Oxford, Reading and Tyrone and the BOROUGHS of Abbottstown, Arendtsville, Bendersville, Biglerville, East Berlin, New Oxford and York Springs and Part of CUMBERLAND County consisting of the TOWNSHIPS of Cooke, Dickinson, Penn, Shippensburg, South Newton and Southampton and the BOROUGH of Shippensburg (Cumberland County Portion).
Total population: 64,302

Dist. 194 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 09 [PART, Divisions 04, 05, 06, 07, 08, 09, 10, 16 and 17], 21 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44 and 45] and 38 [PART, Divisions 11, 12, 13, 14, 15, 16, 18, 19 and 20]).
Total population: 62,236

Dist. 195 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 08 [PART, Divisions 24 and 31], 15 [PART, Divisions 01, 02, 04, 05, 06, 08, 09, 11, 12, 13, 14, 15, 16, 17, 18 and 19], 16, 28 [PART, Divisions 02, 03, 07 and 08], 29 and 32).
Total population: 62,205

Dist. 196 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Dover (PART, Districts 01, 03 and 04), Heidelberg, Jackson, North Codorus, Paradise and West Manchester and the BOROUGHS of Dover, New Salem, Seven Valleys and Spring Grove.
Total population: 65,953

Dist. 197 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 07 [PART, Divisions 01, 02, 03 and 04], 18 [PART, Divisions 03, 08, 13 and 17], 19, 31 [PART, Divisions 01, 02 and 09], 37 [PART, Divisions 13, 15, 16, 19, 20 and 21], 42 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11 and 22], 43 and 49 [PART, Divisions 01 and 13]).
Total population: 62,586

Dist. 198 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 10 [PART, Divisions 01, 07, 08, 09, 10, 11 and 12], 12 [PART, Divisions 08, 11, 17, 18, 19, 20, 21 and 24], 13 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 17 and 19], 49 [PART, Divisions 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21 and 22] and 61 [PART, Divisions 01, 02, 03, 04, 06, 07, 08, 09, 17, 21, 22, 23, 24, 25 and 26]).
Total population: 63,729

Dist. 199 CUMBERLAND County.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Hopewell, Lower Frankford, Lower Mifflin, Middlesex, North Middleton, North Newton, South Middleton (PART, Precincts 03, 04 and 05), Upper Frankford, Upper Mifflin and West Pennsboro and the BOROUGHS of Carlisle, Newburg and Newville.
Total population: 64,111

Dist. 200 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 09 [PART, Divisions 01, 02, 03, 11, 12, 13, 14 and 15], 10 [PART, Divisions 02, 03, 04, 05, 13, 14, 15, 17, 23, 24, 25, 28 and 29], 21 [PART, Division 24], 22 and 50).
Total population: 65,563

Dist. 201 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 10 [PART, Divisions 06, 16, 18, 19, 20, 21, 22, 26 and 27], 12 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 12, 13, 14, 15, 16, 22 and 23], 17 and 59).
Total population: 66,430

Dist. 202 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 41 [PART, Division 12], 54, 55 [PART, Divisions 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 29], 62 [PART, Divisions 14, 20, 21, 22, 23, 24, 25 and 26] and 64 [PART, Division 12]).
Total population: 64,695

Dist. 203 **PHILADELPHIA County.**
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 35 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 25, 31 and 32], 53 and 61 [PART, Divisions 05, 10, 11, 12, 13, 14, 15, 16, 18, 19, 20, 27 and 28]).
Total population: 65,519

Population of all districts: 13,002,700

COUNTIES SPLIT BY HOUSE DISTRICTS

45 TOTAL COUNTIES 186 TOTAL SPLITS

ADAMS	091 193
ALLEGHENY	019 020 021 023 024 025 027 028 030 032 033 034 035 036 038 039 040 042 044 045 046
ARMSTRONG	060 063
BEAVER	014 015 016
BERKS	005 099 124 126 127 128 129 130
BLAIR	079 080
BRADFORD	068 110
BUCKS	018 029 031 140 141 142 143 144 145 178
BUTLER	008 011 012 017
CAMBRIA	071 072 073
CENTRE	077 082 171
CHESTER	013 026 074 155 156 157 158 160 167
CLEARFIELD	073 075
CRAWFORD	006 064 065
CUMBERLAND	087 088 103 193 199

COUNTIES SPLIT BY HOUSE DISTRICTS

DAUPHIN	103 104 105 106 125
DELAWARE	159 160 161 162 163 164 165 166 168 185 191
ERIE	001 002 003 004 006
FAYETTE	051 052
FRANKLIN	081 089 090
HUNTINGDON	080 081
INDIANA	062 066
JUNIATA	085 086
LACKAWANNA	112 113 114 118
LANCASTER	037 041 043 049 096 097 098 099 100
LAWRENCE	008 009
LEBANON	098 101 102
LEHIGH	022 131 132 133 134 183 187
LUZERNE	116 117 118 119 120 121
LYCOMING	083 084
MERCER	007 017
MIFFLIN	085 171
MONROE	115 176 189

COUNTIES SPLIT BY HOUSE DISTRICTS

MONTGOMERY	053 054 061 070 131 146 147 148 149 150 151 152 153 154
NORTHAMPTON	131 135 136 137 138 183
NORTHUMBERLAND	107 108
PHILADELPHIA	010 170 172 173 174 175 177 179 180 181 182 184 185 186 188 190 191 192 194 195 197 198 200 201 202 203
PIKE	139 189
SCHUYLKILL	107 116 123 124
SOMERSET	069 071
UNION	076 083 085
WASHINGTON	015 039 040 046 048 050
WAYNE	111 139
WESTMORELAND	055 056 057 058 059 060
YORK	047 092 093 094 095 169 196

PLACES SPLIT BY HOUSE DISTRICTS

56 TOTAL PLACES 92 TOTAL SPLITS

ALLEGHENY COUNTY		
PITTSBURGH	CITY	019 020 021 023 024 027 034 036 038
HAMPTON	TOWNSHIP	028 030
UPPER ST. CLAIR	TOWNSHIP	040 042
PLUM	BOROUGH	025 032
WEST MIFFLIN	BOROUGH	035 038
BERKS COUNTY		
READING	CITY	126 127 129
CUMRU	TOWNSHIP	099 127 128
EXETER	TOWNSHIP	126 128
SPRING	TOWNSHIP	005 099 129
BUCKS COUNTY		
MIDDLETOWN	TOWNSHIP	140 142
NEW BRITAIN	TOWNSHIP	143 144
NORTHAMPTON	TOWNSHIP	142 178
CENTRE COUNTY		
STATE COLLEGE	BOROUGH	077 082
CHESTER COUNTY		
CALN	TOWNSHIP	074 155
EAST GOSHEN	TOWNSHIP	156 167
CUMBERLAND COUNTY		
LOWER ALLEN	TOWNSHIP	087 088
SOUTH MIDDLETON	TOWNSHIP	087 199
DAUPHIN COUNTY		
HARRISBURG	CITY	103 104
LOWER PAXTON	TOWNSHIP	105 125
LOWER SWATARA	TOWNSHIP	104 106

PLACES SPLIT BY HOUSE DISTRICTS

DELAWARE COUNTY		
DARBY	TOWNSHIP	162 163
MARPLE	TOWNSHIP	165 166
MIDDLETOWN	TOWNSHIP	161 168
RIDLEY	TOWNSHIP	161 162
UPPER DARBY	TOWNSHIP	163 164
ERIE COUNTY		
ERIE	CITY	001 002
LACKAWANNA COUNTY		
SCRANTON	CITY	113 114
LANCASTER COUNTY		
LANCASTER	CITY	049 096
MANHEIM	TOWNSHIP	096 097
MANOR	TOWNSHIP	041 097
SALISBURY	TOWNSHIP	099 100
LEHIGH COUNTY		
ALLENTOWN	CITY	022 132 134
SALISBURY	TOWNSHIP	022 131 134
UPPER MACUNGIE	TOWNSHIP	132 187
MONROE COUNTY		
MIDDLE SMITHFIELD	TOWNSHIP	115 189
STROUD	TOWNSHIP	115 189
MONTGOMERY COUNTY		
ABINGTON	TOWNSHIP	152 153
FRANCONIA	TOWNSHIP	053 147
LOWER MERION	TOWNSHIP	148 149
MONTGOMERY	TOWNSHIP	053 151
UPPER DUBLIN	TOWNSHIP	151 153
WEST NORRITON	TOWNSHIP	070 150
WHITPAIN	TOWNSHIP	061 070
NORTHAMPTON COUNTY		
HANOVER	TOWNSHIP	135 137
LOWER SAUCON	TOWNSHIP	131 136
MOORE	TOWNSHIP	138 183
PALMER	TOWNSHIP	136 137

PLACES SPLIT BY HOUSE DISTRICTS

PHILADELPHIA COUNTY		
PHILADELPHIA	CITY	010 170 172 173 174 175 177 179 180 181 182 184 185 186 188 190 191 192 194 195 197 198 200 201 202 203
WASHINGTON COUNTY		
CARROLL	TOWNSHIP	039 048
NORTH STRABANE	TOWNSHIP	046 048
WESTMORELAND COUNTY		
LOWER BURRELL	CITY	055 060
DERRY	TOWNSHIP	055 059
MOUNT PLEASANT	TOWNSHIP	058 059
NORTH HUNTINGDON	TOWNSHIP	056 058
YORK COUNTY		
DOVER	TOWNSHIP	092 196
SPRINGETTSBURY	TOWNSHIP	047 094

WARDS SPLIT BY HOUSE DISTRICTS

87 TOTAL WARDS 98 TOTAL SPLITS

ALLEGHENY COUNTY			
PITTSBURGH	CITY		
WARD 02		019	021
WARD 04		019	023 024
WARD 05		019	024
WARD 07		023	024
WARD 10		021	024
WARD 13		024	034
WARD 14		023	034
WARD 15		019	023
WARD 17		019	036
WARD 18		019	036
WARD 19		027	036
WARD 20		019	027
WARD 23		019	021
WARD 26		019	020 021
WARD 27		019	020
UPPER ST. CLAIR	TOWNSHIP		
WARD 03		040	042
WARD 04		040	042
BERKS COUNTY			
READING	CITY		
WARD 12		126	127
WARD 14		126	129
WARD 16		126	127
BUCKS COUNTY			
MIDDLETOWN	TOWNSHIP		
WARD LOWER		140	142
CENTRE COUNTY			
STATE COLLEGE	BOROUGH		
WARD EAST CENTRAL		077	082
WARD SOUTH		077	082
DAUPHIN COUNTY			
HARRISBURG	CITY		
WARD 01		103	104
WARD 09		103	104

WARDS SPLIT BY HOUSE DISTRICTS

DELAWARE COUNTY		
MARPLE	TOWNSHIP	
WARD 04		165 166
MIDDLETOWN	TOWNSHIP	
WARD 02		161 168
RIDLEY	TOWNSHIP	
WARD 01		161 162
WARD 05		161 162
UPPER DARBY	TOWNSHIP	
WARD 03		163 164
WARD 05		163 164
LACKAWANNA COUNTY		
SCRANTON	CITY	
WARD 04		113 114
LANCASTER COUNTY		
LANCASTER	CITY	
WARD 02		049 096
WARD 06		049 096
LEHIGH COUNTY		
ALLENTOWN	CITY	
WARD 08		022 132
WARD 11		022 132 134
WARD 13		132 134
SALISBURY	TOWNSHIP	
WARD 03		022 131
MONTGOMERY COUNTY		
ABINGTON	TOWNSHIP	
WARD 10		152 153
WARD 14		152 153
WARD 15		152 153
LOWER MERION	TOWNSHIP	
WARD 05		148 149
UPPER DUBLIN	TOWNSHIP	
WARD 01		151 153
WARD 02		151 153
NORTHAMPTON COUNTY		
PALMER	TOWNSHIP	
WARD WESTERN		136 137

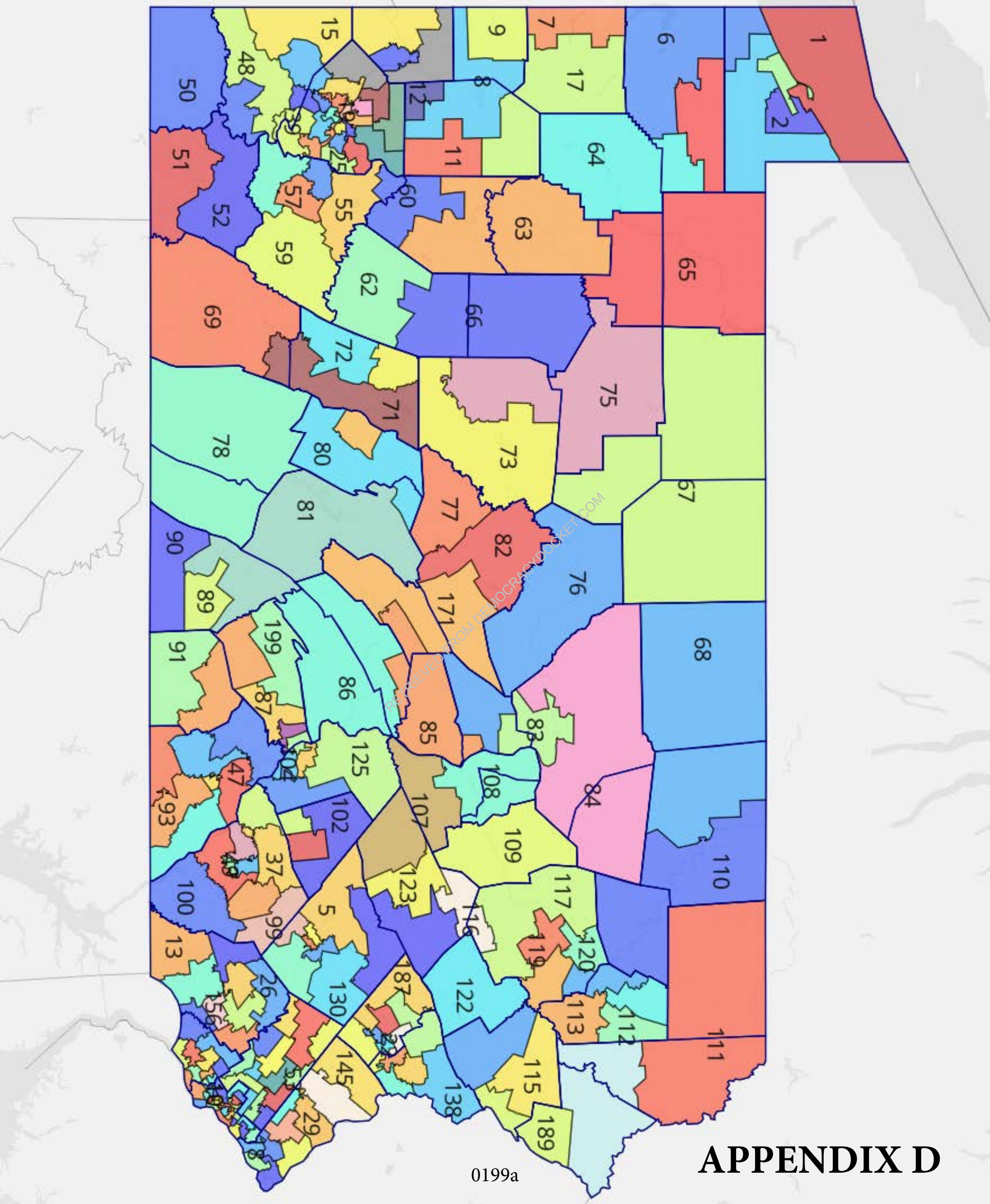
WARDS SPLIT BY HOUSE DISTRICTS

PHILADELPHIA COUNTY

PHILADELPHIA	CITY	
WARD 02		175 182
WARD 04		010 192
WARD 05		175 182
WARD 06		010 190
WARD 07		180 197
WARD 08		010 181 182 195
WARD 09		194 200
WARD 10		198 200 201
WARD 12		198 201
WARD 13		190 198
WARD 15		181 195
WARD 18		175 181 197
WARD 21		194 200
WARD 23		177 179
WARD 25		177 180
WARD 28		190 195
WARD 30		182 186
WARD 31		175 177 197
WARD 33		179 180
WARD 35		179 203
WARD 37		181 197
WARD 38		190 194
WARD 40		185 191
WARD 41		173 177 202
WARD 42		179 197
WARD 44		010 190
WARD 45		177 180
WARD 48		185 186
WARD 49		197 198
WARD 51		186 188 191
WARD 52		190 192
WARD 55		177 202
WARD 56		172 174
WARD 57		173 174
WARD 58		170 172
WARD 60		010 188
WARD 61		198 203
WARD 62		177 179 202
WARD 64		173 202
WARD 66		170 174

WARDS SPLIT BY HOUSE DISTRICTS

WESTMORELAND COUNTY		
LOWER BURRELL	CITY	
WARD 04		055 060
NORTH HUNTINGDON	TOWNSHIP	
WARD 04		056 058



APPENDIX D

The Statewide population = 13,002,700		
The Average population per district = 260,054		
DISTRICT	**POPULATION**	**DEVIATION**
1	250,243	-9,811 (3.77%)
2	260,277	+223 (0.09%)
3	263,993	+3,939 (1.51%)
4	268,248	+8,194 (3.15%)
5	267,205	+7,151 (2.75%)
6	269,699	+9,645 (3.71%)
7	263,697	+3,643 (1.40%)
8	256,726	-3,328 (1.28%)
9	252,137	-7,917 (3.04%)
10	269,925	+9,871 (3.80%)
11	263,931	+3,877 (1.49%)
12	263,688	+3,634 (1.40%)
13	262,878	+2,824 (1.09%)
14	267,292	+7,238 (2.78%)
15	260,164	+110 (0.04%)
16	265,055	+5,001 (1.92%)
17	258,156	-1,898 (0.73%)
18	263,814	+3,760 (1.45%)
19	253,763	-6,291 (2.42%)
20	269,942	+9,888 (3.80%)
21	258,167	-1,887 (0.73%)
22	251,084	-8,970 (3.45%)
23	263,353	+3,299 (1.27%)
24	262,737	+2,683 (1.03%)
25	265,569	+5,515 (2.12%)
26	255,232	-4,822 (1.85%)
27	260,244	+190 (0.07%)
28	262,475	+2,421 (0.93%)
29	264,845	+4,791 (1.84%)
30	249,843	-10,211 (3.93%)
31	259,208	-846 (0.33%)
32	252,099	-7,955 (3.06%)

APPENDIX E

33	260,301	+247 (0.09%)
34	266,501	+6,447 (2.48%)
35	260,141	+87 (0.03%)
36	269,182	+9,128 (3.51%)
37	248,858	-11,196 (4.31%)
38	251,647	-8,407 (3.23%)
39	261,704	+1,650 (0.63%)
40	256,698	-3,356 (1.29%)
41	254,701	-5,353 (2.06%)
42	250,536	-9,518 (3.66%)
43	251,870	-8,184 (3.15%)
44	264,849	+4,795 (1.84%)
45	249,661	-10,393 (4.00%)
46	250,466	-9,588 (3.69%)
47	256,105	-3,949 (1.52%)
48	269,151	+9,097 (3.50%)
49	261,100	+1,046 (0.40%)
50	263,540	+3,486 (1.34%)

LEGISLATIVE DATA PROCESSING CENTER

COMPOSITE LISTING

OF

STATE SENATE DISTRICTS

DISTRICT NUMBER	DESCRIPTION
Dist. 01	PHILADELPHIA County. Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 01, 02, 05, 08, 18, 25 [PART, Divisions 01, 04 and 07], 26 [PART, Divisions 01, 02, 03, 20 and 23], 30, 31, 39 and 40 [PART, Divisions 30, 38 and 40]). Total population: 250,243
Dist. 02	PHILADELPHIA County. Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 07, 19, 23, 25 [PART, Divisions 02, 03, 05, 06, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 and 24], 33, 35 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 12, 14, 15, 16, 17, 22, 23, 24, 26 and 32], 45, 53, 54, 55 and 62). Total population: 260,277
Dist. 03	PHILADELPHIA County. Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 11, 13, 14, 15, 16, 20, 29, 32, 35 [PART, Divisions 09, 10, 11, 13, 18, 19, 20, 21, 25, 27, 28, 29, 30 and 31], 37, 42, 43, 47, 49 and 61). Total population: 263,993
Dist. 04	MONTGOMERY and PHILADELPHIA Counties. Part of MONTGOMERY County consisting of the TOWNSHIPS of Abington, Cheltenham and Springfield and the BOROUGHS of Jenkintown and Rockledge and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 09, 10, 12 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 09, 10, 12, 13, 14, 18, 19, 20 and 21], 17, 22, 50 and 59). Total population: 268,248

Dist. 05 PHILADELPHIA County.
Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 41, 56, 57, 58, 63, 64, 65 and 66).
Total population: 267,205

Dist. 06 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Bensalem, Lower Southampton, Middletown, Northampton, Upper Southampton, Warminster, Warrington, Warwick and Wrightstown and the BOROUGHS of Hulmeville, Ivyland, Langhorne, Langhorne Manor and Penndel.
Total population: 269,699

Dist. 07 MONTGOMERY and PHILADELPHIA Counties.
Part of MONTGOMERY County consisting of the TOWNSHIP of Whitemarsh and the BOROUGH of Conshohocken and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 04, 06, 12 [PART, Divisions 08, 11, 15, 16, 17, 22, 23 and 24], 21, 24, 27 [PART, Divisions 03, 06, 11, 13 and 18], 28, 34, 38, 44, 46 [PART, Divisions 07, 19, 22 and 23], 52 and 60 [PART, Divisions 01, 02, 03, 04, 05, 08, 09, 12, 13, 14, 15, 16 and 23]).
Total population: 263,697

Dist. 08 DELAWARE and PHILADELPHIA Counties.
Part of DELAWARE County consisting of the TOWNSHIPS of Darby and Tinicum and the BOROUGHS of Collingdale, Colwyn, Darby, Folcroft, Norwood, Sharon Hill and Yeadon and Part of PHILADELPHIA County consisting of the CITY of Philadelphia (PART, Wards 03, 26 [PART, Divisions 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21 and 22], 27 [PART, Divisions 01, 02, 04, 05, 07, 08, 09, 10, 12, 14, 15, 16, 17, 19, 20, 21, 22 and 23], 36, 40 [PART, Divisions 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 37, 39, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50 and 51], 46 [PART, Divisions 01, 02, 03, 04, 05, 06, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20 and 21], 48, 51 and 60 [PART, Divisions 06, 07, 10, 11, 17, 18, 19, 20, 21 and 22]).
Total population: 256,726

Dist. 09 CHESTER and DELAWARE Counties.
Part of CHESTER County consisting of the TOWNSHIPS of Birmingham, East Marlborough, Franklin, Kennett, London Britain, London Grove, New Garden, Pennsbury, Pocopson, Thornbury and Westtown and the BOROUGHS of Avondale, Kennett Square and West Grove and Part of DELAWARE County consisting of the CITY of Chester and the TOWNSHIPS of Aston, Bethel, Chadds Ford, Chester, Concord, Edgmont, Lower Chichester, Middletown, Nether Providence, Thornbury and Upper Chichester and the BOROUGHS of Brookhaven, Chester Heights, Eddystone, Marcus Hook, Parkside, Rose Valley, Trainer and Upland.
Total population: 252,137

Dist. 10 BUCKS County.
Part of BUCKS County consisting of the TOWNSHIPS of Bristol, Buckingham, Doylestown, Falls, Lower Makefield, New Britain, Newtown, Plumstead, Solebury and Upper Makefield and the BOROUGHS of Bristol, Chalfont, Doylestown, Morrisville, New Britain, New Hope, Newtown, Tullytown and Yardley.
Total population: 269,925

Dist. 11 BERKS County.
Part of BERKS County consisting of the CITY of Reading and the TOWNSHIPS of Alsace, Cumru, Exeter, Lower Alsace, Maxatawny, Muhlenberg, Oley, Richmond, Ruscombmanor and Spring and the BOROUGHS of Adamstown (Berks County Portion), Fleetwood, Kenhorst, Kutztown, Laureldale, Lyons, Mohnton, Mount Penn, Shillington, Sinking Spring, St. Lawrence, West Reading and Wyomissing.
Total population: 263,931

Dist. 12 MONTGOMERY County.
Part of MONTGOMERY County consisting of the TOWNSHIPS of Franconia, Hatfield, Horsham, Lower Gwynedd, Lower Moreland, Montgomery, Plymouth, Salford, Upper Dublin, Upper Moreland, Whitpain and Worcester and the BOROUGHS of Ambler, Bryn Athyn, Hatboro, Hatfield, Lansdale, Souderton and Telford (Montgomery County Portion).
Total population: 263,688

Dist. 13 BERKS and LANCASTER Counties.
Part of BERKS County consisting of the TOWNSHIPS of Brecknock, Caernarvon and Robeson and the BOROUGH of New Morgan and Part of LANCASTER County consisting of the CITY of Lancaster and the TOWNSHIPS of Bart, Caernarvon, Colerain, Conestoga, Drumore, East Drumore, East Earl, East Lampeter, Eden, Fulton, Lancaster, Leacock, Little Britain, Manor, Martic, Paradise, Pequea, Providence, Sadsbury, Salisbury, Strasburg, Upper Leacock and West Lampeter and the BOROUGHS of Christiana, Millersville, Quarryville, Strasburg and Terre Hill.
Total population: 262,878

Dist. 14 LEHIGH and NORTHAMPTON Counties.
Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 14, 15, 16, 17 and 19) and the TOWNSHIPS of Hanover, Salisbury, South Whitehall (PART, Districts 01, 02, 04, 05 and 07) and Whitehall and the BOROUGHS of Catasauqua, Coplay, Emmaus and Fountain Hill and Part of NORTHAMPTON County consisting of the TOWNSHIPS of Allen, Bushkill, East Allen, Hanover, Lehigh and Moore and the BOROUGHS of Bath, Chapman, North Catasauqua, Northampton and Walnutport.
Total population: 267,292

Dist. 15 DAUPHIN County.
Part of DAUPHIN County consisting of the CITY of Harrisburg and the TOWNSHIPS of Conewago, Derry, East Hanover, Londonderry, Lower Paxton, Lower Swatara, Middle Paxton, South Hanover, Susquehanna, Swatara and West Hanover and the BOROUGHS of Dauphin, Highspire, Hummelstown, Middletown, Paxtang, Penbrook, Royalton and Steelton.
Total population: 260,164

Dist. 16 BUCKS and LEHIGH Counties.
Part of BUCKS County consisting of the TOWNSHIPS of Bedminster, Bridgeton, Durham, East Rockhill, Haycock, Hilltown, Milford, Nockamixon, Richland, Springfield, Tinicum and West Rockhill and the BOROUGHS of Dublin, Perkasie, Quakertown, Richlandtown, Riegelsville, Sellersville, Silverdale, Telford (Bucks County Portion) and Trumbauersville and Part of LEHIGH County consisting of the CITY of Allentown (PART, Wards 13 and 18) and the TOWNSHIPS of Heidelberg, Lower Macungie, Lower Milford, Lowhill, Lynn, North Whitehall, South Whitehall (PART, Districts 03, 06 and 08), Upper Macungie, Upper Milford, Upper Saucon, Washington and Weisenberg and the BOROUGHS of Alburtis, Coopersburg, Macungie and Slatington.
Total population: 265,055

Dist. 17 DELAWARE and MONTGOMERY Counties.
Part of DELAWARE County consisting of the TOWNSHIPS of Haverford and Radnor and Part of MONTGOMERY County consisting of the TOWNSHIPS of East Norriton, Lower Merion, Upper Merion and West Norriton and the BOROUGHS of Bridgeport, Narberth, Norristown and West Conshohocken.
Total population: 258,156

Dist. 18 LEHIGH and NORTHAMPTON Counties.
Part of LEHIGH County consisting of the CITY of Bethlehem (Lehigh County Portion) and Part of NORTHAMPTON County consisting of the CITIES of Bethlehem (Northampton County Portion) and Easton and the TOWNSHIPS of Bethlehem, Forks, Lower Mount Bethel, Lower Nazareth, Lower Saucon, Palmer, Plainfield, Upper Mount Bethel, Upper Nazareth, Washington and Williams and the BOROUGHS of Bangor, East Bangor, Freemansburg, Glendon, Hellertown, Nazareth, Pen Argyl, Portland, Roseto, Stockertown, Tatamy, West Easton, Wilson and Wind Gap.
Total population: 263,814

Dist. 19 CHESTER County.
Part of CHESTER County consisting of the CITY of Coatesville and the TOWNSHIPS of East Bradford, East Caln, East Fallowfield, East Goshen, East Nottingham, Easttown, Elk, Highland, Londonderry, Lower Oxford, New London, Newlin, Penn, Tredyffrin, Upper Oxford, Valley, West Bradford, West Fallowfield, West Goshen, West Marlborough, West Nottingham, West Whiteland and Willistown and the BOROUGHS of Downingtown, Malvern, Modena, Oxford, South Coatesville and West Chester.
Total population: 253,763

Dist. 20 LUZERNE, PIKE, SUSQUEHANNA, WAYNE and WYOMING Counties.
Part of LUZERNE County consisting of the CITY of Nanticoke and the TOWNSHIPS of Dallas, Exeter, Fairmount, Franklin, Hanover, Hunlock, Jackson, Kingston, Lake, Lehman, Newport, Plymouth, Ross and Union and the BOROUGHS of Ashley, Courtdale, Dallas, Edwardsville, Exeter, Forty Fort, Harveys Lake, Kingston, Larksville, Luzerne, Plymouth, Pringle, Sugar Notch, Swoyersville, Warrior Run and West Wyoming; All of PIKE County; All of SUSQUEHANNA County; Part of WAYNE County consisting of the TOWNSHIPS of Berlin, Buckingham, Clinton, Damascus, Dyberry, Lebanon, Manchester, Mount Pleasant, Oregon, Palmyra, Paupack, Preston and Scott and the BOROUGHS of Bethany, Hawley and Starrucca and All of WYOMING County.
Total population: 269,942

Dist. 21 BUTLER, CLARION, ERIE, FOREST, VENANGO and WARREN Counties.
Part of BUTLER County consisting of the CITY of Butler and the TOWNSHIPS of Allegheny, Brady, Buffalo, Butler, Center, Cherry, Clay, Clearfield, Clinton, Concord, Connoquenessing, Donegal, Fairview, Franklin, Jefferson, Marion, Mercer, Muddycreek, Oakland, Parker, Penn, Slippery Rock, Summit, Venango, Washington, Winfield and Worth and the BOROUGHS of Bruin, Cherry Valley, Chicora, Connoquenessing, East Butler, Eau Claire, Fairview, Harrisville, Karns City, Petrolia, Portersville, Prospect, Saxonburg, Slippery Rock, West Liberty and West Sunbury; All of CLARION County; Part of ERIE County consisting of the CITY of Corry and the TOWNSHIPS of Concord and Wayne and the BOROUGH of Elgin; All of FOREST County; All of VENANGO County and All of WARREN County.
Total population: 258,167

Dist. 22 **LACKAWANNA and LUZERNE Counties.**
Part of LACKAWANNA County consisting of the CITY of Scranton and the TOWNSHIPS of Benton, Glenburn, Greenfield, La Plume, Newton, North Abington, Ransom, Scott, South Abington, Waverly and West Abington and the BOROUGHS of Clarks Green, Clarks Summit, Dalton, Dickson City, Dunmore, Moosic, Old Forge, Taylor and Throop and Part of LUZERNE County consisting of the CITIES of Pittston and Wilkes-Barre and the TOWNSHIPS of Jenkins, Pittston, Plains and Wilkes-Barre and the BOROUGHS of Avoca, Dupont, Duryea, Hughestown, Laflin, Laurel Run, West Pittston, Wyoming and Yatesville.
Total population: 251,084

Dist. 23 **BRADFORD, LYCOMING, SULLIVAN, TIOGA and UNION Counties.**
All of BRADFORD County; All of LYCOMING County; All of SULLIVAN County; All of TIOGA County and All of UNION County.
Total population: 263,353

Dist. 24 **BERKS and MONTGOMERY Counties.**
Part of BERKS County consisting of the TOWNSHIPS of Amity, Colebrookdale, District, Douglass, Earl, Hereford, Longswamp, Pike, Rockland and Washington and the BOROUGHS of Bally, Bechtelsville, Boyertown and Topton and Part of MONTGOMERY County consisting of the TOWNSHIPS of Douglass, Limerick, Lower Frederick, Lower Pottsgrove, Lower Salford, Marlborough, New Hanover, Perkiomen, Skippack, Towamencin, Upper Frederick, Upper Gwynedd, Upper Hanover, Upper Pottsgrove, Upper Salford and West Pottsgrove and the BOROUGHS of Collegeville, East Greenville, Green Lane, North Wales, Pennsburg, Pottstown, Red Hill, Schwenksville and Trappe.
Total population: 262,737

Dist. 25 CAMERON, CENTRE, CLINTON, ELK, JEFFERSON, MCKEAN and POTTER Counties.
All of CAMERON County; Part of CENTRE County consisting of the TOWNSHIPS of Benner, Boggs, Burnside, College, Curtin, Gregg, Haines, Harris, Howard, Liberty, Marion, Miles, Penn, Potter, Snow Shoe, Spring, Union and Walker and the BOROUGHS of Bellefonte, Centre Hall, Howard, Milesburg, Millheim, Snow Shoe, State College and Unionville; All of CLINTON County; All of ELK County; Part of JEFFERSON County consisting of the TOWNSHIPS of Barnett, Beaver, Clover, Eldred, Heath, Knox, Pinecreek, Polk, Rose, Snyder, Union, Warsaw, Washington and Winslow and the BOROUGHS of Brockway, Brookville, Corsica, Falls Creek (Jefferson County Portion), Reynoldsville, Summerville and Sykesville; All of MCKEAN County and All of POTTER County.
Total population: 265,569

Dist. 26 DELAWARE County.
Part of DELAWARE County consisting of the TOWNSHIPS of Marple, Newtown, Ridley, Springfield, Upper Darby and Upper Providence and the BOROUGHS of Aldan, Clifton Heights, East Lansdowne, Glenolden, Lansdowne, Media, Millbourne, Morton, Prospect Park, Ridley Park, Rutledge and Swarthmore.
Total population: 255,232

Dist. 27 COLUMBIA, LUZERNE, MONTOUR, NORTHUMBERLAND and SNYDER Counties.
All of COLUMBIA County; Part of LUZERNE County consisting of the TOWNSHIPS of Black Creek, Butler, Conyngham, Dorrance, Fairview, Hollenback, Huntington, Nescopeck, Rice, Salem, Slocum, Sugarloaf and Wright and the BOROUGHS of Conyngham, Nescopeck, New Columbus, Nuangola and Shickshinny; All of MONTOUR County; All of NORTHUMBERLAND County and All of SNYDER County.
Total population: 260,244

Dist. 28 YORK County.
Part of YORK County consisting of the TOWNSHIPS of Chanceford, Codorus, East Hopewell, Fawn, Heidelberg, Hellam, Hopewell, Jackson, Lower Chanceford, Lower Windsor, Manheim, North Codorus, North Hopewell, Paradise, Peach Bottom, Penn, Shrewsbury, Spring Garden, Springettsbury, Springfield, West Manheim, Windsor and York and the BOROUGHS of Cross Roads, Dallastown, Delta, East Prospect, Fawn Grove, Felton, Glen Rock, Hallam, Hanover, Jacobus, Jefferson, Loganville, New Freedom, New Salem, North York, Railroad, Red Lion, Seven Valleys, Shrewsbury, Spring Grove, Stewartstown, Windsor, Winterstown, Wrightsville, Yoe and Yorkana.
Total population: 262,475

Dist. 29 CARBON, LUZERNE and SCHUYLKILL Counties.
All of CARBON County; Part of LUZERNE County consisting of the CITY of Hazleton and the TOWNSHIPS of Bear Creek, Buck, Dennison, Foster and Hazle and the BOROUGHS of Bear Creek Village, Freeland, Jeddo, Penn Lake Park, West Hazleton and White Haven and All of SCHUYLKILL County.
Total population: 264,845

Dist. 30 BLAIR, FULTON, HUNTINGDON, JUNIATA and MIFFLIN Counties.
All of BLAIR County; All of FULTON County; All of HUNTINGDON County; All of JUNIATA County and All of MIFFLIN County.
Total population: 249,843

Dist. 31 CUMBERLAND and YORK Counties.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Lower Allen and Upper Allen and the BOROUGHS of Lemoyne, Mechanicsburg, New Cumberland and Shiremanstown and Part of YORK County consisting of the CITY of York and the TOWNSHIPS of Carroll, Conewago, Dover, East Manchester, Fairview, Franklin, Manchester, Monaghan, Newberry, Warrington, Washington and West Manchester and the BOROUGHS of Dillsburg, Dover, Franklintown, Goldsboro, Lewisberry, Manchester, Mount Wolf, Wellsville, West York and York Haven.
Total population: 259,208

Dist. 32 BEDFORD, FAYETTE, SOMERSET and WESTMORELAND Counties.
All of BEDFORD County; All of FAYETTE County; All of SOMERSET County and Part of WESTMORELAND County consisting of the BOROUGH of Scottdale.
Total population: 252,099

Dist. 33 ADAMS and FRANKLIN Counties.
All of ADAMS County and All of FRANKLIN County.
Total population: 260,301

Dist. 34 CUMBERLAND, DAUPHIN and PERRY Counties.
Part of CUMBERLAND County consisting of the TOWNSHIPS of Cooke, Dickinson, East Pennsboro, Hampden, Hopewell, Lower Frankford, Lower Mifflin, Middlesex, Monroe, North Middleton, North Newton, Penn, Shippensburg, Silver Spring, South Middleton, South Newton, Southampton, Upper Frankford, Upper Mifflin and West Pennsboro and the BOROUGHS of Camp Hill, Carlisle, Mount Holly Springs, Newburg, Newville, Shippensburg (Cumberland County Portion) and Wormleysburg; Part of DAUPHIN County consisting of the TOWNSHIPS of Halifax, Jackson, Jefferson, Lykens, Mifflin, Reed, Rush, Upper Paxton, Washington, Wayne, Wiconisco and Williams and the BOROUGHS of Berrysburg, Elizabethville, Gratz, Halifax, Lykens, Millersburg, Pillow and Williamstown and All of PERRY County.
Total population: 266,501

Dist. 35 **CAMBRIA, CENTRE and CLEARFIELD Counties.**
All of CAMBRIA County; Part of CENTRE County consisting of the TOWNSHIPS of Ferguson, Halfmoon, Huston, Patton, Rush, Taylor and Worth and the BOROUGHS of Philipsburg and Port Matilda and All of CLEARFIELD County.
Total population: 260,141

Dist. 36 **LANCASTER County.**
Part of LANCASTER County consisting of the TOWNSHIPS of Conoy, Earl, East Donegal, East Hempfield, Elizabeth, Ephrata, Manheim, Mount Joy, Penn, Rapho, Warwick, West Donegal, West Earl and West Hempfield and the BOROUGHS of Akron, Columbia, East Petersburg, Elizabethtown, Ephrata, Lititz, Manheim, Marietta, Mount Joy, Mountville and New Holland.
Total population: 269,182

Dist. 37 **ALLEGHENY County.**
Part of ALLEGHENY County consisting of the TOWNSHIPS of Aleppo, Collier, Crescent, Findlay, Kilbuck, Leet, Marshall, Moon, North Fayette, Ohio, Robinson, South Fayette, South Park and Upper St. Clair and the BOROUGHS of Bell Acres, Ben Avon Heights, Bethel Park, Bradford Woods, Bridgeville, Coraopolis, Edgeworth, Franklin Park, Glen Osborne, Glenfield, Haysville, Heidelberg, Jefferson Hills, Leetsdale, McDonald (Allegheny County Portion), Oakdale, Pennsbury Village, Pleasant Hills, Rosslyn Farms, Sewickley, Sewickley Heights, Sewickley Hills and Thornburg.
Total population: 248,858

Dist. 38 **ALLEGHENY County.**
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 10, 11 and 12) and the TOWNSHIPS of East Deer, Fawn, Frazer, Hampton, Harmar, Harrison, Indiana, McCandless, O'Hara, Pine, Richland, Ross, Shaler, Springdale and West Deer and the BOROUGHS of Aspinwall, Blawnox, Brackenridge, Cheswick, Etna, Fox Chapel, Sharpsburg, Springdale, Tarentum and West View.
Total population: 251,647

Dist. 39 **WESTMORELAND County.**
Part of WESTMORELAND County consisting of the CITIES of Greensburg, Jeannette, Latrobe and Monessen and the TOWNSHIPS of Cook, Donegal, East Huntingdon, Hempfield, Mount Pleasant, North Huntingdon, Penn, Rostraver, Salem, Sewickley, South Huntingdon and Unity and the BOROUGHS of Adamsburg, Arona, Delmont, Donegal, Export, Hunker, Irwin, Madison, Manor, Mount Pleasant, Murrysville, New Stanton, North Belle Vernon, North Irwin, Penn, Smithton, South Greensburg, Southwest Greensburg, Sutersville, Trafford (Westmoreland County Portion), West Newton, Youngstown and Youngwood.
Total population: 261,704

Dist. 40 **LACKAWANNA, MONROE and WAYNE Counties.**
Part of LACKAWANNA County consisting of the CITY of Carbondale and the TOWNSHIPS of Carbondale, Clifton, Covington, Elmhurst, Fell, Jefferson, Madison, Roaring Brook, Spring Brook and Thornhurst and the BOROUGHS of Archbald, Blakely, Jermyn, Jessup, Mayfield, Moscow, Olyphant and Vandling; All of MONROE County and Part of WAYNE County consisting of the TOWNSHIPS of Canaan, Cherry Ridge, Dreher, Lake, Lehigh, Salem, South Canaan, Sterling and Texas and the BOROUGHS of Honesdale, Prompton and Waymart.
Total population: 256,698

Dist. 41 **ARMSTRONG, INDIANA, JEFFERSON and WESTMORELAND Counties.**
All of ARMSTRONG County; All of INDIANA County; Part of JEFFERSON County consisting of the TOWNSHIPS of Bell, Gaskill, Henderson, McCalmont, Oliver, Perry, Porter, Ringgold and Young and the BOROUGHS of Big Run, Punxsutawney, Timblin and Worthville and Part of WESTMORELAND County consisting of the CITIES of Arnold, Lower Burrell and New Kensington and the TOWNSHIPS of Allegheny, Bell, Derry, Fairfield, Ligonier, Loyalhanna, St. Clair, Upper Burrell and Washington and the BOROUGHS of Avonmore, Bolivar, Derry, East Vandergrift, Hyde Park, Laurel Mountain, Ligonier, New Alexandria, New Florence, Oklahoma, Seward, Vandergrift and West Leechburg.
Total population: 254,701

Dist. 42 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 01, 02, 03, 06, 09, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 and 32) and the TOWNSHIPS of Kennedy, Mount Lebanon, Neville, Reserve, Scott and Stowe and the BOROUGHS of Avalon, Bellevue, Ben Avon, Carnegie, Crafton, Dormont, Emsworth, Green Tree, Ingram, McKees Rocks and Millvale.
Total population: 250,536

Dist. 43 ALLEGHENY County.
Part of ALLEGHENY County consisting of the CITY of Pittsburgh (PART, Wards 04, 05, 07, 08, 13, 14, 15, 16, 17, 18, 29, 30 and 31) and the TOWNSHIPS of Penn Hills and Wilkins and the BOROUGHS of Braddock Hills, Chalfant, Churchill, Edgewood, Forest Hills, Mount Oliver, Oakmont, Rankin, Swissvale, Verona and Wilkinsburg.
Total population: 251,870

Dist. 44 BERKS, CHESTER and MONTGOMERY Counties.
Part of BERKS County consisting of the TOWNSHIP of Union and the BOROUGH of Birdsboro; Part of CHESTER County consisting of the TOWNSHIPS of Caln, Charlestown, East Brandywine, East Coventry, East Nantmeal, East Pikeland, East Vincent, East Whiteland, Honey Brook, North Coventry, Sadsbury, Schuylkill, South Coventry, Upper Uwchlan, Uwchlan, Wallace, Warwick, West Brandywine, West Caln, West Nantmeal, West Pikeland, West Sadsbury and West Vincent and the BOROUGHS of Atglen, Elverson, Honey Brook, Parkesburg, Phoenixville and Spring City and Part of MONTGOMERY County consisting of the TOWNSHIPS of Lower Providence and Upper Providence and the BOROUGH of Royersford.
Total population: 264,849

Dist. 45 **ALLEGHENY County.**
Part of ALLEGHENY County consisting of the CITIES of Clairton, Duquesne and McKeesport and the TOWNSHIPS of Baldwin, Elizabeth, Forward, North Versailles and South Versailles and the BOROUGHS of Baldwin, Braddock, Brentwood, Castle Shannon, Dravosburg, East McKeesport, East Pittsburgh, Elizabeth, Glassport, Homestead, Liberty, Lincoln, Monroeville, Munhall, North Braddock, Pitcairn, Plum, Port Vue, Trafford (Allegheny County Portion), Turtle Creek, Versailles, Wall, West Elizabeth, West Homestead, West Mifflin, Whitaker, White Oak, Whitehall and Wilmerding.
Total population: 249,661

Dist. 46 **BEAVER, GREENE and WASHINGTON Counties.**
Part of BEAVER County consisting of the TOWNSHIPS of Hanover and Independence and the BOROUGH of Frankfort Springs; All of GREENE County and All of WASHINGTON County.
Total population: 250,466

Dist. 47 BEAVER, BUTLER and LAWRENCE Counties.
Part of BEAVER County consisting of the CITIES of Aliquippa and Beaver Falls and the TOWNSHIPS of Brighton, Center, Chippewa, Darlington, Daugherty, Franklin, Greene, Harmony, Hopewell, Marion, New Sewickley, North Sewickley, Patterson, Potter, Pulaski, Raccoon, Rochester, South Beaver, Vanport and White and the BOROUGHS of Ambridge, Baden, Beaver, Big Beaver, Bridgewater, Conway, Darlington, East Rochester, Eastvale, Economy, Ellwood City (Beaver County Portion), Fallston, Freedom, Georgetown, Glasgow, Homewood, Hookstown, Industry, Koppel, Midland, Monaca, New Brighton, New Galilee, Ohioville, Patterson Heights, Rochester, Shippingport, South Heights and West Mayfield; Part of BUTLER County consisting of the TOWNSHIPS of Adams, Cranberry, Forward, Jackson, Lancaster and Middlesex and the BOROUGHS of Callery, Evans City, Harmony, Mars, Seven Fields, Valencia and Zelienople and Part of LAWRENCE County consisting of the TOWNSHIPS of Little Beaver, Perry and Wayne and the BOROUGHS of Ellport, Ellwood City (Lawrence County Portion), Enon Valley, New Beaver and Wampum.
Total population: 256,105

Dist. 48 BERKS, LANCASTER and LEBANON Counties.
Part of BERKS County consisting of the TOWNSHIPS of Albany, Bern, Bethel, Centre, Greenwich, Heidelberg, Jefferson, Lower Heidelberg, Maidencreek, Marion, North Heidelberg, Ontelaunee, Penn, Perry, South Heidelberg, Tilden, Tulpehocken, Upper Bern, Upper Tulpehocken and Windsor and the BOROUGHS of Bernville, Centerport, Hamburg, Leesport, Lenhartsville, Robesonia, Shoemakersville, Wernersville and Womelsdorf; Part of LANCASTER County consisting of the TOWNSHIPS of Brecknock, Clay, East Cocalico and West Cocalico and the BOROUGHS of Adamstown (Lancaster County Portion) and Denver and All of LEBANON County.
Total population: 269,151

Dist. 49 ERIE County.
Part of ERIE County consisting of the CITY of Erie and the TOWNSHIPS of Amity, Conneaut, Elk Creek, Fairview, Franklin, Girard, Greene, Greenfield, Harborcreek, Lake Erie, Lawrence Park, Leboeuf, McKean, Millcreek, North East, Springfield, Summit, Union, Venango, Washington and Waterford and the BOROUGHS of Albion, Cranesville, Edinboro, Girard, Lake City, McKean, Mill Village, North East, Platea, Union City, Waterford, Wattsburg and Wesleyville.
Total population: 261,100

Dist. 50 CRAWFORD, LAWRENCE and MERCER Counties.
All of CRAWFORD County; Part of LAWRENCE County consisting of the CITY of New Castle and the TOWNSHIPS of Hickory, Mahoning, Neshannock, North Beaver, Plain Grove, Pulaski, Scott, Shenango, Slippery Rock, Taylor, Union, Washington and Wilmington and the BOROUGHS of Bessemer, New Wilmington, S.N.P.J., South New Castle and Volant and All of MERCER County.
Total population: 263,540

Population of all districts: 13,002,700

COUNTIES SPLIT BY SENATE DISTRICTS

23 TOTAL COUNTIES 47 TOTAL SPLITS

ALLEGHENY	037 038 042 043 045
BEAVER	046 047
BERKS	011 013 024 044 048
BUCKS	006 010 016
BUTLER	021 047
CENTRE	025 035
CHESTER	009 019 044
CUMBERLAND	031 034
DAUPHIN	015 034
DELAWARE	008 009 017 026
ERIE	021 049
JEFFERSON	025 041
LACKAWANNA	022 040
LANCASTER	013 036 048
LAWRENCE	047 050
LEHIGH	014 016 018
LUZERNE	020 022 027 029
MONTGOMERY	004 007 012 017 024 044
NORTHAMPTON	014 018

COUNTIES SPLIT BY SENATE DISTRICTS

PHILADELPHIA	001 002 003 004 005 007 008
WAYNE	020 040
WESTMORELAND	032 039 041
YORK	028 031

PLACES SPLIT BY SENATE DISTRICTS

4 TOTAL PLACES 10 TOTAL SPLITS

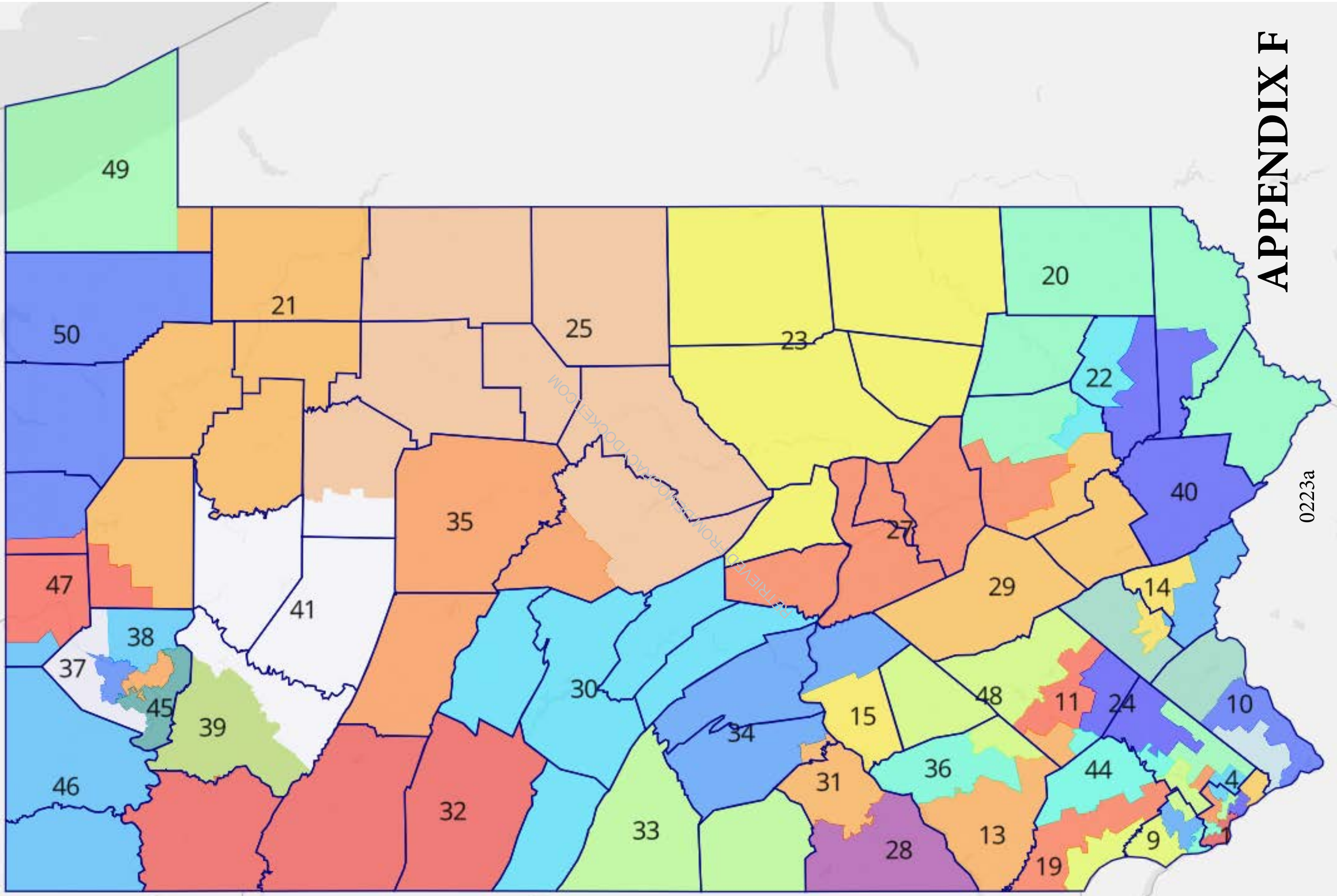
ALLEGHENY COUNTY		
PITTSBURGH	CITY	038 042 043
LEHIGH COUNTY		
ALLENTOWN	CITY	014 016
SOUTH WHITEHALL	TOWNSHIP	014 016
PHILADELPHIA COUNTY		
PHILADELPHIA	CITY	001 002 003 004 005 007 008

WARDS SPLIT BY SENATE DISTRICTS

8 TOTAL WARDS 8 TOTAL SPLITS

PHILADELPHIA COUNTY

PHILADELPHIA	CITY	
WARD 12		004 007
WARD 25		001 002
WARD 26		001 008
WARD 27		007 008
WARD 35		002 003
WARD 40		001 008
WARD 46		007 008
WARD 60		007 008



25 Most Underpopulated Districts - 2021 Final House Plan

DISTRICT	Member C	All Persons	Target	Dev.	Difference	PlanScore	Dave's
119	D	61,334	64,053	-4.24%	-2,719	R	R
152	D	61,386	64,053	-4.16%	-2,667	D	D
192	D	61,419	64,053	-4.11%	-2,634	D	D
24	D	61,444	64,053	-4.07%	-2,609	D	D
19	D	61,450	64,053	-4.06%	-2,603	D	D
73	R	61,454	64,053	-4.06%	-2,599	R	R
121	D	61,466	64,053	-4.04%	-2,587	D	D
10	D	61,532	64,053	-3.94%	-2,521	D	D
67	R	61,546	64,053	-3.91%	-2,507	R	R
179	D	61,563	64,053	-3.89%	-2,490	D	D
23	D	61,580	64,053	-3.86%	-2,473	D	D
34	D	61,582	64,053	-3.86%	-2,471	D	D
120	R	61,645	64,053	-3.76%	-2,408	R	R
20	D	61,715	64,053	-3.65%	-2,338	D	D
36	D	61,727	64,053	-3.63%	-2,326	D	D
117	R	61,755	64,053	-3.59%	-2,298	R	R
118	D	61,770	64,053	-3.56%	-2,283	R	R
190	D	61,771	64,053	-3.56%	-2,282	D	D
188	D	61,778	64,053	-3.55%	-2,275	D	D
159	D	61,801	64,053	-3.52%	-2,252	D	D
140	D	61,806	64,053	-3.51%	-2,247	D	D
33	R	61,859	64,053	-3.42%	-2,194	TOSS UP	D
185	D	61,863	64,053	-3.42%	-2,190	D	D
27	D	61,874	64,053	-3.40%	-2,179	D	D
77	D	61,876	64,053	-3.40%	-2,177	D	D

APPENDIX G

25 Most Overpopulated Districts - 2021 Final House Plan

DISTRICT	Member C	All Persons	Target	Dev.	Difference	PlanScore	Dave's
106	R	66,872	64,053	4.40%	2,819	R	R
14	R	66,854	64,053	4.37%	2,801	R	R
31	D	66,821	64,053	4.32%	2,768	D	D
98	R	66,784	64,053	4.26%	2,731	R	R
46	R	66,666	64,053	4.08%	2,613	R	R
59	R	66,601	64,053	3.98%	2,548	R	R
37	R	66,593	64,053	3.97%	2,540	R	R
57	R	66,577	64,053	3.94%	2,524	R	R
50	D	66,562	64,053	3.92%	2,509	R	R
89	R	66,531	64,053	3.87%	2,478	R	R
92	R	66,531	64,053	3.87%	2,478	R	R
55	R	66,435	64,053	3.72%	2,382	R	R
201	D	66,430	64,053	3.71%	2,377	D	D
85	R	66,424	64,053	3.70%	2,371	R	R
44	R	66,419	64,053	3.69%	2,366	R	R
182	D	66,317	64,053	3.54%	2,264	D	D
40	R	66,305	64,053	3.52%	2,252	R	R
87	R	66,300	64,053	3.51%	2,247	R	R
187	R	66,296	64,053	3.50%	2,243	R	R
15	R	66,277	64,053	3.47%	2,224	R	R
138	R	66,215	64,053	3.38%	2,162	R	R
95	D	66,193	64,053	3.34%	2,140	D	D
156	D	66,169	64,053	3.30%	2,116	D	D
183	R	66,148	64,053	3.27%	2,095	R	R
196	R	65,953	64,053	2.97%	1,900	R	R

APPENDIX H

LRC Final Map

R to R Pairing	Population from Current District	Population %	2020 R Reg	2020 D Reg	GOP Reg%
Brooks 54	25,315	38.1%	10099	6771	
Silvis 55	15,417	23.2%	5799	3731	
Other	25,703	38.7%	6735	8964	
	66,435		22633	19466	53.8%
Hershey 82	18,151	28.3%	7247	2731	
Stambaugh 86	45,941	71.7%	19673	6590	
	64,092		26920	9321	74.3%
Lewis 105	32,714	52.1%	8225	10602	
Helm 104	30,111	47.9%	6567	12322	
	62,825		14792	22924	39.2%
Day 187	21,444	32.3%	7357	4856	
R Mackenzie 134	38,295	57.8%	12045	11395	
Other	6,557	9.9%	2464	1531	
	66,296		21866	17782	55.2%
R to D Pairing					
Mizgorski 30	24,144	38.9%	7312	9232	
Innamorato 21	20,817	33.5%	3456	10356	
Other	17,115	27.6%	2181	9982	
	62,076		12949	29570	30.5%
DelRosso 33	6,761	10.5%	2132	2728	
DeLuca 32	55,702	86.8%	10347	26332	
Other	1,742	2.7%	489	624	
	64,205		12968	29684	30.4%
Wentling 17	5,377	8.2%	2181	1164	
Longietti 7	60,540	91.8%	15894	20632	
	65,917		18075	21796	45.3%
Cook 49	25,892	39.1%	6220	8744	
Snyder 50	40,406	60.9%	11785	12114	
	66,298		18005	20858	46.3%
Sonney 4	21,137	32.2%	6787	7525	
Merski 2	13,152	20.0%	3850	4835	
Other	31,380	47.8%	5008	13811	
	65,669		15645	26171	37.4%
D to D Pairing					
Raab 200	54,466	83.1%	1325	40292	
Fitzgerald 203	9,978	15.2%	144	7614	
Other	1,119	1.7%	66	839	
	65,563		1535	48745	3.1%

Bucks County	Current Plan	Fair Districts	House Democratic Plan (Bucks)
Seats in Region	10	11*	10
% Deviation	7.11%	6.88%	8.93%
Polsby Popper Compactness	0.32	0.44	0.39
Reock Compactness	0.38	0.41	0.43
Municipal Splits	4	4	4
Elasticity (Competitive Districts)	5	5	
35% or Higher 18+ Black Seats	0	0	0
35% or Higher 18+ Hispanic Seats	0	0	0
35% or Higher 18+ Coalition (Black, Hispanic, Asian Combined) Seats	0	0	0

***1 District is located partially outside Bucks County. This district is not included in deviation statistics.**

APPENDIX I

APPENDIX J

Pennsylvania Racially Polarized Voting Analysis

Jonathan N. Katz

February 4, 2022

1 Introduction

I was asked by counsel to discuss the statistical issues related to estimating the voting behavior of racial and ethnic groups necessary for conducting a racially polarized voting analysis in Pennsylvania as well as review the analysis of Dr. Matt A. Barreto in his memo of January 7. 2022. In making my findings, I have applied standard statistical methods, which I regularly employ in my research and which have been published in peer-reviewed journals.

A summary of my report and basic findings is as follows:

- All existing statistical methods for ecological inference — i.e., inferring group voting behavior from aggregate data — rely heavily on the problematic *constancy assuption* in the absence of ethnically or racially homogeneous precincts.
- Given that there are no homogeneous Latino/Hispanic voting precincts in the state, any attempt at ecological inference (including both ecological regression and EI) of Hispanic voting behavior is suspect and not scientifically valid. As a result, it is not possible to say whether or not Hispanics typically vote en bloc or in consistent coalition with other ethnic or racial groups.
- Finally, Dr. Barreto's analysis of racially polarized voting is statistically flawed and no scientifically valid inferences can be drawn from it.

Since completing my report on January 14, 2022, I have reviewed the 2022 Final Plan. This review did not require me to change my analysis and I stand by the original finding in this report.

In the next section of my report, I review my qualifications. The following section discusses the statistical methods for estimating voting behavior from aggregate data. This is referred to as ecological inference in the statistics and social science literature. The next section then discusses the problem of identifying and making ecological inferences in Pennsylvania given the available data.

2 Qualifications

I am currently the Kay Sugahara Professor of Social Sciences and Statistics at the California Institute of Technology. I previously served for seven years as the Chair of the Division of the

Humanities and Social Sciences at Caltech (which is akin to being a dean at other universities). Further, I was also formerly on the faculty at the University of Chicago and a visiting professor at the University of Konstanz (Germany). A complete copy of my curriculum vitae is in attached to this report.

I received my Bachelor of Science degree from the Massachusetts Institute of Technology and my Masters of Arts and Doctor of Philosophy degrees, both in political science, from the University of California, San Diego. I did post-doctoral work at Harvard University and the Harvard-MIT Data Center. I am an elected fellow of both the American Academy of Arts and Sciences and an inaugural fellow of the Society for Political Methodology. I am a former fellow of the Center for Advanced Study in the Behavioral Sciences.

I have written numerous articles published in the leading journals as set forth in my curriculum vitae. I am currently the Deputy Editor for Social Sciences of *Science Advances*, the open access journal of the American Association for the Advancement of Science. I previously served as co-editor of *Political Analysis*, the journal of the Society for Political Methodology, and I was a co-founding editor of the Political Science network (a collection of on-line journals). I have also previously served on the editorial boards of *Electoral Studies*, *Political Research Quarterly* and the *American Journal of Political Science*. I have frequently served as a referee of manuscripts for most of the major journals in my fields of research and the National Science Foundation.

I have done extensive research on American elections and on statistical methods for analyzing social science data. I am a member of the Caltech/MIT Voting Technology Project, serving as the co-director of the project from October 1, 2005 to September 30, 2010.

Over the past two decades, I have been involved in numerous elections cases for both Democratic and Republican clients involving the Federal Voting Rights Act, partisan gerrymandering, the evaluation of voting systems, or the statistical evaluation of electoral data. I have testified or consulted in court cases in both state and Federal courts in the states of Arizona, California, Florida, Georgia, Indiana, Illinois, Maryland, Michigan, Missouri, New Hampshire, New Mexico, Nevada, North Carolina, Ohio, Oklahoma, Oregon, Texas, Virginia, and Washington.

3 Methods for Ecological Inference

The problem of inferring voting behavior from aggregate information is known as ecological inference. That is, we are interested in estimating how groups of voters, say members of a Minority Group and Others (i.e., non-members of the Minority Group), voted in a given election when all we observe are the precinct-level returns and the demographic make-up of the precincts.

3.1 Homogenous Precincts and the Method of Bounds

A common starting point is to consider only homogeneous precincts. That is, we could examine the election results from precincts that are closest to racially/ethnically homogeneous in character. For example, if a precinct were completely homogeneous, say with a population that was 100% of a particular Minority Group, then we know what fraction of that Minority Group that voted for a given candidate in the precinct: it is just the share the given candidate got in the precinct. Besides

being simple, this statistical estimate does not require any additional assumptions to be valid. While this might be a useful starting point, as a statistical procedure it is problematic, since it throws out most of the data unless most of the precincts are homogeneous.

However, we can use the intuition from the homogeneous precincts to place bounds on the level of support each group gives a candidate. Consider the following equation, which is true by definition (and without any further statistical assumptions), that relates the vote share of given candidate to the voting behavior of a particular Minority Group and Others:

$$V_i = \lambda_i^M X_i + \lambda_i^O (1 - X_i), \tag{1}$$

where V_i is the share of the vote a given candidate received in precinct i, X_i is the fraction of Minority Group voters in the precinct and therefore $(1 - X_i)$ is the fraction of Other voters, assuming for the moment that there are only two groups in the electorate. λ_i^M is the fraction of the Minority Group voting for the given candidate and similarly λ_i^O is the fraction of Others voting for the given candidate. In other words, the equation states the fact that the total vote share for a candidate must equal the proportion of Minority Group voters who support them multiplied by the proportion of the electorate that is in the Minority Group plus the proportion of the Other voters who support the candidate multiplied by the proportion of the electorate which is Other.

In the case of only two groups — e.g., a particular Minority Group and Others – and only two candidates, then racially polarized voting occurs when λ_i^M and λ_i^O are on opposite sides of 0.5 — e.g., $\lambda_i^M > 0.5$ and $\lambda_i^O < 0.5$. That is, a majority of one group voting for one candidate and the majority of the other group voting for the opposite candidate. If this holds, then the larger the difference between support levels, the greater the level of polarization. Of course, since we are dealing with statistical estimates, this difference must be greater than the statistical uncertainty in the estimates.

Now consider homogeneous Minority Group precincts again. In these precincts, $X_i = 1$, so that the equation simplifies to $V_i = \lambda_i^M$ as we stated above. However, from these precincts we can not say anything about the voting behavior of Others because any proportion of Others voting for a given candidate is consistent with the observed vote shares in these precincts. We can generalize this idea using Equation 1. Consider, for example, a precinct where $X_i = 0.6$, that is 60% of voters are Minority (and, therefore, 40% are Other), and the candidates vote share, V_i, is 0.5.

Since 60% of the voters are part of the Minority Group and the given candidate got 50% of the vote, then at most $\frac{5}{6}$ths of the Minority Group voters could have voted for the candidate. If it were higher than this bound, then the vote share for the candidate in the precinct would have to be higher. On the other hand, even if all of the Others voted for the candidate, then at least $\frac{1}{6}$th of the Minority Group would have had to vote for the candidate as well, otherwise the candidate's vote share would have been less than 0.5. Thus, we know that proportion of Minority Group voting for the candidate, λ_i^M, must be greater than $1/6$ and less than $5/6$ and λ_i^O can take on any value between zero and one. We actually know more than this: we know that the feasible values for this district must lie on the line segment, called a constraint line, defined by the bounds $(\frac{1}{6}, 1)$ and $(\frac{5}{6}, 0)$. Using standard algebra by plugging in $X_i = 0.6$ and $V_i = 0.5$, we find that $\lambda_i^{OW} = -\frac{3}{2}\lambda_i^M + \frac{5}{4}$.

Duncan and Davis (1953) fully developed the method of bounds outlined above to analyze ecological data. Unfortunately, with a large number of precincts, it is difficult to make much direct use of

these bounds since we need a way to combine them to understand typical behavior in the district. These bounds do, however, provide important useful information as we will see below.

3.2 Ecological or Goodman's Regression

An alternative approach that examines all precincts simultaneously was developed by Goodman (1959) and is perhaps the most commonly used procedure. It is referred to in the literature as ecological regression or Goodman's regression. Like the method of bounds, it is based on the identity in Equation 1. Suppose that the fraction of support for a given candidate for both Others and a Minority Group members was the same across all precincts in the district. A bit more formally, suppose that $\lambda_i^M = \lambda^M$ and $\lambda_i^O = \lambda^O$ for every precinct i. Then we could estimate these fractions by choosing the best fitting line to the precinct-level data. This is just a standard linear regression, the most commonly used statistical procedure in the social sciences. From these estimates we could then compare the voting behavior between groups.

However, there is no free lunch, ecological regression allows one to identify the estimate across all districts and in any data set by making the heroic assumption of no variability of voting behavior across precincts and individuals, which is usually referred to as the *constancy assumption*. In fact, Goodman himself was extremely cautious in recommending the use of ecological regression to infer individual relationships given this required assumption. He stressed that only "under very special circumstances" should ecological regression be relied upon to produce reasonable estimates (Goodman 1953: 664, see also Robinson 1950).

A more technical critique of ecological regression and its constancy assumption was made by Freedman et al. (1991) (see also Gelman et al. 2001). They develop an alternative model that they called the "neighborhood model". The full argument is highly technical and it is beyond the scope of this report. In brief, they show in aggregate election results this model is mathematically equivalent to Goodman's ecological regression level but has dramatic differences at the individual (or group level). That is, the aggregate data can not identify individual behavior except under untestable assumptions and different such assumptions lead to dramatically different estimates of individual behavior. Finally, King (1997) showed ecological regression can produce widely inaccurate estimates of group voting behavior. Thus the consensus of the statistical literature is to reject analysis based on ecological regression (see, for example, Schuessler 1991 or Flanigan and Zingale 1985).

3.3 Ecological Inference/EI

King (1997) has developed an alternative approach called Ecological Inference or EI. While the technical details are complex, its advantage is that it uses all available information to generate more accurate estimates of voting behavior from aggregate data. EI is basically a way to combine the regression approach of Goodman (1959) with the bounds from Duncan and Davis (1953). Further, it allows the estimates to vary (systematically) across precincts. The idea is we calculate the constraint lines for every precinct. We then choose as our estimate for a given precinct a point on its constraint line near the center of the intersection of all of the other lines. The actual point chosen is based on a standard statistical model. We can then use these precinct estimates to calculate quantities of interest such as the average support level across the district.

It is important to note that since King's method relies heavily on the bounds information, it works best when at least some of these bounds are informative — i.e., narrower than the entire range from 0 to 1. This will happen when more precincts have large proportions of each of the groups whose voting behavior we want to estimate. In other words, we will need some precincts that are relatively homogeneous for each ethnic group we want to study. When this is not the case, EI can go wildly wrong as noted by King himself (1997, see chapter 9).

That is, the EI estimates are not well identified when the bounds are not informative. This is because EI is then just a slight generalization of Goodman's regression in this case. It, therefore, relies on the same problematic constancy assumption for identification that has been rejected in the statistical literature when bounds data is unavailable.

3.4 More than Two Groups or Two Candidates

The above discussion on the development of methods for ecological inference assumed that we only had two groups and two candidates (or vote choices). Accommodating more than two groups is rather straight-forward, although notation and intuition become more complicated, especially for the constraint lines. All that is required is adding the additional group fractions to Equation 1.

Allowing for more than two candidates or vote choices, however, is a bit more complicated. In the special case of only two choices, we only need to model the vote share going to one of them since we then automatically know the fraction going to the other candidate: this is just one minus the first vote share. If, for example, we add a third choice, then we need to model the vote share going to any two of the options and then we get third by subtracting the sum of the other two shares from one. Formally, we need to add an additional equation for each vote choice greater than two. Typically, there will always be more than two vote choices even when there are only two candidates because some individuals will choose not to vote in the election. We need to account for this abstention in order to make proper inferences. However, since what we care about is the share of voters supporting each of the candidates, we need to condition out these non-voters. This is not straight-forward, but can be done once we estimate the full set of options: don't vote or vote for one of the candidates on the ballot.

In the general case of more than two groups and more than two vote choices, racially polarized voting is also a more complicated concept. If we only have two choices, then we get voting cohesion among each group automatically since one of the choices must receive a majority of support from the members (ignoring the unlikely event of an exact tie in the election). However, when we have more than two choices, it is possible that no choice receives majority support of the group. In fact, given the estimation uncertainty, it may not be possible to infer which candidate is preferred by the members of the group.[1] Even if we find that the groups both have a strictly preferred candidates (i.e., they are cohesive), we still need to see if the distribution between the groups is statistically different to find racially polarized voting.[2]

I finally note that adding additional groups and vote choices to King's (1997) EI is not straight-forward. The generalization was first developed by King, Rosen, and Tanner (1999). Unfortunately,

[1] Formally, we can not rule out the null hypothesis that the group equally split their votes across two or more choices.

[2] Formally, we need to reject the null hypothesis that the distribution of vote shares across groups is identical.

their approach was computationally inefficient and was later refined by Rosen, Jiang, King and Tanner (2001).

4 Problem with Ecological Inference in Pennsylvania elections

As discussed above, EI produces reliably estimates only when we have substantial numbers of homogeneous precincts. Unfortunately, this is not the case with regards to Latinos/Hispanics in Pennsylvania. In fact, according to the official 2020 Census data there is exactly **one precinct**, Philadelphia Ward 10, Precinct 06, that has just over 90% Hispanic voting age population. I note that even with this level of homogeneity, the bounds on voting behavior are still rather large. In fact, even if relaxed our criteria for homogeneous precincts to be greater than 80% Hispanic voting age population, there are still only 23 precincts out of almost 9200 statewide that are even modestly homogeneous. These are almost all in the Philadelphia area with the exception of three precincts in Reading. This is just not enough for statistically valid estimates.

Further, given the lack of homogeneous precincts, it is not possible to see if two separate groups of voters, say Hispanics and Blacks, typically vote together in coalition. This statistical analysis is just another version of ecological inference that requires homogeneous precincts to provide reasonable estimates.

4.1 How badly can EI go wrong?

How badly can EI go wrong when there are not a sufficient of homogeneous precincts? It not possible to say in data directly from Pennsylvania elections, since we would need to know the true voting behavior of Latinos.

However, in analysis that I did in a California in the case in Federal district court, *Luna v. Kern County*, we can get some feeling for how badly. Like in Pennsylvania, there are essentially no homogeneous Latino precincts in Kern County. We can get reliable estimates of the number of Latinos who are registered as Democrats by using Census name matching techniques to the voter rolls. This will serve as our true value benchmark. Then we can use EI to estimate the fraction of registered Democrats (in exactly the same way we would estimate the number of Latinos voting for a particular candidate) based on the fraction of Democrats and non-Democrats registered in the precinct (i.e., the vote percentages) and fraction of Latinos and non-Latinos in the precinct.

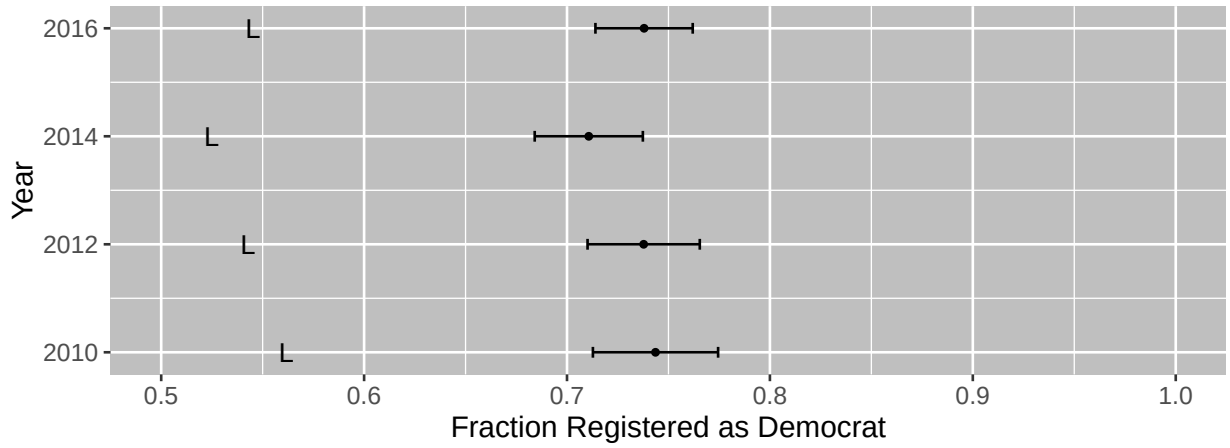


Figure 1: *EI Estimates of the fraction of Latinos who are Registered as Democrats in Kern County in the June elections from 2010 to 2016. The center dot represents the point estimate and the error bars provide the 95% confidence interval for the estimate. The true value from the registration rolls is denoted by the letter "L".*

The EI estimates of the fraction of Latinos who are registered in Kern County as Democrats in the June elections from 2010 to 2016 are displayed graphically in Figure 1 (next page). The center dot on the chart is the point estimate and the bars around it are the "95% confidence intervals." When a statistical estimator is well identified, the true value should be contained in this confidence interval almost always. As you can see, the EI estimates do not perform well at all. The true values for each election are are shown in the figure by the letter "L". As you can see the true fraction of Latinos registered as Democrats is around 55%, but all of the estimates are in the mid 70s. That is, EI is significantly over-estimating the fraction of Latinos who are registered as Democrats. And perhaps a more disconcerting finding in this analysis is that the confidence intervals do not contain the true value in any of the four elections examined.

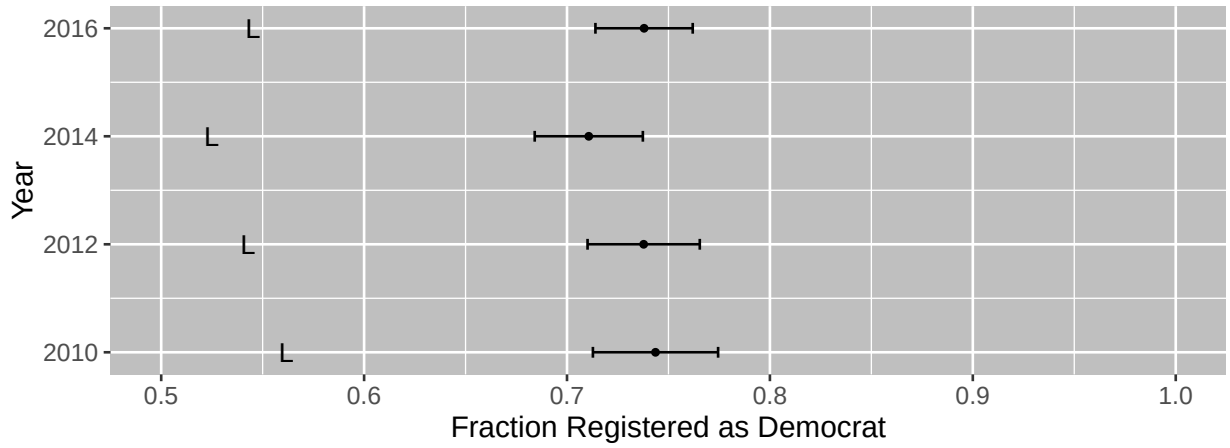


Figure 2: *Ecological Regression Estimates of the fraction of Latinos who are Registered as Democrats in Kern County in the June elections from 2010 to 2016. The center dot represents the point estimate and the error bars provide the 95% confidence interval for the estimate. The true value from the registration rolls is denoted by the letter "L".*

For completeness, I have also include the estimate of the ecological regression results from the same analysis from the Kern County data in Figure 2. Given that there are no homogeneous precincts, the estimates are very similar to the EI estimates above. And as before, the ecological regression results are substantially different from the ground truth estimate.

5 Problems with Dr. Barreto's Analysis

Dr. Barreto's central racially polarized voting analysis is contained in the series of graphs relating Republican vote share in a precinct to the percent of White voting age precinct in various collection of counties in Pennsylvania.[3] The claim is that these graphs show that there is racially polarized voting in the state. However, this analysis contains numerous serious statistical flaws and no valid scientific claims about the presence or absence of racially polarized voting in Pennsylvania may be drawn from it.

The best way to characterize these graphs is that they show that there is an *aggregate*, non-linear relationship between the percentage of White voting age population and Republican candidates vote shares in precincts across various regions in the state. However, this is not even an ecological regression analysis, which as discussed above is not considered a reliable way to estimate group voting behavior (see, for example, Goodman 1953 and 1959, Freedman et al. 1991, and King 1997).

Why is this not ecological regression? Recall that the accounting identity that was used to generate the ecological regression model (Eq. 1, above) was based on *voters*. That is, the total share of a

[3] The figures are unnumbered but they begin on page 7 of his memo.

candidate's vote had to be equal to the the sum of the share of each groups' *voters* who voted for them times the share of the *voters* in that group. However, Dr. Barreto uses Census figures for total voting age population for his analysis. The accounting identity underling ecological regression does not hold in this case because not all eligible citizens vote. Further, the turnout varies systematically by race (see, for example, Ansolabehere, Fraga, and Schaffner Forthcoming). This differential turnout rate further biases the estimates rendering his analysis unreliable. This could be fixed by estimating turnout by group. That is, we would add another vote choice in our accounting identity, not voting or abstaining. However, Dr. Barreto did not do this.

Suppose that we ignored the problem of using total population instead of voters by assuming that there were no differences in turnout by racial group, would Dr. Barreto's analysis be a statistically valid ecological regression analysis? Unfortunately, there are still other fundamental statistical flaws in his analysis. Most prominently, there is strong reason to doubt the constancy assumption that underlies ecological inference in this case. Recall that the constancy assumption is that there is no systematic variation across precincts in how a given group votes. So, for example, White voters in predominately non-White neighborhoods vote the same as Whites in neighborhoods with few other minority voters. In general, this is considered a heroic assumption (see Robinson 1950 and Gelman et at. 2001), but there are two reasons to specifically doubt that it holds in Dr. Barreto's analysis.

First, all of the graphs in Dr. Barreto analysis racially polarized voting analysis, include what he call "regression lines" — to suggest that they are ecological regression analysis discussed above — that are suppose to show the relationship between the Republican vote share and the percent White voting age population the precinct. These are the red and blue lines that summarize the points in the graphs. However, this is not the regression line defined for ecological regression developed by Goodman (1950). In the case of ecological regression analysis the the regression line must be a straight line — i.e., linear. That is, the only difference (on average) in vote share for a candidate in a given precinct can only be driven by its demographic makeup. This comes from the accounting identity decomposing the total percent of the votes as the sum of the votes coming from each constituent group given in Eq. 1. Instead, the lines in Dr. Barreto's graphs are locally weighted regression lines (Cleveland and Devlin 1988), also referred to as LOWESS or LOESS lines. They allow one to visually detect non-linear relationships in scatter plots.

In fact, the graphs and their LOWESS regression lines clearly show non-linear relationship in every election Dr. Barreto examined. In particular, as a precinct becomes closer to homogeneous (100%) White on the right-hand side of graph, the Republican share of the vote drastically increases (or correspondingly the blue line showing the Democratic vote declines dramatically). The only way this can happen is if the probability a White voter in the more White districts vote for Republicans at higher rates than their counterparts in more mixed districts. Yet, this is a direct violation of the constancy assumption.

The second reason to doubt the constancy assumption is that Dr. Barreto's analysis lumps all minority groups, for example, Blacks and Hispanics, into one group, Non-White, in his graphs. This is presumably done to make the graphs easier to read as they would need be three dimension with three groups (Black, Hispanic, and White). Also it solves the problem that I discussed above, that there are no homogeneous Hispanic districts in the state. However, I do note that in many of his analysis there are no homogeneous non-White districts even when you combine all minority voters

into a single group.

The justification that Dr. Barreto gives to group Hispanic and Black voters together is that they both overwhelming support Democrats by citing evidence from exit polls available from CNN. However, if we actually examine the exit poll results for the 2020 Presidential election by race on CNN, we see that 92% of Black respondents report voting for Biden whereas only 69% of Hispanics report voting for him (ignoring the statistical uncertainty in these estimates). While it is the case that a majority of both groups supported Biden in the election, it is at very different rates. How does this relate to the constancy assumption? Let us assume for the sake of argument that these estimates are exactly correct for the groups' population level of support. Since Dr. Barreto combines Black and Hispanics into the non-White group, the expected level support for Biden in precincts that are mostly Black will be close to 92% whereas precincts that are more Hispanic will be closer to 69%. Thus the only way the level of a non-White group support for the Democratic candidate to be constant is if the ratio of Black to Hispanic voters is constant across all precincts in his analysis. However, this is demonstrably false and thus implies that the constancy assumption is also false for the non-Whites in his analysis. However, if Dr. Barreto were to separate out Hispanics and Blacks, as he should have done, we run into the problem discussed above that there are no homogeneous Hispanic precincts making the estimates of their voting behavior suspect.

Another concern with Dr. Barreto's analysis is that it focuses almost exclusively on statewide offices, which are referred to as *exogenous* elections in redistricting litigation. These are generally considered less informative about a group's voting behavior than examining elections for which maps are being drawn, which are referred to as *endogenous* elections.[4] Presumably, this is because outside of the Philadelphia area most state legislative elections have relatively small numbers of precincts per district making estimates of voting behavior imprecise.

When Dr. Barreto does examine the endogenous elections, he does so by lumping all elections into one graph. Unfortunately, this is never done in a racially polarized voting analysis. By grouping elections across districts in his analysis, Dr. Barreto is assuming that a vote for the Democratic candidate in one legislative or Congressional district is the same choice as voting for the Democratic candidate in another. However, this is simply not true. In different districts, voters choose between different Democratic and Republican candidates that clearly vary along many qualities, for example, incumbency, race, popularity, etc. This is why political scientist always analyze legislative elections separately or if they do some sort of combined analysis, they control for observable differences across races. Dr. Barreto did not do any such correction for systematic differences in his analysis.

[4] I note this is not the sense the words exogenous and endogenous are used in statistics.

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APPENDIX K

LatinoJustice PRLDEF Testimony to the
Pennsylvania Legislative Reapportionment Commission

Testimony of Fulvia Vargas-De Leon
Associate Counsel, LatinoJustice PRLDEF

January 14, 2021

VIA ELECTRONIC MAIL

Pennsylvania Legislative Reapportionment Commission
Chair Mark A. Nordenberg
Senator Kim L. Ward
Senator Jay Costa
Representative Kerry A. Benninghoff
Representative Joanna E. McClinton

Re: Pennsylvania Legislative Reapportionment Commission
Proposed Legislative Maps

Dear Members of the Pennsylvania Legislative Reapportionment Commission:

LatinoJustice PRLDEF ("LatinoJustice") submits this testimony to reiterate the importance of protecting the voting rights of the Latino electorate during the current redistricting process. A representative democracy demands that electoral districts are drawn in a manner that equitably represents demographic shifts within the state. We are concerned that the maps released by this Commission on December 16, 2021, further split or dilute the Latino vote in majority-Latino districts and communities. Redistricting cannot continue to serve as a tool to disenfranchise marginalized communities and prevent them from having meaningful access to the ballot. This Commission must take affirmative steps to ensure that the current redistricting cycle does not run counter to the protections offered by the Constitution and the Voting Rights Act as well as the essence of democracy guaranteed by the principle of "one person, one vote."

LatinoJustice PRLDEF, originally established as the Puerto Rican Legal Defense and Education Fund (PRLDEF) in 1972, is one of the country's leading nonprofit civil rights public interest law organizations. We work to advance, promote, and protect the legal rights of Latinos throughout the nation. Our work is focused on addressing systemic discrimination and ensuring equal access to justice in the advancement of voting rights, housing rights, educational equity, immigrant rights, language access rights, employment rights, workplace justice, and seeking to address all forms of discriminatory bias that adversely impact Latinos. As part of our ongoing work to protect the rights of Latino voters, we have advocated and litigated against practices that seek to dilute the vote of minority communities such as voter roll purges, failure to provide language assistance at poll sites, and redistricting practices that seek to dilute the voting power of communities of color.

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The Latino population in Pennsylvania remains the fastest growing ethnic group in the commonwealth. The Latino population grew approximately 82.6%[1] between 2000 and 2010 and approximately 45.85%[2] in the last decade. While many counties in Pennsylvania had a decrease in overall population, resulting in Pennsylvania's loss of a congressional seat, the Latino population has continuously grown over the last twenty years and now represents about 8%[3] of the state's total population. In fact, out of the 72 municipalities in Pennsylvania, 37 saw the Latino population more than double between 2010 and 2020.[4]

Despite this continuous growth over the last two decades, representation at the state and federal electoral level remains almost non-existent. None of the United States congressional districts in Pennsylvania have a majority Latino population or Latino elected official. On a state legislative level, Latinos hold about 1% of 203 state house seats and no senatorial seats. In over 20 years of population growth, we have yet to see electoral districts drawn in a manner which will empower the Latino community to elect a candidate of their choice. If districts were drawn to accurately account for and reflect the Latino share of the population, Latinos would hold approximately 16 state house seats and 4 senatorial seats. The Latino community cannot stand by maps that will be in place for the next decade and still fail to accurately account for the extensive growth of the population in Pennsylvania. It is crucial that this redistricting process is equitable and transparent, because it will set the stage for political opportunity for a new set of Latino leaders at all levels of government.

I. Lehigh County

The City of Allentown is currently the third-largest majority-Latino city in Pennsylvania, after Reading and Hazelton. A total of 54% of the city's population identifies as Latino.[5] In its current configuration, the city is split into two state House Districts, 22 and 132. House District 22 currently has a 60.3% Latino population, of which 55.5% is of voting age. House District 132 is currently 44.1% Latino, of which 38.8% is of voting age.

Between 2010 and 2020, the Latino population in Allentown grew 35.2%.[6] As such, advocates expected that two districts in the city would have a majority-Latino population, particularly in the area covered by and near House District 132, where Latinos have a substantial share of the population. However, this Commission's proposals unnecessarily split the Latino community into three House districts – 22, 132, and 134.[7] In proposed District 22, the Latino population is diminished to 55.6% total Latino population and 50.8% voting age population, an

[1] https://www.census.gov/prod/cen2010/briefs/c2010br-04.pdf
[2] https://www.penncapital-star.com/government-politics/four-take-aways-from-pennsylvanias-2020-u-s-census-data/
[3] https://www.census.gov/quickfacts/fact/table/PA/HCN010212
[4] https://www.readingeagle.com/2021/08/23/what-it-means-for-reading-to-have-the-highest-percentage-of-latinos-in-pa/
[5] https://www.natlawreview.com/article/census-numbers-show-lehigh-valley-diversifying-hispanic-population-now-majority
[6] https://data.ydr.com/census/total-population/total-population-change/allentown-city-lehigh-county-pennsylvania/060-4207702000/
[7] https://www.redistricting.state.pa.us/Resources/GISData/Districts/Legislative/House/2021-Preliminary/PDF/12-16-21%20LRC-Adopted-Preliminary-House.pdf

overall 4.7% decrease in the eligible voter population. The Latino electorate in this proposed district would have to ensure an almost perfect voter turnout in order to have a decisive say in the choice of their state representative. Proposed House District 132 diminishes the Latino population to 21.3% of the total population and 18.3% of the voting age population. Proposed House District 134 takes over a large geographic portion of House District 22, including Latino communities, to create a new district that has a 43.5% Latino population and a 38.5% Latino voting age population. The splitting of the city of Allentown into three house districts would effectively cancel out the Latino growth in the city and further dilute the voting capacity of this electorate. This is unacceptable in a community that already faces obstacles to voting, including barriers to language access at poll sites.

This Commission received testimony about the importance of maintaining the cohesion of the Latino community in Allentown and affording Latinos the opportunity to elect a candidate of their choice. Because Latinos are still not equitably represented on the state legislative level, this Commission should have sought to increase and not dilute the voting capacity of the Latino community. The Voting Rights Act requires the Commission to protect racial and ethnic minority groups from voting practices, including redistricting, which dilute or diminish their access to the franchise.

II. Berks County

In Berks County, Reading has the largest share of the Latino population in the state at approximately 69%.[8] The area is currently divided into two House Districts, 126 and 127, with only one of those majority Latino. In House District 127, 68.2% of the population identifies as Latino, of which 63.5% is of voting age. Despite Latinos' substantial share of the city's population, it was not until the November 2020 elections that Reading was finally able to elect its first Latino representative to the State House for this district. In adjacent District 126, 43.8% of the population identifies as Latino, of which 37.8% is of voting age.

The Commission's proposed maps split this area's significant Latino population into three House districts. First, House District 127's Latino population is reduced to 57.2% of the total population, with a voting age population of 51.7%. This amounts to an 11.8% reduction in the voting age population for Latinos in Berks County. A reduction in the voting age population of Latinos will impede the ability of Latinos to elect a candidate of their choice. Representation matters, and the proposed configuration for House District 127 will further limit opportunities for Latinos to have meaningful and effective representation on the state legislative level.

Given the significant Latino growth in Berks County, advocates expected an opportunity for the creation of a second majority-Latino House District. Community residents and advocates testified strongly in favor of maintaining community cohesion to ensure that Latinos have equitable representation in state government. However, the Commission's proposed District 126 reduces the Latino population to 41.9% of the total population, of which 35.5% is of voting age. Proposed House District 129 has a 39.9% Latino population, of which 35.5% is of voting age. At

[8] https://www.readingeagle.com/2021/08/23/what-it-means-for-reading-to-have-the-highest-percentage-of-latinos-in-pa/

a time when Latino representation in the state legislature is nowhere near proportional to the Latino population, this Commission must reassess decisions to create districts which further dilute the community's electoral power.

III. Conclusion

The Commission's current proposal for legislative maps ignores the growing Latino electorate and pushes them into districts where they are no longer a decisive voting bloc in choosing their representatives. If these maps are adopted, Latinos would lack meaningful access to the ballot for the next decade.

As Pennsylvania's demographic continuously changes, this Commission must draw electoral districts that protect voters over political figures, especially among racial and language minority groups. We call on this Commission to reassess and redraw the aforementioned districts in a manner that ensures Latinos will have opportunities to meaningfully participate in the franchise.

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