IN THE SUPREME COURT OF OHIO

LEAGUE OF WOMEN VOTERS OF OHIO, *et al.* ***Relators,*** ***v.*** **OHIO REDISTRICTING COMMISSION, *et al.*,** ***Respondents.***	**Case No. 2021-1449** **Original Action Filed Pursuant to Ohio Const., art. XIX, Sec. 3(A)**

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

Page(s)

Cases

Ohio Consitution

Other Authorities

INTRODUCTION

In the 2020 congressional election, as between the two major parties, 43% of Ohio voters voted for Democrats, while 57% voted for Republicans. Despite this, Democrats won only 25% of Ohio's 16 congressional seats.

So it had gone throughout the decade, the result of the severely gerrymandered congressional district map enacted in 2011. For ten years, Republicans consistently won 75% of Ohio's congressional seats even though they garnered only 55% of the statewide votes cast during that period. In the last ten years, not a single district changed hands.

But the voters of Ohio decided to end partisan gerrymandering, effective 2021, by amending the Ohio Constitution. On May 8, 2018, 75% of Ohioans voted to enact an express prohibition of partisan gerrymandering: pursuant to Article XIX, Section 1(C)(3)(a), maps that "unduly" favor or disfavor a political party or its incumbents are prohibited. Ohioans believed they had put an end to the unshakable imbalance of the last decade.

But it did not turn out that way. In 2021, following the 2020 U.S. Census, Ohio lost a congressional district, reducing its delegation from 16 to 15. Republicans, again controlling the redistricting process in the General Assembly, were not inclined to share the pain. Instead, they seized the reduction in seats as an opportunity to amplify their gerrymandered advantage.

The Republican majority enacted a new congressional district map, SB 258 ("the Enacted Plan")—without a single Democratic vote. Under the Enacted Plan, Republicans will likely win 12 or more of Ohio's remaining 15 congressional districts. In short, in defiance of Article XIX, Republicans ***increased*** their partisan advantage from 75% of the congressional seats to at least 80%. In fact, if the 2020 election had been held under the Enacted Plan, Democrats would have received only 13% of the seats, despite having won 43% of the vote. Instead of winning four seats, Democrats would have won only ***two*** seats. By all measures, including by comparison to

the universe of 5,000 simulated maps, the Enacted Plan is an extreme partisan outlier that unduly benefits its makers.

Respondents seek to justify the Enacted Plan by contending that it contains seven competitive districts (and that Republicans are thus only are assured of six seats). But the Enacted Plan does not contain seven competitive districts. To make it appear that it does, the Respondents did two things.

First, Respondents used "two sets of books," *i.e.*, they used differing indices for scoring the competitive leaning of a district. The one that was presented publicly was based on a cherry-picked set of election results that artificially inflated the number of "competitive" districts, making the map appear less favorable to the Republican Party. The other, which they relied upon internally, was a set of election-result indices that enabled them to see that the Enacted Plan would ***actually*** perform much more favorably for their party.

Second, Respondents calculated alternative definitions of what it means for a district to be "competitive" and selected the one that made their map appear less aggressively skewed. Indeed, an internal analysis stated that SB 258 would create as few as ***two*** competitive districts, not "seven."

With another decade of elections hanging in the balance, Respondents should not be rewarded for their unearned partisan advantage. This Court has unquestioned authority to remedy this constitutional violation. Relators respectfully seek redress.

LEGAL BACKGROUND

A. The 2018 Amendment to the Ohio Constitution: Article XIX

Over the past decade, the composition of Ohio's congressional delegation has been controlled by the severely gerrymandered maps that came out of Ohio's 2011 decennial apportionment process. This bias dictated the result of every congressional election held in the

last decade, with Republicans consistently winning 75% of the congressional seats (12 out of 16) despite garnering only 55% of the votes in statewide elections during that period. *See* Levenson Rpts. Appx. at RPTS_0018–0019, Supp. Vol. 1 at 66–67 (Warshaw Rpt.).

The process that led to these gerrymandered results was described in detail by a three-judge federal panel in *Ohio A. Philip Randolph Inst. v. Householder*, 373 F. Supp. 3d 978 (S.D. Ohio 2019). Based on its review of extensive evidence, the panel found that "partisan intent predominated" during the map-drawing process and that the resultant map exhibited "significant partisan bias in favor of Republicans" that was "durable across the decade." *Id.* at 1099, 1107.

In direct response to the partisan manipulation of congressional elections over the last decade, Ohio voters overwhelmingly passed a constitutional amendment—Article XIX—which was specifically intended to end partisan gerrymandering. Ohio Const., art. XIX. In the spring of 2017, a coalition of good government groups, known as the Fair Districts = Fair Elections Coalition ("the Coalition"), began an initiative process in support of their "Fair Congressional Districts for Ohio" ballot proposal ("the Initiative"). *See* Press Release, Ohio Environmental Council, *Trio of Good Government Groups File Congressional Redistricting Proposal* (Apr. 24, 2017), http://bitly.ws/jLZ2. The Coalition began gathering signatures in 2017 to place this initiative on the November 2018 ballot. *Id.*

On January 16, 2018, Senator Matt Huffman released a redistricting reform bill, SJR 5, which offered little to end partisan gerrymandering in the state. *See S.J.R. 5: Hearing Before the H. Comm. on Gov't Oversight and Reform*, 132nd Gen. Assembly (2018) (statement of Sen. Matt Huffman), http://bitly.ws/jLZe; *see also* DePass Appx. A, Vol. 1 at HIST_0076–77. Notably, Senator Huffman's bill did not include any prohibition on unduly favoring or disfavoring a political party. *Id.*

Nevertheless, SJR 5 was quickly referred to the Senate Government Oversight and Reform Committee, which heard testimony from good government organizations, community organizations, and individual citizens in the final week of January, 2018. *See* Ohio Legis., 132nd Gen. Assembly, S.J.R. 5 Comm. Activity, Gov't Reform & Oversight Comm., http://bitly.ws/jLZe; *see also* DePass Appx. A, Vol. 1 at HIST_0130–134. In those hearings, witnesses uniformly opposed Senator Huffman's bill and decried its inaction on partisan gerrymandering. *Id.*

In response, Senator Huffman withdrew his original bill and re-introduced a compromise bill on February 5, 2018. *Id.* That compromise bill, SJR 5, included explicit language prohibiting the Legislature from unduly favoring or disfavoring a party or its incumbents. *See* Press Release, Ohio Senate, *Republicans Announce Significant Changes Made To Congressional Redistricting Plan* (Jan. 29, 2018), http://bitly.ws/jM4s. It also drew bipartisan support, including from the community organizations and interested citizens who had opposed Senator Huffman's original bill. *See* Vann R. Newkirk II, The Atlantic, *An End to Gerrymandering in Ohio?* (Feb. 6, 2018), http://bitly.ws/jM4x. The chief Republican sponsor in the House, Representative Kirk Schuring, characterized SJR 5 as "mak[ing] mapping rules . . . that are designed to prevent partisan gerrymandering" and emphasized that the "rules are solid and will ensure the drafting of fair districts." *See* 132nd Gen. Assembly, Feb. 6, 2018 Ohio H. Floor Debate, at 3, https://bit.ly/3DNXl3e, at 05:50; *see also* DePass Appx. A, Vol. 1 at HIST_0025. The bill was passed overwhelmingly in the State Legislature on February 6, 2018. *See* Ohio Legis., 132nd Gen. Assembly, S.J.R. 5 Votes, Gov't Reform and Oversight Comm., http://bitly.ws/jM53; *see also* DePass Appx. A, Vol. 1 at HIST_0135.

Following the passage of SJR 5, the bill was approved by the Secretary of State as a ballot initiative, Issue 1, for the primary election on May 8, 2018. *See* Ohio Sec'y of State, Issue 1 Ballot Language (2018), https://bit.ly/3s04qvA, Supp. Vol. 1 at 234–35; *see also* DePass Appx. A, Vol. 1 at HIST_0074–75. Specifically, the ballot measure informed voters that the "proposed amendment would end the current partisan process for drawing congressional districts by a simple majority vote of the General Assembly," and that "[i]f bipartisan support cannot be obtained, ***strict anti-gerrymandering criteria would apply when adopting a congressional map***." *See* Ohio Sec'y of State, Statewide Explanation of Issue 1 (2018), https://bit.ly/33p1DSk, Supp. Vol. 1 at 237; *see also* DePass Appx. A, Vol. 1 at HIST_0126 (emphasis added). Proponents of the measure, including Senator Huffman, urged voters to support Issue 1, stating that "[a] YES vote will create a fair, bipartisan, and transparent process when drawing congressional districts that will make politicians more accountable to the voters." *See* Ohio Sec'y of State, Argument for Issue 1 (2018), https://bit.ly/3EO4emD; see also DePass Appx. A, Vol. 1 at HIST_0073, Supp. Vol. 1 at 236. Senator Huffman added, "[v]oting YES on Issue 1 will limit gerrymandering by requiring that congressional districts be drawn with bipartisan approval or utilizing strict anti-gerrymandering criteria." *Id.* (emphases omitted).

On May 8, 2018, voters overwhelmingly approved the initiative by a 75-to-25% margin, and Article XIX went into effect on January 1, 2021. *See* Ohio Sec'y of State, 2018 Official Election Results, Summary-Level Official Results for 2018 Primary Election - Statewide Issues (XLSX), https://bit.ly/31VcdQn; *see also* DePass Appx. A, Vol. 1 at HIST_0071–72.

B. The Redistricting Process and Its Deadlines: Article XIX, Section 1

Article XIX, Section 1(C)(3)(a), prohibits the General Assembly from passing any redistricting plan that gives either party an undue partisan advantage. This prohibition is a safeguard that the Court is charged with enforcing whenever the General Assembly enacts a plan

without bipartisan support. Article XIX establishes four different procedural mechanisms for enacting a congressional map. Each subsequent mechanism comes into play whenever the prior mechanism fails to enact a congressional plan by the prescribed deadline. Regardless of which of these four mechanisms ultimately enacts the congressional plan, the plan must adhere to the requirements enumerated in Article XIX, Section 2. However, if the congressional plan is enacted under the fourth and final procedural mechanism (described in Section 1(C)(3)), the plan must also adhere to a set of requirements enumerated in Section 1(C)(3)(a)–(e).

At its first stage, Article XIX provides that the General Assembly shall pass the congressional district plan by a three-fifths vote in each house (including the affirmative vote of at least one-half of the members of each of the two largest political parties in the General Assembly) by September 30. Ohio Const., art. XIX, § 1(A). Section 1(B) then provides that, if such a plan is not passed by September 30, per Section 1(A), then the redistricting commission established by Article XI ("the Commission") shall adopt a plan by October 31. *Id.* § 1(B).[1] Per Section 1(C)(1), if the General Assembly does not pass a plan by a three-fifths vote by September 30, and the Commission does not enact a bipartisan plan by October 31, then the third procedural mechanism kicks in, and the General Assembly is required to pass a plan by November 30. *Id.* § 1(C)(1).

At that point, the General Assembly has two options. Pursuant to Article XIX, Section 1(C)(2), the General Assembly may pass a ten-year plan supported by three-fifths of the members of each house of the General Assembly, so long as the plan has bipartisan support, *i.e.*, the affirmative support of at least one-third of the members of the two largest parties in each

[1] The Commission's plan must be passed by the affirmative vote of four members of the Commission, including at least two members of the Commission who represent each of the two largest political parties represented in the General Assembly. Ohio Const., art. XIX, § 1(B).

house. *Id.* § 1(C)(2). Alternatively, Section 1(C)(3) provides that the General Assembly may pass a shorter-term (four-year) congressional plan by a ***simple*** majority vote (rather than the super-majority vote with bipartisan support described in Section 1(C)(2))—in which case the "strict anti-gerrymandering criteria" overwhelmingly approved by Ohio voters in 2018, as described below, apply. Ohio Const., art. XIX, §§ 1(C)(3)(a)–(e).

C. Article XIX's Strict Prohibitions Against Undue Partisanship and Splitting

If the General Assembly passes a congressional plan by a simple majority vote, and without the support of at least one-third of each of the two major political parties, as was the case here, Article XIX, Section 1(C)(3)(a) commands that "the General Assembly ***shall not*** pass a plan that unduly favors or disfavors a political party or its incumbents." *Id.* § 1(C)(3)(a) (emphasis added).

Section 1(C)(3)(b) further provides that in such a case of a simple majority vote: "The general assembly shall not unduly split governmental units, giving preference to keeping whole, in the order named, counties, then townships and municipal corporations." *Id.* § 1(C)(3)(b).

Finally, for any plan passed pursuant to either subparagraph of Section 1(C)(3), the General Assembly must include in the plan an explanation of its compliance with (i) Section 1(C)(3)(a)'s prohibition against unduly favoring or disfavoring a political party or its incumbents; and (ii) Section 1(C)(3)(b)'s prohibition against unduly splitting governmental units. *Id.* § 1(C)(3)(d).

D. Original Jurisdiction in This Court: Article XIX, Section 3(A)

Article XIX provides that "[t]he supreme court of Ohio shall have exclusive, original jurisdiction in all cases arising under this article." *Id.* § 3(A). That jurisdiction includes the authority and responsibility to hear any case in which "any congressional district plan . . . is challenged," and to "determine[]" that the plan is "invalid" if it violates the strict anti-

gerrymandering criteria specified in Article XIX, Section 1(C)(3)(a)–(e). *Id.* § 3(B)(1). When the Ohio Constitution confers a rare grant of original jurisdiction, it fiercely guards the right of the people to invoke that jurisdiction. *See State ex rel. Ohio Democratic Party v. Blackwell*, 111 Ohio St. 3d 246, 252, 2006-Ohio-5202, ¶¶ 29–32, 855 N.E.2d 1188.

E. The Constitutional Remedy: Article XIX, Section 3(B)

The Constitution further provides that, if and when this Court determines that a congressional district plan violates the strict anti-gerrymandering criteria specified in Section 1(C)(3) of Article XIX, the General Assembly then must pass a new plan "in accordance with the provisions of" the Constitution, and the plan "shall remedy any legal defects in the previous plan identified by the court but shall include no changes to the previous plan other than those made in order to remedy those defects." Ohio Const., art. XIX, § 3(B)(1).

In particular, Section 3(B)(1) provides that the General Assembly shall pass the new plan not later than the thirtieth day after the date of this Court's order requiring revision of the enacted plan. *Id.* If a new congressional district plan is not passed and filed with the Secretary of State in accordance with Section 3(B)(1), then the Commission will be required to reconvene and adopt a congressional district plan. *Id.* § 3(B)(2). Section 3(B)(2) further provides that the Commission shall adopt the new plan not later than the thirtieth day after the deadline set forth for the passage of a new plan by the General Assembly, *i.e.*, sixty days after the order of this Court requiring a revision of the enacted plan. *Id.*

Moreover, if the Court finds that a congressional redistricting plan violates Article XIX, then the Constitution prohibits the continued use of that plan for any election. Indeed, Sections 3(B)(1) and (2) provide that if this Court determines that a congressional district plan is invalid, then the General Assembly or, should they fail, the Commission, "shall" pass a new plan that remedies the defects identified by the Court. This revised plan, so long as it does remedy the

defects identified by the Court, "***shall . . . be used until the next time for redistricting*** **under this article**." *Id.* (emphasis added). Thus, if this Court finds a constitutional violation, the General Assembly, or alternatively, the Commission, is required to pass a new, valid plan, and that plan must be used until the next redistricting cycle.

STATEMENT OF FACTS

I. The Flawed Redistricting Process

A. The Failure to Produce a Plan Until November 3, 2021

In the wake of the 2020 Census, Ohio lost one of its congressional seats—meaning that for this redistricting cycle, Ohio will have 15 rather than 16 congressional districts. *See* U.S. Dep't of Commerce, U.S. Census Bureau, *Apportionment of the U.S. House of Representatives Based on the 2020 Census* (Apr. 26, 2021), https://bit.ly/33fCBFc; *see also* DePass Appx. B, Vol. 1 at REPORTS_0001.

The Census data for use in redistricting was publicly released on August 12, 2020. *See* U.S. Dep't of Commerce, U.S. Census Bureau, *U.S. Census Bureau Delivers Data for States to Begin Redistricting Efforts* (Aug. 12, 2021), https://bit.ly/3nWjyYm; *see also* DePass Appx. C, Vol. 1 at NEWS_0307. And although the Republican-controlled General Assembly had access to this data for seven weeks, they failed to produce any map for comment, let alone introduce a map for passage by the General Assembly before its constitutionally mandated deadline of September 30, 2021. Ohio Const., art. XIX, § 1(A); Thomson Appx. A, Vol. 2 at HRG_0505 (Nov. 18, 2021 Ohio House Floor Debate).

Because the Legislature failed to act by the September 30 deadline, the constitutional responsibility for enacting a plan fell to the Commission, Ohio Const., art. XIX, § 1(B), which faced a deadline of October 31, 2021. *Id.* § 1(C)(1). The Commission also missed its prescribed

deadline. Thomson Appx. B, Vol. 1 at GOVM_0014–0015 (Oct. 28, 2021 Ohio Redistricting Commission Hrg.).

B. The November 3, 2021 Plans and Their Flawed Legislative Process

With the constitutional responsibility for enacting a congressional map reverting back to the Legislature, Ohio Republicans introduced two plans, one in the Ohio House and one in the Senate on November 3, 2021.

Each plan was referred to its respective chamber's committee and heard in committee just minutes after it was introduced. The House Government Oversight Committee ("the House Committee") members were given the proposed Republican-sponsored map just 18 minutes before its first hearing on November 3. Thomson Appx. A, Vol. 1 at HRG_0003 (Nov. 3, 2021 Ohio H. Comm. Government Oversight Hrg.). The House map sponsor, Representative Scott Oelsalger, could not answer most questions from the House Committee members about the map, citing his unfamiliarity with the map-drawing process. *Id.* at HRG_0010–12. He instead identified House Republican staffer, Blake Springhetti, as the map-drawer; Representative Oelsalger declined to commit to allowing members of the House Committee the opportunity to question Springhetti. *Id.* at HRG_0031.

That same day, the Senate Local Government and Elections Committee ("the Senate Committee") held its first hearing on the Senate Republican-sponsored map. The Senate map was not made available to Senate Committee members or the public until the hearing began. Thomson Appx. A, Vol. 1 at HRG_0051 (Nov. 3, 2021 Ohio S. Comm. Local Government and Elections Hrg.). The Senate Republican sponsor, Senator Rob McColley, similarly noted that the Senate map was drawn by a Senate Republican staffer, Ray DiRossi. *Id.* at HRG_0049–50. Like his House counterpart, DiRossi was not made available to testify or answer senators' questions during the Senate Committee's public hearing. *Id.* at HRG_0050.

Over the next two weeks, the House Committee held two more hearings on the proposed House Republican map, and one hearing for a map that had been proposed by the Ohio House Democrats on November 5, 2021. During those hearings, the House Committee heard from dozens of citizens, who voiced near unanimous opposition to the Republican-proposed bill. Thomson Appx. A, Vol. 1 at HRG_0054–0154 (Nov. 4, 2021 Ohio H. Comm. Government Oversight Hrg.); Thomson Appx. A, Vol. 2 at HRG_0273–313 (Nov. 10, 2021 Ohio H. Comm. Government Oversight Hrg.).

Over the same two weeks, the Senate Committee held three additional hearings on the proposed Senate Republican map and the proposed Senate Democratic map. Like the House Committee, the Senate Committee heard near universal opposition to the Republican-proposed bill from dozens of citizens. Thomson Appx. A, Vol. 1 at HRG_0158–205 (Nov. 4, 2021 Ohio S. Comm. Local Government and Elections Hrg.); *Id.* at HRG_0208–24 (Nov. 8, 2021 Ohio S. Comm. Local Government and Elections Hrg.); *Id.* at HRG_0227–55 (Nov. 9, 2021 Ohio S. Comm. Local Government and Elections Hrg.).

On November 10 and 12, 2021, a Joint Committee on Congressional Redistricting held two public hearings. At the November 10 hearing, Senator Vernon Sykes re-introduced a revised Senate Democratic map, explaining that the revised map was "design[ed] to respond to the majority's concern for equal population, emphasizing our commitment to negotiating in good faith." Thomson Appx. A, Vol. 2 at HRG_0319 (Nov. 10, 2021 Ohio J. Comm. Congressional Redistricting Hrg.). Meanwhile, Republicans offered no responsive revisions to their proposed map. As with the House and Senate Committee hearings, dozens of citizens attended the Joint Committee hearings to express near unanimous opposition to the Republican-proposed maps.

See id. at HRG_0333–49; *see also id.* at HRG_0352–95 (Nov. 12, 2021 Ohio J. Comm. Congressional Redistricting Hrg.).

C. November 15, 2021: Senator McColley's Justification of the Enacted Plan and the Vote in the Senate

On November 15, 2021, Senator McColley introduced SB 258, a newly revised Republican map, which was crafted primarily by Respondents Huffman (Republican President of the Senate) and Cupp (Republican Speaker of the House). Thomson Appx. A, Vol. 2 at HRG_0437–38 (Nov. 16, 2021 Ohio S. Comm. Local Government and Elections Hrg.).

The next morning, on November 16, 2021, the Senate Committee heard testimony from Senator McColley about SB 258. In written and oral testimony, Senator McColley described his map as "the most competitive map offered by any caucus to date and the most competitive Ohio congressional map in decades." Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0310, Supp. Vol. 1 at 263 (DiRossi Dep. Ex. 6, McColley testimony). He also noted that the Republican map judged competitiveness "based upon statewide federal elections over the last ten years" and defined a competitive district "as one with a 46%-54% Republican index." *Id.*

The Senate Committee voted to adopt SB 258 on a 5–2 party-line vote. Thomson Appx. B, Vol. 1 at GOVM_0221 (SB 258 Votes). Just hours later, the full Senate voted along party lines, 24–7, to adopt the Republican map. *Id.*

D. November 18, 2021: The Vote in the House

On November 17, 2021, following Senate passage of SB 258, the House Committee took up the same Republican map. Thomson Appx. A, Vol. 2 at HRG_0463 (Nov. 17, 2021 Ohio H. Comm. Government Oversight Hrg.). At the House Committee hearing, Senator McColley presented the same written and oral testimony as he did at the Senate Committee hearing. Thomson Appx. B, Vol. 1 at GOVM_0097–99 (Testimony of Senator McColley, Nov. 17, 2021

Ohio H. Comm. Government Oversight Hrg.). The House Committee then voted to adopt the Republican plan on a strict 8–5 party-line vote. Thomson Appx. B, Vol. 1 at GOVM_0221 (SB 258 Votes). The next day, on November 18, 2021, the House Republicans brought SB 258 to the floor, and the Republican majority passed the bill. *See id.* Four Republicans joined all of the House Democrats in voting against the bill. *Id.*

E. The Section 1(C)(3)(d) Statement and the Governor's November 20, 2021 Signature

Pursuant to Article XIX, Section 1(C)(3)(d), SB 258 incorporated the following statement, which attempts to explain the bill's compliance with Section 1(C)(3)(a)'s strict prohibition against any plan that unduly favors a political party:

> The congressional district plan does not unduly favor or disfavor a political party or its incumbents. The plan contains six Republican-leaning districts, two Democratic-leaning districts, and seven competitive districts. The number of competitive districts in the plan significantly exceeds the number of competitive districts contained in the congressional district plan described in the version of section 3521.01 of the Revised Code that was in effect immediately before the effective date of this section.
>
> Two incumbents expected to seek office again, both Republican, are paired in one district in the plan described in sections 3521.01 to 3521.0115 of the Revised Code, as enacted by this act. No other incumbent, either Republican or Democratic, expected to seek office again, is paired with another incumbent in a congressional district in this plan.

Thomson Appx. C, Vol. 3 at SB258_0733–34, Supp. Vol. 1 at 241–42 (SB 258 § 3(A) (as enrolled), 134th Ohio Gen. Assembly (2021)). After its passage in the House, SB 258 was signed into law by Governor Mike DeWine.

II. The Enacted Plan Was Drawn Based on Partisan Data and With Full Awareness of Its Partisan Bias

A. Respondents Draw a Map With Close Attention to Partisan Results

As in the General Assembly redistricting cycle, Respondents Huffman and Cupp turned to their principal map-drawers, Ray DiRossi and Blake Springhetti. *See* Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0022, Supp. Vol. 2 at 2 (DiRossi Dep. at 21:16–21); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0347, Supp. Vol. 2 at 82 (Springhetti Dep. at 26:2–7). Both DiRossi and Springhetti used the software program Maptitude for Redistricting 2020 ("Maptitude") when drawing different iterations of the congressional map. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0037, Supp. Vol. 2 at 5 (DiRossi Dep. at 36:2–12); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0332–33, Supp. Vol. 2 at 72–73 (Springhetti Dep. at 11:21–12:19).

In Maptitude, both map-drawers pulled up a detailed "DataView" window alongside a map of the State of Ohio, depicting redistricting and other geographic subdivision lines. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0066, Supp. Vol. 2 at 12 (DiRossi Dep. at 65:12–19); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0346–47, _0367–69, Supp. Vol. 2 at 81–82, 87–89 (Springhetti Dep. at 25:20–26:1, 46:6–48:20). The DataView window was displayed on a separate monitor next to the monitor that displayed the district that was being drawn. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0065, Supp. Vol. 2 at 11 (DiRossi Dep.. at 64:9–11); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0368, Supp. Vol. 2 at 88 (Springhetti Dep. at 47:12–15).

This DataView window allowed DiRossi and Springhetti to see the likely partisan performance of the districts they were drawing. For instance, as they drew the lines of Ohio's new congressional districts, DiRossi and Springhetti looked at the data in DataView, which

shifted along with the district lines, allowing them to finely tune the percentage of likely Republican votes from each district. *See* Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0051, _0067, Supp. Vol. 2 at 8, 13 (DiRossi Dep. at 50:21–25, 66:10–15); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0368, Supp. Vol. 2 at 88 (Springhetti Dep. at 47:12–15).

Springhetti and DiRossi each used several alternative election-result indices in their DataView windows, all of which are summarized below:

Table 1: Election-Result Metrics/Indices Used By Congressional Map-Drawers[2]	
2020 presidential election	Statewide presidential election results in **2020** (*i.e.*, Biden and Trump).
FEDEA	Statewide federal election results from **2012** through **2020**.
EA51	Composite of statewide state *and* federal elections from **2012** through **2020**.
EA52	Composite of statewide state *and* federal elections from **2018** and **2020**.
EA53	Composite of statewide state *and* federal election results from **2016** through **2020**.

DiRossi's DataView window was set up to provide assessments of the percentage of Republican votes a drawn district could expect to have under three of these metrics: (1) 2020 presidential election results; (2) FEDEA; and (3) EA53. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0076–77, _0093–94, Supp. Vol. 2 at 15–16, 19–20 (DiRossi Dep. at 75:1–76:3, 92:14–93:6). Springhetti's DataView window was set up to provide assessments of the percentage of Republican votes a drawn district could expect to have under the following four metrics: (1) 2020 presidential election results; (2) EA51; (3) EA52; and (4) EA53. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_00378, _0384–86, Supp. Vol. 2 at 92, 95–97

[2] "Federal election" was defined as statewide results for federal U.S. presidential and Senate races only; it did not include election results from federal U.S. House races. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0414–15, Supp. Vol. 2 at 114–15 (Springhetti Dep. at 93:21-94:4). EA refers to "Election Analysis." Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0094, Supp. Vol. 2 at 20 (DiRossi Dep. at 93:19-21).

(Springhetti Dep. at 57:12–16, 63:11–64:11, 64:16–65:8, 65:12–22). Notably, Springhetti's DataView window did not display the FEDEA index that relied only on federal statewide elections since 2012. *Id.* at DEPO_CONG_0388–89, Supp. Vol. 2 at 99–100 (Springhetti Dep. at 67:22–68:1).

As they worked on the maps, DiRossi and Springhetti provided reports to legislative leadership, including Respondents Huffman and Cupp and Senator McColley. *See* Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0117–18, _0119, _0140, _0149, Supp. Vol. 2 at 35–36, 37, 42, 45 (DiRossi Dep. at 116:7–117:7, 118:16–18, 139:1–6, 148:14–22). Respondents Huffman and Cupp also visited the map-drawers in the redistricting office, where DiRossi and Springhetti worked in Maptitude. *Id.* at DEPO_CONG_0210, Supp. Vol. 2 at 68 (DiRossi Dep. at 209:6–22); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0347–48, Supp. Vol. 2 at 82–83 (Springhetti Dep. at 26:19–27:4). Although DiRossi was precluded from answering questions about any map-drawing instructions he may have received from Respondents, DiRossi admitted that he showed draft maps to Huffman and McColley. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0121, 0152, Supp. Vol. 2 at 39, 48 (DiRossi Dep. at 120:20–24, 151:12–20). Springhetti similarly admitted to showing draft maps to Respondent Cupp.[3] Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0349, _0369, Supp. Vol. 2 at 84, 89 (Springhetti Dep. at 28:3–9, 48:14–16). At the very least, both Respondents saw their map-drawer's computer, and Springhetti confirmed that he showed Respondent Cupp maps directly in Maptitude, where his

[3] In both depositions, counsel for Respondents improperly asserted legislative privilege and instructed DiRossi and Springhetti not to answer questions about a series of relevant topics, including whether they received directions on how to draw the maps from Respondents. *See, e.g.*, Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0154, Supp. Vol.2 at 49-50 (DiRossi Dep. at 153:21-154:13).

DataView window was visible. *Id.* at DEPO_CONG_0369, Supp. Vol. 2 at 89 (Springhetti Dep. at 48:14–16).

B. Respondents Manufactured a Pretextual Justification for the Enacted Plan

Respondents seek to justify the Enacted Plan by contending that it creates seven "competitive" districts. In fact, they kept two sets of books—one for public consumption (the "seven competitive districts" narrative) and another for their internal consideration, demonstrating that the Enacted Plan in fact provided for far greater Republican voting strength. Even their definition of "competitiveness" shifted, making clear the result-oriented nature of their analysis.

1. The "Seven Competitive Districts" Justification

On November 16, 2021, Senator McColley set forth the alleged justification for SB 258. In so doing, he submitted written testimony containing a table into the legislative record, reproduced below. The testimony purported to demonstrate that the proposed plan contained seven competitive districts. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0310, Supp. Vol. 1 at 263 (DiRossi Dep. Ex. 6, McColley testimony). In that written testimony, Senator McColley defined a "competitive" district as one where the Republican and Democratic Party vote shares are within +/- 4 percentage points. *Id.*

Sen. McColley Republican Vote Share Table ("Sen. McColley Table")

Congressional District #	Population	Deviation	Federal Statewide Elections 2012-2020
1	786,630	0	51.5
2	786,630	0	65.1
3	786,630	0	30.4
4	786,630	0	66.0
5	786,630	0	58.8
6	786,629	-1	52.9
7	786,630	0	56.7
8	786,630	0	62.0
9	786,630	0	47.7
10	786,630	0	52.2
11	786,630	0	19.4
12	786,629	-1	61.3
13	786,630	0	48.6
14	786,630	0	53.2
15	786,630	0	53.7

See id. The right hand column (entitled "Federal Statewide Elections 2012-2020") of the Sen. McColley Table shows the Republican vote share for each district, based on an average of each district's votes for statewide federal elections from 2012–2020 (FEDEA). *See id.*; Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0170, Supp. Vol. 2 at 54 (DiRossi Dep. at 169:15–22); *id.* at DEPO_CONG_0175–76, Supp. Vol. 2 at 57–58 (DiRossi Dep. at 174:2–175:2). A score of 54 percent or above would represent a solidly Republican district, whereas a score of 46 percent or below would represent a solidly Democratic district. Districts within +/- 4 percentage points of 50 would be considered "competitive." Thus, this table allowed Republicans to assert that SB 258 creates six Republican-leaning seats (Districts 2, 4, 5, 7, 8, 12), two Democratic-leaning seats (Districts 3 and 11), and seven "competitive" seats (Districts 1, 6, 9, 10, 13, 14, 15). Discovery has confirmed that DiRossi generated the Sen. McColley Table using DiRossi's

FEDEA index. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0175, Supp. Vol. 2 at 57–58 (DiRossi Dep. at 174:2–175:2).

2. The Two Sets of Books

While the Sen. McColley Table sets forth the manner in which Republicans sought to portray their map, it was in fact not how they themselves expected it to perform. On the contrary, DiRossi and Springhetti calculated partisan performance using a few different election metrics, compared these calculations, and chose the election index (FEDEA) that would appear in the Sen. McColley Table as support for their seven "competitive" districts. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0093, _0095, _0097–98, _0175–76, Supp. Vol. 2 at 19, 21, 23–24, 57–58 (DiRossi Dep. at 92:14–19, 94:12–17, 96:23–97:2, 174:2–175:2).

By using the FEDEA index to justify their proposed map, Respondents made their map ***appear*** more competitive than it really was. As DiRossi confirmed in his deposition, the FEDEA index made all but one of SB 258's districts appear to have a weaker Republican performance than the EA53 index that appeared in DiRossi (and Springhetti's) DataView window. *See id.* at DEPO_CONG_0107, _0108–112, Supp. Vol. 2 at 27, 28–32 (DiRossi Dep. at 106:13–22, 107:20–111:7).

Indeed, a comparison of the district scorings using the FEDEA index and two of the other indices—EA53 and EA51—used by the map-drawers demonstrates that by using the FEDEA index, Republicans understated their strength under the Enacted Plan by up to 3+ percentage points in particular districts. These material differences—especially as to the allegedly "competitive" districts—can be seen in Tables 2 and 3, below.

Table 2: Partisan Index Comparison (EA53 v. FEDEA)[4]			
District	**EA53** (Republican vote share, all statewide races, 2016–2020)	**FEDEA** (Republican vote share, federal elections only, 2012–2020)	**Difference Between Index Results**
1	51.549921	51.5	**0.049921**
2	66.699891	65.1	**1.599891**
3	29.663648	30.4	**-0.736352**
4	67.291739	66	**1.291739**
5	60.789685	58.8	**1.989685**
6	56.294888	52.9	**3.394888**
7	57.880853	56.7	**1.180853**
8	62.466097	62	**0.466097**
9	50.314227	47.7	**2.614227**
10	53.320920	52.2	**1.12092**
11	19.794961	19.4	**0.394961**
12	63.071256	61.3	**1.771256**
13	49.232901	48.6	**0.632901**
14	54.136476	53.2	**0.936476**
15	53.886546	53.7	**0.186546**

As Table 2, above, demonstrates, in four of Respondents' "competitive" districts—Districts 6, 9, 10 and 14 (highlighted in green)—there was materially improved Republican performance (ranging from nearly 1 to over 3 percentage points) under the EA53 index. In fact, under the EA53 index, only five districts would qualify as competitive under Respondents' own definition of competitiveness (+/- 4%)—as Districts 6 and 14 show Republican vote shares at 54% or above.

[4] The data in this chart was pulled directly from the Maptitude data sets, as produced to Relators, for EA53 and FEDEA. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0287, Suppl. 1 at 248 (DiRossi Dep. Ex. 1); Levenson Rpts. Appx at RPTS_0108, Supp. Vol. 1 at 156 (Second Rodden Rpt.) (explaining how Maptitude data was extracted from produced files). The "Difference Between Index Results" represents the straight forward subtraction of the FEDEA figure from the EA53 figure for the same district. *See* Levenson Rpts. Appx. at RPTS_0115, Supp. Vol. 1 at 163 (Second Rodden Rpt., Table 3) (using the same method to calculate the difference between EA53 and FEDEA).

Substantial discrepancies also exist in expected Republican performance when comparing the FEDEA index put forth by Senator McColley with the EA51 index, which Springhetti relied on when using Maptitude. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0384–85, Supp. Vol. 2 at 95–96 (Springhetti Dep. at 63:11–64:11).

Table 3: Partisan Index Comparison (EA51 v. FEDEA)[5]			
District	**EA51** (Republican vote share, all statewide races, 2012–2020)	**FEDEA** (Republican vote share, federal elections only, 2012–2020)	**Difference Between Index Results**
1	54.3138	51.5	**2.813800**
2	66.1726	65.1	**1.072600**
3	33.8389	30.4	**3.438900**
4	68.1555	66	**2.155500**
5	61.0656	58.8	**2.265600**
6	53.9045	52.9	**1.004500**
7	58.9902	56.7	**2.290200**
8	63.8986	62	**1.898600**
9	50.886	47.7	**3.186000**
10	55.4937	52.2	**3.293700**
11	23.1343	19.4	**3.734300**
12	62.6081	61.3	**1.308100**
13	51.652	48.6	**3.052000**
14	55.6072	53.2	**2.407200**
15	56.3749	53.7	**2.874900**

Thus, when EA51 is considered, material differences are disclosed in all of the allegedly "competitive" districts (highlighted in green). And under the EA51 index, Districts 1, 10, 14,

[5] The data in this chart was pulled directly from the Maptitude data sets, as produced to Relators, for EA51 and FEDEA. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0287, Suppl. 1 at 248 (DiRossi Dep. Ex. 1); Levenson Rpts. Appx at RPTS_0108, Supp. Vol. 1 at 156 (Second Rodden Rpt.) (explaining how Maptitude data was extracted from produced files). The "Difference" represents the straight forward subtraction of the FEDEA figure from the EA51 figure for the same district. *See* Levenson Rpts. Appx. at RPTS_0115, Supp. Vol. 1 at 163 (Second Rodden Rpt., Table 3) (using the same method to calculate the difference between EA51 and FEDEA).

and 15 are no longer competitive even under Senator McColley's own definition of that term. Indeed, under the EA51 index, only ***three*** district qualify as competitive, per that definition.

In sum, a comparison of the scoring resulting from all of the indices that were considered by Respondents shows that the FEDEA index made ***every single district*** appear to have a weaker Republican performance. That is, by simply leaving out the results of statewide ***state*** elections in assessing the partisan performance of SB 258, Respondents made ***all*** of the districts they drew appear up to 3.7+% more Democratic than they actually were.

The use of the cherry-picked FEDEA index that Senator McColley publicly put forward was not justified by principle or practice. Moreover, the FEDEA index was not even one that was ever used or considered by Springhetti when he drew maps for the Ohio House—it had no place in his Maptitude DataView. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0388–89, Supp. Vol. 2 at 99–100 (Springhetti Dep. at 67:21–68:1). Indeed, Respondents did not settle on the FEDEA index in their map drawing until the second week of November, when they were well aware of the comparative outcomes. *Id.* at DEPO_CONG_0341–42, Supp. Vol. 2 at 76–77 (Springhetti Dep. at 20:24–21:5).

3. The Shifting Definition of "Competitiveness"

Respondents' retroactive and manipulative selection of election-result metrics and indices is compounded by their shifting definition of competitiveness. Throughout the map-drawing process, Respondents continued to redefine and expand their definition of what qualified as "competitive," testing out at least ***three*** different definitions of "competitive": (1) a district within "3.75 percent or less" of a 50% split; (2) a district between 3.75% and 3.8% of that split; and (3) a district within 4% of that split. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0411, 0417, 0421, Supp. Vol. 2 at 111, 117, 120 (Springhetti Dep. at 90:12–18, 96:10–17, 100:8–9); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0499, Supp. Vol. 1 at

286 (Springhetti Dep. Ex. 6, DiRossi Analysis using +/- 3.75% to 3.80% and +/- 4%); *id.* at DEPO_CONG_0497, Supp. Vol. 1 at 284 (Springhetti Dep. Ex. 5, Springhetti Memo using +/- 3.75%). Indeed, Respondents appeared to have applied each of these three definitions, progressively expanding the scope of what they would deem "competitive" until they reached a metric (+/- 4%) that allowed them to make their overblown claim about the map's competitiveness. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0421, Supp. Vol. 2 at 120 (Springhetti Dep. at 100:8–9 (testifying that "shifting from 3.75 to 3.8 to 4 . . . was all discussed internally")).

The contrived nature of this metric is underscored by the fact that Respondents did not land on their 4% competitiveness metric until after November 9, after the final SB 258 map had already been created. *Id.* at DEPO_CONG_0398, Supp. Vol. 2 at 103 (Springhetti Dep. at 77:14–20). The metric did not inform the map drawing—a more honest one did—but it provided a post-hoc justification for the partisan lean of the map.

Republicans were more candid about the map's performance in private. In providing the "Highlights and Key Facts" about SB 258 in a memorandum to legislators, Springhetti noted that, under this map, Republicans could win "more than eleven of fifteen districts." Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0477, Supp. Vol. 1 at 271 (Springhetti Dep. Ex. 3, SB 258 Highlights for Legislators); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0400, _0402–03, Supp. Vol. 2 at 105, 107 (Springhetti Dep. at 79:9–10, 81:25–82:7). This point—effectively conceding that Republicans had drawn a 12–3 map—was not set forth in Senator McColley's official justification for SB 258.

4. The Private Competitiveness Assessment Communicated to Legislators

These alternative metrics were not lost in the weeds. At least two internal memoranda lined up these alternative indices, side by side. And those memoranda were communicated, at the very least, to the sponsor of SB 258, Senator McColley.

The first memorandum, DiRossi Deposition Exhibit 5, was sent by email from Ray DiRossi to Senator McColley on November 15, 2021 at 9:05 pm. *See* Levenson Disc. Appx. A, Vol. 2 at 1 at DEPO_CONG_0299, Supp. Vol. 1 at 252 (DiRossi Dep. Ex. 4); *see also id.* at DEPO_CONG_0305, Supp. Vol. 1 at 258 (DiRossi Dep. Ex. 5) (attached). In that memorandum, DiRossi makes it clear that if one used "all data"—that is, the statewide state and federal elections from 2016 to 2020 included in the EA53 index, rather than the cherry-picked federal statewide elections in the FEDEA index—the number of "competitive" seats was actually five, not seven, even using the "+/- 4%" criteria. *See* Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0305, Supp. Vol.1 at 258 (DiRossi Dep. Ex. 5).

The second memorandum is even more telling. It reveals that if one considered "all data" the number of "competitive" seats ranged from five all the way down to ***two*** depending on the definition of "competitiveness" that was selected. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0312, Supp. Vol. 1 at 265 (DiRossi Dep. Ex. 7). This memorandum was prepared for Senator McColley so he could assess the number of competitive districts created by SB 258. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0181, Supp. Vol. 2 at 61 (DiRossi Dep. at 180:17–23).

In other words, the Senate leadership had both sets of books. They disclosed only the version that portrayed their map as offering Democrats a chance to compete for seven seats, despite knowing that most of these seats had been designed to be out of Democratic reach.

ARGUMENT

The record evidence makes clear that the Enacted Plan unduly favors the Republican Party and its incumbents in violation of Article XIX. This is true for five reasons.

First, the Enacted Plan provides the Republican Party with an even larger percentage of congressional seats than was the case under the severely gerrymandered 2011 map that Article XIX, as amended by 75% of Ohio voters in 2018, sought to undo. They have now enhanced their expected margin from 75% of the congressional seats to 80%.

Second, the Enacted Plan provides the Republicans with an unearned, statistical three-seat bonus. This is revealed by a comparison of the Enacted Plan to 5,000 Article XIX compliant maps. The average of maps in this 5,000 set has nearly three fewer Republican seats than the Enacted Plan. Imai Rpt. at ¶ 26, Supp. Vol. 1 at 13. And that is the result even when evaluating those 5,000 simulated maps using Respondents' chosen (flawed) set of elections to determine the partisan bias of a congressional district.

Third, Respondents' explanation of the Enacted Plan's partisan skew is pretextual. Pursuant to Article XIX, Section 1(C)(3)(d), which requires a statement regarding the map's compliance with Section 1(C)(3)(a), Respondents contend that the Enacted Plan draws seven competitive seats, with two seats that lean Democratic, and the balance—six seats—leaning Republican. *See* Thomson Appx. C, Vol. 3 at SB258_0733, Supp. Vol. 1 at 241–42 (S.B. 258 § 3(A) (as enrolled), 134th Ohio Gen. Assembly (2021)). They create this illusion however, by improperly cherry-picking a non-representative set of elections that artificially inflates Democratic strength in Ohio's electoral count. *See* Levenson Rpts. Appx. at RPTS_0034–35, Supp. Vol. 1 82–83 (Warshaw Rpt.).

Fourth, the Enacted Plan is unduly biased when evaluated under all prevailing partisan metrics. Indeed, even if Respondents' purposely narrow set of elections is used to justify this

map, the Enacted Plan still remains a statistical outlier in terms of its partisan bias and expected seat allocation. Of the 5,000 maps generated using Respondents' flawed election indices, exactly zero have the same level of pro-Republican bias as the Enacted Plan. *See* Imai Rpt. at ¶¶ 3, 26, Supp. Vol. 1 at 3, 13.

Fifth, the Enacted Plan unduly favors Republican incumbents, providing them with a distinct advantage. It relegates two of the four Democratic incumbents from the previous plan to largely new districts that will have a majority of Republican voters. *See* Levenson Rpts. Appx. at RPTS_0038, Supp. Vol. 1 at 86 (Warshaw Rpt.). Meanwhile, it does not force any Republican incumbent into a district with a majority of Democratic voters. *Id.*

I. Proposition of Law 1: The Enacted Plan Violates Section 1(C)(3)(a) By Unduly Favoring the Republican Party

A. The Enacted Plan Violates Section 1(C)(3)(a) By Creating a Map More Severely Gerrymandered Than the 2011 Map

1. Section 1(C)(3)(a), at Minimum, Prohibits Maps That Are More Severely Gerrymandered Than the 2011 Map

Each and every congressional election held in the last decade saw Republican candidates consistently win 75% of the congressional seats (12 out of 16) while at the same time garnering only 55% of the votes in statewide elections. *See id.* at RPTS_0018–19, Supp. Vol. 1 at 66–67 (Warshaw Rpt.). Most recently, in the 2020 congressional election, Democrats received 43% of the two-party vote (Republicans received 57%), but won only 25% of the seats (Republicans won 75%). *See id.* at RPTS_0018, Supp. Vol. 1 at 66 (Warshaw Rpt.). *Cf. also Householder*, 373 F. Supp. 3d at 1106–07 (surveying the partisan skew of the 2011 map as of 2019).

This decade-long injustice was the result of one of the most extreme partisan gerrymanders of a congressional map in modern history. *See Householder*, 373 F. Supp. 3d at 1108. And the 2018 constitutional amendment, Article XIX, was designed to correct that result.

Indeed, that is the purpose of Section 1(C)(3)(a) and its prohibition of maps that "unduly favor" a political party or its incumbents. Thus, if "unduly" means anything, at the very least it means that a map cannot be as skewed as the map enacted in 2011.

2. The Enacted Plan Creates a Map More Severely Gerrymandered Than the 2011 Map

The Enacted Plan increases (rather than decreases) the already extreme degree to which the Republican Party has advantaged itself in congressional elections. Allowing the most conservative margins, the Enacted Plan would establish ten congressional districts that will safely elect Republican candidates, two districts that will safely elect Democratic candidates, and three arguably competitive districts which would nonetheless favor the Republican Party. *See* Levenson Rpts. Appx. at RPTS_0018, Supp. Vol. 1 at 66 (Warshaw Rpt.). Thus, under these projections, the Enacted Plan safely allocates 67% of the total congressional seats (10 of 15) to the Republican Party for the next four years, despite their predicted 55% share of the vote. *Id.*

But that allocation is the very minimum that the Republican Party will win—with wide margins of safety. Indeed, when the allocation is based on how the districts in the Enacted Plan are ***likely*** to vote, Republicans are expected to win the congressional elections in 12 districts, or 80% of the total congressional seats in the Enacted Plan. *See id.*

To assess the degree to which the Enacted Plan favors the Republican Party, Relators' expert, Dr. Warshaw engaged in a two-step process. First, he determined the distribution of partisan support in Ohio and the expected partisan composition of Ohio's congressional delegation under the Enacted Plan. Second, he calculated the likely partisan composition of Ohio congressional seats under the Enacted Plan.

As regards to the distribution of partisan support, rather than rely on a biased subset of elections (*e.g.*, federal elections only[6]), Dr. Warshaw determined the distribution of partisan support in Ohio based on the results of all 13 statewide elections (federal and state) in Ohio from 2012–2020. *See* Levenson Rpts. Appx. at RPTS_0033, Supp. Vol. 1 at 81 (Warshaw Rpt.). When averaging across these statewide elections, Dr. Warshaw calculated that "Democrats win 45% of the votes" (and Republicans win 55%). *See id.* at RPTS_0018, Supp. Vol. 1 at 66.

To calculate the expected partisan composition of Ohio's congressional seats under the Enacted Plan, Dr. Warshaw used three different methodologies to predict future election results. Those three methods for evaluating the partisan leaning of a district entailed using: (1) the 2020 congressional election results, (2) a composite of previous statewide election results between 2012 and 2020, and (3) a predictive model from the PlanScore.org website. *See id.* at RPTS_0017–18, Supp. Vol. 1 at 65–66. Dr. Warshaw used those three methods to provide the most conservative assessment, one that does not rely on a single method.

Based on these methods, Dr. Warshaw concluded that Republicans are expected to win, on average, 87% of Ohio's congressional seats when using the 2020 congressional election results, 74% of the seats when using the composite statewide election results, and 79% of the seats when using the predictive model from PlanScore.org.[7] *See id.* at RPTS_0017–18, RPTS_0032–34, Supp. Vol. 1 at 65–66, 80–82. Thus, once one averages the results of Dr. Warshaw's three different methods, under the Enacted Plan, Republicans are likely to win "about

[6] Using just the set of federal elections is distorting because those elections include two Democratic wave elections, which were not typical of other years. *See infra* § II.A.

[7] PlanScore is a project of the Campaign Legal Center and uses a statistical model to estimate district-level vote shares for a new map based on the relationship between presidential election results and legislative results between 2012–2020.

80% of the seats in Ohio's congressional delegation" (or 12 out of 15 seats).[8] *See id.* at RPTS_0018, Supp. Vol. 1 at 66.

A single election illustrates the increased severity of the new gerrymander. If the 2020 congressional election had been held under the Enacted Plan, Democrats would only have won 13% (2) of the seats using the precinct-level results of the 2020 congressional election. *See id.* That is ***half*** of what Democrats won under the (already severely gerrymandered) 2011 map.

Indeed, by any measure the Enacted Plan is materially more biased in favor of the Republican Party than the 2011 Plan.

Metric	Value	More Biased than this % Historical Plans	More Pro-Republican than this % Historical Plans
2012-2020 Plan			
Republican Seat Share	75%		
Efficiency Gap	-11%	78%	91%
Declination	-.51	85%	91%
Mean-Median Diff	-4%	57%	78%
Symmetry Bias	-12%	78%	87%
Average		75%	87%
Enacted Plan			
Republican Seat Share	87%		
Efficiency Gap	-23%	98%	99%
Declination	-.90	97%	97%
Mean-Median Diff	-3%	42%	72%
Symmetry Bias	-10%	69%	83%
Average		77%	88%

Table 4: Partisan bias metrics for Congressional plan based on 2020 Congressional election results re-aggregated onto enacted map

[8] The average of 87%, 74%, and 79% is 80%. Dr. Rodden, another expert who has issued an expert affidavit in a parallel congressional case, *Adams, et al. v. DeWine, et al.*, No. 2021-1428, has also opined that Republicans are expected to win 80% of Ohio's congressional seats under the Enacted Plan. *See* Levenson Rpts. Appx. at RPTS_0045, Supp. Vol. 1 at 93 (First Rodden Rpt.).

As set forth in Table 4 of Dr. Warshaw's Report, reproduced above, there is no way to characterize this radical reduction of Democratic representation other than "unduly" favoring the Republican Party.

B. The Enacted Plan Provides the Republican Party With Approximately Three Seats More Than the Average Simulated Plan

Merely reverting to the gerrymandered 2011 distribution of seats would not fulfil the requirements of Article XIX. That map was already unduly partisan. Moreover, expert analysis has confirmed that the Enacted Plan provides the Republican Party with approximately three more seats than the average simulated plan.

Relying on his publicly available algorithm, Dr. Imai, Relators' second expert, conducted simulation analyses to compare the Enacted Plan against a representative set of 5,000 possible redistricting maps that comply with Ohio's constitutional requirements and reflect the state's political geography. *See* Imai Rpt. at ¶¶ 3, 24, Supp. Vol. 1 at 5, 12. Each of these maps is at least ***as compliant*** with all of Article XIX's restrictions on drawing congressional districts as the Enacted Plan. *See id.* at ¶¶ 14, 24, Supp. Vol. 1 at 8, 12.

In evaluating the Enacted Plan, Dr. Imai used ***the General Assembly's method*** of calculating expected seat share, and in particular, used Respondents' limited set of six statewide federal elections from 2012 to 2020. Dr. Imai did so to replicate Respondents' analysis, even though he views this approach as flawed because it utilizes a dataset that enhances the perception of Democratic Party strength. *See* Levenson Rpts. Appx. at RPTS_0034–0035, Supp. Vol. 1 at 82– 83 (Warshaw Rpt.); Imai Rpt. at ¶ 17 & n.2, Supp. Vol. 1 at 9–10. Nonetheless, Dr. Imai used Respondents' dataset to provide an analysis that gives the Enacted Plan the benefit of the doubt, *i.e.*, he used a set of elections that understated the Republican advantage in the Enacted Plan. Imai Rpt. at ¶ 17, Supp. Vol. 1 at 9–10.

The result is quite striking. Even under Respondents' flawed approach, the Enacted Plan gives Republican candidates 2.8 more seats than in the average simulated plan. *See id.* at ¶¶ 3, 26, Supp. Vol. 1 at 5, 12–13. Indeed, Dr. Imai found that the Enacted Plan ***creates more Republican districts than any of the 5,000 simulated plans***. *See id.* at ¶¶ 3, 26, Supp. Vol. 1 at 6, 12–13.

Thus, even using the General Assembly's own approach, the Enacted Plan is a clear statistical outlier in terms of the number of congressional seats that are expected to be won by Republican candidates.[9] *See id.*, Supp. Vol. 1 at 5, 12–13. Indeed, Dr. Imai showed, based on his simulation of 5,000 plans, that the expected Republican seat share under the Enacted Plan has ***a zero percent chance*** of occurring in a set of simulated plans free from partisan bias. *See id.* at ¶¶ 3, 27, Supp. Vol. 1 at 5, 13.

Figure 1 of Dr. Imai's Report, reproduced below, shows the extent to which the Enacted Plan is an extreme outlier in terms of expected seat share. It shows that nearly 80% of the 5,000 simulated plans result in eight expected Republican seats, and none of the simulated plans results in more than ten expected Republican seats. *See id.* at ¶ 26, Supp. Vol. 1 at 12–13.

[9] To determine whether the Enacted Plan is a statistical outlier, Dr. Imai estimated the probability of generating a simulated plan that favors a political party at least as much as the Enacted Plan does. If this estimated probability was very small, that would indicate a statistical outlier because the Enacted Plan would be highly unlikely to come from the non-partisan distribution that is used to generate the simulated plans. *See* Imai Rpt. at ¶ 21, Supp. Vol. 1 at 11.

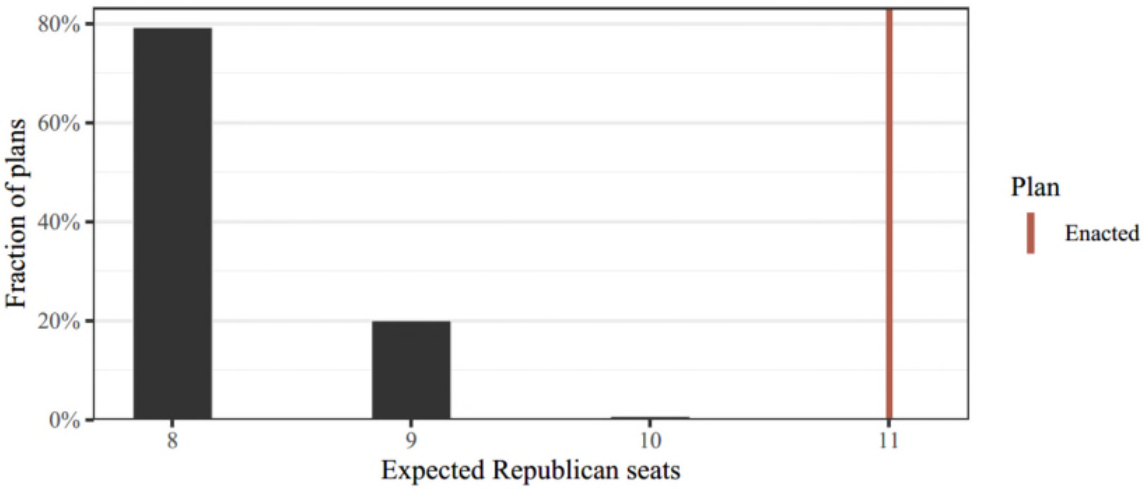

Figure 1: Expected number of Repulican seats calculated for the 5,000 simulated plans computed by averaging across the six federal elections from 2012 to 2020. Overlaid is the value for the enacted plan (red).

II. Proposition of Law 2: Respondents' Baseless "Seven Competitive Districts" Justification for the Enacted Plan Pursuant to Section 1(C)(3)(d) Confirms Their Violation of Section 1(C)(3)(a)

Respondents seek to justify the Enacted Plan by reciting, pursuant to Article XIX, Section 1(C)(3)(d), that it creates seven competitive districts. This statement, however, is not only objectively flawed, but was ***known to be*** flawed when made.

The absence of any credible justification for the Enacted Plan is itself probative evidence that the Enacted Plan unduly favors the Republican Party and its incumbents. And the lack of any credible explanation, as well as the manifestly contrived rationalization, for the Enacted Plan's skewed partisan performance, is further proof that the Enacted Plan violates Section 1(C)(3).

A. Respondents' Characterization of Certain Seats in the Enacted Plan as "Competitive" Relies on a Distorting Set of Elections

The General Assembly's statement that the Enacted Plan contains "seven competitive districts" is, at best, misleading. Respondents admit that their justification for that calculation

was based only on certain statewide federal elections results in 2012, 2016, 2018, and 2020—*i.e.*, the presidential and U.S. Senate races (excluding the U.S. House races)—that appeared more competitive than the election dataset they actually used to draw the Enacted Plan. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0310, Supp. Vol. 1 at 263 (DiRossi Dep. Ex. 6, McColley testimony). Whenever Respondents (and their map-drawers) calculated the partisan skew according to all other election-result datasets, the Enacted Plan appears to be what it is: a partisan skew that would safely deliver them ten seats, with three competitive seats, and only two safe seats for Democrats.

Dr. Warshaw has explained why Respondents' use of election data for statewide ***federal*** elections from 2012 through 2020 artificially enhances the perception of Democratic strength in two ways. *See* Levenson Rpts. Appx at RPTS_0034–0035, Supp. Vol. 1 at 82– 83 (Warshaw Rpt.). First, this selective composite excludes the Republican wave year 2014. *See id.* Even though Republicans did very well that year, there were no statewide federal elections during that cycle. *See id.* Second, and conversely, Respondents' selective election-results composite includes the Democratic wave for federal statewide elections in 2012 and 2018 (which included the Barack Obama and Sherrod Brown elections). *Id.* In fact, 2012 was a high-water mark for Democrats in Ohio, and their electoral performance has not come close to this level in the decade since. *See* Levenson Rpts. Appx. at RPTS_0035, Supp. Vol. 1 at 83 (Warshaw Rpt.). For these two reasons, the dataset chosen by Respondents is highly distorting.

Moreover, the disingenuousness of Respondents' Section 1(C)(3)(d) statement is underscored by Dr. Warshaw's analysis of how competitive each district would be under the Enacted Plan using three different methodologies: (1) an evaluation based only on the results from the most recent election cycle (2020 congressional), (2) an evaluation based on a composite

of ***all*** previous statewide election results between 2012 and 2020 for which precinct-level data is available, and (3) a predictive model from the PlanScore.org website. *See id.* at RPTS_0035–36, Supp. Vol. 1 at 83–84. Taking an average of the number of competitive seats predicted by each of these methods, Dr. Warshaw concluded that the Enacted Plan has only three potentially competitive districts—four fewer than the seven competitive seats touted by Respondents. *See id.* at RPTS_0035–37, Supp. Vol. 1 at 83–85.

As an illustration, Table 4, below, compares (a) the Republican vote-share projections presented by Senator McColley when he introduced SB 258 to the Senate Committee on November 16, 2021, with (b) Dr. Warshaw's determination of the number of arguably competitive districts, averaged across his three methods. The three districts that Dr. Warshaw found to be ***arguably*** competitive are highlighted in yellow, and the additional four districts Senator McColley identified as "competitive" are highlighted in green.

Table 4: Sen. McColley-Dr. Warshaw Comparison of Republican Vote Share		
District	**Sen. McColley's Republican Vote Share**	**Dr. Warshaw's Republican Vote Share**
1	51.5	53
2	65.1	70
3	30.4	31
4	66	69
5	58.8	64
6	52.9	60
7	56.7	61
8	62	64
9	47.7	53

10	52.2	56
11	19.4	23
12	61.3	67
13	48.6	53
14	53.2	58
15	53.7	56

Further refuting Respondents' contention of seven competitive districts is Dr. Warshaw's additional finding that the three "competitive" districts in the Enacted Plan (highlighted in yellow, above) represents the high end of the estimates for competitive districts. This is because all three of these potentially competitive districts—Districts 1, 9, and 13—***lean*** Republican, each with an average Republican vote share of 53%. *See id.* For example, under the PlanScore model, Dr. Warshaw calculated that a Republican candidate has a 64% chance to win District 1, an 84% chance to win District 9, and a 69% to win District 13. *See id.* at RPTS_0036–37, Supp. Vol. 1 at 84–85.

Thus, it is quite likely Republicans would win all three out of seven "competitive" seats—resulting in 13 Republican and two Democratic seats. Even giving the Enacted Plan the benefit of the doubt (a generous assumption based on how much the "competitive" districts lean Republican), the Republicans would win ***at least*** 12 out of the total 15 seats, *i.e.*, 80% of the congressional seats. *See id.* at RPTS_0018, RPTS_0037, Supp. Vol. 1 at 66, 85. This is starkly different than Respondents' rose-tinted assertion that "the plan contains six Republican-leaning districts, two Democratic-leaning districts, and seven competitive districts."

B. The Enacted Plan's Stated Justification Was Pretextual

The stated justification for the Enacted Plan—that it allegedly creates seven "competitive" districts—was and is not only baseless, but was known to be without foundation at the time it was articulated. As set forth above, Senator McColley's November 16 and 17, 2021, testimony was based on a table purporting to set forth the partisan leanings of individual districts. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0310, Supp. Vol. 1 at 263 (DiRossi Dep. Ex. 6, McColley testimony); *see also* Thomson Appx. B, Vol. 1 at GOVM_0098, Supp. Vol. 1 at 244 (Testimony of Senator McColley, 134th Gen. Assembly, Nov. 17, 2021 Ohio H. Comm. Government Oversight, Hrg., at 2).

That table was based on only one of several election metrics in map-drawer DiRossi's Maptitude file—the FEDEA index that downplayed Republicans' partisan advantage. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0170, Supp. Vol. 2 at 54 (DiRossi Dep. 169:15–22); *id.* at DEPO_CONG_0175–76, Supp. Vol. 2 at 57–58 (DiRossi Dep. 174:2–175:2). This was despite the fact that other indices—such as the EA53 and EA51 indices—demonstrated far greater Republican partisan strength in key districts. Tellingly, Springhetti, DiRossi's counterpart in the House, never used the FEDEA index at all. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0388–89, Supp. Vol. 2 at 99–100 (Springhetti Dep. at 67:22–68:1).

The alternative—and more pro-Republican—election metrics were in fact communicated to the legislative leadership:

- Senator Huffman and Speaker Cupp each visited the room where DiRossi and Springhetti worked with Maptitude while the computer monitors were on, displaying the alternative indices, and at least Cupp regularly viewed maps in Maptitude. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0349, _0369, Supp. Vol. 2 at 84, 89 (Springhetti Dep. at 28:3–9; 48:14–16); Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0210–11, Supp. Vol. 2 at 68–69 (DiRossi Dep. 209:6–9, 210:3–4, 210:17–21).

- Huffman, Cupp, Springhetti, DiRossi, House Chief of Staff Christine Morrison, and Senate Chief of Staff John Barron met to discuss which election results should be considered in drawing the congressional map. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0344–45, Supp. Vol. 2 at 79–80 (Springhetti Dep. at 23:17–24:4).

- The EA53 metric was ***developed*** by legislative leadership. Levenson Disc. Appx. A, Vol. 1 at DEPO_CONG_0204, Supp. Vol. 2 at 64 (DiRossi Dep. at 203:7–22). Huffman, Cupp, and DiRossi later discussed using the FEDEA metric instead. *Id.* at DEPO_CONG_0205, Supp. Vol. 2 at 65 (DiRossi Dep. at 204:7–16).

- Moreover, through internal memoranda, at least Senator McColley was informed not only of multiple alternative election datasets but multiple definitions of "competitiveness"—all of which confirmed the pro-Republican bias of the Enacted Plan. Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0305, Supp. Vol. 1 at 258 (DiRossi Dep. Ex. 5); Levenson Disc. Appx. A, Vol. 2 at DEPO_CONG_0312, Supp. Vol. 1 at 265 (DiRossi Dep. Ex. 7). Indeed, these internal analysis stated that SB 258 would create as few as ***two*** competitive districts, not "seven." Levenson Appx. A, Vol. 2 at DEPO_CONG_0312, Supp. Vol. 1 at 265 (DiRossi Dep. Ex. 7).

Nevertheless, Respondents and their map-drawers plowed ahead, choosing the data that best conformed to their story. They told the world that the Enacted Plan produced only six Republican districts, knowing at the time that this claim was at best misleading.

III. Proposition of Law 3: The Objective Evidence of the Plan's Extreme Partisan Skew Demonstrates That the Enacted Plan Violates Section 1(C)(3)(a)

A. The Enacted Plan Is Unduly Partisan Under All Established Metrics

Dr. Warshaw demonstrated that several other well-established partisan bias metrics consistently show a substantial partisan skew in the Enacted Plan. These metrics are routinely used by experts to evaluate partisan bias in redistricting plans. Here, these metrics all point to the same conclusion: the Enacted Plan unduly favors the Republican Party.

The metrics that Dr. Warshaw used to measure the partisan skew of the Enacted Plan include:

- **The Efficiency Gap,** which measures the difference between the parties' respective "wasted votes," divided by the total number of votes cast in the election. When a party wins an election, the wasted votes are those above the 50%+1 needed to win. *See* Levenson Rpts. Appx. at RPTS_0020–22, Supp. Vol. 1 at 68–70 (Warshaw Rpt.).

- **The Declination Metric,** which measures the asymmetry in the distribution of votes across districts. For example, declination suggests that, if the Democratic Party's average vote share in districts it won (65%) is significantly higher than the Republican Party's average vote share in districts that it won (52%), the former party's districts were packed. *See id.* at RPTS_0022–23, Supp. Vol. 1 at 70–71.

- **The Mean-Median Gap,** which measures the difference between a party's vote share in the median district and their average vote share across all districts. For example, if the Republican Party wins more votes in the median district than in the average district, then the mean-median gap indicates that the map gives the Republican Party an advantage in the translation of votes to seats. *See id.* at RPTS_0024–25, Supp. Vol. 1 at 72–73.

- **The Partisan Symmetry Metric,** which measures whether each party would receive the same share of seats under the plan assuming they had identical shares of votes. For example, if the Democratic Party would win 51% of the seats if it received 55% of the votes, but the Republican Party would win 66% of the seats if it received 55% of the votes, then the partisan symmetry metric indicates that the map favors the Republican Party. *See id.* at RPTS_0025–27, Supp. Vol. 1 at 73–75.

Using a database of all congressional elections from 1972 to 2020, Dr. Warshaw compared the 2012–2020 Ohio congressional map (the severely gerrymandered map from the past decade) to the prior forty years of district plans in Ohio. He then compared the 2012–2020 Ohio congressional map to the Enacted Plan according to each of these partisan metrics. *Id.* at RPTS_0016, _0032–34, Supp. Vol. 1 at 64, 80–82.; *cf. Householder*, 373 F. Supp. 3d at 1093 (considering whether "the partisan-bias metrics all point in the same direction and point toward an advantage for the party that controlled the redistricting" and the "plan is an historical outlier in its partisan effects").

For these analyses, Dr. Warshaw used three different data sets and methods to calculate the partisan bias metrics: (1) 2020 precinct-level congressional election results re-aggregated to the Enacted Plan, (2) a composite of previous statewide election results between 2012 and 2020, and (3) a more sophisticated estimate from PlanScore that adjusted for future predicted trends. *See id.* at RPTS_0017–18, _0032–34, Supp. Vol. 1 at 65–66, 80–82.

Using the 2020 precinct-level congressional district results, Dr. Warshaw determined that when "average[d] across all four metrics, the plan is more extreme than 77% of previous plans and more pro-Republican than 88% of previous plans," leading him to conclude that "Ohio's enacted plan has a substantial pro-Republican bias." *Id.* at RPTS_0033, Supp. Vol. 1 at 81. Using the composite election results, Dr. Warshaw similarly calculated that when "average[d] across all four metrics, the plan is more extreme than 70% of previous plans and more pro-Republican than 85% of previous plans." *Id.* And finally, using the PlanScore method, Dr. Warshaw found that "[t]he enacted plan favors Republicans in 99% of the scenarios estimated by PlanScore" and "is more extreme than 96% of previous plans and more pro-Republican than 98% of previous plans." *Id.* at RPTS_0034, Supp. Vol. 1 at 82.

In other words, regardless of what methodology Dr. Warshaw used to view the partisan bias, and which data set he relied on, "it is clear that the enacted map has an extreme level of bias in favor of the Republican party." *Id.* at RPTS_0019, Supp. Vol. 1 at 67. This result is clearly incompatible with Section 1(C)(3)(a), and demonstrates that the Enacted Plan "unduly favors or disfavors a political party." *See id.* ("Overall, this analysis indicates that the enacted plan unduly favors the Republican party.").

B. Even Under Respondents' Biased Method, the Enacted Plan Unduly Favors the Republican Party

The heavy Republican skew of the Enacted Plan did not happen as a result of Ohio's natural political geography. Instead, as Dr. Imai's analysis demonstrates, the Enacted Plan represents an extreme outlier, beyond the range of what a fair map-drawer would have produced under the requirements of Article XIX.

Dr. Imai's simulation analysis showed that the Enacted Plan is an outlier on the four well-established partisan bias metrics when compared to the representative set of 5,000 simulated

plans.[10] *See* Imai Rpt. at ¶ 31, Supp. Vol. 1 at 15–16. In making this statistical comparison, Dr. Imai again analyzed these four metrics ***under the General Assembly's assumptions*** (*i.e.*, based on the set of six federal statewide elections):

- **Efficiency Gap:** The Enacted Plan had an efficiency gap of 15.0%, whereas the average efficiency gap for the simulated plans was only 5.7%. *See id.* at ¶ 32, Supp. Vol. 1 at 17. This difference in efficiency gap implies that the Enacted Plan wastes around 219,000 more Democratic votes and around 219,000 fewer Republican votes on average than the simulated plans. *See id.* Dr. Imai calculated the Enacted Plan to be 7.5 standard deviations away from the mean for this metric. *See id.*

- **Mean-Median Gap:** The Enacted Plan had a mean-median gap of 0.018, whereas the average efficiency gap for the simulated plans was only 0.007. *See id.* at ¶ 33, Supp. Vol. 1 at 17. Dr. Imai calculated the Enacted Plan to be 5.7 standard deviations away from the mean for this metric. *See id.*

- **Partisan Symmetry:** The Enacted Plan scored 14.1% on the partisan symmetry metric, whereas the average simulated plan scored only 1.8%. *See id.* at ¶ 34, Supp. Vol. 1 at 17. Dr. Imai calculated the Enacted Plan to be 7.4 standard deviations away from the mean for this metric. *See id.*

- **Declination:** The Enacted Plan scored 0.42 on the declination metric, whereas the average simulated plan scored only 0.21. *See id.* at ¶ 35, Supp. Vol. 1 at 17. Dr. Imai calculated the Enacted Plan to be 9.3 standard deviations away from the mean for this metric. *See id.*

Based on these standard deviation calculations, Dr. Imai concluded that the Enacted Plan is a statistical outlier on all four of these widely accepted partisan bias metrics. *See id.* at ¶¶ 32–36, Supp. Vol. 1 at 17–18. Indeed, the Enacted Plan exhibits a worse partisan bias than any of the 5,000 simulated plans under these metrics. *See id.* at ¶ 36, Supp. Vol. 1 at 17–18. Figure 3 of Dr. Imai's report, reproduced below, compares the Enacted Plan to his set of 5,000 simulated plans.

[10] To analyze these partisan bias metrics, Dr. Imai defined an outlier to represent a data point that is beyond a distance of 1.5 interquartile range ("IQR") below the first quartile or above the third quartile. For example, in a normal distribution, an outlier would be at least 2.70 standard deviations away from the average simulated plan. *See* Imai Rpt. at ¶ 22, Supp. Vol. 1 at 11.

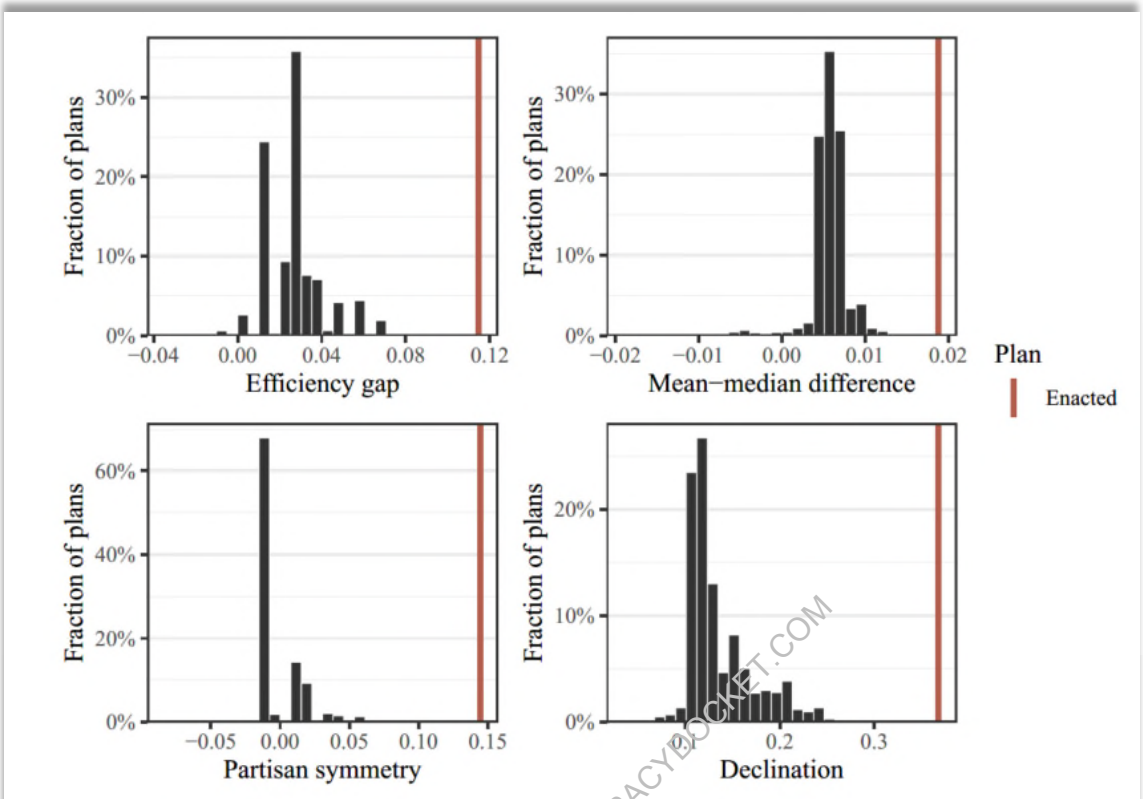

Figure 3: Four partisan bias measures calculated for the 5,000 simulated Congressional redistricting plans computed by averaging across the six federal elections from 2012 to 2020. Overlaid is the value for the enacted plan (red). For each measure, larger values (towards the right) correspond to more Republican-favoring plans.

Again, using the General Assembly's own assumptions regarding the appropriate election dataset, Dr. Imai found that all four well-accepted partisan metrics show that the Enacted Plan is a clear outlier, signaling an undue advantage for the Republican Party.

C. Examination of Key Counties Further Confirms That the Enacted Plan Unduly Favors the Republican Party

Dr. Imai also conducted a detailed, localized analysis of particularly gerrymandered counties in the Enacted Plan. This analysis confirms that the districts in and around Hamilton, Franklin, and Cuyahoga counties were drawn in a way that unduly favors the Republican Party. *See id.* at ¶¶ 3, 37, Supp. Vol. 1 at 6, 18.

Hamilton County. Despite a significant concentration of Democratic voters in Hamilton County, the Enacted Plan cracks Democratic areas to yield three Republican-leaning districts. *See id.* at ¶ 39, Supp. Vol. 1 at 18. It achieves this result by splitting Hamilton County twice. *See id.* In comparison, the simulated plans are expected to split Hamilton County only once, which results in an expected Democratic seat due to the concentration of Democratic voters in and around Cincinnati. *See id.* This difference between the Enacted Plan and the average across the simulated plans is depicted in Figure 4, reproduced from Dr. Imai's Report, below. Accordingly, Dr. Imai concluded that under the Enacted Plan, "in Hamilton county alone, cracking of Democratic voters nets Republicans an entire seat." *Id.* at ¶ 41, Supp. Vol. 1 at 19.

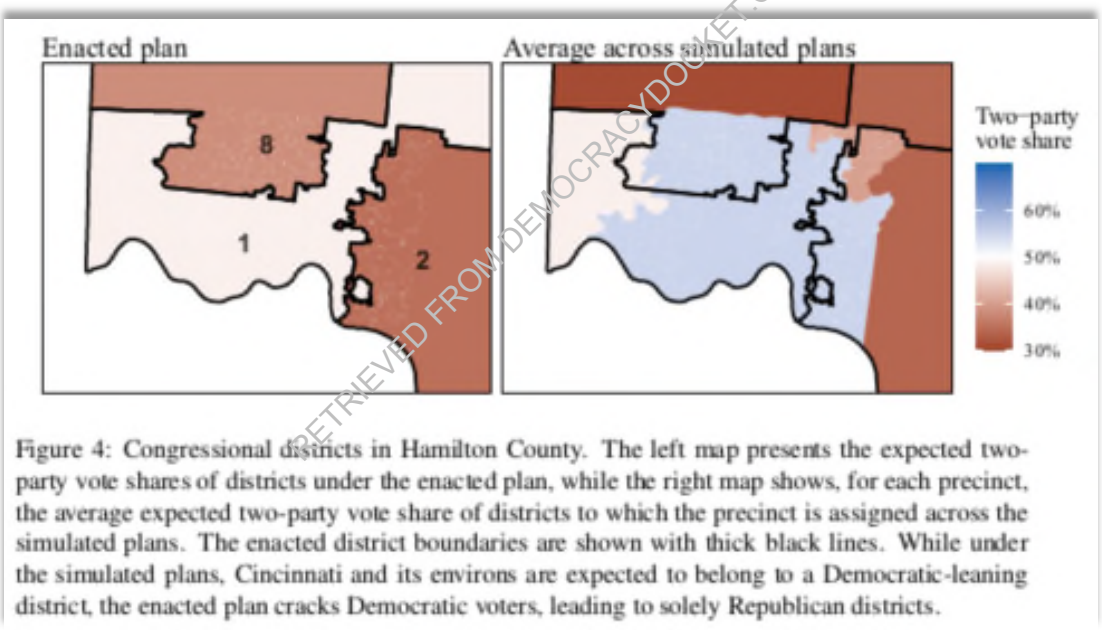

Figure 4: Congressional districts in Hamilton County. The left map presents the expected two-party vote shares of districts under the enacted plan, while the right map shows, for each precinct, the average expected two-party vote share of districts to which the precinct is assigned across the simulated plans. The enacted district boundaries are shown with thick black lines. While under the simulated plans, Cincinnati and its environs are expected to belong to a Democratic-leaning district, the enacted plan cracks Democratic voters, leading to solely Republican districts.

Franklin County. As for the area in and around Franklin County, the Enacted Plan creates a safe Republican district outside of Columbus, while in the average simulated plan, the entire area of Franklin County is expected to belong to a Democratic-leaning district, as is Delaware County and part of Fairfield County. *See id.* at ¶ 42, Supp. Vol. 1 at 20. The difference between the Enacted Plan and the average across the simulated plans is depicted in Dr.

Imai's Figure 5, reproduced below. As Dr. Imai explained, the Enacted Plan is able to achieve this difference because its districts are drawn in a way that packs Democratic voters into a single, heavily Democratic district (District 3). *See id.* This packing positions Districts 4, 12, and 15 as safely Republican districts. *See id.* Dr. Imai concluded that this packing in the Enacted Plan "yields around one additional seat for Republicans, on average, when compared to the simulated plans." *Id.* at ¶ 43, Supp. Vol. 1 at 20.

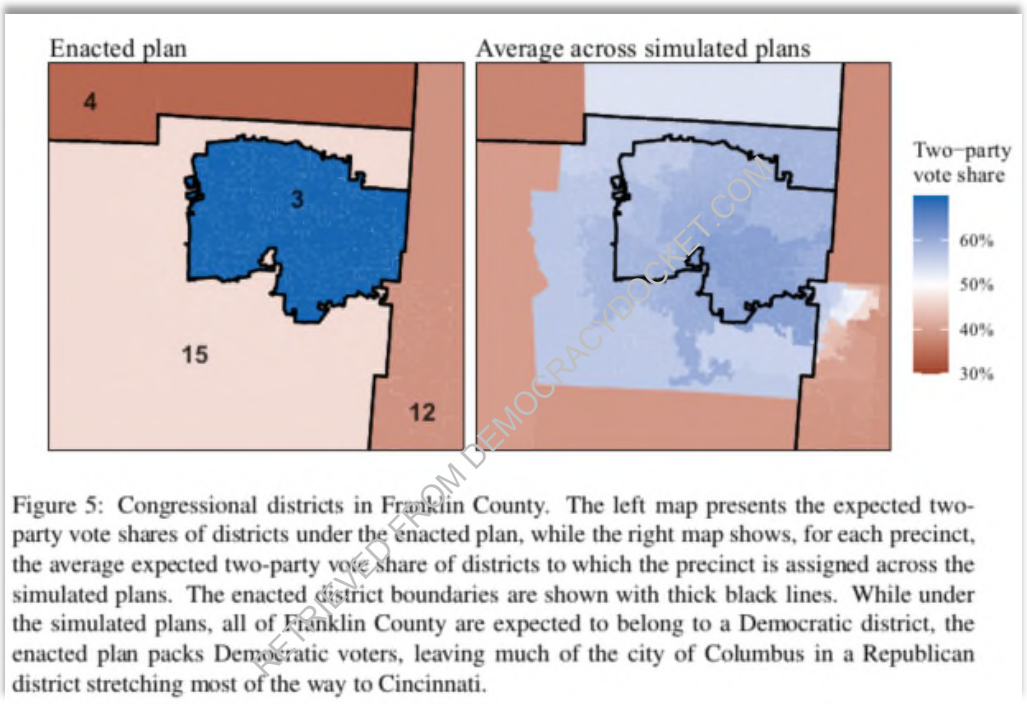

Figure 5: Congressional districts in Franklin County. The left map presents the expected two-party vote shares of districts under the enacted plan, while the right map shows, for each precinct, the average expected two-party vote share of districts to which the precinct is assigned across the simulated plans. The enacted district boundaries are shown with thick black lines. While under the simulated plans, all of Franklin County are expected to belong to a Democratic district, the enacted plan packs Democratic voters, leaving much of the city of Columbus in a Republican district stretching most of the way to Cincinnati.

***Cuyahoga County*.** The area in and around Cuyahoga County likewise has key differences between the Enacted Plan and the set of simulated plans. *See id.* at ¶ 44, Supp. Vol. 1 at 21. Notably, the Enacted Plan deviates from the simulated plans in two ways: (1) by overly packing Democratic voters into District 11, and (2) by cracking the remaining Democratic voters outside of Cleveland and in the cities of Lorain and Akron to create three Republican-leaning districts and only one competitive district. *See id.* The difference between the Enacted Plan and the average across the simulated plans is depicted in Dr. Imai's Figure 6, reproduced below. Dr.

Imai concluded that this packing and cracking in the Enacted Plan results in three Republican-leaning districts that would otherwise be more competitive or Democratic-leaning districts. *See id.*

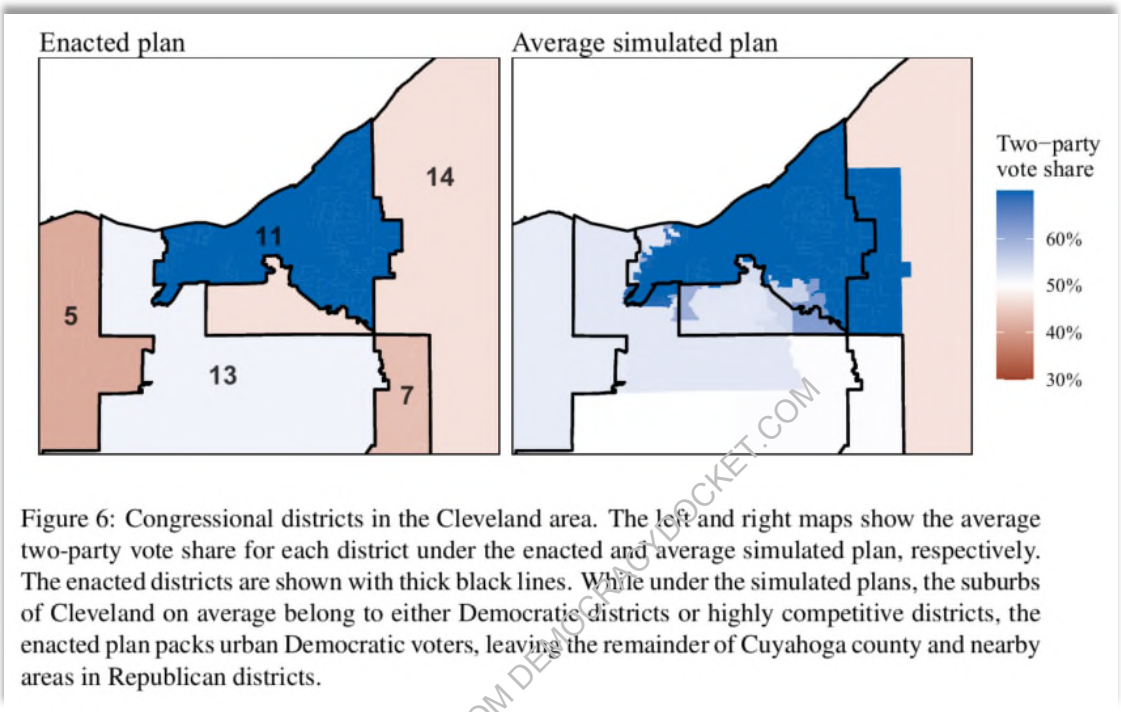

Figure 6: Congressional districts in the Cleveland area. The left and right maps show the average two-party vote share for each district under the enacted and average simulated plan, respectively. The enacted districts are shown with thick black lines. While under the simulated plans, the suburbs of Cleveland on average belong to either Democratic districts or highly competitive districts, the enacted plan packs urban Democratic voters, leaving the remainder of Cuyahoga county and nearby areas in Republican districts.

These consistent decisions to create Republican seats—notwithstanding the clear alternatives—is material and probative: it demonstrates, yet again, that the Enacted Plan unduly favors the Republican Party. *See id.* at ¶¶ 3, 32–37, Supp. Vol. 1 at 5–6, 17–18.

IV. Proposition of Law 4: The Objective Evidence Demonstrates That the Enacted Plan Unduly Favors Republican Incumbents in Violation of Section 1(C)(3)(a)

The Enacted Plan also favors incumbents from the Republican Party. While it does not pair multiple Democratic incumbents in a single district, it places two of the four Democratic incumbents into largely new districts from the previous plan that will have a majority of Republican voters. Levenson Rpts. Appx. at RPTS_0019, _0038, Supp. Vol. 1 at 67, 86 (Warshaw Rpt.); Levenson Rpts. Appx. at RPTS_0045, Supp. Vol. 1 at 93 (First Rodden Rpt.). By contrast, the Enacted Plan does not place any Republican incumbent into a district with a

majority of Democratic voters. Levenson Rpts. Appx. at RPTS_0019, _0038, Supp. Vol. 1 at 67, 86 (Warshaw Rpt.); *id.* at RPTS_0045, Supp. Vol. 1 at 93 (First Rodden Rpt.). Nor, despite the claim of its proponents, does it pair multiple Republican incumbents into a single district: one of the supposedly paired Republican incumbents in District 1, Representative Brad Wenstrup, has announced that he intends to seek reelection in District 2. *See* Levenson Rpts. Appx. at RPTS_0061, Supp. Vol. 1 at 109 (First Rodden Rpt.).

The adverse impact on Democratic incumbents is captured by Table 9 in Dr. Warshaw's Report, provided below. *See* Levenson Rpts. Appx. at RPTS_0038, Supp. Vol. 1 at 86 (Warshaw Rpt.). It shows how the Enacted Plan relegates the Democratic incumbents in Districts 9 and 13 to largely new districts that will contain a majority of Republican voters based on the 2020 congressional election results. *Id.*

2020 Districts	2022 District	% Overlap	Dem. Vote Share Old District	Dem. Vote Share New District
1	1	0.81	0.46	0.48
2	2	0.68	0.39	0.29
3	3	0.71	0.71	0.70
4	4	0.53	0.30	0.30
5	5	0.56	0.32	0.46
6	6	0.61	0.26	0.38
7	7	0.41	0.30	0.37
8	8	0.80	0.31	0.36
9	9	0.44	0.63	0.46
10	10	0.97	0.42	0.42
11	11	0.79	0.80	0.79
12	4	0.41	0.43	0.30
13	6	0.54	0.54	0.38
14	14	0.73	0.40	0.40
15	15	0.43	0.37	0.43
16	13	0.48	0.37	0.47

Table 9: Evaluation of how incumbent in each of the old districts would perform on the enacted plan based on re-aggregating the 2020 House results to new districts. Districts won by Democrats in 2020 in blue.

The biased treatment of Democratic incumbents is especially clear in the case of Representative Marcy Kaptur. Representative Kaptur's current district is located along the Lake

Erie coastline from Toledo to the Cleveland suburbs. *Id.* However, under the Enacted Plan, this district has been redrawn to assimilate Toledo into a much more rural district that now has a Republican majority. *Id.* at RPTS_0062, Supp. Vol. 1 at 110 (First Rodden Rpt.). Dr. Warshaw calculated that the Enacted Plan creates a new District 9 that includes only 44% of the voters from the district Representative Kaptur represented for the past decade. *Id.* at RPTS_0038, Supp. Vol. 1 at 86 (Warshaw Rpt.). As set forth in Representative Kaptur's affidavit, the Enacted Plan's reallocation of counties between Districts 5 and 9, in particular, violates traditional redistricting principles of compactness and respect for existing communities. *See* Kaptur Affidavit at ¶¶ 10–13, Supp. Vol. 1 at 232–33.

Indeed, the consequence of cracking this district is stark. In 2020, Representative Kaptur comfortably won reelection with 63% of the two-party votes. Under the Enacted Plan, she would have won only about 46% of the vote share in the 2020 House election (compared to the 63% she actually won). Thus, in her now redrawn district, Representative Kaptur will likely lose in 2022. Levenson Rpts. Appx. at RPTS_0019, _0038, Supp. Vol. 1 at 67, 86 (Warshaw Rpt.)

V. Proposition of Law 5: The Enacted Plan Unduly Splits Counties and Communities for Partisan Advantage in Violation of Section 1(C)(3)(b)

In addition to proscribing any map that unduly favors a political party or its incumbents, Section 1(C)(3)(b) of Article XIX directs that the "general assembly shall not unduly split governmental units," and that it shall "giv[e] preference to keeping whole, in the order named, counties, then townships and municipal corporations." The Enacted Plan flouts this obligation by unduly splitting counties and communities in southwestern and northeastern Ohio in the service of improper partisan objectives.

Specifically, in both Hamilton County and Cuyahoga County, the Enacted Plan splits each county twice, breaking them into parts of three distinct districts. As the simulation analysis

of Dr. Imai reveals, these double-splits of both Hamilton and Cuyahoga counties are entirely unnecessary. While holding constant and keeping whole all counties that the Enacted Plan keeps whole, Dr. Imai produced a set of 5,000 simulation maps. *See* Imai Rpt. at ¶ 3, Supp. Vol. 1 at 5–6. The majority of those maps, roughly 65%, included zero double-splits at the county level. *Id.*, Appx. ¶ 19 & Fig. 8, Supp. Vol. 1 at 27–28. The remaining maps double-split a county only once. Not a single simulated map in Dr. Imai's set splits two counties twice, as the Enacted Plan does in Hamilton and Cuyahoga. *Id.* Across the full set of 5,000 simulations, which retain the same set of whole counties established by the Enacted Plan, the fact that not one map creates a comparable pair of double-splits makes clear that this splitting was unnecessary and therefore undue.

The obvious and intended effect of these unnecessary splits is to confer a partisan advantage for Republicans in both southwestern and northeastern Ohio.

In ***Hamilton County***, where the analysis of Dr. Imai would expect to find a Democratic-leaning district, *see id.* at ¶ 39, Supp. Vol. 1 at 18, the result of pairing different segments of the Cincinnati area's heavily Democratic population with a sufficient number of exurban and rural Republicans is the creation of three districts in the Enacted Plan that all lean Republican:

- District 8 combines the entire urban, Black population of north-central Hamilton County with rural Republican areas far to the north, with a northern boundary line that is some 85 miles away. Levenson Rpts. Appx. at RPTS_0066, Supp. Vol. 1 at 114 (First Rodden Rpt.).
- District 1 combines Cincinnati itself not with its immediate suburbs, but rather with rural Warren County, which it connects via an exceedingly narrow corridor crossing the Hamilton County boundary. *Id.*
- District 2 combines the eastern suburbs of Cincinnati with a large number of rural and heavily Republican counties running all the way across southern Ohio. *Id.*

These unusual pairings, which break Hamilton County into three pieces, achieve straightforward partisan aims. According to Dr. Imai, "in Hamilton county alone, cracking of Democratic voters nets Republicans an entire seat." Imai Rpt. at ¶ 40, Supp. Vol. 1 at 18–19.

At the opposite corner of the state, in northeastern Ohio, the Enacted Plan pursues similar partisan ends through strategic splitting of Cuyahoga and Summit counties. The partisan aims are similar, but the means involve a combination of packing and cracking of Democratic voters. The result is to carve the Democratic urban and suburban areas of Cuyahoga and Summit counties into two safe Republican districts (7 and 14), one toss-up district (13), and a single safe Democratic district (11):

- District 14 combines parts of Cuyahoga County immediately to the south and east of heavily Democratic Cleveland with counties to the east and south. Strikingly, the cities south of Cleveland are connected to the remainder of District 14 through an exceedingly narrow corridor that at one point is the width of a solitary census block. According to expert testimony submitted by Professor Jonathan Rodden in *Adams, et al. v. DeWine, et al.*, No. 2021-1428, not a single road connects these fragments of District 14, which is nearly split in half by the heavily Democratic and Cleveland-based District 11. Levenson Rpts. Appx. at RPTS_0075, Supp. Vol. 1 at 123 (First Rodden Rpt.).

- District 13 combines the city of Akron not with its own suburbs in Summit County, but rather with rural Medina County and with the most Republican of Cleveland's outer exurbs in Cuyahoga County. *Id.* at RPTS_0073, Supp. Vol. 1 at 121.

- District 7 carves out the eastern suburbs of Akron, combining those relatively urban, Democratic-leaning precincts with rural areas and counties far to the southwest. *Id.* This combination is possible only through the creation of what Professor Rodden describes as "a long, narrow north-south corridor that is, in one spot, less than one mile wide." *Id.*

This pattern of results in northeastern Ohio is at odds with the average simulation results of Dr. Imai. In his view, by overly packing Democratic voters in District 11 and then "cracking the remaining Democratic voters outside of Cleveland and in the cities of Lorain and Akron" in Districts 5, 7, 13, and 14, the Enacted Plan "create[s] three Republican-leaning districts and only

one competitive district" in "areas south and west of Cleveland that are generally expected to belong to competitive or Democratic-leaning districts." Imai Rpt. at ¶ 44, Supp. Vol. 1 at 21.

No redistricting criterion in the Ohio Constitution or other relevant provision of law requires that both Hamilton and Cuyahoga counties be split twice, or that the communities around Cincinnati, Cleveland, and Akron be divided and paired with far-flung rural areas. In both southwestern and northeastern Ohio, there is no plausible justification other than sheer partisanship for these undue and therefore unconstitutional splits.

CONCLUSION

For the foregoing reasons, Relators respectfully request that this Court:

1. Declare that the Enacted Plan that Respondents adopted is invalid for failure to comply with Article XIX of the Ohio Constitution;
2. Order Respondents to pass a new congressional district plan in accordance with Article XIX, remedying the Enacted Plan's constitutional defects;
3. Issue a permanent injunction and judgment barring Respondents from calling, holding, supervising, administering, or certifying any elections under the maps that Respondents adopted, as Relators have no adequate remedy at law and will be irreparably harmed by the continued violation of their constitutional and statutory rights;
4. Hold hearings, consider briefing and evidence, and otherwise take actions necessary to adopt redistricting plans for the State of Ohio or to direct Respondents as to plans to be adopted;
5. Retain jurisdiction of this action to render any and all further orders that the Court may from time to time deem appropriate, including, but not limited to, adjusting the schedule for the holding of the 2022 primary and/or the candidate filing deadline;

6. Retain jurisdiction for the purpose of determining the validity of any new redistricting plans adopted by Respondents pursuant to the Ohio Constitution pursuant to this Court's ruling regarding the plan enacted on November 20, 2021; and
7. Grant such other or further relief the Court deems appropriate, including, but not limited to, an award of Relators' attorneys' fees and reasonable costs.

Respectfully submitted,

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APPENDIX

Constitution Articles and Key Cited Legal Authorities

	DESCRIPTION
1	OH Constitution Article XIX, Section 1
2	OH Constitution Article XIX, Section 3
3	*Ohio A. Philip Randolph Institute v. Householder*, 375 F. Supp. 3d 978 (S.D. Ohio 2019)

Baldwin's Ohio Revised Code Annotated
Constitution of the State of Ohio
Article XIX. Congressional Redistricting

OH Const. Art. XIX, § 1

O Const XIX Sec. 1 Adoption of congressional district plan

Currentness

(A) Except as otherwise provided in this section, the general assembly shall be responsible for the redistricting of this state for congress based on the prescribed number of congressional districts apportioned to the state pursuant to Section 2 of Article I of the Constitution of the United States.

Not later than the last day of September of a year ending in the numeral one, the general assembly shall pass a congressional district plan in the form of a bill by the affirmative vote of three-fifths of the members of each house of the general assembly, including the affirmative vote of at least one-half of the members of each of the two largest political parties represented in that house. A congressional district plan that is passed under this division and becomes law shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

(B) If a congressional district plan is not passed not later than the last day of September of a year ending in the numeral one and filed with the secretary of state in accordance with Section 16 of Article II of this constitution, then the Ohio redistricting commission described in Article XI of this constitution shall adopt a congressional district plan not later than the last day of October of that year by the affirmative vote of four members of the commission, including at least two members of the commission who represent each of the two largest political parties represented in the general assembly. The plan shall take effect upon filing with the secretary of state and shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

(C)(1) If the Ohio redistricting commission does not adopt a plan not later than the last day of October of a year ending in the numeral one, then the general assembly shall pass a congressional district plan in the form of a bill not later than the last day of November of that year.

(2) If the general assembly passes a congressional district plan under division (C)(1) of this section by the affirmative vote of three-fifths of the members of each house of the general assembly, including the affirmative vote of at least one-third of the members of each of the two largest political parties represented in that house , and the plan becomes law, the plan shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

(3) If the general assembly passes a congressional district plan under division (C)(1) of this section by a simple majority of the members of each house of the general assembly, and not by the vote described in division (C)(2) of this section, all of the following shall apply:

(a) The general assembly shall not pass a plan that unduly favors or disfavors a political party or its incumbents.

(b) The general assembly shall not unduly split governmental units, giving preference to keeping whole, in the order named, counties, then townships and municipal corporations.

(c) Division (B)(2) of Section 2 of this article shall not apply to the plan. The general assembly shall attempt to draw districts that are compact.

(d) The general assembly shall include in the plan an explanation of the plan's compliance with divisions (C)(3)(a) to (c) of this section.

(e) If the plan becomes law, the plan shall remain effective until two general elections for the United States house of representatives have occurred under the plan, except as provided in Section 3 of this article.

(D) Not later than the last day of September of the year after the year in which a plan expires under division (C)(3)(e) of this section, the general assembly shall pass a congressional district plan in the form of a bill by the affirmative vote of three-fifths of the members of each house of the general assembly, including the affirmative vote of at least one-half of the members of each of the two largest political parties represented in that house. A congressional district plan that is passed under this division and becomes law shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

A congressional district plan passed under this division shall be drawn using the federal decennial census data or other data on which the previous redistricting was based.

(E) If a congressional district plan is not passed not later than the last day of September of the year after the year in which a plan expires under division (C)(3)(e) of this section and filed with the secretary of state in accordance with Section 16 of Article II of this constitution, then the Ohio redistricting commission described in Article XI of this constitution shall be reconstituted and reconvene and shall adopt a congressional district plan not later than the last day of October of that year by the affirmative vote of four members of the commission, including at least two members of the commission who represent each of the two largest political parties represented in the general assembly. A congressional district plan adopted under this division shall take effect upon filing with the secretary of state and shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

A congressional district plan adopted under this division shall be drawn using the federal decennial census data or other data on which the previous redistricting was based.

(F)(1) If the Ohio redistricting commission does not adopt a congressional district plan not later than the last day of October of the year after the year in which a plan expires under division (C) (3)(e) of this section, then the general assembly shall pass a congressional district plan in the form of a bill not later than the last day of November of that year.

A congressional district plan adopted under this division shall be drawn using the federal decennial census data or other data on which the previous redistricting was based.

(2) If the general assembly passes a congressional district plan under division (F)(1) of this section by the affirmative vote of three-fifths of the members of each house, including the affirmative vote of at least one-third of the members of each of the two

largest political parties represented in that house, and the plan becomes law, it shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

(3) If the general assembly passes a congressional district plan under division (F)(1) of this section by a simple majority vote of the members of each house of the general assembly, and not by the vote described in division (F)(2) of this section, all of the following shall apply:

(a) The general assembly shall not pass a plan that unduly favors or disfavors a political party or its incumbents.

(b) The general assembly shall not unduly split governmental units, giving preference to keeping whole, in the order named, counties, then townships and municipal corporations.

(c) Division (B)(2) of Section 2 of this article shall not apply to the plan. The general assembly shall attempt to draw districts that are compact.

(d) The general assembly shall include in the plan an explanation of the plan's compliance with divisions (F)(3)(a) to (c) of this section.

(e) If the plan becomes law, the plan shall remain effective until the next year ending in the numeral one, except as provided in Section 3 of this article.

(G) Before the general assembly passes a congressional district plan under any division of this section, a joint committee of the general assembly shall hold at least two public committee hearings concerning a proposed plan. Before the Ohio redistricting commission adopts a congressional district plan under any division of this section, the commission shall hold at least two public hearings concerning a proposed plan.

(H) The general assembly and the Ohio redistricting commission shall facilitate and allow for the submission of proposed congressional district plans by members of the public. The general assembly shall provide by law the manner in which members of the public may do so.

(I) For purposes of filing a congressional district plan with the governor or the secretary of state under this article, a congressional district plan shall include both a legal description of the boundaries of the congressional districts and all electronic data necessary to create a congressional district map for the purpose of holding congressional elections.

(J) When a congressional district plan ceases to be effective under this article, the district boundaries described in that plan shall continue in operation for the purpose of holding elections until a new congressional district plan takes effect in accordance with this article. If a vacancy occurs in a district that was created under the previous district plan, the election to fill the vacancy for the remainder of the unexpired term shall be held using the previous district plan.

CREDIT(S)

(2018 SJR 5, adopted eff. 1-1-21)

Const. Art. XIX, § 1, OH CONST Art. XIX, § 1
Current through File 59 of the 134th General Assembly (2021-2022).

End of Document

Baldwin's Ohio Revised Code Annotated
Constitution of the State of Ohio
Article XIX. Congressional Redistricting

OH Const. Art. XIX, § 3

O Const XIX Sec. 3 Jurisdiction; legal challenges; procedures upon invalidation of congressional district plan

Currentness

(A) The supreme court of Ohio shall have exclusive, original jurisdiction in all cases arising under this article.

(B)(1) In the event that any section of this constitution relating to congressional redistricting, any congressional district plan, or any congressional district or group of congressional districts is challenged and is determined to be invalid by an unappealed final order of a court of competent jurisdiction then, notwithstanding any other provisions of this constitution, the general assembly shall pass a congressional district plan in accordance with the provisions of this constitution that are then valid, to be used until the next time for redistricting under this article in accordance with the provisions of this constitution that are then valid.

The general assembly shall pass that plan not later than the thirtieth day after the last day on which an appeal of the court order could have been filed or, if the order is not appealable, the thirtieth day after the day on which the order is issued.

A congressional district plan passed under this division shall remedy any legal defects in the previous plan identified by the court but shall include no changes to the previous plan other than those made in order to remedy those defects.

(2) If a new congressional district plan is not passed in accordance with division (B)(1) of this section and filed with the secretary of state in accordance with Section 16 of Article II of this constitution, the Ohio redistricting commission shall be reconstituted and reconvene and shall adopt a congressional district plan in accordance with the provisions of this constitution that are then valid, to be used until the next time for redistricting under this article in accordance with the provisions of this constitution that are then valid.

The commission shall adopt that plan not later than the thirtieth day after the deadline described in division (B)(1) of this section.

A congressional district plan adopted under this division shall remedy any legal defects in the previous plan identified by the court but shall include no other changes to the previous plan other than those made in order to remedy those defects.

CREDIT(S)

(2018 SJR 5, adopted eff. 1-1-21)

Const. Art. XIX, § 3, OH CONST Art. XIX, § 3
Current through File 59 of the 134th General Assembly (2021-2022).

End of Document

alone suffice to fasten liability on the city, for the officer's shortcomings may have resulted from factors other than a faulty training program.").

Heyerman v. County of Calhoun, 680 F.3d 642, 648 (6th Cir. 2012). The court went on to find two ways under which a plaintiff may demonstrate the requisite need to act. First, the plaintiff can present evidence that shows "the municipality possessed actual knowledge indicating a deficiency with the existing policy or training . . . such as where there have been recurring constitutional violations." *Id.* "Otherwise, the plaintiff must show that the need to act should have been 'plainly obvious to the [municipality's] policymakers, who, nevertheless, are 'deliberately indifferent' to the need.' " *Id.* at 648-49 (quoting *Canton*, 489 U.S. at 390 n. 10, 109 S.Ct. 1197). Mr. Rayfield has alleged neither.

[46] There is nothing in the Amended Complaint to suggest that the City or County were doing anything by design to hold Mr. Rayfield longer than the Constitution permits. Mr. Rayfield's argument that he needs discovery to ascertain whether there are other cases like his puts the cart before the horse. At most all he has alleged is a mistake by defendants that led to his detention for a short time beyond the *County of Riverside* 48-hour safe harbor. This does not amount to a plausible claim under *Monell* for the same reason that the Sixth Circuit concluded in *Heyerman* that a mistake leading to an individual's pretrial detention for seventeen years did not amount to a *Monell* claim. In sum, "[t]his is not a circumstance where the need for action was 'plainly obvious' to the municipality's policymakers or where what happened was a 'highly predictable consequence' of the County's existing policy." *Id.* at 649. Accordingly, Mr. Rayfield has failed to state a *Monell* claim against the two municipalities.

CONCLUSION

Even accepting Mr. Rayfield's version of events, the individual officers had probable cause to arrest him for violation of a PPO that was still in effect as issued by the state judge. At a minimum, they are entitled to qualified immunity for their decision to arrest.

The potential claims against unidentified "John Doe" defendants, and against the belatedly added County of Kent are time-barred. Moreover, the allegations of the Amended Complaint fail to state *Twombly* plausible *Monell* claims against the County and City in any event.

ACCORDINGLY, IT IS ORDERED that the Defense Motions to Dismiss for Failure to State a Claim (ECF Nos. 25 and 27) are **GRANTED** to the extent as detailed in this Opinion and Order. This case is **DISMISSED.**

JUDGMENT

In accordance with the Opinion and Order entered this date, Judgment is entered in favor of Defendants and against Plaintiff, dismissing all claims.

OHIO A. PHILIP RANDOLPH INSTITUTE et al., Plaintiffs,

v.

Larry HOUSEHOLDER et al., Defendants.

No. 1:18-cv-357

United States District Court, S.D. Ohio, Western Division.

Signed May 3, 2019

Background: Voters, non-partisan pro-democracy organizations, and party-aligned

organizations brought action against state officials challenging constitutionality of state's congressional redistricting map. Plaintiffs moved for declaratory and injunctive relief.

Holdings: Following bench trial, the District Court, Karen Nelson Moore, Circuit Judge, and Timothy S. Black and Michael H. Watson, JJ., held that:

(1) individual voters had standing to maintain action;

(2) nonpartisan and partisan organizations had standing to maintain action;

(3) partisan gerrymandering claims were justiciable;

(4) redistricting map violated voters' equal protection rights;

(5) map violated voters' First Amendment rights;

(6) map violated Elections Clause; and

(7) doctrine of laches did not bar action.

Motions for declaratory and injunctive relief granted.

1. Evidence ⚿314(5)

In challenge to congressional map on basis of gerrymandering based on political party, testimony of defense witness, who was involved in drawing map, that "nobody thought it was a good idea" to pair certain incumbents, was admissible over hearsay objection for limited purpose of showing effect of statements on witness as he drew map.

2. Witnesses ⚿37(2)

In challenge to congressional map on basis of gerrymandering based on political party, adequate foundation was laid for testimony of former chief of staff of Speaker of state House of Representatives regarding demographic changes in state and effect of those changes on map-drawing process; former chief of staff was providing his personal knowledge of factors.

3. Evidence ⚿557

In challenge to congressional map based on gerrymandering on basis of political party, methodology supporting algorithm presented by plaintiffs' expert witness was sufficiently reliable for results of algorithm to be admitted; algorithm had been peer reviewed, and expert had developed algorithm independently of her work in case.

4. Evidence ⚿536

In challenge to congressional map based on alleged gerrymandering on basis of political party, report and testimony of plaintiffs' expert who had aided jurisdictions in drawing districts that complied with VRA was relevant, even though case did not involve claims of violations of VRA; state officials argued that one district was drawn to comply with VRA. Voting Rights Act of 1965, § 2 et seq., 52 U.S.C.A. § 10301 et seq.

5. Evidence ⚿555.4(1)

In challenge to congressional map based on alleged gerrymandering, report and testimony of plaintiffs' expert were admissible even though she relied on post-redistricting data and failed to include confidence interval; pattern of district electing candidates preferred by members of certain race by sizeable margin did not differ between pre-redistricting and post-redistricting elections.

6. Federal Civil Procedure ⚿103.2, 103.3

To establish standing, plaintiffs must show: (1) an injury in fact; (2) a causal connection between the injury and the conduct complained of; and (3) that it is likely that the injury will be redressed by a favorable decision.

7. Federal Civil Procedure ⚿103.2

At least one plaintiff must demonstrate standing for each claim pressed and for each form of relief that is sought.

8. United States ⚿216(5)

To establish standing for their vote-dilution claims based on gerrymandering on basis of political party, the individual plaintiffs were required each to establish that they lived in an allegedly gerrymandered congressional district.

9. United States ⚿216(5)

Evidence supported finding that voters' congressional districts were gerrymandered on basis of political party, as required for them to have standing to challenge redistricting maps on ground of vote dilution; voters had voted for candidate from losing party for many years, districts had been represented by representatives from other party for all of that time, and districts favored other party more than vast majority of the alternate, simulated, non-partisan districts in which voters could have lived, which indicated that districts were cracked.

10. United States ⚿216(5)

Evidence supported finding that voter's congressional districts were gerrymandered on basis of political party, as required for them to have standing to challenge redistricting map on ground of vote dilution; voters had voted for candidate from winning party since they had moved into districts, districts had been represented by representative from that party for all of that time, and districts favored that party more than vast majority of the alternate, simulated, non-partisan districts in which voters could live, which indicated that their districts were packed.

11. United States ⚿216(5)

Voters established injury in fact and causation from congressional districts that were allegedly gerrymandered on basis of political party, as required for them to have standing to challenge redistricting maps on ground of vote dilution; expert concluded that voters from one party were efficiently "packed and cracked" across districts in such a way that elections were unresponsive to normal shifts in voters' preferences within the historical range of congressional election results in state, and only 0.046% of simulated maps created same partisan seat share.

12. United States ⚿216(5)

Alleged injuries to voters caused by congressional districts that were allegedly gerrymandered on basis of political party were redressable, as required for voters to have standing to challenge redistricting maps on ground of voter dilution; court could enjoin future use of maps, and many possible districts existed in which plaintiffs' votes would carry more weight because the districts were neither packed nor cracked.

13. Associations ⚿20(1)

An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.

14. Constitutional Law ⚿803, 923

Nonpartisan and partisan organizations had derivative standing to bring Fourteenth- and First-Amendment challenges to congressional redistricting maps that had been allegedly gerrymandered on basis of political party, where organizations had members living in challenged districts who had individual standing to

challenge maps. U.S. Const. Amends. 1, 14.

15. Constitutional Law ⚿803

Nonpartisan organizations had independent associational standing for their First Amendment associational claim based on negative impact of congressional map, which had allegedly been gerrymandered on basis of political party, on their ability effectively to associate to advance their belief in active and informed voter participation in democratic process; members of organizations engaged in variety of campaigning and political activities, and there was evidence of partisan asymmetry in districts. U.S. Const. Amend. 1.

16. Associations ⚿20(1)

An organization suffers an injury in fact, as required to establish standing, when its mission is perceptibly impaired by the challenged action, which it may show through a demonstrable injury to the organization's activities and a consequent drain on the organization's resources.

17. Constitutional Law ⚿803

Partisan organizations had independent associational standing for their First Amendment associational claim based on congressional districts that had allegedly been gerrymandered on basis of political party; organizations presented evidence that they had had difficulty recruiting and retaining members due to lack of competitive races and had to dedicate limited resources to combatting voter apathy and confusion and that they had difficulty fundraising, mobilizing voters, recruiting candidates, and winning elections based on allegedly-gerrymandered congressional map's negative impact on their ability effectively to associate to advance their belief in active and informed voter participation in democratic process. U.S. Const. Amend. 1.

18. Constitutional Law ⚿1073, 1150

A state necessarily exceeds its powers under Article I of the Constitution if it runs afoul of the First and Fourteenth Amendments. U.S. Const. art. 1; U.S. Const. Amends. 1, 14.

19. Federal Courts ⚿2158

Partisan gerrymandering claims are justiciable.

20. Constitutional Law ⚿3658(5)

A state's partisan gerrymander violates the Equal Protection Clause when it denies to any person within the State's jurisdiction the equal protection of the laws. U.S. Const. Amend. 14.

21. Constitutional Law ⚿3658(5)

To prove a violation of the Equal Protection Clause in a partisan-gerrymandering claim, plaintiffs must prove (1) a discriminatory partisan intent in the drawing of each challenged district, and (2) a discriminatory partisan effect on those allegedly gerrymandered districts' voters; then, (3) the State has an opportunity to justify each district on other, legitimate legislative grounds. U.S. Const. Amend. 14.

22. Constitutional Law ⚿3658(3)

To prove discriminatory partisan intent in the drawing of a challenged congressional district, as required to prevail on an equal protection vote-dilution claim based on political party, plaintiffs must demonstrate that those in charge of the redistricting acted with an intent to subordinate adherents of one political party and entrench a rival party in power. U.S. Const. Amend. 14.

23. Constitutional Law ⚿3658(3)

To prove discriminatory partisan intent in the drawing of a challenged congressional district, as required to prevail on an equal protection vote-dilution claim based on political party, it is not enough

for the plaintiffs to show merely that the map drawers relied on political data or took into account political or partisan considerations. U.S. Const. Amend. 14.

24. Constitutional Law ⚿3658(7)

Without violating the Equal Protection Clause, map drawers may design electoral maps in a nondiscriminatory manner to avoid pairing incumbents, to achieve a rough approximation of the statewide political strengths of the political parties, or to keep intact political subdivisions. U.S. Const. Amend. 14.

25. Constitutional Law ⚿3658(3)

To prove discriminatory partisan intent in the drawing of a challenged congressional district, as required to prevail on an equal protection vote-dilution claim based on political party, the plaintiffs must demonstrate that partisan intent predominated over all other aims. U.S. Const. Amend. 14.

26. Constitutional Law ⚿3658(6)

Under the Equal Protection Clause, excessive partisan considerations cannot serve as a justification for population deviations for state legislative redistricting plans, even when the population deviations are within 10%. U.S. Const. Amend. 14.

27. Constitutional Law ⚿3658(3)

To prove discriminatory partisan intent in the drawing of a challenged congressional district, as required to prevail on an equal protection vote-dilution claim based on political party, the plaintiffs may use a combination of direct and indirect evidence because invidious discriminatory purpose may often be inferred from the totality of the relevant facts. U.S. Const. Amend. 14.

28. Constitutional Law ⚿3658(3)

Direct evidence of discriminatory partisan intent in the drawing of a challenged congressional district, as required to prevail on an equal protection vote-dilution claim based on political party, may include correspondence between those responsible for the map drawing, floor speeches discussing the redistricting legislation and other contemporaneous statements, and testimony explaining the historical background of the decision, including the specific sequence of events leading up to the challenged decisions. U.S. Const. Amend. 14.

29. Constitutional Law ⚿3658(3)

Indirect evidence that improper purposes are playing a role in map-drawing decisions, in support of a claim of discriminatory partisan intent in the drawing of a challenged congressional district in violation of the Equal Protection Clause, may include departures from the normal procedural sequence. U.S. Const. Amend. 14.

30. Constitutional Law ⚿3658(3)

Indirect evidence that improper purposes are playing a role in map-drawing decisions, in support of a claim of discriminatory partisan intent in the drawing of a challenged congressional district in violation of the Equal Protection Clause, includes statistical evidence that demonstrates a clear pattern of partisan bias that would be unlikely to occur without partisan intent or evidence that the supporters of one political party were consistently treated differently than the supporters of another. U.S. Const. Amend. 14.

31. Constitutional Law ⚿3658(3)

Suspect and irregular splitting of coherent communities of the disfavored party ("cracking") and grouping of members of the disfavored group ("packing") support an inference of partisan intent in the drawing of a challenged congressional district in violation of the Equal Protection Clause; that is particularly true when demographic evidence reveals that

a district's bizarre lines coincide with the historical voting patterns of the precincts included in, or excluded from, the district. U.S. Const. Amend. 14.

See publication Words and Phrases for other judicial constructions and definitions.

32. Constitutional Law ⚿3658(7)

Irregular splitting of coherent communities of the disfavored party and grouping of members of the disfavored group in congressional districts, in violation of the Equal Protection Clause, can be quantified by low compactness scores and unnecessarily high numbers of county and municipality splits. U.S. Const. Amend. 14.

33. Constitutional Law ⚿3658(3)

A lack of compactness or highly irregular district shapes support an inference that partisan intent motivated the line drawing of congressional districts, in violation of the Equal Protection Clause. U.S. Const. Amend. 14.

34. Constitutional Law ⚿3658(3)

To prove discriminatory effect in the drawing of a challenged congressional district on partisan grounds, as required to prevail on an equal protection vote-dilution claim, the plaintiffs must demonstrate that the plan had the effect of diluting the votes of members of the disfavored party by either packing or cracking voters into congressional districts. U.S. Const. Amend. 14.

35. Constitutional Law ⚿3658(3)

Statewide comparisons that demonstrate that the challenged congressional map is an historical outlier in its extreme partisan bias, as measured through the efficiency gap and other related metrics, are indirect proof of packing and cracking in violation of the Equal Protection Clause. U.S. Const. Amend. 14.

36. Constitutional Law ⚿3658(3)

Multiple partisan-bias metrics should be used in establishing that a congressional district has a discriminatory effect, as required to prevail on an equal protection vote-dilution claim based on political party, and consistency of results across metrics and across data sets is key in evaluating this type of evidence. U.S. Const. Amend. 14.

37. Constitutional Law ⚿3658(3)

To prevail on an equal protection vote-dilution claim based on political party, plaintiffs should offer comparisons between districts in the enacted plan and the same districts in more competitive hypothetical plans that did not take into account partisan concerns. U.S. Const. Amend. 14.

38. Constitutional Law ⚿3657

Proof of discriminatory effect, in support of an equal protection vote-dilution claim, is bolstered by evidence showing that the partisan bias that the plan engendered was durable—the plan entrenched the favored party in power. U.S. Const. Amend. 14.

39. Constitutional Law ⚿3657

Plaintiffs may show entrenchment, in support of an equal protection vote-dilution claim based on political party, by demonstrating that the partisan bias of the enacted plan persisted over time. U.S. Const. Amend. 14.

40. Constitutional Law ⚿3658(1)

Evidence that a map is extremely unresponsive or noncompetitive—that voting patterns can change but the electoral result does not—helps to prove durability of the partisan effects and therefore supports an inference of entrenchment in support of an equal protection vote-dilution claim

based on political party. U.S. Const. Amend. 14.

41. Constitutional Law ⚿3658(3)

In an equal protection vote-dilution claim based on political party, if the plaintiffs prove discriminatory intent and discriminatory effect, then the burden switches to defendants to present evidence that legitimate legislative grounds provide a basis for the way in which each challenged district was drawn. U.S. Const. Amend. 14.

42. Constitutional Law ⚿3658(3, 7)

In response to an equal protection vote-dilution claim on the basis of political party, defendants may assert that it was not partisan intent that motivated the map drawers' district delineations, but rather a desire to serve other aims; these legitimate justifications may include serving traditional redistricting principles, for example, making districts compact, respecting municipal boundaries, preserving the cores of prior districts, and avoiding contests between incumbent Representatives, as well as preserving the integrity of political subdivisions, maintaining communities of interest, and compliance with the VRA. U.S. Const. Amend. 14; Voting Rights Act of 1965, § 2 et seq., 52 U.S.C.A. § 10301 et seq.

43. Constitutional Law ⚿3658(3)

In response to an equal protection vote-dilution claim on the basis of political party, defendants may also attack the discriminatory effect prong by using evidentiary metrics to show that the challenged map does not actually crack or pack a particular party's voters in a manner that is unusual given non-partisan considerations. U.S. Const. Amend. 14.

44. Constitutional Law ⚿3658(3)

In an equal protection vote-dilution claim on the basis of political party, when the State presents evidence that legitimate legislative grounds provide a basis for the way in which each challenged district was drawn, the court then determines whether the State's proffered legitimate justifications or neutral explanations are credible based on the evidence presented at trial. U.S. Const. Amend. 14.

45. Constitutional Law ⚿3658(3)

In an equal protection vote-dilution claim on the basis of political party, in deciding whether to credit the defendants' justifications for the configurations of the challenged districts, the court assesses the consistency with which the plan as a whole reflects the asserted interests, and the availability and embrace of alternatives that might substantially vindicate those interests. U.S. Const. Amend. 14.

46. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that process for drawing map for congressional districts was dominated by partisan intent to dilute votes, in support of claim that map violated voters' equal protection rights; there was a severe disconnect between outward face of map-drawing process and its true inner workings, there was evidence that map drawers relied heavily on partisan data as they drew map, statements made by map drawers during and immediately after map-drawing process reflected their intent to produce map with specific partisan results, districts had irregular shapes, districts lacked compactness, districts split counties and municipalities, and extremity of partisan effects themselves were strong proof of partisan intent. U.S. Const. Amend. 14.

47. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that process for drawing map of congressional dis-

tricts had partisan effect of diluting votes, in support of claim that map violated voters' equal protection rights; candidates from one party had consistently won exact same 12 districts under that map, candidates from other party had consistently won exact same four districts, two of the races were quite competitive on a statewide level, and efficiency gap, declination, and partisan symmetry metrics were each more extreme in two elections than over 90% of previous elections. U.S. Const. Amend. 14.

48. Constitutional Law ⚿3285

A plaintiff alleging racial gerrymandering in violation of equal protection bears the burden to show that race was the predominant factor motivating the legislature's decision to place a significant number of voters within or without a particular district. U.S. Const. Amend. 14.

49. Constitutional Law ⚿3658(5)

In partisan-gerrymandering cases based on vote dilution in violation of equal protection, the harm includes partisan effect, and consequently the plaintiffs may rely on statewide evidence to prove that harm. U.S. Const. Amend. 14.

50. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes of members of one political party by cracking voters of that party into adjacent districts, in violation of equal protection; district encompassed irregularly-shaped and disjointed portions of county and city, district wrapped strangely around portion of city, expert testified that map drawers made deliberate choice to split city in half in irregular shape, demographic evidence indicated that district's bizarre lines coincided with historical voting patterns, and court could discern no legitimate reason behind division of city other than desire to crack voters of one party. U.S. Const. Amend. 14.

51. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes of members of one political party by cracking voters of that party into different districts, in violation of equal protection; district encompassed highly irregularly-shaped portions of city as well as portions of counties, map had effect of cracking voters of that party in district, candidate from other party was consistently elected by "safe" margins, and expert testified that 99.87% of non-partisan maps would have placed plaintiff voter in district that would have had better chance of electing candidate from voter's party. U.S. Const. Amend. 14.

52. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by packing voters of one political party into district, in violation of equal protection; district encompassed irregularly-shaped portion of county and portions of city, district involved three-way split of county and city, consultants for other political party used descriptors such as "awful" or "dog meat" to discuss areas that they wanted to place in district, district had consistently elected candidate from one party by large margins, and adjacent districts had consistently elected candidates from other party. U.S. Const. Amend. 14.

53. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking

voters of one political party into adjacent districts, in violation of equal protection; district was involved in three-way splits of two counties and included parts of three other counties, district had been won by candidate from one party by wide margins in every election under that map, and expert presented evidence that 98.25% of non-partisan maps would have given plaintiff voter a better chance of electing representative from voter's party. U.S. Const. Amend. 14.

54. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district contained portions of three counties and was involved in three-way split of one of those counties, historical elections provided evidence of durability of map's partisan effects and its tendency to entrench favored party in power, and in 95.47% of expert's simulated non-partisan maps, plaintiff voter would have had better chance of electing representative of voter's party. U.S. Const. Amend. 14.

55. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district included irregularly-shaped portion of one county and portions of four other counties, lack of competition in most elections in district as well as consistent wins by one party were evidence of durability of map's effect in favor of one party and its tendency to entrench that party in power, and in 100% of expert's simulated, non-partisan maps, plaintiff voter would have had better chance of electing representative of voter's party. U.S. Const. Amend. 14.

56. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district included irregularly-shaped portions of four counties and was involved in three-way splits of two of those counties, and lack of competition in elections under that map and victory of candidate from same party in each of those elections was evidence of durability of partisan effects of map and its tendency to entrench one party's representatives in office. U.S. Const. Amend. 14.

57. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district was involved in three-way split of one county, lack of competition and consistent election of candidates of same party provided evidence of durability of map's partisan effects and map's tendency to entrench representatives of that party in office by constructing "safe" districts, and 100% of expert's simulated non-partisan maps would have provided plaintiff voter with better opportunity to elect representative from voter's party. U.S. Const. Amend. 14.

58. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by packing

voters of one political party into district, in violation of equal protection; district was a thin strip along coast of lake, district did not include a single county in its entirety, district involved a four-way split of one county and three-way split of another county, extreme lack of competition in district and consistent election of representative of one party by large margins were evidence of durability of map's partisan effects, and only 15.91% and 13.55% of expert's simulated non-partisan maps, respectively, would have given plaintiff voters a better chance of electing representative of their party. U.S. Const. Amend. 14.

59. Constitutional Law ⚿3658(3)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; consistent election of candidate of one party by large margins was evidence of durability of map's partisan effects, and 99.75% of expert's non-partisan simulated maps would have given plaintiff voter better opportunity of electing representative from voter's party. U.S. Const. Amend. 14.

60. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by packing voters of one political party into district and siphoning off voters of that party from adjacent district, in violation of equal protection; district included highly irregularly-shaped portions of two counties, district was involved in four-way splits of those counties, decision to depart from district's historical territory and to drop down into county and pick up additional voters of one party was strong proof of intent to pack district and facilitate cracking of adjacent district, and historical election results in years that followed were proof of map drawers' intent. U.S. Const. Amend. 14.

61. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district included irregularly-shaped and noncontiguous portions of county that jutted into city, district involved three-way split of county and city, consultant for prevailing party stated his belief that district had improved chances for his party and had thus been taken "out of play," and historical election results supported conclusion that map had effect of cracking voters of losing party. U.S. Const. Amend. 14.

62. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by packing voters of one political party into district, in violation of equal protection; district encompassed highly irregularly-shaped portions of two counties and involved four-way split of one county and three-way splits of two counties, historical election results provided evidence of packing, and none of expert's simulated non-partisan maps would have given plaintiff voter a better chance of electing representative of voter's party. U.S. Const. Amend. 14.

63. Constitutional Law ⚿3658(3, 7)
United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent

districts, in violation of equal protection; district contained irregularly-shaped section jutting into county and involved three-way split of one county and four-way splits of two counties, historical election results provided evidence of cracking, and all of expert's simulated non-partisan maps would have given plaintiff voter a better chance to elect representative of voter's party. U.S. Const. Amend. 14.

64. Constitutional Law ⚿3658(3, 7)

United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district included highly irregular-shaped portion of one county and pieces of city, district involved three-way splits of county and city, consultant for prevailing party expressed his belief that chances of success had improved in favor of prevailing party and that district had thus been taken "out of play," and historical election results provided proof of cracking. U.S. Const. Amend. 14.

65. Constitutional Law ⚿3658(3, 7)

United States ⚿216(4)

Evidence supported finding that congressional district was drawn with predominant intent to dilute votes by cracking voters of one political party into adjacent districts, in violation of equal protection; district encompassed irregularly-shaped portions of four counties, district involved four-way splits of two of those counties and three-way splits of two of those counties, election results supported conclusion that map had effect of cracking voters of party, and map drawers succeeded in their efforts to eliminate seat held by representative of other party. U.S. Const. Amend. 14.

66. Election Law ⚿613

When a state invokes the VRA to justify race-based districting, it must show, to meet the "narrow tailoring" requirement, that it had a strong basis in evidence for concluding that the statute required its action. Voting Rights Act of 1965, § 2 et seq., 52 U.S.C.A. § 10301 et seq.

67. Election Law ⚿17

When a state seeks to use the VRA as a shield to justify an alleged partisan-gerrymandered district, the State must still establish that it had a basis in evidence for concluding that the VRA required the sort of district that it drew. Voting Rights Act of 1965, § 2 et seq., 52 U.S.C.A. § 10301 et seq.

68. Election Law ⚿599

To establish a vote-dilution claim under the section of the VRA applicable to all jurisdictions, a party must satisfy three threshold conditions: (1) the minority group must be large enough and geographically compact to constitute a majority in a single-member district; (2) the minority group must be politically cohesive; and (3) there must be evidence of racial bloc voting such that a white majority could usually defeat the minority's preferred candidate. Voting Rights Act of 1965, § 2(a), 52 U.S.C.A. § 10301(a).

69. Election Law ⚿17

A state's mistake of law on the VRA, even if in good faith, cannot serve as a legitimate justification for a partisan gerrymander. Voting Rights Act of 1965, § 2 et seq., 52 U.S.C.A. § 10301 et seq.

70. Constitutional Law ⚿1688

Plaintiffs may prove a First Amendment vote-dilution claim by showing: (1) that the challenged districting plan was intended to burden individuals or entities that support a disfavored candidate or political party, (2) that the districting plan in

fact burdened the political speech or associational rights of such individuals or entities, and (3) that a causal relationship existed between the governmental actor's discriminatory motivation and the First Amendment burdens imposed by the districting plan. U.S. Const. Amend. 1.

71. Constitutional Law ⚿1688
United States ⚿216(3)

Evidence supported finding that process for drawing map for congressional districts was dominated by partisan intent to dilute votes, in support of claim that map violated voters' First Amendment rights of political speech; there was a severe disconnect between outward face of map-drawing process and its true inner workings, there was evidence that map drawers relied heavily on partisan data as they drew map, statements made by map drawers during and immediately after map-drawing process reflected their intent to produce map with specific partisan results, districts had irregular shapes, districts lacked compactness, districts split counties and municipalities, and extremity of partisan effects themselves were strong proof of partisan intent. U.S. Const. Amend. 1.

72. Constitutional Law ⚿1460

The First Amendment protects the associational choices of voters. U.S. Const. Amend. 1.

73. Constitutional Law ⚿1460

Under the First Amendment's protection of the association choices of voters, state laws can place burdens on two different, although overlapping, kinds of rights—the right of individuals to associate for the advancement of political beliefs, and the right of qualified voters, regardless of their political persuasion, to cast their votes effectively. U.S. Const. Amend. 1.

74. Constitutional Law ⚿961, 1170
United States ⚿217(1)

Neither the State's authority nor Congress's power under the Elections Clause extinguishes the State's responsibility to observe the limits established by the First Amendment rights of the State's citizens, or the courts' ability to vindicate constitutional rights. U.S. Const. art. 1, § 4; U.S. Const. Amend. 1.

75. Constitutional Law ⚿1461, 1466
United States ⚿217(1)

The power to regulate the time, place, and manner of elections does not justify, without more, the abridgment of fundamental rights, such as the right to vote, or the freedom of political association. U.S. Const. art. 1, § 4; U.S. Const. Amend. 1.

76. Constitutional Law ⚿1461, 1466

Not all state election laws impose constitutionally suspect burdens on voters' rights to associate or to choose among candidates. U.S. Const. Amend. 1.

77. Constitutional Law ⚿1170, 3635

A court considering a challenge to a state election law must weigh the character and magnitude of the asserted injury to the rights protected by the First and Fourteenth Amendments that the plaintiff seeks to vindicate against the precise interests put forward by the State as justifications for the burden imposed by its rule, taking into consideration the extent to which those interests make it necessary to burden the plaintiff's rights. U.S. Const. Amends. 1, 14.

78. Constitutional Law ⚿1480

An election map that freezes the status quo for the incumbent party despite fluctuating vote totals, substantially tips the electoral process in favor of the incumbent party, or unfairly or unnecessarily burdens the availability of political oppor-

tunity for the disfavored party, should be subject to judicial scrutiny and, depending on the evidence, struck down as unconstitutional in violation of the right to freedom of political association. U.S. Const. Amend. 1.

79. Constitutional Law ⚿1480
United States ⚿216(4)

Evidence supported finding that map for congressional districts violated voters' First Amendment rights of association; partisan-bias metrics showed that one party was placed at enduring electoral disadvantage by partisan gerrymandering, which burdened electoral opportunities for voters of other party, and result of the substantial asymmetry was that voters of other party were hindered in their ability to mobilize effectively, win elections, and accomplish their party objectives. U.S. Const. Amend. 1.

80. Constitutional Law ⚿1170, 3658(1)

Where the burden on voters' First and Fourteenth Amendment rights through the drawing of electoral maps is substantial, the corresponding justifications must be sufficiently weighty to explain the burden. U.S. Const. Amends. 1, 14.

81. Constitutional Law ⚿1170, 3658(1)

Where the burden on voters' First and Fourteenth Amendment rights through the drawing of electoral maps is substantial, a court must not only determine the legitimacy and strength of each justification; it also must consider the extent to which those interests make it necessary to burden the plaintiff's rights. U.S. Const. Amends. 1, 14.

82. United States ⚿217(1)

The Elections Clause acts as a safeguard against manipulation of electoral rules by politicians and factions in the States to entrench themselves or place their interests over those of the electorate. U.S. Const. art. 1, § 4, cl. 1.

83. United States ⚿216(4), 217(1)

By drawing congressional redistricting map that was gerrymandered on basis of political party in violation of First and Fourteenth Amendments, state also violated Elections Clause and section of Constitution governing membership of House of Representatives. U.S. Const. art. 1, § 2; U.S. Const. art. 1, § 4, cl. 1; U.S. Const. Amends. 1, 14.

84. United States ⚿217(1)

The Elections Clause does not hinder the people's ability to ensure that they choose their representatives, not the other way around, and neither does it hinder the courts' ability to police the states' power to regulate elections. U.S. Const. art. 1, § 4, cl. 1.

85. United States ⚿217(1)

The Elections Clause grants to the States broad power to prescribe the procedural mechanisms for holding congressional elections. U.S. Const. art. 1, § 4, cl. 1.

86. United States ⚿217(2)

A state necessarily exceeds its authority under the Elections Clause if the State violates the First and/or Fourteenth Amendments. U.S. Const. art. 1, § 4, cl. 1; U.S. Const. Amends. 1, 14.

87. United States ⚿216(4), 217(2)

The Elections Clause does not give the states a license to engage in unconstitutional partisan gerrymandering. U.S. Const. art. 1, § 4, cl. 1.

88. United States ⚿217(1)

The Elections Clause and the section of the Constitution governing the membership of the House of Representatives, taken together, act as a safeguard against manipulation of electoral rules by politi-

cians and factions in the States to entrench themselves or place their interests over those of the electorate. U.S. Const. art. 1, § 2; U.S. Const. art. 1, § 4, cl. 1.

89. United States ⚿216(4), 217(1)

A redistricting law may, in certain circumstances, be so extreme that it amounts to a successful effort by the State to disfavor a class of candidates and dictate electoral outcomes, in violation of the Elections Clause and the section of the Constitution governing the membership of the House of Representatives. U.S. Const. art. 1, § 2; U.S. Const. art. 1, § 4, cl. 1.

90. Equity ⚿64, 67

The doctrine of laches is rooted in the notion that those who sleep on their rights lose them.

91. Equity ⚿72(1)

Where a plaintiff seeks solely equitable relief, his action may be barred by the equitable defense of laches if (1) the plaintiff delayed unreasonably in asserting his rights and (2) the defendant was prejudiced by this delay.

92. Equity ⚿84

Doctrine of laches did not bar action challenging congressional maps, even though plaintiffs waited seven years following redistricting to bring action; state of the law was uncertain, record contained evidence from four election cycles, and more data gave court greater confidence in its findings.

93. Equity ⚿73

Unavailability of important witnesses, dulling of memories of witnesses, and loss or destruction of relevant evidence all constitute prejudice that may support the defense of laches.

94. Injunction ⚿1346

Last-minute injunctions changing election procedures are strongly disfavored.

95. Equity ⚿84

Plaintiffs can rebut a presumption that laches bars their claims by establishing that there was a good excuse for the delay.

96. Election Law ⚿17

Unless an impending election is imminent and a State's election machinery is already in progress, a court should take appropriate action to insure that no further elections are conducted under the invalid plan.

97. Injunction ⚿1347

Injunction was warranted prohibiting State from conducting any elections using plan involving congressional districts that had been unconstitutionally gerrymandered on basis of political party.

98. Election Law ⚿17

As a general rule, when a federal court declares a redistricting plan unconstitutional, it is appropriate, whenever practicable, to afford a reasonable opportunity for the legislature to meet constitutional requirements by adopting a substitute measure rather than for the federal court to devise and order into effect its own plan.

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Before: Moore, Circuit Judge; Black and Watson, District Judges.

OPINION AND ORDER

HONORABLE KAREN NELSON MOORE, United States Circuit Judge,
HONORABLE TIMOTHY S. BLACK, United States District Judge,
HONORABLE MICHAEL H. WATSON, United States District Judge

TABLE OF CONTENTS

Plaintiffs have brought this action alleging that H.B. 369, the redistricting plan enacted by the Ohio General Assembly and signed into law by the Governor in 2011, constitutes an unconstitutional partisan gerrymander under the First and Fourteenth Amendments and exceeds the pow-

ers granted to the states under Article I, § 4 of the United States Constitution. As to the First and Fourteenth Amendment district-specific claims, we find that Districts 1–16 were intended to burden Plaintiffs' constitutional rights, had that effect, and the effect is not explained by other legitimate justifications. Moreover, we find that that the plan as a whole burdens Plaintiffs' associational rights and that burden is not outweighed by any other legitimate justification. Finally, we find that the plan exceeds the State's powers under Article I. Therefore, H.B. 369 is an unconstitutional partisan gerrymander. This opinion constitutes our findings of fact and conclusions of law pursuant to Federal Rule of Civil Procedure 52(a)(1).

Due to the length of this opinion, we provide the reader with the following, more concise summary:

"Partisan gerrymandering" occurs when the dominant party in government draws district lines to entrench itself in power and to disadvantage the disfavored party's voters. Plaintiffs in this action are individual Democratic voters from each of Ohio's sixteen congressional districts, two nonpartisan pro-democracy organizations, and three Democratic-aligned organizations. They challenge the constitutionality of Ohio's 2012 redistricting map. Defendants are Ohio officials, and Intervenors are Ohio Republican Congressmen; Defendants and Intervenors both argue that the Plaintiffs' claims are not properly before this Court and defend the map's constitutionality on the merits.

In 2011, when Ohio's redistricting process began, Republican dominance in the Ohio State government meant that Republican state legislators could push through a remarkably pro-Republican redistricting bill without meaningful input from their Democratic colleagues. Ohio Republicans took advantage of that opportunity, and invidious partisan intent—the intent to disadvantage Democratic voters and entrench Republican representatives in power—dominated the map-drawing process. They designed the 2012 map using software that allowed them to predict the partisan outcomes that would result from the lines they drew based on various partisan indices that they created from historical Ohio election data. The Ohio map drawers did not work alone, but rather national Republican operatives located in Washington, D.C. collaborated with them throughout the process. These national Republicans generated some of the key strategic ideas for the map, maximizing its likely pro-Republican performance, and had the authority to approve changes to the map before their Ohio counterparts implemented them. Throughout the process, the Ohio and national map drawers made decisions based on their likely partisan effects.

The map drawers focused on several key areas of the Ohio map where careful map design could eke out additional safe Republican seats. They split Hamilton County and the City of Cincinnati in a strange, squiggly, curving shape, dividing its Democratic voters and preventing them from forming a coherent voting bloc, which ensured the election of Republican representatives in Districts 1 and 2. They drew a new District 3 in Franklin County, efficiently concentrating Democratic voters together in an area sometimes referred to as the "Franklin County Sinkhole." This strategy allowed them to secure healthy Republican majorities in neighboring Districts 12 and 15. They paired Democratic incumbent Representatives Kaptur and Kucinich to create the infamous "Snake on the Lake"—a bizarre, elongated sliver of a district that severed numerous counties. They drew a District 11 that departed from its traditional territory to snatch up additional African-American Democratic

voters in Summit County, allowing for the creation of a new District 16 in which a Republican incumbent representative could defeat a Democratic incumbent representative. They designed these districts with one overarching goal in mind—the creation of an Ohio congressional map that would reliably elect twelve Republican representatives and four Democratic representatives.

Ohio Republican legislators enacted the first iteration of the 2012 map, H.B. 319, in September 2011. Ohio voters then challenged the map, seeking to subject it to a voter referendum, but their efforts failed. As a result, Ohio Republicans passed a slightly different version of the map, H.B. 369, in December 2011. The changes they made did not materially alter the strong pro-Republican partisan leaning of the map's first iteration. Four cycles of congressional elections have occurred under the map embodied in H.B. 369. Each resulted in the election of twelve Republican representatives and four Democratic representatives. No district has been represented by representatives from different parties during the life of the map.

During a two-week trial, experts testified to the extremity of the gerrymander. They demonstrated that levels of voter support for Democrats can and have changed, but the map's partisan output remains stubbornly undisturbed. The experts used various metrics and methodologies to measure their findings, but several takeaways were universal: (1) the Ohio map sacrifices respect for traditional districting principles in order to maximize pro-Republican partisan advantage, (2) the Ohio map's pro-Republican partisan bias is extreme, compared both to historical plans across the United States and to other possible configurations that could have been adopted in Ohio, and (3) the Ohio map minimizes responsiveness and competition, rendering one consistent result no matter the particularities of the election cycle.

We join the other federal courts that have held partisan gerrymandering unconstitutional and developed substantially similar standards for adjudicating such claims. We are convinced by the evidence that this partisan gerrymander was intentional and effective and that no legitimate justification accounts for its extremity. Performing our analysis district by district, we conclude that the 2012 map dilutes the votes of Democratic voters by packing and cracking them into districts that are so skewed toward one party that the electoral outcome is predetermined. We conclude that the map unconstitutionally burdens associational rights by making it more difficult for voters and certain organizations to advance their aims, be they pro-Democratic or pro-democracy. We conclude that by creating such a map, the State exceeded its powers under Article I of the Constitution. Accordingly, we declare Ohio's 2012 map an unconstitutional partisan gerrymander, enjoin its use in the 2020 election, and order the enactment of a constitutionally viable replacement.

I. BACKGROUND

A. General Overview of the Facts

1. The redistricting process begins

Every ten years, the United States government conducts a census. The census results dictate the size of each state's delegation to the United States House of Representatives because House seats are based on population. Following the release of the census results, state legislatures redraw their United States congressional districts in order to reflect population changes. In Ohio, the 2010 census revealed that the State's comparative population stagnation required reducing the State's previous congressional delegation from

eighteen to sixteen.[1] In that same year, Ohioans elected a Republican Governor, elected a Republican majority in the State Senate, and flipped the Ohio House of Representatives to be majority Republican as well.[2] In the State of Ohio, the Ohio General Assembly is responsible for enacting legislation that delineates the federal congressional districts.[3] Both the State Senate and the State House of Representatives must pass such a bill by a simple majority and the Governor must then sign the bill into law.[4] Therefore, when map-drawing activities commenced in 2011, the Republican Party had effective control of all bodies necessary to pass a redistricting bill.

In Ohio, redistricting is facilitated by the Joint Legislative Task Force on Redistricting, Reapportionment, and Demographic Research ("Task Force"). The Task Force is a six-person bipartisan committee.[5] The Task Force does not actually draw the maps. Rather "it is the entity to which the state legislature appropriates money" so that the Task Force can then contract with other entities and individuals to assist in the redistricting process.[6] Prior to the 2011 redistricting, the Task Force requisitioned from Cleveland State University ("CSU") a dataset containing demographic and political data that map drawers of both parties could use in the redistricting process.[7] The practice of the Ohio General Assembly has been to allow the Task Force to allocate separate funds in equal amounts to the Ohio Democratic Caucus and the Ohio Republican Caucus and to allow the parties to conduct much of their redistricting work separately.[8] This is precisely what occurred during the 2011 map-drawing process.[9] Eventually, maps are produced that are then sent for the General Assembly to enact in a bill, which is then sent to the Governor. The Ohio Senate and House of Representatives also established committees on redistricting, chaired by Republicans State Senator Keith Faber and Representative Matthew Huffman, respectively.

2. Logistics of the Republican map drawing

Republican map-drawing planning occurred at both the State and federal levels, and the two levels worked together, collaborated, and consulted one another throughout the process.[10] At the State level, Ray DiRossi and Heather Mann [11] served as the principal on-the-ground map drawers.[12] DiRossi had previously been employed as a staffer for Republican members of the General Assembly and as a fundraiser for the Ohio Republican Senate

1. Trial Ex. P090 (Cooper Decl. at 10).

2. Ohio Sec'y of State, 2010 Election Results, https://www.sos.state.oh.us/elections/election-results-and-data/2010-elections-results/. The Court takes judicial notice of all the 2010 election results. Fed. R. Evid. 201.

3. Dkt. 234 (Final Pretrial Order at App. A., 1) (Joint Uncontroverted Facts).

4. *Id.*

5. *Id.* at App. A., 1–2.

6. Dkt. 243 (DiRossi Trial Test. at 147–49).

7. Dkt. 230-14 (Glassburn Dep. at 37); Dkt. 230-5 (Mann Dep. at 94–95, 103, 105).

8. Dkt. 243 (DiRossi Trial Test. at 148–50).

9. *Id.* at 149–50.

10. Dkt. 230–28 (Kincaid Dep. at 313).

11. Heather Mann is now Heather Blessing, but this opinion refers to her by the last name "Mann" because that was her name at the relevant time and to be consistent with how her name appears in documents and emails.

12. Dkt. 230-5 (Mann Dep. at 48).

Campaign Committee.[13] He was also deeply involved in the 2001 redistricting process following the 2000 census.[14] Mann had been working for the Ohio House Republican Caucus since 2004, most recently as Deputy Legal Counsel and Redistricting Director, reporting to Speaker of the Ohio House of Representatives William Batchelder ("Speaker Batchelder").[15] It was decided that both DiRossi and Mann should formally cease their employment with the Ohio House Republican Caucus and instead conduct their map-drawing work as independent consultants.[16] As a consultant, Mann reported to Speaker Batchelder,[17] and DiRossi reported to State Senate President Tom Niehaus.[18] Troy Judy, Chief of Staff for Speaker Batchelder, was also deeply involved in the map drawing.[19]

DiRossi secured a room at the DoubleTree Hotel in Columbus beginning in July 2011 to serve as the base for the map-drawing operations.[20] DiRossi had the hotel move the usual furnishings out of the hotel room and instead had desks and three computers installed.[21] Various Republican legislators, staff members, and operatives visited the DoubleTree room during the map-drawing process. They included Mann, DiRossi, Judy, Speaker Batchelder,[22] President of the Ohio Senate Tom Niehaus, Representative Matt Huffman, State Senator Keith Faber, Chief of Staff in the Ohio State Senate Mike Schuler, Chief Legal Counsel to the majority in the Ohio House of Representatives Mike Lenzo,[23] map-drawing expert John Morgan,[24] head of Team Boehner Tom Whatman, and legal counsel Mark Braden. No Democratic legislator or staffer ever visited.[25]

Mann, DiRossi, and Judy each used a computer equipped with a software package called "Maptitude." [26] Various types of demographic data as well as historical election data and compilations of that data can be uploaded into Maptitude. The software then allows map drawers to draw district lines over a map of a state. Map drawers can view and work on maps in very fine detail—down to the census block unit.[27] As the map drawer draws or alters lines, the program will calculate, recalculate, and display the corresponding demographic and historical election data for the newly drawn districts in real time.[28] Map drawers can save their draft maps both as visual depictions and as data files that contain the assignments of each geographical unit

13. Dkt. 243 (DiRossi Trial Test. at 206–07).

14. *Id.* at 147.

15. Dkt. 230-5 (Mann Dep. at 27–28).

16. Dkt 243 (DiRossi Trial Test. at 207–10); Dkt. 230-5 (Mann Dep. at 28).

17. Dkt. 230-5 (Mann Dep. at 35, 39, 41, 53, 56).

18. *Id.* at 53; Dkt. 230–12 (DiRossi Dep. at 136, 138).

19. Dkt. 230-5 (Mann Dep. at 48).

20. Trial Ex. P109 (DoubleTree Invoice at LWVOH_00018254); Dkt. 230-12 (DiRossi Dep. at 144–45).

21. Dkt. 243 (DiRossi Trial Test. at 212–13).

22. Dkt. 230-5 (Mann Dep. at 63).

23. *Id.* at 33.

24. John Morgan instructed Mann, in person in Columbus, on how to use Maptitude. *Id.* at 42, 58.

25. Dkt. 230-12 (DiRossi Dep. at 149).

26. Dkt. 230-5 (Mann Dep. at 41).

27. *Id.* at 45–46.

28. *Id.* at 42–45.

to a particular district.[29] Maptitude will also export into Excel spreadsheets the political data that corresponds to the draft maps.

As mentioned above, much of the data that the map drawers used had been furnished to them through a contract that the Ohio General Assembly entered into with CSU. CSU created and provided the Task Force with the Ohio Common Unified Redistricting Database ("Database" or "OCURD").[30] The Database included many types of geographic, demographic, and historical partisan election data for the State of Ohio, broken down to the split census block level.[31] The Task Force provided this information to both the Democratic and Republican Caucuses.[32] Mark Braden, who was retained by the Ohio Attorney General to represent and advise the General Assembly during the 2011 redistricting process,[33] hired Clark Bensen from the company Polidata to do some additional work with the data sets to make the data more workable and to provide additional historical election data for the Republican map drawers.[34]

Mann, DiRossi, and Judy were tasked by the Republican Caucuses with drawing maps that were favorable to Republicans. Many Republican leaders indicated their preference for a 12-4 map.[35] In order to gauge whether their draft maps would achieve this goal, they used partisan indices, created by compiling the historical partisan voting data from certain chosen elections. The indices were then uploaded into Maptitude so that the map drawers could predict how their draft districts would likely perform politically in future elections.

Various indices were used because individuals involved in the map-drawing process preferred different indices. At times they used an index that they created and termed the "Unified Index."[36] The Unified Index averaged the results of five races, overall reflecting a partisan landscape more favorable to the Democratic Party than an index that would have included a fuller set of elections from the decade preceding the redistricting.[37] The map drawers also used the "'08 McCain Index," which also reflected a strong Democratic

29. A block equivalency or block assignment file "is a data set that shows which census blocks are assigned to which districts in a redistricting plan" and is "generated by Maptitude." *Id.* at 64. A shape file is another file that Maptitude generates. *Id.* at 64–65.

30. *Id.* at 46.

31. Dkt. 230-14 (Glassburn Dep. at 71–73).

32. *Id.* at 22–24, 38.

33. Dkt. 230-7 (Braden Dep. at 17).

34. Dkt. 230-5 (Mann Dep. at 46, 139–41).

35. Dkt. 230-3 (Batchelder Dep. at 71) (commenting that "Mann would . . . be looking at past election results" because it was "her assignment, to try to come to districts that were friendly"); *id.* at 130–31 (agreeing that "a map that would have given the Democrats a shot at five districts wasn't under consideration"); *see also* Dkt. 230-46 (Stiver Dep. at 33) (discussing a "12 to 4 redistricting scenario that [Husted] said we would like"); Trial Ex. P551 (Mar. 22, 2011 email at STIVERS_004042); Trial Ex. P407 (Sept. 9, 2011 email chain at LWVOH_00524131) (email from Whatman to President Niehaus stating that the Republicans were "trying to lock down 12 Republican seats"). Defendants object to the admissibility of Trial Ex. P407 on hearsay grounds. This objection is overruled. The Court finds that this statement falls under the hearsay exception for then-existing mental state because it is a "statement of the declarant's then-existing state of mind (such as motive, intent, or plan)." *See* FED. R. EVID. 803(3).

36. Dkt. 230-5 (Mann Dep. at 44, 75, 88, 91, 119); Dkt. 230-12 (DiRossi Dep. at 113).

37. Dkt. 247 (Hood Trial Test. at 222–24).

performance.[38] The map drawers used Maptitude to create spreadsheets by "output[ting] the numbers to show what various indexes, as well as other data, were for all the districts." [39] They sometimes created comparison spreadsheets to allow them to compare the political index scores of different draft maps to one another. Individuals involved in the map-drawing process also used the Partisan Voter Index ("PVI"), which is used in the well-known Cook Political Report. PVI scores classify districts as either Republican leaning (R+) or Democratic leaning (D+). These classifications are accompanied by a score quantifying the strength of such a leaning.

Individuals not involved in the day-to-day map drawing were sometimes shown the draft districts' predicted partisan proclivities as assessed with various indices.[40] The map drawers would also print out spreadsheets that contained the draft districts' predicted partisan leanings using various indices and share them with Republican Party leaders at redistricting meetings.[41] Judy regularly checked in on DiRossi and Mann as they worked, received updates, reviewed draft maps, and relayed information between Batchelder, DiRossi, and Mann.[42] DiRossi and Mann regularly reported developments to and received feedback from Speaker Batchelder and President Niehaus. They also kept Senator Faber and Republican Chief of Staff in the Ohio State Senate Matt Schuler informed as changes were made.

3. National Republican involvement

National Republican operatives supported the State-level map drawers in their work from beginning to end. This collaboration started prior to the map drawing itself, when Ohio Republican staffers such as DiRossi, Mann, Judy, Schuler, and Chief Legal Counsel for the Ohio House Republican Caucus Michael Lenzo, as well as Representative Huffman attended a redistricting conference hosted by the National Conference of State Legislatures ("NCSL") in Washington, D.C.[43] Lenzo had also attended a Redistricting and Election Law Seminar hosted by the Republican National Committee ("RNC") in Washington, D.C., in Spring 2010. At these meetings, the Ohio Republican staffers made contact with national Republican operatives such as Mark Braden, Tom Hofeller, and John Morgan, who later advised them and collaborated with them during the map-drawing process.

At the Spring 2010 seminar, Morgan gave a presentation on map drawing, advising map drawers to keep the process secret and to score the maps to determine the likely partisan outcome.[44] In 2011, Morgan conducted a follow-up visit to Ohio, where he presented on map-drawing

38. Trial Ex. P127 (Sept. 12, 2011 email at LWVOH_00018320) (relating partisan scores using the ''08 Pres'' index); Dkt. 230-12 (DiRossi Dep. at 243).

39. Dkt. 230-5 (Mann Dep. at 122).

40. Dkt. 230-3 (Batchelder Dep. at 22–25).

41. Dkt. 230-5 (Mann Dep. at 84) (''We created a lot of spreadsheets with different data like set on population deviations, on absolute population, on indexes, on racial data, on voting data.''); *id.* at 85 (stating that the map drawers' principals ''wanted to know what the districts look like. They wanted to know how they changed from the prior redistricting.'').

42. *Id.* at 49–51 (stating that Mann was in regular contact with Judy about the maps and that she knew that Judy communicated her updates to Speaker Batchelder).

43. *Id.* at 155–56.

44. Dkt. 230-34 (Morgan Dep. at 132); Trial Ex. P346 (Morgan 2010 Presentation at LENZO_0002550–75); Dkt. 230-29 (Lenzo Dep. at 99–106).

tactics to DiRossi, Mann, and Judy.[45] Speaker Batchelder and President Niehaus also attended a redistricting meeting in Washington, D.C. in the spring of 2011 with Whatman and Republican members of the U.S. congressional delegation.[46]

At the time of the census and redistricting, Congressman John Boehner of Ohio was the Speaker of the United States House of Representatives. Ohio Republicans understood that Speaker Boehner would have considerable input in the 2012 map and were committed to enacting a map that he supported.[47] Batchelder spoke with Boehner about once each month during the creation of the 2012 map and met with Boehner twice.[48] Boehner employed Tom Whatman as the head of his "Team Boehner." Boehner tasked Whatman with liaising between Republican members of the congressional delegation and the Ohio map drawers;[49] Whatman began working on the redistricting process at the federal level in December 2010 or January 2011.[50]

Whatman employed Adam Kincaid, the Redistricting Coordinator of the National Republican Congressional Committee ("NRCC"), to assist in the redistricting efforts. Kincaid drafted proposed maps and district lines that incorporated Whatman's requests and sent them to DiRossi and Mann and, on occasion, Braden.[51] Kincaid also met repeatedly with members of Ohio's congressional delegation throughout the redistricting process to hear their concerns and keep them abreast of developments.[52] As the districts were drawn, Kincaid updated Whatman and the Republican congressmen about the political leanings of their new districts based on the historical election data, producing spreadsheets with partisan index information for the various draft districts.[53] In the final days of the drafting, state and national Republicans tweaked the map, mindful of the partisan consequences of very minor tweaks.[54] In

45. Dkt. 230-29 (Lenzo Dep. at 73, 76, 99).

46. Dkt. 230-52 (Whatman Dep. at 41–42).

47. Dkt. 230-12 (DiRossi Dep. at 271); Dkt. 230-52 (Whatman Dep. at 131); Trial Ex. P584 (Sept. 11, 2011 "Redistricting 'tweaks' " email at LWVOH_00018297) (President Niehaus stating that he was "still committed to ending up with a map that Speaker Boehner fully supports, with or without votes from two members of leadership").

48. Dkt. 230-3 (Batchelder Dep. at 27, 46–47).

49. Dkt. 230–52 (Whatman Dep. at 29–30).

50. *Id.* at 31.

51. *Id.* at 30–31; Trial Ex. P128 (Sept. 12, 2011 email at LWVOH_00018322) (Kincaid sending last-minute changes in the map design to DiRossi, Mann, and Whatman); Dkt. 230-28 (Kincaid Dep. at 276–77).

52. Dkt. 230-28 (Kincaid Dep. at 273–74) ("As the redistricting coordinator in 2010 and 2011, my job was to facilitate the development of proposed maps with members of Congress, specifically in Ohio, so that they would have a proposal that they could bring back to the state legislators for their consideration."); Dkt. 230-27 (Kincaid Dep. at 89–92, 94–97, 103–05).

53. Dkt. 230-52 (Whatman Dep. at 55–56).

54. *See* Trial Ex. P124 (Sept. 10, 2011 email at LWVOH_00018310) (DiRossi implementing a last-minute change requested by Senator Faber, including its impact on partisan index scores, and stating that "DC is increasingly pushing to put the lid on this"); Trial Ex. P125 (Sept. 11, 2011 email at LWVOH_0001829) (Whatman apologizing to DiRossi for having to deal with a last-minute "tweak" request from Senators Faber and Widener); Trial Ex. P581 (Sept. 11, 2011 email at LWVOH_00018311) (DiRossi informing Whatman of the partisan index impact of accommodating Senator Widener's requested changes to the map and Whatman asking DiRossi if there was "some other change you guys wanted to run by me" because he "[g]ot that impression from [M]att's [voicemail]"); Trial Ex. P126 (Sept. 12, 2011 emails at LWVOH_00018298–301) (updating various

some cases, it was clear that national Republican operatives had the authority to "sign off" on changes before they were implemented by the State-level team.[55]

4. Major features of H.B. 319

Because of the stagnation in Ohio's population compared to other states, two districts had to be eliminated. This meant that if all incumbents were to run for office, at least two sets of incumbents would have to be paired. The Republicans decided to pair two Republican representatives and two Democratic representatives.[56] Whatman made the decision to pair Republican Congressmen Turner and Austria; Speaker Boehner approved the pairing.[57] Whatman also spoke to both Austria and Turner about the decision.[58] Speaker Batchelder was not involved in the decision to pair those two Republican congressmen.[59]

As for the Democratic pairing, the map drawers paired Representative Marcy Kaptur of former District 9 and Representative Dennis Kucinich of former District 10; Kaptur won the Democratic primary that ensued. Kaptur testified that she did not want to be paired with Kucinich,[60] but she was not consulted by the Republican

map drawers of the impact that changes to the map had on the partisan index score of Representative Latta's district and noting that "a good part of Lucas [County] he is picking up is [R]epublican territory"); Trial Ex. P127 (Sept. 12, 2011 email at LWVOH_00018320) (DiRossi updating Whatman on the partisan impact of a map change on Representative Stivers's district as measured by two different partisan indices); Trial Ex. P128 (Sept. 12, 2011 email at LWVOH_00018322) (Kincaid sending last-minute changes in the map design to DiRossi, Mann, and Whatman); Dkt. 243 (DiRossi Trial Test. at 260).

55. Trial Ex. P126 (Sept. 12, 2011 email at LWVOH_00018298) (Senate President Niehaus asking DiRossi: "Did Whatman sign off?" after changes were proposed and DiRossi confirming that Whatman signed off on them). Heather Mann testified that Whatman "never needed to approve of any maps" that she had drawn because "[h]e wasn't [her] principal." Dkt. 230-5 (Mann Dep. at 59). However, the email correspondence between the Ohio map drawers reveals that although Mann may not have technically been required to secure Whatman's approval of changes to the map, such approval and input was regularly sought, particularly when such changes involved hot spots on the map that were especially important to the map's partisan outcome. *See also* Trial Ex. P581 (Sept. 11, 2011 email at LWVOH_00018311) (Whatman asking DiRossi if there was "some other change you guys wanted to run by me").

56. Speaker Batchelder testified that that decision was made "early on as we negotiated between the two caucuses." Dkt. 246 (Batchelder Trial Test. at 47).

57. Dkt. 230-52 (Whatman Dep. at 35, 37–39).

58. *Id.* at 35–36.

59. Dkt. 246 (Batchelder Trial Test. at 48–49).

60. Dkt. 249 (Kaptur Trial Test. at 76). DiRossi testified that Representatives Kucinich and Kaptur were paired because "[t]here was a lot of—a lot of conversations that were happening, but it was very clear that the Democrats wanted Dennis Kucinich to be the one that was out ... I was getting feedback from a number of mechanisms, a number of people that were having conversations with the Democrats or with other party leaders.... I was talking to a number of people. I was talking to Bob Bennett, the former chairman of the Ohio Republican Party, who had been the chairman twice and had some incredible relationships with former Democratic chairs and also some of the county chairs and individual members." Dkt. 243 (DiRossi Trial Test. at 159–60). DiRossi stated that Bob Bennett "then discuss[ed] these things with [him] personally" and "Bennett's conversations that he was relaying to [DiRossi] impact[ed] how [DiRossi] drew the lines." *Id.* at 160. Plaintiffs object to DiRossi's testimony regarding out-of-court statements, but the Court considers those statements only for the effect DiRossi claims they had on his map-drawing decisions and not for the purported truth of the assertions (i.e., which incumbents Democrats actually wanted paired).

map drawers on the matter.[61] She saw the map embodied in H.B. 319 for the first time in media reports around the time of the bill's introduction. Kaptur was "astonish[ed]," upset, and offended by the map, which she understood to break up communities of interest and involve unnatural groupings of communities with diverging interests.[62]

The map drawers also paired Republican Representative Jim Renacci of the former District 16 and Democratic Representative Betty Sutton of the former District 13 to run against each other in the new District 16. DiRossi testified that the third pairing was necessitated by: drawing District 11 to include portions of Akron, population loss in Northeast Ohio, "two congresspeople who were living very close together," and the creation of the new District 3 in Franklin County.[63]

The map drawers drew District 11 to include some portions of the City of Cleveland in Cuyahoga County and a thin strip dropping southward into Summit County where it incorporated sections of the City of Akron. Representative Marcia Fudge, who had represented District 11 under the previous map prior to the 2011 redistricting, was not consulted by Republican map drawers and did not learn of District 11's new boundaries until around the time that H.B. 319 was introduced in the legislature.[64] She was displeased with the new shape of the district, particularly the extension of the district into Summit County and Akron, areas with which she was not familiar and that she had not previously represented.[65] District 11 had historically been a majority minority district that elected African-American congressional representatives by large margins. Some map drawers expressed that it "was a consideration for us in a proposed map to make sure it remained a majority-minority district."[66]

61. Dkt. 249 (Kaptur Trial Test. at 69–70). Kincaid, however, testified that "Ms. Kaptur and Mr. Kucinich who had been drawn together in a district were interested in the makeup of their parts of those districts, specifically the DMA's which are the designated market areas of Toledo and Cleveland and how much of each was inside their districts—their district." Dkt. 230-27 (Kincaid Dep. at 99). He testified that this information came from Congressman LaTourette's communications with Democratic representatives during the map-drawing process. *Id.* at 98. Again, the Court considers Kincaid's testimony only for the effect that Congresswoman Kaptur's and Congressman Kucinich's out-of-court statements had on the map drawers and not for the purported truth of the assertions.

62. Dkt. 249 (Kaptur Trial Test. at 70–71).

63. Dkt. 243 (DiRossi Trial Test. at 176–77).

64. Dkt. 239 (Fudge Trial Test. at 83) (testifying that she "didn't have a role" in the 2011 redistricting). Kincaid testified, however, that "I know Congresswoman Fudge was interested in the precincts and communities that were included in her district .... Ms. Fudge wanted a district that ran from Cleveland to Akron." Dkt. 230-27 (Kincaid Dep. at 99). Kincaid testified that his "understanding [was] that [Fudge's desire for such a district] was communicated multiple ways through multiple avenues" both "to the state legislature as well as to Mr. LaTourette." *Id.* at 100. He went on: "I recall that she probably stated she was thrilled by the district that was passed out of the Ohio legislature. She may not have used the word thrilled but that she was pleased with the district that she was drawn into." *Id.* at 100–01. Plaintiffs object to this testimony of the ground that it is inadmissible hearsay. Defendants contend that it is only being offered as evidence of Kincaid's understanding and belief. The Court sustains Plaintiffs' objection and finds that this testimony is being offered for the truth—to prove that Congresswoman Fudge was pleased with the district—and therefore is inadmissible hearsay. *See* FED. R. EVID. 801(c)(2).

65. Dkt. 239 (Fudge Trial Test. at 84–85).

66. Dkt. 230-52 (Whatman Dep. at 62); *see also* Trial Ex. P394 (discussing BVAP goals for District 11).

The map drawers created a new district, District 3, in Franklin County, where the City of Columbus is located. Columbus had been experiencing population growth while metropolitan areas in northern Ohio had been losing population.[67] It is an urban center that is the home of The Ohio State University, and it contains many Democratic voters. Whatman and Kincaid had the idea to create the new District 3 in Columbus that would concentrate many of Columbus's Democratic voters into one district.[68] One spreadsheet sent among those involved in the map-drawing process referred to the new District 3 as the "Franklin County Sinkhole," but it is unclear who exactly included that term.[69] The draft map creating the new District 3 allowed for safe quantities of Columbus's Democratic voter bloc to be absorbed by the neighboring Districts 12 and 15 such that those districts could maintain or achieve safe Republican majorities.[70]

State-level and national Republican operatives emailed back and forth sharing and consulting on plans for this new district. Kincaid created a proposed map that included such a district, which scored as D+15 using his PVI metric, and shared the draft map with DiRossi and Mann.[71] Braden asked Hofeller to consult on one draft of the map created by Kincaid, including the new district. Hofeller approved it after removing from District 15 some territory that Kincaid had allocated to it. Hofeller noted that this " 'downtown' area" was " 'dog meat' voting territory" and "awful" in explaining why it should not be included in the Republican-assigned Dis-

67. Trial Ex. P090 (Cooper Decl. at 7, fig. 2).

68. Dkt. 230-52 (Whatman Dep. at 51); Dkt 230-28 (Kincaid Dep. at 333–37).

69. Dkt. 230-28 (Kincaid Dep. at 121–22); *id.* at 420; Trial Ex. P077 (Ohio Changes Spreadsheet at BRADEN001387) (bearing the legend "Franklin County Sinkhole"). Defendants object to the admissibility of Trial Ex. P077 on authentication, foundation, and hearsay grounds. Each objection is overruled. First, the exhibit was produced by Braden in response to Plaintiffs' document subpoena, so it is presumptively authentic. Second, Plaintiffs have properly demonstrated foundation as Kincaid testified that he was the author of the spreadsheet and explained the spreadsheet in detail. Dkt. 230-27 (Kincaid Dep. at 153); *see also* Dkt. 230-28 (Kincaid Dep. at 363) (testifying that he "would have created the original version" of the spreadsheet, but he was unsure whether he had written the header reading "Franklin County Sinkhole"). Metadata further confirms that Kincaid was the last person to modify Trial Ex. P077. Third, the Court finds that Plaintiffs cite this document to demonstrate the map drawers' partisan intent, not for the truth that Franklin County was a "sinkhole." *See* FED. R. EVID. 801(c)(2).

Kincaid sent the spreadsheet to DiRossi, Mann, and Whatman on September 2, 2011. Dkt. 230-28 (Kincaid Dep. at 366–67); Trial Ex. P119 (at LWVOH_00018302). Mann forwarded the spreadsheet to Braden and Bensen on September 3, 2011. Trial Ex. P119 (at LWVOH_00018308). On September 6, 2011, Braden sent the spreadsheet to Hofeller in an email that stated: "please keep this secret but would like your and Dale's views." Trial Ex. P393 at REV_00023176–79. Dale Oldham worked as the redistricting counsel for the RNC. Dkt. 230-27 (Kincaid Dep. at 55).

Kincaid testified that he had a memory of the term "Franklin County Sinkhole" "being used in a conversation with Mr. Whatman" prior to the introduction of H.B. 319, but he did not recall who was present or who used the phrase. Dkt. 230-28 (Kincaid Dep. at 370–71).

70. Trial Ex. P499 (Ohio Changes Spreadsheet at REV_00023431) (reflecting a changed PVI score in District 12 from D+1 to R+8); Dkt. 230-28 (Kincaid Dep. at 353–54).

71. Trial Ex. P313 (Ohio Changes Spreadsheet at NRCC000012) (listing the newly created district termed "10-open" with a PVI of D+15); Dkt. 230-27 (Kincaid Dep. at 135–36); *id.* at 145; Trial Ex. P119 (Sept. 3, 2011 email at LWOV_00018302).

trict 15.[72] Kincaid followed up with minor tweaks of the Columbus area division, but the general contours, as tweaked by Hofeller, remained the same. The 2012 map, which placed downtown Columbus in District 3, uses irregular lines to divide Franklin County and Columbus into three districts—3, 12, and 15. In every election under the 2012 map, the Democratic candidate has won District 3 while Districts 12 and 15 have elected Republican representatives.[73]

For a time, the Republicans considered drawing a map that would include "13 'safe' seats" for their party rather than twelve.[74] In order to accomplish this, Franklin County and the City of Columbus would be split into four different districts rather than the three they were split into under the 2012 map.[75] Kincaid developed such a map and calculated the PVI scores of the resulting districts. Although such a map could have secured the election of thirteen Republican representatives, the map drawers believed that the margins of victory would have been tighter, as evidenced by lower R+ PVI scores.[76] The Republicans eventually opted for the map

72. Trial Ex. P394 (Sept. 8, 2011 email at REV_00023234). Defendants object to Trial Ex. P394 as containing inadmissible hearsay. This objection is overruled. The Court finds that Plaintiffs have offered this document to show the map drawers' state of mind and partisan intent, not for the truth that these territories were "dog meat." *See* FED. R. EVID. 801(c)(2).

73. OHIO SEC'Y OF STATE, 2012 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2012-elections-results/ (Democratic Representative Beatty winning District 3 with 68.29% of the vote and Republican Representatives Tiberi and Stivers winning Districts 12 and 15 with 63.47% and 61.56% of the vote, respectively); OHIO SEC'Y OF STATE, 2014 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2014-elections-results/ (Democratic Representative Beatty winning District 3 with 64.06% of the vote and Republican Representatives Tiberi and Stivers winning Districts 12 and 15 with 68.11% and 66.02% of the vote, respectively); OHIO SEC'Y OF STATE, 2016 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2016-official-elections-results/ (Democratic Representative Beatty winning District 3 with 68.57% of the vote and Republican Representatives Tiberi and Stivers winning Districts 12 and 15 with 66.55% and 66.16% of the vote, respectively); OHIO SEC'Y OF STATE, 2018 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2018-official-elections-results/ (Democratic Representative Beatty winning District 3 with 73.61% of the vote and Republican Representatives Balderson and Stivers winning Districts 12 and 15 with 51.42% and 58.33% of the vote, respectively). The Court takes judicial notice of all the 2012-2018 election results. FED. R. EVID. 201.

74. Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438) ("Given the fact that the overall index for the State of Ohio is 49.5% on a measure of five recent races, it is a tall order to draw 13 'safe' seats. Speaker's [sic] Boehner's team worked on several concepts but this map is the one they felt put the most number of seats in the safety zone.").

75. Dkt. 230-28 (Kincaid Dep. at 421).

76. Trial Ex. P078 (PVI Scores for the "4-Way Split as of September 6" map at OHCF0001438). Defendants object to the admissibility of Trial Ex. P078 on authentication, foundation, and hearsay grounds. Each objection is overruled. First, the exhibit was produced by Braden in response to Plaintiffs' document subpoena, so it is presumptively authentic. Second, Plaintiffs have properly demonstrated foundation as Kincaid testified that he likely authored the spreadsheet and explained the spreadsheet, including the meaning of "4-Way Split[,]" in detail. Dkt. 230-28 (Kincaid Dep. at 381–82). Third, the Court finds that to the extent this evidence is offered to prove the intent and beliefs of the map drawers, it is not offered for the truth of the PVI scores. *See* FED. R. EVID. 801(c)(2). To the extent that it is offered to prove the truth of the partisan leanings of the contemplated

that promised one less Republican seat, but in which those twelve Republican seats were safer.

The map drawers sometimes rejected specific requests from Republican members of the Ohio General Assembly, instead prioritizing maintaining the partisan balance of the draft map. For example, State Senator Christopher Widener requested that the map keep Clark County whole.[77] DiRossi and the other map drawers rejected Widener's request in part because unifying Clark County would have negative consequences for the partisan scores of District 15—making the Republican seat there less secure.[78]

The resulting map featured twelve districts likely to elect a Republican representative (Districts 1, 2, 4, 5, 6, 7, 8, 10, 12, 14, 15, and 16) and four districts likely to elect a Democratic Representative (Districts 3, 9, 11, and 13).

5. Secrecy surrounding the map

The Republican map drawers did not share plans for the map with either the public or Democratic legislators or staffers prior to introducing it in the Ohio House of Representatives.[79] Although the State Senate's and State House's committees on redistricting, chaired by Senator Faber and Representative Huffman, respectively, held five public hearings in different locations across Ohio in July and August of 2011 while the maps were being drafted, their members did not share drafts of the maps or political indices at the hearings.[80] The Republican map drawers shared the map with Representative Armond Budish, the Democratic Minority Leader in the Ohio State House of Representatives, only just immediately before the bill was introduced.[81] The map drawers even declined to share information with other Republican members of the Ohio General Assembly prior to the formal introduction of the bill. For example, State Senator Faber saw the map just shortly before its introduction as a bill.[82]

6. Passage of H.B. 319

The Ohio Republicans first introduced a 2012 redistricting map in the form of H.B. 319 on September 13, 2011 in the House State Government and Elections Committee. The Committee referred the bill to the House, and it was debated on the floor of

districts created by the four-way split, it is admissible as the admission of the agent of a party-opponent. *See* FED. R. EVID. 801(d)(2)(D).

77. Dkt. 243 (DiRossi Trial Test. at 246); Trial Ex. P581 (Sept. 11, 2011 email at LWVOH_00018311) (discussing the partisan consequences of Senator Widener's request); Dkt. 243 (DiRossi Trial Test. at 244–45).

78. Trial Ex. P581 (Sept. 11, 2011 email at LWVOH_00018311); Dkt. 243 (DiRossi Trial Test. at 247–48).

79. Kincaid, however, testified that Republican Congressman LaTourette "would meet with Democrat members of the Ohio [congressional] delegation and get their input on the Ohio congressional map and would communicate information back to them as well." Dkt. 230-27 (Kincaid Dep. at 98). Kincaid's testimony is unclear as to when Congressman LaTourette's discussions with Democratic members of Congress occurred. Congresswoman Fudge testified that she spoke to Congressman LaTourette about the shape of her district after the introduction of H.B. 319 in the General Assembly. Dkt. 239 (Fudge Trial Test. at 100). Moreover, to the extent it is offered for the truth of what any particular Democrat wanted in the redistricting, it is based on hearsay.

80. Dkt. 230-19 (Huffman Dep. at 33–34, 45–46); Dkt. 230-5 (Mann Dep. at 159–60).

81. Dkt. 230-3 (Batchelder Dep. at 57); Dkt. 230-5 (Mann Dep. at 57).

82. Dkt. 230-13 (Faber Dep. at 57–58) (recalling seeing "the map for the first time at the same time that everyone else did" and "right before the weekend before we were going to

the House on September 15, 2011.[83] Representative Huffman, the sponsor of the bill, spoke on the House floor about the map-drawing process and the factors that the map drawers had considered in drawing the new district lines.[84] Democratic Minority Leader Budish spoke on the floor of the House, criticizing the secrecy of the map-drawing process and the Republicans' failure to take outside input into account.[85] House Democrats also complained that the bill was being rushed through the General Assembly and that the accelerated timeframe for its passage prevented serious scrutiny and critique.[86] The bill passed in the House of Representatives that same day by a vote of fifty-six to thirty-six.[87]

On September 19, 2011, H.B. 319 was introduced in the Ohio State Senate. The Senate Committee on Government Oversight and Reform, chaired by Senator Faber, then held hearings on the bill.[88] The Committee amended the bill to include a $ 2.75 million appropriation for local boards of elections in an attempt to make the bill immediately effective and shield it from a voter referendum.[89] The Committee referred the amended bill to the Ohio Senate.[90] On the floor of the Senate, some Democratic State Senators, including Senator Nina Turner, a member of the Black Caucus, opposed the bill and argued that it "lays out 12 Republican districts and four Democratic districts."[91] The bill passed in the Senate by a vote of twenty-four to seven on the same day it was referred. The amended H.B. 319 then returned to the House of Representatives where it passed by a vote of sixty to thirty-five.[92] It was signed into law on September 26, 2011, by Republican Governor John Kasich.

7. Referendum and negotiations

Despite the appropriation amendment intended to insulate the map from a voter referendum, Ohio voters sought to mount such a referendum. A group of Ohio voters filed a petition for a writ of mandamus with the Supreme Court of Ohio. They sought an order declaring that H.B. 319 could indeed be subjected to a voter referendum. *State ex rel. Ohioans for Fair Dists. v. Husted*, 130 Ohio St.3d 240, 957 N.E.2d 277 (2011). The Ohio Supreme Court granted the writ of mandamus on October 14, 2011; voters could seek a referendum and the bill could not immediately go into effect. *Id.* In order to put the referendum on the ballot, Ohio voters would have to gather the signatures of 6% of state electors in slightly over two

vote it on the floor''); *id.* at 175 (''We were given at the last minute a map that we were being asked to support ... You know, we haven't had any input in this process per se.'').

83. Dkt. 234 (Final Pretrial Order at App. A., 2) (Joint Uncontroverted Facts).

84. *See* Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 13–23) (statement of Rep. Huffman); Dkt. 230-5 (Mann Dep. at 160–61).

85. Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 67–68) (statement of Rep. Budish).

86. *Id.* at 38–39 (statement of Rep. Gerberry); *id.* at 46 (statement of Rep. Letson).

87. Trial Ex. J07 (Ohio House of Representatives Journal, Sept. 15, 2011 at 12–13).

88. Trial Ex. J28 (Senate Government Oversight and Reform Committee File at 1, 4).

89. Trial Ex. J28 (Senate Government Oversight and Reform Committee File at 2); Trial Ex. J03 (Ohio Senate Session, Sept. 21, 2011 at 30–31) (statement of Sen. Faber).

90. Dkt. 234 (Final Pretrial Order at App. A., 2) (Joint Uncontroverted Facts).

91. Trial Ex. J03 (Ohio Senate Session, Sept. 21, 2011 at 32–33) (statement of Sen. Brown); *id.* at 53 (statement of Sen. Turner); Dkt. 240 (Turner Trial Test. at 9, 16–17).

92. Dkt. 234 (Final Pretrial Order at App. A., 2) (Joint Uncontroverted Facts).

months.[93]

This also meant that H.B. 319 would not take effect until December 25, 2011, after the December 7, 2011 candidate filing deadline set for the March 2012 primaries.[94] In response, Republican legislators passed H.B. 318, which split the Ohio primaries. The local, state, and U.S. Senate primaries would still occur in March 2012, but the U.S. presidential and U.S. House of Representatives primaries were pushed back to June 2012.[95] This split primary would cost the State of Ohio $ 15 million.[96]

In the shadow of the possible referendum and split primaries, Ohio Republican and Democratic legislators attempted to negotiate some alterations to H.B. 319 that could be enacted as a new bill—H.B. 369.[97] This openness to feedback from the Democrats had not been present in the drawing of H.B. 319.[98] Some Republican map drawers testified that Bob Bennett, the chairman of the Ohio Republican Party and a member of the RNC,[99] served as a go-between for the Republicans and Democrats during this period, communicating Democratic requests to the Republican map drawers.[100] The Republicans, although making small concessions and alterations to their original map to cater to Democratic desires,[101] refused to make changes that would alter the likely partisan outcome of the map.[102] Speaker Batchelder commented that the Democratic legislators' "theory was somehow or another that they could overcome a majority of people who were in the other party, and I don't know how that would have happened." [103]

93. Dkt. 234 (Final Pretrial Order at App. A., 3) (Joint Uncontroverted Facts).

94. *See* OHIO REV. CODE § 3513.05; Trial Ex. J03 (Ohio Senate Session, Sept. 21, 2011 at 15–16) (statement of Sen. Faber).

95. Dkt. 246 (Judy Trial Test. at 72–73); Trial Ex. J06 (Ohio House Session, Dec. 14, 2011 at 5) (statement of Rep. Huffman); Trial Ex. J05 (Ohio Senate Session, Dec. 14, 2011 at 7).

96. Trial Ex. J04 (Ohio House Session, Nov. 3, 2011 at 9–10) (statement of Rep. Huffman); Trial Ex. J22 (Rep. Huffman Sponsor Test. at 001).

97. Dkt. 230-3 (Batchelder Dep. at 120–21) (acknowledging that "negotiations began around mid to late October" and that "the referendum might have played some role in the negotiation about the second map"); Dkt. 246 (Judy Trial Test. at 78, 82) ("There were negotiations leading up to 369. This is after 319 was passed, and, due to the referendum, the confusion . . . and the chaos and pressure that came out of the signature collections, negotiations began."); Dkt. 230-31 (McCarthy Dep. at 74) ("[T]here was a threat of a citizen's referendum on 319 and that—that was the primary reason [for H.B. 369]."); *id.* at 75–77.

98. Dkt. 230-12 (DiRossi Dep. at 185) (stating that the Democratic feedback was "inherent in 369" because "the legislative Democrats approached the leadership and said this is what it's going to take for us to provide votes to approve this map, and so that was all post 319 and 369").

99. Dkt. 230-52 (Whatman Dep. at 40) (identifying Bob Bennett's roles).

100. Dkt. 230-12 (DiRossi Dep. at 184). DiRossi testified that he himself did not "have conversations directly with anyone who could be termed a Democrat" during that period. *Id.* Rather, he "was getting that information from other people." *Id.* He further stated that Bob Bennett "was an intermediary to Democrats and Republicans all over the state." *Id.* at 189.

101. Dkt. 246 (Judy Trial Test. at 78–79) (stating that Democratic members of the Ohio House of Representatives had "a small list of changes that they wanted to see" that were "given to the staffer or consultants that we hired on our side to incorporate in").

102. Dkt. 230-3 (Batchelder Dep. at 130–31); Dkt. 230-14 (Glassburn Dep. at 203–04); Dkt. 230-41 (Routt Dep. at 193–95).

103. Dkt. 230-3 (Batchelder Dep. at 115–16).

DiRossi, Mann, and Judy worked with Maptitude at their office at the Ohio House of Representatives to draw minor changes into the redistricting map in the period between the passage of H.B. 319 and H.B. 369.[104] For example, DiRossi testified that he made changes based on his belief that Representative Kaptur and others had requested that additional territory in Lucas County and Toledo be added and territory in Cleveland be removed from District 9 so that Kaptur would have a better chance of defeating Kucinich.[105] The changes also included the unification of Clark County.[106]

On November 3, 2011 Representative Huffman introduced the new Republican redistricting bill, H.B. 369, in the House Rules and Reference Committee; he gave sponsor testimony in the committee on November 9. H.B. 369 would eliminate the newly split primary.[107] Republican State Representative Lou Blessing sought to push H.B. 369 through the General Assembly by suspending the normal rules mandating that bills be considered by each legislative house on three separate days.[108]

104. Dkt. 230-5 (Mann Dep. at 48–49, 92).

105. Dkt. 243 (DiRossi Trial Test. at 162). DiRossi testified that Bennett (who has since died), Niehaus, and Batchelder all informed him that such changes had to be made between the two iterations of the map. *Id.* at 162–63.

106. Dkt. 243 (DiRossi Trial Test. at 246). Even though Clark County was unified in the new map, the map drawers believed that they were able to do so while maintaining District 15's strong pro-Republican lean. Kincaid believed H.B. 369's PVI to be R+6. Trial Ex. P498 (H.B. 369 Partisan Data Spreadsheet at REV_00023430). He believed H.B. 319's PVI to be R+7. Trial Ex. P590 (Ohio Changes Spreadsheet).

107. Dkt. 234 (Final Pretrial Order at App. A., 3) (Joint Uncontroverted Facts).

108. Trial Ex. J04 (Ohio House Session, Nov. 3, 2011 at 9) (statement of Rep. Blessing). Representative Blessing did not have sufficient votes to achieve this result.[109] Around this time it became clear that the Ohio voter referendum challenging H.B. 319 would not be successful; the required votes would not be collected in time. This meant that Democrats had a weaker bargaining position in their efforts to convince Republicans to make further changes to H.B. 369.

8. Passage of H.B. 369

On December 14, 2011, both the Ohio House of Representatives and the Ohio Senate passed an amended version of H.B. 369, over vigorous opposition from some Democrats.[110] The bill passed in the House by a margin of seventy-seven to seventeen (including twenty-one Democratic votes in favor) and in the Senate by a margin of twenty-seven to six (including four Democratic votes in favor).[111] Not only was the amended H.B. 369 nearly identical in terms of partisan leanings to H.B. 369 as it was first introduced,[112] but it was also highly similar to H.B. 319, the first redis-

109. *Id.*

110. *See, e.g.*, Trial Ex. J06 (Ohio House Session, Dec. 14, 2011 at 22–24) (statement of Rep. Ramos); *id.* at 28–29 (statement of Rep. Foley); *id.* at 33–35 (statement of Rep. Lundy); *id.* at 36–38 (statement of Rep. O'Brien).

111. Dkt. 234 (Final Pretrial Order at App. A., 3) (Joint Uncontroverted Facts).

112. Trial Ex. P042 (Comparison Spreadsheet); Dkt. 230-5 (Mann Dep. at 91–92); Dkt. 246 (Judy Trial Test. at 83) (stating that the H.B. 369 as introduced and as passed "look substantially similar"). Representative Huffman stated: "This House Bill 369 retains the map that was presented to the Rules Committee six weeks ago, with one very minor change." Trial Ex. J06 (Ohio House Session, Dec. 14, 2011 at 5) (statement of Rep. Huffman). The "very minor change" appears to have been the accommodation of a request from the Democratic leadership in the Ohio House to draw former Democratic Represen-

tricting plan that the General Assembly had passed.[113] It was signed into law by Governor Kasich the following day. Because the partisan metrics of the map did not change, the new congressional districting map passed as H.B. 369 was just as likely as H.B. 319 to result in the election of twelve Republican representatives and four Democratic representatives.

Following the passage of H.B. 369, Kincaid created a spreadsheet that documented his analysis of the partisan outcomes of the newly enacted map.[114] The spreadsheet featured four D+ districts, with their numerical scores ranging from D+12 to D+29. It also featured twelve R+ districts, with all but one of their numerical scores ranging from R+2 to R+9, and the outlier measuring at R+14.[115] Kincaid prepared a presentation in which he showed how the redistricting efforts had shored up Republican support in three previously competitive districts—Districts 1, 12, and 15, rendering them safe for Republican Representatives Chabot, Tiberi, and Stivers, thereby taking them "out of play." [116] By Kincaid's calculations, District 1 had moved seven PVI points in favor of Republicans by including Warren County and removing portions of Democratic Hamilton County. District 12 had moved nine PVI points in favor of Republicans because portions of Democratic Columbus had been removed from the district and into District 3. Similarly, District 15 had moved seven PVI points in favor of Republicans, as the new District 3 now also contained many of District 15's former Democratic constituents. Kincaid's presentation also noted that Districts 6 and 16 were "Competitive R Seats Improved" because their PVI scores had become more pronouncedly pro-Republican as a result of the redistricting, District 6 by three points and District 16 by one point.[117] Kincaid continued to praise the results of his map-drawing collaboration with the Ohio Republicans, representing that the "new [Ohio] map should be a 12-4 map," that it "eliminat[ed] Ms. Sutton's seat," and that it "created a new Democrat seat in Franklin County." [118] He stated elsewhere that the Ohio "Republican map shored up multiple seats for the decade." [119]

U.S. Representative Stivers's communications with his staff reflected his similar

tative Mary Jo Kilroy out of District 3 while not decreasing the African-American voting population of that district. Dkt. 230-5 (Mann Dep. at 171–72).

113. Dkt. 230-26 (Judy Dep. at 178).

114. Trial Ex. P498 (H.B. 369 Partisan Data Spreadsheet); Dkt. 230-28 (Kincaid Dep. at 468–69). Defendants object to the admissibility of Trial Ex. P498 as containing inadmissible hearsay. This objection is overruled. The Court finds that the document is offered to demonstrate the intent, mindset, and belief of the map drawers and not being offered for the truth of the matter asserted—that these changes in PVI had occurred or that the districts were actually taken "out of play."

115. Trial Ex. P498 (H.B. 369 Partisan Data Spreadsheet).

116. Trial Ex. P310 (NRCC Presentation at 5); Dkt. 230-27 (Kincaid Dep. at 115–16). Defendants object to the admission of Trial Ex. P310 on hearsay grounds. This objection is overruled. The Court finds that the document is admissible to prove Kincaid's intent, belief, and state of mind, not for the truth of the matter asserted—that the districts had actually been taken out of play. *See* FED. R. EVID. 801(c)(2).

117. Trial Ex. P310 (NRCC Presentation at 6).

118. Trial Ex. P414 (State-by-State Redistricting Summary at REV_00000001); Dkt. 230-28 (Kincaid Dep. at 519). Defendants object to the admission of Trial Ex. P414 on hearsay grounds. This objection is overruled. The Court finds that the document is admissible to prove Kincaid's intent and state of mind. *See* FED. R. EVID. 801(c)(2).

119. Dkt. 230-28 (Kincaid Dep. at 512–13).

belief that various previously competitive districts had been made solidly Republican as a result of the redistricting. For example, he stated that "[t]he redistricting in Ohio did shore up some of the toss-up districts" based on the changes in the PVI scores for Districts 1, 6, and 15.[120] He acknowledged that U.S. Representative Chabot of District 1 "probably won't have a close race for the next decade" based on the changes the redistricting wrought on that district's PVI score and the fact that his district contained many more Republican voters following the redistricting.[121]

9. Congressional elections under the 2012 Map

As predicted by Kincaid, the same four Ohio congressional districts (Districts 3, 9, 11, and 13) have elected Democratic representatives, and the same twelve districts (Districts 1, 2, 4, 5, 6, 7, 8, 10, 12, 14, 15, and 16) have elected Republican representatives in every election since the enactment of the 2012 map.

B. Procedural History

Plaintiffs include seventeen individual Ohio residents, who collectively reside and vote in each of Ohio's sixteen congressional districts, and five organizations based in Ohio. The individual Plaintiffs are: Linda Goldenhar, Douglas Burks, Sarah Inskeep, Cynthia Libster, Kathryn Deitsch, LuAnn Boothe, Mark John Griffiths, Lawrence Nadler, Chitra Walker, Tristan Rader, Ria Megnin, Andrew Harris, Aaron Dagres, Elizabeth Myer, Beth Hutton, Teresa Thobaben, and Constance Rubin. The organizational Plaintiffs, which include nonpartisan groups as well as groups affiliated with the Democratic Party, are: the Ohio A. Philip Randolph Institute ("APRI"), the League of Women Voters of Ohio ("The League"), The Ohio State University College Democrats ("OSU College Democrats"), the Northeast Ohio Young Black Democrats ("NEOYBD"), and the Hamilton County Young Democrats ("HCYD").

Defendants are State Representative Larry Householder, Speaker of the Ohio House of Representatives; State Senator Larry Obhof, President of the Ohio State Senate; and Ohio's Secretary of State, Frank LaRose. All Defendants are sued in their official capacities.

Plaintiffs filed this lawsuit on May 23, 2018. Dkt. 1 (First Compl.). This three-judge panel was then convened pursuant to 28 U.S.C. § 2284. *See* Dkt. 28. Plaintiffs twice amended their complaint and, as relevant here, filed their second amended complaint on July 11, 2018, seeking declaratory and injunctive relief and the enactment of a new congressional districting plan. *See* Dkt. 37 (Second Am. Compl. at 50–52). On August 15, 2018, we denied Defendants' motion to dismiss. *See Ohio A. Philip Randolph Inst. v. Smith*, 335 F.Supp.3d 988 (S.D. Ohio 2018). After that, we granted the Intervenors' motion to intervene, and they joined the litigation. *See* Dkt. 64.[122]

The case then proceeded through discovery, and on January 8, 2019, Defendants moved for summary judgment. *See* Dkt.

120. Trial Ex. P556 (Stivers Email at STIVERS_007519); Dkt. 230-46 (Stivers Dep. at 77–78).

121. Trial Ex. P556 (Stivers Email at STIVERS_007519–20).

122. The Intervenors are the Republican Congressmen from Ohio, the Republican Party of Cuyahoga County, the Franklin County Republican Party, and four individuals. The four individuals are Robert Bodi, Roy Palmer III, Charles Drake, and Nathan Aichele, who live in District 16, District 9, District 11, and District 3, respectively. None of the Intervenors testified live at trial. Only Representatives Chabot, Johnson, Jordan, and Stivers testified via deposition. *See* Dkt. 234 (Final Pretrial Order at App. P.). For the purposes of this opinion, we generally refer to Defendants

136 (Mot. for Summ. J.); Dkt. 140, 140-1 (Intervenors' Suppl. Mot. for Summ. J. & Mem.). After a round of briefing, we denied the motion for summary judgment. *See Ohio A. Philip Randolph Inst. v. Householder*, 367 F.Supp.3d 697, 2019 WL 652980 (S.D. Ohio Feb. 15, 2019).[123] Trial commenced on March 4, 2019 and lasted eight days, concluding on March 13.[124]

Since the trial, the parties have filed post-trial briefs with proposed conclusions of law, and separately, proposed findings of fact. The parties have also finalized their objections to the other side's evidence, responded to each other's objections, and submitted additional briefs on those objections.[125] This briefing schedule concluded on April 7, 2019.

II. SUMMARY OF THE EVIDENCE PRESENTED AT TRIAL

A. Plaintiffs' Fact Witnesses

1. Individual Plaintiffs

Individual Plaintiffs Douglas Burks, Mark Griffiths, Aaron Dagres, and Elizabeth Myer testified at trial. They live in District 2, District 7, District 12, and District 13, respectively. The remainder of the individual Plaintiffs, who reside in the rest of the congressional districts, testified via deposition. All individual Plaintiffs testified to their affiliation with the Democratic Party and/or that they consistently vote for Democratic candidates. *See infra* Sections III.A.1.–16. In addition to being Democratic voters, the individual Plaintiffs are politically active in supporting, volunteering for, and working for Democratic candidates and causes.[126] Collectively, they have engaged in a variety of activities, including door-to-door canvassing, calling other voters to support candidates, writing campaign postcards, fundraising for and donating to candidates, writing letters to representatives and opinion pieces, and protesting. Several of the Plaintiffs have also worked on Democratic campaigns and served on boards of groups or political committees affiliated with the Democratic Party. Finally, the individual Plaintiffs testified, based on their direct lay experiences

and Intervenors collectively as "Defendants," reflecting their collaborative efforts in litigating the case.

123. Representative Householder became the Speaker of the Ohio House of Representatives on January 7, 2019, and Mr. LaRose became Ohio's Secretary of State on January 12, 2019. Householder was substituted for Ryan Smith as a Defendant, and LaRose was substituted for Jon Husted as a Defendant. *See* FED. R. CIV. P. 25(d); *see also* Dkt. 218.

124. The parties offer some of their witnesses' testimony via their depositions. *See* Dkt. 234 (Final Pretrial Order at 7, Apps. O. & P.).

125. The parties raised hundreds of objections to evidence in this case. The Court has considered objections lodged against any piece of evidence ultimately cited in this opinion. To the extent the Court relies on any piece of evidence, objections against the same are **OVERRULED**. The Court offers a more detailed explanation for several particular evidentiary rulings throughout the opinion.

126. Plaintiffs collect the trial and deposition testimony to this effect in their Proposed Findings of Fact ("PFOF"). In many instances, Defendants at least acknowledge that the individual Plaintiffs are politically active in support of the Democratic Party. *See generally* Dkt. 251 (Pls.' PFOF at ¶¶ 313–14, 324–27, 334–37, 350, 363, 373, 389–97, 419–20, 432–46, 459–66, 478, 489–90, 512–15, 529–30, 546–48. 550, 556–57, 570–72); Dkt. 253 (Defs.' & Intervenors' PFOF at ¶¶ 1139, 1149, 1152–53, 1170, 1174, 1230–37, 1267, 1289, 1292, 1302, 1305–08, 1329, 1380, 1382). To the extent that Defendants contest the veracity of Plaintiffs' support of the Democratic Party and Democratic candidates, we find Plaintiffs' testimony credible and that the overwhelming weight of the evidence shows that the individual Plaintiffs consistently vote for and politically support the Democratic Party.

of engaging in political activity, to the burdens that they themselves have experienced in translating their Party's political efforts in the electorate into political power in the U.S. House of Representatives.[127] The individual Plaintiffs testified that their efforts included candidate recruitment, fundraising, and get-out-the-vote activities.

2. *Organizational Plaintiffs*

APRI, the League, and HCYD each testified at trial through a representative, and some additional members of the organizations supplemented the testimony. Several themes ran throughout this testimony. First, the organizations actively engage in politics by encouraging citizens to vote, registering and educating voters, and in the case of HCYD, advocating on behalf of Democratic candidates. Second, in their experience, voter outreach and engagement work was made more difficult by continuously encountering significant voter apathy. They heard voters state their beliefs that their votes did not matter; voters believed that the outcome of any given election was preordained and that the same Republican or Democrat would be elected regardless of whether they voted. Third, the organizational plaintiffs encountered voter confusion—voters did not know to which district they belonged, who represented them, or who was running for office in their districts. Fourth, the organizational plaintiffs testified that they were forced to divert resources from their other work to address this voter apathy and confusion. Individual members of the organizations testified about their involvement with their organizations and their own political work supporting the elections of Democratic candidates. They testified that in their experience, they found their Republican congressional representatives unresponsive to them and not engaged in their communities. They also explained how their communities had been split into different districts under the 2012 map.

Andre Washington, the president of APRI, testified at trial on the organization's behalf.[128] Washington is a Democrat who votes regularly and resides in District 12.[129] Under Plaintiffs' Proposed Remedial Plan, Washington would reside in the reconfigured District 12.[130] APRI is a nonpartisan organization but supports civil rights and labor issues.[131] Its activities center around voter education, registration, and outreach.[132] APRI has eight chapters across Ohio, seven of which are currently active, and has between 150 and 200 members spread throughout nearly every congressional district in Ohio.[133] It is a vol-

127. *See* Dkt. 230-15 (Goldenhar Dep. at 26–27); Dkt. 239 (Burks Trial Test. at 231–32, 235); Dkt. 230-21 (Inskeep Dep. at 88–89); Dkt. 230-30 (Libster Dep. at 39, 60, 62–63, 75–76); Dkt. 230-11 (Deitsch Dep. at 48, 90–91); Dkt. 230-6 (Boothe Dep. at 51–52, 88); Dkt. 240 (Griffiths Trial Test. at 51–53); Dkt. 230-36 (Nadler Dep. at 27–28, 91); Dkt. 230-40 (Rader Dep. at 121–23); Dkt. 230-50 (Walker Dep. at 45, 87, 91); Dkt. 230-32 (Megnin Dep. at, 88–89, 106); Dkt. 240 (Dagres Trial Test. at 97–98); Dkt. 240 (Myer Trial Test. at 119–21); Dkt. 230-20 (Hutton Dep. at 46–47); Dkt. 230-48 (Thobaben Dep. at 46–47); Dkt. 230-42 (Rubin Dep. at 40–41, 78).

To clarify, nothing about H.B. 369 categorically prohibits Plaintiffs from engaging in these activities. The point is simply that Plaintiffs are, in fact, politically engaged individuals who support the Democratic Party in its effort to elect candidates.

128. Dkt. 239 (Washington Trial Test. at 44).

129. *Id.* at 55–56.

130. *Id.* at 54; Trial Ex. P090 (Cooper Decl.).

131. Dkt. 239 (Washington Trial Test. at 45).

132. *Id.* at 46, 52.

133. *Id.* at 48–50.

unteer-run organization, funded by membership dues.[134]

Washington testified that he has personally witnessed voter apathy—people feeling like their vote does not matter—while attempting to engage voters in his own district.[135] He testified that because of the way the lines are drawn, voters do not know where to vote or who is running in their district.[136] Washington testified that APRI must deploy some of its limited resources to combat voter apathy and confusion rather than spending these resources on its other work.[137]

Stephanie White, the vice president of APRI's Toledo chapter, also testified at trial.[138] White is a Democrat who votes regularly and resides in District 5.[139] White believes that District 5 "is not part of the Lucas County community," but rather that "it's part of the Fulton County, Defiance, Williams County area, which is predominantly Republican."[140] She is represented by Republican Congressman Bob Latta.[141] White testified that she has spent time in her political work with ARPI addressing Toledo voters' confusion about their assigned congressional districts.[142] She also conducts partisan political activities such as door-to-door canvassing, phone banking, voter registration drives, and get-out-the-vote ("GOTV") work to help elect Democratic candidates such as James Neu and John Galbraith, who ran for Congress against Representative Latta in the 2016 and 2018 elections, respectively.[143]

Jennifer Miller, the Executive Director of the League testified at trial on the organization's behalf.[144] The League is a nonpartisan organization that hosts candidate forums, publishes voter education materials, registers voters, and participates in GOTV activities.[145] It has around 2,800 members across Ohio, living in all of Ohio's congressional districts.[146] The League has a long history of attempting to reform the districting process and Ohio's district lines.[147] For example, it commissioned and published a report criticizing the process through which the 2012 map was drawn, and in 2011 it hosted a competition in which members of the public could submit redistricting map drafts that comported with non-partisan traditional redistricting principles.[148]

Miller testified that the League spends resources combating voter apathy and confusion due to the 2012 map that it then cannot spend on its other initiatives such as voter registration and education.[149] For example, during the 2018 special election in District 12, the League had to divert significant resources to fielding voters' calls inquiring about their assigned congressional districts. Miller has also observed political candidates' un-

134. *Id.* at 48, 52.

135. *Id.* at 61–62.

136. *Id.* at 52.

137. *Id.* at 52–53.

138. Dkt. 239 (White Trial Test. at 111).

139. *Id.* at 109–10.

140. *Id.* at 115.

141. *Id.* at 112.

142. *Id.* at 119.

143. *Id.* at 116, 118

144. Dkt 239 (Miller Trial Test. at 129).

145. *Id.* at 130–31.

146. *Id.* at 133–34.

147. *Id.* at 138.

148. *Id.* at 154–55, 156–57.

149. *Id.* at 144.

responsiveness to the League's attempts to plan candidate forums, particularly in Republican-dominated areas. She testified that Congressmen Jordan, Stivers, and Joyce have all been unresponsive to the League's requests that they participate in candidate forums.[150] The League cannot hold a candidate forum in which only one party is represented, and therefore must cancel the planned forums if the candidate from one party declines to participate.[151]

John Fitzpatrick, a member of the League and a voter in District 14 also testified at trial.[152] Fitzpatrick lives in Stow, Ohio, which is a northern suburb located about ten minutes from downtown Akron.[153] Under Plaintiffs' Proposed Remedial Plan, Fitzpatrick would live in the new District 16.[154] He is a Democrat who votes regularly, has informal conversations with friends to encourage them to vote and vote for particular candidates, has contributed financially to Democratic candidate Betsy Rader's congressional campaign, and has canvassed and phone banked in other elections.[155] Fitzpatrick is currently represented by Republican Congressman David Joyce.[156] Fitzpatrick considers himself a part of the Akron community because he and his wife spend most of their time, recreate, and are involved in the community there.[157] He has been involved in League activities such as planning candidate nights, voter education, and anti-gerrymandering activities such as working to get Ballot Initiative 1 on the Ohio ballot.[158] Fitzpatrick stated that in the year and a half prior to the passage of Initiative 1, 80% of his work with the League was dedicated to anti-gerrymandering work.[159]

Fitzpatrick also testified about voters in the Akron area being confused about the district in which they live. He himself attempted to use a "congressional house finder" tool to determine his congressional district, but typing in his zip code produced two possible districts.[160] He stated that because Summit County encompasses four different congressional districts, "before [he] got super-involved in [his] district, there [were] more than a few times when [he] had to look it up because [he] had a hard time just remembering exactly which district [he] was in." [161]

Nathaniel Simon, the outgoing president of the HCYD, testified on the organization's behalf.[162] Simon lives and votes in District 2 and is represented by Republican Congressman Brad Wenstrup.[163] Under Plaintiffs' Proposed Remedial Plan, Simon would live in the new District 1.[164] HCYD is a volunteer organization that educates and registers voters and supports Democratic candidates by canvassing and

150. *Id.* at 148.

151. *Id.* at 147–49.

152. Dkt. 239 (Fitzpatrick Trial Test. at 196–97).

153. *Id.* at 197.

154. Trial Ex. P090 (Cooper Decl.).

155. Dkt. 239 (Fitzpatrick Trial Test. at 201–03).

156. *Id.* at 197.

157. *Id.* at 198–99.

158. *Id.* at 200–01, 206–07.

159. *Id.* at 207.

160. *Id.* at 208.

161. *Id.* at 209.

162. Dkt. 240 (Simon Trial Test. at 64).

163. *Id.* at 63, 67.

164. *Id.* at 63; Trial Ex. P090 (Cooper Decl.).

conducting GOTV efforts on their behalf.[165] HCYD has between 100 and 150 members who vote, identify as Democrats, and live in Districts 1 and 2.[166] Simon testified that HCYD has to expend additional resources fighting voter apathy and confusion.[167] He testified that he felt voters were apathetic because, while canvassing for Democratic candidates Aftab Pureval and Jill Schiller, he encountered voters who "refuse[d] to engage in politics because they felt like there was no point, just being that a Republican is always going to win with the way the lines are drawn." [168] Simon testified that the voter confusion in Hamilton County was due in large part to the current map, in particular the manner in which Districts 1 and 2 "wrap[ ] around each other" and the splitting of the City of Cincinnati itself into two districts.[169] For example, Simon testified that he worked at a polling place in Silverton and that:

> many people who came out of the polling booth asked why wasn't Aftab Pureval on my ballot . . . I had to explain to them that they are in the 2nd Congressional District, but to the east and west of Silverton is the 1st Congressional District. Also, in my neighborhood, which is in the 2nd Congressional District, there were Aftab Pureval signs, and he is the candidate for the 1st district.[170]

Simon also testified that the district lines have made it more difficult for HCYD to attract and retain members.[171]

NEOYBD and OSU College Democrats' testimony was introduced through designated depositions. NEOYBD is a Democratic group that "looks to mentor, empower and recruit the next generation of young people of color who want to be involved in the political process." [172] It has around sixty Democratic members who vote regularly and live in Districts 9, 11, 13, and 14.[173] Gabrielle Jackson, the president of the organization, was its Rule 30(b)(6) representative.[174] The organization canvasses, runs phone banks, educates people on "why [their] vote matters, why [they] should be voting," and "concrete issues that are on the ballot," and advocates on behalf of the candidates that the organization supports.[175] Jackson testified that her group fundraises both for candidates and for itself.[176] She stated that "it's been challenging based on the way this map is currently drawn, because folks have been feeling like, you know, [their] voices aren't being heard. So it's causing us to use more of our resources, when we have a hard time bringing in resources." [177] Jackson testified that while canvassing and phone-banking with her organization, she spoke with people who expressed apathy about voting and said that they did not believe that their votes mattered.[178]

Alexis Oberdorf is the President of the OSU College Democrats and was the

165. Dkt. 240 (Simon Trial Test. at 64–66).

166. *Id.* at 65, 67.

167. *Id.* at 68, 73.

168. *Id.* at 68.

169. *Id.* at 63, 68, 69–70.

170. *Id.* at 69–70.

171. *Id.* at 69–70.

172. Dkt. 230-22 (Jackson Dep. at 8, 14).

173. *Id.* at 26, 40, 41.

174. *Id.* at 7.

175. *Id.* at 9, 13, 15–16, 18.

176. *Id.* at 23.

177. *Id.* at 23.

178. *Id.* at 69.

group's Rule 30(b)(6) representative.[179] The OSU College Democrats "advocate, educate, and engage people at OSU in alignment with the Democratic Party's platform." [180] The organization has around 55 members who regularly attend meetings but hosts events throughout the year that around 100 people attend.[181] OSU College Democrats canvasses and runs phone banks in support of Democratic candidates and has held fundraisers for Democratic candidates such as Danny O'Connor.[182] Oberdorf testified that OSU students who live near campus reside in Districts 3, 12, and 15 and that the organization must therefore "spread[ ] [its] capital among three different areas on campus." [183] The majority of OSU College Democrats vote "on campus in their district." [184] She testified that she worked a poll in District 12 during an election and witnessed students coming to vote in the incorrect district "because they assumed seeing that they're . . . in this campus area, they are all going to vote in the same area. So that creates confusion. And part of what we do as a club is aim to educate people." [185] She also testified that her organization has "done coordinated call campaigns for bills that [it] oppose[s]" to representatives from those districts and has found "it challenging especially to contact or get . . . a response from those individuals." [186]

179. Dkt. 230-38 (Oberdorf Dep. at 7, 9).

180. *Id.* at 13.

181. *Id.* at 42.

182. *Id.* at 78–80, 87–89, 113–14.

183. *Id.* at 62.

184. *Id.* at 66.

185. *Id.* at 63–64, 69.

186. *Id.* at 103.

3. Congresswoman Marcia Fudge

Congresswoman Marcia Fudge, representative to the United States House of Representatives from Ohio's Congressional District 11, testified for Plaintiffs at trial.[187] She testified that District 11 has been represented by three different representatives in Congress: Lou Stokes, Stephanie Tubbs Jones, and herself.[188]

Congresswoman Fudge described the historical contours of District 11. When Congresswoman Fudge took office in 2008, District 11 "was primarily a little better than two-thirds of the city of Cleveland and most of the southeast suburbs." [189] The district was entirely contained within Cuyahoga County.[190] When Stephanie Tubbs Jones took office in 1999, District 11 included "most of the city of Cleveland, the lower west side all the way to the east and the southeast suburbs of Cuyahoga County," and was again entirely within Cuyahoga County.[191] The district that Congressman Stokes represented was "pretty much the same," again, entirely within Cuyahoga County.[192] Congresswoman Fudge contrasted that historical District 11 with the version of District 11 that she currently represents: "[T]he first major difference is that [her district] go[es] from Cuyahoga down to Summit County" via a "narrow

187. Dkt. 239 (Fudge Trial Test. at 79).

188. *Id.* at 80.

189. *Id.*

190. *Id.*

191. *Id.* at 81; *see also* Pls.' Demonstrative Ex. 19.

192. Dkt. 239 (Fudge Trial Test. at 81). For part of his time as a congressman, the district that Stokes represented was called District 21. *Id.* at 88.

strip." [193]

Congresswoman Fudge unequivocally stated that she "didn't have any role" in the drawing of the new congressional map in 2011.[194] She first learned that the new District 11 would extend into Summit County and include parts of Akron "around the time that the map was made public." [195] Armond Budish, the Democratic minority leader of the Ohio House of Representatives, was the one to first show her the map "pretty much so [she] wouldn't get caught off guard." [196] She stated that she was "surprise[d], obviously" by the new District 11 and had "no idea that [she] would ever go down into Summit County." [197] She was not "pleased" by the new design, she "would not have chosen it," and she "was not happy about it." [198] Congresswoman Fudge stated that she "didn't know anything about Summit County" at the time and that her lack of familiarity with the new area made it "an uncomfortable place to be." [199] She stated that due to Ohio's losing two congressional seats and the inevitable changes that that would necessitate, she thought that the new District 11 would most likely include the entire City of Cleveland and its southeast suburbs.[200]

Congresswoman Fudge stated that after learning of the new map, the only complaint that she voiced was her belief that allocating "Summit County or that portion of Akron" to the new District 11 "would make it almost impossible" for Democratic Representative Sutton to win an election in the new District 16.[201] Congresswoman Fudge stated that she got together with Congresswoman Sutton and Congresswoman Kaptur to contact Armond Budish to "ask him was there any way to give Betty back Akron so she would have a fighting chance at keeping her seat." [202] She testified that she "may have" spoken with U.S. House of Representatives Speaker Boehner in 2011 about the redistricting "in passing" but recalls nothing about such a conversation.[203] She spoke to "[l]ots of people" about the shape of her district in 2011, including Republican Congressman Steve LaTourette, who she believed was "kind of the point person for John Boehner." [204] She also spoke to Representatives Sutton and Kucinich, first attempting "to see if we could get [the shape of the district] changed because we wanted to try to see if we could help protect Betty [Sutton]. We couldn't." [205] She then "made sure they knew [she] was not pleased."[206]

Congresswoman Fudge admitted that she did not tell any of the people that she

193. *Id.* at 82.

194. *Id.* at 83.

195. *Id.*

196. *Id.*

197. *Id.*

198. *Id.* at 84. On cross-examination, Congresswoman Fudge admitted that in 2011 she was publicly quoted as saying that she was "not upset about how [her] district had been drawn." *Id.* at 98. She explained that as an elected official, she would "never insult the people that I'm going to represent by saying 'I don't want to represent you.' " She also stated that she believed that she had been misquoted. *Id.* at 98–99.

199. *Id.*

200. *Id.* at 85.

201. *Id.*

202. *Id.* at 85–86.

203. *Id.* at 99.

204. *Id.* at 100.

205. *Id.*

206. *Id.*

spoke with in 2011 about District 11 that she did not want District 11 to be a majority-minority district.[207] She did not advocate the drawing of District 11 with less than 50% BVAP ("Black Voting Age Population").[208] She testified that in 2011 she did not view the new district as a violation of the Voting Rights Act ("VRA").[209] Congresswoman Fudge stated that she was not concerned about being paired with another incumbent in the redistricting because she "felt if they were to pair me with somebody, I felt that I was strong enough to win."[210] She expressed no concern to anyone about being paired with Congressman Kucinich.[211] On cross-examination, Congresswoman Fudge stated that since Stokes's time as the congressman for the district, it has been a majority-minority district.[212]

4. State Senator Nina Turner

State Senator Nina Turner, a former Democratic member of the Ohio State Senate, testified for Plaintiffs as a fact witness. Senator Turner served Ohio's 25th State Senate District from 2008 to 2014. At the time of the 2011 redistricting, Senator Turner testified that the State Senate was comprised of ten Democratic Senators, five of whom were African American, and twenty-three Republican Senators.[213] As a result of being in the "deep minority," Senator Turner testified that she had no involvement in the drawing of the current map and that the Democratic Caucus as a whole "didn't have the power to draw the map" because "Republicans could hold business on the [Senate] floor without really having Democrats there."[214] When she first learned of the map presented in H.B. 319, Senator Turner testified that she was "outraged" and that her Caucus tried to "introduce a map that was a fairer reflection of the will of the people."[215] As to H.B. 319, Senator Turner stated that only two Democratic State Senators voted for the bill and that she voted no.[216] Senator Turner believed that the map presented in H.B. 319 would be a 12-4 map.[217]

Senator Turner also gave a floor speech against H.B. 319, in part addressing the justification that the District 11 was drawn to comply with the VRA.[218] At trial, Senator Turner explained her belief that the way District 11 was drawn harmed the voters the VRA sought to protect by "hurt[ing] the[ir] voting prowess" and decreasing their "influence that they would have through representative democracy by stripping or combining portions of the 11th

207. *Id.* at 101.

208. *Id.* at 102.

209. *Id.* at 102–03.

210. *Id.*

211. *Id.* at 102.

212. *Id.* at 89.

213. Dkt. 240 (Turner Trial Test. at 7–8).

214. *Id.* at 8–9.

215. *See id.* at 9–10.

216. *Id.* at 10–11.

217. *See, e.g., id.* at 16–17. Defendants object to Senator Turner's testimony as speculation that the Republicans "guaranteed" a 12-4 map. Plaintiffs contend that Senator Turner's testimony goes to the knowledge and belief of the Democratic members of Ohio's General Assembly regarding H.B. 319. Defendants' objection is overruled. This evidence is admissible to demonstrate Senator Turner's belief that it was a 12-4 map, which in turn supports why she voted against H.B. 319 and made a floor speech opposing the adoption of it.

218. *See generally* Trial Ex. J03 (Ohio Senate Session, Sept. 21, 2011 at 50–56) (statement of Sen. Turner).

Congressional District in ways that representatives could not focus purely on Cleveland and/or Cuyahoga County." [219] Senator Turner also noted that Congresswoman Marcia Fudge and former Congressman Louis Stokes "never had a problem winning elections in that district." [220] She further testified that the way District 11 was drawn harmed both the greater Cleveland and the greater Akron communities because she believed that the two communities have separate needs and "deserve to have a representation that can really focus in on their needs." [221]

As recounted above, after H.B. 319 was enacted into law, Democratic state legislators sought a referendum to overturn the law, which required a certain number of signatures.[222] This referendum failed because not enough signatures were collected, and Republican state legislators then went forward with H.B. 369.[223] Senator Turner testified that she had no input on the map presented in H.B. 369, that she believed that the map was still 12-4 in favor of Republicans like H.B. 319, and that she and a majority of the Democratic Caucus in the State Senate (as well as a majority of the African-American State Senators) voted against H.B. 369.[224]

Senator Turner spoke against H.B. 369 in a floor speech similar to the one she made against H.B. 319. In this floor speech, Senator Turner stated that "[t]o say that this map is bipartisan is laughable" because, as she stated at trial, she believed that "the mere fact that some Democrats, for whatever reason, decided to vote for the bill does not make it bipartisan." [225] At bottom, Senator Turner maintained her belief that H.B. 369 had a clear partisan effect.[226]

Finally, on cross-examination, Senator Turner admitted that she considered running against Congresswoman Fudge in the 2012 Democratic primary, but she dropped out because she believed that the redistricting process was manipulated to guarantee the reelection of incumbent politicians.[227] Senator Turner also acknowledged that it "might be possible" that she received proposals from Democratic map drawers that incorporated, among other things, a majority African-American district in northeast Ohio.[228] But such a district existed previously (with different boundaries, limited to the greater Cleveland area), and Senator Turner maintained that the enacted map did not contain any of the Democratic suggestions.[229]

5. Congresswoman Marcy Kaptur

Plaintiffs called Congresswoman Marcy Kaptur, a Democratic member of the U.S. House of Representatives, as a rebuttal witness. Representative Kaptur won election to Congress in 1982 and has served

219. Dkt. 240 (Turner Trial Test. at 13).

220. *Id.*

221. *Id.* at 14.

222. *Id.* at 17–18.

223. *Id.* at 18.

224. *Id.* at 18–19, 23.

225. *Id.* at 20; *see also* Trial Ex. J05 (Ohio State Senate Session, Dec. 14, 2011 at 22–27) (statement of Sen. Turner).

226. Dkt. 240 (Turner Trial Test. at 20).

227. *Id.* at 25–26, 34; Dkt. 253 (Defs.' & Intervenors' PFOF at ¶ 214).

228. Dkt. 240 (Turner Trial Test. at 27–33).

229. *See id.* Moreover, we observe again that a majority of the Democratic Caucus, including the African-American members, voted against H.B. 369.

Ohio's Congressional District 9 since 1983. She is the most senior member of Ohio's congressional delegation.[230] Representative Kaptur testified that she did not play any part in creating the map that was submitted with H.B. 319, the initial redistricting bill, and she first learned about the shape of the new District 9 in the newspaper after H.B. 319 became public.[231] Representative Kaptur testified that, after learning about the map presented in H.B. 319, she called then-Governor John Kasich's office to object to the fact that her church and the cemetery where her family is buried were cut out of District 9; [232] moreover, she had conversations with a Democratic state legislator after the release of H.B. 319 to "try[ ] to piece [Toledo] back together." [233] Representative Kaptur did not want to be paired with then-Congressman Kucinich, a Democratic colleague of Kaptur's, because he had "run for president" and she believed that the proposed District 9 was drawn to favor Representative Kucinich over her if they ran against each other.[234] On cross-examination, Representative Kaptur acknowledged that, due to population loss, her district's geography would have to expand, but she stated that she "hop[ed] it would be in the economic region that [she] represented" such as Wood or Fulton Counties.[235]

B. Defendants' Fact Witnesses

1. Raymond DiRossi

Raymond DiRossi testified at trial for Defendants as a fact witness, and he was one of the principal map drawers during the 2011 redistricting process. He also played a role in the 2001 redistricting process.[236] Starting in 2001, DiRossi became involved with the Task Force and "was very involved in the creation of [the] legislative districts and also the congressional districts . . . ." [237] DiRossi testified that he worked out of the DoubleTree hotel in Columbus during both the 2001 and 2011 redistricting processes.[238]

DiRossi testified that, in 2011, he was "very prominent" in the congressional redistricting process and that "basically, the process was the same" as in 2001.[239] According to DiRossi, the main issues in the 2011 redistricting process were that Ohio lost two congressional seats, the State had experienced population shifts, District 11 was majority-minority in the past and in 2011 "great care was . . . taken to . . . make sure that [District 11] was going to be created in a way that would be satisfactory," and he also understood that there was a "desire to make a new district in Franklin County that would have the ability to elect, for the first time ever," a minority candidate to Congress.[240]

[1] To deal with the loss of two incumbents (because Ohio lost two congressional seats), DiRossi testified that "the decision was made to pair two Republicans together and two Democrats together. So we would have ended up with" twelve Republi-

230. *See* Dkt. 249 (Kaptur Trial Test. at 69).

231. *Id.* at 69–70. Representative Kaptur's office also had no documents related to the 2011 redistricting process. *Id.* at 81.

232. *Id.* at 73–74.

233. *Id.* at 81–82.

234. *Id.* at 76, 89.

235. *Id.* at 78–79.

236. Dkt. 243 (DiRossi Trial Test. at 146).

237. *Id.* at 147.

238. *Id.* at 152.

239. *Id.* at 154.

240. *Id.* at 154–55.

cans and four Democrats.[241] In terms of how to handle which Democratic incumbents to pair, he stated that it was his belief that "nobody thought it was a good idea to pair" Representative Fudge with another incumbent because she represented a majority-minority district.[242] In the end, Representatives Kaptur and Kucinich were selected as the paired Democratic incumbents. DiRossi testified that he drew the current District 9 the way it is based on what various other Republican legislators and political officials had said various Democrats wanted (these other Republicans were purportedly in conversation with the Democrats).[243]

DiRossi further testified to changes made to various other districts, purportedly at the request of (occasionally unspecified) Democrats, and to the effects those changes had on the map as a whole.[244]

241. *Id.* at 156. Going into the redistricting, Republicans held a 13-5 majority in Ohio's congressional delegation. DiRossi, however, also maintained that he was not simply trying to draw twelve ''Republican districts'' in the map. *Id.* at 158.

242. *Id.* at 157. Plaintiffs object to this statement, and similar statements made by DiRossi, as hearsay. The statement is admissible, however, for the limited purpose to show the effect on DiRossi, i.e., that he did not pair Representative Fudge against another incumbent, but it cannot be used for the truth that various persons in fact thought it was a bad idea to pair Representative Fudge against another incumbent. *See Biegas v. Quickway Carriers, Inc.*, 573 F.3d 365, 379 (6th Cir. 2009) (''A statement that is not offered to prove the truth of the matter asserted but to show its effect on the listener is not hearsay.''); *see also United States v. Churn*, 800 F.3d 768, 776 (6th Cir. 2015) (citing *United States v. Pugh*, 273 F. App'x 449, 456 (6th Cir. 2008)) (''Such a statement may be admitted to show why the listener acted as she did.''). Moreover, DiRossi's testimony on this point is unclear, specifically to whom he is referring when he uses the term ''nobody.''

243. *See generally id.* at 159–66. Plaintiffs again object to DiRossi's testimony as to what other political officials said as hearsay. For the reasons explained in *supra* note 242, the statements are admissible for the limited purpose of showing why DiRossi drew the districts the way he did, but they cannot be used as evidence for what Democrats actually did or did not want or what Democrats said due to the multiple layers of hearsay. Again, this line of testimony from DiRossi was often extremely vague and unclear.

DiRossi also testified to changes to District 9 between H.B. 319 and 369—specifically that there ''was much more Toledo in [H.B. 369 than in H.B. 319] and . . . less Cleveland.'' *Id.* at 166. We observe that some portions of Lucas County were added to District 9 in H.B. 369, and the Cleveland side had small portions dropped and *added*. *See* Trial Ex. I-072 (Changes from H.B. 319 to H.B. 369 at 11–14) (yellow represents geography in both plans, green represents geography that was added in H.B. 369, and red represents geography that was dropped in H.B. 369); Dkt. 243 (DiRossi Trial Test. at 187). Ultimately, this testimony is inconsequential because there were no material geographic changes between H.B. 319 to H.B. 369, *see* Trial Ex. I-072; *see also* Dkt. 246 (Judy Trial Test. at 83), and any changes between H.B. 319 and H.B. 369 to the partisan makeup of District 9 (or any district) were not material whatsoever. The Court also notes that Plaintiffs object to the admissibility of Exhibit I-072 on the basis that DiRossi lacked foundation to testify about the exhibit because he did not create it. The Court summarily overrules that objection because DiRossi, as one of the primary map drawers, was intimately familiar with the changes from H.B. 319 to H.B. 369. DiRossi provided sufficient testimony to establish his personal knowledge of the changes and indicated that Exhibit I-072 was a fair and accurate rendering of the changes. *See e.g.*, Dkt 243 (DiRossi Trial Test. at 191). He does not need to create the exhibit in order to lay the foundation for its admittance. *See* FED. R. EVID. 602.

244. *See generally* Dkt. 243 (DiRossi Trial Test. at 166–75, 177–79, 183–84). Plaintiffs' hearsay objections to this line of testimony are overruled in part for the same reasons already discussed. *See supra* note 242. In any event, for the reasons we explain later in the Opinion, we find, importantly, that, any changes

Negotiations between state legislative Democrats and state legislative Republicans began around the time of the attempted petition drive (after H.B. 319).[245] As to District 11, for example, DiRossi asserted that he "wanted to take great care to make sure the district was drawn the way that the incumbent [Representative Fudge] wanted it." [246] At trial, DiRossi did not mention any concerns about VRA compliance, but at his deposition, he stated that he was concerned about majority-minority districts, including District 11, because of the VRA.[247] At his deposition, he further stated that, in 2001, District 11 was drawn with more than a 50% BVAP, so in 2011, "one of the first things that [DiRossi] was looking at was . . . was it possible to still draw a district that would be more than 50 percent non-Hispanic voting age African American population." [248] It was DiRossi's "understanding that the maps were going to make their way to Congresswoman Fudge," but he clarified that, "obviously, [he] was not present for that." [249]

With respect to District 3, DiRossi similarly testified that a "back and forth" occurred between Bob Bennett, Republican legislative leaders, "some other people," and Joyce Beatty and her husband Otto.[250] At that time, now-Congresswoman Beatty was not yet a Congresswoman and did not hold any position in government, though DiRossi testified that "a number of people, including myself who had worked with . . . Joyce Beatty . . thought that she would be an ideal candidate" for the new District 3.[251]

Some changes did, in fact, occur between H.B. 319 and H.B. 369. DiRossi testified to these changes and explained an exhibit that illustrates them.[252] And again, he asserted at trial that many of these changes were made in response to what he believed were requests of various Democrats.[253] For H.B. 319, he worked out of the DoubleTree Hotel and did not work with any Democrats; he also admitted that he received requests from Tom Whatman (from Team Boehner).[254] For H.B. 369,

did not alter the partisan makeup of the map, and the geographic changes were not very significant either. *See, e.g.*, Trial Ex. I-072 (Changes from H.B. 319 to H.B. 369). Furthermore, the overarching intent remained partisan in that no changes would be made that would put the 12-4 map in favor of Republicans at risk.

245. Dkt. 243 (DiRossi Trial Test. at 174–75).

246. *Id.* at 169; *see also supra* note 242.

247. Dkt. 230-12 (DiRossi Dep. at 193–94).

248. *Id.* at 194.

249. Dkt. 243 (DiRossi Trial Test. at 172).

250. *Id.* at 177–78. For the reasons explained previously, *supra* note 242, DiRossi's testimony is admissible only as evidence for why he drew District 3 a certain way. The statement is inadmissible for the truth that certain Republicans wanted to create a district for Joyce Beatty.

251. *Id.*

252. *See* Dkt. 243 (DiRossi Trial Test. at 187–98); Trial Ex. I-072 (Changes from H.B. 319 to H.B. 369). Again, in the exhibit, yellow represents geography that stayed the same in both plans, green represents geography that was added in H.B. 369, and red represents geography that was dropped in H.B. 369. Dkt, 243 (DiRossi Trial Test. at 187).

253. *See* Dkt. 243 (DiRossi Trial Test. at 188–93, 195) (referring mainly to District 3 and purported requests related to District 9). DiRossi further testified that no changes were made to District 11 between H.B. 319 and H.B. 369, and because there were no requests from legislative Democrats related to District 11, he "thought [the map drawers] got it right the first time." *Id.* at 195.

254. *See, e.g.*, Dkt. 243 (DiRossi Trial Test. at 184).

DiRossi stated that he worked out of the State House, and, for that bill, he asserted that Republicans "were working with the Democrats . . . ." [255]

As to the logistics of the actual map-drawing process, DiRossi testified to that he used Maptitude and the Unified Index that he created.[256] Along with the Unified Index that he created and additional political indices that others wanted him to use, his computer also displayed the population of each district, the African-American voting-age population, the non-Hispanic voting-age population, and the Hispanic voting-age population as he drew draft maps.[257] "[W]henever [he] would make a change on the . . . screen, all of that would automatically change . . . ." [258] The other political indices included presidential election results, as well as the "D+1, D+2, R+1, R+2 system" (often referred to as the D+1, R+1, or PVI) from "the D.C. folks." [259]

DiRossi admitted that in 2011 he worked with Adam Kincaid, from the RNC, and that Kincaid "was one of a number of people that would send ideas or [DiRossi] could bounce ideas off." [260] In a September 10, 2011 email exchange between DiRossi and State Senator Faber, DiRossi wrote, "DC is increasingly pushing to put the lid on this [i.e., the map]." [261] DiRossi also admitted that the changes supposedly requested by now-Congresswoman Beatty (who, again, was not yet a Congresswoman) to draw a potential opponent out of District 3 affected a fairly trivial number of voters.[262] Finally, DiRossi admitted that he did not calculate compactness scores for the districts in either H.B. 319 or H.B. 369.[263]

2. Speaker William Batchelder

Former Speaker of the Ohio House of Representatives William Batchelder testified for Defendants at trial, explaining how Districts 11 and 3 came to be.[264]

255. *Id.* at 219, 287.

256. *Id.* at 199.

257. *Id.* at 199–200

258. *Id.* at 200.

259. *Id.* at 199–200, 229.

260. *Id.* at 224. DiRossi further admitted that Kincaid made at least some changes to the maps, and DiRossi received the PVI from Kincaid. *See id.* at 265, 278.

261. Trial Ex. P124 (Sept. 10, 2011 email); *see* Dkt. 243 (DiRossi Trial Test. at 239). State Senator Niehaus also sent an email to DiRossi and Whatman on September 11, 2011, which stated that Senator Niehaus was ''still committed to ending up with a map that Speaker Boehner fully supports, with or without votes from two members of leadership.'' Trial Ex. P125 (Sept. 11, 2011 email); Dkt. 243 (DiRossi Trial Test. at 240–43). One day later, Senator Niehaus asked DiRossi via email titled ''Proposed map for LSC [Legislative Service Commission]'': ''Did Whatman sign off?'' DiRossi confirmed that ''Whatman signed off.'' Trial Ex. P126 (Sept. 12, 2011 emails); Dkt. 243 (DiRossi Trial Test. at 255). LSC puts the maps into final bill form. *See* Dkt. 243 (DiRossi Trial Test. at 220). H.B. 319 ultimately went public on September 13, 2011. *Id.* at 260. The individuals on the email chains leading up to this time were using their personal (rather than State of Ohio) email addresses. *Id.* at 270–71. Lastly, several of the emails entered into evidence on cross-examination contained political data in the text of the email but none of the other demographic data that DiRossi mentioned he had in Maptitude.

262. Dkt. 243 (DiRossi Trial Test. at 284); *see also id.* at 285 (DiRossi further stating that ''[i]t may have been slightly less than 800 people . . . .'').

263. *Id.* at 284.

264. This summary discusses only Speaker Batchelder's trial testimony from his direct examination as well as the portions of the cross-examination that were within the scope of the direct examination. *See* FED. R. EVID.

a. District 11

Speaker Batchelder testified that he knew George Forbes, the former president of the city council of Cleveland "very well" and would occasionally discuss "matters that were coming before the house" with Forbes.[265] Speaker Batchelder stated that District 11 "had changed in its nature, which we knew from the census, and [he and Forbes], therefore, were concerned about its continuance as an African-American district." [266] Therefore, Speaker Batchelder believed "[t]here would have to be a change in the district so that there would be a balance so that it would continue as an African-American district." [267] Speaker Batchelder testified that he had discussions with Forbes about District 11 "extending down into Summit County" because "we . . . did not have the makings, under the census, of a district that would be African American" and "there were sufficient African-Americans in Summit County to undertake that alteration." [268] Speaker Batchelder testified that he "asked [Forbes] what he thought of that, and he was amenable." [269] Speaker Batchelder "ultimately approve[d] a District 11 that started in Cuyahoga County and went down into Summit County." [270] He agreed that he did this "in part, based on [his] understanding and belief of how Mr. Forbes felt about that." [271]

On cross-examination, Speaker Batchelder admitted that he "never personally had communications with Representative Fudge" about the composition of District 11.[272] Speaker Batchelder also stated that he and Representative Stokes "did communicate, but not on that issue." [273]

b. District 3

Speaker Batchelder testified about the creation of the new District 3 in the Columbus area. He stated that he "first had consulted with the chairman of the Republican Party there, and he indicated that there was not going to be a viable candidate for his party." [274] Speaker Batchelder went on to explain that he was close friends with Otto Beatty and had served in the Ohio House of Representatives with

611(b). The Court also relies on the properly designated sections of Speaker Batchelder's deposition.

265. Dkt. 246 (Batchelder Trial Test. at 18–19).

266. *Id.* at 20. The Court considers this testimony as evidence that Speaker Batchelder was concerned about District 11's continuance as an African-American district. To the extent that the testimony is offered as evidence of Forbes's concern, it is inadmissible hearsay. The Court does not, therefore, consider the testimony for the truth of whether Forbes was concerned about District 11 but only for the ultimate purpose of showing what effect, if any, Forbes's statements had on Speaker Batchelder.

267. *Id.* Again, to the extent that Speaker Batchelder's belief is based on out-of-court statements by Forbes about Forbes's concern, those statements are considered for the effect they had on Speaker Batchelder and not for their truth.

268. *Id.* at 22–23.

269. *Id.* at 24. Plaintiffs again object to any testimony about what Mr. Forbes said as hearsay. For the reasons previously discussed, the Court will consider such testimony only for a limited purpose.

270. *Id.*

271. *Id.*

272. *Id.* at 50.

273. *Id.*

274. *Id.* at 25. Again, the Court does not consider this out-of-court statement by the chairman for the truth of the matter asserted, but rather only for its effect on Speaker Batchelder.

his wife, Joyce Beatty.[275] Speaker Batchelder agreed that he "intend[ed] to draw a district that [Joyce Beatty] could potentially win." [276] Speaker Batchelder stated that he had never referred to the Franklin County district as a "sinkhole" nor had he referred to voters as "dog meat." [277]

3. Troy Judy

Troy Judy had a long history of working for the Ohio House of Representatives and served as the Chief of Staff to Speaker of the Ohio House of Representatives William Batchelder during the redistricting process.[278] He testified about the various people who played a role in the redistricting.[279] He also testified about the map-drawing process, both before and after the passage of H.B. 319, and offered reasons that certain congressional districts in the 2012 map were drawn as they are.[280]

Judy testified that "[a]fter [H.B.] 319 was passed, the Democrats, of course, announced a referendum on the bill and began collecting signatures.... And with the overarching pressure of a referendum, it led us to begin conversations with members of the Democratic caucus." [281] Speaker Batchelder asked Judy and Representative Huffman "to begin very quiet conversations with the Democrats to see what changes they would like to see in a map in order to garner bipartisan support of a bill, a new bill." [282] Judy testified that in this context he conversed directly with three Democratic members of the Ohio House of Representatives who communicated to him "some of the changes [they] would like to see." [283] Some of these changes were incorporated into new map drafts and Judy and Keary McCarthy, the minority Democratic Chief of Staff exchanged map files including such changes.[284] Judy stated that in the back-and-forth between himself and McCarthy, McCarthy never proposed a District 11 or District 3 "that was materially different from the one proposed by the Republicans." [285] Judy testified that at this stage, the now-deceased Bob Bennett, "the outgoing chairman of the state Republican party," was involved in communications between the Republican map drawers and Democratic players.[286]

[2] Judy testified that District 3 had been a "priorit[y]" of Speaker Batchelder's.[287] He testified that Speaker Batchelder's "relationship with Congresswoman Beatty and her husband Otto Beatty led him to have a priority to create a central district in Franklin County encompassing Columbus and having representation specifically for Congressman [sic] Beatty." [288] He also testified that population shifts toward Franklin County and Ohio's loss of

275. *Id.*

276. *Id.*

277. *Id.*

278. Dkt. 246 (Judy Trial Test. at 67–68).

279. *Id.* at 81.

280. *Id.* at 70–79.

281. *Id.* at 72–73.

282. *Id.* at 73–74.

283. *Id.* at 74.

284. *Id.* at 75.

285. *Id.*

286. *Id.* at 74–75.

287. *Id.* at 70.

288. *Id.* at 71; *see also id.* at 72 (Judy confirming that it was his "understanding and belief that the reason for the shape and location of Congressional District 3 was based on Speaker Batchelder's relationships with and conversations with the Beattys").

two congressional seats following the 2010 census were factors in the drawing of District 3.[289]

Judy testified that District 9 was drawn in response to the Democratic leadership's desire that Representative Marcy Kaptur and Representative Dennis Kucinich be the two Democratic incumbents paired.[290] Judy stated that Bob Bennett "was also in contact with a Democratic leader from the Toledo region, Jim Ruvolo,[291] who then communicated to us about what the shape of the Kaptur district should look like and what Democrats should be paired together, actually." [292] Judy stated that he was "not sure who else [Bennett] was speaking with." [293]

Judy also testified about the contours of District 11. He stated that Speaker Batchelder had relationships with members of the African-American community in Cleveland, including George Forbes, and has "consulted" for many years with these individuals "with respect to any issues that would affect the African-American community." [294] This was the only testimony that Judy related regarding the involvement of leaders of Northeast Ohio's African-American community in the redistricting of District 11.

Judy testified that when the Republican map drawers began negotiations with Democratic individuals in an effort to pass the second iteration of the map, Bob Bennett played a key role in these communications, serving as a "back channel to Congresswoman Fudge ... to communicate with us about the shape of [District 11]." [295] Judy testified that Bennett "communicated to [Judy] that he was in contact with Representative Fudge" and that Fudge "was pleased with the configuration [of District 11] that was in 369" after the Republican map drawers had "ma[d]e changes and incorporate[d] things that the Democrats wanted to see." [296]

On cross-examination, Judy admitted that despite changes that were made to H.B. 369 prior to its passage, it looked "substantially similar" to the initial version of H.B. 369 introduced by the Republicans members of the General Assembly.[297]

C. Plaintiffs' Expert Witnesses

1. Dr. Christopher Warshaw

Dr. Christopher Warshaw testified at trial for Plaintiffs as an expert witness. Dr. Warshaw is a tenure-track assistant professor of political science at the George Washington University, teaching courses on political science, elections, public opinion, statistical methodology, and political representation.[298] His research has been published extensively in prestigious peer-reviewed publications and he has published

289. *Id.* at 70. Plaintiffs object to this testimony for lack of foundation regarding demographic changes in Ohio and the effect of those changes on the map-drawing process. The Court overrules this objection and finds that Judy is providing his personal knowledge of factors that accounted for the drawing of District 3, including his understanding of demographic changes.

290. *Id.* at 77.

291. Judy later stated that he believed that Ruvolo was chairman of the Democratic Party. *Id.* at 77.

292. *Id.* at 74; *see also id.* at 77 (stating that the Republicans "configured the district ... at the behest of the Democratic leadership").

293. *Id.* at 77.

294. *Id.* at 70.

295. *Id.* at 74.

296. *Id.* at 76.

297. *Id.* at 83.

298. Dkt. 240 (Warshaw Trial Test. at 180).

specifically on the topic of partisan gerrymandering.[299] Dr. Warshaw has also served as an expert witness in two other partisan-gerrymandering cases; no court has ever failed to credit his testimony.[300] The Court qualified Dr. Warshaw as an expert in the fields of elections, partisan gerrymandering, polarization, and representation and found his testimony highly credible.[301]

a. Partisan-bias metrics

Dr. Warshaw testified at length about four [302] specific partisan-bias metrics that he used to evaluate the 2012 map. He defines partisan bias broadly as "the idea of trying to quantify whether one party or another has an advantage in the translation of votes to seats." [303] Successful partisan gerrymanders efficiently translate votes for the favored party into seats for that same party. "In practice, this entails drawing districts in which the supporters of the advantaged party constitute either a slim majority . . . or a small minority." [304] Map designers accomplish the former by cracking voters from the opposition party into different districts so that they are highly unlikely to break the 50% mark in a given district and are therefore unable to elect the candidate of their choice. They accomplish the latter by packing voters from the opposition party into districts such that they have an unnecessarily large margin of victory.

The concept of "wasted" votes underlies both of these strategies.[305] In cracked districts, the votes of the losing disfavored party are all wasted because they were allocated to a race that the disfavored party did not win. The closer the margin of victory in cracked districts, the more disfavored party votes are wasted. In packed districts, many votes of the winning disfavored party are wasted because there are many excess votes beyond those needed for victory. A party designing a partisan gerrymander will attempt to waste few of its own supporters' votes and waste many of the opposing party's supporters' votes. Partisan bias, an asymmetry or advantage in the efficiency of vote-seat translation, results.

Dr. Warshaw used the efficiency gap, symmetry in the vote-seat curve, the mean-median difference, and the declination metric to measure partisan bias in the 2012 map.[306]

i. Efficiency Gap

The efficiency gap compares the wasted votes for each party by calculating "the difference between the parties' respective wasted votes, divided by the total number

299. *Id.* at 184, 187.

300. *Id.* at 190.

301. *Id.* at 190–91.

302. One of these metrics, partisan symmetry in the vote-seat curve, can be measured in two ways. *See* Trial Ex. P571 (Warshaw Rep. at 10–12).

303. Dkt. 240 (Warshaw Trial Test. at 195).

304. Trial Ex. P571 (Warshaw Rep. at 4).

305. ''Wasted'' votes has a technical meaning in this context. Of course, individual votes are counted; thus, *individuals'* votes are not ''wasted'' in that sense. Rather, in partisan-gerrymandering cases, ''wasted'' votes capture *a party's* efficiency (or inefficiency) in translating the votes that it receives into legislative seats—because ''the goal of a partisan gerrymander is to win as many *seats* as possible given a certain number of *votes*.'' Nicholas O. Stephanopoulos & Eric M. McGhee, *Partisan Gerrymandering and the Efficiency Gap*, 82 U. CHI. L. REV. 831, 850 (2015). Accordingly, wasted or '' 'inefficient' votes are those that do not directly contribute to victory.'' *Id.* at 850–51. That is, *the party*, not the individual voter, ''wasted'' the vote.

306. Dkt. 240 (Warshaw Trial Test. at 196–97).

of votes cast in the election." [307] The efficiency gap reflects "the extra seats one party wins over and above what would be expected if neither party were advantaged in the translation of votes to seats (i.e., if they had the same number of wasted votes)." [308]

Dr. Warshaw surveyed historical efficiency gaps across the country and found that they were generally quite small. Around 75% were between -10% and 10%, and only around 4% had an efficiency gap of greater than 20% in either direction.[309] He demonstrated that Ohio's 2012 efficiency gap of -22.4% was a historical outlier—"more extreme than 98% of previous plans in states with more than six seats over the past 45 years, and ... more Republican-leaning than 99% of previous congressional redistricting plans." [310] It also reflected a major increase from Ohio's efficiency gap prior to the 2011 redistricting efforts.[311] Ohio's efficiency gaps in 2014 and 2016 were -9% and - 8.7%, respectively, "imply[ing] that Republicans in Ohio won 1-4 more seats in these elections than they would have won if Ohio had no partisan bias in its efficiency gap." [312] Ohio's efficiency gap in the 2018 election was -20%, more extreme than 96% and more pro-Republican than 98% of previous comparable plans.[313]

307. Trial Ex. P571 (Warshaw Rep. at 6) (quoting Stephanopoulos & McGhee, *Partisan Gerrymandering and the Efficiency Gap, supra*). Dr. Warshaw used the version of the efficiency gap equation that accounts for unequal turnouts across districts. *See id.* at 7–8.

308. *Id.* at 8.

309. *Id.*

310. *Id.* at 8, 19–20, 23.

311. *Id.* at 23.

312. *Id.*

ii. Partisan symmetry in the vote-seat curve

Symmetry in the vote-seat curve compares how both parties' seat shares change as their vote shares increase or decrease.[314] Dr. Warshaw explained that in an unbiased districting scheme, if Democratic candidates receive 52% of the votes and earn 60% of the seats, then when Republican candidates receive 52% of the votes, they should also earn 60% of the seats. One can measure symmetry by applying a counterfactual uniform swing in vote shares from 45% to 55% and measuring departures from parity in seat share between the parties.[315] One applies a uniform swing by increasing the vote share of a given party by a fixed percentage across all districts.[316] Symmetry can also be measured simply by comparing the seat share that each party achieves when it receives 50% of the vote. Applying uniform swings, the level of partisan asymmetry in Ohio's 2012 election was "more extreme than 96% of previous elections and more pro-Republican than 97% of previous U.S. congressional elections over the past 45 years." [317] The result was the same when the symmetry analysis was conducted using the method that compares seat shares when each party earns 50% of the vote.[318] With uniform swings, the 2018 elections were more asymmetric than 92% of previous elections

313. Trial Ex. P476 (Warshaw 2018 Update at 3).

314. Trial Ex. P571 (Warshaw Rep. at 10).

315. *Id.*

316. Dkt. 240 (Warshaw Trial Test. at 202).

317. Trial Ex. P571 (Warshaw Rep. at 27). Dr. Warshaw used the same elections data to conduct his symmetry analysis as he did with the other partisan-bias metrics. *See id.* at 6.

318. *Id.*

and more pro-Republican than 94% of the comparison group.[319]

iii. Mean-median gap

The mean-median gap reflects "the difference between a party's vote share in the median district and their average vote share across all districts. If the party wins more votes in the median district than in the average district, they have an advantage in the translation of votes to seats." [320] Dr. Warshaw found that Ohio's mean-median gap jumped from 1.7% in 2010 to 7.8% in 2012, following the redistricting.[321] He also found that the 2012 mean-median gap was more extreme than that in 83% of prior elections and more pro-Republican than that in 92% of prior elections.[322] The 2018 mean-median gap was 5%, more extreme than in 62% of previous elections and more pro-Republican than in 81% of previous elections.[323]

iv. Declination

Lastly, the declination metric involves graphically plotting the districts in a plan from least Democratic to most Democratic and then measuring and comparing the angles formed by best-fit lines for each party's seats measured from the 50% Democratic vote share line.[324] The calculations result in a score between -1 and 1, which indicates the size and direction of the partisan bias of the map.[325] Ohio's 2012 declination score of -0.77 was "more extreme than 99% of previous elections and more pro-Republican than any previous U.S. congressional election over the past 45 years." [326] Ohio's 2018 declination score of -0.69 "was more extreme than 98% of previous elections and more pro-Republican than 99% of previous U.S. congressional elections." [327]

v. Strengths and weaknesses of the metrics

Dr. Warshaw highlighted some of the strengths and weaknesses of each partisan-bias metric. For example, a strength of the efficiency gap is that it "can be calculated directly from observed election returns even when the parties' statewide vote shares are not equal." [328] However, the efficiency gap can also be a more volatile metric than some of the others, and it is not recommended for use in smaller states with relatively few congressional districts.[329] A strength of the symmetry metric is that it is far less volatile over time and has been widely used and accepted in academic work on partisan ger-

319. Trial Ex. P476 (Warshaw 2018 Update at 4).

320. Trial Ex. P571 (Warshaw Rep. at 8) (citing Jonathan S. Krasno et al., *Can Gerrymanders be Detected? An Examination of Wisconsin's State Assembly*, AM. POLITICS RES. (2018); Robin E. Best et al., *Considering the Prospects for Establishing a Packing Gerrymandering Standard*, ELECTION L.J. (2017); Samuel Wang, *Three Tests for Practical Evaluation of Partisan Gerrymandering*, 68 STAN. L. REV. 1263 (2016)) (footnote omitted).

321. *Id.* at 24.

322. *Id.* at 25.

323. Trial Ex. P476 (Warshaw 2018 Update at 3).

324. *See* Trial Ex. 571 (Warshaw Rep. at 12–13) (explaining the exact method for calculating the declination metric of a given map).

325. *Id.*

326. Trial Ex. P571 (Warshaw Rep. at 26).

327. Trial Ex. P476 (Warshaw 2018 Update at 3).

328. Trial Ex. P571 (Warshaw Rep. at 8).

329. Dr. Warshaw therefore included in his analysis only states with more than six congressional seats. *Id.* at 19 n.22.

rymandering.[330] One weakness of both symmetry metrics is that they involve the calculation of counterfactual elections.[331] The mean-median gap is easy to apply, but it is "sensitive to the outcome in the median district." [332] For its part, the declination measure "is somewhat unstable when a party holds a very small number of seats in the legislature." [333] Dr. Warshaw explained that all these metrics are "closely related both theoretically and empirically, but nonetheless, there's small differences between them ... [and] looking at a suite of different metrics in concert gives us greater confidence in any conclusion that we ... draw." [334] Looking across all the metrics, Dr. Warshaw concluded that "Ohio's recent elections [under the 2012 plan] display a larger partisan bias in favor of Republicans than most previous plans in Ohio or in other states." [335]

b. Requirements of a partisan gerrymander

Dr. Warshaw testified about how he determines in his academic work whether a redistricting plan is a partisan gerrymander. According to Dr. Warshaw, to qualify as a partisan gerrymander, a districting plan must satisfy four different elements. First, a single party must have controlled the redistricting process—meaning that in a state with a bicameral legislature, it must have had control of both houses and the governorship—and that same party must be favored by the map.[336] Under Dr. Warshaw's criteria, whether members of the disfavored party cast roll-call votes in support of the redistricting plan is meaningless in determining whether the plan was a gerrymander.[337] Second, all partisan-bias metrics that Dr. Warshaw employs (efficiency gap, symmetry in the vote-seat curve, mean-median gap, and declination) must "indicate [that] the same party that controlled the redistricting process was actually advantaged in the translation of votes to seats." [338] Third, the map must be an outlier in terms of its partisan-bias metrics when compared to historical elections across the country in the last forty-five years.[339] Fourth, all four partisan-bias metrics measuring a given map must point in the same direction.[340]

330. *Id.* at 12.

331. *See id.* at 11–12.

332. *Id.* at 8–9.

333. *Id.* at 13.

334. Dkt. 240 (Warshaw Trial Test. at 197); *see also* Trial Ex. P571 (Warshaw Rep. at 14) (demonstrating high levels of correlation between measures of partisan bias in states where the Democratic vote share was 40-60%).

335. Trial Ex. P571 (Warshaw Rep. at 4).

336. Dkt. 240 (Warshaw Trial Test. at 191, 194). Warshaw discusses how partisan control of the redistricting process results in measurable changes in the efficiency gap in favor of the party in control, both in Ohio and elsewhere. Trial Ex. P571 (Warshaw Rep. at 17–18).

337. Dkt. 240 (Warshaw Trial Test. at 194). Dr. Warshaw testified that his approach of not considering roll-call votes cast by the non-controlling party is the accepted one in political science. *Id.*

338. *Id.* at 192.

339. *Id.* Dr. Warshaw examines the years since 1972 because all states were in compliance with the one-person, one-vote principle announced in *Baker v. Carr*, 369 U.S. 186, 82 S.Ct. 691, 7 L.Ed.2d 663 (1962) at that point. *Id.* at 195, 198–99, 82 S.Ct. 691; Trial Ex. P571 (Warshaw Rep. at 6 n.3). This dataset encompasses over 500 elections. Dkt. 240 (Warshaw Trial Test. at 203).

340. Dkt. 240 (Warshaw Trial Test. at 192).

Dr. Warshaw found that under this rubric, the 2012 plan was a partisan gerrymander because: (1) the Republican Party controlled the redistricting process and the map favored the Republican Party; (2) all four of his partisan metrics indicated that the Republicans were actually advantaged in the translation of votes to seats; (3) the map was an outlier when compared to the dataset of hundreds of historical maps; and (4) all four partisan metrics pointed in the same direction—toward a pro-Republican bias.

c. Responsiveness, competitiveness, and durability

Dr. Warshaw also evaluated the responsiveness and competitiveness of the 2012 map. Responsiveness measures "how insulated a plan is from changes in voter preferences" or, conversely, "how likely the election results are to change due to changes in voter preferences." [341] A map is more responsive if it yields different seat shares when there are swings in voter preferences from year to year. Dr. Warshaw measures responsiveness in two ways: (1) determining how many districts with competitive seats exist and (2) applying a uniform swing of vote shares between 45% and 55% across all districts and measuring how the seat-share outcome changes.[342]

Dr. Warshaw concluded that Ohio's present map "has led to historically uncompetitive elections." [343] First, in 2012, Ohio had only two competitive congressional seats.[344] In both 2014 and 2016, not a single congressional district in Ohio saw a competitive election.[345] In 2018, Ohio again had only two competitive seats.[346] The uniform swings also demonstrated that the 2012 map is highly unresponsive.[347] Applying uniform swings to the 2012 election results, he found that Democrats would win the same 25% of the congressional seats if they won anywhere from 30% to 52% of the statewide vote. To advance to holding 37.5% of seat-share, they had to win 55% of the statewide vote.[348] Dr. Warshaw determined that 2018 was a more responsive year than earlier years according to the uniform swing analysis. However, "most of this responsiveness occurs at the very upper end of the range of plausible statewide vote shares for democrats"; Republicans would still win "75% of the seats across most of the range of plausible election swings," even if 50% of the vote share was Democratic.[349]

Dr. Warshaw also found that the effects of the 2012 map are durable throughout time.[350] Although the partisan-bias metrics generally became somewhat less extreme as time went on, the level of partisan bias

341. *Id.* at 201.

342. *Id.* at 202; Trial Ex. P571 (Warshaw Rep. at 15). Dr. Warshaw termed a district competitive in this context if the winning party received less than 55% of the two-party vote. Trial Ex. P571 (Warshaw Rep. at 15). He stated that "[i]n responsive systems, a 10% [change] in vote share from 45% to 55% will generally lead to a change in seat share of around 20%. In a[n] unresponsive system, there could be little or no change in seat share from a 10% change in vote share." *Id.* at 15.

343. *Id.* at 4.

344. *Id.* at 15.

345. *Id.* at 28.

346. Trial Ex. P476 (Warshaw 2018 Update at 11).

347. Trial Ex. P571 (Warshaw Rep. at 29).

348. *Id.* at 15.

349. Trial Ex. P476 (Warshaw 2018 Update at 12–13).

350. Trial Ex. P571 (Warshaw Rep. at 4).

in 2012 under each metric was a "powerful and statistically significant predictor" of the same metric's level in 2016 and 2018.[351]

d. Polarization, representation, and trust in representatives

Dr. Warshaw testified about political polarization and its impact on representation. He defined polarization as "the distance between the average preferences of members of the two parties." [352] He concluded that due to increased ideological polarization between Democratic and Republican members of Congress, Ohio Democratic voters who are disadvantaged by the districting scheme and represented by Republican congressmen are unlikely to have their views represented by their representatives in Congress; gerrymandering therefore negatively affects representation. He also found that "voters in gerrymandered states ... trust their representatives less than voters in non-gerrymandered states." [353]

e. Proposed Remedial Plan

Dr. Warshaw used the same data to analyze the Proposed Remedial Plan as he did with the 2012 map and found that the Proposed Remedial Plan had far lower levels of partisan bias and higher levels of responsiveness than the 2012 map; it "had no substantial partisan bias." [354]

2. Dr. Wendy K. Tam Cho

Dr. Wendy K. Tam Cho testified at trial for Plaintiffs as an expert witness. Dr. Cho is a full professor at the University of Illinois at Urbana-Champaign, and she holds appointments in several departments, including political science, statistics, and mathematics.[355] Dr. Cho is also a Senior Research Scientist at the National Center for Supercomputing Applications at the University of Illinois.[356] She has studied redistricting for thirty years and written extensively on the topic through the lens of multiple academic disciplines.[357] Dr. Cho previously testified as an expert in a partisan-gerrymandering case on behalf of defendants in Pennsylvania who were defending a map enacted by the Republican legislature in the Commonwealth; the court in that case qualified her as an expert.[358] This Court qualified Dr. Cho as an expert in political science, political geography and redistricting, statistics and applied statistics, statistical modeling and sampling from unknown distributions, and the design of algorithms.[359]

Dr. Cho testified about her analysis of the current map and its partisan characteristics as compared to a set of simulated maps that she generated. Dr. Cho used an Evolutionary Markov Chain Monte Carlo ("EMCMC") algorithm [360] to run a sim-

351. *Id.* at 31; Trial Ex. P476 (Warshaw 2018 Update at 10).

352. Dkt. 240 (Warshaw Trial Test. at 203).

353. Trial Ex. P571 (Warshaw Rep. at 4–5, 33, 37).

354. *Id.* at 5, 32–33, 43; Trial Ex. P476 (Warshaw 2018 Update at 14–15).

355. Trial Ex. P086 (Cho CV).

356. *Id.*

357. *See id.*; Dkt. 242 (Cho Trial Test. at 134–37).

358. Dkt. 242 (Cho Trial Test. at 138–39).

359. *Id.* at 140–41. We note that Dr. Cho's reports and testimony are subject to a *Daubert* motion, but Defendants have not objected to Dr. Cho's qualifications. *See* Dkt. 148, 148-1 (Intervenors' Mot. to Exclude Cho).

360. The algorithm was written in the coding language C++. Dkt. 242 (Cho Trial Test. at 155). Importantly, the code is separate and distinct from the algorithm. The algorithm is important because it represents the idea behind Dr. Cho's analysis. The code implements the algorithm. *Id.* at 156. Dr. Cho has devel-

ulation on a supercomputer, and the algorithm generated 3,037,645 simulated maps.[361] These maps incorporated only neutral redistricting criteria and no partisan data (she analyzed partisanship after generating the maps).[362] Through this analysis, Dr. Cho was "trying to understand what would be a typical map that would emerge from a non-partisan [map-drawing] process."[363] Specifically, her analysis sought to determine whether neutral factors, primarily political geography, could explain the 12-4 outcome of the current map.

Dr. Cho's simulations can be analogized to a coin toss. For example, if you toss a coin 1,000 times, and the coin lands on heads 582 times, that is one datapoint. If you flip the coin another 1,000 times, and the coin lands on heads 602 times, that is another datapoint. Running through this process many times (e.g., 3 million) provides a fuller picture of the typical outcomes. With a fair coin, outcomes of around 500-heads and 500-tails would be typical; 950-heads or even 1,000-heads out of 1,000 flips are also theoretically possible, but such outcomes would be surprising if the coin tosses were done with a fair coin. In this redistricting context, Dr. Cho generated over 3-million simulated maps and then analyzed the seat share between the parties under each. This process allowed her to compare how typical a 12-4 seat share between Republicans and Democrats would be under a neutral map-drawing process and, thus, to analyze whether it is likely that the 12-4 seat share can be explained by factors such as Ohio's natural political geography.[364] In short, Dr. Cho's simulated maps are meant to provide a nonpartisan baseline against which to compare the current map.

[3] Dr. Cho's methodology includes several key and related components.[365] Dr.

oped this algorithm and code over more than a decade. *Id.* at 156–57. Defendants raise various objections related to both the algorithm and code in this case.

The Court overrules any objections related to Dr. Cho's code. Although Intervenors complain that the code was not peer reviewed or tested for accuracy, Dr. Cho testified that it is not customary in the field of computer science to subject code itself, as opposed to algorithms, to peer review. Dkt. 243 (Cho Trial Test. at 95–97, 99–100, 127). Intervenors provide no evidence to the contrary. Moreover, Dr. Cho made her code available to Defendants' and Intervenors' expert witnesses in read-only form—and offered to make her code available in native format—to allow them to verify the code. Dkt. 246 (Thornton Trial Test. at 137–41); Trial Ex. IM073 at 2. Intervenors apparently decided not to have their experts verify the entirety of the read-only code. Nor did Intervenors take advantage of Dr. Cho's offer to produce the native version of the code, and we therefore reject their complaint that the code was not tested for accuracy.

361. Trial Ex. P087 (Cho Rep. at 10).

362. *Id.* at 8–10.

363. Dkt. 242 (Cho Trial Test. at 144).

364. *See generally id.* at 144–46.

365. Intervenors argue in their *Daubert* motion that Dr. Cho's methodology is flawed. They contend that her algorithm has not been adequately peer reviewed, her results have not been tested or verified, she fails to offer an error rate or confidence level for her results, and her methodology has not been generally accepted by the scientific community. The Court rejects these arguments.

First, the algorithm has been sufficiently peer reviewed. The algorithm was the subject of a paper titled "A Massively Parallel Evolutionary Markov Chain Monte Carlo Algorithm for Sampling Complicated Multimodal State Spaces," which was published as part of a peer-reviewed conference. Trial Ex. P086 (Cho CV at 2); Dkt.242 (Cho Trial Test. at 154); Dkt. 243 (Cho Trial Test. at 86–87). The idea behind the algorithm was peer-reviewed, which is the standard practice in computer science. Dkt. 243 (Cho Trial Test. at 86–88, 96–98, 126–27). Second, the lack of an error

Cho's EMCMC algorithm, which she used to generate the simulated maps, is grounded in the Markov Chain Monte Carlo ("MCMC") theorem.[366] MCMC algorithms are a commonly used technique for sampling.[367] In the redistricting context, a Markov Chain randomly walks from one simulated map to another, different simulated map.[368] In Dr. Cho's EMCMC, each movement of the Markov Chain is guided by optimization heuristics, which improve the Markov Chain's "efficiency and effectiveness in the traversal of the search space." [369] The MCMC theorem, meanwhile, ensures a representative sample of the massive universe of possible maps.[370] Lastly, Dr. Cho ran the algorithm on the University of Illinois's Blue Waters supercomputer, which enabled the algorithm to output the sample of over 3-million simulated maps relatively quickly.[371] All these

rate or confidence level is to be expected for an algorithm designed to draw a random sample from a complex, multimodal, unknown distribution. The entire point of the algorithm is to draw a sample from an unknown distribution, and if the distribution is unknown, logically, one cannot calculate an error rate or confidence level of the randomness of the sample. *See* Dkt. 243 (Cho Trial Test. at 93–94). The same answer applies to the argument that the algorithm is untested by other scientists in the community. It appears that the algorithm's accuracy could not be tested on unknown distributions (the very type of distributions from which it is meant to sample); the point is that the theory behind the algorithm's ability to sample from such distributions has passed peer review. Nonetheless, Dr. Cho tested the algorithm on a non-trivial data set with a known distribution and confirmed that the algorithm uniformly sampled that space (although she did not provide the results of that test). *Id.* at 93–95, 101. She also testified that other computer scientists could write their own code to implement her algorithm to test it on a known distribution. *Id.* at 96–97. Defendants offered no evidence that any of their experts tested her algorithm against a known distribution and found it flawed. Finally, there is no evidence that the pertinent scientific community does not accept the use of algorithms to solve sampling problems. Indeed, Dr. Cho's innovative algorithm is meant to meld two established types of algorithms—MCMCs and evolutionary algorithms—to permit optimizations heuristics to guide the movements of the Markov chains, resulting in a more efficient draw of a random sample from a complex, multimodal, unknown distribution. *See id.* at 55, 88, 151–52; Trial Ex. P087 (Cho Rep. at 6).

Finally, the reliability of Dr. Cho's methodology is bolstered by the fact that she developed this algorithm independently of her work in this case. The fact that she developed the algorithm and submitted it for peer review before tailoring it to and running it in this case shows that she did not develop her methodology solely for litigation purposes. *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1317 (9th Cir. 1995) ("That the testimony proffered by an expert is based directly on legitimate preexisting research unrelated to the litigation provides the most persuasive basis for concluding that the opinions [s]he expresses were 'derived by the scientific method.' "). Because Dr. Cho used the algorithm developed in the course of her work in reaching her opinions in this case, the Court is convinced that she "employ[ed] in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152, 119 S.Ct. 1167, 143 L.Ed.2d 238 (1999).

For the reasons above, the Court rejects Intervenors' general challenges to the methodology underlying Dr. Cho's analysis. The Court discusses *infra* their more specific objection that Dr. Cho's conclusions are entitled to no weight because she erred in setting the redistricting parameters for the algorithm in this particular case.

366. Trial Ex. P087 (Cho Rep. at 6).

367. Dkt. 242 (Cho Trial Test. at 152).

368. *Id.* at 153; Trial Ex. P087 (Cho Rep. at 6).

369. Trial Ex. P087 (Cho Rep. at 6–7).

370. Dkt. 242 (Cho Trial Test. at 152–53); Trial Ex. P087 (Cho Rep. at 6–7).

371. Trial Ex. P087 (Cho Rep. at 5–7); Dkt. 242 (Cho Trial Test. at 151, 155); Dkt. 243 (Cho Trial Test. at 69).

components worked together to allow for the drawing of "a random and large sample of feasible electoral maps," out of the much larger universe of feasible alternative maps.[372]

Dr. Cho built in several constraints when she produced her simulated maps, and those constraints are what define a map as "feasible" in her simulation. Dr. Cho testified that she arrived at the constraining criteria by "look[ing] at the legislative record to see what the legislature was applying." [373] Primarily, Dr. Cho looked at State Representative Huffman's statements in support of H.B. 319.[374] Representative Huffman explained that the map considered compliance with the VRA, equal population, and "several other traditional redistricting principles": "compactness, contiguity, preservation of political subdivisions, preservation of communities of interest, preservation of cores of prior districts, and protection of incumbents." [375] In regards to incumbent protection, Representative Huffman described that criterion as "a subservient one to the other ones that [he] listed" [376] and further explained that, "[n]obody has a district.... There's nobody that owns a piece of land in Congress. People elect them." [377] From this record, Dr. Cho decided to employ the following constraints: the creation of a minority district,[378] county and city preservation,[379] population equality,[380] and compact-

372. *See* Trial Ex. P087 (Cho Rep. at 7).

373. Dkt. 242 (Cho Trial Test. at 158).

374. *Id.* at 160–61.

375. *See* Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 17–18) (statement of Rep. Huffman).

376. *Id.* at 19.

377. *Id.* at 21.

378. Dr. Cho drew a district with a Black Voting Age Population (''BVAP'') of at least 45% in the Cleveland area. This constraint is based on the recommendation of Plaintiffs' expert Dr. Lisa Handley. *See* Trial Ex. P087 (Cho Rep. at 8). Intervenors lodge a variety of objections to and arguments against this 45% figure. We address these arguments in our discussion of Dr. Handley's report and testimony, *see infra* Section II.C.4., and in our analysis of the purported VRA justification for District 11, *see infra* Sections V.A.2.d.iii., V.C.2.b.ii. Dr. Cho did not include any ''upper bound'' on the maximum BVAP for the minority district. Dkt. 242 (Cho Trial Test. at 159–60).

379. The current map splits twenty-three counties and Dr. Cho's simulated maps split no more than twenty-three counties; the current map preserves 96.78% of cities, and Dr. Cho's simulated maps preserve cities at least at the same rate. *Id.* at 162; Trial Ex. P087 (Cho Rep. at 8–9). We also note that ''communities of interest'' may be an amorphous phrase, but one way to account for this factor is preserving municipalities and counties. *See, e.g., Graham v. Thornburgh,* 207 F.Supp.2d 1280, 1294–95 (D. Kan. 2002).

380. Dr. Cho's simulated maps allow for a population deviation of up to 1%, or about 7,000 *people* (not voters). Dkt. 242 (Cho Trial Test. at 167); *see also* Dkt. 243 (Cho Trial Test. at 25). This deviation is different from the current map, which achieves perfect equality (plus or minus one person), because the simulated maps are constructed at the precinct level—the lowest level for which partisan data are available—to allow for a more accurate analysis of partisan effect. Trial Ex. P087 (Cho Rep. at 9). To achieve perfect equality, like the current map, would require splitting precincts, which, in turn, would hinder the partisan-effect analysis. Dkt. 242 (Cho Trial Test. at 165–66).

We find that Dr. Cho's use of a 1% population deviation does not undermine her analyses in any significant way, and we overrule the objections on this point. Dr. Cho aimed, in part, to measure partisan effects, and this assessment was best done with the 1% deviation. For the simulated maps to achieve perfect equality would require moving, at most, 3,500 people in any given district, not all of whom would be voters; and even if all 3,500

ness. Because she concluded from State Representative Huffman's statement that incumbent protection was not a goal of the legislature when drafting the enacted map, Dr. Cho did not include as a constraint the avoidance of pairing incumbents.[381]

After generating the 3,037,645 simulated maps based on only neutral criteria, Dr. Cho engaged in two overarching analyses using partisan data. Again, this use of partisan data came into play only *after* the simulated maps were produced. First, she engaged in a Plaintiff-specific analysis. Second, she examined the partisan unfairness of the map as a whole by comparing its partisan characteristics to the partisan characteristics of the set of simulated maps.

a. Plaintiff-specific analysis

Dr. Cho was given the home addresses of each individual Plaintiff, which allowed her to determine where each Plaintiff would live in each simulated map and to compare each Plaintiff's current district with each Plaintiff's set of simulated districts. Dr. Cho "compute[d] the average Democratic vote share for the plaintiff's current district by calculating the average Democratic vote share in that district for congressional races from 2012 to 2016 . . . ." [382] For the simulated maps, Dr. Cho "calculate[d] the average Democratic vote share for the plaintiff's [simulated] district . . . with the 2008-2010 statewide election data." [383] These data included eight statewide races: the 2008 presidential race, the 2010 U.S. Senate race, the 2008 and 2010 Attorney General races, and the 2010 Governor, Auditor, Secretary of State, and Treasurer races.[384] Dr. Cho used statewide races to "avoid issues with district-specific factors and provide[ ] greater comparability across the state as a whole." [385] From there, Dr. Cho compared the likelihood of electing a Democratic candidate in each Plaintiff's simulated districts with the likelihood of electing a Democratic candidate in their current district.[386] We provide a fuller discussion of these findings in Section III.A., but we will provide two illustrative examples here. Some Plaintiffs, such as Plaintiff Goldenhar, live in allegedly cracked districts. Dr. Cho's analysis showed that "[a]mong the set of simulated maps, 95.68% of them would have placed Plaintiff Goldenhar in a district that would have provided a higher likelihood of electing a Democrat." [387] That, is 95.68% of the simulated maps placed Plaintiff Goldenhar in a district with a higher average Demo-

people were voters, all of them would need to vote for the same party in order to have any possibility of swinging an election. That is unlikely. Dkt. 242 (Cho Trial Test. at 167–68). Accordingly, we are not persuaded that the 1% deviation significantly undermines any of Dr. Cho's conclusions that the 12-4 split of the current map cannot be explained by the equal-population requirement.

381. Dkt. 242 (Cho Trial Test. at 171–77). Defendants argue that incumbent protection was one of the main pillars upon which the 2012 map was built. The Court, as factfinder, will address the extent to which the General Assembly considered incumbent protection, and how that conclusion impacts the weight given to Dr. Cho's analysis *infra* Section V.A.2.b. The Court will also assess the validity of various types of incumbent protection *infra* Sections V.A.2.d., V.C.2.b.i.

382. Trial Ex. P087 (Cho Rep. at 11).

383. *Id.*

384. *Id.* We address objections to Dr. Cho's use of these data in our discussion of Dr. Thornton's rebuttal. *See infra* Section II.D.2.a.

385. Trial Ex. P087 (Cho Rep. at 11).

386. *See id.* at 13–30; *see also* Trial Ex. P426 (Cho Suppl. Rep. at 7, fig. 4) (providing updated analysis based on 2018 election data, as well as other election data).

387. Trial Ex. P087 (Cho Rep. at 13).

cratic vote share. Other Plaintiffs, such as Plaintiff Inskeep, live in allegedly packed districts. Dr. Cho's analysis showed that "none of [the simulated maps] would have placed Plaintiff Inskeep in a district that would have provided a higher likelihood of electing a Democrat." [388] That is, 0% of the simulated maps placed Plaintiff Inskeep in a district with a higher average Democratic vote share.

b. Partisan unfairness analysis

In addition to her Plaintiff-specific analysis, Dr. Cho examined the partisan outcomes of her simulated maps as compared to the current map, which allowed her to assess partisan effect. At a high-level, Dr. Cho assessed competitiveness [389] and partisan bias using multiple metrics.[390]

i. Competitiveness

Dr. Cho "consider[ed] a district to be competitive if the margin of victory, or the difference between the Republican two-party vote share and the Democratic two-party vote share, is 1) within 5 percentage points and 2) within 10 percentage points." [391] Dr. Cho concludes that "[a]t the 5% margin of victory, the simulated maps generally have between 2–6 competitive seats," and that "[f]or both parties, [winning] 1–3 seats with a margin of victory within 5% [is] not unusual." [392] Meanwhile, the current map produced three competitive elections within a 5% margin of victory, one in 2012 (District 16) and two in 2018 (Districts 1 and 12), and the Republican won each.[393] Additionally, one other election in 2012 (District 6) was competitive at the 10% margin of victory.[394] Under the simulated maps, "often, 9 of the seats are competitive at the 10% margin of victory"; the next most common result was 8 competitive seats.[395] Three or four of these competitive seats (at the 10% margin of victory) generally favor Republicans, and four to six generally favor Democrats.[396] In her supplemental report, Dr. Cho provides further analysis of competitiveness based on the 10% margin of victory. "For the 2012–2014 data, 2–3 of the competitive seats were commonly Republican while 3–5 of the competitive seats were commonly Democratic." [397] In 2018, that number remained the same for Republicans, but competitive seats that leaned Democratic decreased to three or four.[398]

Based on her analysis of competitiveness, Dr. Cho concludes that "[t]he Republican margins across the entire set of districts [in the current map] are large enough that they are sufficiently insulating to produce an enduring effect." [399] Moreover, she concludes that because of "the difference in the competitiveness, via sev-

388. *Id.* at 15.

389. State Senator Keith Faber, a Republican, speaking in support of H.B. 319, stated that "competitiveness in and of itself is not an end-all be-all. It is not one of the requirements that we have to draw by. However, it is a factor." Trial Ex. J03 (Ohio Senate Session, Sept. 21, 2011 at 13) (statement of Sen. Faber).

390. Trial Ex. P087 (Cho Rep. at 31–32); Dkt. 242 (Cho Trial Test. at 186–87).

391. Trial Ex. P087 (Cho Rep. at 33).

392. *Id.* at 34–35.

393. *See* Trial Ex. P426 (Cho Suppl. Rep. at 5, tbl. 4).

394. *Id.*

395. Trial Ex. P087 (Cho Rep. at 34).

396. *Id.* at 35.

397. Trial Ex. P426 (Cho Suppl. Rep. at 4).

398. *Id.*

399. *Id.* at 6. She arrives at this conclusion, in part, after observing that in the two competitive 2018 elections, the Democratic challengers noticeably outspent their Republican-incumbent opponents. *Id.* at 5–6, tbl. 5.

eral different measures,[400] of the simulated maps versus the current map, it seems that competitiveness was almost a nonexistent factor if one at all in the construction of the enacted map since the current districts lean so heavily toward one party." [401]

ii. Responsiveness and bias

In her initial report, which utilized 2008-2010 election data, Dr. Cho assessed the responsiveness and bias in the simulated maps compared to the current map using two measures based on the seats-votes curve (which shows how, as the proportion of votes a party receives increases, so too should that party's seat share).[402] When Dr. Cho measured responsiveness, she produced her results in a histogram in which, as the values along the x-axis increase (from left to right), the responsiveness increases; thus, maps falling along the right of the x-axis are more responsive than those on the left.[403] Dr. Cho concludes that the current map is "less responsive than almost all of the simulated maps." [404]

Dr. Cho employed a symmetry measure to assess biasedness. This measure is grounded in the concept that "both parties should expect to receive the same number of seats given the same vote proportion." [405] Dr. Cho again produces her results in a histogram. "Here, a value of zero [in the middle of the x-axis on the histogram] is unbiased." [406] Positive values to the right of zero indicate a Republican bias, and negative values to the left indicate a Democratic bias.[407] Dr. Cho finds that, although most of the simulated maps "have a Republican tilt[,] ... the tilt toward Republicans is larger in the current map than it is for the simulated maps." [408] Indeed, some of the simulated maps were neutral and some even had a Democratic tilt; at any rate, H.B. 369 is far to the right of the simulated maps' Republican tilt as presented in figure 26.[409]

iii. Seat share

Dr. Cho also compared the seat share between the parties from the current map

400. Dr. Cho also captures the total number of competitive seats combined with how many of the competitive seats each party wins in a single metric, which has been presented in two of her publications. Dkt. 242 (Cho Trial Test. at 196–97); Trial Ex. P087 (Cho Rep. at 36). Dr. Cho employed this metric only after creating the maps, i.e., competitiveness was not a factor in how the simulated maps were drawn. Dkt. 242 (Cho Trial Test. at 196–98). Under this metric, competitiveness scores range from zero to one, and at zero, "competitiveness is maximized because 1) the number of Republican votes and the number of Democratic votes is the same and 2) the number of districts where Republicans dominate and the number of districts where the Democrats dominate is identical." Trial Ex. P087 (Cho Rep. at 36). Figure 23 in Dr. Cho's initial report shows that the current map is less competitive compared to the simulated maps; whereas most of the simulated maps score between 0.09 and 0.11, the current map scores 0.16 under this competitiveness metric. *See id.* at 37, fig. 23. We consider this specific metric only for Dr. Cho's conclusion that competitiveness was seemingly a "non-existent factor" in drawing the current map. Dr. Cho's other analyses of competitiveness, however, go to that conclusion *and* her separate conclusion that the lack of competitiveness across districts produces an enduring partisan effect.

401. Trial Ex. P087 (Cho Rep. at 37).

402. *See id.* at 37–40.

403. *Id.* at 39; Dkt. 242 (Cho Trial Test. at 199–200).

404. Trial Ex. P087 (Cho Rep. at 38).

405. *Id.* at 39.

406. *See id.* at 39–40, fig. 26.

407. *See id.*

408. *Id.* at 39.

409. *Id.* at 40, fig. 26.

to the seat share in her simulated maps. Based on the use of 2008 and 2010 election data, "none of the [simulated] maps in [Dr. Cho's] sample had the same 12-4 seat share as in the challenged map." [410] Furthermore, figure 19 of Dr. Cho's initial report shows that the most common outcome in the simulated maps was eight or nine Republican seats, at about 1.3 million and 1.2 million respectively.[411] Just over 250,000 of the simulated maps produced a 10-6 seat share in favor of Republicans,[412] and some of the simulated maps even produced six or seven Republican seats.[413] Very few of the simulated maps produced an 11-5 seat share, but that outcome is barely visible in figure 19.[414]

Dr. Cho performed the same analysis using 2012-2014 data and 2018 data in her supplemental report. This analysis shows that over the decade, a 9-7 seat share in favor of Republicans became the most common partisan outcome in the simulated maps.[415] An 8-8 seat share is the second most common outcome, but by 2018, the number of 8-8 outcomes was about equal to the number of 10-6 outcomes.[416] "Eleven [Republican] seats occurred 0.12% of the time in the 2008-2010 analysis, 0.20% of the time in the 2012-2014 analysis, and 1.88% of the time in the 2018 analysis." [417] Finally, using the 2018 data, "a small number of maps, 1,445 out of more than 3 million total maps (0.046%) had, like the current map, 12 Republican seats." [418]

3. Dr. J. David Niven

Dr. J. David Niven testified at trial for Plaintiffs as an expert witness. Dr. Niven is a tenured associate professor of political science at the University of Cincinnati, and he has a doctorate in political science from The Ohio State University.[419] He teaches a variety of classes, including on the U.S. Congress and congressional elections, government and politics in Ohio, and political parties, among others.[420] Dr. Niven's scholarship focuses on questions of congressional representation and elections, public opinion, and voting preferences, and he has published in peer-reviewed journals and book chapters on these topics but not on redistricting and gerrymandering specifically.[421] Before writing his reports in this case, Dr. Niven had never used census tracts specifically, though he had "used a variety of census data points in understanding the makeup of districts as a whole." [422] Also before writing his reports in this case, Dr. Niven had never tried to identify boundaries for communities of interest.[423] This Court admitted Dr. Niven as

410. *Id.* at 40.

411. *Id.* at 33; Dkt. 242 (Cho Trial Test. at 188).

412. Trial Ex. P087 (Cho Rep. at 33); Dkt. 242 (Cho Trial Test. at 188).

413. Trial Ex. P087 (Cho Rep. at 33, fig. 19).

414. *Id.*; Dkt. 242 (Cho Trial Test. at 188).

415. *See* Trial Ex. P426 (Cho Suppl. Rep. at 3, fig. 1); Dkt. 242 (Cho Trial Test. at 190–91).

416. *See* Trial Ex. P426 (Cho Suppl. Rep. at 3, fig. 1); Dkt. 242 (Cho Trial Test. at 191).

417. Trial Ex. P426 (Cho Suppl. Rep. at 3).

418. *Id.*

419. Trial Ex. P525 (Niven CV).

420. *See id.*; Dkt. 242 (Niven Trial Test. at 5).

421. Trial Ex. P525 (Niven CV); Dkt. 242 (Niven Trial Test. at 6, 72).

422. Dkt. 242 (Niven Trial Test. at 72–73).

423. *Id.* at 72. Again, ''communities of interest'' is an amorphous term, but one way to account for this factor is preserving municipalities and counties. *See Graham,* 207 F.Supp.2d at 1294–95. As will be explained, Dr. Niven, in part, examined municipal and county splits. Mr. Cooper agreed that counties

an expert in political science, subject to Defendants' *Daubert* motion.[424]

Dr. Niven's report and testimony assessed the current map's makeup and the degree to which the districts divide communities of interest and reflect the political preferences of local residents. He undertook this examination by analyzing census tracts [425] that were either kept intact or split and by using the election data contained in "the 2010 Ohio Common and Unified Redistricting Database ('OCURD')" that was available to the map drawers during the 2011 redistricting.[426] Dr. Niven used census tracts as a basis for his analysis because they represent "a compact delineation of people who live in common geographic, cultural, and economic circumstance." [427]

Dr. Niven finds that between the 2002 redistricting plan and the 2012 redistricting plan, the number of census tracts split between multiple congressional districts rose from 209 to 332 (out of approximately 3,000 census tracts).[428] Dr. Niven further finds that census tracts kept intact had an average Republican composition of 52.14%, whereas split census tracts had a higher composition of Democratic voters, with Republicans averaging 49.25% in split census tracts.[429] We note that Dr. Thornton reaches slightly different results on the partisan makeup of these census tracts and that there is a debate about the statistical significance of these results. *See infra* Section II.D.2.b. (discussing this issue). Nevertheless, both experts agree that split census tracts lean Democratic and intact census tracts lean Republican, and both agree that the number of census splits increased in the current map from the prior one.

We credit Dr. Niven's census-tract analysis to the extent that it shows some differential treatment between Republican and Democratic voters, and we observe that this difference is consistent with the nature of other splits (not involving census tracts) present in the current map. We do not give any significant weight to just the raw number of splits, without any further context. For example, census tracts could contain more than one municipality, so a split census tract could nonetheless keep

and municipal subdivisions are "a more objective way to identify a community of interest." *See* Dkt. 241 (Cooper Trial Test. at 148). Moreover, the Intervenors' expert, Dr. Brunell, agreed that "[t]here is no clear definition of what constitutes a community of interest, but cities and counties are generally characterized as such." Trial Ex. I-060 (Brunell Rep. at 16).

424. *See id.* at 9; *see also* Dkt. 154 (Defs.' Mot. to Exclude Niven). We deny Defendants' motion, but as explained here and in our later analysis, we give greater weight and credit to certain portions of Dr. Niven's report and testimony than others.

425. A census tract is a "small, relatively permanent statistical subdivision of a county or equivalent entity . . . ." *See* U.S. CENSUS BUREAU, GLOSSARY, at https://www.census.gov/programs-surveys/geography/about/glossary.html#par_textimage_13 ("Census tract boundaries generally follow visible and identifiable features. They may follow nonvisible legal boundaries, such as minor civil division (MCD) or incorporated place boundaries in some states and situations, to allow for census-tract-to-governmental-unit relationships where the governmental boundaries tend to remain unchanged between censuses.")

426. Trial Ex. P524 (Niven Rep. at 1–2); *see also* Dkt. 242 (Niven Trial Test. at 11–15).

427. Trial Ex. P524 (Niven Rep. at 5).

428. *Id.* at 5–6; Dkt. 242 (Niven Trial Test. at 18); *see also* Dkt. 242 (Niven Trial Test. at 77) (Dr. Niven stating on cross-examination that he would not be surprised that 88.75% of all census tracts were kept whole).

429. Trial Ex. P524 (Niven Rep. at 6).

its component municipalities intact.[430]

In his response to Dr. Thornton, Dr. Niven also shows that, using a four-election index,[431] 9.4% of Republican census tracts and 13.8% of Democratic census tracts were split among multiple congressional districts.[432] Using an eight-election index,[433] 9.7% of Republican census tracts and 13.5% of census tracts were split.[434] In sum, split census tracts leaned Democratic, and census tracts with more Democratic voters were also more likely to be split into multiple congressional districts than census tracts with more Republican voters.[435]

After his statewide analysis,[436] Dr. Niven discussed particular districts. His report focuses on Hamilton County (Districts 1 and 2), District 9, Franklin County (Districts 3, 12, and 15), and Summit County (Districts 11, 13, 14, and 16). Dr. Niven's report also surveys political science literature that shows that, when neighborhoods are divided into different districts, campaign efforts become "more complicated and less efficient . . . ." [437] Dr. Niven similarly testified at trial that "the political science literature is very clear that the more you subject a neighborhood to political splitting, . . . it has a demobilizing effect. . . . It's harder for parties and other entities to go into a neighborhood and activate voters when those voters live in separate districts and, therefore, are responding to separate candidates." [438]

a. Hamilton County: Districts 1 and 2

Dr. Niven began his analysis of Hamilton County with District 1. He notes that District 1 swung back and forth between electing Republicans and Democrats under the prior map and that one "academic analysis deemed [District 1] a 'textbook example of a marginal district.' " [439] After redistricting, that has not been the case. Dr. Niven's analysis shows, for example, that in 2008 President Obama won the old District 1 with 55.17% of the vote compared to Senator John McCain's 44.83%. By contrast, the same election under the current District 1, which splits Cincinnati and more of Hamilton County than under the old District 1, results in a 52.3% to 47.7% win for Senator McCain.[440] The new District 1 both split Hamilton County and

430. *See* Dkt. 242 (Niven Trial Test. at 105).

431. The four-election index includes the 2008 presidential election, and the 2010 gubernatorial, attorney general, and auditor elections. *See* Trial Ex. P526 (Niven Resp. at 1 n.3).

432. *Id.* at 2. A Republican census tract is one that scored 0.50 or higher on the four-election index; a Democratic census tract is one that scored 0.499 or lower. *Id.*

433. This index included those elections in the four-election index and four additional elections: the 2008 attorney general election, and the 2010 secretary of state, treasurer, and U.S. Senate elections. *Id.* at 1–2 n.5.

434. *Id.* at 2–3.

435. Dr. Niven elaborated on these findings at trial. *See generally* Dkt. 242 (Niven Trial Test. at 20–23).

436. Dr. Niven's analysis regarding the location of congressional offices could benefit from further explanation. Trial Ex. P524 (Niven Rep. at 4). For example, there is no explanation as to whether Democratic constituents were burdened more than Republican constituents. Accordingly, we do not consider this specific portion of Dr. Niven's report and testimony.

437. *Id.* at 5.

438. Dkt. 242 (Niven Trial Test. at 12); *see also id.* at 38.

439. Trial Ex. P524 (Niven Rep. at 6) (citation omitted).

440. *Id.* at 8.

added the whole of Warren County, which votes heavily Republican (and voted heavily for Senator McCain in the 2008 presidential election).[441] Using an index that incorporates a wider array of elections ("Dr. Niven's index"),[442] he found that Republican candidates averaged 42.07% of the vote in the old District 1, but that index percentage increased to 51.89% in the new District 1.[443]

Meanwhile, District 2 was and remains safely Republican, but fourteen Cincinnati neighborhoods are divided between Districts 1 and 2.[444] Dr. Niven explains that "Cincinnati is unusual in its commitment to formally recognizing and building policy around the city's 52 neighborhoods. Indeed, the city's economic development strategy is built around the individual needs and assets of individual neighborhoods ...." [445] He notes that "while the rest of Hamilton County gave 52.19% of its vote" to President Obama in 2008, "the Cincinnati neighborhoods divided between the 1st and 2nd districts gave 59.37% of their vote" to President Obama in that election.[446] Looking at those same neighborhoods under Dr. Niven's index, the "split neighborhoods gave more than 75% of their vote to Democratic candidates" and the percentage for the rest of Hamilton County was about 45%.[447] Dr. Niven testified that "the 2nd District becomes something of a donor district. It had more Republicans than was needed to ensure a safe district." [448] In short, Cincinnati and these neighborhoods supported Democratic candidates, and they are split between Districts 1 and 2; District 2 already contained a large Republican majority, and thus it could take on those Democratic voters without putting a Republican candidate at any material risk of losing.

Throughout his report, Dr. Niven highlighted certain district boundary lines in which the lines divide census tracts populated by Democratic voters. In the case of his example for Hamilton County, the split census tract "is overwhelmingly populated by Democrats" per Dr. Niven's index.[449]

b. District 9

Dr. Niven emphasizes that "[o]ne of the defining aspects of the 9th Congressional district is its comprehensive propensity to divide communities." [450] In fact, District 9 contains no whole counties and five partial counties—Cuyahoga is split between District 9 and three other districts, Lorain is split between District 9 and two other districts, and Erie, Lucas, and Ottawa are split between District 9 and one other district.[451] Dr. Niven further explains that "[i]n its economic development efforts, the state of Ohio places Cleveland and Toledo in separate regions," and thus, in combina-

441. *See id.* at 7; Dkt. 242 (Niven Trial Test. at 27, 30).

442. This index included the OCURD data and the 2008 presidential election, and the 2010 gubernatorial, attorney general, and auditor elections. Trial Ex. P524 (Niven Rep. at 2).

443. Trial Ex. P524 (Niven Rep. at 8).

444. *Id.* at 12.

445. *Id.* at 11; *see also* Dkt. 242 (Niven Trial Test at 36) (''[C]andidates campaign to and for those neighborhoods.'').

446. Trial Ex. P524 (Niven Rep. at 13).

447. *Id.*

448. Dkt. 242 (Niven Trial Test. at 33); *see also id.* at 34–35.

449. Trial Ex. P524 (Niven Rep. at 9–11). We give these particular examples some weight, though they seem to be simply illustrative of the overall trends, which are more important, found by Dr. Niven.

450. *Id.* at 15.

451. *Id.*

tion with other cultural differences between Cleveland and Toledo, District 9 "combines quite disparate communities." [452] Dr. Niven's illustrative example of a suspect boundary for District 9 is in Lorain County, and the boundary divides a census tract that is heavily Democratic and more Democratic than the rest of Lorain County.[453] Moreover, each county in District 9 voted Democratic in the 2008 presidential election and leaned Democratic under Dr. Niven's index.[454]

c. Franklin County: Districts 3, 12, and 15

Dr. Niven finds that Franklin County both packs (District 3) and cracks (Districts 12 and 15) Democratic voters.[455] Dr. Niven ultimately concludes that "what was achieved in these rather odd-looking districts is that a very Democratic County [Franklin County] winds up with two Republican representatives ... out of its three members of Congress." [456] On cross-examination, Dr. Niven acknowledged that under the prior map, Franklin County was split into three districts and that Republican candidates for Congress usually won, with some exceptions, the elections in those districts.[457] As will be discussed in more detail in the analysis, although this redrawing seemingly adds a Democratic district where there previously was not one, it was part of an overall strategy to solidify Republican districts and reduce the statewide number of Democratic districts.

He begins his analysis with District 15, a District which was competitive in 2006 and was won by a Democratic candidate for Congress in 2008.[458] Dr. Niven's analysis shows President Obama carried the old District 15 by about 29,000 votes, but the same election in the new District 15 would result in Senator McCain winning by 21,000 votes; under Dr. Niven's index, the old District 15 was nearly evenly split between Democratic and Republican supporters, with a very slight Democratic lean, and the new District 15 leans Republican.[459] Dr. Niven notes that nine out of the ten counties added to District 15 in the 2011 redistricting process "were inclined to support Republican candidates." [460] Additionally, the portions of three of the four split counties within District 15 leaned heavily Republican in the prior decade, except for the portion of Franklin County in District 15, which voted 50.52% in favor of Senator McCain and scored a 0.5237 (leaning Republican) under Dr. Niven's index.[461] The portions of those same counties not within District 15, however, had: a less-strong Republican tilt (Fayette County), were competitive (Ross County), or leaned heavily Democratic (Franklin County).[462] He also finds that the new District 15 split seventy-two census tracts (with fifty-eight in Franklin County), but the old District 15 split forty-one (all in Franklin County).[463] In sum, Dr. Niven concludes that

452. *Id.* at 16–17; *see also* Dkt. 242 (Niven Trial Test. at 42–44).

453. Trial Ex. P524 (Niven Rep. at 16).

454. *Id.* at 19.

455. *Id.*; Dkt. 242 (Niven Trial Test. at 46).

456. Dkt. 242 (Niven Trial Test. at 46).

457. *Id.* at 100–01.

458. Trial Ex. P524 (Niven Rep. at 19); Dkt. 242 (Niven Trial Test. at 47).

459. Trial Ex. P524 (Niven Rep. at 22).

460. *Id.*

461. *Id.* at 22, 24.

462. *Id.*

463. *Id.* at 20.

Democratic-leaning areas were removed from the old District 15, while Republican-leaning areas were added, together resulting in a "net gain of more than 40,000 votes for the Republicans." [464]

District 12 under either the 2008 presidential election results or Dr. Niven's index went from a leaning-Democratic district in the prior decade to a strongly-Republican district under the current map.[465] Dr. Niven's analysis shows that Democratic-leaning voters in Franklin County were removed from District 12 and Republican-leaning voters were added, resulting in a new gain of 60,518 Republican voters (using the 2008 presidential election data).[466] He further finds that census tract splits increased from forty-eight to sixty-one between the prior map and the current map.[467]

District 3 is the final Franklin County district addressed by Dr. Niven. He concludes that District 3 "is a classic packing example" because it received Democratic voters from Districts 12 and 15.[468] Dr. Niven emphasizes the odd, jagged shape of District 3, and he testified that he included specific, street-level examples of odd lines in his report because "when we look statewide, ... it's hard to appreciate in the most granular detail the number of cuts necessary to achieve these effects." [469]

Overall, he found that "14 out of 16 cities in Franklin County are split between multiple [congressional] districts." [470] In responding to Intervenors' expert Dr. Brunell's view that "funny shaped districts are inevitable," *see infra* Section II.D.3., Dr. Niven testified that, in this case, the "funny shapes" were "a strategic choice" and that they are "an illustration of division ... imposed with a partisan tinge such that democrats are far more likely to have found themselves in the midst of these cuts and divides." [471]

Dr. Niven explained how gerrymandered district lines can cause confusion. For example, Dr. Niven found that in Franklin County, voters showed up to the polls for the 2018 special election, only to find out that they did not in fact live in District 12.[472] As it turned out, *election officials* had mis-assigned more than 2,000 people to the wrong congressional district, and the Franklin County Board of Elections took more than 4,000 calls (and received hundreds of emails) from confused voters who could not cast a ballot or whose polling locations were closed.[473]

d. Summit County: Districts 11, 13, 14, and 16

Summit County's population is small enough such that it could be placed within a single congressional district—yet

464. *Id.* at 24; *see also id.* at 24 n.57.

465. *See id.* at 25.

466. *Id.*

467. *Id.*

468. Dkt. 242 (Niven Trial Test. at 54); *see also* Trial Ex. P524 (Niven Rep. at 26).

469. Dkt. 242 (Niven Trial Test. at 56); *see also id.* at 57 ("without zooming in a little bit," according to Dr. Niven, "you can't appreciate the degree to which ... street by street, house by house, people can be divided ...."); *see also* Trial Ex. P524 (Niven Rep. at 26–27).

470. Trial Ex. P524 (Niven Rep. at 28).

471. Dkt. 242 (Niven Trial Test. at 57–58); Trial Ex. P526 (Niven Resp. at 3).

472. Trial Ex. P524 (Niven Rep. at 27–28 & nn.59, 61–63). Dr. Niven relied on news coverage, as he typically does in his scholarship, for this portion of his report and testimony. *See* Dkt. 242 (Niven Trial Test. at 60); *see also* FED. R. EVID. 803(18).

473. *See* Trial Ex. P524 (Niven Rep. at 27–28 & nn.59, 61–63).

Summit County is divided into four congressional districts. (The prior map split Summit County into three districts.) Using either the 2008 presidential election or Dr. Niven's index, Dr. Niven's analysis shows that Summit County leaned Democratic.[474] He also finds that census tract splits increased from twenty-seven under the prior map to fifty-five under the current map.[475]

As for the particular districts in Summit County, Districts 11 and 13 have consistently elected Democratic candidates to Congress under the current map, whereas Districts 14 and 16 have consistently elected Republican candidates. Consistent with these results, using either 2008 presidential election data or Dr. Niven's index, Dr. Niven's analysis shows that voters placed into Districts 11 and 13 leaned heavily in favor of Democratic candidates; meanwhile, voters placed into Districts 14 and 16 were almost evenly divided in the 2008 presidential election, and under Dr. Niven's index, the voters placed in these Districts leaned Republican.[476] Lastly, Dr. Niven finds that split census tracts leaned more Democratic than census tracts kept intact in Summit County, and he therefore concludes that "Summit County residents were not equally apt to have their neighborhoods divided between districts – as more heavily Democratic areas were more likely to be divided." [477]

4. Dr. Lisa Handley

[4, 5] Dr. Lisa Handley, an election consultant who works on voting rights and redistricting, testified for Plaintiffs as an expert witness.[478] She has taught and lectured on voting rights and redistricting and has published articles and books on these subjects.[479] She has served as a redistricting consultant, aiding jurisdictions to draw lines in compliance with the VRA.[480] She has also served as an expert witness performing racial bloc voting analyses in cases in which districting plans are challenged under Section 2 of the VRA.[481] She has been hired as an expert by the Department of Justice in five cases and has provided expert testimony in over twenty cases throughout her career.[482] The Court qualified Dr. Handley as an expert in the VRA, including on racially polarized voting and analysis of such voting patterns.[483]

474. Trial Ex. P524 (Niven Rep. at 29) (noting that President Obama won Summit County by about 41,000 votes in 2008 and that Dr. Niven's index scores Summit County as 0.4065, or, put differently, only 40.65% Republican).

475. *Id.*

476. *Id.* at 31–32.

477. *Id.* at 32.

478. Dkt. 240 (Handley Trial Test. at 132–33).

479. *Id.* at 133.

480. *Id.* at 134.

481. *Id.*

482. *Id.* at 135.

483. *Id.* at 135–136. Intervenors filed a Motion to Exclude the Expert Report and Testimony of Dr. Handley prior to trial and maintained their objections at trial. Dkt. 152-1 (Intervenors' Mot. to Exclude Handley); Dkt. 240 (Handley Trial Test. at 136). Intervenors argued that Dr. Handley's report and testimony were irrelevant because the case at bar is a partisan-gerrymandering case, not a VRA case. They also argued that her report and testimony were improper because they relied on data post-dating the drawing of the 2012 plan and failed to include a confidence interval. Dkt. 152-1 (Intervenors' Mot. to Exclude Handley at 1–2). We address each argument in turn.

First, we reject Intervenors' argument that the Section 2 analysis is irrelevant. It is true that Plaintiffs have challenged the 2012 map as an unconstitutional partisan gerrymander, not as a violation of Section 2 of the VRA.

District 11 has consistently elected African-American representatives to Congress since 1968, when it was first drawn as a majority Black district.[484] Handley's report indicated that since 2002, the Black-preferred congressional candidate (whether or not that candidate was African American) has won District 11 by a considerable margin.[485] This is true of elections both before and after the 2011 redistricting.[486] In fact, the tightest congressional race since 2002 in District 11 was won by Stephanie Tubbs Jones in that year with 76.3% of the total vote.[487] Prior to the 2011 redistricting, District 11 had a BVAP of 57.7%, although it was originally drawn in 2001 with a BVAP of 52.3%.[488] After the redistricting, its BVAP was 52.4%.[489]

Dr. Handley conducted a "district-specific, functional analysis of voting patterns by race to ascertain the black voting age population necessary to provide black voters with an opportunity to elect their candidates of choice in the vicinity of the 11th Congressional District of Ohio."[490] The analysis must be district specific because the BVAP required to elect the Black-preferred candidate differs from jurisdiction to jurisdiction based on factors such as the type of election (e.g., federal versus local), turnout and voting patterns of African Americans and whites, the

However, Defendants have made Section 2's requirements relevant to this case. They have argued that District 11 was drawn in its present shape in part to ensure that African-American voters were able to elect their preferred candidate in that district. Plaintiffs therefore offer Dr. Handley's testimony to challenge that justification and demonstrate that there was no need to extend District 11 south into Summit County to pick up additional African-American voters to comply with the VRA. We discuss the interaction of the VRA, Defendants' minority electoral opportunity justification, and Dr. Handley's analysis further in Sections V.A.2.d.iii., V.C.2.b.ii., where we scrutinize each of Defendants' proffered legitimate legislative justifications.

Second, while Dr. Handley's report and analysis do rely in part on data that postdated the 2011 redistricting and therefore was unavailable to the map drawers at the time, they also rely on data that predates the redistricting. Dkt. 240 (Handley Trial Test. at 150). The pattern of District 11 electing Black-preferred candidates by sizable margins does not differ between the pre-2011 and post-2011 elections that Dr. Handley considered. *Id.* at 151. Any issues that Dr. Handley's reliance on data that was not available to the map drawers in 2011 presents will go to the weight that we give Dr. Handley's testimony, not its admissibility.

Third, we conclude that Dr. Handley adequately explained why she did not provide confidence intervals for her ecological-inference analysis, and we overrule Intervenors' objection on that basis. Dr. Handley provided standard errors for each of her ecological-inference estimates. *Id.* at 143. However, she explained that she did not use the standard errors to produce confidence intervals because that would require a normal distribution, and the ecological-inference analysis does not produce a normal distribution. *Id.* at 143–44. She testified that she "routinely" submits expert reports involving ecological-inference estimates without confidence intervals, and that these reports have been accepted. *Id.* at 144.

484. Trial Ex. P254 (Handley Rep. at 2 n.2). Representative Louis Stokes was elected in 1968 and served as a congressman for 30 years. Representative Stephanie Tubbs Jones was then elected in 1998. She was succeeded by Congresswoman Marcia Fudge, who has represented District 11 since 2008. *Id.*

485. *Id.* at 5.

486. *Id.*; Dkt. 240 (Handley Trial Test. at 141 (concluding that "prior to the 2011 redistricting ... Black-preferred candidates were winning by overwhelmingly high percentages in all of the statewide and federal contests").

487. Trial Ex. P254 (Handley Rep. at 3).

488. *Id.* at 6 n.7.

489. *Id.*

490. *Id.* at 1.

cohesiveness of African-American voters in supporting particular candidates, and "crossover" voting patterns of whites who also support Black-preferred candidates.[491] Dr. Handley's analysis estimated the vote share that Black-preferred candidates would have received had District 11 been configured as 55%, 50%, 45%, or 40% Black.[492] She conducted this analysis using data from statewide and federal elections from 2008 through 2016 occurring within the vicinity of the current District 11.

Dr. Handley used three different statistical techniques to complete this analysis: homogeneous-precinct analysis, ecological-regression analysis, and ecological-inference analysis.[493] Both homogenous-precinct analysis and ecological-regression analysis were used in *Thornburg v. Gingles*, 478 U.S. 30, 106 S.Ct. 2752, 92 L.Ed.2d 25 (1986), the Supreme Court's seminal Section 2 case.[494] Ecological-inference analysis developed later to address a shortcoming of ecological-regression analysis but has subsequently been widely accepted.[495] All three statistical techniques yielded similar results.[496]

Dr. Handley concluded that with a 45% BVAP in District 11, African-American voters would have a realistic opportunity to elect their candidate of choice with a "comfortable margin."[497] In fact, even with a BVAP as low as 40%, African-American voters would have elected the Black-preferred candidate in the elections studied.[498] She concluded that there is no need to draw a majority African-American District 11 in order to allow African-American voters to elect their candidate of choice there.[499]

5. Mr. William Cooper

William Cooper, a mapping consultant, testified as an expert witness at trial.[500] Over the course of his career, Mr. Cooper has drawn plans for about 750 jurisdictions, many of which were statewide plans and around six of which were congressional districting plans.[501] Mr. Cooper has also previously drawn plans specifically for partisan-gerrymandering cases.[502] Mr. Cooper generally submits illustrative or remedial districting plans, and courts have implemented several of his remedial plans.[503] This Court qualified Mr. Cooper as an expert in the fields of redistricting, map drawing, and demography[504] and found his testimony and reports credible and reliable.

Mr. Cooper used census data and mapping software "to reexamine the plan that was adopted in 2012 and apply traditional redistricting principles to result in a map that was a little more fair for Democratic voters and at the same time visually more appealing" and also "undid . . . [the] parti-

491. Dkt. 240 (Handley Trial Test. at 137, 142)

492. *Id.* at 142.

493. *Id.*

494. *Id.* at 142–43.

495. *Id.* at 143.

496. *Id.* at 150.

497. Trial Ex. P254 (Handley Rep. at 17); Dkt. 240 (Handley Trial Test. at 149).

498. Dkt. 240 (Handley Trial Test. at 149).

499. Trial Ex. P254 (Handley Rep. at 1).

500. Dkt. 241 (Cooper Trial Test. at 136).

501. *Id.* at 136–37.

502. *Id.* at 137–38.

503. *Id.* at 139.

504. *Id.* at 140.

san gerrymander." [505] He used Maptitude software, the same kind used by the map drawers in 2011, to do this work.[506] Mr. Cooper relied upon traditional redistricting principles (equipopulation, contiguity, compliance with the VRA, and preserving communities of interest) to craft his Proposed Remedial Plan and also made sure that it would satisfy the requirements of Ballot Initiative 1.[507] He "did not pair incumbents except when in direct conflict with the other factors." [508] Mr. Cooper had the CSU dataset used by the map drawers available to him while he was drawing his Proposed Remedial Plan and "occasionally glanced at it" although he "was not constantly monitoring every little—every little change." [509] The Proposed Remedial Plan that he created was intended to be a forward-looking plan that avoided the pairing of the current congressional officeholders.[510]

Mr. Cooper explained the traditional redistricting factors that drove his maps and the manner in which those factors are measured. Equipopulation means that a district is the exact population of the ideal district size, plus or minus one.[511] Contiguity means that a district is entirely contiguous with itself; there are no severed sections. Compactness can be measured with an "eyeball test . . . just take a look at it and see if it makes sense visually" or with mathematical tests such as the Reock and Polsby-Popper measures, both of which can be run using Maptitude.[512] The Polsby-Popper and Reock metrics measure compactness on a scale of zero through one; the closer to one, the more compact the district. The "Polsby-Popper score is a perimeter score over area of a district"—the ratio of the perimeter and the area of a district generates the score. A low score is "an indication that it's not a very compact district." [513] The Reock score is "a ratio of an area for a circle drawn around the district." Mr. Cooper testified that "districts that start getting below .20 are somewhat problematic, generally speaking." [514]

Mr. Cooper defined a community of interest as "an area or a region where there are certain cultural or socioeconomic ties, historical ties." [515] He testified that minority populations can be considered communities of interest and that counties or munici-

505. *Id.* The data Mr. Cooper was given to create the Proposed Remedial Plan featured in his first report included an error—an incorrect address for Representative Jordan. *Id.* at 167. This error resulted in the inadvertent pairing of incumbent Representatives Jordan and Davidson in the original Proposed Remedial Plan. *Id.* Upon learning of this error, Mr. Cooper drafted a corrected Proposed Remedial Plan, which included slight changes at the border of Districts 4 and 8. Trial Ex. P091 (Cooper Errata at 2). This correction did not result in any changes to the compactness, minority voting strengths, or county and municipal divides of the earlier version. Dkt. 241 (Cooper Trial Test. at 168–69).

506. Dkt. 241 (Cooper Trial Test. at 143).

507. Trial Ex. P090 (Cooper Decl. at 3); Dkt. 241 (Cooper Trial Test. at 146). Ballot Initiative 1 requires that "any plan drawn in the future, at least after the 2020 census at minimum, would have to keep the city of Cincinnati in a single district and the city of Cleveland in a single district." Dkt. 241 (Cooper Trial Test. at 146).

508. Trial Ex. P090 (Cooper Decl. at 3).

509. Dkt. 241 (Cooper Trial Test. at 151–52).

510. Trial Ex. P092 (Cooper Suppl. Decl. at 1).

511. Dkt. 241 (Cooper Trial Test. at 147).

512. *Id.* at 147–48.

513. *Id.* at 157–58.

514. *Id.* at 158.

515. *Id.* at 148.

pal subdivisions are "a more objective way to identify communities of interest." [516] Maptitude allows users to monitor how many counties and metropolitan civil divisions are split as a plan is drawn.[517] He stated that, generally, maps with fewer districts overall should contain fewer county splits if traditional districting principles are being applied.[518]

Mr. Cooper also compared the shapes of several districts from the 2012 map to his Proposed Remedial Plan, commenting on the 2012 districts' irregular shapes and frequent splits of county lines and municipal boundaries.[519] The Proposed Remedial Plan splits fourteen counties and twenty-seven political subdivisions.[520] In contrast, the 2012 map splits twenty-three counties and seventy-three political subdivisions, fifty-five of which are populated.[521] Mr. Cooper also compared the compactness of the districts in the 2012 map with those in his Proposed Remedial Plan. The Proposed Remedial Plan "score[d] significantly higher on Polsby-Popper in terms of minimums and maximums as well as the overall mean" than the 2012 map.[522]

Mr. Cooper's Proposed Remedial Plan was conscious of advancing minority voting power in various districts. First, it included a minority-opportunity district contained entirely within Cuyahoga County with a 47% BVAP, higher than the 45% that Dr. Handley calculated was necessary to allow minorities in the district to elect a candidate of their choice.[523] Mr. Cooper testified that simply by keeping the City of Cleveland whole in District 11 and including "a couple of suburbs," achieving this 47% BVAP "just happened" without "trying to max it out in any way." [524] Second, Mr. Cooper's Proposed Remedial Plan included a District 1 with a higher percentage BVAP than the 2012 map's District 1. The Proposed Remedial Plan's District 1 has a 26.74% BVAP; the 2012 map's District 1 has a 21.30% BVAP.[525] He testified that this increase of over five percentage points resulted "because [he] left Cincinnati in a single district rather than splitting it into part of District 2 as well as District 1." [526] Third, the District 3 included in his Proposed Remedial Plan had roughly the same BVAP as was present in the 2012 map.[527]

Mr. Cooper also responded to the report of Defendants' expert Dr. Hood.[528] Dr. Hood had challenged the Proposed Remedial Plan, arguing that it would not have been politically viable had it been imple-

516. *Id.*

517. *Id.* at 150.

518. *Id.* at 151.

519. *Id.* at 153–56.

520. *Id.* at 150; Trial Ex. P091 (Cooper Errata at 3; Ex. Q); Trial Ex. P454 (Cooper Decl. Apps. at Ex. F).

521. Dkt. 241 (Cooper Trial Test. at 158–59).

522. *Id.* at 157; Trial Ex. P454 (Cooper Decl. Apps. at Ex. H). Mr. Cooper also explained that the chart was somewhat misleading because the Reock and Polsby-Popper scores for District 9 are inflated "because of the way the Census Bureau has extended water blocks that are part of these Counties along Lake Erie, out into the middle of Lake Erie. And if you remove those water blocks, then District 9 scores very low." Dkt. 241 (Cooper Trial Test. at 157).

523. Dkt. 241 (Cooper Trial Test. at 159).

524. *Id.* at 160.

525. Trial Ex. P454 (Cooper Decl. Apps. at Ex. D-3; E-2); Dkt. 241 (Cooper Trial Test. at 160–61).

526. Dkt. 241 (Cooper Trial Test. at 161).

527. *Id.*

528. *Id.* at 141.

mented in 2012 because it would have paired many incumbents. Mr. Cooper maintained in his response that the Proposed Remedial Plan was "presented for future use, not solely as a point of comparison to the 2012 plan." [529] He also drew and demonstrated the feasibility of two hypothetical plans that shared many features with his Proposed Remedial Plan but could have been implemented in 2011 without pairing more incumbents than the adopted 2012 map did.[530]

D. Defendants' and Intervenors' Expert Witnesses

1. Dr. M.V. Hood III

Dr. M.V. Hood III, a tenured professor of political science at the University of Georgia, testified as an expert for Defendants at trial.[531] Dr. Hood has taught courses in Southern politics, American politics, research methods, election administration, and the legislative process.[532] His work has appeared in peer-reviewed journals between forty and fifty times and he has published four articles "directly related to redistricting in one way or another" in peer-reviewed journals.[533] Dr. Hood has testified as an expert witness in several cases involving redistricting.[534] We qualified Dr. Hood as an expert in "American politics and policy, quantitative political analysis and election administration, including redistricting." [535] We, however, can draw limited inferences from his testimony and report due to some inapt comparisons, unexplained and apparently meaningful exclusions of certain elections in his partisan indices, and admitted failures to account for certain confounding variables in some of his analyses.[536]

a. Incumbent pairing, core retention, compactness, and county and municipality splits

Dr. Hood's report stated that the 2012 map paired three sets of incumbents.[537] He also testified that the 2012 map's core retention level, the "percentage of a member's constituents [who] were carried over from their previous district," was "55.7% across the 16 districts." [538] Dr. Hood concluded, based on the number of incumbents who were paired and the core-retention rate, "that at least some weight was given in the plan to the ... criteria protecting incumbents to the extent possible." [539] Dr. Hood, however, agreed that

529. Trial Ex. P093 (Cooper Second Suppl. Decl. at 2).

530. *Id.* at 4–19.

531. Dkt. 247 (Hood Trial Test. at 135).

532. *Id.* at 136–37.

533. *Id.* at 137.

534. *Id.* at 140.

535. Dkt. 274 (Hood Trial Test. at 141). Prior to trial, Plaintiffs filed a *Daubert* motion to exclude the expert report and testimony of Dr. Hood. Dkt. 150-1 (Pls.' Mot. to Exclude Hood). We conclude that none of Plaintiffs' criticisms of Dr. Hood's report and testimony are sufficiently severe to preclude us from qualifying him as an expert. Rather, where well-founded, they will impact the weight that we will give his testimony and report.

536. Courts in several other cases in which Dr. Hood has testified as an expert witness have afforded Dr. Hood's testimony little weight for similar reasons. *See, e.g., Ne. Ohio Coal. for the Homeless v. Husted,* No. 06-cv-896, 2016 WL 3166251, at *23 (S.D. Ohio June 7, 2016); *see also, e.g., Veasey v. Perry,* 71 F.Supp.3d 627, 663 (S.D. Tex. 2014); *Frank v. Walker,* 17 F.Supp.3d 837, 882 (E.D. Wis. 2014).

537. Dkt. 247 (Hood Trial Test. at 144–45).

538. *Id.* at 145.

539. *Id.* at 146.

"there is no agreed-upon standard for what levels of core retention indicates that the goal of a districting map is to protect incumbents." [540] He also acknowledged that in a previous academic article, he had concluded that "a core retention level of 68.7 percent greatly altered the relationship between representatives and constituents." [541]

Dr. Hood compared the 2012 map with the 2002 map. He testified that the 2012 map was "on par with the 2002 plan in terms of compactness" measured with both the Polsby-Popper and Reock tests.[542] He stated that the 2002 plan split twenty-one counties and the 2012 plan split twenty-three counties.[543] He found that the 2002 plan split 4.3% of Ohio's municipalities while the 2012 plan split 4.5% of Ohio's municipalities. From this data, he concluded that the 2012 map "is on par with the 2002 benchmark plan" in terms of its adherence to traditional redistricting criteria.[544]

Dr. Hood also compared the 2002 map to Plaintiffs' Proposed Remedial Plan in terms of compactness and splits of communities of interest, defined here as counties and municipalities. He found that the Proposed Remedial Plan had "slightly higher" compactness scores than the 2002 map measured by both the Polsby-Popper and Reock tests. He also testified that Mr. Cooper's hypothetical plans, which were designed as alternatives that could have been enacted in 2012, also had higher compactness scores than the adopted 2012 map.[545] The Proposed Remedial Plan splits fourteen counties while the 2002 map split twenty-one.[546] The Proposed Remedial Plan splits 1.7% of Ohio's municipalities while the 2002 map split 4.3% of them.[547] Mr. Cooper's hypothetical plans also split fewer counties and municipalities than the enacted 2012 map.[548]

Dr. Hood also demonstrated that, had Plaintiffs' Proposed Remedial Plan been enacted in 2012, it would have resulted in the pairing of six sets of incumbents, the majority of which would have been Republican pairings.[549] Dr. Hood calculated that had the Proposed Remedial Plan been enacted in 2012, its mean core-retention figure would have been 39.5%.[550] As is discussed in the summary of Mr. Cooper's testimony, the Proposed Remedial Plan was designed principally as a forward-looking map to be implemented today, using the 2012 map rather than the 2002 map as a baseline. It designed its incumbent pairings based off where current representatives live under the 2012 map. This makes it an inapt comparison to count incumbent pairings that would have resulted had it been implemented in 2012, when

540. *Id.* at 193.

541. *Id.*

542. *Id.* at 144.

543. *Id.* at 147. In so testifying, Dr. Hood corrected an error in his report, which had indicated that the 2002 map split 25 counties. *Id.* at 146.

544. *Id.* at 147–48.

545. *Id.* at 148, 198; *see also* Trial Ex. D4 (Hood Rep. at 8, tbl. 7). Dr. Hood did not calculate the compactness scores himself; he requested that they be calculated and reproduced the reports. Dkt. 247 (Hood Trial Test. at 189).

546. Dkt. 247 (Hood Trial Test. at 148–49); *see also* Trial Ex. D4 (Hood Rep. at 8, tbl. 8).

547. Dkt. 247 (Hood Trial Test. at 149); *see also* Trial Ex. D4 (Hood Rep. at 9, tbl. 9).

548. Dkt. 247 (Hood Trial Test. at 198–99).

549. *Id.* at 148; *see also* Trial Ex. D4 (Hood Rep. at 9, tbl. 10).

550. Dkt. 247 (Hood Trial Test. at 150).

a different set of representatives would have been the affected incumbents. Similarly, the implementation of the 2012 map shifted the district lines and assigned constituents to new districts. Therefore, it is odd to conduct core-retention analysis of the Proposed Remedial Plan against the baseline of the 2002 district lines when it was designed with the 2012 lines as its baselines. On cross-examination, Dr. Hood acknowledged that Mr. Cooper's hypothetical plans, which were designed as alternatives that could have been enacted in 2012, had core retention rates that were "highly similar" to those of the actually-enacted 2012 map.[551]

b. Political geography

Dr. Hood also discussed Ohio's political geography—"the spatial distribution of partisans in Ohio." [552] He created a partisan vote index using fifteen statewide contested elections from four election cycles prior to the 2011 redistricting.[553] He then used this partisan vote index to color code and plot areas of Democratic, strong Democratic, Republican, and strong Republican support on several maps of Ohio.[554] Based on these maps, Dr. Hood concluded that "there's a much larger Republican footprint outside of urban areas. Much of the Democratic footprint during this time is inside urban areas, like Cleveland and Columbus, Cincinnati." [555] He calculated that "about 78.5% of Ohio's land area" leans Republican, and 21.5% of its land area leans Democratic.[556]

Dr. Hood then calculated a Moran's I statistic to determine that from 2004 to 2010 "Republican VTDs tend[ed] to be located proximate to other Republican VTDs, and Democratic VTDs tend[ed] to be located proximate to other Democratic VTDs" in Ohio.[557] Dr. Hood acknowledged on cross-examination that this analysis did not "indicate that Democrats are differentially clustered than Republicans"—that they cluster with other members of their own party at higher rates than Republican voters do.[558] His analysis also demonstrated that "Democratic VTDs are more likely to be located in urban areas" than Republican VTDs.[559]

c. Partisan leanings

Dr. Hood then used his first partisan index to analyze the partisan leaning of Ohio's congressional districts as drawn under the 2012 map.[560] He determined that six were safe Republican districts, five were competitive, Republican-leaning districts, four were safe Democratic districts, and one was a competitive, Democratic-leaning district.[561]

551. *Id.* at 197.

552. *Id.* at 151.

553. *Id.* at 153.

554. *Id.*; *see also* Trial Ex. D4 (Hood Rep. at App., figs. 1–5).

555. Dkt. 247 (Hood Trial Test. at 154).

556. *Id.*

557. *Id.* at 155.

558. *Id.* at 199–200.

559. *Id.* at 156.

560. Plaintiffs argue that Dr. Hood cherry-picked the elections in his partisan index to skew the results, particularly by omitting 2002 election data. *See id.* at 207–13.

561. Trial Ex. D4 (Hood Rep. at 15, tbl. 15). Hood termed a district a safe Republican district if the partisan index indicated that it would vote over 55% Republican. Competitive, Republican-leaning districts would vote 50-55% Republican. Safe Democratic districts would vote less than 45% Republican, and competitive, Democratic-leaning districts would vote 45-50% Republican. Dkt. 247 (Hood Trial Test. at 157).

Dr. Hood did the same analysis applying the partisan index to the Plaintiff's Proposed Remedial Plan and found that the only differences between it and the 2012 map were that under the Proposed Remedial Plan there would be "on[e] less safe Republican district and one additional competitive district leaning Democratic." [562] On cross-examination, Dr. Hood conceded that his "index state[s] a lower Republican percentage as compared to [an index that includes] the full set of elections based on the statewide contested elections for the decade preceding the 2010 redistricting cycle, including 2002." [563] When the 2002 congressional election results are included in the index, there are no competitive districts, rather than the six competitive districts that Dr. Hood indicated.[564] Such an index predicts voting outcomes that more reliably correspond to the actual electoral outcomes observed in the elections since the 2012 redistricting.[565]

Dr. Hood created another partisan index using elections from 2012, 2014, and 2016, and then used the same process described earlier to color code the partisan leanings of VTDs on a map of Ohio.[566] Comparing that map to the color-coded map he produced of Ohio using elections from the preceding decade, he concluded that Ohio has become increasingly Republican over time.[567]

Finally, Dr. Hood used this latter partisan index to evaluate the partisan leanings of each individual Plaintiff's new district under the Proposed Remedial Plan compared to the partisan leanings of their current district under the 2012 map.[568] He concluded, based on this analysis, that two of the seventeen individual Plaintiffs would have a better chance of electing a Democratic representative under the Proposed Remedial Plan versus under the current map—Plaintiff Griffiths in District 7 and Plaintiff Hutton in District 14.[569]

d. Other influences on electoral success

Dr. Hood also testified about various factors that "influence the outcome of congressional races"—"[f]undraising, media attention, name recognition, incumbency," as well as "candidates and campaigns." [570] He testified that there is a strong trend of incumbents being reelected to office that is recognized in the political science literature and was observable in Ohio after the 2011 redistricting—all of the unpaired incumbent congressional representatives were reelected in 2012 and in every congressional election in Ohio since then.[571] Relatedly, Dr. Hood testified about challenger quality, which he measures by whether the challenger has held prior

562. Dkt. 247 (Hood Trial Test. at 160).

563. *Id.* at 216–17.

564. *Id.* at 219.

565. *Id.* at 220–21.

566. Dr. Hood agreed that the races he included in creating this index "were the two most Republican of the five statewide races in 2014," and therefore the application of this index would make the map look more Republican-leaning than the application of an index that included the other races. *Id.* at 230.

567. *Id.* at 168–70; *see also* Trial Ex. D4 (Hood Rep. at App., figs. 7-8); Trial Ex. D5 (Hood Suppl. Rep. at 8, tbl. 6).

568. Dkt. 247 (Hood Trial Test. at 171); *see also* Trial Ex. D4 (Hood Rep. at 30).

569. Dkt. 247 (Hood Trial Test. at 172).

570. *Id.* at 160.

571. *Id.* at 161; *see also* Trial Ex. D4 (Hood Rep. at 18, tbl. 17); Trial Ex. D5 (Hood Suppl. Rep. at 4, tbl. 2).

elective office.[572] He concluded that "[t]ypically, more often than not, the challengers" of incumbents in Ohio from 2012 through 2018 were "political novices" without prior elective officeholding experience.[573] Dr. Hood admitted on cross-examination that he did nothing "to assess whether the district lines themselves prevented the recruitment of experienced candidates" and that it was possible that they had.[574]

Dr. Hood also examined "the amount of campaign contributions that were collected by the Republican and Democrat" in each election because fundraising is helpful in winning elections.[575] He concluded that, in Ohio between 2012 and 2016, the incumbents had "outraised challengers by about $ 1.2 million on average." [576] On cross-examination, Dr. Hood admitted that he did nothing "to determine that the district lines themselves did not cause Democratic challengers to fail to raise comparable funds" and admitted that it was possible that the lines themselves affected challenger fundraising abilities.[577]

e. Efficiency gap and seat-share relationship

Dr. Hood plotted the efficiency gap numbers for Ohio from 1992 to 2016 against the seat share of the congressional delegation.[578] He concluded based on the regression from this plot that the efficiency gap is "closer to zero as the seat share is more evenly balanced" between the parties and increases "as the seat share tilts one way or another." [579]

2. Dr. Janet Thornton

Dr. Janet Thornton testified at trial for Defendants as an expert witness. Dr. Thornton is currently the managing director and an economist and applied statistician at Berkeley Research Group, LLC, a consulting firm located in Florida.[580] Dr. Thornton has a doctorate and master's degree in economics from Florida State University, as well as a bachelor's degree in economics and political science from the University of Central Florida.[581] Dr. Thornton's fields of specialization in her academic background were labor economics and applied statistics.[582] Additionally, Dr. Thornton has "been working with census data since the early 1980s" and has also "work[ed] with data from the 1960 d[e]cennial census all the way up to the current time period . . . ." [583] Although Dr. Thornton has prepared statistical analyses and served as an expert in voting cases related to, for example, the effect of voter-identification laws on voter-participation rates by race and minority status, Dr. Thornton has never served as an expert in

572. Dkt. 247 (Hood Trial Test. at 163).

573. *Id.*; *see also* Trial Ex. D4 (Hood Rep. at 19, tbl. 18); Trial Ex. D5 (Hood Suppl. Rep. at 5, tbl. 3).

574. Dkt. 249 (Hood Trial Test. at 9–10).

575. Dkt. 247 (Hood Trial Test. at 163–64).

576. *Id.* at 164; *see also* Trial Ex. D4 (Hood Rep. at 20, tbl. 19); Trial Ex. D5 (Hood Suppl. Rep. at 5, tbl. 4) (reflecting the fundraising in the 2018 congressional elections, in which three challengers outraised the incumbents they faced).

577. Dkt. 249 (Hood Trial Test. at 9).

578. Dkt. 247 (Hood Trial Test. at 166).

579. *Id.* at 167.

580. Trial Ex. D8 (Thornton CV).

581. *Id.*

582. Dkt. 246 (Thornton Trial Test. at 86).

583. *Id.* at 87–88.

a redistricting case.[584] And although Dr. Thornton has never been precluded from testifying as an expert, at least one court found her analysis "simplistic and not credible." *See Democratic Nat'l Comm. v. Reagan*, 329 F.Supp.3d 824, 838 (D. Ariz. 2018). Dr. Thornton has also not published any articles related to voting.[585] This Court qualified Dr. Thornton as an expert in economic and statistical analysis, subject to Plaintiffs' *Daubert* motion.[586]

Dr. Thornton's report and testimony are offered to rebut Plaintiffs' experts Dr. Cho and Dr. Niven. As to Dr. Cho, Defendants presented Dr. Thornton's report and testimony to critique the underlying data and assumptions in Dr. Cho's report.[587] As to Dr. Niven, Defendants offered Dr. Thornton's report and testimony to rebut Dr. Niven's conclusion that the splitting of census tracts in the current plan is correlated with the political composition of census tracts.[588] Before turning to Dr. Thornton's critique of each of these Plaintiffs' experts, two preliminary matters need to be addressed.

First, we give no weight to Dr. Thornton's finding that "Dr. Cho failed to provide all of the underlying code and output sufficient to replicate all of her findings."[589] This finding is entirely off base. Dr. Thornton admitted that she is not an expert in C++ and that she cannot read it without the help of a manual;[590] and again, Plaintiffs offered to provide Defendants with the code. *See supra* Section II.C.2. More importantly, the code is not the algorithm; the code simply implements the algorithm. Consequently, nothing prohibited Dr. Thornton from critiquing the MCMC algorithm used by Dr. Cho if she had been qualified to do so.[591]

Second, Dr. Thornton is an expert in statistics generally, not in political science or redistricting, and she has never run an MCMC algorithm or, prior to this case, reviewed, evaluated, or assessed an MCMC algorithm.[592] We consider her findings with that backdrop. Ultimately, we give some weight to her critiques of the underlying data that Dr. Cho used as a basis for assessing her simulated maps,

584. *See* Trial Ex. D8 (Thornton CV); Dkt. 246 (Thornton Trial Test. at 90–91).

585. *See* Trial Ex. D8 (Thornton CV); Dkt. 246 (Thornton Trial Test. at 125–27).

586. Dkt. 246 (Thornton Trial Test. at 92–93); *see also* Dkt. 155, 155-1 (Pls.' Mot. to Exclude Thornton). We deny Plaintiffs' *Daubert* motion, but we consider Dr. Thornton's report and testimony for limited purposes and do not credit portions of her analysis, as explained herein.

587. Dkt. 246 (Thornton Trial Test. at 91).

588. *See* Trial Ex. D8 (Thornton Rep. at 24–27).

589. *Id.* at 4.

590. Dkt. 246 (Thornton Trial Test. at 133–35); *see also* Trial Ex. D8 (Thornton CV) (C and C++ are not included in the programming languages listed as ones of which she has knowledge).

591. This distinction between reviewing the algorithm and the code is underscored by Dr. Cho's testimony on behalf of the defendants in a Pennsylvania gerrymandering case. As Dr. Cho explained in her report in that case (which was read into the record on cross-examination at this trial): "[I]ndeed, the point is not whether I would have been allowed some short amount of time to view the code, but whether the algorithm has been sufficiently scrutinized by the scientific community to allow others, including the Courts, to have confidence in the process and the results." *See* Dkt. 243 (Cho Trial Test. at 84). Nonetheless, the fact remains that Plaintiffs offered to provide the full code to Defendants, who apparently declined the offer.

592. Dkt. 246 (Thornton Trial Test. at 129).

but several of Dr. Thornton's other critiques miss the mark and are not credible.

a. Rebuttal to Dr. Cho

Dr. Thornton opines that "the manner in which [Dr. Cho] generates new maps (i.e., simulations) is biased towards selecting half of the districts in which the Republican votes outnumber the Democratic votes and half of the districts in which Democratic votes outnumber the Republican votes." [593] In other words, Dr. Thornton's opinion is that the process Dr. Cho used to produce the simulated maps was biased toward creating an 8-8 map. This is wrong. As explained earlier, Dr. Cho analyzed the competitiveness and partisan outcomes of the simulated maps only *after* the simulated maps were generated. *See supra* Section II.C.2.[594] Dr. Thornton offered no evidence to rebut this sequence of events.

In a similar manner, Dr. Thornton criticizes the election data that Dr. Cho used to assess the partisanship of the simulated maps as compared to the current map. This criticism, however, is distinct in an important way because it goes to Dr. Cho's after-the-fact assessment of partisanship and not the creation of the simulated maps. The general thrust of Dr. Thornton's critique on this front is that the 2008-2010 data used by Dr. Cho contains higher Democratic vote totals than in the 2012-2016 data.[595] Further, Dr. Cho never used the 2016 statewide Democratic vote share for her analysis, which Dr. Thornton computed as 42.4% (lower than the other indices used by Dr. Cho).[596] Dr. Thornton concludes that Dr. Cho's selection and use of election data "is faulty, misleading, and unreliable." [597]

We give some weight to this particular conclusion—Dr. Cho's omission of the 2016 election data (which was less favorable to the Democratic Party) and use of 2008-2010 data to assess the partisan effect of the 2012 plan raises some concern. At the same time, Dr. Thornton's critique on this point does not significantly undermine Dr. Cho's conclusions. After all, the 2008-2010 election data were part of the data available to the map-drawers, so that data is not irrelevant to assessing whether different districts could have been drawn. It is true, however, that the Democratic vote shares have decreased in the present decade as compared to the last, and this waning in support is relevant to partisan effect. In response, Dr. Cho provided an updated analysis in her supplemental report that incorporated the 2012-2014 and 2018 election data; that analysis showed the most common Republican vote share as nine seats, and eight and ten Republican seats were also not uncommon. *See supra* Section II.C.2. This cures at least part of Dr. Thornton's critique, specifically that using the 2008-2010 data misleadingly resulted in eight Republican seats being most common. In any event, Dr. Cho's supplemental report further shows that in-

593. Trial Ex. D8 (Thornton Rep. at 12).

594. We note, however, that Dr. Cho's competitiveness metric (which Dr. Cho used *after* generating the simulated maps) is based on optimal competitiveness. As such, the closer a map is to an 8-8 partisan outcome, the more competitive the map will score, i.e., a score closer to zero under Dr. Cho's competitiveness metric. *See supra* note 400. We consider this specific metric only for Dr. Cho's conclusion that competitiveness seems to have been "almost a non-existent factor if one at all" in the drawing of H.B. 369. *See supra* Section II.C.2.b.i. & note 400. Dr. Cho's other competitiveness analyses support that conclusion, too.

595. *See* Trial Ex. D8 (Thornton Rep. at 15–17 & fig. 1).

596. *Id.* at 16–17 & fig. 1.

597. *Id.* at 16.

corporating recent election data does not significantly alter her conclusions on partisan effect—a 12-4 map is still a *highly* unusual outlier under all her analyses. In sum, although we give some weight to Dr. Thornton's critique on Dr. Cho's selection and use of data, hence rendering Dr. Cho's findings less probative than they otherwise could be, we do not find that Dr. Thornton has significantly undermined Dr. Cho's conclusions.

Dr. Thornton also performed her own analysis using a binomial distribution, but we do not give any weight to that analysis. Dr. Thornton's analysis used the Republican statewide vote share in congressional races "to predict the number of Republican seats." [598] As an example, in 2016, the Republican vote share was 58.2%, and Dr. Thornton multiplied that number by 16 (i.e., the number of seats) to arrive at 9.31 as the expected number of seats (2.69 fewer seats than the actual outcome of 12).[599] Dr. Thornton then calculated "the number of standard deviations associated with the difference between the actual and predicted number of Republican seats." [600] When the difference is less than two standard deviations, whether positive or negative, the difference is not considered statistically significant.[601] From this analysis, Dr. Thornton concludes that for 2012, 2014, and 2016, "the difference between the actual and predicted number of Republican seats using the Republican vote share are not statistically significant." [602]

Several factual and legal problems are apparent in Dr. Thornton's analysis. Factually, under the binomial distribution, the expected number of Republican seats unquestionably reflects proportional representation—Dr. Thornton multiplied the statewide vote share by the number of seats. Legally, proportional representation is not required. *See infra* Section IV.B. For this reason, Dr. Cho does not assume proportional representation.[603] The analysis incorporates yet another faulty assumption that each district has a 51% chance of being won by a Republican because Republicans won 51% of the congressional vote across the State; this assumption does not comport with basic understandings of congressional elections, i.e., that although some districts may be competitive (a 51% Republican to 49% Democrat district), other districts lean heavily in favor of one party or the other. Finally, Dr. Thornton's analysis has nothing to do with whether Republicans and Democrats are statistically treated similarly or differently under the current map—she assesses only whether the actual number of Republican seats differs in a statistically significant way from the expected number of Republican seats. This analysis, without more, says nothing about how the current map affects Democratic voters compared to Republican voters. For all of these reasons, we give no weight to her statistical significance analysis.

Additionally, Dr. Thornton applied a similar analysis comparing the difference between the number of Republican seats in 2010 and the number of Republican seats

598. Dkt. 246 (Thornton Trial Test. at 112).

599. *Id.*; Trial Ex. D8 (Thornton Rep. at 19–20, tbl. 3).

600. Trial Ex. D8 (Thornton Rep. at 19).

601. *Id.*; Dkt. 246 (Thornton Trial Test. at 112–13).

602. Dkt. 246 (Thornton Trial Test. at 113).

603. Trial Ex. P087 (Cho Rep. at 31) ("We do not have a system of proportional representation . . . ."). In fact, Dr. Thornton is the only expert in this case who incorporates an assumption of proportional representation into her analysis.

in 2012.[604] Again, she concluded that this difference was not statistically significant.[605] We find that this analysis is simplistic and not particularly helpful. To be sure, the Republicans flipped the congressional delegation in 2010 from one that was a Democratic majority to one that was a Republican majority, and this Republican majority has been maintained. But that simply shows part of the problem with the 2012 map: Despite fluctuating vote shares, the seat share has remained 12-4; under the prior plan, the seat share fluctuated as did the vote share. Indeed, the fact that a political party that controlled the redistricting process maintained (or slightly improved) their seat-share percentage from before redistricting to after is not surprising if they have drawn an effective partisan gerrymander.

Lastly, Dr. Thornton critiqued Dr. Cho for not considering incumbency in her analysis, and Dr. Thornton herself observed the success of incumbent candidates under the current map.[606] This critique holds some weight, but Dr. Cho's analysis still permits an inference, albeit less strong, on the partisan effect of the current map. *See infra* Section V.A.2.d. (addressing the problems with the incumbent-protection justification as applied to this case).

b. Rebuttal to Dr. Niven

Defendants also offered Dr. Thornton to rebut some of Dr. Niven's findings. According to Dr. Thornton, she performed analyses similar to Dr. Niven's but reached different results.[607] First, her "attempt to replicate Dr. Niven's finding [on the political orientation of census tracts left intact versus those which were split] result[ed] in an estimate that 50.48% of census tracts left intact are Republican in contrast to 48.18% among those that were split under the current plan" using the same election data as Dr. Niven.[608] The corresponding numbers from Dr. Niven were 52.14% (or 0.5214) and 49.25% (or 0.4925).[609] Dr. Thornton further critiques Dr. Niven's failure to perform the same calculations for the prior plan, which according to Dr. Thornton shows "a 0.4% increase in the percentage Republican among census tracts left intact" between the 2002 plan and the 2012 plan "and a 2.4% decrease in the percentage Republican among census tracts that were split between the two plans . . . ." [610] Second, Dr. Thornton "prepared correlation statistics to determine if the splitting of a census tract is correlated with the percentage Republican" using the same election data as Dr. Niven.[611] She concludes that "split census tracts are, statistically speaking, not correlated with the percentage Republican in the census tract as measured by Dr. Niven under either the prior plan or the current plan." [612] At trial, Dr. Thornton further testified that "there is no statistically significant difference in the proportion Republican and

604. Trial Ex. D8 (Thornton Rep. at 21).

605. *Id.*; Dkt. 246 (Thornton Trial Test. at 114–15).

606. Trial Ex. D8 (Thornton Rep. at 21–24); Dkt. 246 (Thornton Trial Test. at 115–16).

607. *See* Trial Ex. D8 (Thornton Rep. at 26–27); Dkt. 246 (Thornton Trial Test. at 116–17).

608. Trial Ex. D8 (Thornton Rep. at 26).

609. *See* Trial Ex. P524 (Niven Rep. at 6).

610. Trial Ex. D8 (Thornton Rep. at 26).

611. *Id.*

612. *Id.*; *see also id.* at 27 & n.38 (noting that the correlation coefficient of the current plan is -0.02429, with a probability of occurring by chance of 18.77%).

whether or not a census tract is split." [613]

As an initial matter on this issue, we credit Dr. Niven's census tract analysis for a limited purpose. *See supra* Section II. C.3. Debates about the strength of various correlations aside, each expert's calculations are close to 50%, and both experts agree that split census tracts lean slightly Democratic. Moreover, Dr. Thornton's analysis is not entirely clear—she measured whether "the splitting of a census tract is correlated with the percentage Republican . . . ." [614] Dr. Niven, on the other hand, seems to have tested the statistical significance of the difference between census tracts that were left intact (which lean Republican) and those that were split (which lean Democratic).[615] An analysis of this differential treatment between Republican and Democratic voters seems to be absent from Dr. Thornton's report.

3. Dr. Thomas Brunell

Dr. Thomas Brunell testified at trial for the Intervenors as an expert witness. Dr. Brunell is a tenured professor of political science at the University of Texas at Dallas.[616] He received his bachelor's, master's, and doctorate, all in political science, from the University of California, Irvine.[617] Dr. Brunell teaches classes on Congress, political parties and interest groups, campaigns and elections, redistricting, and statistics, among others.[618] He has published books and articles in peer-reviewed journals on redistricting, elections, issues of representation in government, and party polarization.[619] Dr. Brunell has served as an expert witness in several other redistricting and VRA cases.[620] This Court qualified Dr. Brunell as an expert in the fields of redistricting, elections, the VRA and representation, and statistics.[621]

Dr. Brunell's report and testimony is offered to rebut Plaintiffs' experts Dr. Cho, Dr. Warshaw, Dr. Niven, Dr. Handley, and Mr. Cooper.

a. Rebuttal to Dr. Cho

Dr. Brunell questions whether Dr. Cho's simulated maps "serve as a good basis for comparison to the actual map." [622] For various reasons, Dr. Brunell opines that Dr. Cho's maps cannot serve as a good comparison to the current map. He asserts that "all of Professor Cho's maps would likely be tossed" because they

613. Dkt. 246 (Thornton Trial Test. at 116).

614. Trial Ex. D8 (Thornton Rep. at 26).

615. *See* Trial Ex. P524 (Niven Rep. at 6).

616. Trial Ex. I-060 (Brunell CV).

617. *Id.*

618. *Id.*; Dkt. 246 (Brunell Trial Test. at 188–89).

619. Trial Ex. I-060 (Brunell CV); Dkt. 246 (Brunell Trial Test. at 189–91).

620. Dkt. 246 (Brunell Trial Test. at 192).

621. *Id.* at 192–93. Plaintiffs filed a *Daubert* motion to exclude Dr. Brunell. Plaintiffs argue his methodology renders his opinions unreliable, but Plaintiffs do not object to his qualifications. *See id.*; Dkt. 153, 153-1 (Pls.' Mot. to Exclude Brunell). We deny Plaintiffs motion, but at the same time, we do not give much weight to Dr. Brunell's report and testimony and find portions of it unhelpful, as explained below. In brief, much of his report suffers from a scarcity of explanation. The Court notes that Dr. Brunell offered a few new and previously undisclosed expert opinions at trial. To the extent that Dr. Brunell offered expert opinions on topics about which he was previously made aware but failed to include in his report, we exclude such testimony because it was neither substantially justified nor harmless. *See* FED. R. CIV. P. 26(a)(2)(B)(i); 37(c)(1).

622. Dkt. 246 (Brunell Trial Test. at 194).

do not perfectly equalize population.[623] For the reasons we explained earlier, *see supra* Section II.C.2., we do not find this critique persuasive. In brief, Dr. Cho's 1% population deviation does not alter or undermine her analysis of partisan outcomes. We further note this criticism, along with others, offered by Dr. Brunell seems to miss the point of Dr. Cho's simulated maps.[624] Dr. Cho's simulated maps are not offered as examples of maps that should be enacted by the State per se; rather, the simulated maps provide a baseline to compare the partisan outcomes between the current map and maps that incorporate only neutral criteria. Moreover, Dr. Brunell critiques Dr. Cho's failure to consider incumbent protection, and he testified that protecting incumbents is "automatically going to make all of her districts different from ... one of the main stated goals by the legislature here in Ohio." [625] We address this point in the context of evaluating the proof of partisan effect and considering Defendants' justifications for the map, *see infra* Section V.A.2.d. (addressing the problems with the incumbent-protection justification as applied to this case), and we observe again that Representative Huffman described incumbent protection as "subservient" to other criteria in the process of creating H.B. 319.[626]

Dr. Brunell incorrectly reads Dr. Cho's histograms to "suggest[ ] that there are just a handful of different maps in Prof. Cho's exercises, each with hundreds of thousands of repetitions." [627] Dr. Cho responds in her rebuttal report that Dr. Brunell's inference is unsupported by the data provided: "none of these histograms can suggest anything about how many different maps are represented since two drastically different maps can have the same metrics. ... The number of bars in the histograms has no relationship with the similarity of the maps." [628] Accordingly, we reject this critique by Dr. Brunell.

Next, Dr. Brunell disagrees with Dr. Cho's conclusion that the current map is not responsive to voters. Instead, he "would characterize Prof. Cho [sic] simulated maps as hyper-responsive." [629] He

623. Trial Ex. I-060 (Brunell Rep. at 2).

624. For example, Dr. Brunell criticizes Dr. Cho for not turning over any shape files that would visually display some of her maps. *Id.* ("It is ... highly unlikely that any of them would be considered by the legislature."); Dkt. 246 (Brunell Trial Test. at 197). Although it is true that Dr. Cho did not turn over "shape files," we credit Dr. Cho's report and testimony and find that her simulated maps serve their purpose as maps that incorporate only neutral criteria in order to assess expected partisan outcomes based on, for example, political geography.

625. Dkt. 246 (Brunell Trial Test. at 196–97).

626. *See* Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 19) (statement of Rep. Huffman). Dr. Brunell also criticizes Dr. Cho for failing to consider preserving the core of prior districts in her simulated maps. Trial Ex. I-060 (Brunell Rep. at 11); Dkt. 246 (Brunell Trial Test. at 204). But he also testified that this criterion is "part of protecting incumbents at one level," and he agreed that this criterion could appear as improperly partisan "since the Republicans were advantaged ahead of time or they had more seats before the last round of redistricting ... then that would carry through ... to the next round of redistricting." Dkt. 246 (Brunell Trial Test. at 205).

627. Trial Ex. I-060 (Brunell Rep. at 5); *see also id.* at 4 (lodging the same critique at the fact that Dr. Cho's simulated maps produced three concentrated percentages of BVAPs, and concluding that "at least for this variable, there are really slight variations on three different districts").

628. Trial Ex. P088 (Cho Rebuttal Rep. at 14–15).

629. Trial Ex. I-060 (Brunell Rep. at 7).

further offered his normative view that responsiveness is not necessarily a positive feature of a map because "[m]assive volatility in the seat shares of the two parties is probably not conducive to good public policy." [630] As a basis for his conclusions on responsiveness, Dr. Brunell partly relied on "an old article by Edward Tufte, who was one of the first people to ... talk about these two metrics of swing ratio and bias" (which are related to responsiveness).[631] In fact, the article is from the early 1970s, and the data provided are for Great Britain, New Zealand, the United States generally, Michigan, New Jersey, and New York.[632] Importantly, much of the data *precede* the one-person, one-vote cases decided in the early-to-mid-1960s—an era in which districts were malapportioned. Tufte also used a linear fit of the data, not a seats-votes curve like Dr. Cho, which is a different model with different underlying assumptions.[633] Because Dr. Brunell's critique is based in on an inapt comparison, we give it little to no weight.

Lastly, Dr. Brunell misunderstands the point of Dr. Cho's individual Plaintiff-specific analyses. He takes issue with the fact that, because some Plaintiffs end up in the same district under Dr. Cho's simulated maps, "we cannot know what the partisanship of all 16 of the districts looks like" in the simulated maps.[634] As Dr. Cho responds, this specific analysis "was never intended for this purpose, and [she] never suggested that the plaintiff data could be or should be used in this way." [635] We agree. Dr. Cho's Plaintiff-specific analysis provides a comparison between *each Plaintiff's* current district and *each Plaintiff's* set of simulated districts, and this analysis is thus some evidence of whether Plaintiffs currently live in a packed or cracked district. The Plaintiff-specific analysis is just that, Plaintiff-specific; it does not compare the current map as a whole to the set of simulated maps as a whole. Dr. Cho has made such a comparison in a separate analysis.

b. Rebuttal to Dr. Warshaw

Dr. Brunell's critique of Dr. Warshaw's metrics focuses only on the efficiency gap. First, Dr. Brunell points out supposed issues with using actual congressional elections to calculate the efficiency gap, including uncontested elections and the variability of candidates.[636] Dr. Warshaw acknowledges some drawbacks in his report, but he also explains that "[i]n practice, ... both legislative races and other statewide races produce similar efficiency gap results for modern elections where voters are well sorted by party and ideology." [637] We do not find unreasonable Dr. Warshaw's use of actual congressional election results to calculate the efficiency gap in congressional elections.[638] Second, Dr. Brunell quibbles with the efficiency gap's definition of wasted votes,

630. *Id.*

631. Dkt. 246 (Brunell Trial Test. at 218).

632. Trial Ex. I-060 (Brunell Rep. at 9, tbl. 1).

633. Trial Ex. P088 (Cho Rebuttal Rep. at 15).

634. *Id.* at 9; *see also id.* at 9–11.

635. Trial Ex. P088 (Cho Rebuttal Rep. at 5).

636. Trial Ex. I-060 (Brunell Rep. at 12–13).

637. Trial Ex. P571 (Warshaw Rep. at 6–7 n.5).

638. Indeed, as Dr. Warshaw testified at trial, although he used congressional election results, other election results would "yield very similar answers ... [b]ecause the voters are cleanly sorted into parties and they typically vote the same way for different offices, the correlation between congressional election results and presidential election results is about .9." Dkt. 241 (Warshaw Trial Test. at 34).

stating that "[i]t is not clear why *all votes* for the winning candidate greater than the total number of votes for the losing candidate are not classified as wasted." [639] Dr. Warshaw, however, explains in his rebuttal the logic behind the definition of wasted votes, a term of art in the context of the efficiency gap—only "50%+1 of the total votes, rather than 1 more vote than the losing candidate's current vote tally, are needed to win a counter-factual election" and therefore the efficiency gaps considers wasted votes for the winning candidate beyond that 50%+1.[640] Dr. Brunell's critique does not thread the needle, telling us why the generally-accepted definition of wasted votes from the efficiency gap literature poses a problem for measuring the extent of a partisan gerrymander. Accordingly, it does not impact our view of the helpfulness of the efficiency gap as a tool. Third, according to Dr. Brunell, "[i]t is hard to say how much of a gap is too much. Is five too much, or seven, or ten?" [641] Furthermore, he criticizes the metric's variability across elections.[642] While these criticisms have some merit, they do not overcome Dr. Warshaw's use of other metrics and how Dr. Warshaw holistically determines whether a map is a gerrymander (e.g., a map must also be an outlier). *See supra* Section II.C.1. Accordingly, we find that Dr. Brunell does not undermine Dr. Warshaw's conclusions or the usefulness of the efficiency gap.

c. Rebuttal to Dr. Niven

The thrust of Dr. Brunell's response to Dr. Niven is that "when electoral boundaries are being drawn some cities, counties, communities, neighborhoods have to be divided" and "[t]he boundaries have to go somewhere . . . ." [643] Although that may be true as a general proposition, it does not respond to Dr. Niven's findings that the divisions imposed by the current map are more likely to be imposed on Democratic voters than Republican voters. *See supra* Section II.C.3. Dr. Brunell also comments on some conceptions of communities of interest used by Dr. Niven, noting that "[t]here is no clear definition of what constitutes a community of interest, but cities and counties are generally characterized as such[.]" [644]

d. Rebuttal to Dr. Handley

Dr. Brunell's rebuttal to Dr. Handley does not contain any criticisms. His report simply states: "It is interesting to note that Dr. Handley recommended a majority African American district of over 61 percent BVAP in a recent lawsuit in Euclid, Ohio, which is in Cuyahoga County . . . ." [645] We find this statement entirely unhelpful. That case addressed a non-partisan election and required a different jurisdiction-specific analysis, and Dr. Brunell agreed that to do a proper assessment of racially polarized voting in this case would require looking at partisan election outcomes.[646] He also admitted that "[i]n the current District 11, [he] think[s] that Dr. Handley's advice of 45 percent [BVAP] is correct . . . . That's not for Cuyahoga County. That's for Congressional District

639. Trial Ex. I-060 (Brunell Rep. at 14).

640. Trial Ex. P572 (Warshaw Rebuttal Rep. at 5).

641. Trial Ex. I-060 (Brunell Rep. at 14).

642. *Id.*

643. *Id.* at 16–17.

644. *Id.* at 16.

645. *Id.* at 18.

646. Dkt. 247 (Brunell Trial Test. at 94).

11." [647]

e. Rebuttal to Mr. Cooper

Likewise, Dr. Brunell's rebuttal to Mr. Cooper does not contain any helpful critiques. He simply concludes that "[i]t isn't clear why the policy decisions of Mr. Cooper are better for the citizens of Ohio than the combined policy preferences of the state legislature." [648] He also states that "[i]t is worth noting" that the Proposed Remedial Plan pairs more incumbents.[649] The whole question in this case is not whether, in a vacuum, Mr. Cooper's maps are "better" than the 2012 map but whether the current map enacted by the State in H.B. 369 is constitutional. If not, the Proposed Remedial Plan is offered as a possible remedy to replace an unconstitutional partisan gerrymander. We therefore reject Dr. Brunell's critiques of Mr. Cooper.

III. STANDING

Before turning to the merits of this case, we must address two threshold issues. First, we address Plaintiffs' standing to bring these claims. That is, are these the right Plaintiffs to bring these claims? Second, in the next Part, we will turn to the justiciability of partisan-gerrymandering claims. That is, are courts, rather than another branch of government, the proper forum to hear these claims?

[6, 7] To establish standing, Plaintiffs must show: (1) "an injury in fact"; (2) "a causal connection between the injury and the conduct complained of"; and (3) that it is "likely ... that the injury will be redressed by a favorable decision." *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61, 112 S.Ct. 2130, 119 L.Ed.2d 351 (1992) (internal quotation marks omitted). At least one "plaintiff must demonstrate standing for each claim ... press[ed] and for each form of relief that is sought." *Davis v. Fed. Election Comm'n*, 554 U.S. 724, 734, 128 S.Ct. 2759, 171 L.Ed.2d 737 (2008); *see also Town of Chester v. Laroe Estates, Inc.*, —— U.S. ——, 137 S.Ct. 1645, 1651, 198 L.Ed.2d 64 (2017). These requirements ensure that plaintiffs who invoke a federal court's jurisdiction have "a personal stake in the outcome of the controversy," *Baker v. Carr*, 369 U.S. 186, 204, 82 S.Ct. 691, 7 L.Ed.2d 663 (1962), and that the federal court does not become "a forum for generalized grievances ...." *Lance v. Coffman*, 549 U.S. 437, 439, 127 S.Ct. 1194, 167 L.Ed.2d 29 (2007).

For the reasons that follow, we conclude that each individual Plaintiff and each organizational Plaintiff has standing to bring their district-specific vote-dilution claims. We further conclude that the individual Plaintiffs and organizational Plaintiffs have standing to bring their statewide First Amendment associational claim. Because Plaintiffs have standing for their claims that H.B. 369 violates the First and Fourteenth Amendments, they also have standing to pursue their claim that H.B. 369 exceeds the State's powers under Article I. Before turning to these standing analyses, we emphasize that just because Plaintiffs have suffered an "injury in fact" for standing purposes does not mean that they necessarily succeed on the merits; in other words, showing "a personal stake in the outcome of the controversy," *Baker*, 369 U.S. at 204, 82 S.Ct. 691, does not guarantee an outcome in one's favor. Plaintiffs support with admissible evidence their contentions that they have suffed an injury in fact; for standing purposes, that is enough. We address fully whether the evi-

647. *Id.* at 95.

648. Trial Ex. I-060 (Brunell Rep. at 19).

649. *Id.*

dence is sufficient to prove Plaintiffs' claims in our discussion of the merits.

A. Vote-Dilution Claims

[8] To establish standing for their vote-dilution claims, the individual Plaintiffs must each establish that they live in an allegedly gerrymandered district just as in the racial-gerrymandering context. *See Gill v. Whitford*, —— U.S. ——, 138 S.Ct. 1916, 1930, 201 L.Ed.2d 313 (2018) ("A plaintiff who complains of gerrymandering, but who does not live in a gerrymandered district, 'assert[s] only a generalized grievance against governmental conduct of which he or she does not approve.' " (quoting *United States v. Hays*, 515 U.S. 737, 745, 115 S.Ct. 2431, 132 L.Ed.2d 635 (1995))). In pursuing these claims, we recognize that, as in other redistricting cases, "[v]oters, of course, can present statewide *evidence* in order to prove . . . gerrymandering in a particular district." *Ala. Legislative Black Caucus v. Alabama*, —— U.S. ——, 135 S.Ct. 1257, 1265, 191 L.Ed.2d 314 (2015). Each individual Plaintiff and district will be addressed in turn.

1. District 1: Linda Goldenhar

[9] Linda Goldenhar has lived at her current address and voted in District 1 for seventeen years.[650] Goldenhar has voted in every congressional and presidential election in Ohio since 1992, and in each of these elections, she has voted for a Democratic candidate.[651] Representative Chabot, a Republican, has represented District 1 since winning election in 1994, except in 2008 when Representative Chabot lost to Steve Driehaus; after that, Representative Chabot defeated Representative Driehaus in 2010. Goldenhar thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Goldenhar's contention that District 1 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 95.6% of them would have placed Plaintiff Goldenhar in a district that would have provided a higher likelihood of electing a Democrat." [652] Therefore, Goldenhar's district is more Republican than the vast majority of the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is cracked. Under the Proposed Remedial Plan, Goldenhar would remain in District 1. The Proposed Remedial Plan's District 1 is more competitive than the current District 1, and in 2018, a Democratic candidate would have won District 1 with 57.2% of the vote.[653]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Goldenhar has standing for her vote-dilution claim.

2. District 2: Douglas Burks

Douglas Burks has lived at his current address and voted in District 2 since the enactment of the 2012 plan.[654] Burks has voted in every election since the enactment

650. Dkt. 230-15 (Goldenhar Dep. at 7).

651. *Id.* at 11–13.

652. Trial Ex. P087 (Cho Rep. at 13).

653. *See* Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2). Figure 2 shows two competitive elections under the Proposed Remedial Plan, both of which would be won by the Republican candidate; one election in which a Democratic candidate would receive 44.3% of the vote; and one election won by the Democratic candidate with 57.2% of the vote. The 2012 plan, by contrast, has one competitive election, in which the Democratic candidate received 47.8% of the vote; the next closest election was in 2016, in which the Democratic candidate received 40.7%.

654. Dkt. 239 (Burks Trial Test. at 225).

of the 2012 plan, and he has identified as a Democrat since 1980.[655] Representative Wenstrup, a Republican, has represented District 2 since 2012. Burks thus lives in a district that allegedly cracks Democratic voters, and he is a Democratic voter.

Admissible evidence supports Burks's contention that District 2 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 99.87% of them would have placed Plaintiff Burks in a district that would have provided a higher likelihood of electing a Democrat." [656] Therefore, Burks's district is more Republican than the vast majority of the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is cracked. Under the Proposed Remedial Plan, Burks would be placed in District 1 (with Goldenhar, *see supra*), which is considerably more competitive than the current District 2.[657]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Burks has standing for his vote-dilution claim.

3. District 3: Sarah Inskeep

[10] Sarah Inskeep has lived at her current address and voted in District 3 since 2016.[658] Prior to that, Inskeep lived in Cincinnati, where she grew up and attended college.[659] Inskeep is a Democratic voter.[660] Representative Joyce Beatty, a Democratic Congresswoman, has represented District 3 since 2012. Inskeep thus lives in a district that allegedly packs Democratic voters, and she is a Democratic voter.

Admissible evidence supports Inskeep's contention that District 3 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, none of them would have placed Plaintiff Inskeep in a district that would have provided a higher likelihood of electing a Democrat." [661] Therefore, Inskeep's district is more Democratic than all the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed. Under the Proposed Remedial Plan, Inskeep would remain in District 3. The Proposed Remedial Plan's District 3, though still safely Democratic, produces a Democratic vote share ranging from 58.2% in 2014 to 68.3% in 2018, compared to the 63.6% (2014) to 73.6% (2018) under the current map.[662]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Inskeep has standing for her vote-dilution claim.

4. District 4: Cynthia Libster

Cynthia Libster has lived at her current address and voted in District 4 for almost thirty years.[663] Libster is a lifelong Democratic voter.[664] Representative Jordan, a Republican, has represented District 4 since winning election in 2006. Libster thus lives in a district that allegedly cracks

655. *See id.*

656. Trial Ex. P087 (Cho Rep. at 14).

657. *See* Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2).

658. *See* Dkt. 230-21 (Inskeep Dep. at 6–7, 28–29).

659. *Id.* at 7–8.

660. *Id.* at 53–54.

661. Trial Ex. P087 (Cho Rep. at 15).

662. Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2). Figure 2 shows that, under the current plan, the Democratic vote share exceeds 70% in 2012 and 2018. Under the Proposed Remedial Plan, these percentages are 66.9% for 2012 and 68.3% for 2018.

663. *See* Dkt. 230-30 (Libster Dep. at 9–10).

664. *Id.* at 54–55.

Democratic voters, and she is a Democratic voter.

Admissible evidence supports Libster's contention that District 4 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 98.25% of them would have placed Plaintiff Libster in a district that would have provided a higher likelihood of electing a Democrat." [665] Therefore, Libster's district is more Republican than the vast majority of alternate, simulated, non-partisan districts that she could live in, which indicates that her district is cracked.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Libster has standing for her vote-dilution claim.

5. District 5: Kathryn Deitsch

Kathryn Deitsch has lived in District 5 since 2013.[666] Deitsch has affiliated with the Democratic Party since she "was first able to vote." [667] Representative Latta, a Republican, has represented District 5 since before the enactment of the current plan. Deitsch thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Deitsch's contention that District 5 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 95.45% of them would have placed Plaintiff Deitsch in a district that would have provided a higher likelihood of electing a Democrat." [668] Therefore, Deitsch's district is more Republican than the vast majority of alternate, simulated, non-partisan districts that she could live in, which indicates that her district is cracked.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Deitsch has standing for her vote-dilution claim.

6. District 6: LuAnn Boothe

LuAnn Boothe has lived at her current address for thirty-four years and voted in District 6 throughout the entirety of the current plan.[669] Boothe has always been a Democratic voter.[670] Representative Johnson, a Republican, has represented District 6 since 2011, after defeating then-incumbent Representative Wilson (a Democratic Congressman) in 2010. Boothe thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Boothe's contention that District 6 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Boothe in a district that would have provided a higher likelihood of electing a Democrat." [671] Therefore, Boothe's district is more Republican than all the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is cracked.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Boothe has standing for her vote-dilution claim.

7. District 7: Mark Griffiths

Mark Griffiths has lived at his current address for almost sixteen years and has

665. Trial Ex. P087 (Cho Rep. at 16).

666. *See* Dkt. 230-11 (Deitsch Dep. at 14).

667. *Id.* at 19.

668. Trial Ex. P087 (Cho Rep. at 17).

669. Dkt. 230-6 (Boothe Dep. at 7–8).

670. *Id.* at 21. Boothe voted for a Republican once, but she "learned her lesson" and doesn't "think [she] would ever do it again. It would have to be an extreme circumstance . . . ." *Id.* at 49, 90.

671. Trial Ex. P087 (Cho Rep. at 18).

voted in District 7 since the enactment of the 2012 plan.[672] Griffiths is a registered Democrat and has always voted for the Democratic candidate for Congress.[673] Representative Gibbs, a Republican, began representing District 7 when the current plan was enacted.[674] Griffiths was previously represented by then-Congresswoman Betty Sutton and, prior to that, then-Congressman Sherrod Brown, both Democrats. Griffiths thus lives in a district that allegedly cracks Democratic voters, and he is a Democratic voter.

Admissible evidence supports Griffiths's contention that District 7 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Griffiths in a district that would have provided a higher likelihood of electing a Democrat." [675] Therefore, Griffiths's district is more Republican than all the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is cracked. Under the Proposed Remedial Plan, Griffiths would be placed in District 9, a competitive district that would have elected a Democratic candidate in 2012 and 2018 and a Republican candidate in 2014 and 2016.[676]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Griffiths has standing for his vote-dilution claim.

672. Dkt. 240 (Griffiths Trial Test. at 40).

673. *Id.* at 40–42. Griffiths voted Republican once, in the 2016 Senate race. *Id.* at 41–42.

674. *Id.* at 40. The Court takes judicial notice of the fact that Representative Gibbs previously served in Congress for District 18, which was eliminated due to Ohio losing two seats in Congress after the 2010 census. FED. R. EVID. 201.

675. Trial Ex. P087 (Cho Rep. at 19).

8. District 8: Lawrence Nadler

Lawrence Nadler has lived at his current address, located in District 8, for twenty-six years.[677] Nadler affiliates with the Democratic Party and votes for Democratic candidates.[678] Representative Davidson, a Republican, has represented District 8 since 2016 after then-Speaker of the U.S. House of Representatives John Boehner resigned his seat. Nadler thus lives in a district that allegedly cracks Democratic voters, and he is a Democratic voter.

Admissible evidence supports Nadler's contention that District 8 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Nadler in a district that would have provided a higher likelihood of electing a Democrat." [679] Therefore, Nadler's district is more Republican than all the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is cracked.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Nadler has standing for his vote-dilution claim.

9. District 9: Tristan Rader and Chitra Walker

First, Tristan Rader has lived at his address since October 2013 and, after moving to his current address, has voted in District 9 in every election.[680] Rader generally votes for Democratic candidates and

676. *See* Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2).

677. Dkt. 230-36 (Nadler Dep. at 6–7).

678. *Id.* at 8.

679. Trial Ex. P087 (Cho Rep. at 20).

680. Dkt. 230-40 (Rader Dep. at 8–9, 13)

he has been involved in several Democratic campaigns.[681] Representative Kaptur, a Democratic Congresswoman, has represented District 9 since the current plan was enacted and she was first elected to Congress in 1982. At the time of the 2012 plan's enactment, Representative Kaptur was Ohio's longest-serving member of Congress. Rader thus lives in a district that allegedly packs Democratic voters, and he is a Democratic voter.

Admissible evidence supports Rader's contention that District 9 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 13.55% of them would have placed Plaintiff Rader in a district that would have provided a higher likelihood of electing a Democrat." [682] Therefore, Rader's district is more Democratic than the vast majority of the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is packed. Under the Proposed Remedial Plan, Rader would be placed in the new District 9 (with Griffiths, *see supra*).

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Rader has standing for his vote-dilution claim.

Second, Chitra Walker also lives in District 9 and has lived at a few addresses throughout the district since 2008.[683] Walker is a Democratic voter.[684] Walker thus lives in a district that allegedly packs Democratic voters, and she is a Democratic voter.

Admissible evidence supports Walker's contention that District 9 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 15.91% of them would have placed Plaintiff Walker in a district that would have provided a higher likelihood of electing a Democrat." [685] Therefore, Walker's district is more Democratic than the vast majority of the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed. Under the Proposed Remedial Plan, Walker would also be placed in the new District 9 (with Rader and Griffiths, *see supra*).

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Walker has standing for her vote-dilution claim.

10. District 10: Ria Megnin

Ria Megnin has lived at her current address and voted in District 10 since 2012.[686] Megnin is affiliated with the Democratic Party and votes for Democratic candidates.[687] Representative Turner, a Republican, has represented District 10 since the enactment of the current plan and has served in Congress for sixteen years. Megnin thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Megnin's contention that District 10 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 99.75% of them would have placed Plaintiff Megnin in a district that would have provided a higher likelihood of electing a Democrat." [688] Therefore, Megnin's district is more Republican than almost all of the

681. *Id.* at 18; *see also, e.g., id.* at 29–30.

682. Trial Ex. P087 (Cho Rep. at 22).

683. Dkt. 230-50 (Walker Dep. at 8–9).

684. *Id.* at 11, 28.

685. Trial Ex. P087 (Cho Rep. at 21).

686. Dkt. 230-32 (Megnin Dep. at 9, 13).

687. *Id.* at 68, 71–72.

688. Trial Ex. P087 (Cho Rep. at 23).

alternate, simulated, non-partisan districts that she could live in, which indicates that her district is cracked.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Megnin has standing for her vote-dilution claim.

11. District 11: Andrew Harris

Andrew Harris has lived in what is now District 11 since 1997 and been voting since he turned eighteen years old in 2008.[689] Harris is a registered Democratic voter and always votes for Democratic candidates.[690] Representative Fudge, a Democratic Congresswoman, represents District 11 and has served in Congress since 2008. Harris thus lives in a district that allegedly packs Democratic voters, and he is a Democratic voter.

Admissible evidence supports Harris's contention that District 11 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, none of them would have placed Plaintiff Harris in a district that would have provided a higher likelihood of electing a Democrat." [691] Therefore, Harris's district is more Democratic than all of the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is packed.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Harris has standing for his vote-dilution claim.

12. District 12: Aaron Dagres

Aaron Dagres has lived at his current address and voted in District 12 for about eight years.[692] Dagres is a registered Democratic voter and has always voted for Democratic candidates, except in a 2012 presidential primary that was not contested on the Democratic side.[693] Representative Balderson, a Republican, first won election in a 2018 special election and then went on to win the general election; Representative Balderson replaced Representative Tiberi (also a Republican), an incumbent at the time of the current plan's enactment. Dagres thus lives in a district that allegedly cracks Democratic voters, and he is a Democratic voter.

Admissible evidence supports Dagres's contention that District 12 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Dagres in a district that would have provided a higher likelihood of electing a Democrat." [694] Therefore, Dagres's district is more Republican than all the alternate, simulated, non-partisan districts that he could live in, which indicates that his district is cracked. Under the Proposed Remedial Plan, Dagres would be placed in a new District 12, which mostly remains a safe-Republican district, but Democratic candidates would receive a higher vote share.[695] In 2018, the Democratic candidate would have won remedial District 12.[696]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Dagres has standing for his vote-dilution claim.

689. Dkt. 230-17 (Harris Dep. at 7–8, 10).

690. *Id.* at 10.

691. Trial Ex. P087 (Cho Rep. at 24).

692. Dkt. 240 (Dagres Trial Test. at 84–85).

693. *Id.* at 85.

694. Trial Ex. P087 (Cho Rep. at 25).

695. *See* Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2).

696. *See id.*

13. District 13: Elizabeth Myer

Elizabeth Myer has lived at her current address, located in the current District 13, for over twenty years.[697] Myer is a registered Democratic voter and votes for Democratic candidates.[698] Representative Ryan, a Democratic Congressman, has represented District 13 since the current plan's enactment and he was an incumbent at that time. Myer thus lives in a district that allegedly packs Democratic voters, and she is a Democratic voter.

Admissible evidence supports Myer's contention that District 13 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, none of them would have placed Plaintiff Myer in a district that would have provided a higher likelihood of electing a Democrat." [699] Therefore, Myer's district is more Democratic than all the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed. Under the Proposed Remedial Plan, Myer would be placed in a new District 13, a Democratic-leaning but fairly competitive district.[700] The remedial District 13 would have consistently elected a Democratic candidate from 2012 to 2018, but the Democratic vote share is lower, and the 2016 (54.2% Democratic vote share) and 2018 (51.4% Democratic vote share) would have been competitive.[701]

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Myer has standing for her vote-dilution claim.

697. Dkt. 240 (Myer Trial Test. at 112–13).

698. *Id.* at 115.

699. Trial Ex. P087 (Cho Rep. at 26).

700. *See* Trial Ex. P598 (Cooper Third Suppl. Decl. at 4, fig. 2).

701. *See id.* No elections in this district under the current plan were competitive.

14. District 14: Beth Hutton

Beth Hutton has lived at her current address, located in District 14, for over thirty years.[702] Hutton has voted in almost every single U.S. congressional race since 1972.[703] She always votes in the Democratic primaries and typically votes for Democratic candidates at the federal level, with the exception of voting for Representative Steve LaTourette (a Republican) the first time he ran.[704] Representative Joyce, a Republican, began representing District 14 in 2013 after Representative LaTourette retired. Hutton thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Hutton's contention that District 14 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Hutton in a district that would have provided a higher likelihood of electing a Democrat." [705] Therefore, Hutton's district is more Republican than all the alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed. Under the Proposed Remedial Plan, Hutton would be placed in District 13 (with Myer, *see supra*).

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Hutton has standing for her vote-dilution claim.

15. District 15: Theresa Thobaben

Teresa Thobaben has lived at her current address, located in District 15, for

702. Dkt. 230-20 (Hutton Dep. at 8–10).

703. *Id.* at 12.

704. *Id.* at 12–16.

705. Trial Ex. P087 (Cho Rep. at 27).

thirty-seven years.[706] Thobaben has voted in every congressional election that she can recall since her first election in 1972.[707] Thobaben has always considered herself a Democrat and consistently voted for Democratic candidates.[708] Representative Stivers, a Republican, has represented District 15 since 2010 after defeating then-incumbent Democratic Representative Mary Jo Kilroy (in the former District 15). Thobaben thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Thobaben's contention that District 15 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 79.28% of them would have placed Plaintiff Thobaben in a district that would have provided a higher likelihood of electing a Democrat."[709] Therefore, Thobaben's district is more Republican than the vast majority of alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Thobaben has standing for her vote-dilution claim.

16. District 16: Constance Rubin

Constance Rubin has lived at and voted in District 16 for the past eight years.[710] Rubin has been a Democratic voter since at least 1984, though she formerly voted Republican when she first registered to vote in 1973.[711] Now former-Representative Jim Renacci, a Republican, had represented District 16 since 2011 after beating then-Democratic incumbent Congressman John Boccieri in the 2010 election; in January 2019, Representative Anthony Gonzalez, a Republican, began serving as the Congressman for District 16.[712] Rubin thus lives in a district that allegedly cracks Democratic voters, and she is a Democratic voter.

Admissible evidence supports Rubin's contention that District 16 is gerrymandered. Dr. Cho's analysis shows that "[a]mong the set of simulated maps, 100% of them would have placed Plaintiff Rubin in a district that would have provided a higher likelihood of electing a Democrat."[713] Therefore, Rubin's district is more Republican than all alternate, simulated, non-partisan districts that she could live in, which indicates that her district is packed.

For these reasons, and for the reasons below that apply to all Plaintiffs, we find that Plaintiff Rubin has standing for her vote-dilution claim.

17. Statewide Evidence of Injury in Fact and Causation

[11] Statewide evidence bolsters each individual Plaintiff's contention that the current map was drawn with the predominant purpose of packing or cracking Democratic voters in each district and had that effect. As explained above, Dr. Warshaw employed four partisan-bias metrics to

706. Dkt. 220-48 (Thobaben Dep. at 8–9).

707. *Id.* at 9–11.

708. *Id.* at 11.

709. Trial Ex. P087 (Cho Rep. at 28).

710. Dkt. 230-42 (Rubin Dep. at 7–8).

711. *Id.* at 16, 23–24. Rubin says that it is "[h]ighly doubtful" that she would vote for a Republican again, *id.* at 24–25, and Rubin has been a member of the Stark County Democratic Party since 1984 and served on its Central Committee from 2004 to 2010, *id.* at 16.

712. The Court takes judicial notice of this fact. FED. R. EVID. 201.

713. Trial Ex. P087 (Cho Rep. at 29).

measure the partisan advantage of the current plan: the efficiency gap, the mean-median gap, two partisan symmetry metrics, and declination.[714] Based on his analysis of these measures, Dr. Warshaw concluded that "Democratic voters in Ohio are efficiently packed and cracked across districts.... As a result, Ohio's elections are unresponsive to normal shifts in voters' preferences within the historical range of congressional election results in Ohio." [715] Notably, these effects align with the map drawers' own statements that "it is a tall order to draw 13 'safe' seats," and their thoughts that "this map is the one [that] put the most number of seats in the safety zone given the political geography of [Ohio] ...." [716] That is, the map efficiently packs and cracks each and every district in an effort to favor Republican candidates to the fullest and most durable extent possible.

The individual Plaintiffs present other evidence of causation as well. Dr. Cho's analysis shows that although "a 12-4 seat share [the outcome of every election under the 2012 plan] is possible, ... it is unusual given a map creation process that does not consider partisanship." [717] In her initial report, Dr. Cho's maps were based on 2008 and 2010 election data, which showed that "*none* of [her simulated maps] had the same 12-4 seat share as in the challenged map." [718] In her supplemental report, in which Dr. Cho uses the 2018 election data, only 0.046% of the over 3-million simulated maps (i.e., 1,445 out of 3,037,645) produce the same 12-4 seat share.[719] Moreover, Mr. Cooper's Proposed Remedial Plan splits fewer counties and adheres to traditional redistricting principles ("one-person-one-vote, incumbent non-pairing where possible, compactness, contiguity, the non-dilution of minority voting strength, and respect for communities of interest").[720] Dr. Warshaw bolsters these findings by comparing the partisan-bias metrics from elections under the current plan to those under historical elections and concluding that the current plan's partisan bias is extreme.[721] The alternative maps (both the simulations and Mr. Cooper's maps) and Ohio's own historical maps thus provide baselines against which to measure the extremity of this map's partisan bias; collectively, this evidence establishes causation for standing purposes.

18. Redressability

[12] Plaintiffs request injunctive relief that prohibits the State from conducting future elections under the current map. They further request that a non-gerrymandered map be implemented in its place.

714. *See* Trial Ex. P571 (Warshaw Rep. at 5–13).

715. *Id.* at 4.

716. *See* Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438).

717. Trial Ex. P087 (Cho Rep. at 40).

718. *Id.* (emphasis added); *see also id.* at 33–37 (analyzing competitiveness and concluding that the simulated maps are more competitive than the current map, thus providing evidence that the current map packs and cracks voters).

719. Trial Ex. P426 (Cho Suppl. Rep. at 3).

720. *See* trial Ex. P090 (Cooper Decl. at 11, 14–18); *see also* Trial Ex. P092 (Cooper Suppl. Decl.) (providing hypothetical maps that pair the same number of incumbents and in the same configuration (a Republican pairing, a Democratic pairing, and a Democratic candidate versus a Republican candidate) as the 2012 plan but are similar in demographic and partisan measures to the Proposed Remedial Plan).

721. *See* Trial Ex. P571 (Warshaw Rep. at 21–27); Trial Ex. P476 (Warshaw 2018 Update at 6–8).

Clearly, the Court can enjoin future use of the 2012 map. Further, it is possible to enact a non-gerrymandered map for the upcoming election. The Proposed Remedial Plan offers just one possible example of such a non-gerrymandered map that could replace the current map.[722] Dr. Warshaw concludes that, using the same partisan-bias metrics that he used to analyze the current map, "the remedial plan ... displays very low levels of partisan bias and high levels of responsiveness. Thus, [Dr. Warshaw] believe[s] that the remedial plan would improve the representational link between voters and Ohio's members of Congress."[723] In other words, the Proposed Remedial Plan is one example of a map that unpacks and uncracks Plaintiffs, permitting their votes to carry more weight and thereby remedying the injury caused by the 2012 map. *See Gill*, 138 S.Ct. at 1931. Dr. Cho's simulations also show that, for each individual Plaintiff, many possible districts exist in which Plaintiffs' votes would carry more weight because the districts are neither packed nor cracked.[724] Thus, Plaintiffs' injuries are redressable.

19. Organizational Plaintiffs

[13] "An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Common Cause v. Rucho*, 318 F.Supp.3d 777, 827 (M.D.N.C. 2018) (citing *Friends of the Earth, Inc. v. Laidlaw Envt'l Servs. (TOC), Inc.*, 528 U.S. 167, 181, 120 S.Ct. 693, 145 L.Ed.2d 610 (2000)).

[14] As discussed in the summaries of their testimony, Plaintiffs APRI and the League are both non-partisan organizations. APRI and the League aim to encourage voter engagement and effective and educated voting. The League has also made significant efforts to study and curb partisan gerrymandering, for example commissioning a study on the creation of the 2012 map.[725] APRI has put forth evidence that it has Democratic-voting members who live at least in Districts 5 (Stephanie White) and 12 (Andre Washington). The discussion above in the individual-Plaintiff sections shows that there is evidence, sufficient for standing purposes, that both of those districts dilute Democratic voters' votes. *See supra* Sections II.A.2., III.A.5., III.A.12. Similarly, the League has put forth evidence that it has at least one Democratic-voting member who lives in District 14 (John Fitzpatrick). The discussion above in the individual-Plaintiff sections shows that there is evidence, sufficient for standing purposes, that District 14 dilutes Democratic voters' votes. *See, e.g., supra* Sections II.A.2., III.A.14.

Plaintiffs NEOYBD, HCYD, and OSU College Democrats are all partisan organizations composed of members who vote for Democratic candidates. All three organizations work to educate and mobilize voters to support Democratic candidates, among other things. NEOYBD's Democratic

722. *See* Trial Ex. P091 (Cooper Errata at 2, fig. 1).

723. Trial Ex. P571 (Warshaw Rep. at 43).

724. *See generally* Trial Ex. P087 (Cho Rep. at 13–29); *see also* Trial Ex. P426 (Cho Suppl. Rep. at 3–4) (showing that, using data from across election cycles, the simulated maps contain more competitive districts and that H.B. 369 is an outlier compared to the simulated maps in terms of how many seats Republicans win).

725. Dkt. 239 (Miller Trial Test. at 154–55, 156–57).

members live in Districts 9, 11, 13, and 14. HCYD's Democratic members live in Districts 1 and 2. OSU College Democrats' members live in Districts 3, 12, and 15. Evidence was presented at trial supporting the conclusion that each of these districts was intentionally gerrymandered for partisan gain. *See, e.g., supra* Sections III.A.1–3, III.A.9, III.A.11–15.

As previously discussed in the context of the individual Plaintiffs, evidence of causation and redressability pertaining to each of these districts was also introduced at trial.

We therefore conclude that APRI, at minimum, has associational standing to bring Fourteenth and First Amendment vote-dilution claims on behalf of its members to challenge Districts 5 and 12 as partisan gerrymanders. We conclude that the League, at minimum, has associational standing to bring Fourteenth and First Amendment vote-dilution claims on behalf of Fitzpatrick to challenge District 14 as a partisan gerrymander. *See Rucho*, 318 F.Supp.3d at 827 (finding that the League had standing to challenge North Carolina's District 9 because "League member Klenz live[d] in that district and testified to and provided evidence that her vote was diluted on the basis of invidious partisanship"); *see also League of Women Voters of Mich. v. Benson*, 373 F.Supp.3d 867, 933–34, 2019 WL 1856625, at *47 (E.D. Mich. Apr. 25, 2019) (concluding that the League had standing to challenge gerrymandered districts on behalf of its members based on similar evidence). Similarly, we conclude that the partisan organizational Plaintiffs have derivative standing to challenge the districts in which their members live. At minimum, we find that NEOYBD has standing to challenge Districts 9, 11, 13, and 14, that HCYD has standing to challenge Districts 1 and 2, and that OSU College Democrats has standing to challenge Districts 3, 12, and 15.

* * *

In sum, the individual Plaintiffs have presented enough evidence to show that they each have a personal stake in the case to satisfy standing requirements. There is some evidence that individual Plaintiffs actually live in packed or cracked districts and, consequently, they have suffered injuries in fact that are fairly traceable to the way in which the current map was drawn. Furthermore, the individual Plaintiffs have evidence of alternative maps, including the Proposed Remedial Plan and Dr. Cho's simulations, that show other possible districts exist in which the individual Plaintiffs' votes would not be diluted. The organizational Plaintiffs, for their part, represent members who, like the individual Plaintiffs, live in arguably packed and cracked districts. They have derivative standing to represent the interests of their members in a suit that is germane to their own interests and may rely on the same evidence of injury, causation, and redressability as do the individual Plaintiffs. Whether this evidence, along with Plaintiffs' other evidence, is enough to prove their claims on the merits will be addressed in Part V.

B. First Amendment Associational Claim

[15] For Plaintiffs' First Amendment associational claim, statewide standing principles apply. To establish standing on this claim, the individual Plaintiffs must point to evidence of their membership in and activities supporting the Democratic Party; to establish an injury in fact, Plaintiffs must demonstrate that the gerrymandered map weakened their Party's ability to carry out its core functions and purposes. Importantly, the "[p]artisan-asym-

metry metrics such as the efficiency gap measure . . . the effect that a gerrymander has on the fortunes of political parties." *Gill*, 138 S.Ct. at 1933. As such, "evidence of partisan asymmetry well fits a suit alleging associational injury" like this one. *Id.* at 1939 (Kagan, J., concurring). In *Gill*, the plaintiffs failed to establish standing under this theory because they "did not emphasize their membership in [the Democratic] [P]arty, or their activities supporting it." *Id.* Put another way, the concern for standing for this claim is whether the individual Plaintiffs are the sort of people who are politically engaged and actively work toward electing candidates of their party. If so, they have "a personal stake in the outcome of the controversy." *Baker*, 369 U.S. at 204, 82 S.Ct. 691.

As a threshold matter, the individual Plaintiffs fit this bill. *See supra* Section II.A.1. These Plaintiffs engage in a variety of get-out-the-vote, party-mobilization, fundraising, and other campaign and political activities. *See supra* Section II.A.1. There is also no serious dispute that nothing about the current map categorically prohibits Plaintiffs from engaging in these activities. *See Benson*, 373 F.Supp.3d at 953–54, 2019 WL 1856628, at *65 (reasoning that although the challenged map "does not categorically prevent Plaintiffs from engaging in political activity, . . . 'constitutional violations may arise from the deterrent, or 'chilling,' effect of governmental [efforts] that fall short of a direct prohibition against the exercise of First Amendment rights.' ") (citation omitted) (alteration in original). The issue, though, is whether these Plaintiffs are able "to associate for the advancement of [their] political beliefs . . . [and are able] to cast their votes effectively," *Williams v. Rhodes*, 393 U.S. 23, 30, 89 S.Ct. 5, 21 L.Ed.2d 24 (1968), or whether the redistricting plan "has the purpose and effect of burdening a group of voters' representational rights." *Vieth v. Jubelirer*, 541 U.S. 267, 314, 124 S.Ct. 1769, 158 L.Ed.2d 546 (2004) (Kennedy, J., concurring in the judgment); *see also Gill*, 138 S.Ct. at 1938 (Kagan, J., concurring); *Norman v. Reed*, 502 U.S. 279, 288, 112 S.Ct. 698, 116 L.Ed.2d 711 (1992) (noting the constitutional right derived from the First and Fourteenth Amendments to "advance[ ] the constitutional interest of like-minded voters to gather in pursuit of common political ends, thus enlarging the opportunities of all voters to express their own political preferences.") (collecting cases). So long as the 2012 map weakened their Party's ability to carry out its core functions and purposes, Plaintiffs have suffered an injury for their associational claim.

Here, Plaintiffs have presented evidence of partisan asymmetry to establish both an injury in fact and causation. Dr. Warshaw's analysis of the partisan-bias metrics concludes that "Ohio's congressional districts are unresponsive to changes in voters' preferences" and that this "pro-Republican advantage in congressional elections in Ohio causes Democratic voters to be effectively shut out of the political process in Congress." [726] Moreover, the partisan bias "has been durable between the 2012 and 2018 elections." [727] Actual election results also bear out an injury in fact. Despite Democrats winning between 39% and 47% of the statewide vote, Democratic candidates have won only 25% of Ohio's congressional elections under the current map; meanwhile, the Republican statewide vote share has fluctuated between 51% and 59%, but Republican candidates have won 75% of those elections. Part of Dr. Cho's analysis provides additional support, as she finds that "[i]n each of the simulation analyses [using data from the 2008-

726. Trial Ex. P571 (Warshaw Rep. at 43).

727. Trial Ex. P476 (Warshaw 2018 Update at 1).

2018 election cycles], 9 Republican seats is the common and expected outcome of a non-partisan map creation process." [728] Together, this evidence helps support, for standing purposes, the sort of long-lasting and substantial injury about which the First Amendment associational claim is concerned.

Lastly, as with their vote-dilution claims, the individual Plaintiffs satisfy redressability as well. *See supra* Section III.A.18. In particular, Mr. Cooper's comparison of election results between the current plan and the Proposed Remedial Plan shows better responsiveness and more competitive seats are possible with a different map.

[16] "An organization suffers an injury in fact when its mission is 'perceptibly impaired' by the challenged action, which it may show through a 'demonstrable injury to the organization's activities' and a 'consequent drain on the organization's resources.' " *League of Women Voters of Mich. v. Johnson*, 352 F.Supp.3d 777, 801 (E.D. Mich. 2018) (quoting *Havens Realty Corp. v. Coleman*, 455 U.S. 363, 379, 102 S.Ct. 1114, 71 L.Ed.2d 214 (1982)). Plaintiff organizations APRI and the League engage in voter education, registration, and get-out-the-vote efforts in furtherance of their beliefs in the importance of voters' participation in representational democracy. The League also puts on candidate forums, creates voter guides, answers voters' questions, and runs various other programs designed to encourage and facilitate informed and effective voting. APRI and the League presented evidence at trial supporting the conclusion that the 2012 map hinders their ability to advance their aims and "to associate for the advancement of political beliefs." *Williams*, 393 U.S. at 30, 89 S.Ct. 5. They offered evidence suggesting that the jagged lines of the 2012 map and its propensity to split communities of interest cause voter confusion, which saps their resources. Their members' testimony supported an inference that uncompetitive and unresponsive districts cause voter apathy in Ohio, making it more difficult for APRI and the League to register voters and get out the vote. Evidence was presented suggesting that noncompetitive districts may result in candidates declining to participate in candidate forums put on by the League. *See Rucho*, 318 F.Supp.3d at 831. Finally, Dr. Warshaw and Mr. Cooper's evidence, discussed above, applies uniformly here to support causation and redressability.

We conclude that APRI and the League have provided competent evidence to establish at least independent associational standing for their First Amendment associational claim based on the 2012 map's negative impact on their ability effectively to associate to advance their belief in active and informed voter participation in the democratic process. *See Benson*, 373 F.Supp.3d at 954–56, 2019 WL 1856625, at *66 (concluding, after reviewing similar evidence, and that the challenged plan "injured the League by engendering voter apathy that hampers the League's voter engagement, voter education, and get out the vote efforts; preventing the League from making progress on voting rights issues through legislative reforms; and making it difficult for the League to secure Republican candidates' participation in candidate forums and voter education guides.").

[17] With regard to the partisan organizational Plaintiffs, "[a]s Justice Kagan recognized in *Gill*, 'what is true for party members may be doubly true for party officials and triply true for the party itself

728. Trial Ex. P426 (Cho Suppl. Rep. at 3) ("In each of the simulation analyses [using data from the 2008-2018 election cycles], 9 Republican seats is the common and expected outcome of a non-partisan map creation process.").

(or for related organizations).' " *Rucho*, 318 F.Supp.3d at 830 (quoting *Gill*, 138 S.Ct. at 1938 (Kagan, J., concurring)). Plaintiffs NEOYBD, HCYD, and OSU College Democrats presented evidence at trial showing that their organizational abilities are hindered by the 2012 map. They have had difficulty recruiting and retaining members due to the lack of competitive races and have had to dedicate limited resources to combatting voter apathy and confusion, which one could infer are worsened by uncompetitive and unresponsive districts. They have had difficulty fundraising, mobilizing voters, recruiting candidates, and winning elections. Dr. Warshaw's testimony, discussed above, demonstrates that the current map is highly uncompetitive and unresponsive. Mr. Cooper's testimony demonstrates that a non-gerrymandered map would result in more competitive elections, in which the Democratic organizations would be more able to mobilize and compete. We conclude that the partisan organizational Plaintiffs have standing to pursue their First Amendment associational claim.

C. Article I Claim

[18] As we explained previously, a state necessarily exceeds its powers under Article I if it runs afoul of the First and Fourteenth Amendments. Plaintiffs have standing to pursue their First Amendment and Fourteenth Amendment claims. That is enough to establish that Plaintiffs have standing for their claim that the State has exceeded its powers under Article I.

IV. JUSTICIABILITY, THE POLITICAL QUESTION DOCTRINE, AND THE ROLE OF THE FEDERAL COURTS IN REDISTRICTING

A. Justiciability and The Political Question Doctrine

[19] The Supreme Court has recognized that partisan gerrymandering is incompatible with democratic principles. *Ariz. State Legislature v. Ariz. Indep. Redistricting Comm'n*, —— U.S. ——, 135 S.Ct. 2652, 2658, 192 L.Ed.2d 704 (2015); *Vieth*, 541 U.S. at 292, 124 S.Ct. 1769 (plurality); *id.* at 316, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment); *see also id.* at 331, 124 S.Ct. 1769 (Stevens, J., dissenting) ("The problem, simply put, is that the will of the cartographers rather than the will of the people will govern."); *id.* at 345–46, 124 S.Ct. 1769 (Souter, J., dissenting) ("[T]he increasing efficiency of partisan redistricting has damaged the democratic process to a degree that our predecessors only began to imagine.") (collecting sources); *id.* at 355, 124 S.Ct. 1769 (Breyer, J., dissenting) ("Sometimes purely political 'gerrymandering' will fail to advance any plausible democratic objective while simultaneously threatening serious democratic harm."). As the Supreme Court has stated, "the core principle of republican government [is] that the voters should choose their representatives, not the other way around." *Ariz. State Legislature*, 135 S.Ct. at 2677 (quoting Mitchell Berman, *Managing Gerrymandering*, 83 TEX. L. REV. 781 (2005)); *see also Powell v. McCormack*, 395 U.S. 486, 547, 89 S.Ct. 1944, 23 L.Ed.2d 491 (1969) ("A fundamental principle of our representative democracy is, in Hamilton's words, 'that the people should choose whom they please to govern them.' ") (citation omitted). Partisan gerrymandering goes against these foundational principles. But do courts have a role in adjudicating challenges to alleged partisan gerrymanders—that is, are such challenges justiciable?

The Supreme Court has held that partisan gerrymandering claims are justiciable. *Davis v. Bandemer*, 478 U.S. 109, 125, 106 S.Ct. 2797, 92 L.Ed.2d 85 (1986). In *Bandemer*, the Supreme Court considered an

allegation that "Indiana Republicans had gerrymandered Indiana's legislative districts 'to favor Republican incumbents and candidates and to disadvantage Democratic voters' through what the plaintiffs called the 'stacking' (packing) and 'splitting' (cracking) of Democrats." *See Gill*, 138 S.Ct. at 1927. Drawing on racial gerrymandering doctrine as well as one-person, one-vote equal-protection cases, the *Bandemer* majority held that the partisan-gerrymandering case before it did *not* present a nonjusticiable political question. *Bandemer*, 478 U.S. at 122–25, 106 S.Ct. 2797. The Supreme Court, importantly, has not overturned *Bandemer*'s central holding. *See Gill*, 138 S.Ct. at 1927–29 (reviewing post-*Bandemer* cases).

In *Bandemer*, however, the Supreme Court did not "settle on a standard for what constitutes an unconstitutional partisan gerrymander." *See Gill*, 138 S.Ct. at 1927. Indeed, a majority of the Supreme Court has not yet settled on an appropriate standard for these claims, though various plaintiffs and amici have pressed for several theories at the Court in the years since *Bandemer*. *See id.* at 1926–29 (discussing partisan-gerrymandering precedent); *see also* Samuel Issacharoff & Pamela Karlan, *Where to Draw the Line?: Judicial Review of Political Gerrymanders*, 153 U. PA. L. REV. 541, 541–43 (2004). While *Bandemer* is partisan gerrymandering's *Baker v. Carr*, 369 U.S. at 209, 82 S.Ct. 691 (holding that malapportionment claims are justiciable), such claims do not yet have their *Reynolds v. Sims*, 377 U.S. 533, 568, 84 S.Ct. 1362, 12 L.Ed.2d 506 (1964) (articulating what is now known as the one-person, one-vote principle for state legislative apportionment); *see also Wesberry v. Sanders*, 376 U.S. 1, 7–8, 84 S.Ct. 526, 11 L.Ed.2d 481 (1964) (same for congressional apportionment).

In *Baker v. Carr*, the Supreme Court laid out six factors for determining whether an issue is a nonjusticiable a political question. *See Baker*, 369 U.S. at 217, 82 S.Ct. 691. The Supreme Court explained that:

> Prominent on the surface of any case held to involve a political question is found a textually demonstrable constitutional commitment of the issue to a coordinate political department; or a lack of judicially discoverable and manageable standards for resolving it; or the impossibility of deciding without an initial policy determination of a kind clearly for nonjudicial discretion; or the impossibility of a court's undertaking independent resolution without expressing lack of the respect due coordinate branches of government; or an unusual need for unquestioning adherence to a political decision already made; or the potentiality of embarrassment from multifarious pronouncements by various departments on one question.

Id. Baker v. Carr thus saw the political question doctrine as primarily concerned with the separation of powers. *Id.* at 210, 82 S.Ct. 691. The first two factors are the most important: (1) a textual commitment of an issue to one of the political branches and (2) an absence of judicially manageable standards. *See Vieth*, 541 U.S. at 277–78, 124 S.Ct. 1769 (plurality). If an issue qualifies as a political question, the issue is nonjusticiable, and, consequently, the federal courts have no role in adjudicating it.

Defendants make arguments on each factor. *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 44–52). All the arguments go to essentially three points: (1) The states have authority over elections and redistricting, and courts should not second guess the states' political judgment; (2) To the extent problems exist, plaintiffs should seek a remedy from Congress (or the

states); and (3) Judicially manageable standards are lacking. As a threshold matter, we observe that federalism concerns and respect for state sovereignty are conspicuously absent from *Baker v. Carr*'s list of justiciability considerations and, again, the political question doctrine is centered on separation of powers between the judiciary and the federal political branches, Congress and the President. *See Baker*, 369 U.S. at 210, 82 S.Ct. 691. But throughout this opinion, we respond to all these points, and we further conclude that workable standards, which contain limiting principles, exist so that courts can adjudicate these types of gerrymandering claims just as they have adjudicated other types of gerrymandering claims.

Turning to *Baker v. Carr*'s first factor—a textual commitment of an issue to a political branch—we find this factor does not weigh against justiciability. Though the *Vieth* plurality did not rely on this factor in discussing whether partisan-gerrymandering claims are justiciable, *see Vieth*, 541 U.S. at 277–81, 124 S.Ct. 1769 (plurality), the plurality still noted that "[i]t is significant that the Framers provided a remedy for [gerrymandering] in the Constitution." *See Vieth*, 541 U.S. at 275, 124 S.Ct. 1769 (plurality). Article I, § 4 of the United States Constitution provides: "The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations ...." One could argue, as Justice Frankfurter once did, that this language means "that the Constitution has conferred upon Congress exclusive authority to secure fair representation" and protect the right to vote against gerrymandering. *See Colegrove v. Green*, 328 U.S. 549, 554, 66 S.Ct. 1198, 90 L.Ed. 1432 (1946) (plurality). Defendants echo this argument. *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 45) ("[T]o seize supervisory authority over elections is to seize congressional power, an invasion of authority allocated to 'a coordinate political department.' ").

Simply put, the Supreme Court explicitly rejected that argument in *Wesberry*, 376 U.S. at 6–7, 84 S.Ct. 526. "The right to vote is too important in our free society to be stripped of judicial protection by such an interpretation of Article I." *Id.* at 7, 84 S.Ct. 526. That statement applies with equal force in the partisan-gerrymandering context, in which the core concern is that those in power are manipulating district lines in order to choose their voters and thereby render election results a foregone conclusion. Indeed, the Supreme Court's "willingness to enter the political thicket of the apportionment process with respect to one-person, one-vote claims makes it particularly difficult to justify a categorical refusal to entertain claims against this other type of gerrymandering." *See Vieth*, 541 U.S. at 310, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment). The Supreme Court "made it clear in *Baker* that nothing in the language of [Article I] gives support to a construction that would immunize state congressional apportionment laws ... from the power of courts to protect the constitutional rights of individuals from legislative destruction ...." *Wesberry*, 376 U.S. at 6, 84 S.Ct. 526. In other election-law contexts, the Supreme Court has held that "[t]he power to regulate the time, place, and manner of elections does not justify, without more, the abridgment of fundamental rights, such as the right to vote, or ... the freedom of political association." *Tashjian v. Republican Party of Conn.*, 479 U.S. 208, 217, 107 S.Ct. 544, 93 L.Ed.2d 514 (1986) (citing *Wesberry*, 376 U.S. at 6–7, 84 S.Ct. 526); *see also U.S. Term Limits, Inc. v. Thornton*, 514 U.S. 779, 833–34, 115 S.Ct. 1842, 131 L.Ed.2d 881 (1995). Here, the

allegation is similarly that a state redistricting law targets a disfavored party's and its voters' rights to vote and to associate. In short, the argument that the Constitution designates Congress as the sole branch to fix gerrymandering, and that the states have the principal responsibility over election laws, was also present in other cases, and similar concerns that led the Supreme Court to reject the argument are present here. To accept fully Defendants' arguments against justiciability and their interpretation of Article I would erase decades of constitutional law. We decline to do so.

Moreover, as explained, evidence in this case shows that congressional staffers and the political arm of the Republican Party in Congress had a hand in drawing the challenged map. *See supra* Section I.A.3. In other words, not only is Congress unlikely to fix partisan gerrymandering, but evidence shows that Members of Congress, and their colleagues on congressional campaign committees, are part of the problem. *See supra* Section I.A.3.; *see also* SAMUEL ISSACHAROFF ET AL., THE LAW OF DEMOCRACY: LEGAL STRUCTURE OF THE POLITICAL PROCESS 682 (5th ed. 2016) (noting that "in the 2000 redistricting, several courts ... found that national party leaders in the United States House of Representatives played a central role in the redistricting process.... If Congress was originally envisioned as a detached, neutral umpire that might stand above partisan conflicts in the states, Congress is now a self-interested player in the partisan struggles over districting."). Accordingly, both parties in Congress benefit from partisan gerrymandering and appear to participate in the practice of partisan gerrymandering. *Cf.* ISSACHAROFF ET AL., THE LAW OF DEMOCRACY, *supra* at 682 ("[T]he fates of national political parties and state parties have, over time, become closely bound together .... Indeed ... some states were prompted to engage in re-redistricting in the middle of the [2000] decade, precisely because national party leaders in the United States House pressed for this."); Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 43) (stating that the map-drawing "process was also aided significantly by John Boehner, then-Speaker of the U.S. House"). The courts are the logical branch to turn to in the face of such legislative self-dealing, and in this case, judicially manageable standards also exist to adjudicate the issue presented.[729]

As the four-justice plurality in *Vieth* saw it, the political question doctrine's second factor (an absence of judicially manageable standards) was at issue for partisan gerrymandering. *See Vieth*, 541 U.S. at 278, 124 S.Ct. 1769 (plurality). The plurality found it problematic that in the years after *Bandemer*, lower courts did not shape a partisan-gerrymandering standard and, with one unique exception, did not provide relief for such claims. *Id.* at 279–80 & 280 n.6, 124 S.Ct. 1769. Ultimately, the plurality stated that "[l]acking [judicially discernible and manageable standards], we must conclude that political gerrymandering claims are nonjusticiable ...." *Id.* at 281, 124 S.Ct. 1769. This view did not command a majority of the Supreme Court at the time, and in the intervening years since *Vieth*, lower courts have shaped standards and found that plaintiffs have satisfied those standards.

729. Of course, a legislature's failure to act is insufficient alone to warrant the Court's intervention. *See Gill*, 138 S.Ct. at 1929 ("'Failure of political will does not justify unconstitutional remedies.' Our power as judges to 'say what the law is,' rests not on the default of politically accountable officers, but is instead grounded in and limited by the necessity of resolving, according to legal principles, a plaintiff's particular claim of legal right.'") (citations omitted).

As another district court recently observed, "a majority of the Supreme Court *never* has found that a claim raised a nonjusticiable political question solely due to the alleged absence of a judicially manageable standard for adjudicating the claim." *See Rucho*, 318 F.Supp.3d at 842 n.19. Indeed, in *Nixon v. United States*, the Supreme Court stated that its reasoning:

> makes clear[ ] [that] the concept of a textual commitment to a coordinate political department is not completely separate from the concept of a lack of judicially discoverable and manageable standards for resolving it; the lack of judicially manageable standards may strengthen the conclusion that there is a textually demonstrable commitment to a coordinate branch.

Nixon v. United States, 506 U.S. 224, 228–29, 113 S.Ct. 732, 122 L.Ed.2d 1 (1993); *see also id.* at 238, 113 S.Ct. 732 (holding that challenges to procedures used in Senate impeachment proceedings are nonjusticiable); *Gilligan v. Morgan*, 413 U.S. 1, 10, 93 S.Ct. 2440, 37 L.Ed.2d 407 (1973) ("The ultimate responsibility for these decisions [about the composition, training, equipping, and control of a military force] is appropriately vested in branches of the government which are periodically subject to electoral accountability."); *Pac. States Telephone & Telegraph Co. v. Oregon*, 223 U.S. 118, 141–43, 32 S.Ct. 224, 56 L.Ed. 377 (1912) (claims arising under the Guaranty Clause of Article IV, § 4 are nonjusticiable and issues arising under that Clause are committed to Congress). *Vieth*, therefore, would have been an unprecedented step if the Court had held partisan-gerrymandering claims nonjusticiable solely due to an alleged lack of a manageable standard.

There are good reasons why the Supreme Court has not taken such an unprecedented step. As Justice Kennedy explained, "[r]elying on the distinction between a claim having or not having a workable standard of that sort involves ... proof of a categorical negative.... This is a difficult proposition to establish, for proving a negative is a challenge in any context." *Vieth*, 541 U.S. at 311, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment). Justice Kennedy thus concluded that just because no judicially manageable standard "has emerged in this case should not be taken to prove that none will emerge in the future." *Id.* He then gave one illustrative example of an easy case: "If a State passed an enactment that declared 'All future apportionment shall be drawn so as most to burden Party X's rights to fair and effective representation, though still in accord with one-person, one-vote principles,' we would surely conclude the Constitution had been violated." *Id.* at 312, 124 S.Ct. 1769. Such a law would, of course, be simple discrimination and unconstitutional. But "the Constitution forbids sophisticated as well as simple-minded modes of discrimination." *Reynolds*, 377 U.S. at 563, 84 S.Ct. 1362 (citations and internal quotation marks omitted). Additionally, if courts were to rely solely on the lack of a judicially manageable standard to conclude that an issue qualifies as a political question, then courts would be opining on the manageability of standards not involved in the case at hand. That would be imprudent because a court can dispose of only the matters in a case currently before it; to be sure, however, the reasoning of a court's decision could spell trouble for a future potential standard if the future standard suffered from the same defects as that which was previously held nonjusticiable. Accordingly, even if there were a lack of a judicially manageable standard in this case (though we conclude that manageable standards ex-

ist), we would not conclude that all future partisan-gerrymandering claims are nonjusticiable.

Although the Supreme Court's precedent leaves "few clear landmarks for addressing" partisan gerrymandering, we can find some rough guidance in the summary provided in *Gill*. *See* 138 S.Ct. at 1926. In *Bandemer* itself, the plurality would have required the plaintiffs "to 'prove both intentional discrimination against an identifiable political group and an actual discriminatory effect on that group,' " *id.* at 1927 (quoting *Bandemer*, 478 U.S. at 127, 106 S.Ct. 2797 (plurality)), but the *Bandemer* plurality also concluded that "the plaintiffs had failed to make a sufficient showing on [actual discriminatory effect] because their evidence of unfavorable election results for Democrats was limited to a single election cycle." *Gill*, 138 S.Ct. at 1927 (citing *Bandemer*, 478 U.S. at 135, 106 S.Ct. 2797 (plurality)). Then in *Vieth*, the four-justice plurality, "would have held that the plaintiffs' claims were nonjusticiable because there was no 'judicially discernible and manageable standard' by which to decide them." *Id.* at 1927–28 (quoting *Vieth*, 541 U.S. at 306, 124 S.Ct. 1769 (plurality)). The plurality in *Vieth* thus necessarily rejected the proposed standard that a majority of voters should be able to elect a majority of a congressional delegation (proportional representation). Justice Kennedy also rejected that standard. *See Gill*, 138 S.Ct. at 1928 (citing *Vieth*, 541 U.S. at 308, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment)). Justice Kennedy, however, left the door open in *Vieth* for a partisan-gerrymandering standard in future cases. Just two years after *Vieth*, the Supreme Court returned to the question of partisan gerrymandering in *League of United Latin American Citizens v. Perry* ("*LULAC*"), 548 U.S. 399, 126 S.Ct. 2594, 165 L.Ed.2d 609 (2006). In *Gill*, as in the case before us, the relevant portion of *LULAC* was the discussion of the partisan symmetry standard proposed by an amicus. *See Gill*, 138 S.Ct. at 1928. That particular version of the symmetry standard " 'measure[d] partisan bias' by comparing how the two major political parties 'would fare hypothetically if they each ... received a given percentage of the vote.' " *Id.* (quoting *LULAC*, 548 U.S. at 419, 126 S.Ct. 2594 (opinion of Kennedy, J.)). Although Justice Kennedy expressed concern about adopting the proposed symmetry standard because it was "based on unfair results that would occur in a hypothetical state of affairs," and because it faced the problem of not "providing a standard for deciding how much partisan dominance is too much," *LULAC*, 548 U.S. at 420, 126 S.Ct. 2594, Justice Kennedy ultimately stated, "*[w]ithout altogether discounting its utility in redistricting planning and litigation*, I would conclude asymmetry *alone* is not a reliable measure of unconstitutional partisanship." *Id.* (emphasis added). The *Gill* Court further noted that Justices Stevens, Souter, and Ginsburg expressed some support, or at least did not discount the usefulness of, asymmetry. *See Gill*, 138 S.Ct. at 1928–29 (citing Justice Stevens's partial dissent and Justice Souter's partial dissent, joined by Justice Ginsburg). In sum, although partisan symmetry as a standalone measure has not garnered support from a majority of the Supreme Court, of all the proposed standards, partisan symmetry has received perhaps the most support.

In the absence of clear direction from the Supreme Court, three-judge federal district court panels [730] have established

730. State Supreme Courts, too, have established judicially manageable standards by which to evaluate compliance with their own state constitutions. *See League of Women Vot-*

justiciable standards. *See Benson*, 373 F.Supp.3d at 911–14, 2019 WL 1856625, at *27–28; *Rucho*, 318 F.Supp.3d at 860–68, 929, *appeal docketed* —— U.S. ——, 139 S.Ct. 782, 202 L.Ed.2d 510 (2019); *Whitford v. Gill*, 218 F.Supp.3d 837, 884 (W.D. Wis. 2016), *vacated and remanded on other grounds*, —— U.S. ——, 138 S.Ct. 1916, 201 L.Ed.2d 313 (2018); *Shapiro v. McManus*, 203 F.Supp.3d 579, 596–97 (D. Md. 2016). Generally, the prevailing difficulty in partisan-gerrymandering cases seems to be evaluating partisan effect, or, in Justice Kennedy's words, "how much partisan dominance is too much." *LULAC*, 548 U.S. at 420, 126 S.Ct. 2594 (opinion of Kennedy, J.); *see also Vieth*, 541 U.S. at 344, 124 S.Ct. 1769 (Souter, J., dissenting). The federal courts that have recently adjudicated partisan-gerrymandering claims have converged considerably on common ground both in establishing standards for assessing a redistricting plan's constitutionality and for evaluating partisan effect. *See infra* Part V. For now, we observe that district courts have found partisan symmetry to be a useful partisan-effect standard, in combination with actual election results, analyses of simulated maps, and analyses that show redistricting plans are extreme or are historical outliers in their partisan effect. *See, e.g.*, *Benson*, 373 F.Supp.3d at 893–909, 913–14, 2019 WL 1856625, at *12–24, 28; *Rucho*, 318 F.Supp.3d at 884; *Whitford*, 218 F.Supp.3d at 898, 905 (but not using analyses of simulated maps). As we will explain, the standards and analyses in these cases, and proposed in the case before us, shore up the deficiencies identified by the Supreme Court in prior cases. *See infra* Part V.

B. Evidentiary Metrics and Statistics

Plaintiffs utilize several evidentiary metrics and Dr. Cho's computer-simulated maps, among other things, to help the Court decide the merits of the partisan-gerrymandering claims. Defendants argue that none of those evidentiary metrics offers an answer to when a map is unconstitutionally gerrymandered and that no expert has offered an opinion on that subject. This critique falls flat, and it is important to clarify and emphasize that the judicially manageable standards about which we are concerned for justiciability are *legal standards*. We set forth those legal standards in Part V of this opinion. The evidentiary metrics and simulated maps, however, are offered by a party to show that the legal standard is met. We apply these metrics, simulated maps, and other evidence to the justiciable legal standards, and we find that they prove the elements of the underlying claims. *See infra* Sections V.A.2., V.B., V.C.2. This practice is nothing new. Courts routinely utilize statistical analyses in other contexts, including the similar context of racial vote-dilution cases under the VRA. *See, e.g.*, *Rural W. Tenn. African-Am. Affairs Council v. Sundquist*, 209 F.3d 835, 844 (6th Cir. 2000) (affirming the district court and explaining that the district court "ably considered a complex body of statistical and anecdotal evidence to determine that [a state house reapportionment plan] unlawfully dilutes African–American voting strength in rural west Tennessee."); *United States v. City of Euclid*, 580 F.Supp.2d 584, 596 (N.D. Ohio 2008) ("Statistical evidence of racial bloc voting may be established by three analytical models: homogenous precinct analysis ('HPA'), bivariate ecological regression

Commonwealth, *645 Pa. 1, 178 A.3d 737 (2018);* see also id. *at 816 (noting that the standards articulated "also comport with the minimum requirements for congressional districts guaranteed by the United States Constitution, as interpreted by the United States Supreme Court.") (citing* Wesberry, *376 U.S. at 18, 84 S.Ct. 526).*

analysis ('BERA'), and King's ecological inference method ('King's EI method').").

We find *Rucho*'s reasoning on this point persuasive and adopt it here. In *Rucho*, the three-judge district court ably surveyed caselaw in which the Supreme Court, as well as district courts, have "relied on statistical and social science analyses as *evidence* that a defendant violated a standard set forth in the Constitution or federal law." *See* 318 F.Supp.3d at 853; *see also id.* at 852–58 (providing an overview of caselaw and noting that the Supreme Court has embraced empirical analyses and statistical measures in apportionment, antitrust, Confrontation Clause, equal-protection, redistricting, and voting cases). We agree that "when a variety of different pieces of evidence, empirical or otherwise, all point to the same conclusion—as is the case here—courts have *greater* confidence in the correctness of the conclusion because even if one piece of evidence is subsequently found infirm other probative evidence remains." *See id.* at 858. Although it is true, as Dr. Warshaw himself acknowledged at trial, that each of the four statistical metrics that he analyzed has pros and cons,[731] it is equally true that all the metrics point strongly in one direction. What's more, as will be explained, the metrics and other evidence strongly suggest that the 2012 plan is an outlier, and that fact raises further concern about the plan's constitutionality.

Courts should not simply accept or give the greatest amount of weight possible to social-science measures or theories. Of course, we still have the obligation to ensure that an expert's "testimony is based on sufficient facts or data," is "the product of reliable principles and methods," and that "the expert has reliably applied the principles and methods to the facts of the case." *See* FED. R. EVID. 702; *see also Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589–95, 113 S.Ct. 2786, 125 L.Ed.2d 469 (1993). When judges are the factfinders, "the court must carefully weigh empirical evidence[ ] and discount such evidence's probative value if it fails to address the relevant question, lacks rigor, is contradicted by more reliable and compelling evidence, or is otherwise unworthy of substantial weight." *Rucho*, 318 F.Supp.3d at 855.

After the benefit of hearing trial testimony from Plaintiffs' and Defendants' experts and Defendants' cross-examination, we find that Plaintiffs' evidence and experts are more persuasive. As detailed later, we find some evidence quite probative and other evidence less so, but, overall, the evidentiary metrics utilized by Plaintiffs provide strong support for their legal claims. In other words, the evidentiary metrics are strong evidence that voters were packed and cracked across the 2012 map. Dr. Warshaw also gave illustrative examples of when the metrics would be less probative of a partisan gerrymander, and therefore, he would not conclude that a plan was a partisan gerrymander.[732] The evidentiary metrics, therefore, are workable in their own right and would not lead to every plan in the country being struck down as unconstitutional. Courts, in turn, would apply the legal standards and utilize the various metrics to determine on a case-by-case basis whether certain maps pass constitutional muster. Courts can apply

731. *See, e.g.,* Dkt. 240 (Warshaw Trial Test. at 210–11) (efficiency gap); *id.* at 223 (mean-median difference); *id.* at 229–30 (declination); *id.* at 238 (the two asymmetry measures).

732. *See* Dkt. 240 (Warshaw Trial Test. at 191–92, 246–48).

these metrics to the legal standards in such a way that limits exist.

To be sure, metrics based on a theory of proportional representation would *not* be legally relevant. *See Vieth*, 541 U.S. at 288, 124 S.Ct. 1769 (plurality) ("[T]he Constitution contains no such principle [of proportional representation]."); *id.* at 338, 124 S.Ct. 1769 (Stevens, J., dissenting) ("The Constitution does not, of course, require proportional representation ...."); *see also LULAC*, 548 U.S. at 419, 126 S.Ct. 2594 (opinion of Kennedy, J.) ("To be sure, there is no constitutional requirement of proportional representation ...."). None of the proffered metrics in this case, however, are based on proportional representation.[733] For example, the metrics analyzed by Dr. Warshaw measure asymmetry, a distinct concept. On the one hand, proportional representation means that the number of seats in the legislature that a party receives is equal to the percentage of votes that the party receives in an election. For example, if Party X receives 40% of the popular vote and there are 100 seats in the legislature, then Party X would receive 40 seats under a proportional-representation scheme. On the other hand, partisan symmetry is based on the principle that a particular vote share should translate into a particular number of seats, regardless of which party receives that vote share. For example, if Party X receives 53% of the vote and wins 60 out of 100 seats, then when Party Y receives 53% of the vote, Party Y should also have a real chance to win about 60 out of 100 seats. A difference between the parties' abilities to translate the same vote share into seats demonstrates an asymmetry.

In other areas of election law, several metrics comfortably coexist. *See* Nicholas Stephanopoulos & Eric McGhee, *The Measure of a Metric: The Debate over Quantifying Partisan Gerrymandering*, 70 STAN. L. REV. 1503, 1551–54 (2018). First, in malapportionment cases, the Supreme Court has cited a handful of measures (and sometimes multiple measures in the same case) for population deviation. *See, e.g.*, *Karcher v. Daggett*, 462 U.S. 725, 728, 103 S.Ct. 2653, 77 L.Ed.2d 133 (1983) (noting the total deviation between the most and least populous districts and the average deviation, i.e., the average difference between each district's population and the population required for perfect equality); *Gaffney v. Cummings*, 412 U.S. 735, 737 & nn.1–2, 93 S.Ct. 2321, 37 L.Ed.2d 298 (1973) (using the two measures in *Karcher* and also citing the ratio of the largest district population to the smallest district population); *Mahan v. Howell*, 410 U.S. 315, 319, 93 S.Ct. 979, 35 L.Ed.2d 320 (1973) (using the same three measures as *Gaffney*, in addition to noting the proportion of the population that could elect a majority of the state house); *Swann v. Adams*, 385 U.S. 440, 442–43, 87 S.Ct. 569, 17 L.Ed.2d 501 (1967) (using all these measures). Next, in the context of Section 2 of the VRA, courts have utilized three metrics to measure racial polarization in voting—HPA, BERA, and King's EI method, mentioned above. *See, e.g.*, *City of Euclid*, 580 F.Supp.2d at 596; *see also Thornburg v. Gingles*, 478 U.S. 30, 52–53, 53 n.20, 106 S.Ct. 2752, 92 L.Ed.2d 25 (1986) (citing only HPA (or "extreme case analysis") and BERA, and noting that "[t]he District Court found both methods standard in the literature for the analysis of racially polarized voting."). And finally, the compactness of a district can be quantified

733. One critique of the efficiency gap is that it is *not* equivalent to proportional representation. *See* Benjamin Plener Cover, *Quantifying Partisan Gerrymandering: An Evaluation of the Efficiency Gap Proposal*, 70 STAN. L. REV. 1131, 1213 (2018).

in dozens of ways. *See* Stephanopoulos & McGhee, *The Measure of a Metric, supra* at 1553 & nn. 178–83. Compactness, which is one assessment of a district's shape, can be relevant in racial vote-dilution cases as well as VRA § 2 cases. *See, e.g.*, *Miller v. Johnson*, 515 U.S. 900, 913, 115 S.Ct. 2475, 132 L.Ed.2d 762 (1995) ("Shape is relevant not because bizarreness is a necessary element of the constitutional wrong . . ., but because it may be persuasive circumstantial evidence that race for its own sake, and not other districting principles, was the legislature's dominant and controlling rationale in drawing its district lines."); *Gingles*, 478 U.S. at 50, 106 S.Ct. 2752 ("[T]he minority group must be able to demonstrate that it is sufficiently large and geographically compact to constitute a majority in a single-member district."). So too can several metrics be used in partisan-gerrymandering cases.

The brunt of Defendants' argument against social-science measures seems focused on the efficiency gap. Dkt. 253 (Defs.' & Intervenors' PFOF at 106–13). But Plaintiffs do not offer the efficiency gap as the ultimate Rosetta Stone to decipher what is or is not an unconstitutional partisan gerrymander. Rather, the efficiency gap is just one tool in the evidentiary toolbox. When it comes to malapportionment, racially polarized voting, and compactness, courts have not limited their toolbox, and we see no reason to limit it for partisan gerrymandering. To the contrary, that all the measures strongly point in the same direction gives us greater confidence in reaching a conclusion in this case. *See Rucho*, 318 F.Supp.3d at 858.

C. Pragmatic and Historical Considerations

We now turn to other relevant considerations for whether the federal courts ought to intervene to address partisan gerrymandering. Importantly, these considerations are absent from the list of considerations for determining whether an issue presents a nonjusticiable political question. Instead, these points are pragmatic or historical in nature, and they are worthy of response.

1. Courts are not picking political winners and losers

One concern about allowing courts to adjudicate partisan-gerrymandering claims is that the courts would be dictating political winners. Dkt. 136 (Defs.' Mot. for Summ. J. at 18). But, as mentioned, the core concern about partisan gerrymandering is that representatives choose their voters and not vice-versa—that is, when partisan gerrymandering amounts to a constitutional violation, the winners and losers are often already predetermined by those in power. Rather than dictating outcomes in these cases, courts are only fixing *the process* by which voters enact political change. *See* JOHN HART ELY, DEMOCRACY AND DISTRUST 102–03 (1980) (explaining that in our system of government "[m]alfunction occurs when . . . the ins are choking off the channels of political change to ensure that they will stay in and the outs will stay out," and that judges "are conspicuously well situated" to correct such malfunction). If courts find a constitutional violation and fix it, then *the voters* pick the winners and losers in districts that adhere to the Constitution.

As we will explain further, the evidence in this record shows that, in fact, the party in power sought to lock in a 12-4 map, and, despite receiving a fluctuating percentage of the statewide vote, they were successful. Experience has shown that legislators are unlikely to act as neutral umpires in this context. Judges, however, play precisely that role. Rather than decide who wins an election in these cases, the courts' role is to ensure an even playing field, just as courts have done with other forms of ger-

rymandering. *See Vieth*, 541 U.S. at 310, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment).

Furthermore, this non-intervention argument has its roots in reasoning from *Colegrove*. *See* 328 U.S. at 553, 66 S.Ct. 1198 (plurality) ("Nothing is clearer than that this controversy concerns matters that bring courts into immediate and active relations with party contests."). As Justice Frankfurter put it, "Courts ought not enter this political thicket." *Id.* at 556, 66 S.Ct. 1198.

Given courts' now well-established involvement in redistricting, as well as other voting and elections matters, history has shown that *Colegrove*'s concerns have not carried the day. In *Baker v. Carr*, the Supreme Court relied not on political judgment, but on the "well developed and familiar" "standards under the Equal Protection Clause ... to determine ... that a discrimination reflects *no* policy, but simply arbitrary and capricious action." *See Baker*, 369 U.S. at 226, 82 S.Ct. 691. In fact, the Supreme Court arguably first entered the so-called "political thicket" a few years earlier, in *Gomillion v. Lightfoot*, 364 U.S. 339, 81 S.Ct. 125, 5 L.Ed.2d 110 (1960). *Gomillion*, not *Baker v. Carr*, was the first time that the Supreme Court found a constitutional violation because of how a state drew district lines. In *Gomillion*, the district at issue was changed from a square shape "into a strangely irregular twenty-eight-sided figure.... The essential inevitable effect of this redefinition of [the City of] Tuskegee's boundaries is to remove from the city all save only four or five of its 400 Negro voters while not removing a single white voter or resident." *Id.* at 341, 81 S.Ct. 125. The Court held that the plaintiffs stated a claim that the redrawing of the boundaries around Tuskegee violated the Fifteenth Amendment. *Id.* at 345–47, 81 S.Ct. 125. Justice Whittaker took a different approach; he noted the fact that those removed from Tuskegee were not actually deprived of the right to vote under the Fifteenth Amendment; indeed, they could still cast a vote, just not in Tuskegee. *See id.* at 349, 81 S.Ct. 125 (Whittaker, J., concurring). Instead, Justice Whittaker concluded that the State violated the Equal Protection Clause of the Fourteenth Amendment by fencing out black voters from one political subdivision and placing them into another. *Id.* (Whittaker, J., concurring). Years later, the Supreme Court conclusively adopted this view in its racial-gerrymandering jurisprudence. *See Shaw v. Reno*, 509 U.S. 630, 644–45, 113 S.Ct. 2816, 125 L.Ed.2d 511 (1993) ("This Court's subsequent reliance on *Gomillion* in other Fourteenth Amendment cases suggests the correctness of Justice Whittaker's view.").

The upshot is that, although the federal courts' role in redistricting may be an "unwelcome obligation," *Connor v. Finch*, 431 U.S. 407, 415, 97 S.Ct. 1828, 52 L.Ed.2d 465 (1977), it is an obligation nonetheless—and for good reason. As the Supreme Court has recognized, the right to vote "is preservative of other basic civil and political rights," and therefore, "any alleged infringement of the right of citizens to vote must be carefully and meticulously scrutinized." *Reynolds*, 377 U.S. at 562, 84 S.Ct. 1362. Critically, "the right of suffrage can be denied by a debasement or dilution of the weight of a citizen's vote just as effectively as by wholly prohibiting the free exercise of the franchise." *Id.* at 555, 84 S.Ct. 1362. Contrary to the *Colegrove* plurality's concerns, courts have not been involving themselves in politics or picking winners and losers; rather, courts have protected the right to vote from infringement by political actors who, history has shown, attempt to manipulate elections laws to their advantage and to disadvan-

tage a disfavored group. Sometimes, courts must level the playing field.

2. *Partisan gerrymandering is not a self-limiting enterprise*

Experience has proven that the view that "political gerrymandering is a self-limiting enterprise" is incorrect. *See Bandemer*, 478 U.S. at 152, 106 S.Ct. 2797 (O'Connor, J., concurring in the judgment). The reasoning under this position went as follows:

> In order to gerrymander, the legislative majority must weaken some of its safe seats, thus exposing its own incumbents to greater risks of defeat—risks they may refuse to accept past a certain point. Similarly, an overambitious gerrymander can lead to disaster for the legislative majority: because it has created more seats in which it hopes to win relatively narrow victories, the same swing in overall voting strength will tend to cost the legislative majority more and more seats as the gerrymander becomes more ambitious.

Id. (citations omitted). But this view did not contemplate two factors: advances in (1) technology and (2) methods for collecting data on voters, whose party affiliation is stable and whose behavior is increasingly predictable.

First, "technology makes today's gerrymandering altogether different from the crude linedrawing of the past. New redistricting software enables pinpoint precision in designing districts." *Gill*, 138 S.Ct. at 1941 (Kagan, J., concurring). Consequently, "[g]errymanders have . . . become ever more extreme and durable, insulating officeholders against all but the most titanic shifts in the political tides." *Id.* That is, increasingly sophisticated technology and map-drawing methods have allowed the parties to maximize the number of seats, while minimizing the risks mentioned above. Evidence in the record shows that this is what happened during the Ohio 2010 redistricting cycle. *See* Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438) ("Given [Ohio's political geography], it is a tall order to draw 13 'safe' seats. Speaker[ ] Boehner's team worked on several concepts, but this map is the one they felt put the most number of seats in the safety zone given the political geography of the state, our media markets, and how to best allocate caucus resources."). And the actual election results—with Republicans winning the same twelve seats and Democrats winning the same four seats in each election—confirm that the map drawers were successful. "The technology will only get better, so the 2020 cycle will only get worse." *Gill*, 138 S.Ct. at 1941 (Kagan, J., concurring).

Second, as technology has advanced, so too have methods for collecting data on voters. *See* David W. Nickerson & Todd Rogers, *Political Campaigns and Big Data*, 28 J. ECON. PERSP. 51 (2014) ("The techniques used as recently as a decade or two ago by political campaigns to predict the tendencies of citizens appear extremely rudimentary by current standards."). The improved efficiency of data collection and predictive methods "has led the political parties to engage in an arms race to leverage ever-growing volumes of data to create votes." *Id.* at 51. For example, political campaigns utilize state voter-registration databases that are supplemented with a variety of consumer data from commercial data brokers, and the need to store, manage, and analyze all this data has created "a new breed of political consulting firms . . . ." Ira S. Rubenstein, *Voter Privacy in the Age of Big Data*, 2014 WIS. L. REV. 861, 867–77 (2014). And "[i]n the 2012 election cycle, an emerging trend for these firms was the formation of new partnerships with online advertising firms that special-

ized in tracking people on the web." *Id.* at 877. Moreover, although a voter's partisanship is not immutable per se, research has shown that, in fact, political affiliation is stable and predictable. *See, e.g.*, Corwin D. Smidt, *Polarization and the Decline of the American Floating Voter*, 61 AM. J. POL. SCI. 365 (2017) ("Greater clarity of party differences . . . makes Americans less open to a change in their behavior and ultimately more reliable in which party they support across time."); DONALD GREEN ET AL., PARTISAN HEARTS AND MINDS 3, 11 (2002) (finding that, often, "sharp partisan differences eclipse corresponding sex, class, or religion effects" and that "partisanship tends to be stable among adults"). Voters, of course, think for themselves—the point is simply that, once voters adopt a particular political affiliation, their choice is fairly solidified and highly predictive of voting behavior. Accordingly, modern political parties and their map drawers utilize increasingly vast amounts of increasingly precise voter data.

These developments have allowed the political parties to achieve the maximum number of safe seats through a gerrymander, while simultaneously minimizing the risks of creating an "overambitious gerrymander." *See Bandemer*, 478 U.S. at 152, 106 S.Ct. 2797 (O'Connor, J., concurring in the judgment). The result is that, even more so than in the 2000 redistricting cycle, "the increasing efficiency of partisan redistricting has damaged the democratic process to a degree that our predecessors only began to imagine." *See Vieth*, 541 U.S. at 345, 124 S.Ct. 1769 (Souter, J., dissenting). The courts ought not leave disfavored voters at the mercy of advancing technology when a party in power exploits that technology to draw district lines with "the purpose and effect of imposing burdens on a disfavored party and its voters," *see id.* at 315, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment), and "to dictate electoral outcomes," *see Thornton*, 514 U.S. at 833–34, 115 S.Ct. 1842.

3. Gerrymandering's long history [734]

It is true that "[p]olitical gerrymanders are not new to the American scene," *Vieth*, 541 U.S. at 274, 124 S.Ct. 1769 (plurality), but a deeper dive into its long history demonstrates that it has not simply been accepted throughout our political past. Furthermore, "our inquiry is sharpened rather than blunted by the fact that" partisan gerrymandering has been frequent and become increasingly efficient. *See I.N.S. v. Chadha*, 462 U.S. 919, 944, 103 S.Ct. 2764, 77 L.Ed.2d 317 (1983).

At the outset, we note that gerrymandering's history during the Founding is somewhat distinct from the specific context of *partisan* gerrymandering, which, of course, requires parties. That is because "[t]he idea of political parties . . . was famously anathema to the Framers, as it had long been in Western political thought." Daryl J. Levinson & Richard H. Pildes, *Separation of Parties, Not Powers*, 119 HARV. L. REV. 2312, 2320 (2006). Yet even though "the Framers had attempted to design a 'Constitution Against Parties,' " they almost immediately organized into two coalitions. *Id.* (citation omitted). "Political affiliations initially were much more informal and localized, and did not evolve into the more organized form we commonly associate with parties until the Jacksonian Era in the 1830s." James Thomas Tucker, *Redefining American Democracy: Do Alternative Voting Systems Capture the True Meaning of "Representation"?*, 7 MICH. J. RACE & L. 357, 427 (2002). But

734. For additional background information, *see* Brief for Historians as Amicus Curiae Supporting Appellees, *Gill v. Whitford*, 138 S.Ct. 1916 (2018) (No. 16-1161), 2017 WL 4311107. We utilize some of the historical material referenced therein.

even though political parties are not mentioned in the Constitution, the Supreme Court has stepped in to protect the parties and their supporters against state laws that infringe on their constitutional rights. *See, e.g.*, *Calif. Democratic Party v. Jones*, 530 U.S. 567, 120 S.Ct. 2402, 147 L.Ed.2d 502 (2000) (striking down California's blanket primary law because it violated the parties' First Amendment right of association); *Tashjian*, 479 U.S. 208, 107 S.Ct. 544 (striking down Connecticut's closed primary law for the same reason). In any event, once parties began to take shape, they were both victims of gerrymandering (i.e., the disfavored party's voters in the electorate) and participants in gerrymandering (i.e., the party in government).

Although gerrymandering may have a long history in the United States, those close to the Founding strongly denounced the practice. After an 1812 Democratic-Republican gerrymander in Massachusetts, for example, the citizens in one county petitioned the legislature "to 'alter' the [redistricting] law which they characterized as 'unconstitutional, unequal, and unjust.' " ELMER C. GRIFFITH, THE RISE AND DEVELOPMENT OF THE GERRYMANDER 71 (1907) (citation omitted). The Federalists viewed the gerrymander as "a blow at the constitution and a travesty upon the Bill of Rights when it allowed the minority to govern." *Id.* As for the district that spawned the "portmanteau" of "gerrymander," [735] the newspaper that published the now famous political cartoon of the "Gerry-Mander" stated that "This Law inflicted a grievous wound on the Constitution ...." *The Gerry-Mander, or Essex South District Formed into a Monster!*, SALEM GAZETTE, Apr. 2, 1813. On the other side of the aisle, the Federalists also engaged in gerrymandering. In New Jersey, Republicans saw an 1812 redistricting law as "a 'deadly poisoned arrow, levelled with certain aim at the inestimable right of suffrage.' " ROSEMARIE ZAGARRI, THE POLITICS OF SIZE: REPRESENTATION IN THE UNITED STATES, 1776–1850, at 117 (1987) (citation omitted). Thus, despite both sides condemning the practice as unconstitutional, the parties continued to engage in a retaliatory tit-for-tat.

Criticism of gerrymandering persisted into the late-1800s. James Garfield, then a member of the U.S. House of Representatives, admitted that he benefitted from gerrymandering in Ohio. Then-Representative Garfield stated:

> [N]o man, whatever his politics, can justly defend a system that may in theory, and frequently does in practice, produce results such as these.... There are about ten thousand Democratic voters in my district, and they have been voting there ... without any more hope of having a Representative on this floor than of having one in the Commons of Great Britain....
>
> I think they ought to have more hope. The Democratic voters in the nineteenth district of Ohio ought not by any system to be absolutely and permanently disenfranchised.

41 CONG. GLOBE, 41st Cong., 2d Sess., 4737 (June 23, 1870) (statement of Rep. James A. Garfield). President Benjamin Harrison similarly criticized gerrymandering. In his Third Annual Message, President Harrison recognized that "the primary intent and effect of this form of political robbery have relation to the selection of members of the House of Representatives." Presi-

735. *See Ariz. State Legislature,* 135 S.Ct. at 2658 n.1 ("The term 'gerrymander' is a portmanteau of the last name of Elbridge Gerry, the eighth Governor of Massachusetts, and the shape of the electoral map he famously contorted for partisan gain, which included one district shaped like a salamander.") (citing GRIFFITH, *supra* at 16–19).

dent Benjamin Harrison, Third Annual Message (Dec. 9 1891).[736] He explained:

> If I were called upon to declare wherein our chief national danger lies, I should say without hesitation in the overthrow of majority control by the suppression or perversion of the popular suffrage. That there is a real danger here all must agree; but the energies of those who see it have been chiefly expended in trying to fix responsibility upon the opposite party rather than in efforts to make such practices impossible by either party.

Id. Gerrymandering thus raised concerns about the disfavored party's (often the minority party's) representational rights and the right to vote.

Significantly, in the late-nineteenth century, State Supreme Courts did not close their courthouse doors to challenges to gerrymandered maps. In Wisconsin, the State Supreme Court declared that the challenged "apportionment act violates and destroys one of the highest and most sacred rights and privileges of the people of this state, guarantied to them by the ordinance of 1787 and the constitution, and that is 'equal representation in the legislature.'" *See State ex rel. Att'y Gen. v. Cunningham*, 81 Wis. 440, 51 N.W. 724, 729 (1892). The court further explained that:

> If the remedy for these great public wrongs cannot be found in this court, it exists nowhere. It would be idle and useless to recommit such an apportionment to the voluntary action of the body that made it. But it is sufficient that these questions are judicial and not legislative. The legislature that passed the act is not assailed by this proceeding, nor is the constitutional province of that equal and co–ordinate department of the government invaded. The law itself is the only object of judicial inquiry, and its constitutionality is the only question to be decided.

Id. at 730. The same year, the Indiana Supreme Court also struck down its State's legislative redistricting law. *See Parker v. State ex rel. Powell*, 133 Ind. 178, 32 N.E. 836, 843 (1892). These cases further bolster the ahistorical nature of the claim that gerrymandering has been an *accepted* practice in American history.

Early gerrymanders often shared a notable attribute—the party in power drew maps in its favor with malapportioned districts. *See, e.g.*, GRIFFITH, *supra* at 8 ("A gerrymander is intended to disfranchise the majority or to secure [the majority] an influence disproportionate to its size."); *see also id.* at 72–73; ZAGARRI, *supra* at 115–16 ("No longer able to count on a statewide majority, [Federalists] supported a vastly inequitable districting plan designed to elect as many Federalists as possible. The first district, for example, was to contain approximately 30 percent more people than the third district and over 20 percent more than the second and fourth districts."). Of course, voters could not even challenge such districting schemes in federal court until the Supreme Court decided *Gomillion* and *Baker v. Carr*. And after the one-person, one-vote cases, legislatures' focus on gerrymandering shifted from malapportionment to other contexts, such as gerrymandering based solely on political affiliation. Accordingly, given that gerrymandering's constitutionality has been questioned essentially since its inception and that the federal courts have played a role in overseeing redistricting since *Gomillion* and *Baker v. Carr*, we do

736. Available at: https://millercenter.org/the-presidency/presidential-speeches/december-9-1891-third-annual-message-0.

not give great weight to the fact that "[p]olitical gerrymanders are not new to the American scene." *See Vieth*, 541 U.S. at 274, 124 S.Ct. 1769 (plurality).

Gerrymandering's history, however, provides greater clarity to the current problem. Historical examples of gerrymanders often involved "crude linedrawing." *See Gill*, 138 S.Ct. at 1941 (Kagan, J., concurring). Today, the practice is far more efficient and precise, which has resulted in gerrymanders that are more extreme and durable. *See supra* Section IV.C.2. Indeed, evidence in this case shows just that. *See infra* Sections V.A.2., V.C.2. If historically partisan gerrymandering was a self-limiting enterprise, that is increasingly not the case today. Moreover, because gerrymandering has persisted over time, comparative analyses can be done that show the gerrymanders of today are generally historical outliers and can withstand fluctuating statewide votes. Again, the evidence here shows that this applies to Ohio. *See supra* Section II.C.1.; *infra* Sections V.A.2.b., V.C.2.a. In sum, the long history of gerrymandering does not show that the practice has been "accepted," and, in fact, history allows courts to compare today's gerrymanders to past ones and thus better to understand the scope and gravity of the problem.

4. Alternative state remedies

At one time, the Supreme Court "long resisted any role in overseeing the process by which States draw legislative districts. 'The remedy for unfairness in districting,' the Court once held, '*is to secure State legislatures that will apportion properly*, or to invoke the ample powers of Congress.' " *Evenwel v. Abbott*, —— U.S. ——, 136 S.Ct. 1120, 1123, 194 L.Ed.2d 291 (2016) (quoting *Colegrove*, 328 U.S. at 556, 66 S.Ct. 1198 (plurality)) (emphasis added). Defendants seek to revive this argument that remedies in the states foreclose judicial intervention. *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 41–42, 45). After *Baker v. Carr*, however, the Supreme Court essentially rejected this reasoning and "confronted [the] ingrained structural inequality [of malapportionment] . . . ." *See Evenwel*, 136 S.Ct. at 1123.

Today, we recognize that some states have adopted various approaches to attempt to curtail partisan gerrymandering. *See, e.g.*, *Ariz. State Legislature*, 135 S.Ct. at 2662 & nn. 6–9 (surveying state constitutional provisions and state statutes); [737] MICH. CONST. art. 4, § 6; COLO. CONST. art. 5, § 44; OHIO CONST. art. 19, §§ 1–2; UTAH CODE ANN. § 20A-19-103. State Supreme Courts have stepped in, too. *See, e.g.*, *League of Women Voters v. Commonwealth*, 645 Pa. 1, 178 A.3d 737 (2018); *cf. People ex rel. Salazar v. Davidson*, 79 P.3d 1221 (Colo. 2003) (holding that re-redistricting mid-decade was unconstitutional under the State Constitution, thus adopting a principle similar to that which the Supreme Court rejected in *LULAC*). But rather than militating against judicial intervention, the movement in the states on the issue of partisan gerrymandering, in addition to decisions by other three-judge panels, can help inform our consideration of the underlying principles involved in this case. *Cf. Obergefell v. Hodges*, —— U.S. ——, 135 S.Ct. 2584, 2596–97 & Apps. A–B, 192 L.Ed.2d 609 (2015) (collecting state and federal judicial decisions and

737. We observe that *Arizona State Legislature* cited Ohio as an example. *See* OHIO REV. CODE § 103.51 (creating a legislative task force on redistricting). But this statute did not remove the political parties from the redistricting process (nor did it foster a truly bipartisan map-drawing process). The facts of this case clearly show that the political parties and the legislators still draw the maps.

state statutes that "help[ed] to explain and formulate the underlying principles" that the Supreme Court considered in that case). Simply put, the fact that some specific states are addressing this issue does not preclude the federal courts from performing their "role in overseeing the process by which States draw legislative districts" or from performing their role in vindicating federal rights. *See Evenwel*, 136 S.Ct. at 1123. Further, to state the obvious, if the allegation is that the State has perpetrated a constitutional violation, then it would be absurd to decline to adjudicate the claims on the basis that plaintiffs must seek a remedy with the entity that committed the alleged violation in the first place. The recently passed state measures that allow for independent or truly bipartisan redistricting, however, might potentially limit the necessity of federal court intervention in the next redistricting cycle.

* * *

Finally, many of the same arguments that were lodged against judicial intervention in other forms of gerrymandering over fifty years ago are the same as those presented to us today:

> We are told that the matter of apportioning representation in a state legislature is a complex and many-faceted one. We are advised that States can rationally consider factors other than population in apportioning legislative representation. We are admonished not to restrict the power of the States to impose differing views as to political philosophy on their citizens. We are cautioned about the dangers of entering into political thickets and mathematical quagmires.

Reynolds, 377 U.S. at 566, 84 S.Ct. 1362. At bottom, we borrow our answer from the Supreme Court. "When a State exercises power wholly within the domain of state interest, it is insulated from federal judicial review. But such insulation is not carried over when state power is used as an instrument for circumventing a federally protected right." *Id.* (quoting *Gomillion*, 364 U.S. at 347, 81 S.Ct. 125).

As stated previously, in *Vieth*, four justices nonetheless thought that the Supreme Court's and the lower courts' inability to shape a substantive standard counseled against the justiciability of partisan-gerrymandering claims. *Vieth*, 541 U.S. at 278–79, 124 S.Ct. 1769 (plurality). In the years since *Vieth*, federal district courts have shaped such standards. We now turn to those governing legal principles.

V. LEGAL STANDARDS AND APPLICATION

As a threshold matter, we conclude that the legal and evidentiary standards below shore up various deficiencies found by the Supreme Court in prior partisan-gerrymandering cases. First, our analysis is based on results across several election cycles, which shows that the current map's partisan effects are durable and largely impervious to fluctuations in voter preferences. *See Gill*, 138 S.Ct. at 1927 (citing *Bandemer*, 478 U.S. at 135, 106 S.Ct. 2797 (plurality)). Second, this analysis is not based solely on hypothetical election results. *See Gill*, 138 S.Ct. at 1928 (citing *LULAC*, 548 U.S. at 419, 126 S.Ct. 2594 (opinion of Kennedy, J.)). Apart from the measures of asymmetry in the vote-seat curve, every other metric utilized by Dr. Warshaw is grounded in actual election results, and these metrics illuminate the extent of partisan bias that occurs in the current (not hypothetical) state of affairs. Third, we do not view the analysis adopted here and by other three-judge panels as leading inexorably to striking down every map in the country. Although we do not

explicitly adopt Dr. Warshaw's requirements that must be present to classify a map a partisan gerrymander, we find them instructive. Under that rubric, a map is a partisan gerrymander only if there is one-party control of redistricting, the party in control party is favored by the map, the partisan-bias metrics all point in the same direction and point toward an advantage for the party that controlled the redistricting, and the redistricting plan is an historical outlier in its partisan effects. Courts determining how the evidence in any given case applies to the test that we elaborate and employ today may also consider these factors, which we find important in our ultimate determination. Acknowledging that the partisan-bias metrics offer a range of results, then, is not to say that use of those metrics will necessarily result in courts striking down every challenged map.

A. Equal Protection Vote-Dilution Claim

1. Legal standard

[20] A state's partisan gerrymander violates the Equal Protection Clause of the Fourteenth Amendment when it "den[ies] to any person within [the State's] jurisdiction the equal protection of the laws." U.S. CONST. amend. XIV. Partisan gerrymanders violate equal protection by electorally disadvantaging the supporters of the party that lacked control of the districting process because of their support of that party. *See Rucho*, 318 F.Supp.3d at 860.

[21] We adopt the three-part test to prove a violation of the Fourteenth Amendment's Equal Protection Clause in a partisan-gerrymandering claim. Plaintiffs must prove (1) a discriminatory partisan intent in the drawing of each challenged district and (2) a discriminatory partisan effect on those allegedly gerrymandered districts' voters. *Bandemer*, 478 U.S. at 127, 106 S.Ct. 2797 (plurality op.); *id.* at 161, 106 S.Ct. 2797 (Powell, J., concurring and dissenting). Then, (3) the State has an opportunity to justify each district on other, legitimate legislative grounds. *See Rucho*, 318 F.Supp.3d at 861 (citing *Bandemer*, 478 U.S. at 141–42, 106 S.Ct. 2797) (plurality op.)); *Whitford*, 218 F.Supp.3d at 910–27.

a. Intent

[22–24] To prove the first prong, Plaintiffs must demonstrate that those in charge of the redistricting "acted with an intent to 'subordinate adherents of one political party and entrench a rival party in power." *Rucho*, 318 F.Supp.3d at 862 (quoting *Ariz. State Legislature*, 135 S.Ct. at 2658). It is not enough for Plaintiffs to show merely that the map drawers "relied] on political data or [took] into account political or partisan considerations," *id.*, because the Supreme Court has acknowledged that political considerations may sometimes have a place in districting, *Karcher*, 462 U.S. at 739, 103 S.Ct. 2653 ("We have never denied that apportionment is a political process, or that state legislatures could pursue legitimate secondary objectives as long as those objectives were consistent with a good-faith effort to achieve population equality at the same time."). For example, map drawers may design maps in a nondiscriminatory manner to avoid pairing incumbents, *Karcher*, 462 U.S. at 740, 103 S.Ct. 2653, to "achieve a rough approximation of the statewide political strengths of the Democratic and Republican parties," *Gaffney*, 412 U.S. at 752, 93 S.Ct. 2321, or to keep intact political subdivisions, *Abrams v. Johnson*, 521 U.S. 74, 100, 117 S.Ct. 1925, 138 L.Ed.2d 285 (1997). But these approved uses of political or partisan data differ enormously from employing historical partisan data to expertly vivisect a

state's voter population to extract the most partisan advantage possible. *See Gaffney*, 412 U.S. at 754, 93 S.Ct. 2321 (noting potential constitutional infirmities "if racial or political groups have been fenced out of the political process and their voting strength invidiously minimized").

Plaintiffs argue that they must demonstrate only that partisan intent was a motivating factor for the redistricting scheme, not that it predominated over all other aims. *See* Dkt. 251 (Pls.' Post-Trial Br. at 31 n.8). Defendants do not engage in the debate on the proper level of intent. They disavow any accusation of partisan intent and claim that their main motivations in drawing the 2012 map were the protection of incumbents and a desire "to preserve and advance minority electoral prospects." *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 4–27).

The Supreme Court has given conflicting indications of which level of intent plaintiffs must show in such a claim. Some cases suggest that partisan intent as a mere motivating factor is enough. For example, in *Bandemer*, the Court required political-gerrymandering plaintiffs to show "intentional discrimination against an identifiable political group," and did not specify that intentional discrimination must predominate over other aims. *Bandemer*, 478 U.S. at 127, 106 S.Ct. 2797 (plurality op.). In *Vieth*, the Supreme Court criticized the proposed predominant-purpose standard in the political-gerrymandering context. 541 U.S. at 284–86, 124 S.Ct. 1769 (plurality op.); *id.* at 308, 124 S.Ct. 1769 (Kennedy, J., concurring). *Village of Arlington Heights v. Metropolitan Housing Development Corp.* and its progeny require only that the discriminatory purpose be "a motivating factor in the decision." 429 U.S. 252, 265–66, 97 S.Ct. 555, 50 L.Ed.2d 450 (1977).

Other Supreme Court cases suggest that partisan intent must predominate over other goals in the redistricting. For example, *Shaw* racial-gerrymandering claims alleging violations of the Fourteenth Amendment require proof that "race was the *predominant factor* motivating the legislature's decision to place a significant number of voters within or without a particular district." *Miller*, 515 U.S. at 916, 115 S.Ct. 2475 (emphasis added). Yet, "the Supreme Court expressly has characterized *Shaw*-type racial-gerrymandering claims as ' "analytically distinct" from a vote dilution claim' " of the type that Plaintiffs here bring. *Rucho*, 318 F.Supp.3d at 863 (quoting *Miller*, 515 U.S. at 911, 115 S.Ct. 2475). *Shaw* racial-gerrymandering claims do not require plaintiffs to prove that the disparate electoral treatment was invidious, only that it existed. *See Miller*, 515 U.S. at 904, 115 S.Ct. 2475. In other cases, in which the plaintiff claims that a state enacted a voting scheme to "invidiously discriminate on the basis of race," the Supreme Court has not required a showing that the invidious discrimination was the predominant purpose of the scheme. *Rucho*, 318 F.Supp.3d at 846 (citing *Miller*, 515 U.S. at 911, 115 S.Ct. 2475; *Mobile v. Bolden*, 446 U.S. 55, 66, 100 S.Ct. 1490, 64 L.Ed.2d 47 (1980) (plurality op.)). In partisan-gerrymandering claims, the disparate treatment must be invidious. *Ariz. State Legislature*, 135 S.Ct. at 2658. "That a partisan gerrymandering plaintiff must meet the heightened burden of showing invidiousness weighs heavily against extending the predominance requirement for *Shaw*-type racial gerrymandering claims to partisan gerrymandering claims." *Rucho*, 318 F.Supp.3d at 864.

We observe that district courts have not uniformly adopted either the "motivating factor" or "predominant purpose" standard for intent in partisan-gerrymandering cases. *Compare Benson*, 373 F.Supp.3d at

912 & n.33, 2019 WL 1856625, at *27 & n.33 (predominant-purpose test), *and Rucho*, 318 F.Supp.3d at 860–68 (same), *with Whitford*, 218 F.Supp.3d at 887 (motivating-factor test). In *Rucho*, the district court reasoned that the Supreme Court relied heavily on *Shaw* racial-gerrymandering claims in its most recent partisan-gerrymandering case, *Gill*, and therefore adopted *Shaw*'s predominance requirement. 318 F.Supp.3d at 864. In *Benson*, the district court similarly chose the predominant-purpose standard due to *Gill*'s reliance on racial-gerrymandering cases that employ the standard. *Benson*, 373 F.Supp.3d at 912 & n.33, 2019 WL 1856625, at *27 & n.33. The district court in *Whitford*, however, distinguished the *Shaw* racial-gerrymandering cases. 218 F.Supp.3d at 887 n.171. It relied on *Arlington Heights* in requiring only that plaintiffs demonstrate that partisan intent was a motivating factor in the line drawing, not the " 'sole[ ]' intent or even 'the "dominant" or "primary" one.' " *Id.* at 887–88 (quoting *Arlington Heights*, 429 U.S. at 265, 97 S.Ct. 555). The district court in *Gill* reasoned that "it rarely can 'be said that a legislature or administrative body operating under a broad mandate made a decision motivated by a single concern,' " and acknowledged that a plethora of factors animate decisions in the major undertaking of redistricting. *Id.* at 888 (quoting *Arlington Heights*, 429 U.S. at 265, 97 S.Ct. 555).

[25] In the absence of clear guidance from the Supreme Court and given the connections the Court has recently drawn *in Gill* between partisan- and racial-gerrymandering cases, we follow *Benson* and *Rucho* in electing the predominant-purpose standard. We note, however, that if Plaintiffs meet the predominant-purpose standard, they necessarily satisfy the motivating-factor standard as well.

[26] Moreover, although courts have acknowledged that some partisan considerations are possible in the redistricting process, courts have recognized that partisan considerations are not included in the traditional redistricting principles. For example, excessive partisan considerations cannot serve as a justification for population deviations for state legislative redistricting plans, even when the population deviations are within the 10% safe harbor. *See Larios v. Cox*, 300 F.Supp.2d 1320, 1347–53 (N.D. Ga.), *aff'd mem.*, 542 U.S. 947, 124 S.Ct. 2806, 159 L.Ed.2d 831 (2004) (concluding that a state legislative plan violated one-person, one-vote, relying on the fact that the plan protected only Democratic incumbents and pitted many Republican incumbents against each other and that "the defendant ha[d] not attempted to justify the population deviations because of compactness, contiguity, respecting the boundaries of political subdivisions, or preserving the cores of prior districts."); *Hulme v. Madison County*, 188 F.Supp.2d 1041, 1047–52 (S.D. Ill. 2001) (concluding that a plan violated one-person, one-vote, similarly relying on evidence of excessive partisanship as the reason for a deviation of 9.3% and on the State's failure to offer another justification). *Larios* and *Hulme* thus represent examples of courts developing "a 'second-order' judicial check on partisan gerrymandering through the one person, one vote doctrine." Michael Kang, *Gerrymandering and the Constitutional Norm Against Government Partisanship*, 116 MICH. L. REV. 351, 384 (2017). These cases, and others post-*Vieth*, demonstrate that when partisanship predominates, partisanship is not a legitimate districting criterion. *Id.* at 384–90; *see also Harris v. Ariz. Indep. Redistricting Comm'n*, —— U.S. ——, 136 S.Ct. 1301, 1307, 194 L.Ed.2d 497 (2016) ("Appellants' basic claim is that deviations in their apportion-

ment plan from absolute equality of population reflect the Commission's political efforts to help the Democratic Party. We believe that appellants failed to prove this claim because, as the district court concluded, the deviations predominantly reflected Commission efforts to achieve compliance with the federal Voting Rights Act, not to secure political advantage for one party. Appellants failed to show to the contrary."); *Raleigh Wake Citizens Ass'n v. Wake Cty. Bd. of Elections*, 827 F.3d 333, 345 (4th Cir. 2016) ("Plaintiffs have proven that it is more probable than not that the population deviations at issue here reflect the predominance of a[n] illegitimate reapportionment factor—namely an intentional effort to create a significant . . . partisan advantage.") (internal quotations and citations omitted).

[27–29] Plaintiffs may prove discriminatory partisan intent using a combination of direct and indirect evidence because "invidious discriminatory purpose may often be inferred from the totality of the relevant facts." *Rucho*, 318 F.Supp.3d at 862 (quoting *Washington*, 426 U.S. at 241, 96 S.Ct. 2040); *see also Arlington Heights*, 429 U.S. at 266, 97 S.Ct. 555. We scrutinize the map-drawing process to understand what goals motivated the map's architects. Direct evidence of intent may include correspondence between those responsible for the map drawing, floor speeches discussing the redistricting legislation and other contemporaneous statements, and testimony explaining "[t]he historical background of the decision," including the "specific sequence of events leading up to the challenged decisions." *Arlington Heights*, 429 U.S. at 266, 97 S.Ct. 555. Indirect evidence "that improper purposes are playing a role" in map-drawing decisions may include "[d]epartures from the normal procedural sequence." *Id.*

[30–33] Indirect evidence also includes statistical evidence that demonstrates "a clear pattern" of partisan bias that would be unlikely to occur without partisan intent or evidence that the supporters of one political party were consistently treated differently than the supporters of another. *See id.* at 266, 97 S.Ct. 555. Suspect and irregular splitting of coherent communities of the disfavored party (cracking) and grouping of members of the disfavored group (packing) also support an inference of partisan intent. *See North Carolina v. Covington*, —— U.S. ——, 138 S.Ct. 2548, 2553, 201 L.Ed.2d 993 (2018) ("[A] plaintiff can rely upon either 'circumstantial evidence of a district's shape and demographics or more direct evidence going to legislative purpose' in proving a racial gerrymandering claim." (quoting *Miller*, 515 U.S. at 913, 115 S.Ct. 2475)). "That is particularly true when demographic evidence reveals that a district's bizarre lines coincide with the historical voting patterns of the precincts included in, or excluded from, the district." *Rucho*, 318 F.Supp.3d at 900. Such irregularities can be also quantified by low compactness scores and unnecessarily high numbers of county and municipality splits. Even though "compactness or attractiveness has never been held to constitute an independent federal constitutional requirement for state legislative districts," *Gaffney*, 412 U.S. at 752 n.18, 93 S.Ct. 2321, a lack of compactness or highly irregular district shapes support an inference that partisan intent motivated the line drawing, *Rucho*, 318 F.Supp.3d at 900.

b. Effect

[34] To prove the second prong, discriminatory effect, Plaintiffs must demonstrate that the plan had the effect of diluting the votes of members of the disfavored party by either packing or cracking voters into congressional districts. In *Gill*, the

Supreme Court noted that the harm of vote dilution "arises from the particular composition of the voter's own district, which causes his vote—having been packed or cracked—to carry less weight than it would carry in another, hypothetical district." 138 S.Ct. at 1931. A plan "packs" voters by creating districts that contain far more supporters of the disfavored party than would be necessary to elect a candidate from that party, causing many votes to be "wasted." *See id.* at 1924. A plan "cracks" voters by creating districts that include carved-off sections of supporters of the disfavored party, dividing them into separate districts in which they do not have sufficient numbers to elect their preferred candidate. *Id.*; *see also Benisek v. Lamone*, 348 F.Supp.3d 493, 514 (2018) ("[A State] can ... contract the value of a citizen's vote by placing the citizen in a district where the citizen's political party makes up a smaller share of the electorate, thereby reducing the citizen's chance to help elect a candidate of choice."). Packing and cracking can be evaluated using partisan-bias metrics, which reveal if, and by how much, the map benefits one party over another by facilitating the more efficient translation of that party's votes into seats.

[35–37] Plaintiffs may prove discriminatory effect by offering various types of evidence of packing and cracking. Statewide comparisons that demonstrate that the challenged map is an historical outlier in its extreme partisan bias, as measured through the efficiency gap and other related metrics, are indirect proof of packing and cracking. *See Gill*, 138 S.Ct. at 1924 (describing the efficiency gap). Multiple partisan-bias metrics should be used, and consistency of results across metrics and across data sets is key in evaluating this type of evidence. Plaintiffs should also offer comparisons between districts in the enacted plan and the same districts in more competitive hypothetical plans that did not take into account partisan concerns. *See id.* at 1931 (noting that packing and cracking can be demonstrated through a comparison to "another, hypothetical district"); *id.* at 1936 (Kagan, J., concurring) ("Among other ways of proving packing or cracking, a plaintiff could produce an alternative map (or set of alternative maps)—comparably consistent with traditional districting principles—under which her vote would carry more weight."). Such comparisons may support the inference that the partisan bias observed in the enacted map resulted from partisan intent rather than underlying political geography.

[38–40] Proof of discriminatory effect is bolstered by evidence showing that the partisan bias that the plan engendered was durable—the plan entrenched the favored party in power. *See Ariz. State Legislature*, 135 S.Ct. at 2658 (defining partisan gerrymandering as "the drawing of legislative district lines to subordinate adherents of one political party and entrench a rival in power"). An entrenched district is impervious to "the potential fluidity of American political life." *Jenness v. Fortson*, 403 U.S. 431, 439, 91 S.Ct. 1970, 29 L.Ed.2d 554 (1971); *cf. Johnson v. De Grandy*, 512 U.S. 997, 1017, 114 S.Ct. 2647, 129 L.Ed.2d 775 (1994) (explaining that, in the VRA context, "[o]ne may suspect vote dilution from political famine"). Entrenchment makes it potentially impossible to "throw the rascals out" and freezes the status quo, *see, e.g.*, *Vieth*, 541 U.S. at 356, 124 S.Ct. 1769 (Breyer, J., dissenting), further diluting the votes of individual voters. Plaintiffs may show entrenchment by demonstrating that the partisan bias of the enacted plan persisted over time. Evidence that a map is extremely unresponsive or noncompetitive—that voting patterns can change but the electoral result does not—helps to

prove durability of the partisan effects and therefore supports an inference of entrenchment.

c. Justification

[41, 42] Next, if Plaintiffs prove these first two prongs (discriminatory intent and discriminatory effect (i.e., packing and cracking)), then the burden switches to Defendants to present evidence that legitimate legislative grounds provide a basis for the way in which each challenged district was drawn. *Rucho*, 318 F.Supp.3d at 867–68; *see also Karcher*, 462 U.S. at 739, 741, 103 S.Ct. 2653 (requiring the State to justify its districting decisions "with particularity"). This type of evidence takes aim at Plaintiffs' intent prong. Defendants may assert that it was not partisan intent that motivated the map drawers' district delineations, but rather a desire to serve other aims. These legitimate justifications may include serving traditional redistricting principles, for example, "making districts compact, respecting municipal boundaries, preserving the cores of prior districts, and avoiding contests between incumbent Representatives[,]" and, "[a]s long as the criteria are nondiscriminatory, these are all legitimate objectives that on a proper showing could justify" the drawing of each district. *See Karcher v. Daggett*, 462 U.S. at 740, 103 S.Ct. 2653, 77 L.Ed.2d 133 (1983) (internal citation omitted). Other legitimate justifications include "preserving the integrity of political subdivisions, maintaining communities of interest," *Evenwel*, 136 S.Ct. at 1124, and compliance with the VRA, *see Bethune-Hill v. Va. State Bd. of Elections*, —— U.S. ——, 137 S.Ct. 788, 801, 197 L.Ed.2d 85 (2017) ("As in previous cases, . . . the Court assumes, without deciding, that the State's interest in complying with the Voting Rights Act [is] compelling."); *Ala. Legislative Black Caucus*, 135 S.Ct. at 1273–74 (holding that, when a state invokes the VRA to justify the use of race in the districting process, the state must have a "strong basis in evidence" for the position that the state would otherwise be violating the VRA if it failed to take race into account as it did).

[43] Defendants may also argue that some other non-partisan factor caused the map's partisan effects. *Rucho*, 318 F.Supp.3d at 867. For example, Defendants may argue that natural political geography—the patterns in which Democratic and Republican voters are distributed throughout the State—explains why a map favors one party or another. Defendants may also attack the discriminatory effect prong by using evidentiary metrics to show that the challenged map does not actually crack or pack a particular party's voters in a manner that is unusual given non-partisan considerations. For example, Defendants could attempt to show that the challenged map is not an historical outlier or that its partisan effects are in line with the partisan effects of non-partisan simulated or hypothetical maps. Vacillating election outcomes from election cycle to election cycle under the challenged map would also be evidence weighing against a finding of cracking and packing.

[44, 45] We then determine whether the State's proffered legitimate justifications or neutral explanations are credible based on the evidence presented at trial. *See Rucho*, 318 F.Supp.3d at 879 (examining the record and concluding that it did not support Defendants' claim that the General Assembly implicitly relied on certain criteria in making line-drawing decisions); *id.* at 897–98 (rejecting the proffered justification of incumbent protection); *see also Benisek*, 348 F.Supp.3d at 514 (finding one justification incongruent with the "massive shifts of population and the specific targeting of Republicans"); *id.* (rejecting the State's claim

that a district was drawn due to "an expressed interest in grouping residents along the Interstate 270 corridor" because "there is no evidence that the presence of an interstate highway ... was the reason for the reconfiguration of both the Sixth and Eighth districts, as distinct from a post-hoc rationalization"). In deciding whether to credit Defendants' justifications, we assess "the consistency with which the plan as a whole reflects [the asserted] interests, and the availability [and embrace] of alternatives that might substantially vindicate those interests." *See Karcher*, 462 U.S. at 740–41, 103 S.Ct. 2653. We also weigh the evidence to determine whether any neutral explanation for partisan effect accounts for the partisan effects observed. *See Rucho*, at 896–97, (rejecting the proffered justification of "natural packing" in North Carolina's political geography).

2. Application

Plaintiffs have demonstrated predominant partisan intent and partisan effect to support their First and Fourteenth Amendment vote-dilution claims. We first discuss evidence that applies broadly across all districts and then delve into the particularities of each district. We next analyze the justifications that Defendants have offered addressing both the intent behind the map and its partisan effects. We conclude that the proffered justifications either are inconsistent with the evidence, simply not credible, or do not meaningfully explain the design or effects of the 2012 map.

a. Statewide evidence of intent

[46] Several different types of evidence come together to tell a cohesive story of a map-drawing process dominated by partisan intent—the invidious desire to disadvantage Democratic voters and advantage Republican voters to achieve a map that was nearly certain consistently to elect twelve Republican Representatives and four Democratic Representatives. *See Washington v. Davis*, 426 U.S. 229, 242, 96 S.Ct. 2040, 48 L.Ed.2d 597 (1976) ("[I]nvidious discriminatory purpose may often be inferred from the totality of the relevant facts."). We examine evidence of the timeline and logistics of the map-drawing process, the map drawers' heavy use of partisan data, contemporaneous statements made by the map drawers about their efforts, the characteristics of the map itself (including the irregular shape of the districts, their lack of compactness, and the high number of county and municipality splits), and finally, the outlier partisan effects that the map has produced since its enactment. When assembled, this evidence paints a convincing picture that partisan intent predominated in the creation of the 2012 congressional map.

i. Map-drawing process

"Departures from the normal procedural sequence" may serve as proof "that improper purposes are playing a role" in the map drawers' work. *Arlington Heights*, 429 U.S. at 267, 97 S.Ct. 555. We conclude that the map-drawing process was rife with procedural irregularities and suspect behavior on the part of the map drawers, all of which support an inference of predominant partisan intent.

There was a severe disconnect between the outward face of the map-drawing process and its true inner workings. Publicly, the House and Senate Subcommittees on Redistricting held regional hearings across Ohio ostensibly to solicit the input of Ohioans on the 2012 map. Yet, no draft maps were presented to the public at these meetings, and the public therefore could not even react to or comment on the drafts. In fact, State Senator Faber, the co-chairman of the Select Committee on

Redistricting, testified that "the Select Committee on Redistricting didn't do much with regard to the actual redistricting . . . . I'm not even sure we issued a report." [738] *See Rucho*, 318 F.Supp.3d at 869 (finding a procedural irregularity in the fact that "notwithstanding that the Committee held public hearings and received public input, [the expert who drew the map] never received, much less considered, *any* of that input in drawing the 2016 plan" and finding that procedural irregularity probative of intent).

At the same time, in a room at the DoubleTree Hotel in Columbus, Republican map drawers worked on the map but declined to share drafts of it with the public, Democratic legislators, and most members of their own Party. They finally shared the map with other state legislators immediately prior to its introduction in the House. This late notice was in part necessitated by the fact that national Republicans such as Tom Whatman were requesting changes to the map as late as 9:28 PM on Monday, September 12, 2011, the evening before the bill was introduced.[739] It was also the result of the map drawers' strategic decision to "[h]old it 'in the can' " until the legislature returned in September.[740]

The deep involvement of national Republican operatives in the map-drawing process is an additional irregularity that serves as evidence of partisan intent. Ohio Republicans were in contact with national Republican Party operatives well before the map-drawing process began. National Republicans instructed the Ohio map drawers to maintain the plan's secrecy, taught the Ohio map drawers how to use Maptitude, and provided them with additional partisan data and assistance in working with the data they were provided. National Republican operatives repeatedly met with Judy, Mann, and DiRossi, and were in regular communication with them during the map-drawing process.

Importantly, the national Republican operatives did not merely play a supporting role in the map drawing. Rather, they generated foundational strategies that played key roles in the map. For example, it was Tom Whatman's and Adam Kincaid's idea to create a new Democratic district in the Columbus area (District 3) in order to solidify Republican seats in Districts 12 and 15. Whatman also made the decision that the Republican incumbents to be paired were Congressmen Turner and Austria because that was "the right thing for Republicans for the next decade." [741] The Ohio Republican map drawers displayed deference to their national Republican counterparts in their email correspondence. Mann and DiRossi cleared changes to the map with Whatman prior to implementing them. Whatman requested changes to the map on the eve of its introduction, and the Ohio map drawers accommodated his request. The evidence suggests that many of the big ideas for the 2012 map scheme were generated in Washington, D.C., and then communicated to the Republican consultants in the DoubleTree in Columbus. We conclude that the level of control asserted by national Republican operatives in a redistricting delegated to the State of Ohio's General Assembly raises the inference that pro-Republican partisan intent dominated the process.

738. Dkt. 230-13 (Faber Dep. at 21–22).

739. Trial Ex. P128 (Sept. 12, 2011 email at LWVOH_00018322).

740. Trial Ex. P112 (Congressional redistricting timeline at DIROSSI_0000140).

741. Trial Ex. P407 (Sept. 7, 2011 email at LWVOH_0052432).

ii. Heavy use of partisan data

Plaintiffs introduced testimonial evidence that the map drawers relied heavily on partisan data as they drew the 2012 map. We find the evidence of the heavy reliance on partisan data in the map-drawing process highly persuasive. *See Benisek*, 348 F.Supp.3d at 517–18 (finding partisan intent, noting that "[r]eliance on the [Democratic Performance Index] in finalizing a map was essential to achieving the specific intent to flip the Sixth District from safely Republican to likely Democratic"); *Rucho*, 318 F.Supp.3d at 869–70 (finding the map drawers' creation of a partisan index and use of it in drawing the districts indicative of partisan intent).

First, partisan data, along with other demographic data, was constantly displayed on the map drawers' computer screens as they did their work on Maptitude. As they drew and altered congressional district lines, the partisan leanings of the resulting districts would automatically update in real time.

Second, the Republican map drawers created various partisan indices through which they could measure the likely partisan outcomes of their draft maps, and the compositions of the indices are themselves proof of the map drawers' partisan intent. The Unified Index, upon which they relied heavily, averaged the results of five races, overall reflecting a partisan landscape more favorable to the Democratic Party than an index that would have included a fuller set of elections from the decade preceding the redistricting.[742] The 2008 McCain Index similarly reflected an election in which Democrats had performed very well. Using these indices to predict partisan outcomes of draft maps therefore allowed the map drawers a margin of error—if Republican victories were predicted using the Unified Index and the 2008 McCain Index's Democrat-friendly numbers, they would be likely to withstand Democratic wave years and be sure to elect Republicans in average years. These indices had the added benefit of making draft maps look more competitive than they actually were to the untrained eye. In fact, in public statements defending the competitiveness of the map, Representative Huffman stated that "11 of the 16 races are competitive if you use the 2008 Presidential Race as a guide." [743]

Third, communications between the Ohio map drawers and their national Republican counterparts demonstrate that partisan outcomes were undoubtedly foremost in their minds when making line-drawing decisions. *See Rucho*, 318 F.Supp.3d at 870 (finding the fact that one map drawer's "appraisal of the various draft plans provided by [the map-drawing expert] focused on such plans' likely partisan performance" probative of partisan intent). For example, DiRossi updated President Niehaus, Senator Faber, and Matt Schuler on his work on the map only days before the introduction of H.B. 319, informing them that the "Index for Latta fell two one hundreds [sic] of a point to 51.33" and the "Index for Jordan rose three one hundredth of a point to 53.26." [744] Later that morning, DiRossi followed up, stating that due to the change he had earlier implemented "a good part of Lucas [County] [Latta] is picking up is [R]epublican territory." [745] DiRossi responded again with more partisan information later the same morning, breaking

742. Dkt. 247 (Hood Trial Test. at 222–24).

743. Trial Ex. J22 (Rep. Huffman Sponsor Test. at 001).

744. Trial Ex. P126 (Sept. 12, 2011 emails at LVOH_00018298).

745. *Id.*

down the partisan leanings of the people in specific sections of Lucas County that DiRossi had just assigned to Latta's new district—"123,289 from Lucas County suburbs (49.13% 08 pres index) and 110,786 from Toledo wards (36.11% 08 pres index)." [746] This series of emails demonstrates the Republican map drawers' acute awareness of and concern about small impacts that line changes had on the map's partisan score as they tried to finesse the lines to ensure Republican voter majorities for Republican Congressmen Jordan and Latta. They thought it was important to know, for example, that the voters allotted to Latta from the Lucas County suburbs were more Republican leaning, as measured by the 2008 McCain Index than the voters allotted to Latta from the Toledo wards. A related email including "talking points" sent by Whatman to President Niehaus further exemplifies the use of this partisan data in decision making. Whatman explained that one incumbent pairing was chosen over another in part because the rejected pairing "makes it impossible to draw Latta w/ a good index because you can't get enough good to off set [sic] the bad he takes from Lucas County." [747] *See Benisek*, 348 F.Supp.3d at 517 (finding partisan intent where the consultant hired to draw the map "prepared district maps using [a political consulting firm's] proprietary [Democratic Performance Index] metric to assess the likelihood that a district would elect a Democratic candidate").

In the days leading up to the introduction of H.B. 319, DiRossi also sent Whatman an update about the effect that changes he had made to Congressman Stivers's district had on partisan scores. He sent Whatman an email in which the entirety of the message read: "Stivers 08 Pres goes from 52.64 to 53.32; Stivers unified index goes from 55.02 to 55.72; Schmidt 08 Pres goes from 54.62 to 53.99; [Schmidt] unified index goes from 57.64 to 56.96; I can send equivalency file if necessary." [748] The presence of entire emails communicating such minute shifts in partisan index scores in the days leading up to the map's introduction supports the conclusion that partisan outcomes were the predominant concern of those behind the map.

The correspondence between these map drawers is also littered with references to "good" and "bad" territory as well as "improve[ments]" that can be made to certain districts. For example, Whatman wrote to Kincaid, DiRossi, and Mann that one set of changes "looks good on the surface" but highlighted that the "[k]ey is whether we can improve CD1 and CD 14 at the block level." [749] In another email criticizing changes that Kincaid had made to a map, Tom Hofeller wrote that "[t]he area Adam has on his version included . . . some of the more 'downtown' area, which I took out of the map I sent—as it was 'dog meat' voting territory." He later referred to the area he had removed as "awful-voting territory in the 15th." [750] "Good" territory clearly meant Republican-leaning territory, "bad" or "awful" territory meant Democratic-leaning territory, and "improv[ing]" a district meant manipulating boundaries, sometimes "at the block level," to make it more likely to elect a Republican representative. The map drawers defined these ba-

746. *Id.*

747. Trial Ex. P407 (Sept. 7, 2011 email at LVOH_0052431).

748. Trial Ex. P127 (Sept. 12, 2011 email at LWVOH_00018320).

749. Trial Ex. P119 (Sept. 3, 2011 email at LVOH_00018302).

750. Trial Ex. P394 (Sept. 8, 2011 email at REV_00023234).

sic classifications of geographic areas based on their partisan leanings and the partisan impact that they would have on the map. The fact that mapmakers considered an area "good" or "bad" based on its partisan composition demonstrates the absolute centrality of partisanship to their map-drawing efforts.

The Republican map drawers repeatedly emphasized in their testimony that partisan index data was only one category of the many types of demographic data that was displayed in Maptitude as they worked. However, while there is ample evidence that the map drawers were acutely aware of how their mapmaking decisions impacted the partisan leanings of their draft districts, no such evidence suggests that they were nearly as focused on any other type of demographic data. Further, the correspondence includes very little discussion of how contemplated changes would impact core preservation, affect compactness, or minimize county or municipality splits.

iii. Contemporaneous statements

Statements made by the map drawers during and immediately after the map-drawing process also reflect their intent to produce a 2012 map with specific partisan results. *See Benisek*, 348 F.Supp.3d at 518 (considering notes prepared for the Senate President's "remarks to the State House and Senate Democratic Caucuses about the redistricting plan" as evidence establishing intent). For example, Whatman explained to President Niehaus why certain decisions had to be made about the map: "In losing two seats and trying to *lock down* 12 Republican seats it is unrealistic to think that southwest Ohio can remain the way it is." [751] This is a direct expression of the Republican map drawers' intent to draw a map that guarantees the election of twelve Republicans by minimizing the competitiveness and responsiveness of the districts. The same email explained that pairing senior rather than freshman Republican incumbents was necessary to avoid "an overall worse map for republicans in the state" which was "not the right thing to do." [752] Rather, in Whatman's view, a "tough decision" had to be made that was "the right thing for Republicans for the next decade"—choosing the incumbents to be paired based on which would allow for a more pro-Republican map.[753] This statement, made days before the introduction of H.B. 319 by a chief architect of the 2012 map, is more direct evidence that the map drawers knowingly prioritized partisan impact over other redistricting concerns, such as incumbent protection, and that they understood and intended the map-drawing decisions they were making to affect the electoral outcomes "for the next decade." They could be sure that the impacts would remain for years to come because they relied on carefully chosen indices to predict partisan scores and monitored changes to those partisan scores down to the second decimal place. *See Rucho*, 318 F.Supp.3d at 870 (finding evidence of partisan intent in the map drawers' understandings that the map design would dictate partisan outcomes "*in every subsequent election*").

Kincaid's statements about the Ohio redistricting process following the passage of H.B. 369 provide further proof of the map drawers' partisan intent. In a presentation to the NRCC, he stated his belief that Districts 1, 12, and 15 had been taken "out of play"—they were safe Republican seats that had been designed with suffi-

751. Trial Ex. P407 (Sept. 7, 2011 email at LWVOH_0052431) (emphasis added).

752. *Id.* at LWVOH_0052432.

753. *Id.*

cient partisan insulation from a Democratic challenge.[754] Kincaid provided the PVI numbers to demonstrate significant pro-Republican partisan shifts that the 2012 map had achieved. This is evidence that Republican map drawers relied heavily on and frequently discussed partisan indices because they were understood as the means of monitoring their goal of designing reliably Republican districts. Kincaid also stated his belief that Districts 6 and 16 were "Competitive R Seats Improved"—their designs had been altered to shore up Republican advantage.[755] Kincaid's discussion of the map's achievements emphasized that it should reliably deliver a 12-4 partisan composition, "eliminat[ed] [Representative] Sutton's seat," and "created a new Democratic seat in Franklin County"—all commentary focused on the issue that mattered most to the map drawers: partisan outcomes.[756]

iv. Irregular shape of the districts, lack of compactness, high number of splits

A map that fails to include compact districts that follow preexisting county and municipal lines raises questions of intent. The choice to split counties and municipalities and to draw noncompact districts must have been motivated by some other intent that was more important to the map drawers than honoring these traditional districting principles. Where no other motivation is offered, or the motivation offered is unconvincing, and other evidence demonstrates that partisan intent was present, irregularly shaped, noncompact districts and seemingly unnecessary county and municipality splits can support an inference of partisan intent.

Comparing the 2012 map to Mr. Cooper's hypothetical maps (which dealt with the same incumbent-pairing situation as the map drawers in 2011 did) provides some proof of partisan intent. The 2012 map splits two counties four ways, five counties three ways, and sixteen counties two ways.[757] Mr. Cooper's hypothetical maps, in contrast, split no counties four ways, only two counties three ways, and twelve counties in two ways.[758] Mr. Cooper's hypothetical maps also have higher Polsby-Popper and Reock scores than the 2012 map, meaning that their districts are more compact.[759] The hypothetical maps also have core retention rates on par with that of the 2012 map.[760] The fact that Mr. Cooper was able to draw two hypothetical maps that comport with traditional redistricting principles as well or better than the 2012 map, pair the same configuration of incumbents, and result in more favorable partisan outcomes for Democratic voters suggests that the 2012 map was selected in order to engineer less favorable partisan outcomes for Democratic voters.

Further, it does not take an expert or scientific analysis to see that the 2012 map is littered with oddly-shaped districts. It is true that district lines must be drawn somewhere, but even a cursory glance at the 2012 map shows how non-compact some districts are. When coupled with all of the other evidence regarding intent, we find that the irregularity of the boundaries

754. Trial Ex. P310 (NRCC Presentation at 5); Dkt. 230-27 (Kincaid Dep. at 115–16).

755. Trial Ex. P310 (NRCC Presentation at 6).

756. Trial Ex. P414 (State-by-State Redistricting Summary at REV_00000001); Dkt. 230-28 (Kincaid Dep. at 519).

757. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

758. Trial Ex. P093 (Cooper Second Suppl. Decl. at 9, 16).

759. *Id.* at 8, 15.

760. *Id.* at 6, 13.

is further evidence that the districts' boundaries were drawn with a predominantly partisan intent. *See Rucho*, 318 F.Supp.3d at 883 (finding that the challenged map's " 'bizarre' and 'irregular' shapes" which were "explicable only by the partisan make-up of the precincts the map-drawers elected to place within and without the districts" supported a finding of predominant partisan intent).

v. Partisan effects as measured by evidentiary metrics

Plaintiffs argue that the extremity of the partisan effects themselves are strong proof of partisan intent. We find the inference of partisan intent well supported by Dr. Warshaw's analysis demonstrating the 2012 map's extreme levels of partisan bias across multiple metrics and data sets and when compared to a large array of historical elections.[761] *See Rucho*, 318 F.Supp.3d at 862 ("In determining whether an 'invidious discriminatory purpose was a motivating factor' behind the challenged action, evidence that the impact of the challenged action falls 'more heavily' on one group than another 'may provide an important starting point.' " (quoting *Arlington Heights*, 429 U.S. at 266, 97 S.Ct. 555)); *id.* at 870–76 (concluding that mathematical analyses indicating that the challenged map was an extreme statistical outlier in terms of its partisan effects were proof of partisan intent). Dr. Warshaw's analysis of elections under the 2012 map compared to historical elections in comparable states showed that it is extremely partisan and extremely pro-Republican. All four partisan-bias metrics he employed supported this conclusion, which held true across different elections that have occurred under the 2012 plan. We conclude that such strong and consistent pro-Republican partisan bias would be highly unlikely to occur without intentional manipulation of the district lines to achieve that result.

b. *Statewide evidence of effect*

[47] For their vote-dilution claims, Plaintiffs offer, in part, statewide evidence to prove partisan effect. As in other gerrymandering cases, "[v]oters, of course, can present statewide *evidence* in order to prove ... gerrymandering in a particular district." *See Ala. Legislative Black Caucus*, 135 S.Ct. at 1265. This evidence complements and strengthens other district-specific evidence.[762] The actual election results and the analyses of Dr. Warshaw and Dr. Cho are particularly relevant here.

[48, 49] Before turning to this evidence, it is worth explaining that the reliance on statewide evidence in a partisan-gerrymandering case is slightly distinct from *Shaw* racial-gerrymandering cases. Of course, a *Shaw* claim does not have effect as an element. Rather, the harm under a *Shaw* claim is an "expressive" harm. *See* Richard H. Pildes & Richard H. Niemi, *Expressive Harms, "Bizarre Districts," and Voting Rights: Evaluating Election-District Appearances After Shaw v. Reno*, 92 MICH. L. REV. 483, 506–07 (1993) ("An expressive harm is one that results from the ideas or attitudes expressed through a governmental action, rather than from the more tangible or material consequences the action brings about."). As the Supreme Court recognized in *Miller*:

> *Shaw* recognized a claim "analytically distinct" from a vote dilution claim. Whereas a vote dilution claim alleges that the State has enacted a particular voting scheme as a purposeful device "to minimize or cancel out the voting poten-

761. Trial Ex. P571 (Warshaw Rep. at 4).

762. Plaintiffs' First Amendment associational claim rests on statewide evidence, and we discuss this further in Section V.C.

> tial of racial or ethnic minorities," an action disadvantaging voters of a particular race, *the essence of the equal protection claim recognized in Shaw is that the State has used race as a basis for separating voters into districts.*

Miller, 515 U.S. at 911, 115 S.Ct. 2475 (citations omitted) (emphasis added). Accordingly, "a plaintiff alleging racial gerrymandering bears the burden 'to show . . . that race was the predominant factor motivating the legislature's decision to place a significant number of voters within or without a particular district.'" *See Bethune-Hill*, 137 S.Ct. at 797. In partisan-gerrymandering cases, however, the harm includes partisan effect, and consequently Plaintiffs may rely on statewide evidence to prove that harm. In this case, a predominant partisan intent drove how the entire map was drawn, so it is logical that Plaintiffs should be able to rely on statewide evidence of effect, as well as district-by-district evidence. Just as a predominant partisan intent infected the whole map, the partisan-effect evidence discussed here shows efficient packing and cracking of Democratic voters across the whole map.

Lastly, the evidence discussed in this section could also be used to prove intent. *See infra* Section V.C.1.b. In future cases, one would expect map drawers not to express clearly their pure partisan intentions, and there likely would be less clear direct evidence of partisan intent. The social-science metrics and simulated maps would then become even more important considerations, for evidence of sufficiently extreme partisan gerrymanders would support the contention that a state was predominantly motivated by partisanship. *See infra* Section V.C.1.b.

Turning now to the evidence, the actual election results show a durable partisan effect across the map and support an inference of packing and cracking districts across the State. Every election has resulted in the election of twelve Republican representatives and four Democratic representatives. Even more alarming is the fact that the Republican candidates have consistently won the exact same districts: Districts 1, 2, 4, 5, 6, 7, 8, 10, 12, 14, 15, and 16; and the Democratic candidates have consistently won the exact same districts: Districts 3, 9, 11, and 13. Thus, in each of these elections, 75% of the representatives elected in the State of Ohio were Republicans—despite fluctuations in the Republican statewide vote share. In the 2012 election, Republicans won only 51% of the statewide vote. In 2014, they won only 59% of the statewide vote. In 2016, they won only 57% of the statewide vote. In 2018, they won only 52% of the statewide vote. From a statewide perspective, then, at least 2012 and 2018 were quite competitive. At the individual district level, however, only four congressional elections—two in 2012 and two in 2018—have been competitive (within a 10% margin of victory, or within 55% to 45%) across the entire decade. Each of those competitive elections was won by Republican candidates; meanwhile, the lowest percentage of the vote that a winning Democratic candidate for Congress received in any election was 61%. Because the scientific evidence shows that such clustering is not the result of natural packing, this strongly suggests that Democratic voters were intentionally packed in large numbers into these four districts. Under the 2002 map, there were several districts that bounced between electing Democratic and Republican representatives—particularly Districts 6, 15, 16, and 18.[763] In short, the

763. OHIO SEC'Y OF STATE, 2002 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2002-elections-results/; OHIO SEC'Y OF STATE, 2004 ELECTION RESULTS, https://

actual statewide vote share in congressional elections does not suggest that Democratic voters should have expected to suffer from such a "political famine," or such a "political feast" in the four districts that they have won, and, consequently, this raises suspicions of vote dilution. *Cf. De Grandy*, 512 U.S. at 1017, 114 S.Ct. 2647 ("One may suspect vote dilution from political famine").

Further, an array of social-science metrics demonstrates that the 2012 map's significant partisan bias in favor of Republicans in that the Republicans possess a major advantage in the translation of votes to seats compared to Democrats. This partisan bias is durable across the decade. In the 2012 and 2018 elections, the efficiency gap, declination, and partisan symmetry metrics were each more extreme and more pro-Republican than over 90% of previous elections. *See supra* Section II.C.1. The mean-median difference also displays significant partisan bias, though less so than the other three metrics: in 2012, the mean-median difference was more extreme than "in 83% of previous elections and more pro-Republican than ... in 92% of previous elections."[764] For 2018, the corresponding percentages were 62% and 81%.[765] Although not as strong, we still give weight to the fact that the mean-median difference jumped from 1.7% in 2010 (a successful Republican year) to 7.8% in 2012 and remained much higher, at 5%, in 2018.[766] In 2014 and 2016, these four metrics do not indicate quite as much partisan bias; however, that makes sense given that Republicans performed better in those years. In fact, that just proves the point—when the statewide congressional vote was nearly split between the two parties, the same results were achieved as when Republicans did markedly better.

The lack of competitive elections compared to what one would expect based on Ohio's natural political geography also indicates that Democratic voters have been packed and cracked.[767] Dr. Cho's analysis showed that under the simulated maps, one would expect at least a handful of competitive elections across the State in each election, with Democratic candidates winning some of those elections and Republican candidates winning others. *See supra* Section II.C.2.b.i. Again, the current map had only two competitive elections in the 2012 cycle, and only two competitive elections in the 2018 cycle—all favoring Republicans. The evidence of packing is perhaps the strongest, as every Democratic candidate who has won an election under the current map has garnered over 60% of the vote—a stark contrast in comparison to the simulated maps in which Democratic candidates are projected to run in several competitive elections. Given the continued dearth of competitive elections for both parties, we credit Dr. Cho's conclusion that the margins of victory "are sufficiently in-

www.sos.state.oh.us/elections/election-results-and-data/2004-elections-results/; OHIO SEC'Y OF STATE, 2006 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2006-elections-results/; OHIO SEC'Y OF STATE, 2008 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2008-election-results/; OHIO SEC'Y OF STATE, 2010 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2010-elections-results/. The Court takes judicial notice of the 2002-2010 election results. FED. R. EVID. 201.

764. Trial Ex. P571 (Warshaw Rep. at 25).

765. Trial Ex. P476 (Warshaw 2018 Update at 3).

766. Trial Ex. P571 (Warshaw Rep. at 24); Trial Ex. P476 (Warshaw 2018 Update at 3).

767. We further discuss individual districts, as well as their election results and lack of competition, *infra*.

sulating to produce an enduring effect" in favor of Republicans.[768]

Moreover, we conclude that the districts are effectively entrenched to favor Republican candidates overall. We thus credit Dr. Warshaw's conclusion that "Democratic voters in Ohio are efficiently packed and cracked across districts." [769] This conclusion is supported, in part, by the evidence outlined above. Additionally, Dr. Warshaw's first uniform swing analysis shows that "Democrats would win only 37.5% of the seats in Ohio's congressional districts [or 6 out of 16 seats] even if they won 55% of the statewide vote." [770] Incorporating the 2018 election results produced only a slight difference, with Democrats winning half the seats when they achieve 55% of the vote.[771] The swing analysis demonstrates entrenchment because it shows that the 2012 map's design is such that the overall Republican advantage will be maintained, absent a rather seismic shift in the statewide vote share in favor of Democratic candidates. This evidence of entrenchment adds more weight to Plaintiffs' vote-dilution claims and strongly shows that the districts are impervious to "the potential fluidity of American political life." *Jenness*, 403 U.S. at 439, 91 S.Ct. 1970.

Critically, the evidence shows that the map enacted in H.B. 369 is an outlier in terms of its partisan effects. Dr. Warshaw's findings on the pro-Republican tilt and extreme nature of the partisan-bias metrics provide considerable weight for this conclusion. Dr. Cho's seat-share analysis bolsters the fact that H.B. 369 is an outlier. In her initial analysis, none of the simulated maps produced the same 12-4 seat share as the current map; using updated data, only 0.046% of the simulated maps (1,445 out of over 3 million) produced the same 12-4 seat share. *See supra* Section II.C.2.b.iii. In this case, we are not confronted with a difficult question about the margins of what constitutes an outlier. By almost every measure, H.B. 369 has produced partisan effects that are more extreme than over 90% of prior elections, and several of the measures show that this map is over 95% more extreme.

Defendants contest the usefulness and appropriateness of Dr. Cho's simulated maps as a comparison to the current map because the simulated maps do not factor in incumbent protection. We find these arguments largely unpersuasive. To begin, the simulated maps incorporate only neutral districting criteria, and thus, they serve as useful non-partisan baselines against which to compare the current map's partisanship. In this case, these non-partisan baselines demonstrate the typical type of maps one would expect based on the State's natural political geography. Second, to the extent that the General Assembly *legitimately* sought to avoid the pairing of incumbents, we find that Dr. Cho's failure to account for this factor partially reduces the strength of her conclusion that the 12-4 map cannot be explained by legitimate redistricting criteria. Even so, we still find Dr. Cho's simulated maps to support an inference of partisan effect and intent due to the overbreadth of Defendants' incumbent-protection explanation, its shaky evidentiary foundation, and the sheer extremity of the pro-Republican or pro-Democratic leanings of the current districts, as demonstrated by Dr. Cho's comparison analysis. We fully address the incumbent-protection justification for H.B. 369 later in this opin-

768. Trial Ex. P426 (Cho Suppl. Rep. at 6).

769. Trial Ex. P571 (Warshaw Rep. at 43).

770. *Id.* at 15.

771. Trial Ex. P476 (Warshaw 2018 Update at 12–13).

ion. As will be explained, we find that Defendants have stretched the incumbent-protection justification too far in this case, and, in some respects, the justification simply does not hold up based on the facts. We observe that Representative Huffman clearly described incumbent protection as "subservient" to other criteria. *See* Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 19) (statement of Rep. Huffman). Moreover, Dr. Cho's findings on her simulated maps' partisan outcomes so starkly contrast with the current map that, to the extent incumbent protection explains *some* of the current map's partisan effect, Dr. Cho's analyses provide support, along with other evidence in this case, that this justification cannot explain the consistent 12-4 seat share of the current map.

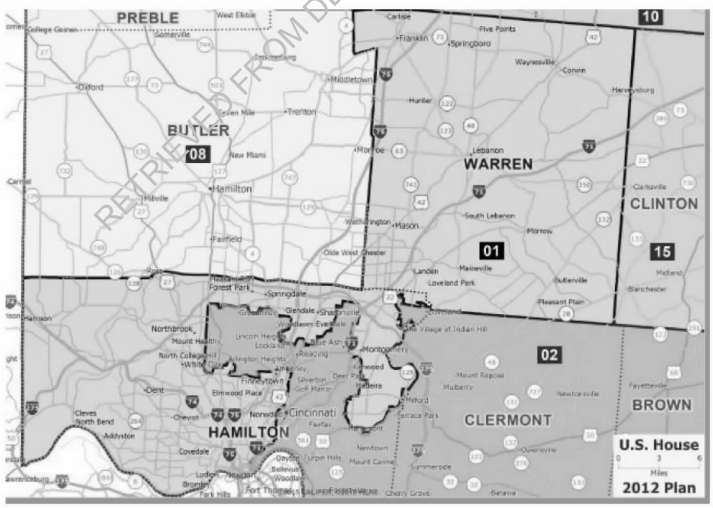
We now turn to an analysis of each individual district.

c. District-by-District analysis

In this section, we complement the statewide evidence of intent and effect with evidence specific to each district. We show that each district was drawn with a predominant intent to dilute the votes of Democrats and that each district actually dilutes the votes of Democrats by either packing or cracking Democrats into the district. In doing so, we address and reject herein some of the particular partisan-neutral explanations that Defendants offer for certain districts. In the next section, we explore more fully some of the overarching justifications that Defendants advance.

i. District 1

[50] District 1 encompasses all of Warren County and irregularly shaped and disjointed portions of Hamilton County, including western portions of the City of Cincinnati. The district wraps strangely around the eastern portion of Cincinnati, surrounding it on three sides.[772]



As Dr. Niven described, rather than leaving intact the City of Cincinnati, an obvious community of interest that leans Democratic, the map drawers made a deliberate choice to split the city in half in an

772. Trial Ex. P090 (Cooper Decl. at 12, fig. 5; App. D-3); Dkt. 241 (Cooper Trial Test. at 145).

irregular shape. One half was paired with heavily Republican Warren County to make a Republican District 1. The other half was paired with Republican rural southern Ohio counties to make a Republican District 2.[773] Dr. Niven's report demonstrated that the Cincinnati neighborhoods that were split were particularly likely to be Democratic strongholds.[774] Thus, the "demographic evidence reveals that [the] district's bizarre lines coincide with the historical voting patterns of the precincts included in, or excluded from, the district." *Rucho*, 318 F.Supp.3d at 900. We therefore conclude that District 1's bizarre lines (wrapping around portions of the City of Cincinnati on three sides) and the fact that it vivisects an obvious community of interest, which together split a Democratic city to create two solidly Republican districts, is evidence that partisan intent dominated the drawing of District 1. *See Covington*, 138 S.Ct. at 2553 (considering "circumstantial evidence of [the] district's shape and demographics" as evidence of racial gerrymandering).

It is true that Hamilton County has a population larger than the ideal equipopulous district and therefore cannot be entirely contained within a single district; the county must be divided to some extent.[775] However, we reject the argument that the need to split Hamilton County is a neutral explanation for District 1 being drawn as was. Even though Hamilton County needed to be split between two congressional districts, it did not have to be split in such an irregular shape and need not have divided the City of Cincinnati, a clear community of interest, in such a dramatic fashion. For example, Mr. Cooper's hypothetical maps, which were designed as viable alternatives that could have been enacted in 2011, and which match or better the enacted map in terms of their compliance with traditional redistricting principles, maintain the City of Cincinnati intact to a far greater degree than the 2012 map.[776]

We can discern no legitimate reason behind the division of the City of Cincinnati other than the desire to crack its Democratic voters, disabling a cohesive center that would likely have elected a Democratic representative and instead facilitating the creation of another Republican district. DiRossi testified that "[t]he intention [in 2011] was to try to have one whole county in [District 1] somehow." [777] DiRossi testified that Warren County was selected to be the whole county, and portions of Hamilton County would be drawn in to reach the ideal population.[778] He stated that the decision to include Warren County "impact[ed] the shape of the district in Hamilton County . . . [b]ecause in order to have most of the west side and Cincinnati in the district, but also connect to Warren County . . . you had to come across the northern area of places like Evendale and some of the other Springfield Township northern places to connect them." [779]

We find this explanation for District 1's shape and the division of the City of Cincinnati entirely unconvincing, false, and indicative of partisan intent. In fact, DiRossi's explanation of the contours of District 1 provokes more questions than it an-

773. Trial Ex. P524 (Niven Rep. at 7).

774. *Id.* at 13.

775. Dkt. 241 (Cooper Trial Test. at 153).

776. Trial Ex. P093 (Cooper Second Suppl. Decl. at 4, 12).

777. Dkt. 243 (DiRossi Dep. at 186).

778. *Id.*

779. *Id.* at 186–87.

swers. Why was Warren County, rather than Butler County or Clermont County selected as the county to pair with Hamilton County? Why was the intention to try to have one whole county in District 1? This did not appear to be a pressing concern elsewhere—Districts 13 and 9 are composed entirely of partial counties. Why did the map drawers want to have the *west side* of Hamilton County in the district, requiring them "to come across the northern area"? What was wrong with the east side? Most importantly, DiRossi's explanation of the shape of the district fails to explain why the City of Cincinnati was split as it is and why keeping Warren County whole was more important than preserving the obvious community of interest embodied in the City of Cincinnati. *See Arlington Heights*, 429 U.S. at 267, 97 S.Ct. 555 ("Substantive departures [from normal procedure] may be relevant, particularly if the factors usually considered important by the decisionmaker strongly favor a decision contrary to the one reached."). We reject this justification and conclude that it was merely an attempt to obfuscate. *See Benisek*, 348 F.Supp.3d at 520 (rejecting a proffered post hoc rationalization for a district's design as unsupported by the evidence). Rather, given the substantial evidence of partisan intent discussed above, we conclude that the more plausible explanation for District 1's configuration was the predominant desire to crack Democratic voters in Cincinnati, a cohesive center that would likely have elected a Democratic representative. Instead, the design of District 1 facilitated the dilution of these Cincinnati Democrats' votes by splitting them between two majority-Republican districts—Districts 1 and 2.

Further, we conclude that the 2012 map did crack Democratic voters in Hamilton County in District 1. We first note that District 1 has elected Republican representatives in every election that followed the redistricting. This durability in and of itself is some evidence of cracking in District 1. *See id.* at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting").

Second, the partisan effects of District 1 were durable because the district was drawn in a way to ensure the election of a Republican representative. Evidence proves that entrenchment resulted in this case. In 2012, Republican Representative Steve Chabot was elected with 57.73% of the vote. In 2014, he won with 63.22% of the vote. In 2016, he won with 59.19% of the vote. In 2018, he won with 51.32% of the vote. Thus, only one of these elections was competitive—the last, which occurred during a significant Democratic swing election year. Democratic candidate Aftab Pureval challenged Representative Chabot in District 1 in 2018. Pureval spent $ 4,059,690.53 on his campaign while Representative Chabot only spent $ 2,991,573.88.[780] Even under those conditions, however, the composition of the district allowed Representative Chabot to hold off his Democratic challenger. District 1's election results under the 2012 map are evidence of its lack of competitiveness and responsiveness (i.e., entrenchment), achieved through cracking. Indeed, Kincaid stated that he understood District 1 would result in entrenchment. Immediately after the redistricting, Kincaid expressed his belief that District 1 had moved seven PVI points in favor of Republicans and had thus been taken "out of play."[781] Mapmaking that takes a district "out of play" certainly has

780. Trial Ex. P426 (Cho Suppl. Rep. at 5–6).

781. Trial Ex. P310 (NRCC presentation at 5); Dkt. 230-27 (Kincaid Dep. at 115–16).

partisan effects—it converts a district that could previously be won by a candidate from either party into one that will consistently elect a member of the favored party. *See Benisek*, 348 F.Supp.3d at 519 (finding partisan effect where the design of the district resulted in a large swing in PVI).

District 1's consistent election of a Republican Congressman under the 2012 plan stands in stark contrast to former District 1's status as a swing district under the 2002 plan. In 2006, District 1 elected Republican Representative Chabot, who won with 52.25% of the vote. In 2008, District 1 elected Democratic Representative Steve Driehaus with 52.47% of the vote. In 2010, District 1 flipped back to elect Republican Representative Chabot, this time winning by an even narrower margin with 51.49% of the vote. The 2012 map redrew District 1 in a fashion that diluted Democratic support by cracking the Democratic City of Cincinnati and paired those portions of Cincinnati with rural Republican strongholds, thereby eliminating the threat that District 1 would flip Democratic. *See Benisek*, 348 F.Supp.3d at 519 (finding partisan effect where "Republican voters in the new Sixth District were, in *relative* terms, much less likely to elect their preferred candidate than before the 2011 redistricting, and, in *absolute* terms, they had no real chance of doing so"). District 1's consistent election of a Republican representative under the 2012 map is evidence of the durability of its partisan bias and its facilitation of Republican entrenchment.

Dr. Niven's report provides further proof of the cracking of District 1. It demonstrates the pronounced partisan divergence between Democratic Cincinnati and Republican Warren County, which combined with the cracked part of Cincinnati to form the new District 1.[782] Niven also demonstrated that the pre-2012 version of District 1 elected President Barack Obama in 2008 with 55.17% of the vote, but predicted that had that election been held with District 1 composed as it is under the current map, Obama would have lost the district, securing only 47.7% of the vote.[783] This evidence is highly suggestive of the effect that the design of the new District 1 had on Democratic voters' ability to elect Democratic representatives in the District.

Finally, Dr. Cho's report also serves as proof of a partisan effect of cracking in District 1. In 95.68% of Dr. Cho's simulated maps Plaintiff Linda Goldenhar, currently a voter in District 1, would reside in a district where she would have a better chance of electing a Democrat.[784] We find that the divergence between the partisan leaning of the current District 1 and the vast majority of the non-partisan simulated districts supports the conclusion that the 2012 map cracked Democratic voters in District 1.

ii. District 2

[51] District 2 encompasses part of Hamilton County, including highly irregularly shaped portions of the City of Cincinnati,[785] as well as all of Clermont, Brown, Adams, Highland, and Pike Counties and portions of Scioto and Ross Counties.[786] District 2 was drawn as the complement of District 1—it took on the other half of the City of Cincinnati to enable the cracking of its Democratic voting power. Therefore, much of the same partisan-intent analysis that corresponds to District 1 also applies to District 2. *See Benson*, 373 F.Supp.3d at

782. Trial Ex. P524 (Niven Rep. at 7).

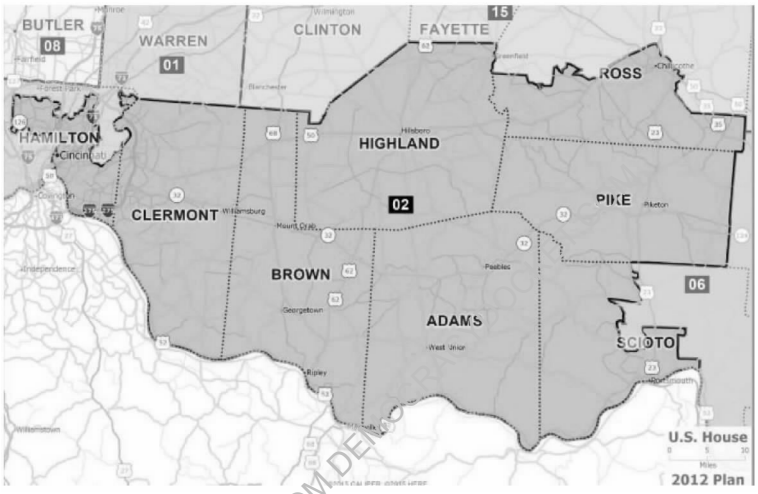
783. *Id.* at 8.

784. Trial Ex. P087 (Cho Rep. at 13).

785. Dkt. 241 (Cooper Trial Test. at 145).

786. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

945 n.39, 2019 WL 1856625, at *57 n.39 (explaining that "[t]he Court will evaluate several of the Senate and House Districts in groups.... The way that each district in a group was drawn had profound consequences on the partisanship of the other districts in that same group. One cannot fully grasp the partisan implications of the design of an individual district in each group without simultaneously evaluating the partisanship of the other districts in that group."). We conclude that the unnecessary and irregular splitting of Hamilton County and the Democratic City of Cincinnati provides ample proof of a predominant partisan intent to crack District 2. This evidence is supplemented by the general evidence of partisan intent in crafting the 2012 map, discussed above.



We also conclude that the 2012 map had the effect of cracking Democratic voters from the Cincinnati area in District 2. The historical election results are evidence of this cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Brad Wenstrup was elected to Congress with 58.63% of the vote. In 2014, he won with 65.96% of the vote. In 2016, he won with 65.00% of the vote. In 2018, he won with 57.55% of the vote. None of these elections was competitive because the design of District 2 tempered Democratic support from the Cincinnati area with sufficient Republican territory to ensure a Republican victory. The consistent election of a Republican representative by "safe" margins is evidence of cracking in District 2. It also supports the conclusion that the 2012 map's partisan effects were durable and facilitated Republican entrenchment in District 2.

Dr. Niven's report provides additional evidence that District 2 cracked voters from Hamilton County. Under the pre-2012 map, District 2 had been solidly Republican, with only 40.60% of voters supporting President Obama in the 2008 election. Had the same election occurred with District 2 as it is currently composed, 44.98% of voters would have supported President Obama.[787] This evidence demonstrates that the redistricting decreased the district's considerable partisan margin as

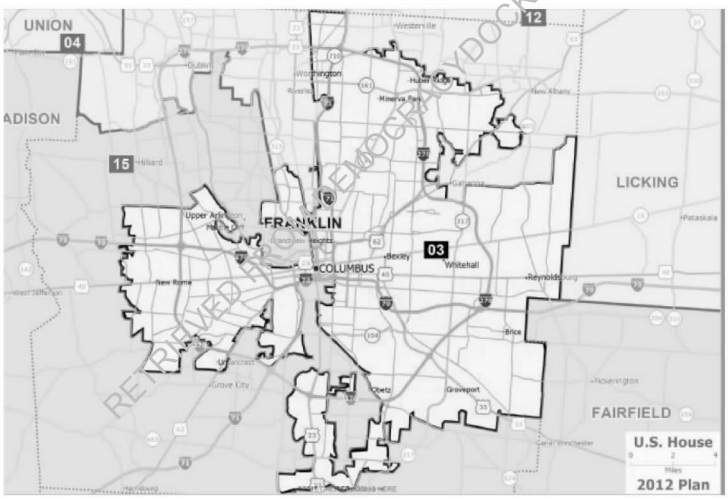
787. Trial Ex. P524 (Niven Rep. at 9).

Democratic voters from the Cincinnati area were absorbed by the new District 2. Yet the map maintained a sufficiently pro-Republican partisan makeup to allow District 2 to elect Republican representatives consistently after the redistricting. This is an example of efficient cracking at work.

Dr. Cho's simulated maps provide additional evidence of the cracking effect in District 2. 99.87% of Dr. Cho's non-partisan maps would have placed Plaintiff Burks, who lives in current District 2, in a district that would have had a better chance of electing a Democrat.[788] This evidence further suggests that the design of District 2 under the 2012 map is at least partially responsible for Democratic voters' difficulty electing a Democratic representative in that district.

iii. District 3

[52] District 3 encompasses an irregularly shaped portion of Franklin County, including portions of the City of Columbus.[789] It is involved in the three-way split of Franklin County and the City of Columbus.[790] We conclude that the map drawers' predominant intent in the creation of District 3 was to pack Democratic voters in the Columbus area, allowing them to shore up Republican support in the surrounding Districts 12 and 15. *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39.



First, the irregular shape of District 3 supports an inference of partisan intent. Mr. Cooper testified that the shape of the "[p]resent day District 3 is a mess," and we too find that the bizarre shape of the district is evidence of partisan intent.[791] Mr. Cooper's hypothetical maps, while also drawing districts in the Columbus area, managed to draw those districts with far more regular boundaries.[792] Second, evidence in the record referring to the newly created district as the "Franklin County Sinkhole" supports our finding that the map drawers created District 3 as a vehicle to pack Democratic voters. Related evidence demonstrates that national Republi-

788. Trial Ex. P087 (Cho Rep. at 14).

789. Dkt. 241 (Cooper Trial Test. at 146).

790. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

791. Dkt. 241 (Cooper Trial Test. at 154).

792. Trial Ex. P093 (Cooper Second Suppl. Decl. at 4, 12).

can consultants used descriptors such as "awful" or "dog meat" voting territory to describe "downtown" areas that they wanted carved out of District 15 and placed into District 3, which further supports our finding that partisan intent predominated in the design of District 3. *See Benisek*, 348 F.Supp.3d at 518–19 (finding invidious partisan intent where "the State intentionally moved Republican voters out of the Sixth District en masse, based on precinct-level data"). Third, national Republicans Whatman and Kincaid testified that they conceived of the idea to create the new, Democratic District 3. Their primary role in its creation is further proof that the predominant reason for the district's design was to facilitate Republican advantage. Fourth, since the 2012 map was enacted, District 3 has consistently elected the Democratic candidate by large margins—64.06–73.61% of the vote. Meanwhile, adjacent Districts 12 and 15 have consistently elected Republican representatives, despite Democratic swing years such as 2018. The consistency and durability of the partisan results in this constellation of districts and the lack of competitiveness in District 3 are strong evidence that District 3 was designed to pack Democrats and waste significant numbers of Democratic votes.

We evaluate other explanations of the district put forth by Defendants and conclude that while each of these considerations may have played a role in the shaping of District 3, none was the primary force behind its creation. Rather, all other considerations were secondary to the predominant aim of packing Democratic voters into a highly saturated new Democratic district, thus allowing map drawers to shore up Republican advantage in Districts 12 and 15.

Defendants argue first that they created the new District 3 because of Columbus's growing population. It is true that Ohio's population was shifting and that the Columbus area was one of the few areas in the State that was experiencing population growth. On the one hand, without more, there is nothing inherently suspect or partisan about creating a new congressional district to encompass a coherent community of interest (the City of Columbus) in a growing population center. On the other hand, population growth in a metropolitan area does not necessitate the drawing of a new district around that area. We conclude, based on the evidence discussed above, that the reason the Republican map drawers chose to allocate Columbus's growing population to the new District 3 was because of the partisan advantage that strategy conferred to them.

Defendants next argue that District 3 "was drawn the way it was" because Speaker Batchelder's "relationship with Congresswoman Beatty and her husband Otto Beatty led him to have a priority to create a central district in Franklin County encompassing Columbus and having representation specifically for Congressman [sic] Joyce Beatty." [793] We conclude that although Republican map drawers drew District 3 with Joyce Beatty (a former member of the Ohio House of Representatives who had never served in Congress at the time of the map drawing) in mind, supporting her prospects as a candidate was only a secondary consideration. Once Kincaid and Whatman decided to draw a new Democratic seat to pack Democratic votes in Franklin County, that Democratic seat would have to be filled.[794]

793. Dkt. 246 (Judy Trial Test. at 71).

794. Speaker Batchelder explained that the decision to draw District 3 with Beatty in mind arose because "[w]e had a situation here in Franklin County where the Republican Party didn't have a candidate." Dkt. 230-3 (Batchelder Dep. at 50). He went on: "I

The fact that Batchelder's relationship with the Beattys eventually led Republican map drawers to draw District 3 with Joyce Beatty in mind does not disturb our finding that partisan intent predominated in its creation.

Defendants also argue that District 3 was drawn to create a minority-opportunity district, but we do not find that this aim played a significant role in the creation of District 3. The Republican map drawers were simultaneously seriously considering an alternative plan to split Franklin County and Columbus into four congressional districts. Had Franklin County been split in four ways, the African-American voter population would have been split rather than included in a coherent minority-opportunity district. Despite now professing the creation of a minority-opportunity district as a motivation behind District 3's design, the evidence shows that the map drawers seriously considered adopting an alternative plan which would have undermined that very goal. We accordingly question the sincerity and veracity of this proffered justification. We further analyze this justification in conjunction with a similar justification offered for District 11 below, after considering each individual district. *See infra* Section V.A.2.d.iii. We note now, however, that a district could still have been drawn with a nearly identical BVAP,[795] but with a more regular shape, fewer county splits,[796] and a considerably less severe partisan bias.[797] It was not, and we infer from the fact that the chosen design contributes to the partisan bias of the map that its creators intended it to do so.

Defendants argue that national Republicans advanced the idea for the four-way split of Columbus and that Ohio Republicans, who had different goals and intentions, firmly rejected that idea. That portrayal contradicts the evidence of the collaborative relationship between the national and state-level Republicans as well as the content of specific communications discussing the reason the four-way split, which would have resulted in 13-3 map, was rejected. It was the desire to "put the most number of seats in the safety zone given the political geography of the state, our media markets, and how best to allocate caucus resources" that led to the rejection of the four-way split idea.[798] We therefore conclude that the four-way split was rejected not because it conflicted with state-level Republicans' goals for the map, but rather because the Republican seat advantage that it would have conferred would have been too tenuous. The reasons for the rejection of the proposed four-way split of Franklin County is additional proof supporting our conclusion that partisan intent was the predominant factor in drawing District 3.

In sum, even accepting all of Defendants' proffered justifications for drawing District 3, we conclude that they were secondary to the map drawers' predominant intent: conferring Republican advan-

wasn't out campaigning for a Democrat for Congress, but I had known her and her husband. *My first problem was figuring out if they lived in the district,* but it was—of course, she has emerged as a leader in the Federal House.'' *Id.* at 50–51 (emphasis added). That Speaker Batchelder's ''first problem was figuring out if they lived in the district'' suggests that District 3 was first created as Whatman and Kincaid's partisan brainchild, and later tweaked to support Beatty's candidacy.

795. Dkt. 241(Cooper Trial Test. at 161).

796. Trial Ex. P090 (Cooper Decl. at 14, 17).

797. Trial Ex. P476 (Warshaw 2018 Update at 14–15).

798. Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438).

tage by packing District 3 and facilitating the cracking of Districts 12 and 15.

We also conclude that District 3 actually packed Democratic voters. The historical election results provide proof of the packing effect—a Democratic candidate has won every election under the 2012 map. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting").

The margin by which that candidate has won shows that Democratic voters are packed into the district in a way that renders the district noncompetitive. In 2012, Democratic candidate Joyce Beatty was elected to Congress with 68.29% of the vote. In 2014, she won with 64.06% of the vote. In 2016, she won with 68.57% of the vote. In 2018, she won with 73.61% of the vote. None of these elections were even close to competitive; they were all landslide victories for Beatty. Beatty's consistent election also demonstrates the durability of the 2012 map's partisan effect in District 3.

Dr. Niven also demonstrated a stark difference in the political leanings of voters within Franklin County who were placed in District 3 and voters within Franklin County who were placed in Districts 12 and 15. Franklin County voters within District 3 had pro-Democratic partisan index score of .3268. Meanwhile, Franklin County voters within Districts 12 and 15 had pro-Republican partisan index scores of 0.5105 and 0.5237, respectively.[799] This demonstrates both the intent to pack voters and the effect of concentrating the most Democratic sections of Franklin County within District 3 while allotting the less Democratic sections to Districts 12 and 15 to facilitate their overall Republican compositions.

Finally, Dr. Cho's simulated maps also provide proof of the packing effect in District 3. Zero percent of Dr. Cho's simulated maps would place Plaintiff Inskeep, a current resident of District 3, in a district where she would have a better chance of electing a Democratic representative.[800] The map drawers managed to draw a map that maximized the concentration of Democratic voters in Plaintiff Inskeep's area—a highly efficient packing job.

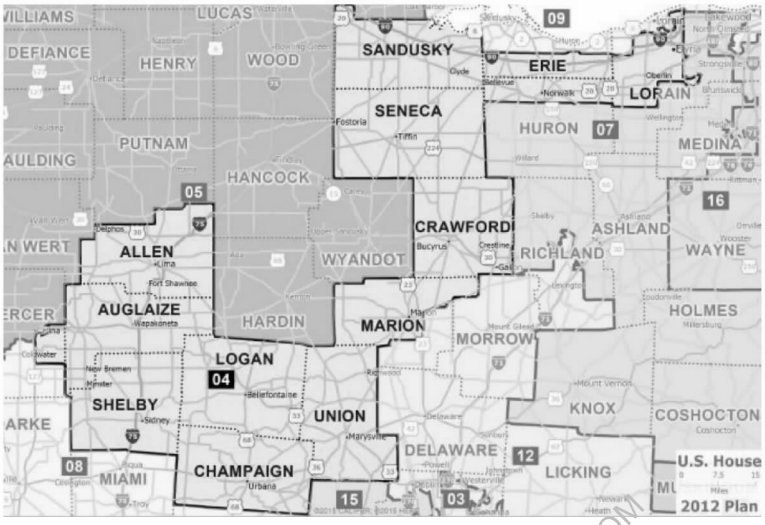
iv. District 4

[53] District 4 encompasses all of Allen, Auglaize, Shelby, Logan, Union, Champaign, Crawford, Seneca, and Sandusky Counties. It makes a small intrusion into Mercer County that is a part of a three-way split of Mercer County. Additionally, it is involved in the three-way split of Lorain County.[801] It also includes parts of Marion, Huron, and Erie Counties.

799. Trial Ex. P524 (Niven Rep. at 27).

800. Trial Ex. P087 (Cho Rep. at 15).

801. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



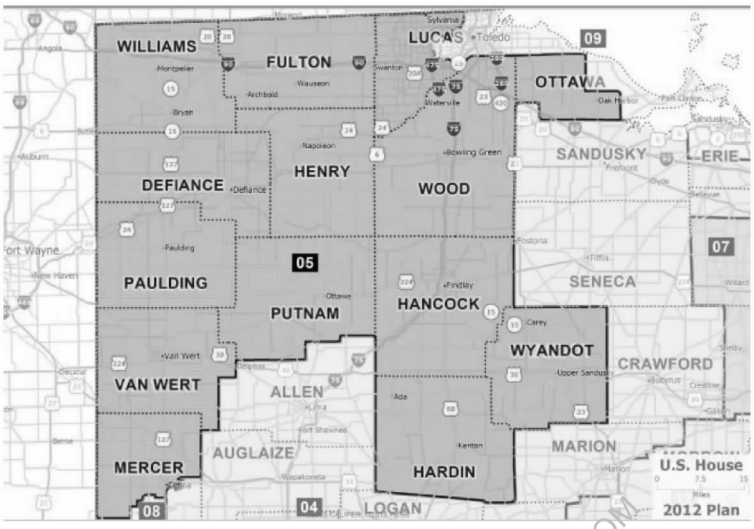
The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to pack District 4. We also conclude that the 2012 map actually cracked Democratic voters in District 4. First, historical election results support this finding as District 4 has been won by a Republican in every election under the 2012 map. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). Second, the wide margins by which the Republican candidate won each election under the 2012 map show its entrenchment effect, a biproduct of efficient cracking. The map entrenched Republicans in power by drawing District 4 as a "safe" Republican seat. None of these elections that have occurred in District 4 since the enactment of the 2012 map have been competitive. In 2012, Republican Representative Jim Jordan was elected to Congress with 58.35% of the vote. In 2014 he won with 67.67% of the vote. In 2016 he won with 67.99% of the vote. In 2018 he won with 65.26% of the vote.

Finally, Dr. Cho's simulated maps provide further evidence that District 4 was cracked. In 98.25% of Dr. Cho's simulated non-partisan maps Plaintiff Libster, who lives in current District 4, would have had a better chance of electing a Democratic representative.[802] This evidence supports the inference that the pro-Republican design of the 2012 map had an impact on Democratic voters such as Plaintiff Libster.

v. District 5

[54] District 5 encompasses all of Williams, Fulton, Defiance, Henry, Paulding, Putnam, Hancock, Van Wert, Hardin, Wyandot, and Wood Counties. It also contains the northern half of Mercer County, the western half of Ottawa County, and the western half of Lucas County. It is involved in the three-way split of Mercer County.

802. Trial Ex. P087 (Cho Rep. at 16).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to pack District 5.

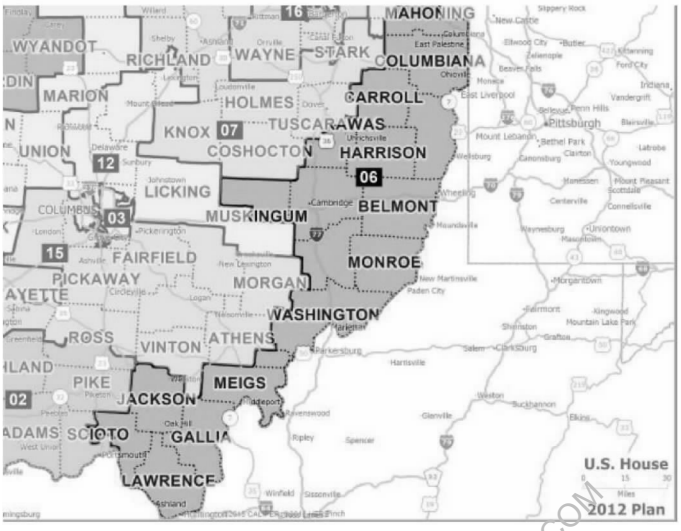
Additionally, we conclude that the 2012 map had a partisan effect on District 5 by cracking Democratic voters there. Historical election results provide support for this finding. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Bob Latta was elected to Congress with 57.27% of the vote. In 2014, he won with 66.46% of the vote. In 2016, he won with 70.90% of the vote. In 2018, he won with 62.26% of the vote. None of these elections was competitive because District 5 was designed such that Democratic voters would be outnumbered by Republican voters by sufficient margins to ensure that a Republican candidate would be elected consistently. The election results are thus evidence of the durability of the 2012 map's partisan effects in District 5 and its tendency to entrench the favored party in power.

Finally, Dr. Cho's simulated maps provide further proof of the cracking of District 5. In 95.47% of Dr. Cho's simulated non-partisan maps, Plaintiff Deitsch, who lives in current District 5, would have a better chance of electing a Democratic representative. That evidence supports an inference that the partisan manner in which District 5 was drawn had a negative effect on the ability of voters within the district such as Plaintiff Deitsch to elect Democratic representatives.

vi. District 6

[55] District 6 includes territory along the southeastern border of Ohio. It encompasses all of Columbiana, Carroll, Jefferson, Harrison, Guernsey, Belmont, Monroe, Noble, Washington, Meigs, Gallia, Jackson, and Lawrence Counties. It also includes an irregularly shaped eastern half of Scioto County, the northern half of Muskingum County, the southern half of Tuscarawas County, the southern half of Mahoning County, and the southeast corner of Athens County.[803]

803. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 6.

We also conclude that the 2012 map cracked voters in District 6. The historical electoral results since the enactment of the 2012 map provide support for this conclusion. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Bill Johnson was elected to Congress with 53.25% of the vote. In 2014, he won with 58.23% of the vote. In 2016, he won with 70.68% of the vote. In 2018, he won with 69.25% of the vote. Only the first of these elections was competitive, likely because Representative Johnson's opponent in that election, Democratic Representative Charlie Wilson, had previously served as Congressman for District 6 prior to Representative Johnson's first congressional win in 2010. Wilson did not run again after losing the 2012 race, after which Representative Johnson faced less competitive Democratic challengers and won with considerable margins. The lack of competition in most of these elections as well as the consistent Republican wins are evidence of the durability of the 2012 map's pro-Republican effect and its tendency to entrench Republicans in power.

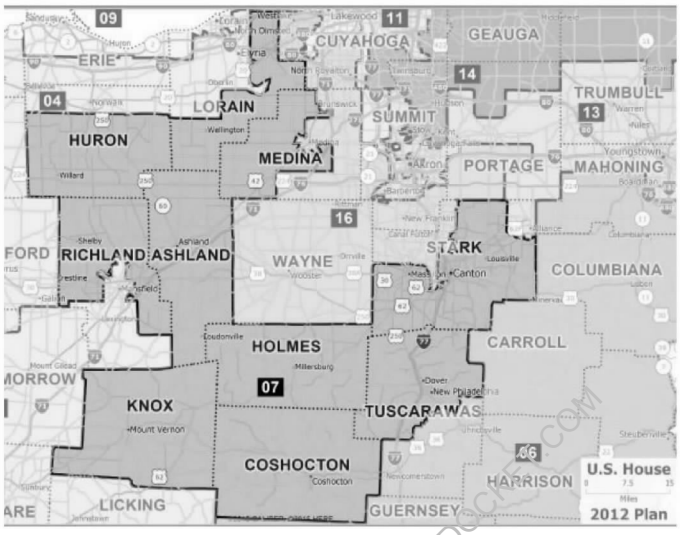
Finally, Dr. Cho's simulated maps provide further proof of cracking in District 6. In 100% of Dr. Cho's simulated maps, Plaintiff Boothe, a voter in current District 6, would have a better chance of electing a Democratic representative.[804] This evidence supports the conclusion that the partisan design of the 2012 map had the effect of minimizing Democratic voters' chances of electing Democratic representatives in District 6.

vii. District 7

[56] District 7 encompasses all of Knox, Coshocton, Holmes, and Ashland Counties. It also includes the northern portion of Tuscarawas County, an irregularly shaped portion of Stark County, an irregularly shaped portion of Richland County, the southern portion of Huron County, and irregularly shaped portions of

804. Trial Ex. P087 (Cho Rep. at 18).

Lorain and Medina Counties. It is involved in the three-way splits of Stark County and Lorain County.[805]



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 7.

Additionally, we conclude that the 2012 map cracked Democratic voters in District 7. The historical election results provide some evidence of the cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Bob Gibbs was elected to Congress with 56.40% of the vote. In 2014, he won with 100% of the vote. In 2016, he won with 64.03% of the vote. In 2018, he won with 58.74% of the vote. The lack of competition in these elections and the Republican candidate's victory in each are also evidence of the durability of the partisan effects of the 2012 map on District 7 and the map's tendency to entrench Republican representatives in office.

Finally, Dr. Cho's simulated non-partisan maps provide further evidence of the cracking of voters in District 7. In 100% of Dr. Cho's simulated maps Plaintiff Griffiths, who lives in current District 7, would have had a better chance of electing a Democratic representative.[806] This evidence supports the conclusion that the partisan design of the 2012 map diminished Democratic voters' opportunity of electing a Democratic representative in that district.

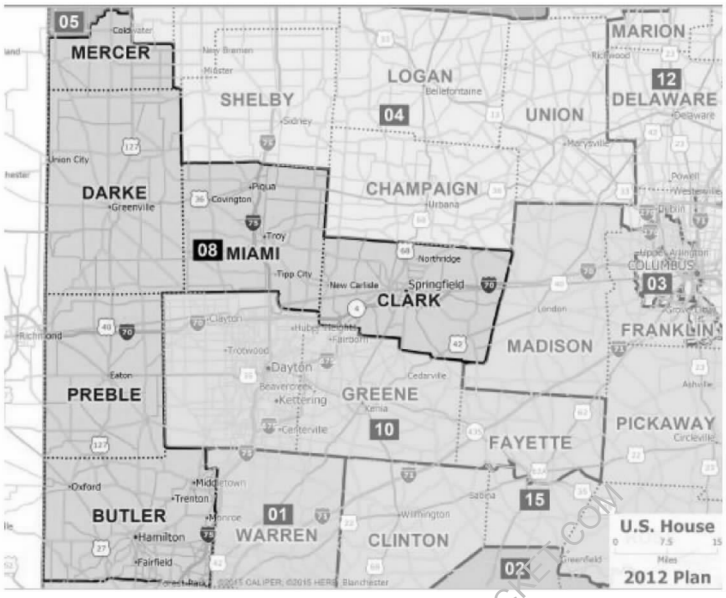
viii. District 8

[57] District 8 rests along the southwestern border of Ohio, with a portion jutting into the heart of the State. It includes the entireties of Darke, Miami, Clark, Preble, and Butler Counties and includes the southern half of Mercer County. It is involved in the three-way split of Mercer County.[807]

805. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

806. Trial Ex. P087 (Cho Rep. at 19).

807. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 8.

We also conclude that the 2012 map cracked Democratic voters in District 8. Historical election results under the 2012 map provide some proof of this cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative John Boehner was elected to Congress with 99.88% of the vote. In 2014, he won with 67.19% of the vote. In 2016, Republican Warren Davidson succeeded Representative Boehner as the Republican congressional candidate in District 8. He won the election with 68.76% of the vote. In 2018, Representative Davidson won with 66.58% of the vote. None of these elections were even close to competitive. We find the lack of competition and the consistent election of Republican candidates to be evidence of the durability of the 2012 map's partisan effects in this district and the map's tendency to entrench Republican representatives in office by constructing "safe" districts.

Finally, Dr. Cho's simulated non-partisan maps provide further evidence of the cracking of Democratic voters in District 8. In 100% of Dr. Cho's simulated maps, Plaintiff Nadler, who resides in the current District 8, would have had a better opportunity to elect a Democratic representative.[808] This supports the conclusion that the partisan design of the 2012 map impacted the ability of Democratic voters in District 8 to elect their candidate of choice.

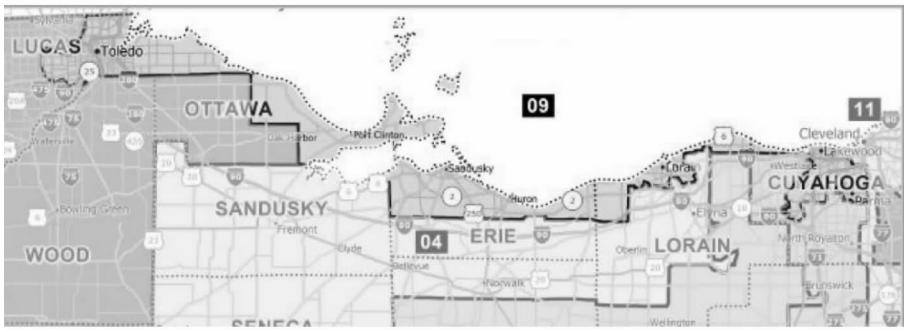
ix. District 9

[58] District 9 is a thin strip along the southern coast of Lake Erie, stretching from Toledo in Lucas County in the west to Cleveland in Cuyahoga County in the east. Its narrow, long footprint has earned it the nickname "the Snake on the Lake."[809] The district includes portions of

808. Trial Ex. P087 (Cho Rep. at 20).

809. Dkt. 241 (Cooper Trial Test. at 145–46).

Lucas, Ottawa, Erie, Lorain, and Cuyahoga Counties; it does not include a single county in its entirety. It is involved in the four-way split of Cuyahoga County and the three-way split of Lorain County.[810]



We conclude that the map drawers intentionally packed Democratic voters into District 9, splitting up communities of interest along the way. We agree with Mr. Cooper's analysis that District 9 severed communities of interest.[811] Despite all the territory in District 9 being adjacent to Lake Erie, in order to create District 9 "you've got to split about five counties which in and of themselves are communities of interest." [812] Mr. Cooper's hypothetical maps demonstrate that it is possible to draw a far more coherent District 9 that respects county boundaries while still complying with all traditional redistricting principles and pairing the same amount of incumbents from the same political parties as the 2012 map did.[813] The presence of such an alternative and the map drawers' decision instead to split counties and draw a bizarrely shaped district support our conclusion that partisan intent predominated in drawing of District 9.

In concluding that the predominant intent behind the design of District 9 was partisan packing of Democratic voters, we reject Defendants' argument that bipartisan incumbent protection efforts and Democratic desires dictated its shape. There is no admissible record evidence suggesting that Democratic leaders desired the pairing of Representatives Kaptur and Kucinich. Representative Kaptur testified that she did not discover that she was being paired with Representative Kucinich until very close to the legislative introduction of the bill. She learned of the map's design from a newspaper and was "astonished" by the shape of her new district.[814] She did not request to be paired with Representative Kucinich and, in fact, was outraged at the prospect because she believed that the new district "hack[ed] towns apart" and showed "no respect for counties" and "no respect for communities." [815] Kaptur's involvement in shaping the district began only after the Ohio General Assembly passed the initial H.B. 319. She then attempted to negotiate so that the Republican map drawers would make some alterations to the district in which she was paired with Kucinich. The heart of the plan for District 9, however, remained the same. Representative Kaptur's ability to secure minor concessions following the

810. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

811. Dkt. 241 (Cooper Trial Test. at 149).

812. *Id.*

813. Trial Ex. P093 (Cooper Second Suppl. Decl. at 4–19).

814. Dkt. 249 (Kaptur Trial Test. at 70).

815. *Id.* at 71–72.

passage of H.B. 319 does not amount to her designing the district and does not overcome the partisan intent that motivated the drawing of District 9 in the first place. We therefore reject as unsupported by admissible evidence the Defendants' contention that District 9 was the result of the Democratic desire that Representatives Kaptur and Kucinich be paired.

To the extent that Defendants claim that the shape of District 9 was preordained by the cluster of Democratic incumbent residences in northern Ohio, their argument is undermined by the evidence. Mr. Cooper, a redistricting expert, stated that "it made no sense to create a Snake on the Lake just to pair [Kaptur and Kucinich]. It just baffles me as to why that was done." [816] Mr. Cooper demonstrated that this pairing was unnecessary by drawing two hypothetical maps that could have been drawn in 2011 that avoided drawing the elongated District 9 either by pairing Representatives Kucinich and Fudge or pairing Kucinich and Sutton, all while honoring the other traditional districting principles.[817] Both of these hypothetical maps would actually have facilitated the avoidance of one incumbent pairing because they leave a version of District 10 in western Cuyahoga County and Lorain County with no Democratic incumbent—Representative Kucinich could have avoided his pairing with either Representative Sutton or Representative Fudge by running in that district instead.[818] This argument therefore does not disturb our conclusion that the predominant intent was securing Republican partisan advantage in the creation of the long, snaking District 9.

We also conclude that the 2012 map had the effect of packing Democratic voters in District 9. Historical election results support this conclusion. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Democratic Representative Marcy Kaptur was elected to Congress with 73.04% of the vote. In 2014, she won with 67.74% of the vote. In 2016, she won with 68.69% of the vote. In 2018, she won with 67.79% of the vote. None of these elections were even close to competitive; Representative Kaptur consistently won with 15–20% of the vote more than necessary to carry the district. The extreme lack of competition and the consistent election of a Democratic representative in District 9 by large margins are evidence of the durability of the 2012 map's partisan effects.

Finally, Dr. Cho's simulated non-partisan maps are further proof of this packing in District 9. Only 15.91% of the simulated maps would have given Plaintiff Walker a better chance of electing a Democratic representative. In 13.55% of the simulated maps, Plaintiff Rader would have had a better opportunity to elect a Democratic representative.[819] Although these figures are not quite as extreme as those in other districts, they are still proof that the partisan design of the 2012 map packed Democratic voters into District 9, targeting them because of their political preferences and artificially diluting the power of their votes.

x. District 10

[59] District 10 includes all of Montgomery and Greene Counties and the

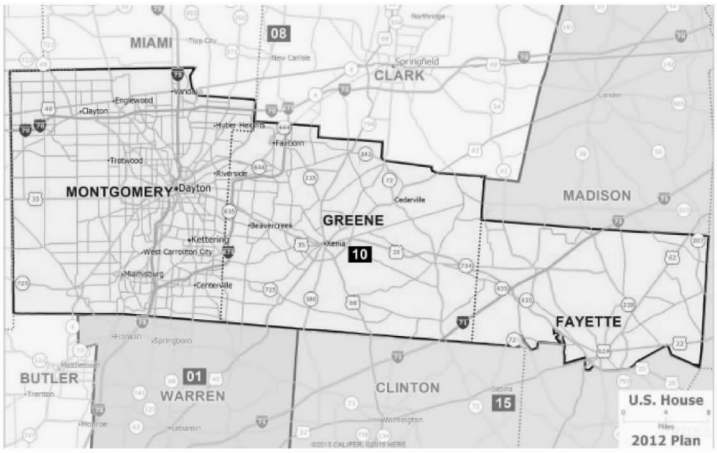
816. Dkt. 241 (Cooper Trial Test. at 176).

817. Trial Ex. P093 (Cooper Second Suppl. Decl. at 4–18).

818. *Id.* at 5–6, 13.

819. Trial Ex. P087 (Cho Rep. at 21–22).

northern half of Fayette County.[820]



The overall evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 10.

We also conclude that the 2012 map cracked Democratic voters in District 10. Historical election results provide some proof of this cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Mike Turner was elected to Congress with 59.54% of the vote. In 2014, he won with 65.18% of the vote. In 2016, he won with 64.09% of the vote. In 2018, he won with 55.92% of the vote. None of these elections, even that occurring during the 2018 Democratic swing year, were competitive. We consider the consistent election of the Republican candidate by large margins to be evidence of the durability of the 2012 map's partisan effects in District 10. It is also evidence that the map entrenches a Republican representative in office by creating a "safe" Republican District 10.

Finally, Dr. Cho's simulated non-partisan maps provide further proof of the cracking in District 10. In 99.75% of Dr. Cho's simulated maps, Plaintiff Megnin, who lives in current District 10, would have had a better opportunity of electing a Democratic representative.[821] This figure supports the conclusion that the partisan design of District 10 negatively impacted Megnin's ability to elect a Democratic representative.

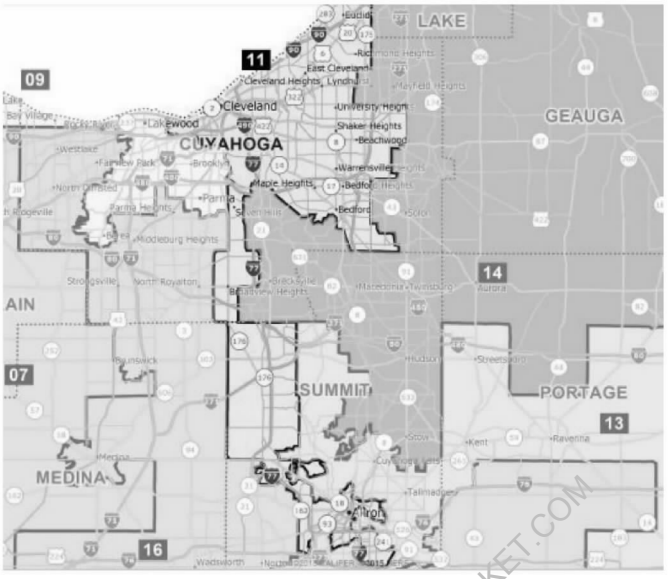
xi. District 11

[60] District 11 includes highly irregularly shaped portions of Cuyahoga County and Summit County. It is involved in the four-way split of Summit County and the four-way split of Cuyahoga County.[822]

820. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

821. Trial Ex. P087 (Cho Rep. at 23).

822. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



We conclude that District 11 was intentionally drawn both to pack voters into the district and to siphon Democratic voters off from the new District 16, in which Republican incumbent Representative Renacci and Democratic incumbent Representative Sutton were paired. District 11 was designed to absorb Democratic voters who were formerly Representative Sutton's constituents so that the new District 16 could be weighted to produce the victory of Republican Representative Renacci. *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39.

The decision to depart from District 11's historical territory and to drop down into Summit County and pick up additional Democratic voters from the City of Akron under the 2012 map is strong proof of the intent to pack District 11 and facilitate the cracking of District 16.[823] The historical boundaries of District 11, contained entirely within Cuyahoga County, make the decision to extend the district into Summit County suspect. Mr. Cooper's hypothetical plans contain District 11 entirely within Cuyahoga, in line with its historical location, while respecting other traditional redistricting concerns.[824] The fact that it was possible to draw District 11 fully within Cuyahoga is some evidence that the jaunt downward into Summit County was drawn for partisan reasons. We conclude that the predominant reason that District 11 ventured for the first time out of Cuyahoga County in the 2012 map was as a result of the map drawers' partisan intent to pack voters in District 11 and crack voters in District 16.

The historical election results in the years that followed the redistricting are proof of the map drawers' intent. Representative Fudge in the packed District 11 has won each election by huge margins. Her *lowest* portion of the vote in an election since the redistricting has been 79.45%. Meanwhile, in District 16, incumbent Republican Representative Renacci narrowly defeated incumbent Democratic

823. Dkt. 241 (Cooper Trial Test. at 155).

824. Trial Ex. P093 (Cooper Second Suppl. Decl. at 4, 12).

Representative Sutton in 2012. Once he had vanquished the opposing incumbent, Renacci proceeded to win his successive elections by large margins. *See infra* Section V.A.2.c.xvi. (discussing District 16). It was no coincidence that District 16 went Republican; the packing of District 11 facilitated the result. The day after the introduction of H.B. 319 in committee, Mann sent an email to Renacci informing him that, under the proposed bill, 16.98% of Representative Sutton's former district would be included within the new District 11, while only 25.79% of her former district would carry over into the new District 16, in which she was expected to run.[825] This evidence supports our conclusion that partisan intent predominated in the drawing of District 11.

In concluding the intent to pack District 11 to dilute Democratic voting power predominated in crafting District 11, we reject or find secondary several alternative explanations for its shape. First, Defendants claim that District 11 was drawn by Republican map drawers with the intention of creating a majority-minority district. They argue that even if their implementation of this goal was flawed, so long as the map drawers honestly believed that the way in which they drew the district would aid minority electoral opportunity, they cannot be found at fault. *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 21–22) (citing employment discrimination cases). There was no proof that such an extension of the District was made for any legitimate reason, and we reject Defendants' assertion that uninformed guesswork about VRA compliance is sufficient to justify the packing of African-American voters into a Democratic district. *See infra* Section V.A.2.d.iii. (discussing compliance with the VRA).

Second, no admissible evidence supports Defendants' assertion that Democratic leaders in the African-American community approved of and desired District 11's current shape. Defendants offered Judy, DiRossi, and Speaker Batchelder's testimony about conversations that allegedly occurred with African-American Democratic leaders solely for the effect that those conversations purportedly had on the map drawers. However, in the next breath, they offer the testimony about those conversations for their truth—to prove their assertion that the design of District 11 and its concentration of African-American voters and Democratic voters was a shared bipartisan goal. But this assertion relies on the truth of out-of-court statements of since deceased Democrats from Northern Ohio. The hearsay rules prevent us from taking Judy, DiRossi, and Speaker Batchelder's word for what those individuals actually wanted.

Third, we conclude that any input that Representative Fudge herself had on the shape of her district occurred well after the unveiling and passage of H.B. 319, in the scramble to secure Democratic support for a new bill that occurred in the shadow of the referendum. This input amounted to securing small tweaks and concessions, but the overarching contours of the map were already fixed and did not change. Fudge stated that she had no input in the drawing of her district's lines prior to the legislative unveiling and that she was quite displeased with the shape of the district and the way that it reached down into Summit County.[826]

825. Trial Ex. P130 (Sept. 14, 2011 email at LWVOH_00018321).

826. This contradicts the testimony of DiRossi, who stated that prior to the introduction of H.B. 319 "it had been relayed to [him] by a number of people that she did not want to be paired with Dennis Kucinich in a district" and therefore that she elected to have District 11 drawn dropping south into Summit Coun-

Finally, we do not find that Defendants' argument that declining population in Northeastern Ohio necessitated stretching District 11 southward adequately explains the shape of District 11. There were myriad ways that these population constraints could have been handled. It is no coincidence that the way chosen by Republican map drawers resulted in packing Democratic voters in District 11 and cracking Democratic support for Representative Sutton in the new District 16. Mr. Cooper's alternative hypothetical maps also dealt with the population shifts in Ohio but managed to produce two different equipopulous versions of District 11 that do not extend the district south into Summit County.[827] Having considered Defendants' alternative explanations for the shape of District 11, we conclude that the predominant intent that motivated the drawing of the district in its current form was the desire to pack Democratic voters in District 11 and crack Democratic voters elsewhere.

We also conclude that the 2012 map had the effect of packing Democratic voters into District 11 in a dramatic fashion. Historical election results provide some proof of this packing. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Democratic Representative Marcia Fudge was elected to Congress with 100% of the vote. In 2014, she won with 79.45% of the vote. In 2016, she won with 80.25% of the vote. In 2018, she won with 82.24% of the vote. None of these elections were even close to competitive—Representative Fudge, when challenged, consistently won with around 30% more of the vote than would have been actually needed to carry the district. The extreme margins by which Fudge won her seat provide some evidence of packing in District 11.

Dr. Niven's report helps illustrate why the addition of portions of Summit County to District 11 facilitated its packing. In the 2008 election 75.70% of the voters in Summit County who were included in District 11 voted for President Obama.[828] This means that the sections of Summit County that the map drawers chose to include in District 11 were overwhelmingly Democratic. Allotting these Democratic Summit County voters to District 11, which was already destined to deliver a Democratic representative, meant that there were fewer Democratic voters in the area of Summit County that could potentially be assigned to neighboring Districts such as District 16, which were intended to deliver Republican victories. The subsequent election results, in which Representative Fudge repeatedly won District 11 by a landslide and Republican candidates consistently won District 16, are clear evidence of a packing effect in District 11.

ty rather than be paired against Representative Kucinich in a district entirely contained within Cuyahoga County. Dkt. 230-12 (DiRossi Dep. at 186–87). DiRossi, however, admitted that he never spoke to Congresswoman Fudge himself. Explaining the source of this information, he stated: "I was working with Bob Bennett and I know that other members, I believe Speaker Batchelder—or I know Speaker Batchelder was talking to a number of folks and contacts that he had in Northern Ohio about what Congresswoman Fudge wanted." *Id.* at 187. To the extent that Defendants offer DiRossi's testimony about what Congresswoman Fudge wanted for the truth—to prove that she actually desired that District 11 drop down into Summit County or that she did not want to be paired with Representative Kucinich—we find that it is inadmissible multi-layer hearsay.

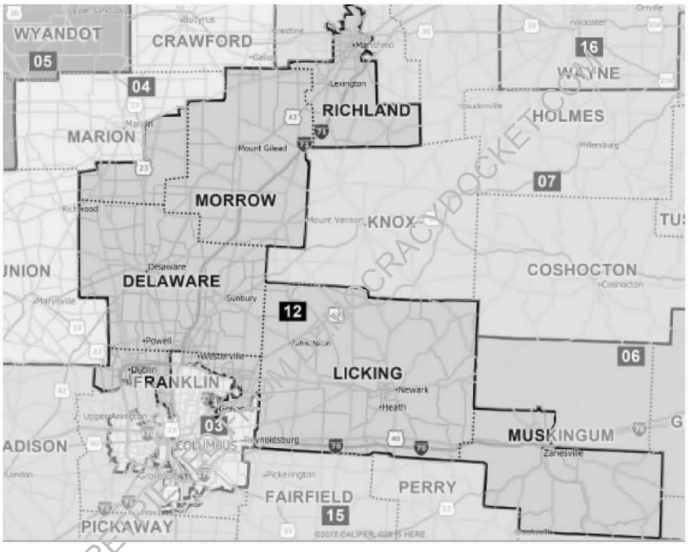
827. Trial Ex. P093 (Cooper Second Suppl. Del. at 4, 12).

828. Trial Ex. P524 (Niven Rep. at 31).

Finally, Dr. Cho's simulated maps provide further evidence of packing in District 11. In 0% of the simulated non-partisan maps would Plaintiff Harris, who lives in current District 11, have a better chance of electing a Democratic candidate.[829] The fact that the pro-Democratic outcome in District 11 is so extreme compared to the outcomes in a non-partisan map supports the conclusion that the partisan design of the 2012 map impacted the composition of District 11, packing in Democratic voters and thereby diluting their votes.

xii. District 12

[61] District 12 includes all of Morrow, Delaware, and Licking Counties. It also includes the southern half of Muskingum County, the southeastern corner of Marion County, and the southern half of Richland County. Finally, District 12 includes irregularly shaped and noncontiguous portions of Franklin County, which jut into the City of Columbus.[830] It is involved in the three-way split of Franklin County and the City of Columbus.[831]



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 12. Additionally, the evidence of partisan intent in creating the "Franklin County Sinkhole" in District 3 is also evidence of partisan intent to crack District 12 because District 12 benefitted from the high concentration of Democratic voters in District 3. *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39. Kincaid's statements immediately after the redistricting are further evidence of partisan intent in drawing District 12. Kincaid expressed his belief that, under the 2012 map, District 12 had moved nine PVI points in favor of Republicans and had thus been taken "out of play."[832] Designing a district to take it "out of play," resulting in the consistent election of a member of one party rather than true competition between the parties, shows partisan intent.

829. Trial Ex. P087 (Cho Rep. at 24).

830. Dkt. 241 (Cooper Trial Test. at 146).

831. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

832. Trial Ex. P310 (NRCC Presentation at 5); Dkt. 230-27 (Kincaid Dep. at 115–16).

We also conclude that the 2012 map had the effect of cracking Democratic voters in District 12. Historical election results under the 2012 map support this conclusion. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Pat Tiberi was elected to Congress with 63.47% of the vote. In 2014, he won with 68.11% of the vote. In 2016, he won with 66.55% of the vote. In 2018, Troy Balderson replaced Representative Tiberi as the Republican candidate. He won the election with 51.42% of the vote, defeating Democratic candidate Danny O'Connor. Only one of these elections in District 12 was competitive—the last. District 12 had been drawn to be sufficiently pro-Republican, however, such that Balderson, was able to defeat O'Connor even in a Democratic swing year.[833] This result is particularly impressive considering the fact that O'Connor spent $ 8,452,028.09 on his campaign while Balderson spent only $ 2,496,-185.71.[834]

Dr. Niven's report provides further proof that the 2012 map shored up District 12 as a Republican seat. Under the pre-redistricting map, District 12 supported President Obama in the 2008 election with 55.03% of the vote. Had the District taken the form that it does under the current map, President Obama would have lost the district with only 45.43% of the vote.[835] The increased Republican leaning of the new District 12 is evidence of the effect of the cracking of Democratic voters in that district. *See Benisek*, 348 F.Supp.3d at 519 (finding partisan effect where the design of the district resulted in a large swing in PVI).

Finally, Dr. Cho's simulated maps also lend support to the conclusion that Democratic voters in District 12 were cracked. In 100% of Dr. Cho's simulated non-partisan maps, Plaintiff Dagres, who resides in current District 12, would have a better chance of electing a Democratic representative.[836] This fact supports the conclusion that the pro-Republican cracking of District 12 diminished the ability of Democratic voters in that district to elect their candidate of choice.

xiii. District 13

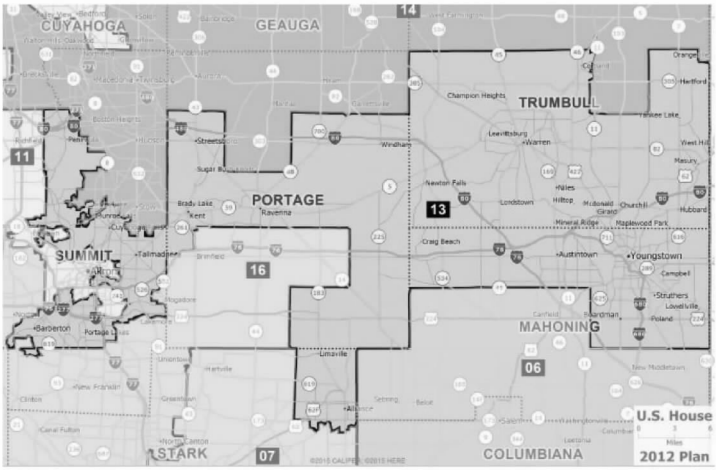
[62] District 13 includes the southern half of Trumbull County, the northern half of Mahoning County, and highly irregularly shaped portions of Portage and Summit Counties. In Summit County, the district includes much of the City of Akron. District 13 does not encompass the entirety of any one County. It is involved in the four-way split of Summit County and the three-way splits of Stark County and Portage County.

833. Trial Ex. P426 (Cho Rep. at 6).

834. *Id.*

835. Trial Ex. P524 (Niven Rep. at 25).

836. Trial Ex. P087 (Cho Rep. at 25).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to pack District 13. Further, the strange shape of District 13 under the 2012 map and the manner in which it splits many counties and the City of Akron support an inference of partisan intent.[837] *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39.

We also conclude that the 2012 map had the effect of packing Democratic voters into District 13. Historical election results provide some evidence of the packing. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Democratic Representative Tim Ryan was elected to Congress with 72.77% of the vote. In 2014, he won with 68.49% of the vote. In 2016, he won with 67.73% of the vote. In 2018, he won with 60.99% of the vote. None of these elections were even close to competitive; the huge margins are some evidence of packing.

Finally, Dr. Cho's simulated maps provide additional evidence of the packing of District 13. In 0% of Dr. Cho's simulated non-partisan maps would Plaintiff Myer, who lives in current District 13, have a better chance of electing a Democratic representative.[838] The fact that the pro-Democratic leaning of District 13 is so extreme compared to the simulated maps supports the conclusion that the current map has a partisan effect that packs Democratic voters into the district and thereby dilutes the power of their votes for Democratic candidates.

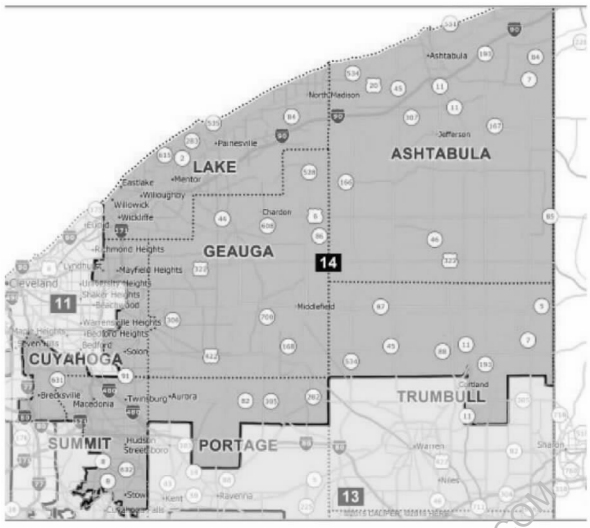
xiv. District 14

[63] District 14 lies in the northeastern corner of Ohio. It includes the entirety of Ashtabula, Lake, and Geauga Counties. It also includes the northern portions of Trumbull and Portage Counties, the northeastern corner of Summit County, and an irregularly shaped section jutting into Cuyahoga County. It is involved in the three-way split of Portage County and the four-way splits of Summit and Cuyahoga Counties.[839]

837. *See* Dkt. 241 (Cooper Trial Test. at 155–56).

838. Trial Ex. P087 (Cho Rep. at 26).

839. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 14.

We also conclude that the 2012 map had the effect of cracking Democratic voters in District 14. Historical election results provide some proof of the cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative David Joyce was elected to Congress with 54.03% of the vote. In 2014, he won with 63.26% of the vote. In 2016, he won with 62.58% of the vote. In 2018, he won with 55.25% of the vote. Only one of these elections was competitive—the first, which was Joyce's first congressional campaign. The consistent election of the Republican candidate in District 14 is evidence of the durability of the 2012 map's partisan effects and its entrenchment of Republican representatives in office.

Finally, Dr. Cho's simulated maps provide further evidence that Democratic voters were cracked in District 14. In 100% of her simulated non-partisan maps, Plaintiff Hutton, who lives in current District 14, would have a better chance to elect a Democratic representative.[840] The fact that the current District 14 is extremely pro-Republican compared to the non-partisan simulated maps supports the conclusion that it had the effect of cracking Democratic voters and weakening their ability to elect Democratic candidates in the district.

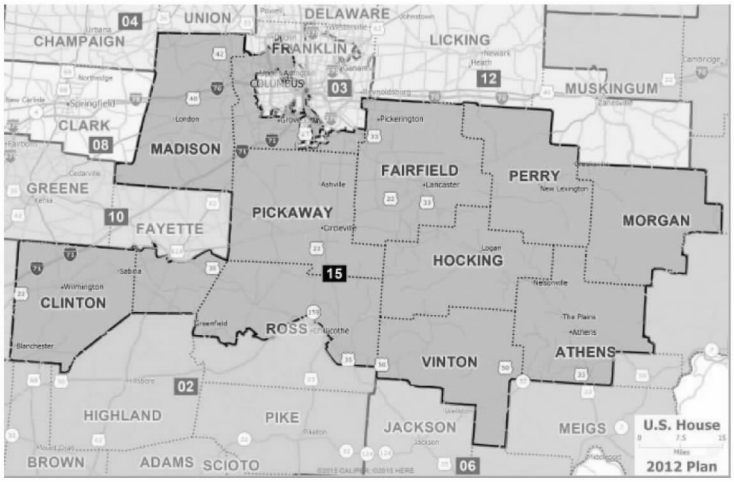
xv. District 15

[64] District 15 includes all of Morgan, Perry, Hocking, Vinton, Fairfield, Pickaway, Madison, and Clinton Counties, as well as the southern half of Fayette County, the northern half of Ross County, and most of Athens County. It also includes a highly irregularly-shaped portion of Franklin County, part of which includes pieces of the City of Columbus.[841] It is involved in the three-way splits of Franklin County and the City of Columbus.[842]

840. Trial Ex. P087 (Cho Rep. at 27).

841. Dkt. 241 (Cooper Trial Test. at 146).

842. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of partisan intent to crack District 15. Additionally, the evidence of partisan intent specific to District 3 is also suggestive of partisan intent in the creation of District 15. District 3 was designed to efficiently pack voters to enable the reliable election of Republican representatives in Districts 12 and 15. *See Benson*, 373 F.Supp.3d at 945 n.39,2019 WL 1856625, at *57 n.39. Finally, Kincaid's comments about the 2012 map following its enactment are further proof of partisan intent in drawing District 15. Kincaid expressed his belief that District 15 had moved seven PVI points in favor of Republicans and had thus been taken "out of play." [843] These comments are evidence of the map drawers' intent to crack Democratic voters in District 15 by drawing the District to lean so strongly Republican that Democratic voters would have little chance of electing a Democratic candidate to represent them.

We also conclude that the 2012 map had the effect of cracking Democratic voters in District 15. Historical election results provide some proof of their cracking. *See Benisek*, 348 F.Supp.3d at 519–20 (finding proof of partisan effect in "the fact that the Democratic candidate was elected in the three elections following the 2011 redistricting"). In 2012, Republican Representative Steve Stivers was elected to Congress with 61.56% of the vote. In 2014, he won with 66.02% of the vote. In 2016, he won with 66.16% of the vote. In 2018, he won with 58.33% of the vote. None of these elections were competitive. The consistent election of the Republican candidate in District 15 in non-competitive elections is evidence of the durability of the 2012 map's pro-Republican effects. It is also evidence of the 2012 map's entrenchment of Republican representatives in office by creating a "safe" pro-Republican District 15 by cracking Democratic voters.

This consistent, strong pro-Republican lean of the district contrasts with its pre-redistricting leanings, evidence that the 2012 map altered the configuration of District 15, making it more pro-Republican. Dr. Niven's report demonstrates that President Obama won the 2008 election in

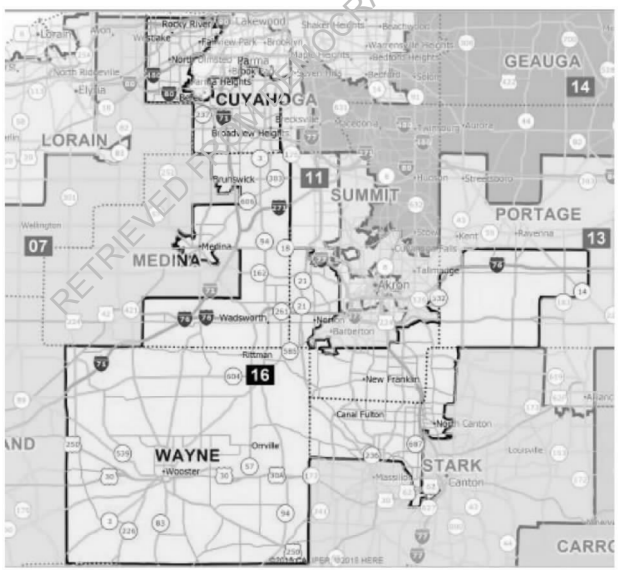
843. Trial Ex. P310 (NRCC Presentation at 5); Dkt. 230-27 (Kincaid Dep. at 115–16); *see also* Trial Ex. P556 (Stivers Email at STIVERS_007519); Dkt. 230-46 (Stivers Dep. at 77–78); *supra* Section I.A.8.

District 15 with 54.61% of the vote. Had that election occurred with the new composition of District 15, however, President Obama would have lost the district with only 46.85% of the vote.[844] The pieces of Franklin County that map drawers included in the new District 15 were considerably more pro-Republican than the pieces of those counties that were allocated to other districts in the scheme.[845] Democratic voters in Franklin County appear to have been specifically targeted to be removed from District 15 while Republican voters in Franklin County were intentionally added to District 15.[846] This allowed District 15 to shift to be more solidly pro-Republican with the help of a packed District 3. *See Benisek*, 348 F.Supp.3d at 519 (finding partisan effect where the design of the district resulted in a large swing in PVI).

Finally, Dr. Cho's simulated maps provide further proof of the cracking effect. In 79.28% of Dr. Cho's non-partisan simulated maps, Plaintiff Thobaben, who lives in current District 15, would have a better chance of electing a Democratic representative. This supports the conclusion that the partisan design of the 2012 map resulted in her decreased ability to elect a Democratic candidate.

xvi. District 16

[65] District 16 includes all of Wayne County as well as irregularly shaped portions of Cuyahoga, Medina, Summit, and Portage Counties. It is involved in the four-way split of Summit County, the four-way split of Cuyahoga County, and the three-way splits of Stark County and Portage County.[847]



The statewide evidence of partisan intent in the map-drawing process, discussed above, supports a finding of predominant partisan intent to crack District 16. Furthermore, District 16 intentionally cracked Democratic voters from Akron in order to enable Republican incumbent Representa-

844. Trial Ex. P524 (Niven Rep. at 22).

845. *Id.* at 22–23.

846. *Id.* at 24.

847. Trial Ex. P090 (Cooper Decl. at 12, fig. 5).

tive Renacci to win his pairing against Democratic incumbent Representative Sutton in the 2012 election. *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39.

We conclude that the 2012 map had the effect of cracking Democratic voters in District 16. Historical election results support this conclusion. In 2012, Republican Representative Jim Renacci defeated Democratic Representative Betty Sutton, winning a close race with 52.05% of the vote. In 2014, he won with 63.74% of the vote. In 2016, he won with 65.33% of the vote. In 2018, Anthony Gonzalez was the Republican candidate for Congress in District 16; he won with 56.73% of the vote. The only competitive election in this set of four elections following the 2012 redistricting was the first—in which two incumbents were paired. The uncompetitive elections and consistent election of the Republican candidate are also evidence of the durability of the 2012 map's partisan effects and its effectiveness in entrenching Republican representatives in office.

Furthermore, the Republican map drawers succeeded in their efforts to "eliminat[e] Ms. Sutton's seat"[848] by drawing a new Republican-leaning District 16 that they understood to include only 25.79% of her former district.[849] The new District 16 then elected Representative Renacci by significant margins in the two elections that followed and was sufficiently pro-Republican to elect non-incumbent Gonzalez in a Democratic swing year, albeit by a much tighter margin.

Finally, Dr. Cho's simulated maps provide additional proof that the design of the 2012 map cracked Democratic voters in District 16. In 100% of Dr. Cho's simulated non-partisan maps Plaintiff Rubin, who lives in current District 16, would have a better opportunity to elect a Democratic representative.[850] The pro-Republican skew of the current District 16 compared to the non-partisan simulated maps supports the conclusion that the 2012 map design cracked Democratic voters in District 16, negatively impacting their ability to elect Democratic representatives.

d. Justification

Defendants tell an entirely different tale of the redistricting process, offering several justifications for the 2012 map, none of which includes the intent to lock in Republican advantage or dilute the voting power of Democratic voters through packing and cracking. Defendants argue that incumbent protection, bipartisan negotiations and input, Voting Rights Act compliance and advancing minority representation, and natural political geography explain the design and partisan effects of the 2012 map. We address and reject each justification in turn.

i. Incumbent protection and *Gaffney v. Cummings*

Defendants' arguments on their incumbent-protection and "bipartisanship" justifications seem to blend together at times. They contend that these arguments "find[ ] dispositive support in *Gaffney v. Cummings*, 412 U.S. 735, 93 S.Ct. 2321, 37 L.Ed.2d 298 (1973)." *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 1). As a legal matter, we disagree. Factually, as we will explain, the "bipartisanship" justification simply does not hold up.

Because Defendants rely so heavily on *Gaffney*, we start with what that case actu-

848. Trial Ex. P414 (State-by-State Redistricting Summary at REV_00000001); Dkt. 230-28 (Kincaid Dep. at 519).

849. Trial Ex. P130 (Sept. 14, 2011 email at LWVOH_00018321).

850. Trial Ex. P087 (Cho Rep. at 29).

ally concerned—a so-called bipartisan gerrymander, or "sweetheart gerrymander." *See* Samuel Issacharoff, *Gerrymandering and Political Cartels*, 116 HARV. L. REV. 593, 628 (2002). In *Gaffney*, "[r]ather than focusing on party membership in the respective districts, the [State Apportionment] Board took into account the party voting results in the preceding three statewide elections, and, on that basis, created what was thought to be a proportionate number of Republican and Democratic legislative seats." 412 U.S. at 738, 93 S.Ct. 2321. Put another way, the State "attempted to reflect the relative strength of the parties in locating and defining election districts." *Id.* at 752, 93 S.Ct. 2321. Therefore, although the Constitution may not require proportional representation, the proportional representation of political parties is a permissible State interest. *See Vieth*, 541 U.S. at 338, 124 S.Ct. 1769 (Stevens, J., dissenting); *Gaffney*, 412 U.S. at 754, 93 S.Ct. 2321 ("[The] judicial interest should be at its lowest ebb when a State purports fairly to allocate political power to the parties in accordance with their voting strength and, within quite tolerable limits, succeeds in doing so.").

The Supreme Court, however, also reasoned that "[w]hat is done ... to achieve political ends or allocate political power[ ] is not wholly exempt from judicial scrutiny under the Fourteenth Amendment." *Gaffney*, 412 U.S. at 754, 93 S.Ct. 2321. Accordingly, we will examine whether, in fact, the State fairly "allocate[d] political power to the parties in accordance with their voting strength ...." It is clear that the State of Ohio did not do so.

To be sure, in 2010 the Republicans experienced a wave election and gained a thirteen-to-five advantage in the Ohio congressional delegation, but Democratic candidates still received approximately 42% of the vote. That was the Democrats' worst year in congressional elections in the prior decade. Even taking note of the strong Republican performance that year, the argument that allocating 25% of the congressional seats to Democrats fairly allocates political power in accordance with that Party's voting strength falls apart. Thus, *Gaffney* is far from dispositive, and we find it completely distinguishable from this case.

In fact, even despite their argument that *Gaffney* is dispositive, Defendants also admit that the State "focused on preserving the *status quo* incumbency-constituent relationship rather than on creating the 'proportional representation' sought in *Gaffney*." *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 6). First, this argument seems to contradict their initial argument about *Gaffney*. Second, Defendants basically admit that their goal was a 12-4 map. *See id.* at 8 ("Because of the pre-reapportionment 13–5 partisan split, divvying up the lost seats [after the census] fairly meant a 12–4 split."). They say that "*Gaffney* ratifies the legislature's choice ...." *Id.* at 7. For the reasons articulated above, we disagree.

At bottom, Defendants' arguments on this score are aimed at trying to justify entrenchment and incumbent *insulation* from political challenges, not incumbent protection as understood by Supreme Court precedent. *See infra* (collecting cases in which the Supreme Court has been skeptical of the argument of preserving the status quo for incumbents). Finally, we note that this present line of defense—that the primary goal of the map was to preserve the status quo for all incumbents—contradicts statements made by the redistricting plan's sponsor in the Ohio State House. Representative Huffman clearly described incumbent protection as "a subservient [goal] to the other ones that [he] listed" and further ex-

plained that, "[n]obody has a district.... There's nobody that owns a piece of land in Congress. People elect them." [851] *See Benisek*, 348 F.Supp.3d at 518 (considering notes prepared for the Senate President's "remarks to the State House and Senate Democratic Caucuses about the redistricting plan" as evidence establishing intent); *see also Arlington Heights*, 429 U.S. at 268, 97 S.Ct. 555 ("The legislative or administrative history may be highly relevant, especially where there are contemporary statements by members of the decision-making body, minutes of its meetings, or reports.").

Legal arguments about *Gaffney* aside, by Defendants' account, protecting incumbents was the sine qua non of the map-drawing process, and the incumbent-protection concern was bipartisan in nature. Defendants' argument goes like this: the 2010 congressional election left Ohio with 13 Republican representatives and 5 Democratic Representatives. The decision to pair one set of Republican incumbents and one set of Democratic incumbents, a politically fair decision, would lead to a 12-4 map. The enacted map is a 12-4 map; ergo the redistricting process was fair. But this argument obscures complexities and nuances that significantly undermine Defendants' version of events.

First, to say that the redistricting process simply transformed a 13-5 map into a 12-4 map ignores two key considerations, which are intimately related with one another: competitiveness and responsiveness. Yes, the pre-redistricting map was a 13-5 map in that 13 Republican representatives and 5 Democratic representatives had been elected under it in 2010. But it had not consistently been a 13-5 map over the course of its life. It contained competitive districts and was responsive to shifts in voter preference and turnout over the years. In contrast, the 12-4 map created in the redistricting process is a 12-4 map through and through. It minimized competitive districts and responsiveness to changes in voter preferences. It is no coincidence that correspondence between the insiders crafting the map refer to "lock[ing] in" the 12-4 division and ensuring "safe seats." *See Benisek*, 348 F.Supp.3d at 518 (finding unconstitutional partisan gerrymandering where "Democratic officials ... worked to craft a map that would specifically transform the Sixth District into one that would *predictably* elect a Democrat by removing Republicans from the District and adding Democrats in their place"). The redistricting meant that the parties suffered an equal reduction in seats between the 2010 election and the 2012 election, as Defendants emphasize. However, Defendants minimize the fact that the redistricting also effectively guaranteed that the most seats that Democratic voters could secure for their party in any future election under that map was four, and the fewest seats that Republican voters could secure for their party in any future election was twelve.

Second, the map drawers paired more sets of incumbents than Ohio's population stagnation required.[852] Not only did the map drawers pair a set of Republican incumbents and a set of Democratic incumbents, they also paired an extra set: one Democratic incumbent, Betty Sutton, against one Republican incumbent, Jim Renacci. They then drew the district in

851. Trial Ex. J01 (House Session, Sept. 15, 2011 at 19, 21) (statement of Rep. Huffman).

852. Defendants' own expert, Dr. Hood, admitted that "if the legislature wanted to pair the fewest number of incumbents in enacting the 2012 plan, that would have been two sets of incumbents for four total congressional representatives." Dkt. 247 (Hood. Trial Test. at 192).

which Sutton and Renacci were paired, the new District 16, to include far more of Renacci's former constituents than Sutton's, which gave him a considerable advantage in the race that ensued.[853] This undermines Defendants' claim that a bipartisan desire for incumbent protection dominated the map-drawing process.

Third, Defendants repeatedly emphasize that the reason that incumbent protection is a legitimate motivation in redistricting is because incumbents, particularly those with considerable experience serving in their elected office, wield that seniority for the benefit of their constituents. Yet, the map drawers chose to pair two senior Republican incumbents, Representatives Turner and Austria, after considering and rejecting the possibility of pairing two freshmen Republican incumbents, Representatives Gibbs and Johnson.[854] Evidence demonstrates that partisan intent motivated that decision. In "talking points" that Whatman sent to President Niehaus, Whatman wrote:

> A Gibbs/Johnson map results in 3 districts with a base Republican vote under 50 percent. A Turner/Austria map only has one district under 50.... Putting two members together in another region of the state merely because they are freshmen that results in an overall worse map for republicans in the state is simply not the right thing to do. Boehner is not happy about this but it is the tough decision that is the right thing for Republicans for the next decade.[855]

This correspondence demonstrates that when the map-drawing process pitted the competing concerns of incumbent-advantage protection against partisan-advantage protection, partisan-advantage protection dominated. The decision to pair senior Republican incumbents thus undermines the credibility of Defendants' assertion that incumbent protection was the primary consideration in the redistricting.

Fourth, Ohio Republican map drawers themselves claimed at the time that incumbent protection was not their primary concern. When presenting the bill in the Ohio House of Representatives, Representative Huffman detailed the competing concerns that the creators of the bill had considered when drafting the H.B. 319 map. He characterized equipopulation as "the lodestone," called VRA compliance an "important precept[ ]," and then listed "several other traditional redistricting principles ...: compactness, contiguity, preservation of political subdivisions, preservation of communities of interest, preservation of cores of prior districts, and protection of incumbents." He then made a point of stating that protection of incumbents was "subservient ... to the other ones that I

853. Dr. Hood also acknowledged that "someone that retained more of their ... constituents from their previous district probably had an advantage over the other incumbent," and "the incumbent who retained more of their constituents," Representative Renacci, was "favored by the map." Dkt. 247 (Hood Trial Test. at 194–95). On September 14, 2011, Mann emailed Congressman Renacci responding to his request to see "the population numbers and percentages of Congresswoman Sutton's current district that would be contained in the proposed districts." It stated that "New CD 16 (Renacci)" would include only 25.79% of Congresswoman Sutton's former district. Trial Ex. P130 (Sept. 14, 2011 email at LWVOH_00018321).

854. Dkt. 230-52 (Whatman Dep. at 34–35) ("There were early discussions, given the fact that we had two freshmen members of the delegation at that time, whether based on seniority it made sense that the two freshmen would have to run against each other, or whether some other consideration would come into play.").

855. Trial Ex. P407 (Sept. 07, 2011 email at LWVOH_0052431).

listed." [856] Representative Huffman went on:

> You know, we talked—a year ago someone came up to me and said, "Are we going to get rid of Kucinich's district?" And I said, "Look, Kucinich doesn't have a district. Nobody has a district. Every two years, there's an election, and that's how it works. That's how the system works. There's nobody that owns a piece of land in Congress. People elected them." [857]

We acknowledge that politicians may make representations on the floor of the House that diverge from the true account of their priorities in creating a bill. We must, however, note the tension between the post-hoc justification that Defendants offer for the bill—incumbent protection as the primary motivation—and Representative Huffman's express minimization of the incumbent-protection concern on the floor of the House.

Additionally, Defendants' portrayal of the incumbent-protection goal as bipartisan mischaracterizes the facts. Only hazy, inadmissible multi-level hearsay testimony was offered to support their claim that Democratic leaders wanted Kucinich and Kaptur to be the paired Democratic incumbents. The evidence indicates that the Republican and Democratic Caucuses did their map drawing entirely separately, particularly in the early stages when major decisions such as the pairing of incumbents were being made. Both Congresswoman Kaptur and Congresswoman Fudge insisted that they had no say whatsoever in the design of the map prior to its introduction as H.B. 319, and the incumbent pairings were not altered between H.B. 319 and the passage of H.B. 369.

Finally, we reject what seems to be Defendants' argument that because the Supreme Court has sanctioned incumbent protection as a legitimate concern in the redistricting process in some instances, any kind of incumbent-protecting behavior is legitimate and may be used to justify the drawing of district lines. The Supreme Court has expressed its acceptance of districting "that minimizes the number of contests between present incumbents," which in its view "does not in and of itself establish invidiousness." *Burns v. Richardson*, 384 U.S. 73, 89 n.16, 86 S.Ct. 1286, 16 L.Ed.2d 376 (1966); *see also White v. Weiser*, 412 U.S. 783, 791, 93 S.Ct. 2348, 37 L.Ed.2d 335 (1973) (quoting *Burns* and expressing tolerance for districting plans that "maintain[ ] existing relationships between incumbent congress[people] and their constituents and preserv[e] the seniority the members of the State's delegation have achieved in the United States House of Representatives"). In *Gaffney*, the Supreme Court accepted a politically conscious bipartisan gerrymander, noting that "[r]edistricting may pit incumbents against one another or make very difficult the election of the most experienced legislator." 412 U.S. at 753, 93 S.Ct. 2321. In *Karcher*, the incumbent protection that the Supreme Court endorsed as legitimate was simply "avoiding contests between incumbent Representatives." 462 U.S. at 740, 103 S.Ct. 2653. These cases uniformly identify one legitimate form of incumbent protection—avoiding a districting scheme that pairs two current incumbents and forces them to face one another in an election. They offer no endorsement of incumbent protection in the form of a districting scheme that insulates incumbents from any future challenge.

856. Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 16–19) (statement of Rep. Huffman).

857. *Id.* at 21.

We conclude that the incumbent protection effectuated by the 2012 map is of the latter, unprotected kind. The map drawers drew one more incumbent pairing than the bare minimum in a state that had its congressional delegation reduced by two. But the majority of its line-drawing decisions were motivated not by the legitimate incumbent-protection goal of "avoiding contests between incumbent Representatives," but rather by the goal of avoiding contests between Democrats and Republicans in general. The Republican map drawers drew noncompetitive, nonresponsive districts by grouping bodies of voters who would elect a Democrat—any Democrat—or a Republican—any Republican. This is not the incumbent protection that the Supreme Court has endorsed. In fact, the Supreme Court has repeatedly cast aspersions on this type of incumbent insulation. *See Randall v. Sorrell*, 548 U.S. 230, 248, 126 S.Ct. 2479, 165 L.Ed.2d 482 (2006) (holding that, when assessing contribution limits on political donations, courts must determine "whether [the contribution limits] magnify the advantages of incumbency to the point where they put challengers to a significant disadvantage"); *McConnell v. Fed. Election Comm'n*, 540 U.S. 93, 306, 124 S.Ct. 619, 157 L.Ed.2d 491 (2003) (Kennedy, J., concurring in part and dissenting in part) (finding a campaign finance provision problematic because it "look[ed] very much like an incumbency protection plan."); *id.* at 263, 124 S.Ct. 619 (Scalia, J., concurring in part and dissenting in part) (arguing that a portion of the Bipartisan Campaign Reform Act was an attempt by Members of Congress "to mute criticism of their records and facilitate reelection."); *see also Elrod v. Burns*, 427 U.S. 347, 356, 96 S.Ct. 2673, 49 L.Ed.2d 547 (1976) (plurality) ("Patronage thus tips the electoral process in favor of the incumbent party, and where the practice's scope is substantial relative to the size of the electorate, the impact on the process can be significant."); *Jenness*, 403 U.S. at 439, 91 S.Ct. 1970 (concluding that an election law was constitutional in part because the State "in no way freezes the status quo, but implicitly recognizes the potential fluidity of American political life."). The incumbent-protection justification does not encompass incumbent insulation through the drawing of favorable districts. Rather, it only allows the prevention of excessive incumbent-versus-incumbent pairings.

Furthermore, even if this kind of incumbent-insulation strategy were sanctioned by the Supreme Court's cases, the Republican map drawers did not create four Democratic districts because they had united in a bipartisan anti-competitive scheme with Democratic legislators. Rather, they created four Democratic districts because Ohio has Democratic voters and the map drawers had to allocate them in some fashion. The map drawers contemplated packing Democratic voters into three districts and cracking them among the remaining thirteen. The map drawers, however, did not feel that that strategy would guarantee sufficiently predictable pro-Republican outcomes; it allowed for too much competition and responsiveness. They decided twelve Republican seats in the hand was better than thirteen in the bush, and so four Democratic districts were born. This behavior constitutes invidious partisan gerrymandering and is unconstitutional as proved district by district.

ii. Bipartisan negotiations and input

Defendants also argue that some of the lines of the 2012 map resulted from honoring requests from Democratic representatives and operatives. We conclude that the Democrats had no role in the drawing of H.B. 319 and were able to secure only minor concessions from the Republicans in the passage of H.B. 369, none of which significantly changed the earlier version of

the map. These findings do not undermine our conclusion that invidious partisan intent predominated in the creation of the 2012 map. *See Rucho*, 318 F.Supp.3d at 868–69 (finding partisan intent where "Republicans had exclusive control over the drawing and enactment of the 2016 plan" and "with the exception of one small change to prevent the pairing of Democratic incumbents, [the expert map drawer] finished drawing the 2016 plan before Democrats had an opportunity to participate in the legislative process").

First, we assess Defendants' assertion that the map drawers were taking and incorporating requests from Democratic legislators prior to the introduction of H.B. 319. We do not credit this assertion. The map drawers themselves testified that they did not share draft maps of H.B. 319 with Democratic legislators or staffers until very close to its introduction in the General Assembly. Both Representatives Kaptur and Fudge testified that they did not have input into the design of H.B. 319. Finally, all Defendant testimony offered to prove that that Democratic leaders themselves actually wanted particular map designs was vague, unconvincing, and most importantly, hearsay. There is no evidence to support Defendants' assertions that, prior to the introduction of H.B. 319, certain Democrats actually made the requests that the map drawers say they eventually accommodated.

Second, we assess Defendants' assertion that the map drawers took and incorporated requests from Democratic legislators after the introduction of H.B. 319 and prior to the final enactment of H.B. 369. We credit this assertion, but it is not determinative. The changes made between H.B. 319 and the enacted H.B. 369 were de minimis. *See Benisek*, 348 F.Supp.3d at 520 (concluding that "while there may have been other causes that could have marginally altered the [challenged] district, the striking actions complained of are not explained by the State's proffers"). They reflect small concessions made by the Republican legislators when faced with a voter referendum to challenge H.B. 319. None of these concessions meaningfully impacted the central intent of H.B. 319—the enactment of a map that was nearly certain to allow for the election of twelve Republican congressional representatives and four Democratic congressional representatives.[858] Speaker Batchelder himself testified that while some negotiations occurred, there was never a chance that the Republicans in the majority would permit a map that altered the partisan balance of H.B. 369.[859] The testimony offered by Defendants' witnesses to prove that that Democratic leaders themselves actually wanted particular map designs was vague, speculative, not credible, and most importantly, hearsay.

Next, Defendants assert that partisan intent to discriminate against Democratic voters could not have motivated the enactment of the 2012 map because Democratic members of the Ohio House of Representatives and State Senate voted in support of it. The argument is that Democratic legislators would not intend to electorally disadvantage their own party, and a bill enacted with their partial support could therefore not have been motivated by invidious partisan intent.

We do not find this argument convincing as it fails to acknowledge the reality of

858. Dkt. 241 (Cooper Trial Test. at 179) ("If you look at the election data in terms of partisan performance, there's really not very much different in the two plans."); *see also* Trial Ex. P090 (Cooper Decl. at 22, fig. 9); Trial Ex. P454 (Cooper Decl. Apps. at Ex. I).

859. Dkt. 230-3 (Batchelder Dep. at 130–31).

legislative politics. The Republicans commanded majorities in the Ohio House of Representatives and the State Senate, and they held the governorship. They could force through a bill that Democratic legislators did not support. Speaker Batchelder himself acknowledged this, commenting that the Republicans "could have simply done what [they] wanted to," in the redistricting process.[860] The fact that some Democratic legislators voted in support of H.B. 369, perhaps to secure the small concessions that were made between H.B. 319 and H.B. 369 or to avoid the costly split primary, therefore is not evidence of a lack of partisan intent behind the enacted map. Of course, this does not mean that proof that one party controlled both legislative houses and the governorship is sufficient to demonstrate partisan intent. However, we are unconvinced by the Defendants' argument that some Democratic votes neutralize pro-Republican partisan intent.

Finally, Defendants' argument that the Republican map drawers could have drawn a 13-3 map but did not, and therefore that they did not have a partisan intent is unconvincing. Drawing a 13-3 map would have been a riskier choice because it would have required Republican support to be spread more thinly throughout the Republican-leaning districts. Such a map would have been more vulnerable in Democratic swing years; more seats could have potentially fallen into Democratic hands. The map drawers prioritized maximizing safe seats for their candidates throughout the decade over maximizing the number of seats in a single election, some of which would have then been vulnerable in Democratic swing years. Thus, rather than cut against partisan intent, this strategic choice is further evidence of the predominantly partisan intent. The Republicans successfully avoided the purported self-limitation on partisan gerrymandering—"an over ambitious gerrymander . . . ." *See Bandemer*, 478 U.S. at 152, 106 S.Ct. 2797 (O'Connor, J., concurring in the judgment); *see also id.* ("[A]n overambitious gerrymander can lead to disaster for the legislative majority: because it has created more seats in which it hopes to win relatively narrow victories, the same swing in overall voting strength will tend to cost the legislative majority more and more seats as the gerrymander becomes more ambitious.").

iii. Voting Rights Act compliance and advancing minority representation

Defendants assert that one "principal goal" was "to preserve and advance minority electoral prospects both in northeast Ohio and in Franklin County," Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 20), and that "the alleged [partisan] bias is justified by the Voting Rights Act and minority-protection goals . . . ." *Id.* at 30; *see also id.* at 20–27, 38–40. This proffered justification applies specifically to Districts 3 and 11.

[66, 67] Normally, invoking VRA compliance as a state interest in redistricting arises in the racial-gerrymandering context. *See, e.g.*, *Cooper v. Harris*, —— U.S. ——, 137 S.Ct. 1455, 1465, 197 L.Ed.2d 837 (2017); *Ala. Legislative Black Caucus*, 135 S.Ct. at 1274. As the Supreme Court recently explained:

> When a State invokes the VRA to justify race-based districting, it must show (to meet the "narrow tailoring" requirement) that it had "a strong basis in evidence" for concluding that the statute required its action. Or said otherwise, the State must establish that it had "good reasons" to think that it would transgress the Act if it did *not* draw race-based district lines. That "strong

860. *Id.* at 25.

> basis" (or "good reasons") standard gives States "breathing room" to adopt reasonable compliance measures that may prove, in perfect hindsight, not to have been needed.

Cooper, 137 S.Ct. at 1464 (internal citations omitted). This case, however, does not involve a racial-gerrymandering claim; this is, of course, a partisan-gerrymandering case. In this context, we will still assume that compliance with the VRA can serve as a legitimate state justification. *See Bethune-Hill*, 137 S.Ct. at 801 ("As in previous cases, . . . the Court assumes, without deciding, that the State's interest in complying with the Voting Rights Act [is] compelling."). In addition, when the State seeks to use the VRA as a shield to justify an alleged partisan-gerrymandered district, the State must still establish that it had a basis in evidence for concluding that the VRA required the sort of district that it drew. We will not accept a blanket assertion that the State sought to comply with the VRA in cases where the State misinterpreted the law and did no work to show that it had some reason to believe that a particular percentage of minority voters was required for a district.

[68] To establish a vote-dilution claim under § 2, a party must satisfy three threshold conditions, known as the *Gingles* preconditions.[861] *See Gingles*, 478 U.S. at 50–51, 106 S.Ct. 2752. These preconditions are: (1) the minority group must be large enough and geographically compact to constitute a majority in a single-member district; (2) the minority group must be politically cohesive; and (3) there must be evidence of racial bloc voting such that a white majority could usually defeat the minority's preferred candidate. *See id.* "If a State has good reason to think that *all* the '*Gingles* preconditions' are met, then so too it has good reason to believe that § 2 requires drawing a majority-minority district." *Cooper*, 137 S.Ct. at 1470 (emphasis added).

Although we do not find that *racial* considerations predominated, we nonetheless see it as entirely appropriate to put the burden on the State to show that it had good reasons for believing § 2 required drawing District 11 as a majority-minority district. As an initial matter, we would not engage in this inquiry if Plaintiffs had failed to carry their burden on partisan intent and effect, but Plaintiffs have carried that burden. Furthermore, Defendants' argument here essentially amounts to: "we interpreted the VRA and properly considered race (instead of partisanship); even if we were mistaken in our interpretation or mistaken about what BVAP was appropriate, a goal to aid minority electoral opportunities is still a legitimate justification for the design of District 11." For the reasons explained below, we do not find Defendants' argument persuasive. Moreover, although we acknowledge that some evidence suggests that the State had a good-faith belief that it drew districts in a way to comply with the VRA, other evidence cuts against finding a good-faith belief, and no evidence suggests that this belief was an informed one. First, we will address District 11, and then we will turn to District 3.

For District 11 (which was unchanged between H.B. 319 and H.B. 369), statements from the legislative record illuminate the General Assembly's thinking and its "legal mistake." *See Cooper*, 137 S.Ct. at 1472. Representative Huffman, H.B. 319's sponsor in the State House, said:

861. As Ohio was never a covered jurisdiction under § 5 of the VRA, only § 2 compliance could be at issue for the State.

> The significant application [of the VRA] in this particular case is that . . . we are required to draw a majority/minority district in the State of Ohio when that can be done. And in fact, the map that you see before you today in this legislation . . . does that. So that's one of the significant requirements by federal law that we have met when we've drawn this map.[862]

Likewise, in the State Senate, Senator Faber (the bill's sponsor in that chamber) stated that District 11 "was also going to be required to comply with the Voting Rights Act. And the Voting Rights Act says, essentially, where you can draw a continuity [sic] of interest minority district you need to do that." [863] Senator Faber further cited *Bartlett v. Strickland*, 556 U.S. 1, 129 S.Ct. 1231, 173 L.Ed.2d 173 (2009), to support how District 11 was drawn.[864] Other legislators echoed this view.[865] In short, legislators articulated concern about a VRA § 2 violation, and they thought that "whenever a legislature *can* draw a majority-minority district, it must do so . . . ." *See Cooper*, 137 S.Ct. at 1472.

As the Supreme Court explained, "[t]hat idea, though, is at war with our § 2 jurisprudence—*Strickland* included." *Id.* Instead, *Strickland* "turn[ed] on whether the first *Gingles* requirement can be satisfied when the minority group makes up less than 50 percent of the voting-age population in the potential election district." 556 U.S. at 12, 129 S.Ct. 1231. The Court answered no. *See id.* at 26, 129 S.Ct. 1231 ("Only when a geographically compact group of minority voters could form a majority in a single-member district has the first *Gingles* requirement been met."). *Strickland* also clarified that, "[m]ajority-minority districts are only required if *all three Gingles* factors are met and if § 2 applies based on a totality of circumstances. In areas with substantial crossover voting it is unlikely that the plaintiffs would be able to establish the third *Gingles* precondition—bloc voting by majority [white] voters." *Id.* at 24, 129 S.Ct. 1231 (emphasis added). In this case, no credible evidence suggests that this third requirement (racial bloc voting in congressional elections) was present, which could trigger § 2 concerns. "Thus, [Ohio's] belief that it was compelled to [ ]draw District [11] . . . as a majority-minority district rested not

862. Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 17–18) (statement of Rep. Huffman).

863. Trial Ex. J03 (Ohio Senate Session, Sept. 21 2011 at 10) (statement of Sen. Faber).

864. *Id.* at 44 (statement of Sen. Faber) (''[T]he Supreme Court held that a majority-minority district that is drawn to remedy a [VRA § 2 violation], must be made up of a numerical majority of the voting age population in the district. . . . Minority population totals that are less than 50 percent of the district's voting age population do not fulfill the mandate of the Voting Rights Act.'').

865. *See id.* at 58 (statement of Sen. Coley); *id.* at 60 (statement of Sen. Tavares); Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 39) (statement of Rep. Gerberry). Defendants cite statements from some members on the Democratic side of the aisle who also referenced the VRA. True enough, however, even though some referenced the VRA, not all agreed with how the Act was used in this case. *See, e.g.*, Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 40) (statement of Rep. Gerberry) (''[L]et's be honest. If you look at that map, this isn't about fairness. This is about finding a way to get the most Republican districts with the most Republicans so they're non-contestable in general elections.''); *id.* at 59–60 (statement of Rep. Yuko) (''We now have Marcia Fudge representing us and [District 11 has not] missed a beat. This map puts it all at risk.''). To the extent that Defendants rely on bipartisanship in this context, we address that justification elsewhere. *See supra* Section V.A.2.d.ii.

on a 'strong basis in evidence,' but instead on a pure error of law." *See Cooper*, 137 S.Ct. at 1472 (citation omitted).

In response, Defendants note that "[t]he legislature had good reasons to fear Voting Rights Act liability in northeast Ohio because the City of Euclid was the subject of successful Section 2 claims immediately prior to the redistricting, due to polarized voting in the city and its history of racial discrimination and animus." Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 38); *see also, e.g.*, *City of Euclid*, 580 F.Supp.2d 584. This argument is not credible.

The cases concerning Euclid involved nonpartisan, local elections and do not support any suggestion that District 11's partisan, federal congressional elections were polarized. In fact, District 11 included the City of Euclid under the 2002 plan, and in the closest election under that plan (the 2002 election), then-Representative Stephanie Tubbs Jones won by a margin of about 76% to 24%, or 116,590 votes to 36,146.[866] In the prior decade, the State drew District 11 with a BVAP at 52.3%, and the District was an extraordinarily safe district for African-American candidates (including Congresswoman Fudge); under the current plan, the BVAP is 52.4%.[867] Put simply, the "electoral history provided no evidence that a § 2 plaintiff could demonstrate the third *Gingles* prerequisite—effective white bloc-voting, . . . [s]o experience gave the State no reason to think that the VRA required it to" maintain District 11 as a district with a BVAP of just over 52%. *See Cooper*, 137 S.Ct. at 1470.

Plaintiffs present Dr. Handley's report as evidence affirmatively to rebut the contention that the third *Gingles* precondition could be met, and her analysis provides some further evidence against finding that the State had a good-faith belief that the VRA required District 11 to be drawn as it was. Dr. Handley's finding that a 45% BVAP would be sufficient to elect the Black-preferred candidate by a comfortable margin is merely additional evidence to support the conclusion that District 11 did not need to be drawn as a majority-minority district. (Dr. Handley even suggests a 40% BVAP may be sufficient, though the elections would be tighter.) We need not, however, rely on Dr. Handley. The real problem for the State is, again, that it drew District 11 based on a pure misinterpretation of the VRA. This means that it had neither "good reasons" nor any "basis in evidence" to draw District 11 as a majority-minority district. *Cooper*, 137 S.Ct. at 1464.

To be sure, as with § 5 of the VRA, "[t]he law cannot insist that a state legislature, when redistricting, determine *precisely* what percent minority population § [2] demands." *See Ala. Legislative Black Caucus*, 135 S.Ct. at 1273; *see also Cooper*, 137 S.Ct. at 1472. But the State needs to show its work, so to speak, and if the State happens to be wrong, it enjoys some leeway. Defendants assert that legislators here "conducted a functional analysis of [District 11] to conclude that a 50% target was appropriate." *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 38–39). This assertion is surprising, given that such a "functional analysis" is completely absent

866. *See* OHIO SEC'Y OF STATE, 2002 ELECTION RESULTS, https://www.sos.state.oh.us/elections/election-results-and-data/2002-elections-results/u.s.-representative/; *see supra* Section II.C.4 (discussing Dr. Handley's testimony and report).

867. District 11's BVAP increased over the course of the decade to about 57%, but this does not alter the analysis. Again, the closest election was the 2002 election—which Stephanie Tubbs Jones won by over 50%—and the BVAP in that year was 52.3%.

from this record. This is not a case where the State "relied on data from its statisticians and Voting Rights Act expert to create districts tailored to achieve" VRA compliance. *See Harris*, 136 S.Ct. at 1310. (This lack of analysis also cuts against finding a good-faith belief that the VRA required District 11 to be drawn as such.) For these reasons, the leeway given to States that have done their homework in this context cannot rescue District 11. *See Cooper*, 137 S.Ct. at 1472.

[69] A question then arises as to whether a state's mistake of law on the VRA, even if in good faith, can serve as a legitimate justification for a partisan gerrymander. In the context of District 11, the argument essentially amounts to: The State can draw a majority-minority district if it wants, even if the State was mistaken in its belief that the VRA required such a district. Accepting such a justification could be constitutionally problematic. *See Strickland*, 556 U.S. at 23–24, 129 S.Ct. 1231 ("Our holding also should not be interpreted to entrench majority-minority districts by statutory command, for that, too, could pose constitutional concerns."). Accordingly, we decline to accept this argument here.

Importantly, we also conclude that Plaintiffs carried their burden in proving partisan intent, not a desire to comply with the VRA (even if based on an entirely mistaken interpretation of the VRA), *predominantly* influenced District 11. In *Harris*, the Supreme Court explained that the appellants in that case did not show that the districts "result[ed] from the predominance of . . . illegitimate factors . . . ." 136 S.Ct. at 1310. The opposite is true here. As discussed above, the reason for dropping District 11 down into Summit County was to carve voting territory away from then-Representative Betty Sutton to disadvantage her in her race against Representative Renacci—a partisan motivation. *See Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39. To the extent that the State legitimately wanted to maintain District 11 as a majority-minority district, it sought to accomplish that goal in a way that would achieve an ultimately partisan aim—to lock in a 12-4 map. That is, even if the goal of advancing minority interests in District 11 was a secondary goal, it was just that: secondary. At bottom, partisanship was the predominant and controlling intent behind the district.

The argument for District 3 is slightly different, but the difference is important. In District 3, the argument goes, the State sought to advance minority electoral prospects in Franklin County. Defendants rely on *Strickland*'s statement about "the permissibility of [crossover districts that enhance a minority's electoral opportunities] as a matter of legislative choice or discretion." *Strickland*, 556 U.S. at 23, 129 S.Ct. 1231. In the next sentence, the Supreme Court explained that "[a]ssuming a majority-minority district with a substantial minority population, a legislative determination, based on proper factors, to create two crossover districts may serve to diminish the significance and influence of race by encouraging minority and majority voters to work together toward a common goal." *Id.* There is no evidence to suggest that this specific situation applied to Franklin County—i.e., that it contained a possible majority-minority district that could be split into two minority-influence or crossover districts. The Court continued that "States can—and in proper cases should—defend against alleged § 2 violations by pointing to crossover voting patterns and to effective crossover districts." *Id.* at 24, 129 S.Ct. 1231. This scenario is also not at play in this case. In other words, Defendants place too much weight on *Strickland*. That said, we will accept that a state

may, as a matter of legislative discretion, rely on creating minority-opportunity or crossover districts as a legitimate justification. The problem for this justification here is that there is a competing narrative for District 3.

The competing narrative, and the one that we consider more credible, is that Franklin County served as the center piece to help secure a 12-4 map in that Democratic voters could be packed into District 3 in order to shore up other neighboring districts for Republicans. Although some feedback throughout the map-drawing process included a desire for a minority-opportunity district in Franklin County,[868] the actual map-drawing process focused on only partisan factors and political data. As we detailed previously, for example, the map drawers considered splitting Franklin County into four districts, but then they realized that split would result in more competitive elections for Republican candidates; only then did the map drawers decide to draw what is now District 3. That the Democratic voters in this district were referred to by Hofeller as "dog meat" and that downtown Columbus was referred to as "awful voting territory" for Republicans (and thus needed to be removed from District 15) bolsters this finding. Therefore, disentangling the purported racial considerations from the political ones, we find that political considerations predominantly motivated the drawing of District 3. As explained, when partisanship predominates, partisan considerations are not a legitimate redistricting factor.

We also note that District 3 could still have been drawn with a nearly identical BVAP,[869] but with a more regular shape, fewer county splits,[870] and with considerably less partisan bias.[871] It was not, and consequently we infer that the map drawers intended District 3's design to result in the partisan bias we have seen.

Finally, although District 1 in Hamilton County is not central to the dispute of whether the map drawers were motivated by an intent to advance minority electoral opportunity in Districts 3 and 11, we find the treatment of that district instructive in evaluating claims about the map drawers' commitment to advancing minority representation. In evaluating a justification, we may look to see "the consistency with which the plan as a whole reflects [that] interest[ ]." *Karcher*, 462 U.S. at 740–41, 103 S.Ct. 2653. The Supreme Court has also instructed that in determining whether invidious intent was present "[s]ubstantive departures [from normal procedure] may be relevant, particularly if the factors [purportedly] considered important by the decisionmaker strongly favor a decision contrary to the one reached." *Arlington Heights*, 429 U.S. at 267, 97 S.Ct. 555. Here, we find that the motivation offered for the shape of Districts 3 and 11 was dishonored in the creation of Districts 1 and 2, which work together to crack the City of Cincinnati. Cincinnati in Hamilton County also has a considerable African-American population. The map drawers'

868. Trial Ex. P070 (Testimony of Ray Miller to the Senate Select Committee on Redistricting). Notably, this request for a minority-opportunity district seems premised on a mistaken view of the VRA, too (i.e., that the VRA required such a district). Moreover, Miller's definition of a "minority opportunity district," included both a majority-minority district and a crossover district. *See id.*

869. Dkt. 241(Cooper Trial Test. at 161).

870. Trial Ex. P093 (Cooper Second Suppl. Decl. at 10, 17).

871. Trial Ex. P476 (Warshaw Rep. at 14–15).

decision to carve the City of Cincinnati in two resulted in a District 1 with a 21.30% BVAP.[872] In contrast, when Mr. Cooper left Cincinnati intact in his Proposed Remedial Plan, it maintained a BVAP of 26.74%.[873] When he did so in his hypothetical maps, drawn to demonstrate the possibilities when contemplating the incumbents in 2011, he maintained this same higher BVAP in each.[874] When Cincinnati could be cracked, the map drawers' asserted concern for advancing minority voting interests seems to have fallen to the wayside. This gives us further reason to doubt the veracity of their assertion that this concern drove the creation of Districts 3 and 11.

iv. Natural political geography

Defendants also argue that some of the partisan effects that have resulted under the 2012 map are due to natural political geography—the way that the supporters of the two parties are distributed and clustered throughout the State. While we acknowledge that some credible evidence was presented at trial of partisan clustering in Ohio and a natural political geography that gives a slight advantage to the Republican Party, we find that Ohio's natural political geography in no way accounts for the extreme Republican advantage observed in the 2012 map. We therefore conclude that this justification fails as a neutral explanation for the 2012 map's partisan effects.

Dr. Hood's report and analysis demonstrated that in Ohio Democratic voters tend to cluster near other Democratic voters, and Republican voters tend to cluster near other Republican voters.[875] However, it did not show that Democratic voters do so at higher rates than Republican voters—the key comparison that might help explain why the 2012 map favors the election of Republican representatives over Democratic representatives.[876]

Dr. Hood's analysis also showed that in Ohio Democratic voters are more likely to be located in urban areas than Republican voters are.[877] The concentration of Democratic voters in cities could support a finding of natural packing in those cities if the boundaries of those cities were respected and they were allowed to remain intact within districts. That is not the case here. Under the 2012 plan, Democratic cities were routinely split in order to facilitate the packing and cracking of districts. For example, Cincinnati in Hamilton County was dramatically and nonsensically divided to produce Republican Districts 1 and 2, Akron was divided to facilitate the packing of District 11 and the cracking of District 16, and Toledo was divided between Districts 5 and 9. We cannot take seriously the argument that Democratic voters' tendency to cluster in cities supports a finding of natural packing when under this map those cities were often cracked rather than packed.

Evidence presented at trial demonstrated that Ohio's natural political geography slightly favors the election of Republican representatives. Dr. Warshaw stated that "[p]artisan bias usually is caused by gerrymandering, but it could be caused by other

872. Trial Ex. P454 (Cooper Decl. Apps. at D-2); Dkt. 241 (Cooper Trial Test. at 160).

873. Dkt. 241 (Cooper Trial Test. at 161); Trial Ex. P454 (Cooper Decl. Apps. at E-2).

874. Trial Ex. P093 (Cooper Second Suppl. Decl. at 10 & n.8, 17 & n.16).

875. Dkt. 247 (Hood Trial Test. at 155).

876. *Id.* at 199–200.

877. *Id.* at 156.

factors as well." [878] For example, Dr. Warshaw's analysis of the partisan-bias metrics of the Proposed Remedial Plan indicated that that plan, which was drawn by Mr. Cooper with no partisan intent, had a *slight* bias toward Republicans.[879] Likewise, Dr. Cho's simulated maps, which were all drawn in accordance with only traditional redistricting principles and no partisan intent, also showed a natural *slight* Republican advantage, most often resulting in a 9-7 map.[880] At least a handful of the races under the simulated maps are competitive, with each party winning some of those competitive races—this data is in stark contrast with elections under the current map.[881] Thus, when only natural political geography serves as the baseline, we find that H.B. 369 significantly deviates from that baseline.

Dr. Warshaw expressed considerable doubt that the partisan bias observed in the 2012 map was the result of natural political geography or non-political factors, however. First, "the sharpness of the change in the efficiency gap between 2010 and 2012 makes it unlikely to have been caused by geographic changes or non-political factors." [882] In order to believe that the strong partisan bias observed under the 2012 map was caused by natural political geography, we would need some evidence to explain why that same natural political geography did not cause such extreme partisan bias figures under the previous plan.[883] The sudden uptick in partisan bias after the implementation of the 2012 map belies the claim that Ohio's natural political geography accounts for the pro-Republican results, particularly without any proof that the political geography changed between 2010 and 2012. The independent variable was the map; the dependent variable was the partisan effect. This analysis supports the conclusion that Ohio's natural political geography is not responsible for the considerable partisan effect observed since the implementation of the 2012 map.

Although Dr. Cho did not consider incumbent protection, Mr. Cooper created hypothetical alternative maps that did, and those maps score better on various traditional redistricting principles and result in a more responsive and competitive map. Mr. Cooper's hypothetical alternative maps pair the same number of incumbents as the current map, score higher on compactness, are equal to the current map on core retention, and split fewer municipalities and counties.[884] Importantly, these hypothetical alternative maps also satisfy the equal-population requirement.[885] As for advancing minority opportunity, these maps contain a District 11 with a BVAP of over 47%, a district in Franklin County with a BVAP of just above 30%, and a Cincinnati-based district with a BVAP of 26.74%.[886] Accordingly, these maps take into account Ohio's natural political geography as well as all of Defendants' purported main goals in redistricting, and they still produce more responsive and

878. Dkt. 240 (Warshaw Trial Test. at 196).

879. Trial Ex. P571 (Warshaw Rep. at 32).

880. *See* Trial Ex. P426 (Cho Supp. Rep. at 3).

881. *Id.* at 4.

882. Trial Ex. P571 (Warshaw Rep. at 21).

883. "From about 2002 through 2010 Republicans had a modest advantage in the efficiency gap in Ohio, perhaps because they controlled the redistricting in 2001." *Id.* at 22.

884. *See generally* Trial Ex. P093 (Cooper Second Suppl. Decl. at 4–18); *see also* Ex. P598 (Cooper Third Suppl. Decl. at 5–6).

885. Trial Ex. P093 (Cooper Second Suppl. Decl. at 7, 15).

886. *Id.* at 10, 17.

competitive elections than H.B. 369. This is strong evidence that Ohio's natural political geography does not explain the extreme partisan effects of the 2012 map.

* * *

In sum, we conclude that (1) partisan discrimination against Democratic voters was the predominant intent in the creation of each congressional district in the 2012 map as well as the map as a whole, (2) the partisan effect of this discrimination was a dilution of Democratic votes, impinging on Democratic voters' Fourteenth Amendment rights, and (3) no legitimate justification offered by Defendants to explain either the intent behind the map or its partisan effects undermines our conclusion that invidious partisanship dominated the process and the result. We therefore conclude that Plaintiffs have proved their Fourteenth Amendment vote-dilution claims.

B. First Amendment Vote-Dilution Claim

[70] Plaintiffs may prove their First Amendment vote-dilution claim by showing:

> (1) that the challenged districting plan was intended to burden individuals or entities that support a disfavored candidate or political party, (2) that the districting plan in fact burdened the political speech or associational rights of such individuals or entities, and (3) that a causal relationship existed between the governmental actor's discriminatory motivation and the First Amendment burdens imposed by the districting plan.

Rucho, 318 F.Supp.3d at 929, *see also Benson*, 373 F.Supp.3d at 913–14, 2019 WL 1856625, at *28.

This test essentially mirrors the intent, effect, and lack-of-justification test that applies to the equal-protection claim analyzed above. The similarity between the elements of the two claims makes sense because the claims are theoretically and analytically linked—when the government purposefully dilutes an individual's vote (by packing or cracking voters into particular districts) in the partisan-gerrymandering context, it does so "*because of* the political views" expressed by voters. *See Shapiro*, 203 F.Supp.3d at 595 (citing *Vieth*, 541 U.S. at 314–15, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment)). In the partisan-gerrymandering context, the Equal Protection Clause's concern about vote dilution is related to the First Amendment concerns about viewpoint discrimination, "laws that disfavor a particular group or class of speakers[,]" and retaliation. *See Rucho*, 318 F.Supp.3d at 924–26; *see also Benisek*, 348 F.Supp.3d at 514 (concluding that citizens "have a right under the First Amendment not to have the value of their vote diminished because of the political views they have expressed through their party affiliation and voting history. Put simply, partisan vote dilution, when intentionally imposed, involves the State penalizing voters for expressing a viewpoint while, at the same time, rewarding voters for expressing the opposite viewpoint."). Accordingly, Plaintiffs call upon the same evidence to prove the elements of this claim as the elements of the Fourteenth Amendment claim.

[71] For the reasons we outlined previously, we conclude that Plaintiffs have proved this vote-dilution claim. *See supra* Section V.A.2. The State relied predominantly on partisanship in drawing the current map and penalized Democratic voters because of their political viewpoint. In brief, the map drawers' controlling intent was to lock in a 12-4 map in favor of Republicans, that goal was accomplished, and no other causes or justifications explain the extreme partisan effects exhibit-

ed by the current map. Therefore, in the context of partisan vote dilution under the First Amendment, the analysis is no different than vote dilution under the Equal Protection Clause.

The "associational harm of a partisan gerrymander," however, "is distinct from vote dilution." *See Gill*, 138 S.Ct. at 1938 (Kagan, J., concurring). We now turn to this separate analysis.

C. Associational Claim

1. Legal standard

a. Background legal principles

[72, 73] The First Amendment protects the associational choices of voters. *See Calif. Democratic Party*, 530 U.S. at 574, 120 S.Ct. 2402 ("[T]he First Amendment protects 'the freedom to join together in furtherance of common political beliefs,' " (quoting *Tashjian*, 479 U.S. at 214–15, 107 S.Ct. 544)); *Anderson v. Celebrezze*, 460 U.S. 780, 793–94, 103 S.Ct. 1564, 75 L.Ed.2d 547 (1983); *Williams*, 393 U.S. at 30–31, 89 S.Ct. 5. This associational right is linked with the right to vote. *See Williams*, 393 U.S. at 30, 89 S.Ct. 5. Accordingly, state laws can "place burdens on [these] two different, although overlapping, kinds of rights—the right of individuals to associate for the advancement of political beliefs, and the right of qualified voters, regardless of their political persuasion, to cast their votes effectively." *Id.* Undoubtedly, these rights are fundamental and "rank among our most precious freedoms." *Id.*; *see also Anderson*, 460 U.S. at 788, 103 S.Ct. 1564.

[74, 75] The associational rights of parties and their voters have been rightly recognized and protected by the courts, even though the Framers tried to design the Constitution against political parties. *See* Levinson & Pildes, *supra* at 2320. As the Supreme Court has acknowledged, "[r]epresentative democracy in any populous unit of governance is unimaginable without the ability of citizens to band together in promoting among the electorate candidates who espouse their political views." *Calif. Democratic Party*, 530 U.S. at 574, 120 S.Ct. 2402. Moreover, as Defendants repeatedly note, the Framers gave to states general authority to prescribe "The Times, Places and Manner of holding Elections" and to Congress the power to "make or alter" such laws. U.S. CONST. Art. I, § 4. But neither the State's authority nor Congress's power under the Elections Clause "extinguish[es] the State's responsibility to observe the limits established by the First Amendment rights of the State's citizens," or the courts' ability to vindicate constitutional rights. *See Tashjian*, 479 U.S. at 217, 107 S.Ct. 544. "The power to regulate the time, place, and manner of elections does not justify, without more, the abridgment of fundamental rights, such as the right to vote, or ... the freedom of political association." *Id.* (citing *Wesberry*, 376 U.S. at 6–7, 84 S.Ct. 526).

[76, 77] "Although these rights of voters are fundamental, not all" state election laws "impose constitutionally suspect burdens on voters' rights to associate or to choose among candidates." *Anderson*, 460 U.S. at 788, 103 S.Ct. 1564. Every election law, "whether it governs the registration and qualifications of voters, the selection and eligibility of candidates, or the voting process itself, inevitably affects—at least to some degree—the individual's right to vote and his right to associate with others for political ends." *Id.* As the Supreme Court explained in *Burdick v. Takushi*,

> A court considering a challenge to a state election law must weigh "the character and magnitude of the asserted injury to the rights protected by the First and Fourteenth Amendments that the plaintiff seeks to vindicate" against "the

> precise interests put forward by the State as justifications for the burden imposed by its rule," taking into consideration "the extent to which those interests make it necessary to burden the plaintiff's rights."

504 U.S. 428, 434, 112 S.Ct. 2059, 119 L.Ed.2d 245 (1992) (quoting *Anderson*, 460 U.S. at 789, 103 S.Ct. 1564). The Supreme Court has employed this *Anderson-Burdick* balancing standard and found it workable in evaluating a variety of election laws. *See, e.g.*, *Crawford v. Marion Cty. Election Bd.*, 553 U.S. 181, 128 S.Ct. 1610, 170 L.Ed.2d 574 (2008) (upholding a voter ID law); *Wash. State Grange v. Wash. State Republican Party*, 552 U.S. 442, 128 S.Ct. 1184, 170 L.Ed.2d 151 (2008) (upholding Washington's blanket primary law); *Calif. Democratic Party*, 530 U.S. 567, 120 S.Ct. 2402 (striking down California's blanket primary law); *Timmons v. Twin Cities Area New Party*, 520 U.S. 351, 117 S.Ct. 1364, 137 L.Ed.2d 589 (1997) (upholding a ban on "fusion" candidates); *Burdick*, 504 U.S. at 434–38, 112 S.Ct. 2059 (upholding a prohibition on write-in voting); *Anderson*, 460 U.S. at 788–90, 103 S.Ct. 1564 (striking down an early filing deadline for independent candidates); *cf. Doe v. Reed*, 561 U.S. 186, 197–202, 130 S.Ct. 2811, 177 L.Ed.2d 493 (2010) (weighing the State's interests against the alleged First Amendment burdens and upholding a state law that made referendum petitions, which include the names and addresses of the signers, available in response to a public-records request by a private party).

b. Partisan gerrymandering burdens associational and representational rights

In the context of partisan-gerrymandering cases, Justice Kennedy first recognized that the "allegations involve the First Amendment interest of not burdening or penalizing citizens because of their participation in the electoral process, their voting history, their association with a political party, or their expression of political views." *Vieth*, 541 U.S. at 314, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment) (citing *Elrod*, 427 U.S. 347, 96 S.Ct. 2673 (plurality)). Justice Kennedy further reasoned that Supreme Court precedents showed that "First Amendment concerns arise where a State enacts a law that has the purpose and effect of subjecting a group of voters or their party to disfavored treatment by reason of their views." *Id.* Specifically, the disfavored treatment results in a burden on "voters' representational rights." *See id.* Later, the Supreme Court, "[w]ithout expressing any view on the merits," reversed the dismissal of a case in which the plaintiffs pursued a First Amendment theory on the narrow ground that the "plea for relief [was] based on a legal theory put forward by a Justice of this Court and uncontradicted by the majority in any of our cases." *See Shapiro v. McManus*, —— U.S. ——, 136 S.Ct. 450, 456, 193 L.Ed.2d 279 (2015).

In *Gill*, four justices framed the associational harm as a burden on "the ability of like-minded people across the State to affiliate in a political party and carry out that organization's activities and objects." *See Gill*, 138 S.Ct. at 1939 (Kagan, J., concurring). "By placing a state party at an enduring electoral disadvantage, the gerrymander weakens its capacity to perform all its functions." *Id.* at 1938. Thus, five justices have expressed support for applying First Amendment association principles in the partisan-gerrymandering context, but, like other theories, the associational-rights framework has not been adopted as a majority opinion of the Supreme Court. At the same time, the Supreme Court has not foreclosed this framework, and other three-judge district courts have found it helpful to address partisan-

gerrymandering claims. *See, e.g.*, *Rucho*, 318 F.Supp.3d at 926–927; *Whitford*, 218 F.Supp.3d at 880–83; *Shapiro*, 203 F.Supp.3d at 594–95.

If the whole point of partisan gerrymandering is to subordinate a disfavored *group* of voters and entrench the dominant party, then it is sensible to assess an alleged partisan gerrymander under an associational-rights framework and look at the plan as a whole. The ability of the people to associate through parties is critical to our representative democracy, *Calif. Democratic Party*, 530 U.S. at 574, 120 S.Ct. 2402, and "[t]he revolutionary intent of the First Amendment is ... to deny [the government] authority to abridge the freedom of the electoral power of the people." *See* Alexander Meiklejohn, *The First Amendment is an Absolute*, 1961 SUP. CT. REV. 245, 254 (1961). In extreme cases, a party in power may "freeze[ ] the status quo" in a redistricting law and render districts impervious to "the potential fluidity of American political life." *See Jenness*, 403 U.S. at 439, 91 S.Ct. 1970. Indeed, the Supreme Court has already acknowledged the link between associational rights and the functioning of the democratic process. *See Elrod v. Burns*, 427 U.S. at 356–57, 96 S.Ct. 2673, 49 L.Ed.2d 547 (1976) (plurality) ("It is not only belief and association which are restricted where political patronage is the practice. The free functioning of the electoral process also suffers.... Patronage thus tips the electoral process in favor of the incumbent party, and where the practice's scope is substantial relative to the size of the electorate, the impact on the process can be significant."). The Supreme Court extended *Elrod*'s concerns about the right to association and the electoral process in the patronage context to the right to vote in *Williams v. Rhodes*. There, the Court explained that the law at issue "place[d] substantially unequal burdens on both the right to vote and the right to associate." *Williams*, 393 U.S. at 31, 89 S.Ct. 5; *see also Tashjian*, 479 U.S. at 216, 107 S.Ct. 544 ("The State thus limits the Party's associational opportunities at the crucial juncture at which the appeal to common principles may be translated into concerted action, and hence to *political power* in the community.") (emphasis added). These same concerns apply to partisan gerrymandering. *See Ariz. State Legislature*, 135 S.Ct. at 2658 (defining partisan gerrymandering as "the drawing of legislative district lines to subordinate adherents of one political party and entrench a rival party in power.").

The First Amendment and the *Anderson-Burdick* standard are well suited to address these concerns in the partisan-gerrymandering context. This framework sensibly places the focus on a law's alleged "substantially unequal burdens" and effects, *see Williams*, 393 U.S. at 31, 89 S.Ct. 5, rather than partisan intent, *see Crawford*, 553 U.S. at 203–04, 128 S.Ct. 1610 ("[I]f a nondiscriminatory law is supported by valid neutral justifications, those justifications should not be disregarded simply because partisan interests may have provided one motivation for the votes of individual legislators."). On the one hand, "[a]s long as redistricting is done by a legislature, it should not be very difficult to prove that the likely political consequences of the reapportionment were intended." *Bandemer*, 478 U.S. at 129, 106 S.Ct. 2797. On the other hand, if courts determine that some plans are unconstitutional partisan gerrymanders, then we would expect legislators to act like normal people and, therefore, not express their pure partisan intentions; that is, there will be less clear, direct evidence of map drawers' partisan intent. The evidence of *effects*, then, becomes the most important consideration because evidence of suffi-

ciently extreme partisan effects will support the assertion that a state was motivated by partisanship, at the expense of all other purported justifications, in drawing a map. If such evidence exists, then a reasonable inference would be that partisanship was the controlling justification for a map, and any other legitimate purported justifications would not hold up against the severe burdens placed on a disfavored party's voters. Conversely, if the evidence of partisan effect is lacking or does not reveal a sufficiently significant burden, then it becomes more likely that other legitimate justifications can explain the map, even though "partisan interests may have provided one motivation for the votes of individual legislators." *See Crawford*, 553 U.S. at 204, 128 S.Ct. 1610.

[78] Of course, to some extent, to the victor of an election go the spoils. But "[t]o the victor belong only those spoils that may be constitutionally obtained." *Rutan v. Republican Party of Ill.*, 497 U.S. 62, 64, 110 S.Ct. 2729, 111 L.Ed.2d 52 (1990). "The [First Amendment] analysis allows a pragmatic or functional assessment that accords some latitude to the States," *Vieth*, 541 U.S. at 315, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment), and, consequently, latitude for some partisan effects. At the same time, a map that "freezes the status quo" for the incumbent party despite fluctuating vote totals, *Jenness*, 403 U.S. at 439, 91 S.Ct. 1970, substantially "tips the electoral process in favor of the incumbent party," *Elrod*, 427 U.S. at 356, 96 S.Ct. 2673 (plurality), or "unfairly or unnecessarily burdens the availability of political opportunity," for the disfavored party, *Anderson*, 460 U.S. at 793, 103 S.Ct. 1564 (citations and internal quotation marks omitted), should be subject to judicial scrutiny and, depending on the evidence, struck down as unconstitutional. In other settings, courts have thus employed the *Anderson-Burdick* standard to pick out the worst of the worst—cases in which legitimate state justifications and the states' general power to regulate elections simply do not outweigh the burdens placed on individuals' right to associate and right to vote. Likewise, reining in the worst-of-the-worst gerrymanders is the courts' task in this setting.

* * *

We conclude that the associational-rights framework provides a workable standard to evaluate an alleged partisan gerrymander. *See Benson*, 373 F.Supp.3d at 934–38, 953–56, 2019 WL 1856625, at *48–50, 65–66 (concluding that the plaintiffs could pursue this claim and that the challenged map burdened associational rights). First, no matter how relevant partisan intent is to this particular analysis, Plaintiffs have proven intent under the predominant-factor standard. *See supra* Sections V.A.1.a., V.A.2.a. More importantly for purposes of the associational claim, courts must weigh the burden imposed on a group of voters' associational rights against the precise interests put forward by the State as justifications for the burden imposed by the challenged map. *See Gill*, 138 S.Ct. at 1938–39 (Kagan, J., concurring); *Vieth*, 541 U.S. at 314, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment); *Burdick*, 504 U.S. at 434, 112 S.Ct. 2059 (quoting *Anderson*, 460 U.S. at 789, 103 S.Ct. 1564).

2. Application

[79] For the following reasons, we find that Plaintiffs have proved their associational-rights claim. Many of these facts overlap with our discussion of the vote-dilution claim. *See, e.g., supra* Section V.A.2.b. (discussing statewide evidence of effect). This makes sense given the overlap between individuals' right "to associate for the advancement of political beliefs" and

their right "to cast their votes effectively." *See Williams*, 393 U.S. at 30, 89 S.Ct. 5. In this sense, partisan gerrymandering is a double-barreled constitutional issue. We will first discuss the burden that the redistricting plan imposes on Democratic voters' and organizations' right to associate and then weigh that burden against the State's interests that it proffers as justifications.

a. Burden

For a group of voters to associate effectively for the advancement of their political beliefs, the group must be able to mobilize in the electorate to have a real chance at translating their votes into electoral success. If a disfavored party's voters in the electorate are "deprived of their natural political strength by a partisan gerrymander" drawn by the dominant party in government, then the disfavored party may be sapped of its ability to mobilize effectively, win elections, and thereby accomplish its policy objectives. *See Gill*, 138 S.Ct. at 1938 (Kagan, J., concurring). Here, several pieces of evidence reveal that the redistricting plan enacted in H.B. 369 attempts to "freeze[ ] the status quo" in favor of the incumbent Republican Party, *Jenness*, 403 U.S. at 439, 91 S.Ct. 1970, substantially "tips the electoral process in favor of" the Republican Party, *Elrod*, 427 U.S. at 356, 96 S.Ct. 2673 (plurality), and "unfairly or unnecessarily burdens the availability of political opportunity," for the Democratic Party and the individuals and organizations that support the Party, *Anderson*, 460 U.S. at 793, 103 S.Ct. 1564 (citations and internal quotation marks omitted).

The partisan-bias metrics employed by Plaintiffs show that the Democratic Party is placed "at an enduring electoral disadvantage," and the simulated maps indicate that Democratic voters are indeed "deprived of the[ ] natural political strength" that they otherwise would have based on political geography. *See Gill*, 138 S.Ct. at 1938 (Kagan, J., concurring). As detailed previously, by almost any measure, H.B. 369 is more extremely partisan and more pro-Republican than over 90% (and under several metrics over 95%) of previous comparable elections throughout the country. This was true in 2012, the first election held under the current map, and in the most recent 2018 election cycle. Indeed, these findings should not be surprising given the fact that, although the Republican statewide vote share in congressional elections has fluctuated between 51% and 59%, Republican candidates have nonetheless won the same twelve seats (75% of the seats) in every election. The Democratic vote share in that same time has ranged from 41% to 47%, but Democratic candidates have won the same four seats in every election—and by considerably large margins (again, in the closest election for the four seats, the Democratic candidate still won 61% of the vote). The data support Dr. Warshaw's conclusion that "Ohio's 2011 redistricting plan had one of the largest pro-Republican biases in history." [887] The simulated maps, which integrate only neutral redistricting criteria, reveal what the typical outcomes would be based on the natural political geography of the State. Over the course of this decade, by far the most expected outcome would be a 9-7 map.[888] As a whole, this evidence shows that the current redistricting plan contains a substantial amount of bias against Democratic voters as compared to a neutral baseline (or, in fact, millions of neutral

887. Trial Ex. P571 (Warshaw Rep. at 42).

888. *See* Trial Ex. P426 (Cho Suppl. Rep. at 3). An 8-8 map was also rather common, though by 2018, an 8-8 map occurred at about an equal rate as a 10-6 map. *See id.*

baselines) based on natural political geography, as well as historical baselines. Indeed, we can comfortably say that the current redistricting plan is an outlier. But this evidence is only part of the story.

The lack of competitive elections supports the conclusion that Democratic voters' electoral opportunities are unfairly burdened. *See Anderson*, 460 U.S. at 793, 103 S.Ct. 1564. The simulated maps typically produced at least a handful of competitive races. Democratic and Republican candidates win roughly an equal number of those competitive elections, but Democratic candidates tend to have a slight edge in competitive elections under the simulated maps.[889] Combined with the data on the typical seat shares, this evidence shows that by 2018, a 9-7 map in favor of Republicans was common and that Democratic candidates would win three or four of their seats in competitive elections.[890] These findings stand in stark contrast to the current 12-4 map, in which a winning Democratic candidate has never come close to facing a competitive election. The logical conclusion is that the map drawers fenced in Democratic voters in significant numbers into four districts and, conversely, fenced out Democratic voters from the other districts in order to "freeze[ ] the status quo" from the 2010 elections, which favored Republicans. *Jenness*, 403 U.S. at 439, 91 S.Ct. 1970. The result is a burden on Democratic voters' overall electoral opportunity.

Of course, this is not to say that competitive elections must be maximized at the expense of other legitimate goals. The point is that the evidence indicates that in a State as competitive as Ohio, and considering its natural political geography, one would expect more competitive elections—some won by Democratic candidates, and others won by Republican candidates. The absence of competitive elections raises concerns that the dominant party in government, through partisan manipulation, is seeking to "dictate electoral outcomes" and "disfavor a class of candidates" and the voters who support them. *See Thornton*, 514 U.S. at 833–34, 115 S.Ct. 1842. In a similar vein, as Justice Scalia noted, "[t]he first instinct of power is the retention of power, and, under a Constitution that requires periodic elections, that is best achieved by the suppression of election-time speech." *See McConnell*, 540 U.S. at 263, 124 S.Ct. 619 (Scalia, J., concurring in part and dissenting in part). Both restrictions on election-time speech and partisan gerrymandering aim to suppress electoral competition, and both are partly rooted in viewpoint discrimination. *See Benson*, 373 F.Supp.3d at 954–56, 2019 WL 1856625, at *66; *Rucho*, 318 F.Supp.3d at 841, 924–25. And some degree of competition is healthy because it "support[s] in the members [of Congress] an habitual recollection of their dependence on the people." *See* THE FEDERALIST NO. 57, at 511 (James Madison), *reprinted in* THE CONSTITUTION OF THE UNITED STATES OF AMERICA AND SELECTED WRITINGS OF THE FOUNDING FATHERS (2012).

The evidence of extreme partisan bias and lack of competitive elections are consistent with the intentions of the map drawers. As detailed previously, for a time, the map drawers considered splitting Franklin County into four districts, which might have secured a 13-3 map in favor of Republicans. *See supra* Section I.A.4. They abandoned this option because the margins of victory would have been tighter and thus exposed Republican incumbents to the risk of losing competitive elections. *See supra* Section I.A.4. Importantly, accord-

889. *See generally id.* at 4.

890. *Id.* at 3–4.

ing to talking points in an email from Heather Mann to Michael Lenzo, the 12-4 map "put the most number of seats in the safety zone given the political geography of the state, [the] media markets, and how to best allocate caucus resources." [891] By the Republicans' own admission, then, the number of safe seats, and thus the number of competitive elections, influence how the parties and campaigns expend their resources. In other words, how district lines are drawn affects "the ability of citizens to band together in promoting among the electorate candidates who espouse their political views." *Calif. Democratic Party*, 530 U.S. at 574, 120 S.Ct. 2402.

When a partisan gerrymander maximizes the number of safe seats for the dominant party in government and, relatedly, packs as many of the disfavored party's voters into an optimal number of districts so that the dominant party's overall advantage is not at risk, there are consequences beyond entrenchment. An efficient partisan gerrymander can reduce campaign activity and expenditures and thereby inhibit "the constitutional interest of like-minded voters to gather in pursuit of common political ends . . . ." *See Norman*, 502 U.S. at 288, 112 S.Ct. 698. The evidence surveyed thus far supports the conclusion that H.B. 369 is, in fact, an efficient partisan gerrymander that exhibits substantial and extreme bias against Democratic voters, while optimizing the advantage in favor of the party in power.

Other evidence further demonstrates that the current redistricting plan limits Democratic voters' and organizations' "associational opportunities at the crucial juncture at which the appeal to common principles may be translated into concerted action, and hence to political power in the community." *See Tashjian*, 479 U.S. at 216, 107 S.Ct. 544. Here, that critical juncture is the general election. In his report and trial testimony, Dr. Niven spoke to the political science literature that shows how the splitting of neighborhoods, cities, and counties makes campaigning more difficult in those areas and therefore results in a demobilizing effect. *See supra* Section II.C.3. As we explained previously, he found that splits of localities affected Democratic voters more than Republican voters. Dr. Niven also elaborated on how Democratic voters were shuffled between districts and how that shuffling would have altered the political makeup of districts and the outcomes of prior elections in those districts. *Supra* Section II.C.3. Of course, the lines must be drawn somewhere, but it is suspect when considering the findings that the divisions affected Democratic voters more than Republicans alongside the findings of the extreme partisan effects exhibited in this map. Dr. Niven's analysis focused on Hamilton County, District 9, Franklin County, and Summit County, which all together covers ten of the sixteen congressional districts. *Cf. Benson*, 373 F.Supp.3d at 945 n.39, 2019 WL 1856625, at *57 n.39 ("One cannot fully grasp the partisan implications of the design of an individual district in each group without simultaneously evaluating the partisanship of the other districts in that group.").

The evidence presented by the individual and organizational Plaintiffs is consistent with the notion that a partisan gerrymander can have a demobilizing effect. A core concern with gerrymandering is that the party in power manipulates district lines to choose their preferred partisans and thereby render election results a foregone conclusion. Plaintiffs testified that they themselves have felt like election results were indeed preordained, that their candidate recruitment efforts have been

891. Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438).

hindered, and that they have experienced fundraising difficulties. *See supra* Sections II.A.1.–2. In Hamilton County and on The Ohio State University's campus in particular, the HCYD's and OSU College Democrats' representatives testified that they have seen campaign signs for certain candidates in the wrong district and that people have been mistaken as to which district they should be voting in. *See supra* Section II.A.2. Dr. Niven also found that in Franklin County, the lines even caused problems for the professional election administrators keeping track of which voters should be assigned to which districts. *See supra* Section II.C.3.c. These mobilization difficulties are consistent with the social-science data outlined above that demonstrate an asymmetric burden in translating votes into seats. The actual election results compared to the statewide congressional vote share, the partisan-bias metrics, and the simulated maps all support a reasonable inference that Democratic voters and organizations, such as Plaintiffs in this case, would feel that they do not have a real chance at similar electoral success, even if their Party received a higher percentage of the vote. Even when the Democratic Party as a whole did better, the Republican advantage remained.[892] The current redistricting plan distributes voters in such a way that, even though the Democratic and Republican Parties are running in the same races, Democratic candidates must run a significantly longer distance to get to the same finish line. Thus, Democratic voters and supporters are burdened by this demobilizing effect and are limited in their opportunities to translate their efforts in the electorate into "political power in the community." *See Tashjian*, 479 U.S. at 216, 107 S.Ct. 544.

The remaining question is how much more successful the Democratic Party would need to be to turn the electoral tides in their favor. Again, Dr. Warshaw's initial findings were that, even with 55% of the statewide vote, Democratic candidates would win only 6 out of 16 seats.[893] Updating his analysis with the 2018 data slightly modified this finding; Democratic candidates would win half the seats with 55% of the vote.[894] The asymmetry is stark. Republican candidates comfortably won twelve seats with a similar percentage of the vote, and at 51% of the vote, they still comfortably won twelve seats. Again, this bears out what the map drawers themselves recognized: the way that they drew the map allowed for the best allocation of Republican resources.[895] On the other hand, Democratic campaigners and organizations need to expend more resources to garner more votes, but even if they were successful in that effort, Democratic candidates still win fewer elections. Such use of State "power to starve political opposition" is generally disfavored in First Amendment jurisprudence. *See Elrod*, 427 U.S. at 356, 96 S.Ct. 2673 (plurality); *see also* Kang, *supra* at 376–83.

The ultimate result of this substantial asymmetry is that Plaintiffs are hindered in their ability to mobilize effectively, win elections, and accomplish their policy objectives. These results come with representational costs. Dr. Warshaw's analysis demonstrates the growing polarization among Ohio's Republican and Democratic

892. *See, e.g.,* Trial Ex. P426 (Cho Suppl. Rep. at 6) (comparing the fundraising numbers of Democratic candidates in Districts 1 and 12 in the 2018 elections to the Republican incumbents).

893. Trial Ex. P571 (Warshaw Rep. at 15).

894. Trial Ex. P476 (Warshaw 2018 Update at 12–13).

895. Trial Ex. P385 (Congressional Redistricting Talking Points at LWVOH_0052438).

Members of Congress.[896] Accordingly, given the large asymmetry in elections and polarization in Congress, it is less likely that the Ohio congressional delegation fairly reflects voters in congressional elections across the State. As Dr. Warshaw concludes, "[t]he pro-Republican advantage in congressional elections in Ohio causes Democratic voters to be effectively shut out of the political process in Congress." [897] Partisan gerrymandering, therefore, cuts against "the basic aim of legislative reapportionment" to "achiev[e] fair and effective representation for all citizens ...." *See Reynolds*, 377 U.S. at 565–66, 84 S.Ct. 1362.

In sum, the redistricting plan enacted in H.B. 369 burdens Plaintiffs' ability "to associate for the advancement of [their] political beliefs ... [and] to cast their votes effectively," *Williams*, 393 U.S. at 30, 89 S.Ct. 5, such that Plaintiffs' associational and representational rights are burdened. All the evidence points to the same conclusion that Democratic voters and organizations are significantly disadvantaged, and we can comfortably call H.B. 369 an outlier. We therefore conclude that this burden is of a substantial magnitude.

b. State interests and justifications

To be sure, every redistricting law will have some effect on "the individual's right to vote and his right to associate with others for political ends." *See Anderson*, 460 U.S. at 788, 103 S.Ct. 1564. As we have explained, "[t]he [First Amendment] analysis allows a pragmatic or functional assessment that accords some latitude to the States," *Vieth*, 541 U.S. at 315, 124 S.Ct. 1769 (Kennedy, J., concurring in the judgment), and thus some latitude for partisan effects. We now turn to weighing the substantial burden on Plaintiffs' associational rights against "the precise interests put forward by the State as justifications for the burden imposed" by the redistricting plan. *See Burdick*, 504 U.S. at 434, 112 S.Ct. 2059 (quoting *Anderson*, 460 U.S. at 789, 103 S.Ct. 1564).

[80, 81] Because the burden on Plaintiffs' First and Fourteenth Amendment rights is substantial, the corresponding justifications must be "sufficiently weighty" to explain the burden. *See Norman*, 502 U.S. at 288–89, 112 S.Ct. 698. A court "must not only determine the legitimacy and strength of each [justification]; it also must consider the extent to which those interests make it necessary to burden the plaintiff's rights." *Anderson*, 460 U.S. at 789, 103 S.Ct. 1564. If the burden on Plaintiffs' rights were not so severe, or if the partisan effects did not indicate that a challenged map was an outlier, we would

896. Trial Ex. P571 (Warshaw Rep. at 36–37). This finding is consistent with what scholars and commentators started observing decades ago. *See, e.g.,* Elena Kagan, *Presidential Administration,* 114 HARV. L. REV. 2245, 2311–12 & n.262 (2001) (observing that although bipartisan cooperation remains possible, "the difficulty of the task has increased because congressional parties have grown more ideologically coherent and partisan as legislative districts have become more homogeneous and primaries have become the dominant means of candidate selection.") (collecting sources). To be clear, we do not find or conclude that partisan gerrymandering causes this polarization.

897. Trial Ex. P571 (Warshaw Rep. at 43); *see also id.* at 39–41; *cf.* 41 CONG. GLOBE, 41st Cong., 2d Sess., 4737 (June 23, 1870) (statement of Rep. James A. Garfield) (then-Representative Garfield speaking out against malapportionment in Ohio, stating, "There are about ten thousand Democratic voters in my district, and they have been voting there ... without any more hope of having a Representative on this floor than of having one in the Commons of Great Britain.... The Democratic voters in the nineteenth district of Ohio ought not by any system to be absolutely and permanently disenfranchised."); *supra* Section IV.C.

not "require elaborate, empirical verification of the weightiness of the State's asserted justifications." *See Timmons*, 520 U.S. at 364, 117 S.Ct. 1364. In this case, however, Plaintiffs have put forward a substantial amount of evidence demonstrating an extreme degree of partisan bias. Consequently, we will not accept Defendants' justifications at face value. Instead, we will seriously test the "legitimacy and strength" of the proffered justifications, *Anderson*, 460 U.S. at 789, 103 S.Ct. 1564, and decide whether they are "narrowly tailored to serve a compelling state interest." *See Calif. Democratic Party*, 530 U.S. at 582, 120 S.Ct. 2402.

We addressed Defendants' justifications above and explained that they simply do not hold water in the case before us. *See supra* Section V.A.2.d. We will nonetheless review these asserted State interests briefly.

i. Incumbent protection and bipartisanship

There is a line between "avoiding contests *between* incumbent Representatives," *Karcher*, 462 U.S. at 740, 103 S.Ct. 2653 (emphasis added), and drawing district lines to insulate incumbents from competition. *See also Burns*, 384 U.S. at 89 n.16, 86 S.Ct. 1286 (framing incumbent protection as "minimiz[ing] the number of contests *between present* incumbents") (emphasis added). The former is a legitimate interest, and the latter is not. The insulation of incumbents from political competition raises entrenchment concerns. As detailed above, we find that the current map's purpose and effect was to entrench the 12-4 Republican majority and subordinate disfavored Democratic voters. For example, the decisions to split Franklin County three ways instead of four (thus creating the "Franklin County Sinkhole") and the general checking of political indices when various changes were proposed were all done with an eye toward putting as many Republican incumbents in the safety zone as possible. *See supra* Sections I.A.4, V.A.2.a.ii. This manipulation of the lines, in turn, allowed for a more efficient use of Republican Caucus resources. H.B. 369 falls on the incumbent-insulation and entrenchment side of the line.

[82] Neither Article I nor *Gaffney v. Cummings* can save Defendants' arguments. First, the Elections Clause "act[s] as a safeguard against manipulation of electoral rules by politicians and factions in the States to entrench themselves or place their interests over those of the electorate." *Ariz. State Legislature*, 135 S.Ct. at 2672. As explained, the Supreme Court has also expressed skepticism about attempts to insulate incumbents from political competition in other areas of First Amendment law. *See, e.g.*, *Randall*, 548 U.S. at 248, 126 S.Ct. 2479; *McConnell*, 540 U.S. at 263, 124 S.Ct. 619 (Scalia, J., concurring in part and dissenting in part); *id.* at 306, 124 S.Ct. 619 (Kennedy, J., concurring in part and dissenting in part); *Elrod*, 427 U.S. at 356, 96 S.Ct. 2673; *see also Jenness*, 403 U.S. at 439, 91 S.Ct. 1970. Second, for the reasons we articulated before, *Gaffney* is entirely distinguishable, mainly because there is no serious argument that H.B. 369 fairly "allocate[s] political power to the parties in accordance with their voting strength . . . ." *Gaffney*, 412 U.S. at 754, 93 S.Ct. 2321.

Even if we viewed this incumbent-protection argument in the light most favorable to the State—that the State truly needed to draw the map the way it did to avoid contests between existing incumbents—we would not conclude that this justification holds up to scrutiny. Again, the sponsor of the initial H.B. 319 (to which H.B. 369 is materially identical) clearly described incumbent protection as "subservient" to other redistricting

goals.[898] And the instance in which incumbent protection was not pursued, i.e., the pairing of Representative Renacci with Representative Sutton, the map drawers drew the district to advantage the incumbent Republican over the Democratic incumbent. Lastly, if incumbent protection, properly understood, is meant to maintain Representative-constituent relationships and seniority in Congress, it makes little sense to pair the most senior member of the State's congressional delegation against another incumbent, as was done in H.B. 369. As one of Mr. Cooper's hypothetical alternative maps demonstrates, Representative Kaptur did not need to be paired; instead, Representatives Sutton and Kucinich (who were each paired anyway) could have been drawn against one another.[899]

The argument that the current map resulted from bipartisan input and negotiations, which at times blends with Defendants' arguments about incumbent protection and *Gaffney*, is also unpersuasive. *See supra* Section V.A.2.d.ii. The partisan outcomes of this map were locked in once the General Assembly passed H.B. 319, which was the work product of only Republicans. The General Assembly incorporated some minor Democratic requests into H.B. 369; however, Speaker Batchelder himself acknowledged that the partisan balance of the map was non-negotiable. *See supra* Section V.A.2.d.ii. Although Democratic legislators secured some small geographic concessions, the Republicans also secured their large 12-4 partisan advantage in H.B. 369. The material terms of negotiation were ultimately dictated by the fact that the Republican Party controlled both the General Assembly and the governorship. *See, e.g.*, Dkt. 230-3 (Batchelder Dep. at 25) (stating that the Republicans "could have simply done what [they] wanted to" in the redistricting process). As a practical matter, Democratic legislators could not alter the expected partisan outcomes of this map, and, therefore, this justification does not cure the substantial burdens on Plaintiffs' rights.

ii. Voting Rights Act compliance and advancing representation

We accept that compliance with the VRA is a compelling State interest. *See Bethune-Hill*, 137 S.Ct. at 801. If the State properly considered the VRA, then this interest may well justify the drawing of District 11. A proper consideration of the VRA would involve having some basis in evidence or good reasons to believe that § 2 requires a particular district. Statements from legislators that the VRA was an important consideration, without more, will not suffice—especially when the State is mistaken on the law.

The problem with this justification in this case is that the State had no basis in evidence to believe that District 11 needed to be drawn as it was. *See supra* Section V.A.2.d.iii. Instead, Ohio's belief that it was compelled to draw District 11 as a majority-minority district rested "on a pure error of law." *See Cooper*, 137 S.Ct. at 1472. Furthermore, the State's argument that it can draw a majority-minority district, even if it mistakenly interpreted the VRA, could be problematic. *See Strickland*, 556 U.S. at 23–24, 129 S.Ct. 1231. Again, no evidence suggests that the State conducted any analysis that the VRA required the current District 11 to have a nearly identical BVAP as the prior District 11. We therefore cannot say that the State had "good reason to believe that § 2 requires drawing a majority-minority district." *See Coo-*

898. Trial Ex. J01 (Ohio House Session, Sept. 15, 2011 at 19) (statement of Rep. Huffman).

899. *See* Trial Ex. P093 (Cooper Second Suppl. Decl. at 12–18).

per, 137 S.Ct. at 1470. In fact, based on the prior success of African-American candidates in District 11 (none of whom faced a competitive election in the prior decade), nothing supports this belief. *See supra* Section V.A.2.d.iii. Moreover, even if the State wanted to advance minority electoral opportunities in District 11, we nonetheless find that such a goal was secondary to the predominant and controlling partisan intent.

Again, Defendants' asserted interest for District 3 is slightly distinct. For the sake of argument, we accept that the State may, as a matter of legislative discretion, rely on creating minority-opportunity or crossover districts as a legitimate justification. As explained previously, however, based on the evidence in this case, we credit the competing narrative for District 3: map drawers carefully packed Franklin County Democrats into District 3, facilitating the creation of two solidly Republican seats in Districts 12 and 15. This constellation of districts was key in their efforts to lock in a 12-4 map.

iii. Natural political geography

Finally, we also accept that a state's natural political geography could potentially explain partisan effects, but again, this justification does not hold up against the evidence in this case. *See supra* Section V.A.2.d.iv. Although Plaintiffs' experts acknowledge that Ohio's political geography provides a *slight* advantage to Republicans, the advantage is far from 12-4. First, the same geography did not cause such extreme bias under the prior redistricting plan, and under that plan, the State's congressional delegation majority shifted between Democrats and Republicans. *See supra* Section V.A.2.d.iv. Second, as mentioned above, the simulated maps provide a baseline to compare maps that incorporate only neutral districting criteria to H.B. 369. Dr. Cho's seat-share analysis demonstrates that a 9-7 map in favor of Republicans is the most common outcome, and one would expect at least a handful of competitive races. The current map has produced a combined total of only four competitive races across all four election cycles. When Dr. Cho incorporated 2018 data into her analysis, only 0.046% of over 3-million simulated maps produced a 12-4 outcome. If someone stated that they were flipping a fair coin but then that coin turned up tails in only 0.046% of 100,000 coin tosses, one would start to suspect that the coin was not, in fact, fair—here we have over 3 million coin tosses. Either the Republicans were exceedingly lucky, or their map drawers made exceedingly expert use of political data to manipulate district lines to secure the most seats and the least amount of competition possible. The evidence in this case points to the latter conclusion. Third, Mr. Cooper's hypothetical alternative maps pair the same number of incumbents as the current map, score higher on compactness, are equal to the current map on core retention, split fewer municipalities and counties, and produce more responsive and competitive elections.[900] As we outlined previously, these maps also satisfy the equal-population requirement, and they advance minority electoral opportunities more than H.B. 369. *See supra* Section V.A.2.d.iv. The upshot is that natural political geography cannot explain away the extreme partisan effects of the current redistricting plan, even when other factors

900. *See generally* Trial Ex. P093 (Cooper Second Suppl. Decl. at 4–18); Trial Ex. P598 (Cooper Third Suppl. Decl. at 5–6). For example, the second hypothetical alternative map produces the following outcomes for 2012-2018, respectively: 10-6, 11-5, 11-5, and 8-8, and the number of competitive races range from three to five. *See* Trial Ex. P093 (Cooper Second Suppl. Decl. at 18); Trial Ex. P598 (Cooper Third Suppl. Decl. at 6).

that were supposedly important to the State are also considered.

* * *

We conclude that the burdens H.B. 369 imposes on Plaintiffs' associational rights are not outweighed by any of the asserted justifications. This redistricting plan substantially burdens the overlapping "right of individuals to associate for the advancement of their political beliefs[ ] and the right of qualified voters ... to cast their votes effectively." *Williams*, 393 U.S. at 30, 89 S.Ct. 5. Critically, our primary concern is not the interests of Democratic candidates, but rather, the interests of the voters and organizations who choose to associate together, express their support for, and cast their votes for those candidates. *See Anderson*, 460 U.S. at 806, 103 S.Ct. 1564. In this case, the bottom line is that the dominant party in State government manipulated district lines in an attempt to control electoral outcomes and thus direct the political ideology of the State's congressional delegation. "In a free society the State is directed by political doctrine, not the other way around." *Calif. Democratic Party*, 530 U.S. at 590, 120 S.Ct. 2402 (Kennedy, J., concurring).

For these reasons, H.B. 369 is an unconstitutional partisan gerrymander.

D. Article I Claim

[83] Two provisions of Article I of the United States Constitution are relevant to this case—Article I, § 4 and Article I, § 2. As explained by the three-judge panel in *Rucho*, "the two provisions are closely intertwined." 318 F.Supp.3d at 936; *see also id.* at 935–41. Plaintiffs claim that the State has exceeded its powers under Article I because the alleged partisan gerrymander is a non-neutral regulation that constrains the free choice of the people to elect their representatives.

[84] Again, under Article I, § 4, states generally have the authority to draw district lines. U.S. CONST. art. I, § 4 ("The Times, Places and Manner of holding Elections ... shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations ...."). And again, Defendants place too much weight on their argument that this clause immunizes the State's redistricting law from judicial scrutiny. "The power to regulate the time, place, and manner of elections does not justify, without more, the abridgment of fundamental rights, such as the right to vote, or ... the freedom of political association." *Tashjian*, 479 U.S. at 217, 107 S.Ct. 544 (citing *Wesberry*, 376 U.S. at 6–7, 84 S.Ct. 526); *see also Thornton*, 514 U.S. at 834, 115 S.Ct. 1842. In *Thornton*, the Supreme Court further explained that, at the Founding, "proponents of the Constitution noted: '[T]he power over the manner only enables them to determine *how* these electors shall elect ....' " and that "[t]he constitution expressly provides that the choice shall be by the people, which cuts off both from the general and state Legislatures the power of so regulating the mode of election, as to deprive the people of a fair choice." *Thornton*, 514 U.S. at 833 & n.47, 115 S.Ct. 1842 (citations omitted) (first alteration in original). The Elections Clause in Article I, § 4, therefore, does not hinder the people's ability to ensure that they "choose their representatives, not the other way around," *Ariz. State Legislature*, 135 S.Ct. at 2677 (citation omitted), and neither does it hinder the courts' ability to police the states' power to regulate elections under Article I, *see, e.g.*, *Thornton*, 514 U.S. at 828–29, 115 S.Ct. 1842.

Article I, § 2 provides: "The House of Representatives shall be composed of Members chosen every second Year by the People of the several States ...." In the

original text of the Constitution, Article I, § 2 provided the people's sole right to choose directly their elected representatives; the electoral college elects the president, U.S. CONST. art. II, § 1, and, at that time, the state legislatures chose senators, U.S. CONST. art. I, § 3, *amended by* U.S. CONST. amend. XVII (providing the people with the right directly to elect their senators, as the people do today). Accordingly, in the original text of the Constitution, the members of the House of Representatives were the only elected federal officials *directly* responsive to the people. As James Madison emphasized, "the House of Representatives is so constituted as to support in the members an habitual recollection of their dependence on the people." THE FEDERALIST NO. 57, at 511 (James Madison), *reprinted in* THE CONSTITUTION OF THE UNITED STATES OF AMERICA AND SELECTED WRITINGS OF THE FOUNDING FATHERS (2012).

This provision is referred to as "the Great Compromise," and the Supreme Court has held that "principle solemnly embodied in" that compromise—the one-person, one-vote equal-population requirement—would be defeated if "within the States, legislatures may draw the lines of congressional districts in such a way as to give some voters a greater voice in choosing a Congressman [or Congresswoman] than others." *Wesberry*, 376 U.S. at 14, 84 S.Ct. 526. As the Supreme Court has recognized, "[a] fundamental principle of our representative democracy is, in Hamilton's words, 'that the people should choose whom they please to govern them.' " *Powell*, 395 U.S. at 547, 89 S.Ct. 1944 (citation omitted). In the partisan-gerrymandering cases, "[t]he problem . . . is that the will of the cartographers rather than the will of the people will govern." *Vieth*, 541 U.S. at 331, 124 S.Ct. 1769 (Stevens, J., dissenting). More specifically, the map drawers "give [the dominant party's] voters a greater voice in choosing a Congressman [or Congresswoman] than [the disfavored party's voters]." *See Wesberry*, 376 U.S. at 14, 84 S.Ct. 526.

[85] "To be sure, the Elections Clause grants to the States 'broad power' to prescribe the procedural mechanisms for holding congressional elections." *Cook v. Gralike*, 531 U.S. 510, 523, 121 S.Ct. 1029, 149 L.Ed.2d 44 (2001) (citation omitted). But the Supreme Court "made clear" in *Thornton* that "the Framers understood the Elections Clause as a grant of authority to issue procedural regulations, and not as a source of power to dictate electoral outcomes, to favor or disfavor a class of candidates, or to evade important constitutional restraints." *Id.* (quoting *Thornton*, 514 U.S. at 833–34, 115 S.Ct. 1842). Using this line of reasoning, the three-judge panel in *Rucho* concluded that the redistricting plan at issue exceeded the State's authority under the Elections Clause for three reasons: "(1) the Elections Clause did not empower State legislatures to disfavor the interests of supporters of a particular candidate or party in drawing congressional districts"; (2) the plan violated the First Amendment, the Fourteenth Amendment Equal Protection Clause, and Article I, § 2; and (3) the plan "represents an impermissible effort to 'dictate electoral outcomes' and 'disfavor a class of candidates.' " *Rucho*, 318 F.Supp.3d at 937 (quoting *Thornton*, 514 U.S. at 833–34, 115 S.Ct. 1842).

[86–89] We conclude that a state necessarily exceeds its authority under the Elections Clause if the State violates the First and/or Fourteenth Amendments, *see Tashjian*, 479 U.S. at 217, 107 S.Ct. 544, and we find that the State did so here, *see supra* Sections V.A.–C. Simply put, the Elections Clause does not give the states a license to engage in unconstitutional partisan gerrymandering. The Elections Clause

and Article I, § 2, taken together, "act as a safeguard against manipulation of electoral rules by politicians and factions in the States to entrench themselves or place their interests over those of the electorate." *See Ariz. State Legislature*, 135 S.Ct. at 2672. Article I § 2 contains the principle that representatives should be dependent on and responsive to the will of the voters—rather than dependent on and responsive to state legislators and their map drawers (some of whom may even include agents of the representatives themselves). We further agree that a redistricting law may, in certain circumstances, be so extreme that it "amounts to a successful effort by the [State] to 'disfavor a class of candidates' and 'dictate electoral outcomes.' " *See Rucho*, 318 F.Supp.3d at 940 (quoting *Thornton*, 514 U.S. at 833–34, 115 S.Ct. 1842).

As a general matter, then, Article I provides useful background principles for evaluating the problem of partisan gerrymandering. As a functional matter, however, the analysis under this claim is the same as the analysis under the First and Fourteenth Amendments. If a redistricting plan violates Article I, it does so because the plan unconstitutionally dilutes votes because of partisan affiliation or because the plan impermissibly infringes on the associational rights of voters. The one key caveat is that Article I, § 2 applies only to congressional elections. *See* U.S. CONST. art. I, § 2 ("*The House of Representatives* shall be composed of Members chosen every second Year by the People of the several States ....") (emphasis added). That specific section, therefore, would be inapplicable if a challenge to state legislative districts were before us (and there is no such challenge here).

For the reasons we have already articulated, *see supra* Sections V.A.–C., we find that H.B. 369 exceeds the State's powers under Article I.

VI. LACHES

[90–92] The doctrine of laches "is rooted in the notion that those who sleep on their rights lose them." *Libertarian Party of Ohio v. Husted*, No. 2:13-cv-953, 2014 WL 12647018, at *1 (S.D. Ohio Sept. 24, 2014) (citations and internal quotation marks omitted). "Where a plaintiff seeks solely equitable relief, his action may be barred by the equitable defense of laches if (1) the plaintiff delayed unreasonably in asserting his rights and (2) the defendant was prejudiced by this delay." *ACLU of Ohio, Inc. v. Taft*, 385 F.3d 641, 647 (6th Cir. 2004). Defendants argue that laches bars Plaintiffs' claims because Plaintiffs' seven-year delay in bringing this action is unjustified and has prejudiced Defendants. Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 72–75). We disagree.[901]

As a preliminary point, we note that the nature of Plaintiffs' rights has been uncertain since the *Vieth* case. *See Gill*, 138 S.Ct. at 1933–34 (declining to follow the normal procedure of dismissing the plaintiffs' claim for lack of standing, explaining that "[t]his is not the usual case," and that partisan gerrymandering "concerns an unsettled kind of claim this Court has not agreed upon, the contours and justiciability of which are unresolved."). Indeed, whether Plaintiffs' case remained viable was an open question prior to *Gill*, and

901. Our analysis largely tracks that of the three-judge district court in *League of Women Voters of Michigan v. Benson*, 373 F.Supp.3d 908–11, 2019 WL 1856625, at *24–26 (E.D Mich. Apr. 25, 2019). *See also id.* at 908–09, 2019 WL 1856625, at *24 (holding that "that laches does not apply to Plaintiffs' partisan gerrymandering claims as a matter of law," and alternatively holding "that even if laches applies to these types of claims, Intervenors have failed to establish that laches bars Plaintiffs claims in this case.").

Plaintiffs filed their initial complaint in this case *before* the Supreme Court decided that case. As we explain further below, rather than "sleeping on their rights," Plaintiffs' course of action was not unjustified given the state of the law and the high bar for proving partisan effect.

Defendants contend that Plaintiffs' claims were ripe "shortly after" the State enacted the current plan. Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 72). In *Bandemer*, however, the plurality found that "the plaintiffs had failed to make a sufficient showing on [partisan effect] because their evidence of unfavorable election results for Democrats was limited to a single election cycle." *See Gill*, 138 S.Ct. at 1927 (citing *Bandemer*, 478 U.S. at 135, 106 S.Ct. 2797). At the very least, then, it would have been unwise for Plaintiffs to bring this action prior to the 2014 elections. Plaintiffs filed this lawsuit after three elections, and a fourth (the 2018 elections) occurred during the litigation, and evidence related to the 2018 elections is in this record. The Supreme Court has not set "clear landmarks," *Gill*, 138 S.Ct. at 1926, but there is a high bar for proving partisan effects, and actual election results are preferred over hypotheticals, *id.* at 1928 (citing *LULAC*, 548 U.S. at 419–20, 126 S.Ct. 2594 (opinion of Kennedy, J.). Consequently, we conclude that Plaintiffs were reasonable in waiting three election cycles before bringing this action.

Further, one clear concern in these cases is that judges should not undertake the "unwelcome obligation" of overseeing the redrawing of district lines unless it is necessary. *See Connor*, 431 U.S. at 415, 97 S.Ct. 1828. When confronted with an extreme partisan gerrymander, it becomes necessary. As we have explained, factors such as whether the plan is an outlier, whether the plan is a durable gerrymander that persists *across election cycles*, and whether districts have frozen the status quo despite *fluctuating vote totals* between the parties help us to make this determination. If we had to make this determination after just one election, then we would essentially be "adopting a constitutional standard that invalidates a map based on unfair results that would occur in a hypothetical state of affairs." *See LULAC*, 548 U.S. at 420, 126 S.Ct. 2594 (opinion of Kennedy, J.). In this case, more data, which reveals durability and entrenchment despite fluctuating vote totals across election cycles, give us greater confidence in our findings. We are not suggesting a bright-line rule for how many elections are necessary; the point is that allowing for a few elections could reveal that a plan does not, in fact, place significant burdens on a supposedly disfavored party. In a similar vein, we cannot say that there has been an unreasonable delay.

Defendants also rely on *Benisek v. Lamone*, —— U.S. ——, 138 S.Ct. 1942, 201 L.Ed.2d 398 (2018), which does not address laches. Although *Benisek v. Lamone* may be instructive, it ultimately does not militate in favor of Defendants. The Supreme Court first noted that the plaintiffs filed their complaint in 2013 but "fail[ed] to plead the claims giving rise to their request for preliminary injunctive relief until 2016." *Id.* at 1944. In contrast, Plaintiffs before us sought injunctive relief with the filing of their initial complaint. Dkt. 1 (First Compl. at 41–42). Moreover, as in many election-law cases, "a due regard for the public interest in orderly elections" may counsel against granting relief. *Benisek v. Lamone*, 138 S.Ct. at 1944–45; *see also Purcell v. Gonzalez*, 549 U.S. 1, 4–5, 127 S.Ct. 5, 166 L.Ed.2d 1 (2006) ("Court orders affecting elections ... can themselves result in voter confusion and consequent incentive to remain away from the polls. As an election draws closer, that risk will increase."). In *Benisek v. Lamone*, the

plaintiffs "represented to the District Court that any injunctive relief would have to be granted by August 18, 2017, to ensure the timely completion of a new districting scheme in advance of the 2018 election season," but "that date had 'already come and gone' by the time the court ruled on plaintiffs' motion." *Benisek v. Lamone*, 138 S.Ct. at 1945 (citation omitted). That is not this case. In their motion to stay the trial in this case, Defendants represented to this Court that a new congressional map would need to be submitted by September 20, 2019 "to fulfill the administrative duties and obligations associated with preparing for the 2020 congressional election." *See* Dkt. 185-1 (Wolfe Decl. at 2). That deadline is over four months away. Accordingly, there is enough time to implement a remedy on Defendants' own timetable, hence negating the risk of voter confusion.

In sum, we conclude that Plaintiffs' delay in this case was not unjustified or unreasonable. This alone disposes of Defendants' laches defense. Also important, the concerns present in *Benisek v. Lamone* are not present here.

[93] We will nonetheless address Defendants' remaining arguments on prejudice, none of which we find persuasive. First, the "[u]navailability of important witnesses, dulling of memories of witnesses, and loss or destruction of relevant evidence all constitute prejudice." *See Nartron Corp. v. STMicroelectronics, Inc.*, 305 F.3d 397, 412 (6th Cir. 2002). Defendants point to several potential fact witnesses who have since died, and these witnesses primarily go to the purported "bipartisan negotiations" that Defendants say justify the map. *See* Dkt. 252 (Defs.' & Intervenors' Post-Trial Br. at 73). We have already explained the problems with this justification; in brief, even if there were negotiations, the desire to achieve a 12-4 map was not negotiable. Additionally, none of the deceased individuals were members of the Ohio General Assembly at the time the current plan was enacted and many of the main map drawers were still witnesses in this case.

Second, Defendants argue that "[v]oters are acclimated to the 2011 plan, and members of Congress have invested deeply in their districts." *Id.* at 74. The first point is unpersuasive because the map also imposes serious burdens on individuals' rights to vote and to associate. Similarly, for the second point, congressional representatives may have invested deeply in their districts, but they have no right to choose their voters, and representatives' interests are not implicated in this case—representatives answer to the voters, whose interests are implicated in this case. Thus, the fact that they have invested deeply in their districts is not a reason to find that laches applies.

[94] Third, Defendants argue that the State has been forced "to litigate on an accelerated basis near the end of a redistricting cycle," which runs afoul of the "heavy presumption against last-minute changes to the electoral system." *Id.* Defendants again cite *Benisek v. Lamone*, which we addressed above, as well as *Service Employees International Union Local 1 v. Husted* ("*SEIU Local 1*"), 698 F.3d 341 (6th Cir. 2012). To be sure, "last-minute injunctions changing election procedures are strongly disfavored." *Id.* at 345. In *SEIU Local 1*, however, the Sixth Circuit addressed a motion for preliminary injunction filed in the district court on October 17, 2012, just three weeks out from the November 6, 2012 election. *Id.* at 343. Here, again, the deadline for new maps is over four months away, and the 2020 election will not be held for over one year after that.

[95] Lastly, even if a prima facie case for laches could be established, Plaintiffs can rebut a presumption that laches bars their claims by "establish[ing] that there was a good excuse for [the] delay ...." *Nartron*, 305 F.3d at 409. We observe, as in *Gill*, that "[t]his is not the usual case." 138 S.Ct. at 1933–34. As stated, the unsettled nature of partisan-gerrymandering claims and the high bar for proving partisan effect provides good cause for any delay. *Cf. Benson*, 373 F.Supp.3d at 910–11, 2019 WL 1856625, at *26 (reasoning that "it was not unreasonable for Plaintiffs to wait to sue until the law in this area had developed sufficiently to allow Plaintiffs to articulate and support their partisan gerrymandering claims.").

For these reasons, we reject Defendants' laches defense.[902]

VII. REMEDY AND ORDER

In their complaint, Plaintiffs request that we declare H.B. 369 unconstitutional, enjoin any future elections under the plan enacted in H.B. 369, and "[e]stablish a congressional districting plan that complies with the United States Constitution and all federal and state legal requirements, if the Ohio Legislature and/or Governor fail to enact a new and constitutional plan in a timely manner." *See* Dkt. 37 (Second Am. Compl. at 51–52). We have concluded that H.B. 369 is unconstitutional. Now we turn to the remedy.

[96, 97] Unless "an impending election is imminent and a State's election machinery is already in progress," a court should "tak[e] appropriate action to insure that no further elections are conducted under the invalid plan." *See Reynolds*, 377 U.S. at 585, 84 S.Ct. 1362. No impending election is imminent in this case. Furthermore, Defendants have represented to this Court that a new congressional districting plan would need to be adopted by September 20, 2019 "to fulfill the administrative duties and obligations associated with preparing for the 2020 congressional election." *See* Dkt. 185-1 (Wolfe Decl. at 2). We are committed to working with that timeline for establishing a remedial plan. We also observe that former Governor Kasich signed H.B. 319 into law on September 26, 2011, and then he signed H.B. 369, the actual plan that was used in the 2012 elections, into law on December 15, 2011. *See* Dkt. 234 (Final Pretrial Order at App. A., 2–4). Even though the current plan was enacted in December, the State still pre-

902. Whether laches even applies to injunctive relief, which Plaintiffs seek, seems to be an open question. In *Kay v. Austin*, an election-law case, the Sixth Circuit held that the plaintiff was "not entitled to equitable relief in this instance as a result of laches." 621 F.2d 809, 813 (6th Cir. 1980). In a more recent election-law case, the Sixth Circuit also considered, though ultimately rejected, a laches defense to a plaintiff's claims for declaratory and injunctive relief. *See Taft*, 385 F.3d at 647. Conversely, the Sixth Circuit has also held that "[l]aches only bars damages that occurred before the filing date of the lawsuit. It does not prevent [a] plaintiff from obtaining injunctive relief or post-filing damages." *Nartron*, 305 F.3d at 412 (internal citations omitted); *see also Kellogg Co. v. Exxon Corp.*, 209 F.3d 562, 568 (6th Cir. 2000) (same); *TWM Mfg. Co. v. Dura Corp.*, 592 F.2d 346, 349–50 (6th Cir. 1979) (same). In this latter set of cases, the Sixth Circuit has reasoned that "[o]nly by proving the elements of estoppel may a defendant defeat such prospective relief." *TWM Mfg.*, 592 F.2d at 350; *see also, e.g., Nartron*, 305 F.3d at 412–13 (also noting that estoppel "requires more than a showing of mere silence on the part of a plaintiff"). (Defendants have not asserted an estoppel defense here.) Of course, the *TWM Manufacturing*, *Kellogg*, and *Nartron* line of cases, if applicable, would render Defendants' laches defense completely inapplicable. *See Benson*, 373 F.Supp.3d at 909–10, 2019 WL 1856625, at *25 (holding "that laches does not bar [partisan-gerrymandering] claims as a matter of law" and citing *Nartron* and *Kellogg*).

pared adequately for the 2012 congressional elections on that slightly shorter timeline. Accordingly, ***we hereby enjoin*** the State from conducting any elections using the plan enacted in H.B. 369 in any future congressional elections.

[98] The parties have not yet fully briefed the issue of a remedial plan. As a general rule, however, when a federal court declares a redistricting plan unconstitutional, "it is ... appropriate, whenever practicable, to afford a reasonable opportunity for the legislature to meet constitutional requirements by adopting a substitute measure rather than for the federal court to devise and order into effect its own plan." *See Wise v. Lipscomb*, 437 U.S. 535, 540, 98 S.Ct. 2493, 57 L.Ed.2d 411 (1978). At this time, we see no reason to deviate from this general rule. Plaintiffs' requested relief also seems to assume this general rule, as their complaint asks this Court to establish a new plan, "if the Ohio Legislature and/or Governor fail to enact a new and constitutional plan in a timely manner." *See* Dkt. 37 (Second Am. Compl. at 51–52). We therefore hope that the Ohio General Assembly "will perform that duty and enact a constitutionally acceptable plan." *Chapman v. Meier*, 420 U.S. 1, 27, 95 S.Ct. 751, 42 L.Ed.2d 766 (1975).

We advise that Defendants and Plaintiffs must be prepared to move forward on a remedial plan pursuant to the following timeline and conditions:

1. The State should enact forthwith its own remedial plan consistent with this opinion no later than June 14, 2019. No continuances will be granted. The date of enactment shall be the date on which the Governor signs the proposed remedial plan into law; or, if the Governor vetoes the proposed remedial plan, the date of enactment shall be the date on which the General Assembly overrides the Governor's veto.

2. On the same day that the State enacts its own remedial plan, Defendants shall provide notice of the plan's enactment to this Court and to Plaintiffs. No later than seven days from the date on which the State enacts its own remedial plan (assuming it enacts such a plan by the June 14 deadline), Defendants shall file the enacted remedial plan with this Court.

3. When Defendants file the State-enacted remedial plan with this Court, they shall also include:

(A) All transcripts of committee hearings and floor debates related to the State-enacted remedial plan;

(B) A description of the process that the General Assembly, and any constituent committees or members thereof, followed in drawing the State-enacted remedial plan, and Defendants shall disclose the identity of all participants involved in the process and map drawing;

(C) Data on the remedial plan's population deviation, compactness, municipality and county splits, and any incumbent pairings;

(D) Any alternative plans considered by the General Assembly or any constituent committee;

(E) All criteria, formal or informal, that were applied in drawing the State-enacted remedial plan, including, without limitation, any criteria related to race, partisanship, the use of political data, or the protection of incumbents, and a description of how the map drawers used any such criteria. If any of the criteria just listed were not used, Defendants shall so state.

4. If Plaintiffs believe that the State-enacted remedial map that the Defendants file is still unconstitutional, they

must file their specific objections to it no later than seven days from the date on which Defendants file the State-enacted remedial plan with this Court.

We will then assess whether the State-enacted remedial plan is constitutionally permissible.

If the State fails in its task to enact a remedial plan, we have our "own duty to cure illegally gerrymandered districts through an orderly process in advance of elections." *See Covington*, 138 S.Ct. at 2553–54 (citing *Purcell*, 549 U.S. at 4–5, 127 S.Ct. 5). In the appropriate circumstance, we may in our discretion not give the State "a second bite at the apple." *See id.* at 2554 (citation omitted) (holding that the District Court did not abuse its discretion in appointing a Special Master when the State failed to enact a permissible remedial plan). This situation may arise if the State does not enact its own remedial plan by the June 14 deadline or if the State-enacted remedial plan is not "a constitutionally acceptable plan." *Chapman*, 420 U.S. at 27, 95 S.Ct. 751. If this Court must step into the role of putting in place a new plan, several options are available. We will address each.

First, we may appoint a Special Master pursuant to Federal Rule of Civil Procedure 53 to assist the Court in drawing a remedial plan. To that end, ***we hereby order*** the parties to confer and file no later than June 3, 2019 at 5 P.M., a list of no more than three qualified and mutually acceptable candidates to serve as a Special Master. We may then select a Special Master from that list and issue an order outlining the timeline and requirements that apply to the Special Master's submission of a proposed remedial plan. The parties would be allowed to comment on any proposal from a Special Master. In the event that the parties cannot agree on any candidates for Special Master, we may identify a Special Master without input from the parties.

Second, a situation could arise in which the State enacts a remedial plan, but we nonetheless find it constitutionally unacceptable. In this situation, the same procedures regarding the appointment of a Special Master would apply. If the State enacts a remedial plan that we reject, we will include in our opinion and order on that plan a timeline for the Special Master's submission of a remedial plan.

Finally, Mr. Cooper has submitted a Proposed Remedial Plan (and a corrected version thereof), as well as two hypothetical alternative plans that addressed the pairing of incumbents. ***Whether or not the State enacts a remedial plan*** that we consider, ***we hereby order*** the parties to brief whether one of Mr. Cooper's plans could or should be adopted as a remedial plan. The parties shall file these briefs simultaneously on June 3, 2019 at 5 P.M., along with the parties' list of mutually acceptable candidates for Special Master (if the parties have not yet filed that list by that date).

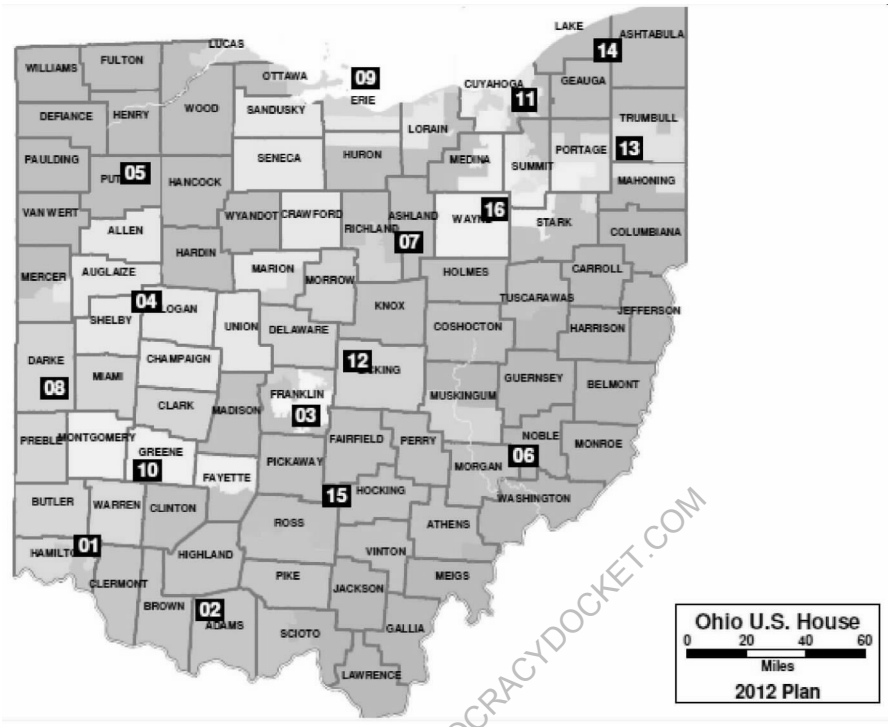
* * *

In conclusion, we **GRANT** Plaintiffs' request to declare the redistricting plan enacted in H.B. 369 unconstitutional. Moreover, we **GRANT** Plaintiffs' request for injunctive relief, and **we hereby enjoin** the State from conducting any elections using the plan enacted in H.B. 369 in any future congressional elections. Finally, we **ORDER** that the parties proceed according to the remedial schedule outlined above.

IT IS SO ORDERED.

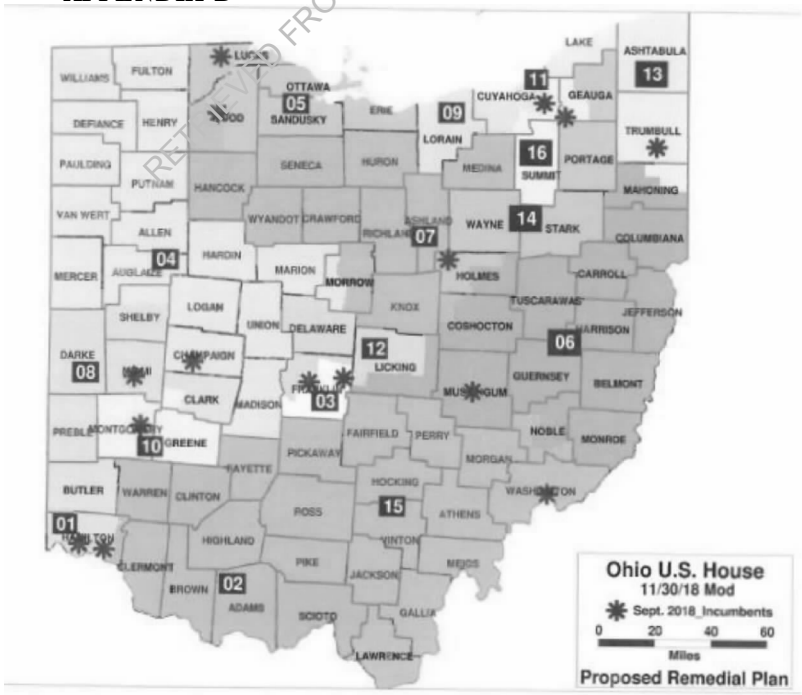
Attachment

APPENDIX A



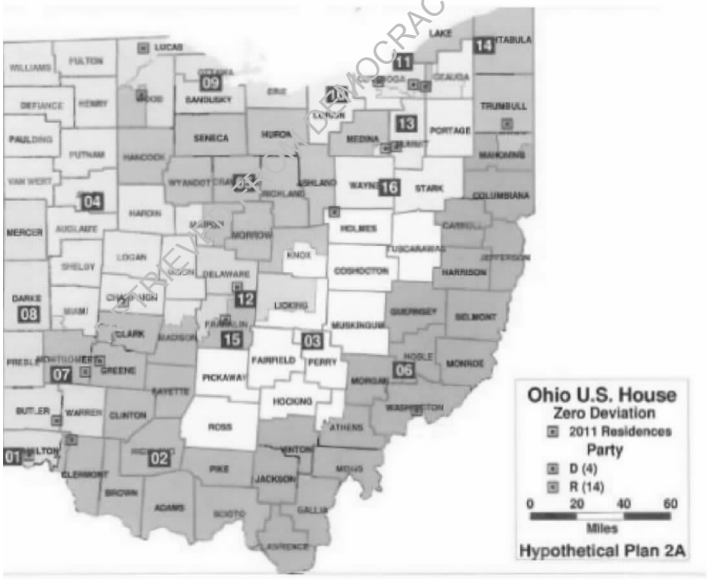
Attachment—Continued

APPENDIX B



Attachment—Continued

APPENDIX C



Edwin Smith PRESTON, Plaintiff,

v.

FEDERAL EXPRESS CORPORATION, Defendant.

Case No. 2:17-cv-2876-JPM-cgc

CERTIFICATE OF SERVICE

I, Freda J. Levenson, hereby certify that on this 13th day of December, 2021, I caused a true and correct copy of the following documents to be served by email upon the counsel listed below:

1. **Relators' Merits Brief**

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