IN THE SUPREME COURT OF PENNSYLVANIA

No. 11 MM 2022

IN RE: 2021 LEGISLATIVE REAPPORTIONMENT PLAN FOR THE PENNSYLVANIA SENATE AND THE PENNSYLVANIA HOUSE OF REPRESENTATIVES

PETITION OF KERRY BENNINGHOFF, INDIVIDUALLY, AND AS MAJORITY LEADER OF THE PENNSYLVANIA HOUSE OF REPRESENTATIVES

BRIEF OF _AMICI CURIAE_ NAACP PENNSYLVANIA STATE CONFERENCE, JOHN THOMPSON, AND CYNTHIA ALVARADO IN SUPPORT OF APPROVAL OF THE FINAL PLAN

\\PH - 763910/000001 - 694426 v7

TABLE OF CONTENTS

i

INTRODUCTION

For too long, prison gerrymandering has distorted political representation in Pennsylvania, shifting power from urban and predominantly Black and Latino communities to rural and white communities where prisons are located. Now for the first time, the Legislative Reapportionment Commission had access to and used adjusted residence data in drawing district lines, counting most imprisoned Pennsylvanians in their hometowns rather than in their cells. Amici submit this brief in support of the Final Plan, which takes a major step toward ending prison gerrymandering in Pennsylvania. Furthermore, the individual amici submit this brief in support of the Final Plan because rather than prioritizing reelection for incumbent politicians, the Final Plan prioritizes the redistricting criteria set forth in the Pennsylvania Constitution.

INTERESTS OF THE AMICI

Amici curiae are the National Association for the Advancement of Colored People Pennsylvania State Conference ("Pennsylvania NAACP"), John Thompson, and Cynthia Alvarado.[1]

Pennsylvania NAACP

The Pennsylvania NAACP is a non-profit, non-partisan organization with over 6,200 members, all of whom reside or work in Pennsylvania, and many of

---

[1] This brief was paid for and authored entirely by amici counsel.

whom are domiciled and registered to vote in Pennsylvania. The Pennsylvania NAACP shares the national NAACP's mission and vision to: secure political, educational, social, and economic rights of Black people; and eliminate all race-based discrimination and ensure the health and well-being of all persons. Many Pennsylvania NAACP members are residents and registered voters in state legislative districts that were previously harmed prior to the Final Plan by the misallocation of imprisoned people for redistricting purposes as residents of the places where they happen to be incarcerated rather than in their home communities where they continue to legally reside under Pennsylvania law. As a result, these Pennsylvania NAACP members have an interest in correcting this misallocation and ensuring that their representational and voting rights are not harmed through Pennsylvania's redistricting.

John Thompson

John Thompson is a lifelong Philadelphian. From 1980 to 2016, Mr. Thompson was incarcerated in a series of Pennsylvania State Correctional Institutions, most recently in SCI Smithfield. Immediately upon his release from prison in 2016, Mr. Thompson returned home to Philadelphia and registered to vote. Since 2020, Mr. Thompson has been employed as a social and political organizer with the Abolitionist Law Center, primarily working and advocating to eliminate death by incarceration, solitary confinement, and the release of all aging and geriatric

2

people who are imprisoned. Mr. Thompson believes that incarcerated people should be counted for redistricting purposes as residents of their home communities. He also believes that voting district lines should not prioritize safeguarding the seats of incumbent politicians, but should ensure that underrepresented communities have the chance to elect representatives of their choice.

<u>Cynthia Alvarado</u>

Cynthia Alvarado grew up in and still lives in Philadelphia. From 2008 to 2020, Ms. Alvarado was incarcerated in the State Correctional Institution at Muncy, in Lycoming County, where she had no community ties outside the prison's walls. As a young person growing up in the deeply impoverished Badlands section of Philadelphia, Ms. Alvarado felt politically disempowered and did not vote or otherwise engage in electoral politics. But during her time in prison, she had a political awakening, and she is now an outspoken member of her community, promoting criminal justice reform at the federal, state, and local levels. She recently registered to vote for the first time in her life and looks forward to voting in the 2022 legislative primary and general elections. Based on her experience with political organizing among currently imprisoned and recently released people, she is particularly concerned that counting people who are imprisoned as residents of their prisons for redistricting purposes, which are typically far from their home communities, discourages them from civic involvement after their release. Ms.

3

Alvarado also believes it is important that voting district lines not prioritize safeguarding the seats of incumbent politicians, but rather ensure that underrepresented communities have the chance to elect the representatives of their choice.

STATEMENT OF THE SCOPE AND STANDARD OF REVIEW

This Court's "scope of review is plenary, subject to the restriction that a successful challenge must encompass the Final Plan as a whole; in addition, [the Court] will not consider claims that were not raised before the LRC." *Holt v. 2011 Legislative Reapportionment Comm'n*, 67 A.3d 1211, 1216 (Pa. 2013) (internal quotation marks and citations omitted) ("*Holt II*"). The "standard of review is defined by the Pennsylvania Constitution: the plan may be held unconstitutional only if the appellants establish that it is 'contrary to law.'" *Id.* (citations omitted).

QUESTIONS INVOLVED

1.   Was the LRC's decision to adjust imprisoned people's addresses to comply with Pennsylvania law "contrary to law"?

Suggested answer: No.

2.   Has Petitioner Benninghoff raised meritorious objections to the LRC's treatment of incumbents?

Suggested answer: No.

SUMMARY OF ARGUMENT

By counting imprisoned people as residents of their home communities in the redistricting process, the Legislative Reapportionment Commission's (LRC's) plan complies with the Pennsylvania Constitution and statutory law. Reallocating imprisoned people to their home addresses has helped ensure the LRC's Final Plan honors Article II, Section 16 of the Pennsylvania Constitution, which mandates that Pennsylvania's legislative districts shall be "as nearly equal in population as practicable," and complies with 25 Pa.C.S. § 1302(a)(3), which mandates that "no individual who is confined in a penal institution shall be deemed a resident of the election district where the institution is located." In addition, this Court has held that Article I, Section 5 of the Pennsylvania Constitution "guarantees, to the greatest degree possible, a voter's right to equal participation in the electoral process for the selection of his or her representatives in government[,]" and "mandates that all voters have an equal opportunity to translate their votes into representation." *League of Women Voters of Pa. v. Commonwealth*, 178 A.3d 737, 804 (Pa. 2018). Prior LRCs' practice of counting imprisoned people as residents of the electoral district where they are held in prison artificially inflated the access to representation and electoral power of voters who lived near prisons, while diluting the representational power of predominately Black and Latino people who are imprisoned, as well as the Black and Latino communities where many imprisoned people's families live—

5

depriving all people of equal access to representation and these voters of "an equal opportunity to translate their votes into representation." *See id.* at 804.

In addition, the LRC's Final Plan includes a number of incumbent Representatives who now reside in the same district. There is nothing improper about that. The mandatory prescriptions of Article II, Section 16 of the Pennsylvania Constitution do not include a weighted scale in favor of political incumbents; such considerations could be made, if at all, at the discretion of the LRC and once the constitutional requirements are satisfied. *Holt v. 2011 Legislative Reapportionment Comm'n* (*Holt II*), 67 A.3d 1211 (Pa. 2013). Petitioner Benninghoff's challenge also fails on its own merits; while he insists that these pairings—10 total in the House—support some inference of political motivation, the record and map contradict that claim. The shifting features of the decennial census data and the consideration of the appropriate criteria under Section 16 readily explain why there are three more pairings of Republican incumbents than of Democratic incumbents. As MIT fellow Dr. Zachary Schutzman reports, Republican-leaning districts lost population, and this unsurprisingly leads to more intra-party Republican pairings. Schutzman Dec. ¶¶ 17-19. In other words, wholly non-partisan criteria account for each of the pairings. And when compared to other maps submitted to the LRC, and a map prepared by Dr. Schutzman, the Final Plan actually exhibits extraordinary deference

6

to sitting incumbents. Petitioner Benninghoff's challenge to the few incumbency pairings in the Final Plan has no merit.

For these reasons, as set forth in more detail below, the LRC's Final Plan should be upheld.[2]

ARGUMENT

I. Reassigning People Who Are Imprisoned to Their Home Addresses is Legal and Otherwise Appropriate

The LRC made adjustments to U.S. Census Bureau data so that districts will not reflect "prison-based gerrymandering." It did so by adjusting residence data to return nearly 30,000 imprisoned people to their home addresses from their cell addresses. *See* LRC Resolution 4A (Aug. 24, 2021), *available at* https://www.redistricting.state.pa.us/resources/press/Resolution%204A.pdf; LRC Resolution 5A (Sept. 21, 2021), *available at* https://www.redistricting.state.pa.us/resources/press/Resolution%205A.pdf. This address adjustment is fully consistent with Pennsylvania and federal law, tracks similar reforms implemented in eleven other states, and enhances the fairness and accuracy of the LRC's final plan.

---

[2] The Pennsylvania NAACP, by its counsel, and the NAACP Legal Defense and Educational Fund, Inc., join Section I of this brief's argument regarding the LRC's decision to adjust address data for people who are imprisoned, but express no opinion as to Section II of this brief's argument, regarding the treatment of incumbents, *infra* at 16-37.

A. Counting People Who Are Imprisoned in Their Cells Unfairly Distorts Legislative Districts

As the LRC rightly noted:

> The practice of counting inmates as residents of their prisons rather than from the districts from which they came artificially inflates the population count of districts where prisons are located and artificially reduces the population count of districts from which the inmates came, likely continue to have ties to and likely will return to post incarceration.

LRC Resolution 4A (Aug. 24, 2021). Before this redistricting cycle, home address

information for imprisoned people was unavailable in Pennsylvania,[3] and therefore

mapmakers here had no choice but to use unadjusted Census data, which counts

imprisoned people at their cells regardless of state residency laws.[4] As a result, in

previous decades' reapportionment plans for Pennsylvania, imprisoned people

---

[3] The LRC's adjusted address data set reassigns most but not all incarcerated people to their home addresses, omitting people who will be incarcerated beyond April 1, 2030, as well as those held in federal and county facilities. LRC Resolution 5A (Sept. 21, 2021). Petitioner Eric Roe, in Case No. 16 MM 2022, urges that the LRC's use of this adjusted data set is thus "improper, as it treats voters unequally." Roe Petition for Review ¶ 31. To the contrary, some correction to address data for incarcerated people is better than none. *See Fletcher v. Lamone*, 831 F. Supp. 2d 887, 897 (D. Md. 2011) (three-judge panel) ("Because some correction is better than no correction, the State's adjusted data will likewise be more accurate than the information contained in the initial census reports, which does not take prisoners' community ties into account at all."), *aff'd without opinion*, 567 U.S. 930 (2012).

[4] *See generally Fletcher*, 831 F.Supp.2d at 895-96 ("According to the Census Bureau, prisoners are counted where they are incarcerated for pragmatic and administrative reasons, not legal ones. . . . [A]lthough the Census Bureau was not itself willing to undertake the steps required to count prisoners at their home addresses, it has supported efforts by States to do so.").

swelled the populations of regions near state correctional institutions, even though they cannot vote if serving felony sentences and have no say in those regions' civic life. At the same time, imprisoned people's hometowns—where their families still live, where their children attend school, where legislators treat them as constituents, and where they normally will return when released—have seen their representation diluted in the General Assembly.

This distortion of district populations is at odds with basic fairness principles, including the constitutional mandate of "one person, one vote," which guarantees an equal say in elections for all individuals—and equal access to representation for every Pennsylvanian. Under the 2012 Pennsylvania House map, there were some 10 districts where over 5% of the population consisted of incarcerated people. By using imprisoned people's home addresses, and not their cell addresses, Philadelphia alone gains 7,019 individuals under the adjusted data. And cities including Pittsburgh, Reading, Erie, and Allentown gain 839, 607, 520, and 519 residents, respectively. Counties that are home to state correctional institutions lose residents, including 2,302 from Somerset County and 1,562 from Clearfield County. Schutzman Dec., Ex. 3.

Pennsylvania's previous LRC did not adjust incarcerated people's addresses, and the resulting dilution of representational and electoral strength disproportionately disadvantaged Black and Latino individuals and communities,

both because these groups are overrepresented in the prison population,[5] and because Pennsylvania's state correctional institutions are largely located in areas with few Black or Latino residents. In 2018, two researchers at Villanova University published a peer-reviewed paper finding that the misallocation of imprisoned people in the 2012 LRC plan inflated the political power of the average white Pennsylvanian, while diluting the political power of the average Black or Latino Pennsylvanian. Briana Remster & Rory Kramer, *Shifting Power: The Impact of Incarceration on Political Representation*, 15 DU BOIS REV. 417, 430 (2018). For example, they found that if incarcerated people were counted in their home communities, over 100,000 Black residents of Philadelphia (roughly 20% of Philadelphia's Black population) would live in 2012 House districts too large under the U.S. Supreme Court's standard for presumptively allowable population deviations. *Id.* at 431; *see also Evenwel v. Abbott*, 578 U.S. 54, 60 (2016) ("Where the maximum population deviation between the largest and smallest district is less than 10% . . . a state or local legislative map presumptively complies with the one-person, one-vote rule.").

---

[5] In Pennsylvania, a Black person is almost nine times more likely to be incarcerated than a white person. The Sentencing Project, *State-by-State Data: Black-White Disparity*, https://www.sentencingproject.org/the-facts/#rankings?dataset-option=BWR.

Like many Black and Latino voters in the Commonwealth, Pennsylvania NAACP members disproportionately live in districts that do not contain prisons, and where a disproportionate number of the districts' legally permanent residents were previously counted for legislative reapportionment purposes at prison addresses. Under previous LRC plans, the voting and representational rights of many Pennsylvania NAACP members were thus diluted by prison-based gerrymandering. Amicus Pennsylvania NAACP has an interest in ensuring that the Commonwealth's prior practice of prison-based gerrymandering and its racially disparate impact do not continue.

Amici John Thompson and Cynthia Alvarado have experienced the harms of prison-based gerrymandering firsthand. They are both Philadelphians who have recently returned home after spending a combined total of nearly fifty years in faraway State Correctional Institutions. Today they live in, and regularly work or volunteer in, communities that are among the hardest-hit by the reduced representational power that results from prison-based gerrymandering. In particular, as a Black man and a Latino woman, both have seen how even after regaining the right to vote, many formerly imprisoned people feel discouraged from participating in democracy because they do not believe their communities are fairly represented in legislative elections.

11

B. State Law Requires Treating Imprisoned People as Residents of Their Homes

Representative Benninghoff argues, without any supporting authorities, that because previous LRCs did not adjust the addresses of imprisoned people, this practice should never change without "a constitutional amendment or statutory enactment by the General Assembly." Benninghoff PFR ¶ 61. Policy decisions made by previous LRCs are not binding on future LRCs. But even so, the General Assembly *has* made a statutory enactment that is squarely on point and with which the LRC's adjustment complies. The Pennsylvania Election Code states:

> Except as otherwise provided in this subsection, no individual who is confined in a penal institution shall be deemed a resident of the election district where the institution is located. The individual shall be deemed to reside where the individual was last registered before being confined in the penal institution, or, if there was no registration prior to confinement, the individual shall be deemed to reside at the last known address before confinement.

25 Pa.C.S. § 1302(a)(3). In other words, Pennsylvania law defines imprisoned people to be residents of their hometowns, not their cells.[6] This statutory definition of residency is consistent with the long-established general legal principle that incarceration does not automatically change one's residence. *See, e.g.*, *United States*

---

[6] This provision was enacted in 2002, and has thus been in effect for only one reapportionment cycle before the current cycle. The 2011 LRC could not adjust the addresses of imprisoned people, for the practical reason that the Department of Corrections had not yet begun collecting such data.

v. Stabler, 169 F.2d 995, 998 (3d Cir. 1948); *McKenna v. McKenna*, 422 A.2d 668, 670 (Pa. Super. Ct. 1980).

Since the last redistricting cycle, this Election Code provision has taken on new significance. Congressional districts must be "as nearly equal in population as practicable." *League of Women Voters of Pa. v. Commonwealth* (*LWV-PA*), 178 A.3d 737, 816 (Pa. 2018). Specifically, this Court clarified that the equipopulation mandate requires a plan to "accord equal weight to the votes of ***residents*** in each of the various districts." *Id.* at 814 (emphasis added). In other words, the equipopulation standard in Pennsylvania focuses on "residents" of districts, and pursuant to state law people who are imprisoned are residents of their home addresses, not their cells.

Under *LWV-PA*, the population distortions caused by prison-based gerrymandering also create tension with Article I, Section 5, the Free and Equal Elections Clause. By relying on incarcerated people to meet population requirements in districts with state correctional institutions, past LRC plans have inaccurately reflected where Pennsylvanians actually live. This inequality of representational and voting power is precisely what the Free and Equal Elections Clause restricts. This Court has explained that Article I, Section 5 "guarantees, to the greatest degree possible, a voter's right to equal participation in the electoral process for the selection of his or her representatives in government[,]" and "mandates that all voters have an equal opportunity to translate their votes into representation." *LWV-*

PA, 178 A.3d at 804. Thus, "any legislative scheme which has the effect of impermissibly diluting the potency of an individual's vote for candidates for elective office relative to that of other voters will violate the guarantee of 'free and equal' elections afforded by Article I, Section 5." *Id.* at 809. This is all the more true when the inequality disproportionately weakens representation and electoral opportunity for Black and Latino individuals, voters, and communities.

C.   Districting Plans Can Be Based on Adjusted Census Data

Although the Census Bureau reports imprisoned people's cell addresses, nothing in federal or state law limits the Commonwealth from adjusting Census data to correct for imprisoned people's home addresses before drawing congressional districts. In the last redistricting cycle, two states made such adjustments to the official 2010 Census data, and courts upheld the resulting maps in both states. *Fletcher v. Lamone*, 831 F. Supp. 2d 887 (D. Md. 2011) (three-judge panel) (congressional districts), *aff'd without opinion*, 567 U.S. 930 (2012); *Little v. N.Y. State Legislative Task Force on Demographic Research & Reapportionment*, No. 2310-2011 (N.Y. Sup. Ct. Dec. 1, 2011) (state legislative districts), *available at* http://www.prisonersofthecensus.org/little/Decision_and_Order.pdf. More recently, the Supreme Court of Oklahoma found no federal constitutional barriers to a proposed ballot question to end prison-based gerrymandering for congressional and legislative districts that would mandate adjustments to Census data like those made

by the LRC. *In re Initiative Petition No. 426, State Question No. 810*, 465 P.3d 1244, 1249-55 (Okla. 2020).

In the current redistricting cycle, at least eleven states are making adjustments like this to imprisoned peoples' addresses for the state redistricting process. *See* Cal. Elec. Code § 21003; Colo. Rev. Stat. § 2-2-902; Conn. Gen. Stat. § 9-169h; Del. Code Ann. tit. 29, § 804A; Md. Code Ann., State Gov't § 2-2A-01; Nev. Rev. Stat. §§ 218B.105, 360.288; N.J. Stat. Ann. §§ 52:4-1.1 to -1.5; N.Y. Legis. Law § 83-m(13); Va. Code Ann. § 24.2-304.04(9); Wash. Rev. Code § 44.05.140; Patrick Anderson & Katherine Gregg, *Redistricting Maps: General Assembly Approves New Rhode Island Political Boundaries*, Providence J., Feb. 15, 2022 (noting Rhode Island's adoption of legislative maps drawn on the basis of adjusted prisoner addresses), *available at* https://www.providencejournal.com/story/news/politics/2022/02/15/new-ri-maps-general-assembly-approves-political-boundaries/6698434001/.

Moreover, numerous states, including the Commonwealth, adjust Census data in other ways when redrawing districts, for example by excluding transient populations such as nonresident military members. *Evenwel v. Abbott*, 578 U.S. 54, 60 & n.3 (2016); *cf. also Bethel Park v. Stans*, 449 F.2d 575, 582 n.4 (3d Cir. 1971) ("Although a state is entitled to the number of representatives in the House of Representatives as determined by the federal census, it is not required to use these

15

census figures as a basis for apportioning its own legislature."). In Pennsylvania, LRCs have also routinely made technical adjustments to the official Census reports before drawing legislative districts, such as correcting voting-district code and name discrepancies, municipality name discrepancies, late precinct changes, and problems with split census blocks. *See, e.g.*, *Holt v. 2011 Legislative Reapportionment Comm'n*, 38 A.3d 711, 719 & n.6 (Pa. 2012); LRC, *The Legislative Guide to Redistricting in Pennsylvania* (last updated May 8, 2013), https://tinyurl.com/twmpdcx4. Nothing restricts the LRC from additionally adjusting imprisoned people's addresses when redistricting. *See Carter v. Chapman*, No. 7 MM 2022 (Pa. Mar. 9, 2022) (Wecht, J., concurring), slip op. at 13 n.29 ("[W]hether to use the prisoner-adjusted data set is a policy decision reserved to the discretion of policymakers.").

II. No Meritorious Objections Have Been Raised to the Final Plan's Treatment of Incumbents

Representative Benninghoff also attacks the Final Plan on the theory that the House map fails to afford adequate protection for incumbents—specifically, Republican incumbents. He objects that the Final Plan "pits eight Republican incumbents against each other and only two Democrat[ic] incumbents against each other in the House." Pet. ¶ 65. He also contends that the Final Plan "creates five districts where a Republican incumbent is paired against a Democratic incumbent in

16

the House," and "in all five of those districts, the Democrat[ic] incumbent has a significant advantage." *Id.*

The Representative's objections to what he inaccurately calls "the deliberate and excessive pairing of Republican incumbents" do not withstand scrutiny. They disregard *Holt II*'s twin holdings that protection of incumbents is at most a discretionary consideration, not a mandatory one, and that in any event protecting incumbents cannot supersede the requirements imposed by Article II, Section 16 and the Voting Rights Act. *Holt v. 2011 Legislative Reapportionment Comm'n* (*Holt II*), 67 A.3d 1211 (Pa. 2013). And his objections are inconsistent with this Court's observation from earlier this week in selecting a congressional plan that, even "where a map protects one party's incumbents but pairs the other party's incumbents against each other," charges of "partisan bias" fail when the pairings can be justified by neutral considerations. *Carter v. Chapman*, No. 7 MM 2022 (Pa. Mar. 9, 2022), slip op. at 36. Here, the record shows that the elements of the Final Plan to which the Representative objects reflect choices the LRC properly made within its discretion, and are consistent with legal requirements.

In *Holt II*, this Court rejected the theory that "political factors, including the preservation of existing legislative districts, protection of incumbents, avoiding situations where incumbent legislators would be forced to compete for the same new seat, etc., are constitutionalized or must be accommodated" in reapportionment. 67

17

A.3d at 1234. Indeed, "the notion that the Constitution independently, and tacitly, commands special respect for prior districting plans or incumbencies can be a mischievous one," since it would allow an existing plan to tie the hands of future reapportionment bodies. *Id.* If an existing plan is believed to be "unfairly balanced (politically) … there is no 'preference for incumbency' or preservation of party representation restraint in our Constitution prohibiting future reapportionment commissioners from seeking to achieve" what it views as a "restoration of political balance." *Id.* at 1236. As a result, "in a future redistricting effort, the perceived imperative of incumbency protection or protection of existing district lines can be argued and perhaps honored as a discretionary matter, but it would not constitutionally constrain a future commission from making an adjustment." *Id.*

Holt II not only found no *requirement* that protection of incumbents and other political factors "must be accommodated"; it also held that consideration of these factors cannot "justify what would otherwise be a demonstrated violation of the specific constitutional constraints enumerated in Section 16 … regarding population equality, contiguity, compactness, and respect for the integrity of political subdivisions." *Id.* "In short, the requirements in Section 16 necessarily trump mere political factors that might color or corrupt the constitutional reapportionment

18

process." *Id.* (citing *Holt v. 2011 Legislative Reapportionment Comm'n* (*Holt I*), 38 A.3d 711, 745 (Pa. 2012)).[7]

Representative Benninghoff's objections to the treatment of Republican House incumbents disregard these principles. The record shows under *Holt II,* the pairings are either within the discretion afforded the LRC or are required to achieve compliance with the requirements of Article II, Section 16 and the VRA. Indeed, the evidence shows that the LRC could have, and perhaps should have, given even less consideration to protection of incumbency, not more.

Dr. Zachary Schutzman, a Michael Hammer Postdoctoral Fellow in MIT's Institute for Data, Systems, and Society, analyzed the relevant data, reviewed the Final Plan as well as other maps submitted to the LRC, and developed House and Senate maps to test the LRC's conclusions. As his data and analysis show, the Final Plan's treatment of House incumbents by two broad factors—population changes since 2012, and increased Section 16 compliance in the Final Plan—and by the specific circumstances in the districts where incumbent pairings appear.

---

[7] Likewise in *Carter*, this Court acknowledged that an incumbent pairing can be "justified by the loss of population in [an] area and not suggestive of partisan bias." *Carter v. Chapman*, No. 7 MM 2022 (Pa. Mar. 9, 2022), slip op. at 36.

19

A. Broad Factors Impacting Incumbent Pairings

One of the broad factors that explain a larger number of incumbent Republican pairings is population change. Since 2012, there has been an overall shift in population from the center of the Commonwealth, predominated by districts that tend to elect Republican legislators, to the southeast, predominated by districts that tend to elect Democratic legislators. The result is that, with respect to 2020 population data, Republican 2012 House districts are underpopulated (66 of the 110 districts that voted for former President Trump in 2020 have too few people), while Democratic 2012 House districts are overpopulated (59 of 93 districts that voted for President Biden in 2020 have too many people). This means that any reapportionment plan based on 2020 population data will have to increase the geographic area covered by a majority of Republican districts, and shrink the area covered by a majority of Democratic districts. Enlarging a district's area increases the chance that it will grow to encompass the home of a legislator serving in a neighboring district, creating a pairing. By contrast, shrinking a district could not possibly have that effect. With Republican districts growing in geographic size and Democratic districts shrinking, there will be more pairings in Republican districts. Schutzman Dec. ¶¶ 16-19.

A second important factor contributing to incumbent pairings of Republican House members is simply the consequence of undoing some of the partisan

20

gerrymandering that characterized the 2011 LRC's House map—just what *Holt II* predicted might happen.[8] The 2011 LRC created more Republican districts in part by fragmenting suburbs and joining them with rural areas. If an incumbent legislator lives in the suburban fragment, and thus near the border of the district, even minor adjustments for population and compactness would sweep the legislator into an adjacent district. More significant adjustments, say to draw neighboring suburbs together into a more representative district, can double-bunk two incumbents from suburbs that were previously attached to different rural regions. Schutzman Dec. ¶¶ 20-21.

The LRC's plans efforts to create opportunity and influence districts for minority voters are addressed at length in the LRC's submission. We note, however, that the LRC's correction of partisan gerrymandering in the 2012 Plan relates to race as well. The reality is that Republican-leaning districts tend to be controlled by white voters, whereas Democratic-leaning districts provide greater opportunities to elect for Black and other minority voters.

These two broad factors—population change since 2012 and increased Section 16 compliance in the Final Plan—explain why the Final Plan, and, indeed,

---

[8] *See also* Nordenberg Report at 55 (explaining "the Commission's Final Plan is still biased in favor of Republicans, just not to the same extent as previous maps.")

any current reapportionment plan, would be expected to include more incumbent Republican pairings than incumbent Democratic pairings.

B.   District-Specific Factors Impacting Incumbent Pairings.

In addition to these broad factors, the circumstances in the districts where incumbent pairings are found in the Final Plan undercut any claim of partisan bias.

1.   Republican-Republican Pairings

We consider first the four districts where incumbent Republicans are paired against each other.

District 55. Located in the Southwest region of the Commonwealth, this district includes both Washington Township in Westmoreland County, and the neighboring Borough of Murrysville. *See* Benninghoff PFR at Appendix C, 0155a. By grouping these two localities, District 55 includes the residences of two Republican incumbents, Representatives Silvis and Brooks. Schutzman Dec. ¶¶ 23-25.

This incumbent pairing makes intuitive sense when viewed through nonpartisan criteria. Representative Silvis's current district includes portions of Westmoreland County, Armstrong County, and Indiana County. *Id*. Representative Brooks's current district includes portions of Allegheny County and portions of Westmoreland County. *Id*. The fact that two Republican incumbents, in neighboring municipalities, representing portions of four different counties, were combined into

22

one district, including portions of only one county, can hardly be said to be the kind

of inexplicable result that raises an inference of partisan gerrymandering. Rather, it

more likely results from taking two districts with expansive reaches and multiple

county splits becoming—consistent with Section 16—a singular compact district
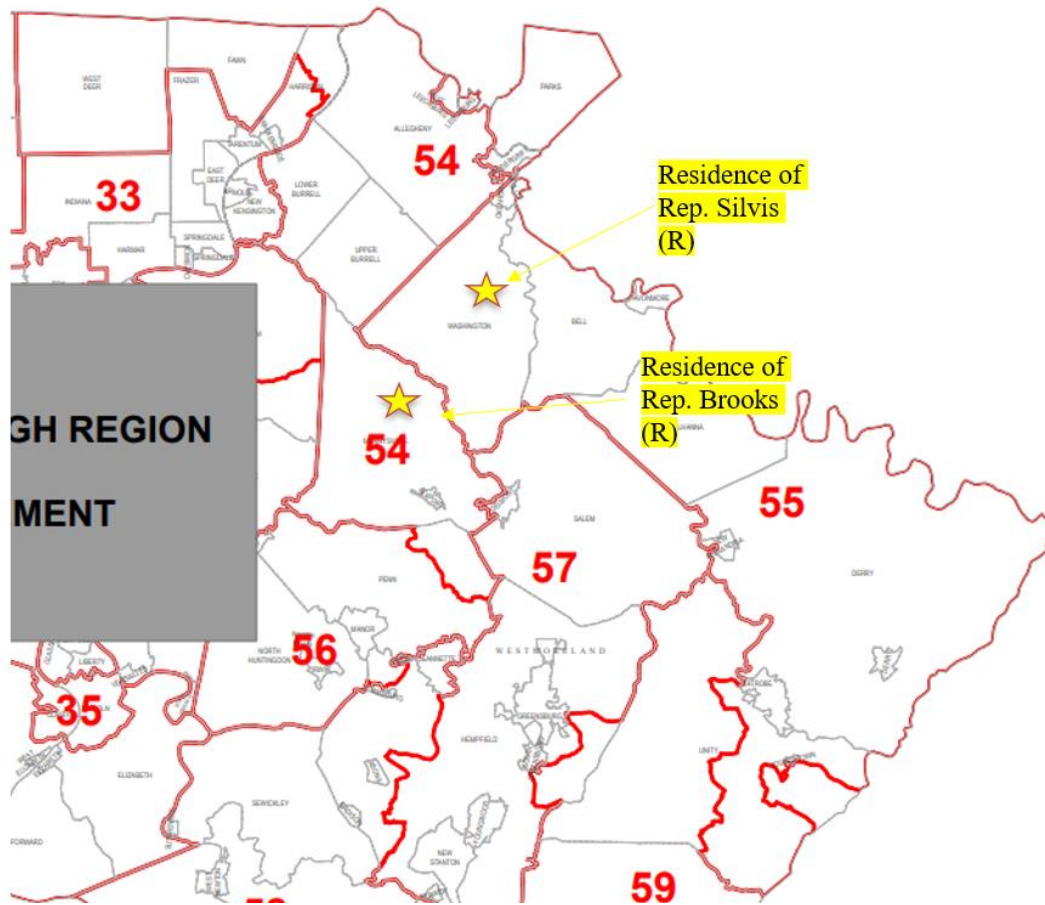
with no county splits.[9] *Id.*

Figure 1. Districts of Republican Incumbent Representatives Brooks and Silvis under the 2012 Map. The markers represent only the municipality, and are not meant to approximate the specific street address of the Representatives.

---

[9] Notably, this same pairing appears in the plan drawn by Petitioner Benninghoff's proposed expert. *See* Benninghoff PFR Appendix B, 095a (noting proposed District 55 would include both Washington Township and Murrysville Borough). Petitioner is conspicuously silent on what incumbent pairings would result from his plan.

23
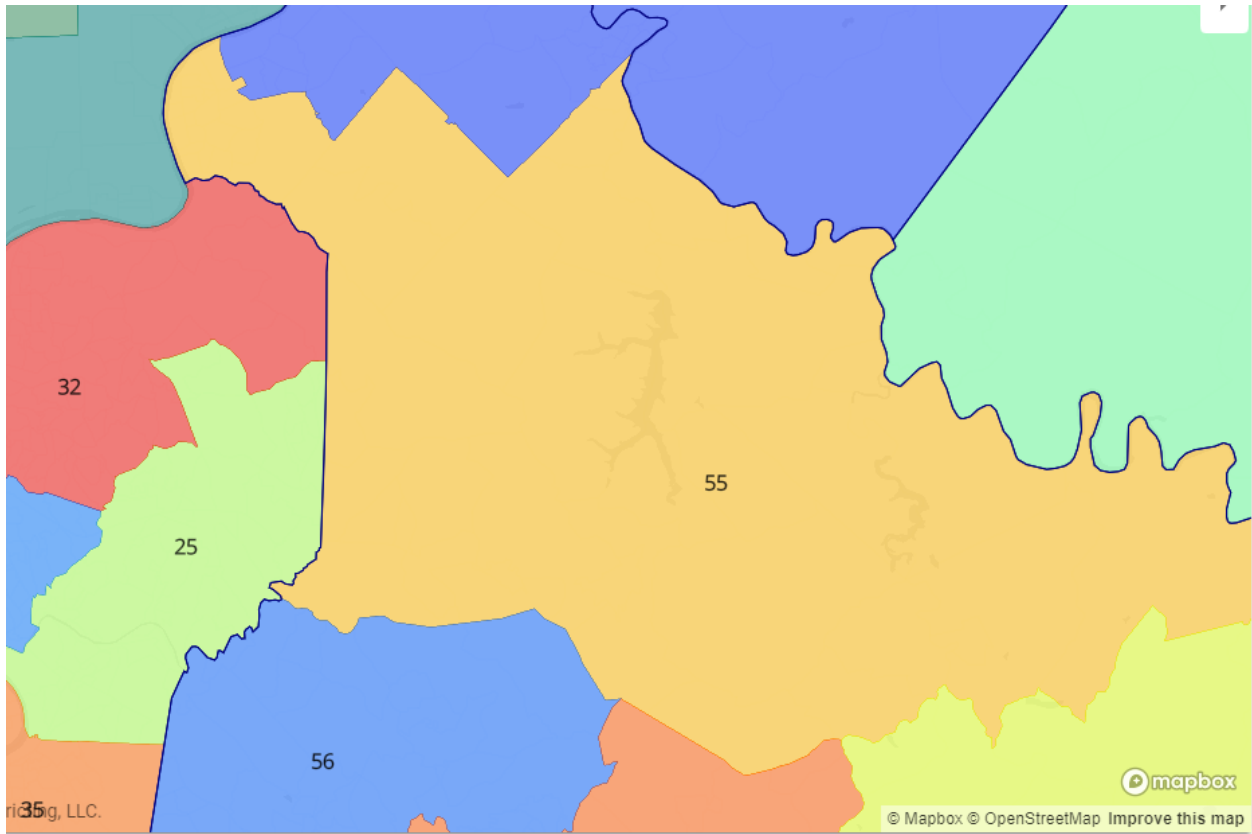
Figure 2. LRC State House Map District 55, Pairing Incumbent Representatives Brooks (R) and Silvis (R)

The three additional pairings of Republican incumbents–two in the Harrisburg area and one in the Allentown area–are also explained by non-partisan factors.

Splitting the municipality of Harrisburg makes good sense. Although the population of Harrisburg itself *could* fit into one district, splitting Harrisburg is the most efficient way to *avoid* splitting Dauphin County. Schutzman Dec. ¶¶ 28-30.

Doing so is bound to have ripple effects; both the 2012 map and the Final Plan place five districts within Dauphin County.[10] Developing compact districts in light of the new circumstances explains the two new pairings of incumbents in Dauphin County.

District 105. The Final Plan pairs Representatives Lewis (R, HD105) and Helm (R, HD104) in Final Plan District 105. This pairing is explained by the development of a more compact district that results from the split in Harrisburg. Schutzman Dec. ¶¶ 31-33. In the 2012 LRC map, Representative Lewis's District is wholly within Dauphin County, while Representative Helm's district sprawls across Dauphin County and Lebanon County, all while surrounding much of Lewis's District and including a small sliver of geographic territory:

---

[10]   *Compare* 2012 map (House Districts 98, 103, 104, 106, 125) *See* https://www.legis.state.pa.us/cfdocs/legis/home/findyourlegislator/county_list.cfm?CNTYLIST= DAUPHIN *with* Benninghoff Pet. Appendix C, 190a (showing Districts 103, 104, 105, 106, and 125 in Dauphin County.
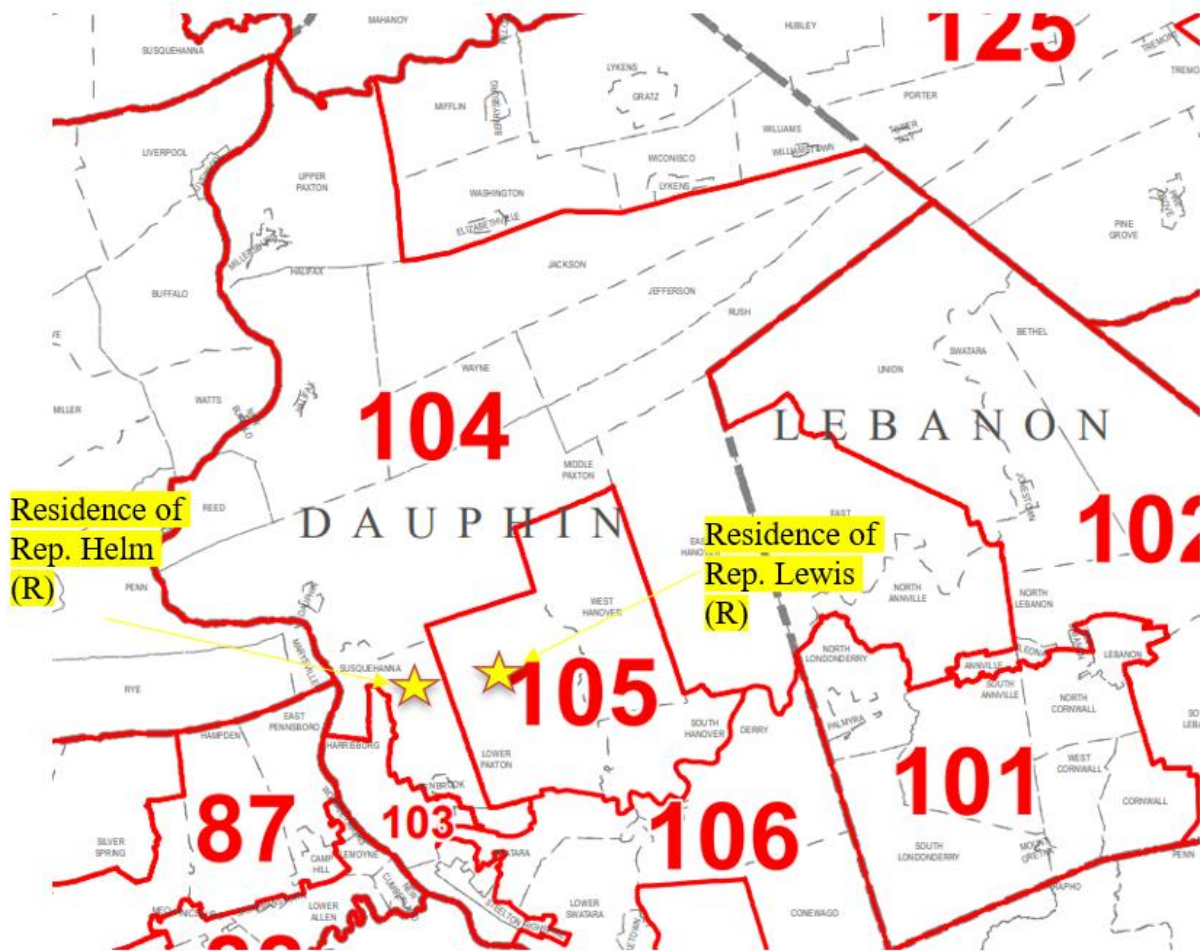
Figure 5. Districts of Republican Incumbent Representatives Helm and Lewis under the 2012 Map. The markers represent only the municipality, and are not meant to approximate the specific street address of the Representatives.

The Final Plan District 105 includes only portions of Dauphin County, avoiding an unnecessary split with Lebanon County:
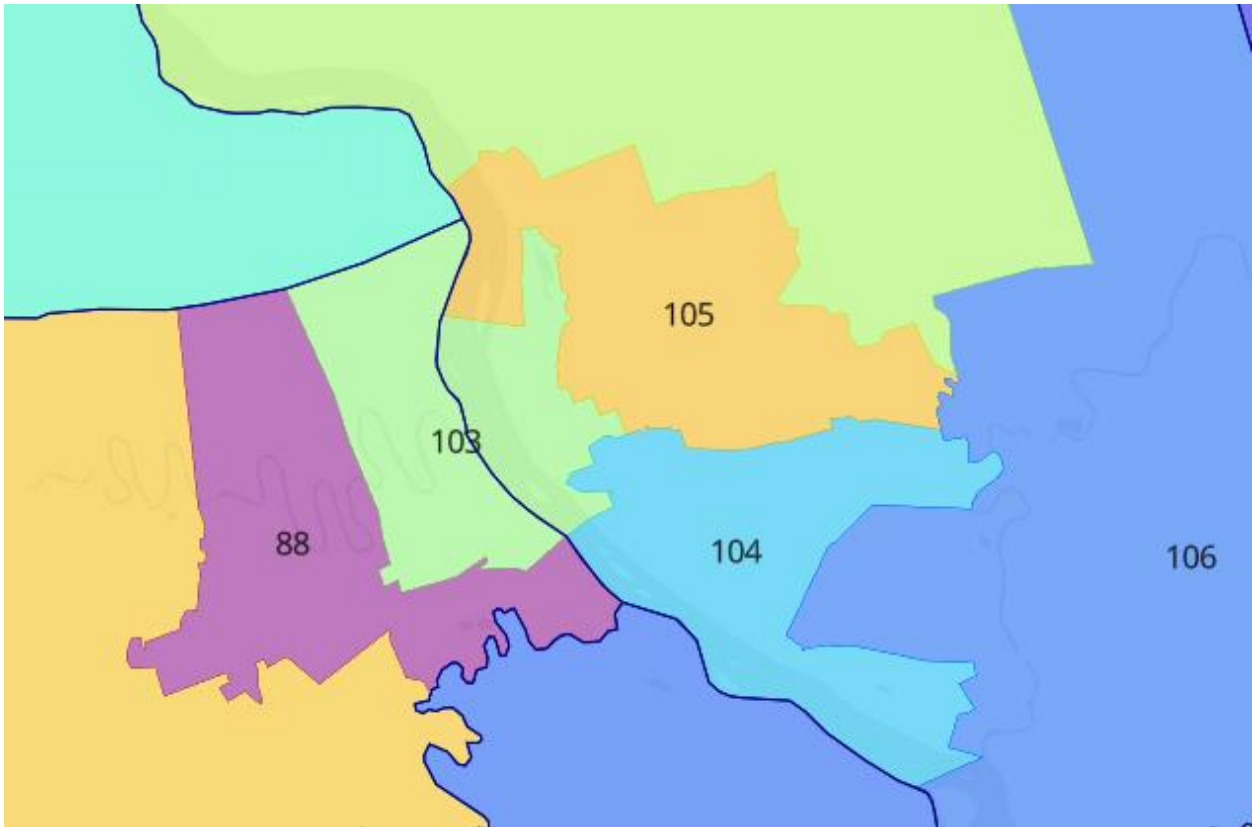
Figure 6: LRC State House Map District 105, Pairing Incumbent Representatives Helm (R) and Lewis (R)

Pairing two Republican incumbents in a district that reduces a county split, when the incumbents live in neighboring municipalities, is explained by non-partisan criteria.

District 86. Another Republican incumbent pairing includes the pairing of Representative Hershey (R, HD82) with Representative Stambaugh (R, HD86). This pairing is also explained by non-partisan criteria. Representative Lewis represents a district that includes all of Juniata County, and splits with part of Franklin County and Mifflin County. Representative Stambaugh represents a district that includes all

27

of Perry County, before crossing into a small part of Cumberland County. Two

municipalities separate their residences. Schutzman Dec. ¶¶ 35.
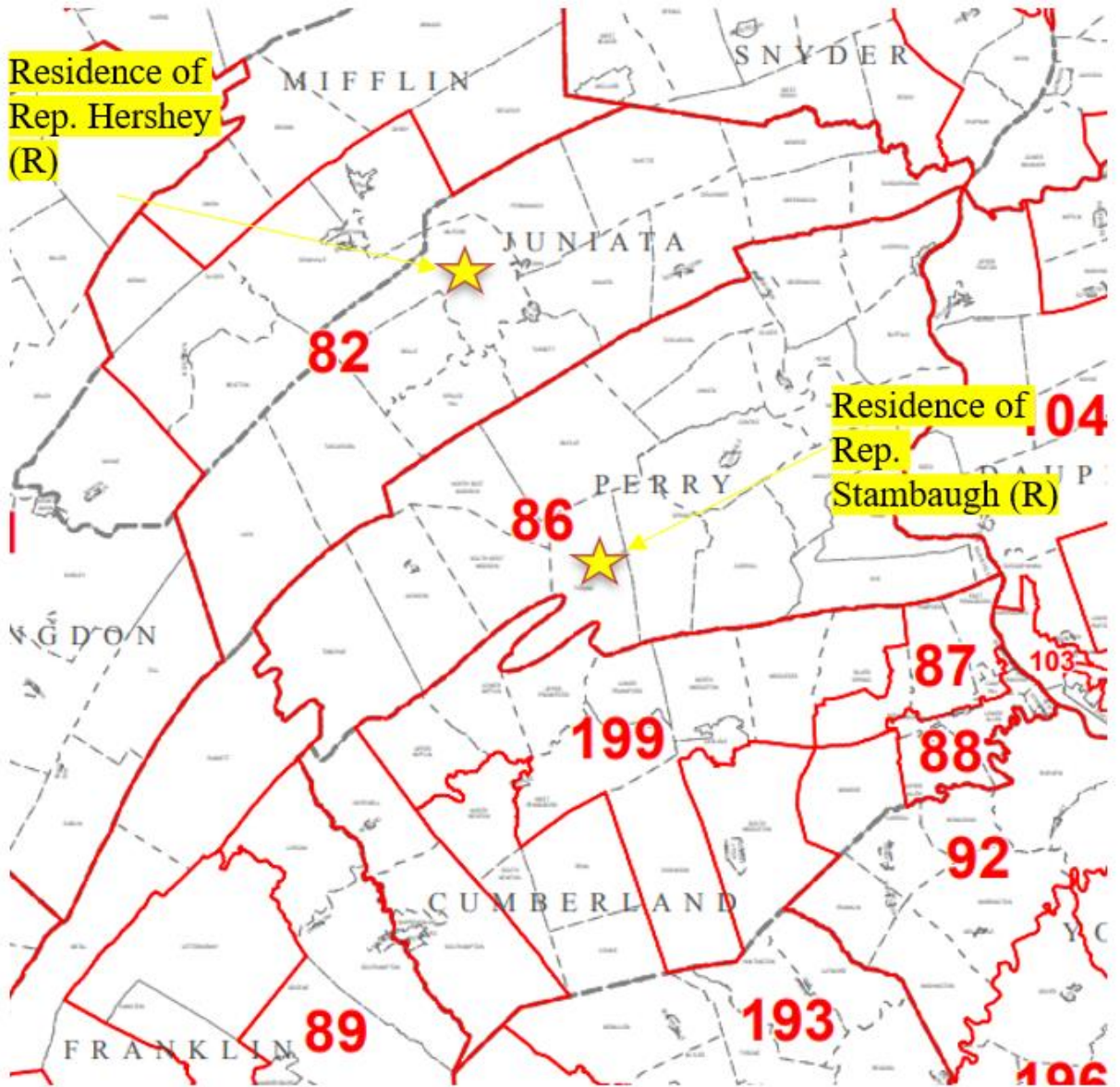
The new map combines these two incumbents in a district, District 86, that

includes all of Perry County, and parts of Juniata County:
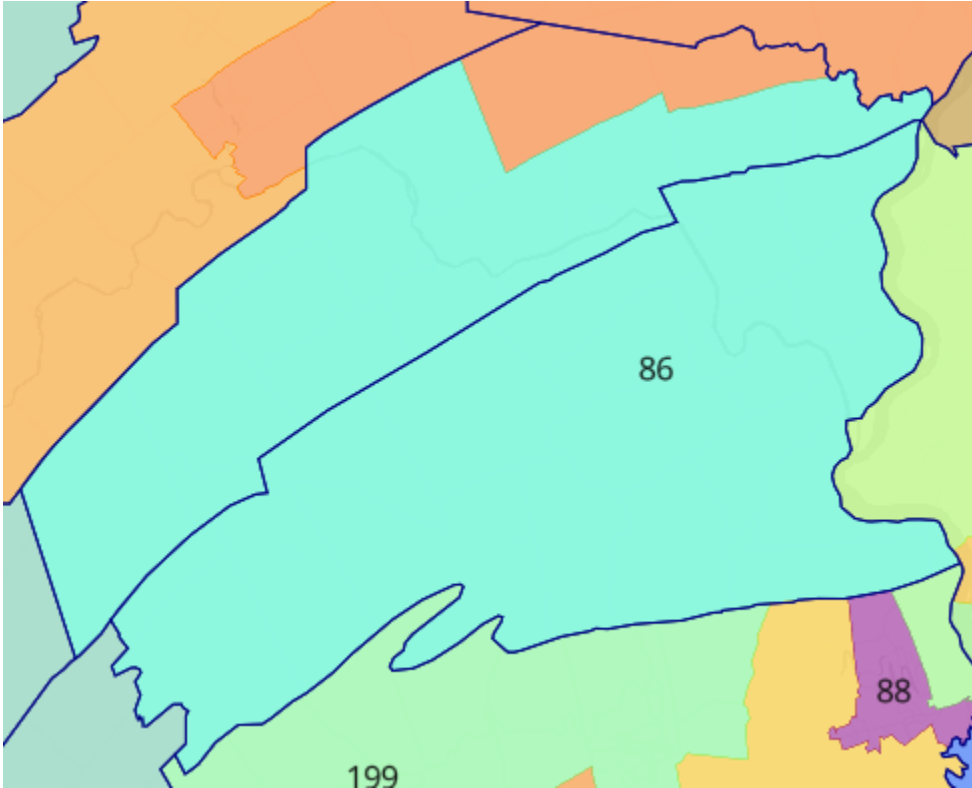
The map thus manages to create a compact district that includes all of one county, and portions of only one other. This is particularly noteworthy here, given that Juniata County and Perry County both experienced population *declines* while Cumberland County grew faster than any other county. *See* CountyandMunicipalPopulationChange Excel, *available at* tinyurl.com/yszrhwbe, and made available through the Penn State Pennsylvania Data Center, *see* https://pasdc.hbg.psu.edu/. This pairing does not raise any inference of partisan bias; *see also* Schutzman Dec. 36-38.

District 187. Lastly, the Final Plan pairs Representative Day (R, HD187) with Representative Mackenzie (R, HD134). Representative Day's District includes parts

of Lehigh County, and parts of Berks County. Likewise, Representative Mackenzie's district includes parts of Berks County, and parts of Lehigh County:
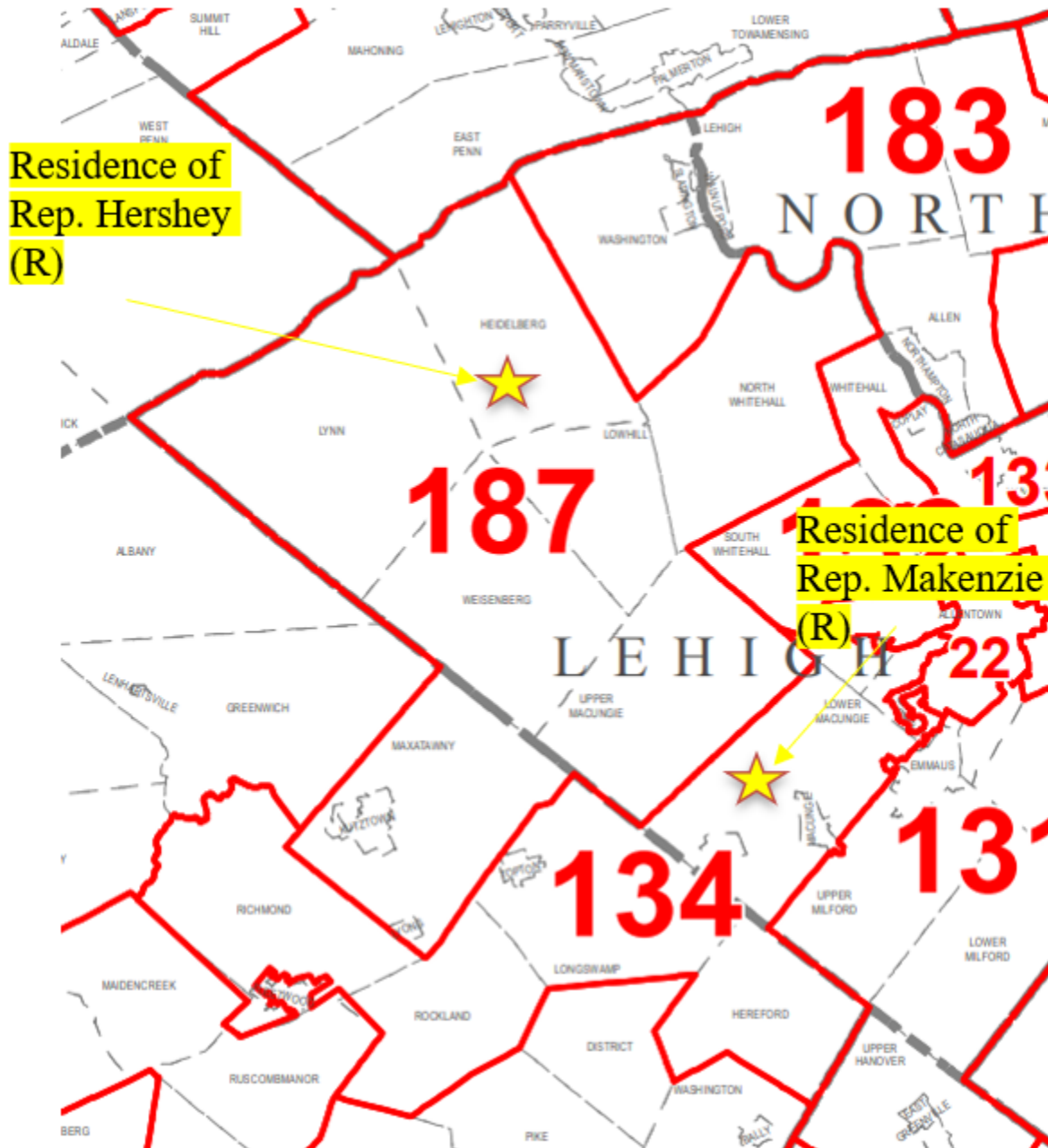
The two representatives now reside in a district, District 187, that is *solely* in Lehigh County:
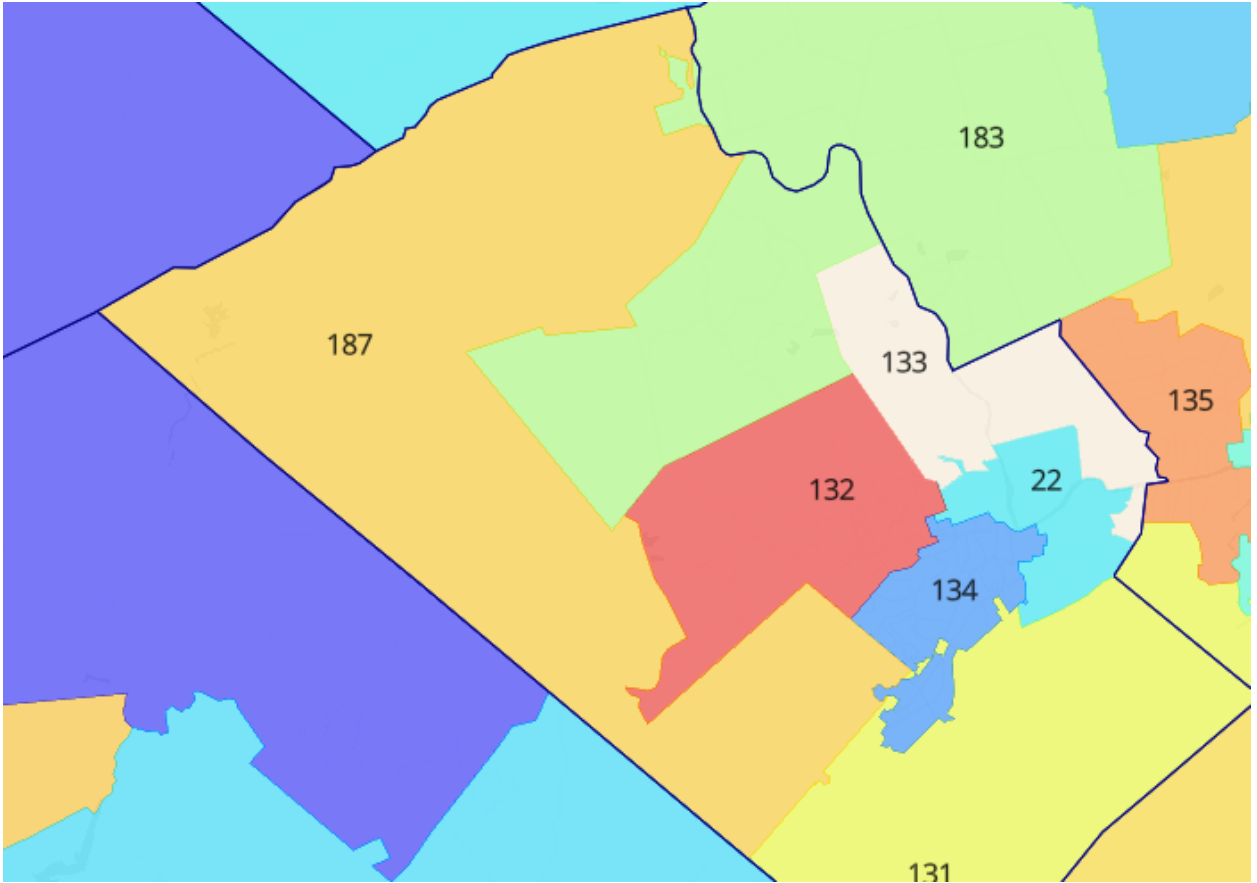
The map thus took two neighboring districts, each spanning between Lehigh County and Berks County, and made one district that is solely within Lehigh County. That fits the criteria of Section 16, as opposed to raising an inference of political gerrymandering. Schutzman Dec. ¶¶ 34-37.

In sum, all four of the incumbent Republican pairings to which Petitioner Benninghoff objects are either permitted by neutral criteria or mandated by Section 16 criteria.

2. Republican-Democratic Incumbent Pairings

The five inter-party incumbent pairings to which Petitioner Benninghoff objects are of course far less likely than intra-party pairings to raise questions of

partisan bias. However, here, too, review of district specific circumstances dispels claims of bias. An example is new District 32, which includes only portions of Allegheny County and includes no part of the City of Pittsburgh. Benninghoff PFR at Appendix C, 0150a. This district includes both the Borough of Verona and the Borough of Oakmont. *Id*. By combing these two districts, it also includes the residences of one Republican incumbent, Representative DelRosso (an Oakmont resident), and one Democratic incumbent, Representative DeLuca (a Verona resident). Schutzman Dec. ¶¶ 38-40.

This incumbent pairing can again be explained by increased Section 16 compliance, and by the correction of partisan gerrymandering in the 2012 plan. Representative DelRosso's current district includes portions of both Allegheny County and Westmoreland County. *Id*. Representative DeLuca's current district includes only portions of Allegheny County. *Id*. Representatives DelRosso and DeLuca live in neighboring townships; in fact, Representative DelRosso resides in a small portion of her district that is bound by the Allegheny River and, otherwise, by Representative DeLuca's district. *Id*. Her present district takes a bite of the area south of the Allegheny River, then snakes up along its border, crossing again only to span into Westmoreland County; it is the only district in the 2012 map to split Allegheny County and Westmoreland County.
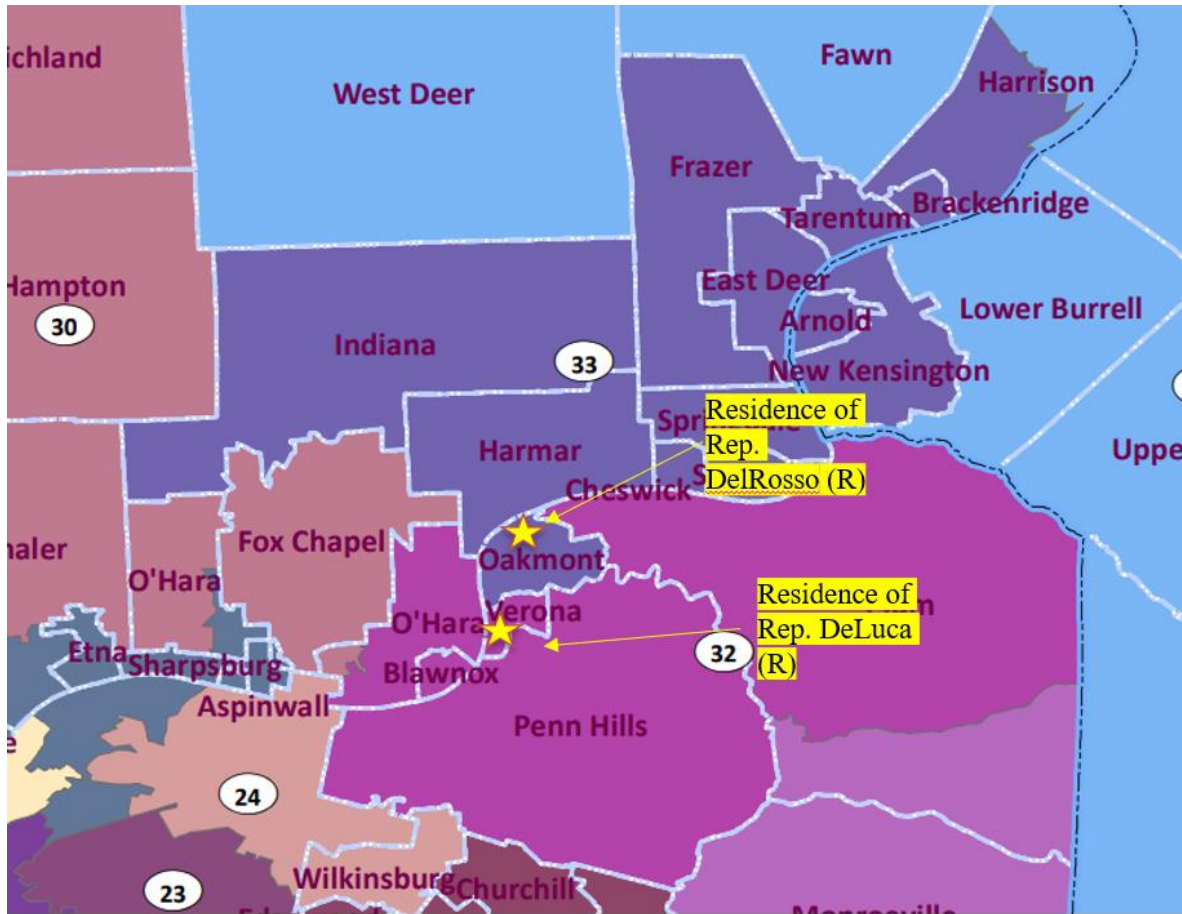
Figure 3: Present Map of Districts of Reps. DelRosso and DeLuca. The markers represent only the municipality, and are not meant to approximate the specific street address of the Representatives.

The LRC House Map retains much of the current District 32, but now also

includes Oakmont Borough, which it previously surrounded:
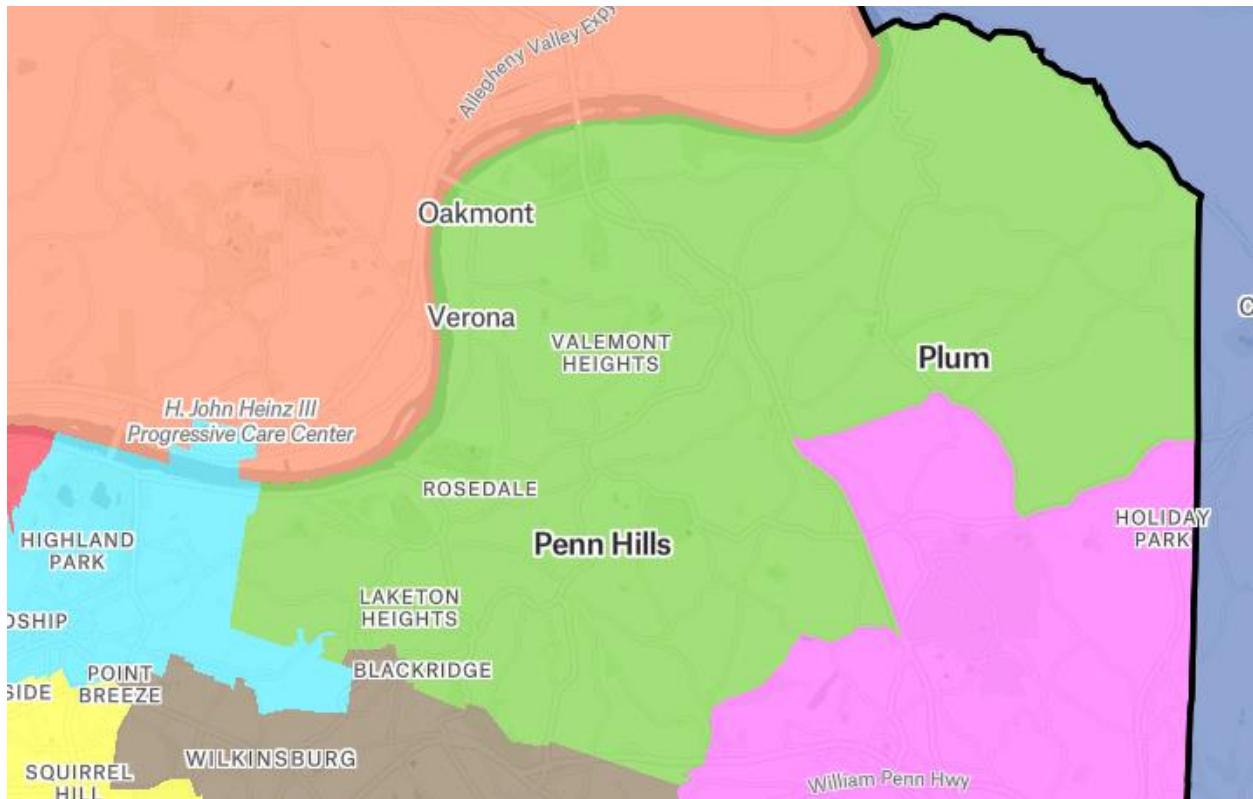
Figure 4: LRC State House Map District 32, Pairing Incumbent Representatives DelRosso (R) and DeLuca (D)

The inclusion of an Oakmont resident in a district that previously surrounded Oakmont is also not the kind of inexplicable result that raises an inference of partisan gerrymandering. Rather, consistent with Section 16, it results from combining two neighboring districts to create a compact district that respects both the natural boundary of the Allegheny River and the political boundary between Westmoreland and Allegheny County.[11] Moreover, these four contiguous prior district have

---

[11] Petitioner's claim of bias is made somewhat more dubious by the fact that Professor Barber's proposed map still places incumbent Rep. DelRosso in a district that voted for President Biden in 2020. *See* Schutzman Dec. ¶ 47.

\\PH - 763910/000001 - 694426 v7

changed from splitting Allegheny County and Westmoreland County twice (once in 2012 Map District 33 and once in 2012 Map District 54), and splitting Westmoreland County with Armstrong County and Indiana County (2012 Map District 55), and instead creating a district solely in Allegheny County (Final Plan District 32) and one district solely in Westmoreland County (Final Plan District 55).

The sole case relied on by Petitioner on this issue, *Larios v. Cox*, 300 F. Supp. 2d 1320 (N.D. Ga. 2004), *aff'd*, 542 U.S. 947 (2004)), Benninghoff Pet. ¶ 64, is wholly inapposite. In that case, "[t]he House Plan created contests between a total of forty-seven incumbents, almost all Republicans." *Id.* at 1347. It also included incumbent pairings in the state senate, unlike here. *See id.* Specifically, the state senate plan resulted in incumbent pairings comprising *42% of the Republican caucus* in the state senate and *50% of the Republican caucus* in the state house. *Id.* at 1327. As is clear from the preceding discussion, the LRC's Final Plan bears no resemblance to the plan at issue in *Larios*. Rather the Final Plan produces only 10 House districts, out of 203 total, that include the residences of more than one incumbent, and produces no incumbent pairings in the Senate. Benninghoff PFR ¶ 65 & Appendix H.

C.   Other Plans Support the LRC's Incumbent Pairings

As discussed in Dr. Schutzman's declaration, a comparison of the LRC's incumbent pairings to those of other plans submitted to the LRC further supports the

35

conclusion that the LRC did not overpair Republican incumbents. Schutzman Dec. ¶¶ 45-49.

The Final Plan for the House has three more incumbent Republican pairings than incumbent Democratic pairings. Yet virtually all of the proposed alternative plans submitted to the LRC, as well as Dr. Schutzman's plan, have a similar or greater net difference between incumbent Republican pairings and Democratic pairings:

Plan	R/R (and R/R/R) Districts	D/D (and D/D/D) Districts	Difference
Amanda Holt	12	10	2
Fair Districts PA	14	10	4
Submission 742, "Least Splitting and Most Competitive Map"	14	6	8
Submission 619, "A Citizen's State House Map"	19	12	7
Submission 498, "PA House Map - K.Rust-November2021"	10	8	2
Schutzman	14	12	2

Schutzman Dec. ¶ 47.

The alternative plans thus show that, far from disadvantaging Republican incumbents, the LRC plan if anything devotes too much effort to shielding incumbents from competition. A plan more focused on Section 16 factors would likely generate far more incumbent pairings. Representative Benninghoff's attempt to avoid even the relatively low number of Republican incumbent pairings in the LRC plan would essentially prioritize incumbency protection over Section 16 considerations, exactly what *Holt II* forbids.

In the long run, the best way to reduce incumbent pairings in the future is to draw maps today that stand the test of time by stressing compliance with Section 16 considerations and federal requirements like one-person, one vote and non-dilution of minority voter strength over protection of incumbency. In that sense, the LRC's House map, while not perfect, takes a step in the right direction. Representative Benninghoff's incumbency-based objections to it have no merit.

CONCLUSION

The LRC's adjustment of the addresses of imprisoned people and treatment of incumbents were fully consistent with Pennsylvania and federal law, and they provide no reason for this Court to disapprove the Final Plan.

37

Respectfully submitted,

Leah C. Aden*

_____
Mary M. McKenzie, Bar No. 47434
/s/ Benjamin D. Geffen
Benjamin D. Geffen, Bar No. 310134
PUBLIC INTEREST LAW CENTER
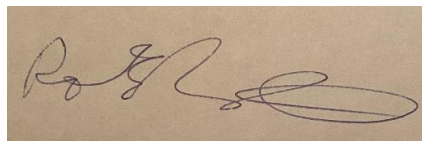1500 JFK Blvd., Suite 802
Philadelphia, PA 19102
mmckenzie@pubintlaw.org
267-546-1319
bgeffen@pubintlaw.org
267-546-1308

_____
Cara McClellan*
NAACP LEGAL DEFENSE &
EDUCATIONAL FUND, INC.
40 Rector Street, 5th Floor
New York, NY 10006
laden@naacpldf.org
(212) 965-2200
cmcclellan@naacpldf.org
(212) 965-2260
* Not admitted in Pennsylvania;
admitted in New York.

_____
David Newmann, Bar No. 82401

_____
Robert E. Beecher, Bar No. 327410
HOGAN LOVELLS US LLP
1735 Market Street, 23rd Floor
Philadelphia, PA 19103
david.newmann@hoganlovells.com
267-675-4610
rob.beecher@hoganlovells.com
267-675-4692

Counsel for Amici Curiae

Dated: March 11, 2022

38

CERTIFICATE OF COMPLIANCE

I 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.

I further certify that this brief complies with the length limitation set forth in Pa.R.A.P. 531(b)(3). According to the word count of the word-processing system used to prepare this brief, the brief contains 6,569 words, not including the supplementary matter as described in Pa.R.A.P. 2135(b).

/s/ *Benjamin D. Geffen*
Benjamin D. Geffen

Dated: March 11, 2022

.IN THE SUPREME COURT OF PENNSYLVANIA

No. 11 MM 2022

IN RE: 2021 LEGISLATIVE REAPPORTIONMENT PLAN FOR THE PENNSYLVANIA SENATE AND THE PENNSYLVANIA HOUSE OF REPRESENTATIVES

PETITION OF KERRY BENNINGHOFF, INDIVIDUALLY, AND AS MAJORITY LEADER OF THE PENNSYLVANIA HOUSE OF REPRESENTATIVES

DECLARATION OF ZACHARY SCHUTZMAN

1.   My name is Zachary Schutzman. I am over 18 years of age, of sound mind and otherwise competent to make this Declaration.

Qualifications and Background

2.   I am presently the Michael Hammer Postdoctoral Fellow at MIT's Institute for Data, Systems, and Society and a postdoctoral scholar in Social and Ethical Responsibilities of Computing in MIT's Schwartzman College of Computing. I earned my Ph.D. in Computer and Information Science from the University of Pennsylvania in 2021. Prior to that, I earned a B.A. in Mathematics and Economics from Colby College.

3.   Broadly my research work is on computational problems with constraints imposed by social norms or values, such as the design and analysis of algorithms which meet provable

standards of fairness or privacy, work on algorithms which operate in environments with strategic agents, and computational redistricting.

4.   I have been working on problems related to redistricting since 2017, primarily on the relationship between computing, data, and district-drawing. I have published peer-reviewed academic papers, developed code and software tools, and written accessible and interactive general audience materials on the mathematical and computational aspects of redistricting.

5.   My publications directly relevant to this matter include:

a.   **Algorithmic Redistricting and Black Representation in US Elections**, published in *MIT Case Studies in Social and Ethical Responsibilities of Computing*, Winter 2022.

b.   **Geometry of Graph Partitions via Optimal Transport**, published in *SIAM Journal on Scientific Computing*, Vol. 42 Issue 5. Oct. 2020 with Tara Abrishami, Nestor Guillen, Parker Rule, Justin Solomon, Thomas Weighill, and   Si   Wu,[1]   accessible   at https://epubs.siam.org/doi/abs/10.1137/19M1295258.

c.   **The Gerrymandering Jumble: Map Projections Permute Districts' Compactness Scores**, published in *Cartography and Geographic Information Science*, Vol. 3 Issue 46. May 2020 with Assaf Bar-Natan and Lorenzo   Najt,   accessible   at https://www.tandfonline.com/doi/abs/10.1080/15230406.2020.1737575.

d.   **Trade-Offs in Fair Redistricting**, published in *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society (AIES)*, 2020 (accepted with   oral   presentation),   accessible   at https://dl.acm.org/doi/abs/10.1145/3375627.3375802.

6.   My work both develops new tools and techniques for drawing and analyzing districts as well as describes limitations in existing tools and techniques. I have expertise in the use of geographic information systems (GIS), computer simulations and other algorithmic techniques to generate districts, and in analyzing political and demographic data in redistricting settings.

---

[1] Authors are listed alphabetically by surname.

7.   My curriculum vitae is attached hereto as Exhibit 1.

Methods and Sources of Data

8.   Throughout this engagement, I have undertaken several activities towards finding evidence for whether or not the LRC's plans comport with Pennsylvania's Article II, Section 16 requirements, federal Voting Rights Act requirements, relevant United States Supreme Court case law, and this Court's opinions in *Specter*, *Albert*, *Holt I* and *Holt II*, the previous LRC-related cases.

9.   The first of these is the construction of my own House and Senate plan which comply with these requirements. To accomplish this, I used the gerrychain software and my own code to construct prototype plans; I then used GIS software to manually adjust the districts to achieve VRA-compliant opportunity districts for Black and Latino voters, improve the compactness of the districts and reduce the amount of split political units, and improve the population balance across districts. I completed my draft plans prior to the LRC's release of its Preliminary plans.

10.   My plans are reflected in the maps attached at Exhibit 2. These plans compare to the LRC Plan as shown below:

State House		
Metric	Schutzman Plan	LRC Plan
Polsby-Popper Score	.356	.355
Percent of ideal population of highest population district	102.96%	104.42%
Percent of ideal lowest of highest population district	97.42%	95.76%

Mean absolute deviation from ideal population:	455.23	1328.42
District-County Parts	270	253
Intact Counties	22	22
Split Municipalities	74	66

State Senate		
Metric	Schutzman Plan	LRC Plan
Polsby-Popper Score	.311	.331
Percent of ideal population of highest population district	101.067%	103.8%
Percent of ideal lowest of highest population district	98.73%	95.69%
Mean absolute deviation from ideal population:	1337.2	5355.2
District-County Parts	110	114
Intact Counties	46	44
Split Municipalities	6	12

11. Following the release of the LRC's Preliminary plans, I looked to identify features of the maps which might be out of compliance with the statutory requirements. The primary concern I identified with these plans was in the lack of population balance in the Senate map; that was improved in the Final plan. My overall judgement of the LRC's Preliminary plans is that they compared extremely favorably to previous maps on the relevant dimensions of political subunit splits, compactness, and contiguity. The Preliminary plans compare slightly favorably to my own in terms of splitting, however my maps achieve a much tighter population balance than the LRC's.

The trade-off between splitting and population balance at the margin can reasonably explain this difference.

12.   Following the release of the Final plans, I again analyzed the maps, finding the population balance issue had improved slightly in the Senate map without detrimentally affecting the other factors. My attention turned to the House plan to consider the matters presently at-hand, particularly analysis of the question of whether the amount of incumbency pairing in the Final House plan is excessive, unnatural, or is deliberately done to disadvantage Republicans.

13.   To perform this analysis, I considered several factors. First, I looked at population change trends in the Commonwealth between the 2010 census and 2020 census, including those changes which result from counting certain incarcerated people at their home addresses rather than the location of their cell. Additionally, I used data from the Pennsylvania voter file and public records to approximate home address locations for each of the current House incumbents. Using this data, I analyzed the pairing of incumbents under alternative "neutral" plans, including my own as well as those submitted to the LRC during the public comment process prior to the release of the Preliminary plans.

14.   I have additionally used prior election returns to analyze the claim that the districts which pair a Democratic and a Republican incumbent inherently favor the Democratic candidate in a hypothetical election between the two candidates.

15.   I have also reviewed the adjustments to jurisdictional populations based on the LRC's decision to consider certain incarcerated persons to be residents of their last known address. A list of these findings is attached hereto as Exhibit 3.

Impact of Population Change on Incumbent Pairings

16.   The incumbent pairings in Final House Plan are explained by non-partisan criteria.

17.   Between 2010 and 2020, population generally decreased in areas more favorable to Republican candidates. For example, with respect to the district boundaries set by the 2012 map, 66 of the 110 districts where President Trump received the most votes in the 2020 election have fewer than the 64053 people necessary to constitute an ideal House district under the present population distribution. By contrast, 59 of the 93 districts where President Biden received the most votes in the 2020 election have populations over 64053 people t under the present population distribution.

18.   As a result of these population shifts, assuming a best-effort to preserve the 2012 districts, Republican friendly districts would have to expand in order to encompass more voters, and more geographic territory. This increases the likelihood that incumbents it will expand to include the residence of a Republican incumbent in a neighboring district. An overpopulated district would be more likely to contract in geographic territory. Where it does not include any new geographic territory, it will not incorporate the residence of any other incumbent.

19.   The relatively higher number of paired Republican incumbents could therefore naturally result from the relatively higher number of total Republican incumbents, and higher number of Republican incumbents in districts that must be geographically expanded.

Impact of Section 16 Compliance on Incumbent Pairings

20.   Another factor which naturally explains a larger number of Republic incumbent pairings is the overall increase in the level of Section 16 compliance in the LRC's current plans, in comparison to that of the 2012 map.

21.   The 2012 map created more Republican districts by, among other things, drawing districts that included small parts of a suburban county, then expanding into one or more rural counties. With their greater emphasis on continguity and compactness, as well as reduction of

splits, the current LRC plans tend to avoid this approach by combining the former fragment into the rest of the county, while expanding the rural portion of the former district. Even minor changes of district lines to accomplish these Section 16 objections could naturally push into a neighboring district a Republican who had taken advantage of the 2012 plan's fragmentation.

Impact of District-Specific Circumstances on Incumbent Pairing

22.   Considering the specific circumstances of various incumbent pairings suggests simple, pro-Section 16 explanations for the conflicted districts in the LRC's Final plan.

23.   A good example is the pairing of Representatives Silvis (R) and Brooks (R).Under the 2012 map, Representative Brooks's district includes portions of Allegheny County and portions of Westmoreland County. Under the 2012 map, Representative Silvis's district includes portions of Westmoreland County, Armstrong County, and Indiana County. The image below shows an overlay of the districts (54 and 55) under the 2012 House Map. The markers represent only the township, and are not meant to approximate the specific street address of the Representatives:
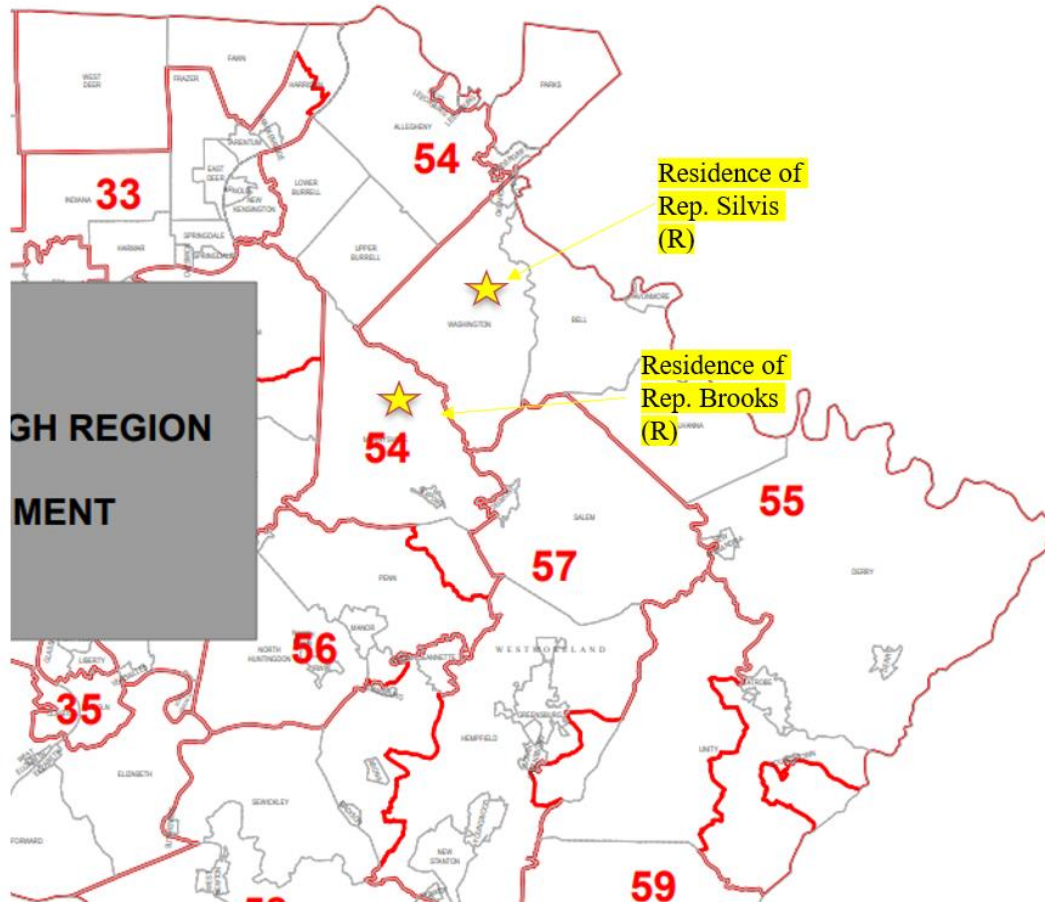
24.   The new map places Representatives Brooks and Silvis in the same district, but one which now includes only Westmoreland County (District 55):
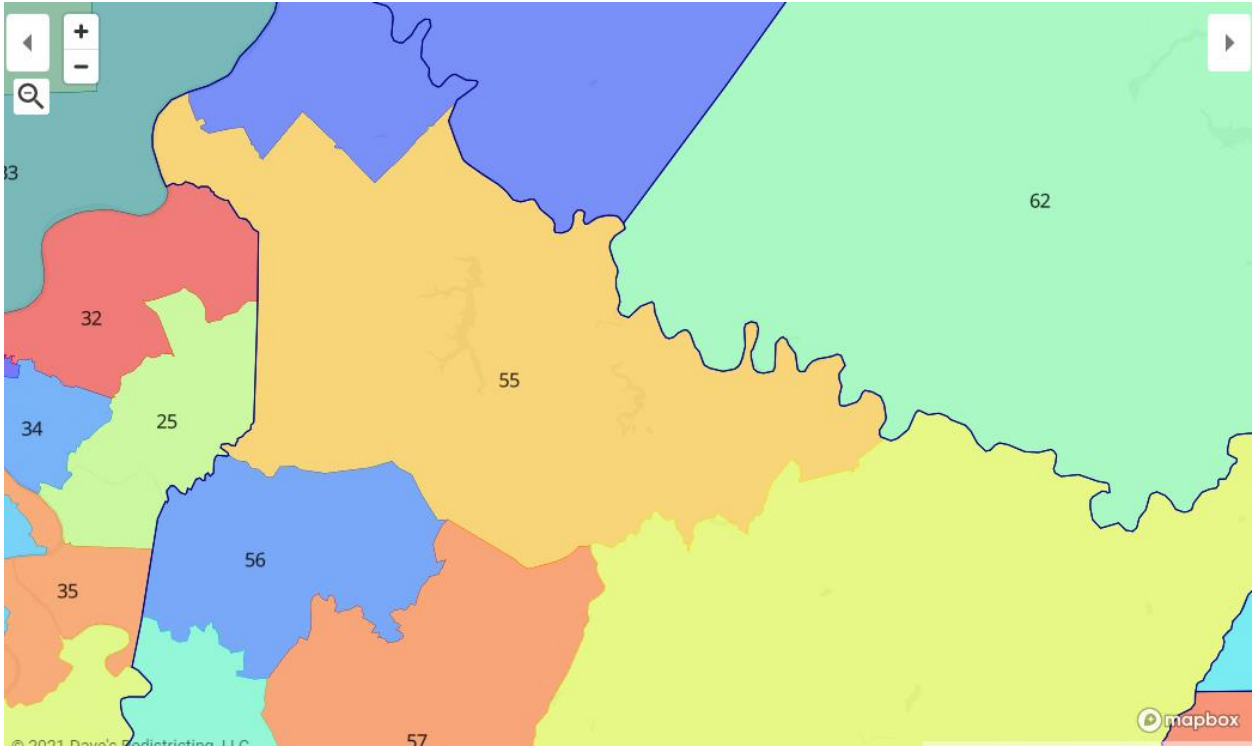
25.   As the maps reflect, the pairing of Republican incumbent Brooks (a Murrysville resident) in the same district as Republican incumbent Silvis (a Washington Township resident) is the natural consequence of the LRC's decision to create a more contiguous, compact district that remains solely in Westmoreland County, rather than spanning Westmoreland County, Allegheny County, Armstrong County, and Indiana County.

26.   Furthermore, in the LRC's Final plan, all but one of the districts in the area lie entirely in a single county and a single district includes portions of Westmoreland and Armstrong Counties. The LRC's Final plan unambiguously reduces the number of county splits in the region relative to the 2012 plan.

27.   The three additional pairings of Republican incumbents—two in the Harrisburg area and one in the Allentown area—are also explained by non-partisan factors.

28.   Dauphin County has a population about 449% of that of an ideal House district. Therefore, a plan which minimally splits Dauphin County will include four districts entirely within

the county with approximately 31,500 residents included in a district shared with one or more neighboring counties. The LRC's Final plan achieves exactly this, and it is impossible to draw a plan which splits Dauphin County fewer times than the LRC does.

29. The city of Harrisburg has a population around 50,000, certainly below that of an ideal House district. Furthermore, it would be possible to draw a plan which keeps Harrisburg whole and does not split additional municipalities, connecting it with Wormleysburg, Lemoyne, and New Cumberland in neighboring Cumberland County. However, the population of Dauphin County less Harrisburg is about 370% of that of an ideal district, meaning that such a district keeping Harrisburg whole is compatible with a plan including three more districts wholly within Dauphin County and another district shared with a neighboring county..

30. This, however, necessarily increases the number of times Dauphin County is split relative to the LRC's plan by at least one, since this hypothetical plan has five districts touching the county and the LRC's Final plan has the mathematical minimum of four. Additionally, this choice may ripple through to additional county splits in neighboring counties

31. The Final Plan pairs Representatives Lewis (R, HD 105) and Helm (R, HD 104) in Final Plan District 105. This pairing is explained by the creation of a more compact district that results from the split in Harrisburg. In the 2012 plan, Representative Lewis's District remains wholly within Dauphin County, while Representative Helm's district splits between Dauphin County, and Lebanon County, all while surrounding much of Lewis's District and including a small sliver of geographic territory. The markers represent only the municipality, and are not meant to approximate the specific street address of the Representatives:
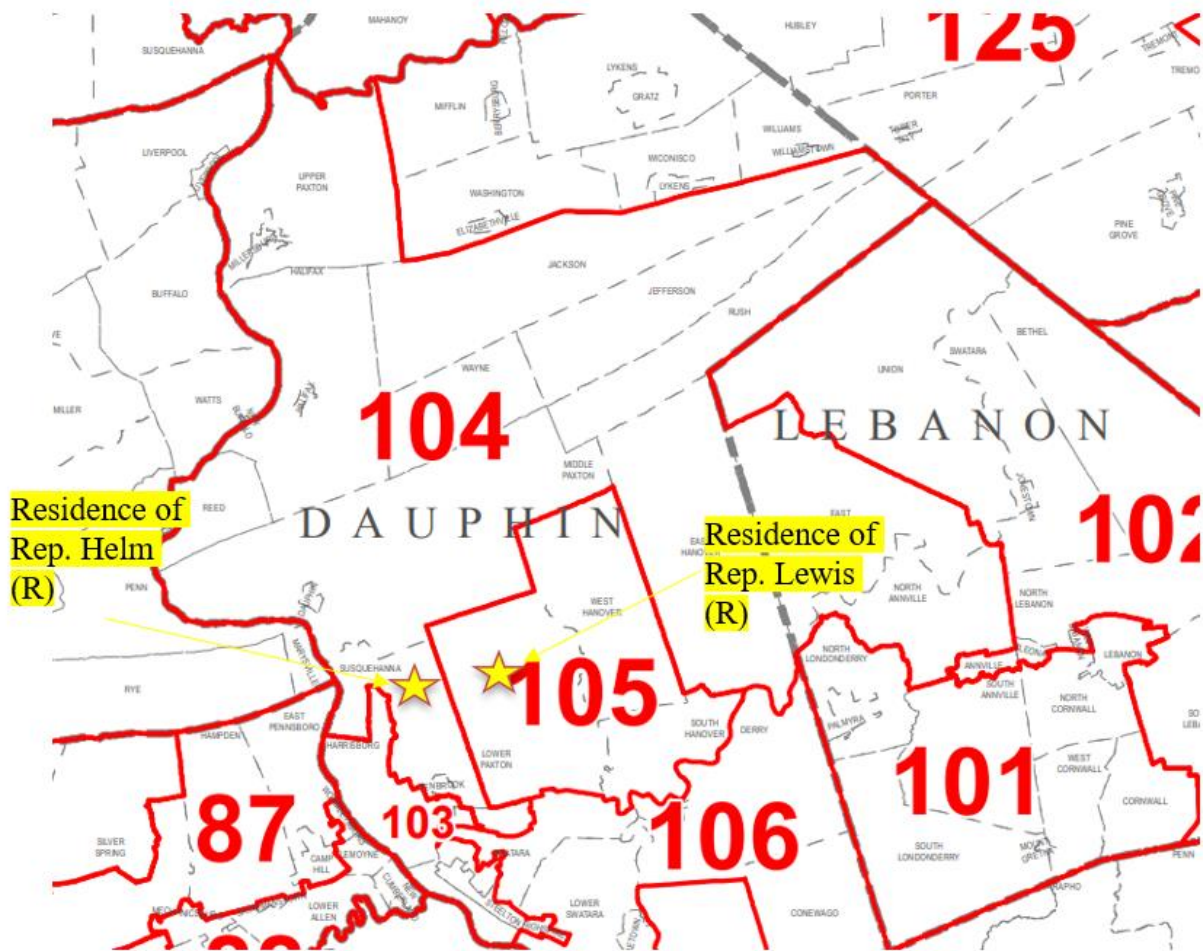
32.   The Final Plan District 105 includes only portions of Dauphin County, avoiding an unnecessary split with Lebanon County:
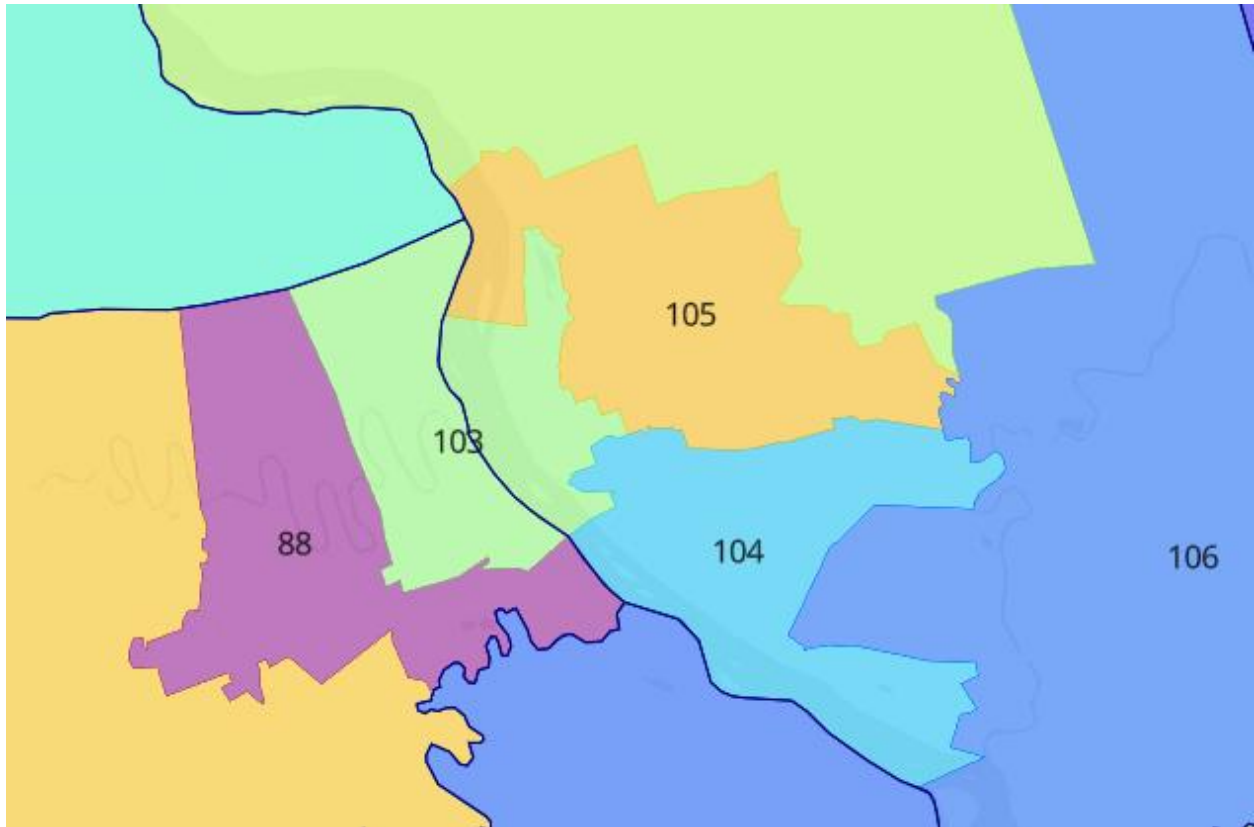
33.   This pairing thus includes two incumbents in a district that reduces a county split.

34.   The Final Plan also pairs Representative Hershey (R, HD 82) with Representative Stambaugh (R, HD 86), in District 86. This pairing is also explained by non-partisan criteria.

35.   Representative Hershey represents a district that includes all of Juniata County, and splits with part of Franklin County and Mifflin County. Representative Stambaugh represents a district that includes all of Perry County, before crossing into a small part of Cumberland County. Two municipalities separate their residences. The markers represent only the municipality, and are not meant to approximate the specific street address of the Representatives:
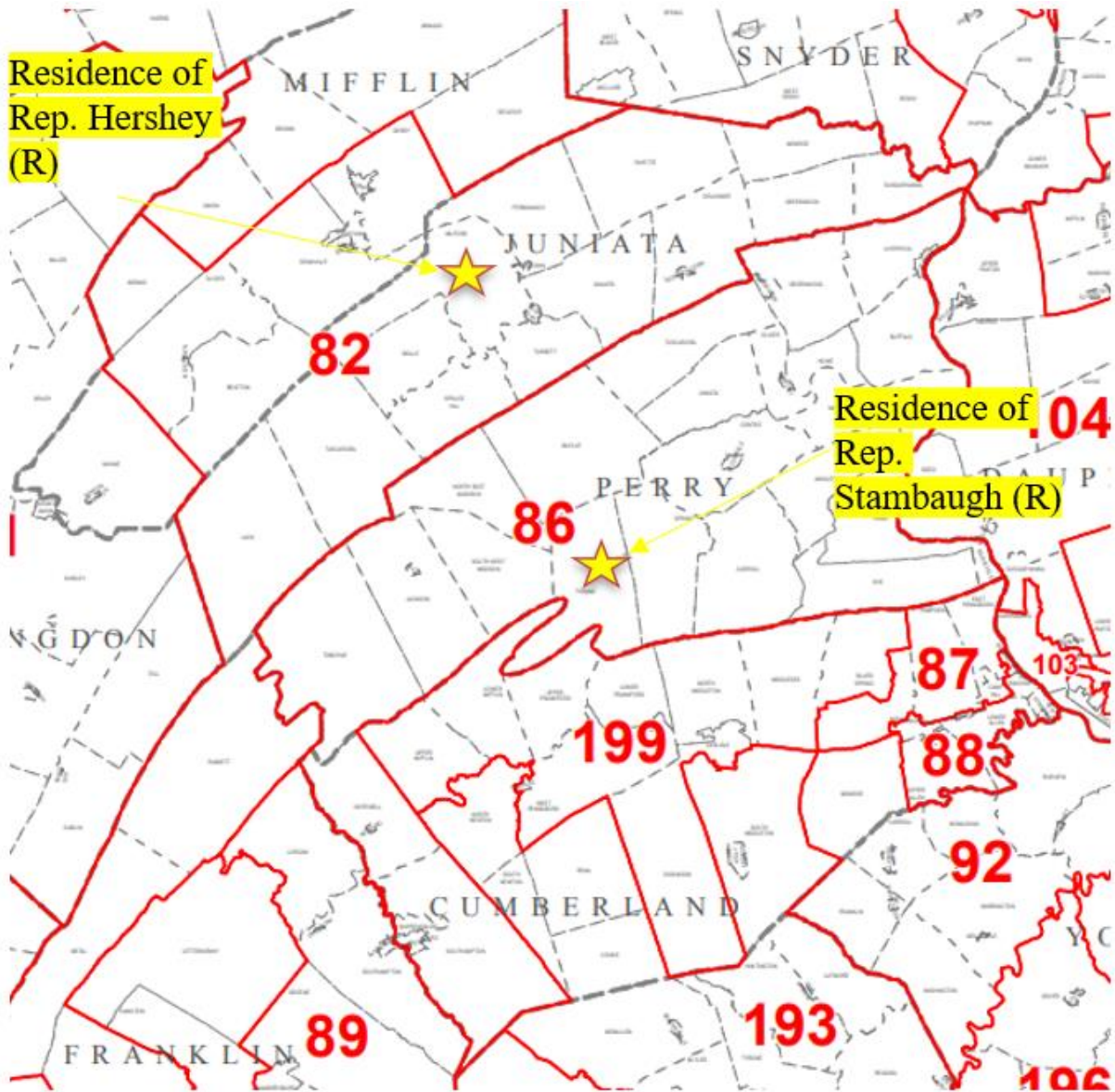
36.   In the 2012 plan, HD 82 and HD 86 together include portions of Mifflin, Juniata, Perry, Cumberland, and Franklin Counties. The LRC's Final plan splits these counties a net two fewer times relative to the 2012 plan.

County name	Number of 2012 districts with portions of this county	Number of LRC Final Plan districts with portions of this county
Cumberland County	6	5

Franklin County	4	3
Juniata County	1	2
Mifflin County	3	2
Perry County	1	1

37.   Furthermore, the LRC's Final plan's districts in this region are far more compact than those in the 2012 plan. Notably, both HD 82 and HD 86 under the 2012 plan included 'tails' that stretched southwesterly from the bulk of the district, with HD 82's reaching from Juniata County into central Franklin County and HD 86's joining Perry County to the western border of Cumberland County. These unusual shapes are not present in the LRC's Final plan.

38.   Additionally, between the 2010 and 2020 census, Juniata County and Perry County each experienced a population decline. Cumberland County by percentage, experienced the largest growth in the state. Even if one were making a best-effort to preserve the existing districts to the greatest extent possible, the dramatic shifts in population relative to the overall growth of the Commonwealth would necessitate dramatic changes to the existing districts, and so it is unsurprising that two of the districts with paired incumbents are in this region.

39.   The Final Plan also pairs Representative Day (R, HD 187) with Representative Mackenzie (R, HD 134), in District 187.

40.   Representative Day's District includes parts of Lehigh County, and parts of Berks County. Likewise, Representative Mackenzie's district includes parts of Berks County, and parts of Lehigh County:
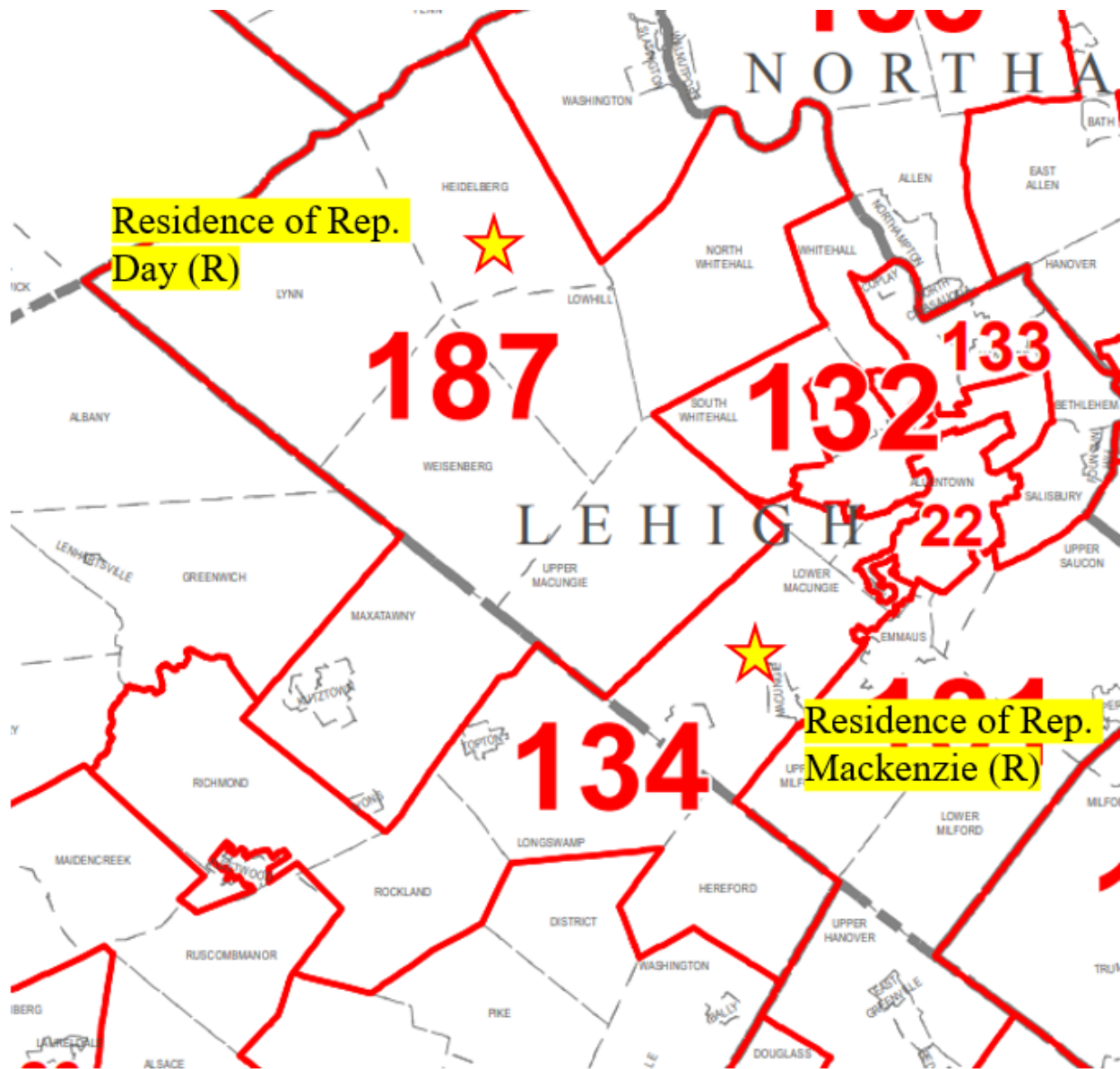
41.   The two representatives now reside in a district that is solely in Lehigh County:
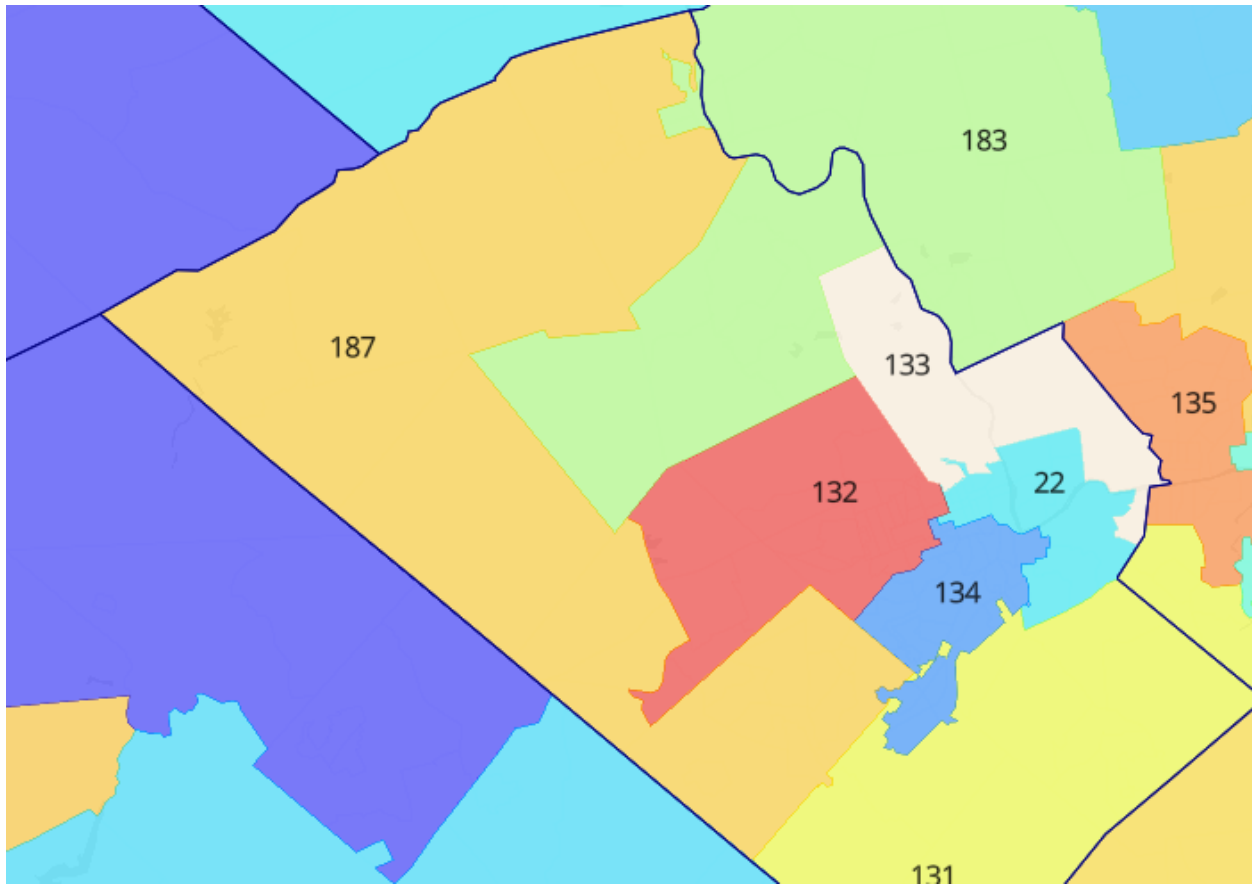
42. The resulting pairing eliminates the county split that had previously existed in both districts and the LRC's Final plan includes zero three-county districts in or around Lehigh County.

43. In addition to the Republican-Republican incumbent pairings, the Petitioner also argues that the districts which pair an incumbent Democrat with an incumbent Republican unfairly favor the Democratic representative. Adherence to the neutral criteria can also explain these pairings and some simple election analysis undermines the strong claims of partisan favorability in at least one of the conflicted districts.

44. Under the 2012 map, Representative DeLuca's (D) district includes only portions of Allegheny County, while Representative DelRosso's (R) district includes portions of both Westmoreland County and Allegheny County. The portion of Representative DelRosso's district where Representative DelRosso resides is in Oakmont, within Allegheny County, and surrounded

by Representative DeLuca's district. Representative DeLuca resides in Verona. The map shows a small carveout for the area where Representative DelRosso resides (within Allegheny County, and south of the Allegheny River), before crossing over the Allegheny River, including more of Allegheny County, and then absorbing a small portion of Westmoreland County. The image below shows an overlay of the districts (33 and 32) under the 2012 House Map. The markers represent only the township, and are not meant to approximate the specific street address of the Representatives:
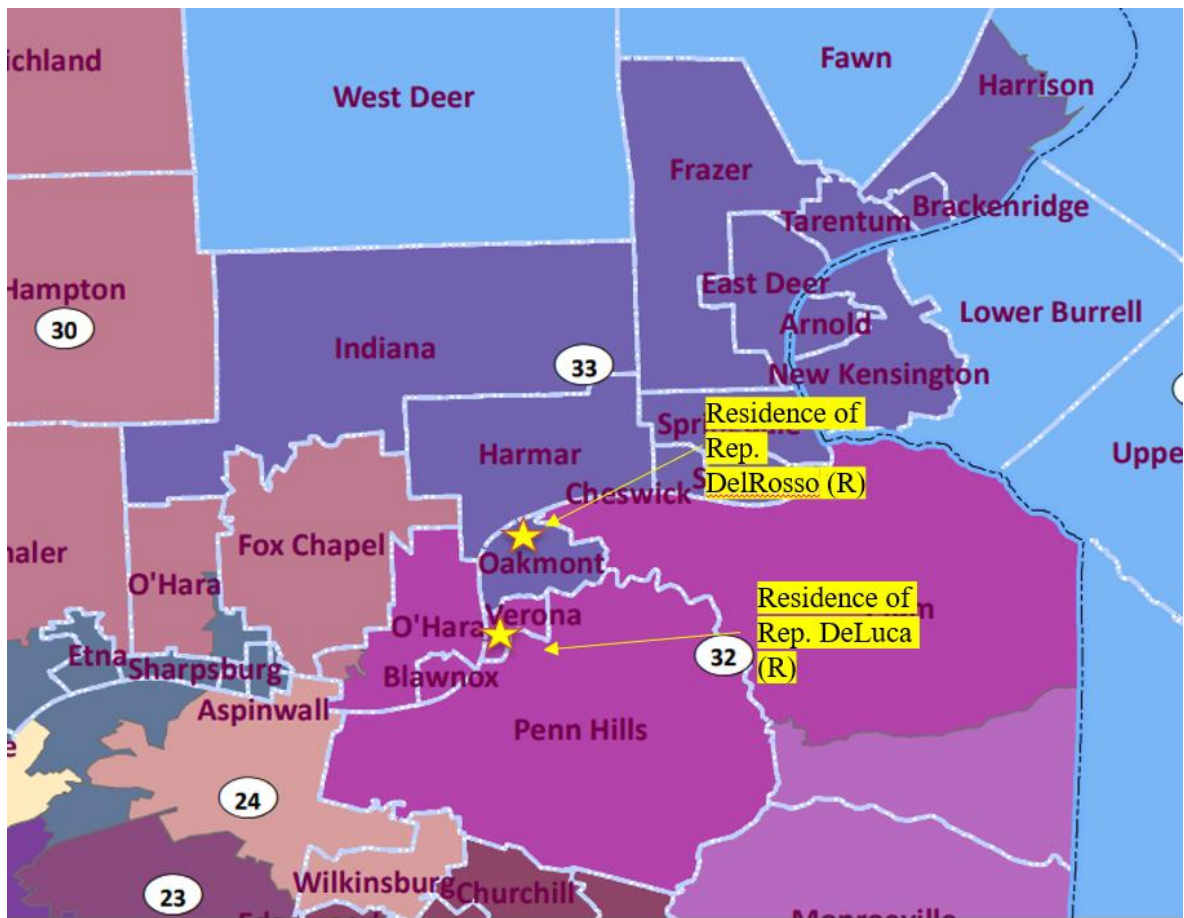
45.   The new map places Representatives DelRosso and DeLuca in the same district, but one which now includes only Allegheny County (District 32):
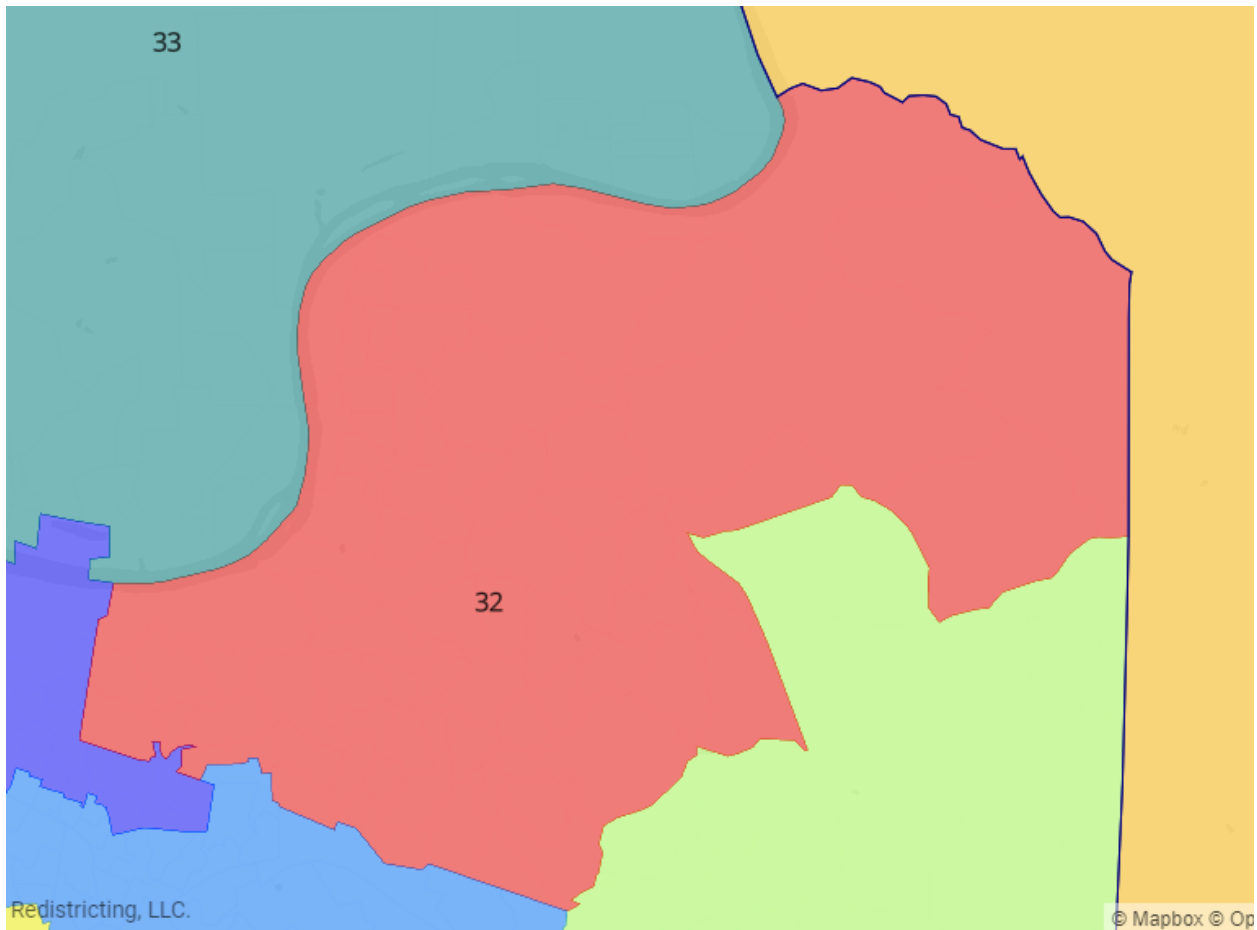
46.   The pairing of Republican incumbent DelRosso (an Oakmont resident) in the same district of Democratic incumbent DeLuca (a Verona resident) thus logically results from LRC's decision to create a more contiguous, compact district that remains solely in Allegheny County, rather than spanning Westmoreland County and Allegheny County.

47.   Notably, the analysis of Petitioner Benninghoff's proposed expert, Professor Barber, undercuts the theory that this pairing reflected partisan bias. In Professor Barber's analysis, in an effort to un-pair these two incumbents, Representative DelRosso, the Republican, is included in a district where the majority of voters supported President Biden, providing further evidence that whatever partisan disadvantage Representative DelRosso might face in a future election is

attributable to drawing districts adhering to the neutral criteria rather than an intentional effort to construct such a disadvantage.

48. Petitioner Benninghoff's objection to another inter-party pairing, that of Representatives Snyder (D) and Cook (R) in District 50, also rests on shaky assumptions. Under the 2012 map, Representative Snyder (D) represents Green County, and parts of Fayette, and Washington Counties. Under the 2012 map, Representative Cook (R) represents parts of Washington County and Fayette County. The image below shows an overlay of the districts (54 and 55) under the 2012 House Map. The markers represent only the township, and are not meant to approximate the specific street address of the Representatives:
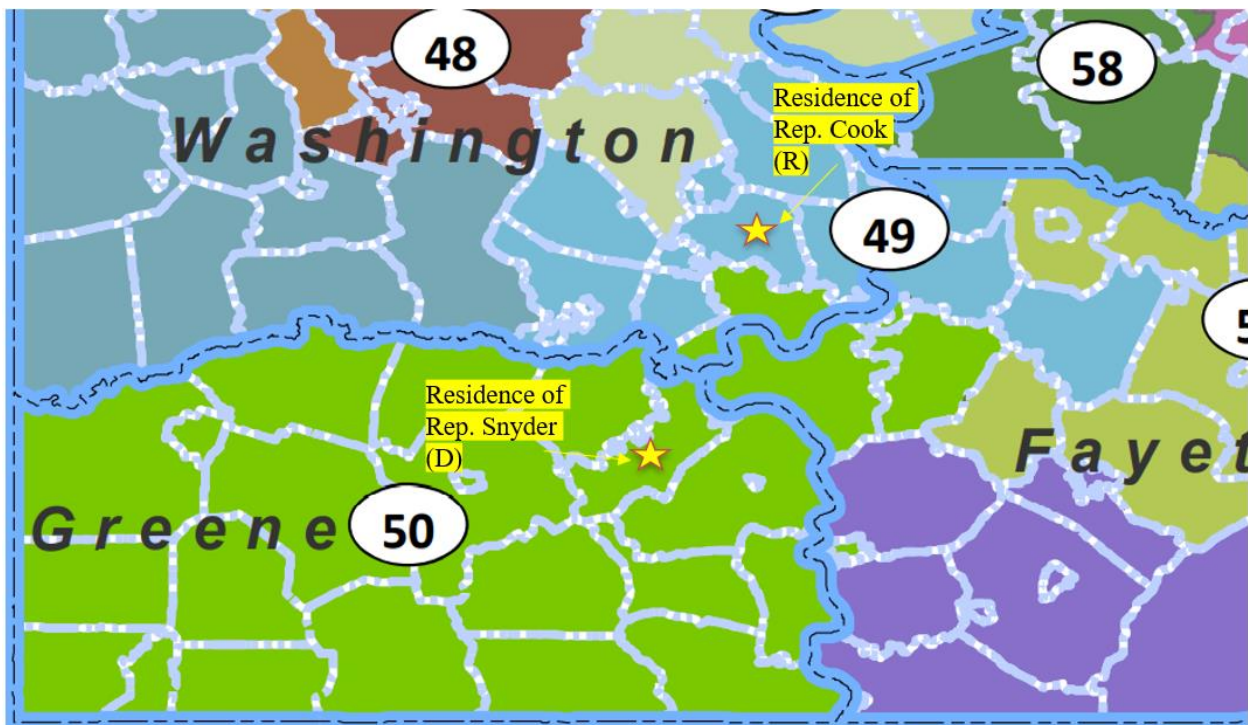
49. The LRC Final plan combines these into one district, that now includes only Greene County and parts of Washington County (District 50):

© 2021 Dave's Redistricting, LLC.
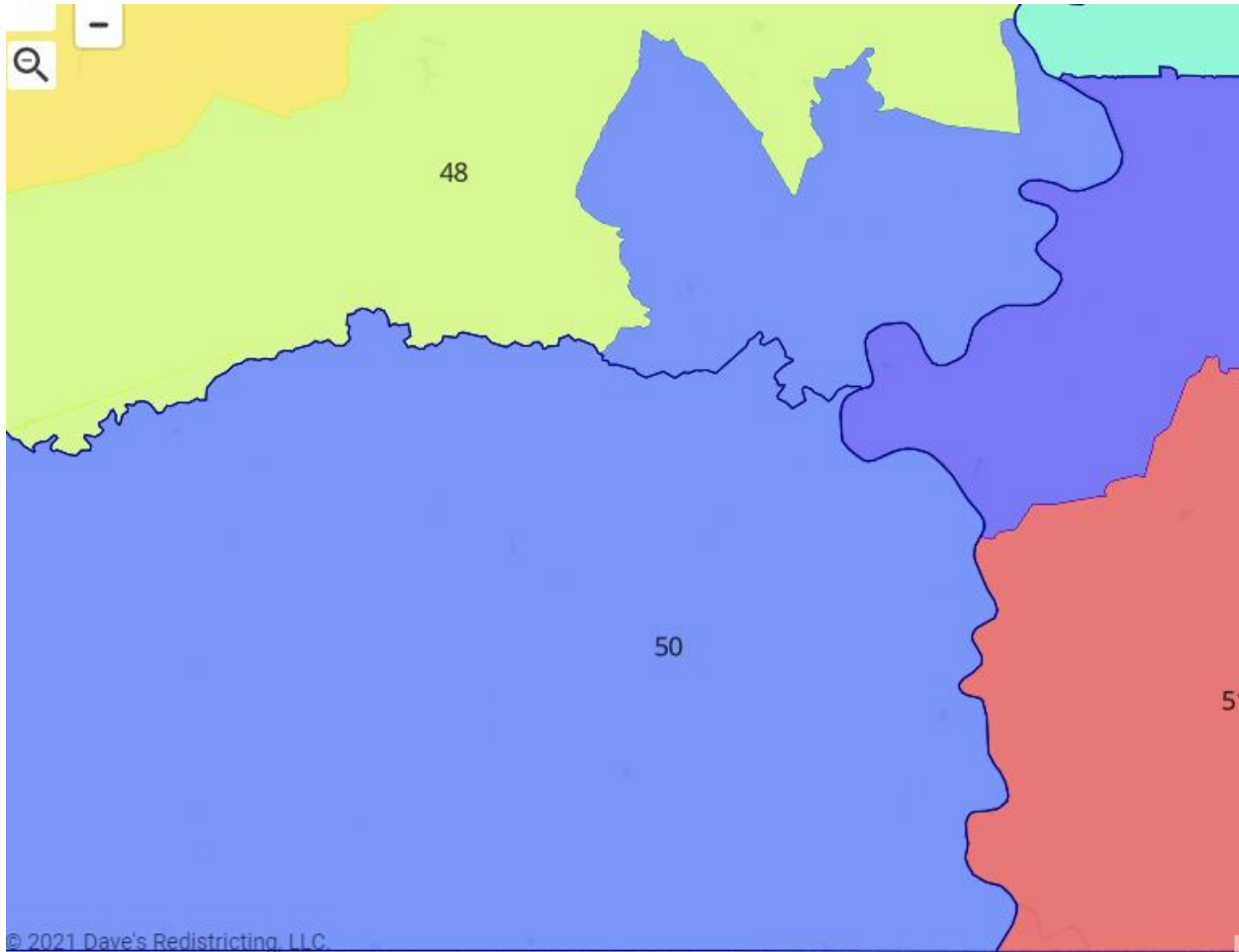
50.   Petitioner Benninghoff's contention that this pairing favors Democrats is speculative. There are more registered Democrats than Republicans in District 50, but an estimate using election returns in 2020 show that approximately 21,500 voters cast ballots for President Trump, and 10,500 voters cast ballots for President Biden, a margin of more than 2-1. While Representative Snyder has won several elections as a Democrat in such an environment, the assertion that Snyder's 2012 district or the new District 50 which is substantially similar to Snyder's naturally favors Democrats simply due to the Democratic registration advantage ignores the broader political behavior of residents of that district.

Comparison of Incumbent Pairings in Other Plans

51.   A comparison of the incumbent pairings in the LRC's Final plan to those of other plans submitted to the LRC as part of the public comment process supports the conclusion that the LRC did not excessively pair Republican incumbents.

52.   Appendix H of the Benninghoff Petition for Review lists four districts with R/R pairs, five districts with R/D pairs, and one district with D/D pairs in the LRC plan. It is generally recognized that excessive or highly imbalanced intra-party pairings create a greater risk of partisan bias, because all else being equal they necessarily result in the loss of one seat for the paired party. The LRC plan thus creates three more Republican incumbent pairings than Democratic incumbent pairings.

53.   Other proposed plans generate far greater numbers of overall pairings, yet have a similar intra-party pairing differential to the LRC's plans:

    i.   Submission by Amanda Holt: 34 conflicted districts: 12 R/R, 12 D/R, 10 D/D. The net intra-party pairing differential is 2, one fewer than the LRC plan

    ii.   Submission by Fair Districts PA: 35 conflicted districts: 14 R/R, 10 D/R, 9 D/D, 1 D/D/R, 1 D/D/D. The net intra-party pairing (and tripling) differential is 4, 1 more than in the LRC plan.

    iii.   Submission 742, "Least Splitting and Most Competitive Map": 29 conflicted districts: 13 R/R, 1 R/R/R, 9 D/R, 6 D/D. The net intra-party pairing (and tripling) differential is 8, 4 more than in the LRC plan.

    iv.   Submission 619, "A Citizen's State House Map": 38 conflicted districts: 19 R/R, 7 D/R. 9 D/D, 3 D/D/D. The net intra-party pairing (and tripling) differential is 7, 3 more than in the LRC plan.

v.   Submission 498, "PA House Map - K.Rust-November2021": 22 conflicted districts: 10 R/R 3 D/R, 8 D/D, 1 D/R/R. The net intra-party pairing (and tripling) differential is 2, 1 fewer than in the LRC plan.
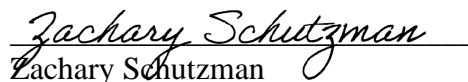
vi.   My own map included 35 conflicted districts: 12 R/R, 2 R/R/R, 9 D/R, 12 D/D. The net intra-party pairing (and tripling) differential is 2, 1 fewer than in the LRC plan.

54.   In sum, under each of these alternative maps, the number of Republic intra-party pairings and triplings exceeds the number of Democratic intra-party pairings and triplings, and the net intra-party pairing/tripling differential in the LRC's Final plan is consistent with these alternatives..

55.   Given the broader factors identified above—including population trends and a greater focus on Section 16 compliance in the current plan, in comparison to the 2012 plan— it is sensible that Republicans would experience a great number of intra-party pairings than Democrats in the current reapportionment process. Given that the net differential between Republican and Democratic incumbents paired under the LRC's Final plan is consistent with the differential in an array of alternatives and that the absolute number of paired incumbents in the LRC's Final plan is significantly lower than that of the alternatives, it is hard to find evidence to support the claim that such pairings are excessive, unnatural, or done to deliberately disadvantage Republicans.

I declare under penalty of perjury under the law of the Commonwealth of Pennsylvania, and subject to the penalties of 18 Pa. C.S. § 4904 relating to unsworn falsification to authorities, that the foregoing is true and correct.

Dated: March 11, 2022

Zachary Schutzman
Zachary Schutzman

EXHIBIT 1

Zachary I. Schutzman

zschutzman@gmail.com
zachschutzman.com
github.com/zschutzman
Office E18-421

INTERESTS

Algorithmic game theory and economics, fairness in algorithm design, differential privacy and its applications, computational social science, theoretical machine learning, mathematics of redistricting

APPOINT-MENTS

Massachuetts Institute of Technology, Cambridge, MA
Institute for Data, Systems, and Society   2021 –
        Michael Hammer Postdoctoral Fellow
Schwartzman College of Computing   2021 –
        Social and Ethical Responsibilities of Computing Postdoctoral Scholar

EDUCATION

University of Pennsylvania Philadelphia, PA   2016 – 2021
Ph.D., Computer and Information Science
Thesis: *Algorithmic Processes and Social Values*
Advisor: Aaron Roth
Affiliations: Warren Center for Data & Network Science, Penn Research in Machine Learning, CS Theory Research Group

Colby College Waterville, ME   2012 – 2016
B.A., *cum laude*, Economics (Honors) and Mathematics
Thesis: *Computational Simulation and Analysis of Landscape Conservation Auctions*
Advisors: Timothy Hubbard and Sahan Dissanayake
Phi Beta Kappa, William D. Adams Presidential Scholar, Distinction in Economics
Minor: Computer Science

RESEARCH

Authors are listed alphabetically by surname

Algorithmic Redistricting and Black Representation in US Elections
In *MIT Case Studies in Social and Ethical Responsibilities of Computing*, Winter 2022

Algorithms and Learning for Fair Portfolio Design
In *Proceedings of the ACM Conference on Economics and Computation* (EC), 2021
with Emily Diana, Travis Dick, Hadi Elzayn, Michael Kearns, Aaron Roth, Saeed Sharifi-Malvajerdi, and Juba Ziani

Geometry of Graph Partitions via Optimal Transport
In *SIAM Journal on Scientific Computing*, Vol. 42 Issue 5. Oct. 2020
with Tara Abrishami, Nestor Guillen, Parker Rule, Justin Solomon, Thomas Weighill, and Si Wu

The Gerrymandering Jumble: Map Projections Permute Districts' Compactness Scores
In *Cartography and Geographic Information Science*, Vol. 3 Issue 46. May 2020
with Assaf Bar-Natan and Lorenzo Najt

Trade-Offs in Fair Redistricting
In *Proceedings of the AAAI/ACM Conference on AI, Ethics, and Society* (AIES), 2020
accepted with an oral presentation

Total Variation Isoperimetric Profiles
In *SIAM Journal on Applied Algebra and Geometry*, Vol. 3 Issue 4. Nov. 2020
with Daryl DeFord, Hugo Lavenant, and Justin Solomon

Equilibrium Characterization for Data Acquisition Games
In *Proceedings of the 28th International Joint Conferences on Artificial Intelligence* (IJCAI), 2019
with Jinshuo Dong, Hadi Elzayn, Shahin Jabbari, and Michael Kearns

The Price of Privacy in the Keynesian Beauty Contest
In *Proceedings of the ACM Conference on Economics and Computation* (EC), 2019
with Hadi Elzayn

Fair Algorithms for Learning in Allocation Problems
In *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency* (FAT*), 2019
with Hadi Elzayn, Shahin Jabbari, Michael Kearns, Christopher Jung, Seth Neel, and Aaron Roth

Strategic Classification from Revealed Preferences
In *Proceedings of the ACM Conference on Economics and Computation* (EC), 2018
with Jinshuo Dong, Aaron Roth, Bo Waggoner, and Zhiwei Steven Wu
appeared at the Workshop on Learning in the Presence of Strategic Behavior (NeurIPS 2017)
as a long oral presentation

OTHER PROJECTS	**Diffix Bug Bounty Program Winner**
	Executed three linear programming reconstruction attack on a supposedly privacy-preserving data analysis product, with Travis Dick and Matthew Joseph.
	Coauthored a pair of blog posts on `differentialprivacy.org` with Aloni Cohen, Sasho Nikolov, and Jon Ullman
	Available at `https://differentialprivacy.org/reconstruction-theory/`, `https://differentialprivacy.org/diffix-attack/`
	GerryChain, Contributor
	An open-source Python Markov Chain Monte Carlo sampler to generate ensembles of redistricting plans.
	Available at `https//github.com/mggg/GerryChain`
	District-Shortening Flow
	An introduction to 'multiscale compactness' using curve-shortening flow.
	Available at `https://mggg.org/distflow`
	Redistricting Gridlandia
	An gentle interactive introduction to the mathematics of redistricting.
	Appeared in *Geometry v. Gerrymandering*, Moon Duchin *Scientific American*, Nov. 2018
	Available at `https://mggg.org/metagraph`
ASSISTANT-SHIPS	**Graduate Research Fellow** Voting Rights Data Institute, MIT/Tufts Summer 2018
	Worked on problems at the interface of mathematics, computing, and statistics with redistricting and voting rights with expert practitioners, faculty, and students from a range of disciplines.
	Hosts: Moon Duchin (Tufts Mathematics) & Justin Solomon (MIT CSAIL)
TEACHING & MENTORSHIP	**Voting Rights Data Institute Faculty**, MIT/Tufts Summer 2019
	Co-led independent research groups of undergraduate and graduate students from various disciplinary backgrounds on topics at the intersection of mathematics, computing, and voting rights. Organized and co-taught a series of hands-on workshops introducing students to topics and techniques in optimization.
	Independent Study
	Michael Ramdatt, *Quadratic Voting Analysis* (with Bo Waggoner) Spring 2018
	Teaching Assistantships
	Algorithmic Game Theory (NETS 412), UPenn Spring 2018
	Networked Life (NETS 112), UPenn Fall 2017
	Game Theory (EC 379), Colby College Spring 2016
	Data Structures and Algorithms (CS 231), Colby College Fall 2015
	Computational Thinking (CS 151/152), Colby College 2014-2015

TALKS	**Algorithmic Redistricting and Black Representation**	May 2021
	MIT Workshop on Systemic Racism and Computation	
	Algorithms for Applied Large-Scale Differential Privacy	October 2020
	Written Preliminary Exam Presentation	
	Algorithms, Fairness, and Redistricting	April 2020
	Penn CIS Student Colloquium	
	Trade-Offs in Fair Redistricting	February 2020
	AIES	
	Equilibrium Characterization for Data Acquisition Games	August 2019
	IJCAI	
	Introduction to the Metagraph of Districting Plans	June 2019
	Voting Rights Data Institute	
	Graphs, Geometry, and Gerrymanders	February 2019
	University of Toronto Dept. of Mathematics *Diet Graduate Seminar*	
	Shape Analysis for Redistricting	February 2019
	University of Toronto Dept. of Mathematics *Hyperbolic Lunch Seminar*	
	Computational Simulation and Analysis for Landscape Auctions May 2016	
	Honors Thesis Defense, Colby College Department of Economics	

SERVICE

Reviewing
NeurIPS Workshop on Machine Learning for Economic Policy 2020 (PC), AAAI 2020 (PC), ICML 2019, EC 2018

U. of Pennsylvania Computer and Information Science Department
Dean's Doctoral Advisory Board, Summer 2020 COVID-19 Communications Committee, Volunteer for applicant support program for prospective students from groups underrepresented in computing, Student representative on CIS doctoral requirements committee

TECHNICAL SKILLS
Python, C++, Julia, MATLAB, QGIS, Isadora,

EXHIBIT 2
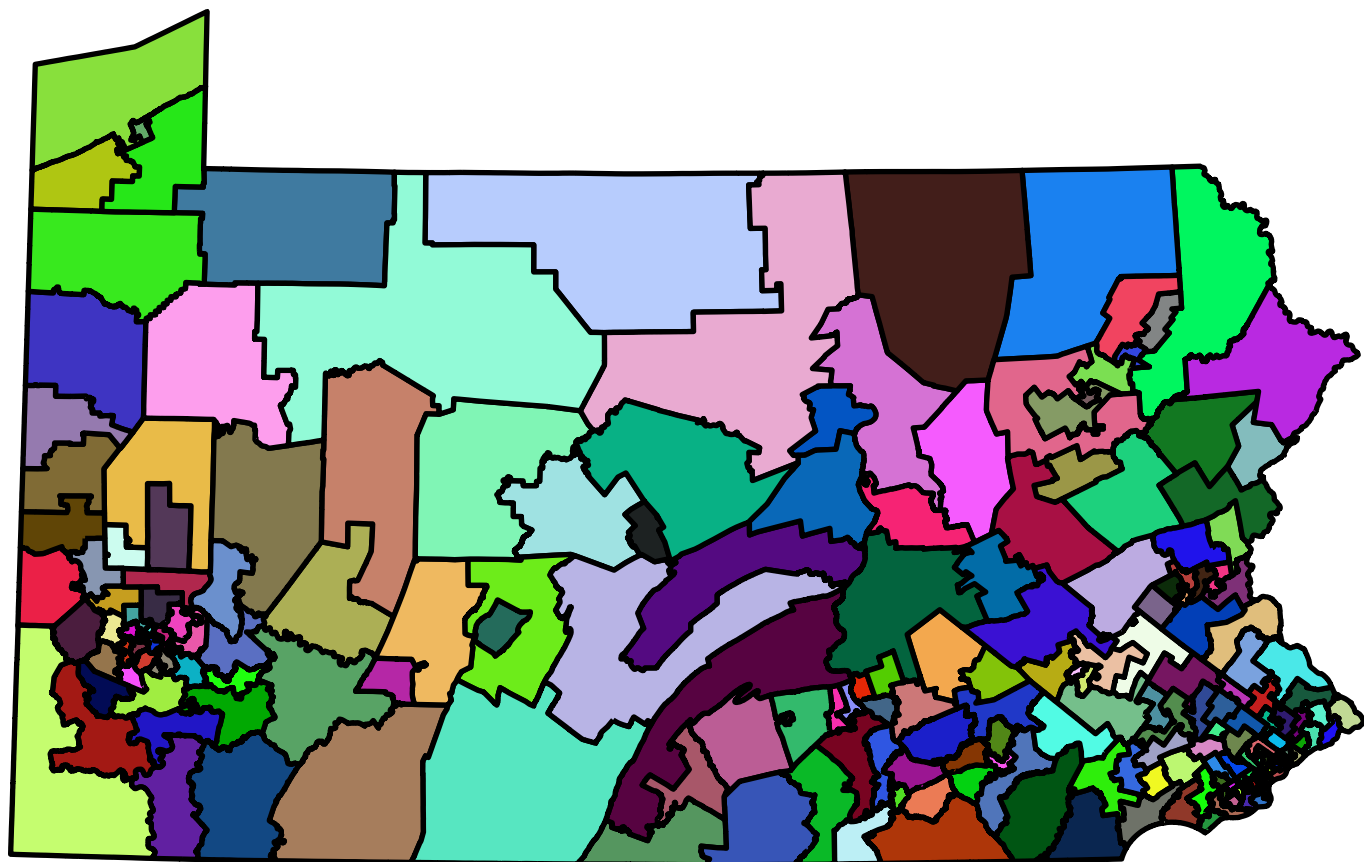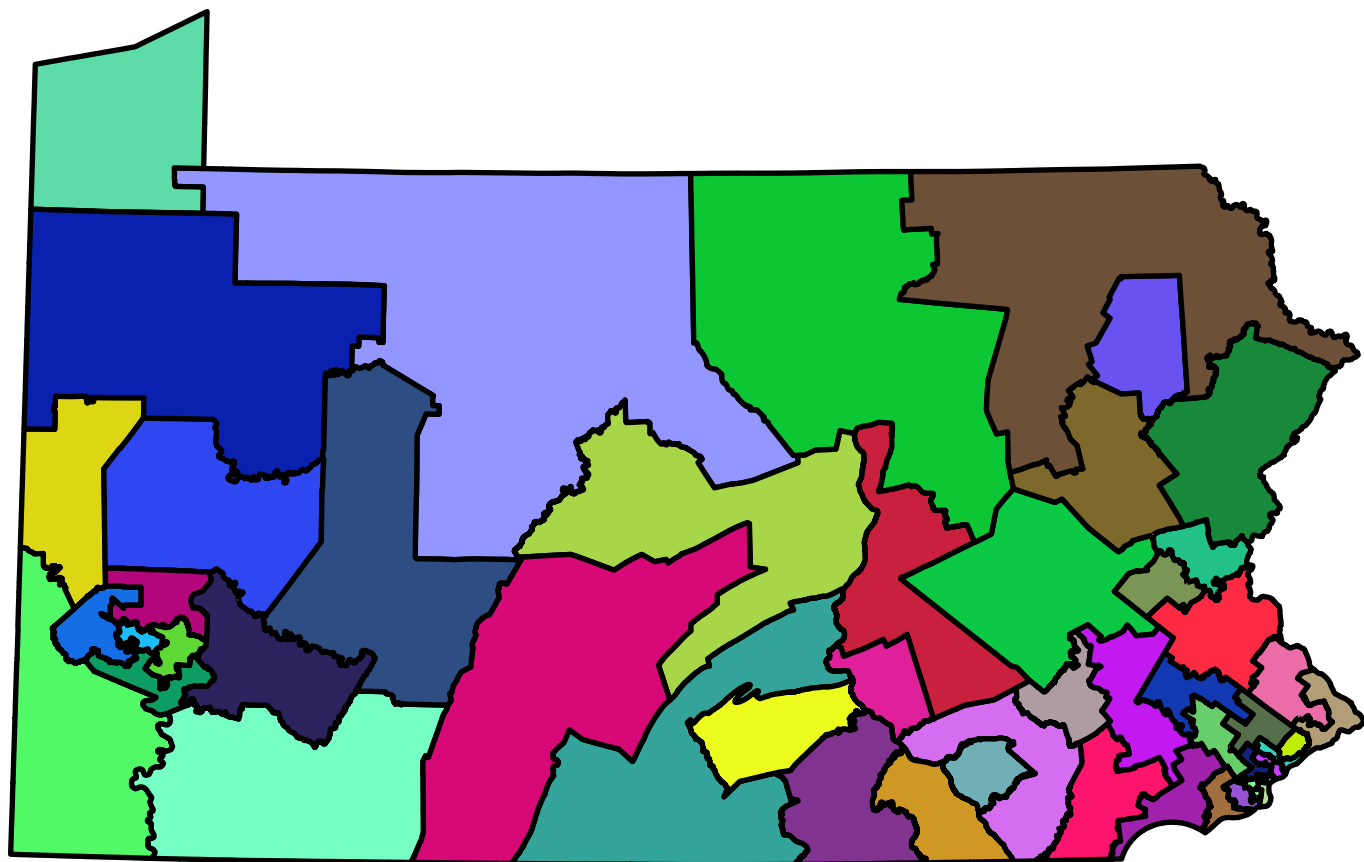
EXHIBIT 3

Findings on Adjustments of Incarcerated Persons In Select Jurisdictions

By County

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
Philadelphia County	1603797	1610816	7019
Allegheny County	1250578	1252572	1994
Montgomery County	856553	855460	-1093
Bucks County	646538	647129	591
Delaware County	576830	577282	452
Lancaster County	552984	554002	1018
Chester County	534413	535057	644
York County	456438	457238	800
Berks County	428849	429863	1014
Lehigh County	374557	375282	725
Westmoreland County	354663	355065	402
Luzerne County	325594	324841	-753
Northampton County	312951	313374	423
Dauphin County	286401	287440	1039
Erie County	270876	270357	-519
Cumberland County	259469	257729	-1740
Lackawanna County	215896	216388	492
Washington County	209349	209657	308
Butler County	193763	193936	173
Monroe County	168327	168545	218
Beaver County	168215	168452	237
Centre County	158172	155668	-2504
Franklin County	155932	156272	340
Lebanon County	143257	143613	356
Schuylkill County	143049	141334	-1715

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
Cambria County	133472	133729	257
Fayette County	128804	128158	-646
Blair County	122822	123103	281
Lycoming County	114188	113574	-614
Mercer County	110652	109887	-765
Adams County	103852	104029	177
Northumberland County	91647	90532	-1115
Lawrence County	86070	86233	163
Crawford County	83938	83334	-604
Indiana County	83246	82628	-618
Clearfield County	80562	79000	-1562
Somerset County	74129	71827	-2302
Armstrong County	65558	65647	89
Carbon County	64749	64866	117
Columbia County	64727	64825	98
Bradford County	59967	60104	137
Pike County	58535	58598	63
Wayne County	51155	50340	-815
Venango County	50454	50683	229
Bedford County	47577	47674	97
Mifflin County	46143	46247	104
Perry County	45842	45941	99
Jefferson County	44492	44670	178
Huntingdon County	44092	42351	-1741
Union County	42681	42740	59
Tioga County	41045	41088	43
McKean County	40432	40546	114

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
Snyder County	39736	39792	56
Warren County	38587	38715	128
Susquehanna County	38434	38477	43
Clinton County	37450	37526	76
Clarion County	37241	37326	85
Greene County	35954	35098	-856
Elk County	30990	31076	86
Wyoming County	26069	26116	47
Juniata County	23509	23549	40
Montour County	18136	18159	23
Potter County	16396	16441	45
Fulton County	14556	14593	37
Forest County	6973	5700	-1273
Sullivan County	5840	5847	7
Cameron County	4547	4559	12

Municipalities with Populations in Excess of 50,000 Persons

PHILADELPHIA CITY	1603797	1610816	7019
PITTSBURGH CITY	302971	303810	839
ALLENTOWN CITY	125845	126364	519
READING CITY	95112	95719	607
ERIE CITY	94831	95351	520
UPPER DARBY TOWNSHIP	85681	85872	191
SCRANTON CITY	76328	76627	299
LOWER MERION TOWNSHIP	63633	63650	17
BENSALEM TOWNSHIP	62707	62788	81
ABINGTON TOWNSHIP	58502	58545	43

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
LANCASTER CITY	58039	58431	392
BETHLEHEM CITY(Northampton)	56009	56130	121
BETHLEHEM CITY(Lehigh)	19772	19806	34
BRISTOL TOWNSHIP	54291	54434	143
MILLCREEK TOWNSHIP	54073	54110	37
LOWER PAXTON TOWNSHIP	53501	53572	71
HAVERFORD TOWNSHIP	50431	50450	19
HARRISBURG CITY	50099	50679	580

Jurisdictions with Adjustments of 1000 or More Persons

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
PHILADELPHIA CITY Philadelphia County	1603797	1610816	7019
LOWER ALLEN TOWNSHIP Cumberland County	20099	18104	-1995
SKIPPACK TOWNSHIP Montgomery County	14389	12499	-1890
SOMERSET TOWNSHIP Somerset County	12083	9669	-2414
COAL TOWNSHIP Northumberland County	10139	8876	-1263
BENNER TOWNSHIP Centre County	8964	6354	-2610
LUZERNE TOWNSHIP Fayette County	5586	4535	-1051
JACKSON TOWNSHIP Luzerne County	4631	3455	-1176
SMITHFIELD TOWNSHIP Huntingdon County	4618	2776	-1842
CONNEAUT TOWNSHIP Erie County	4191	2962	-1229
WOODWARD TOWNSHIP Clearfield County	4137	2678	-1459
JENKS TOWNSHIP Forest County	3858	2578	-1280

Jurisdiction	Population Before Reallocation	Population After Reallocation	Delta
MAHANOY TOWNSHIP Schuylkill County	3192	1847	-1345