

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

LEAGUE OF WOMEN VOTERS
OF MICHIGAN, et al.,

Plaintiffs,

V.

JOCELYN BENSON, in her official
Capacity as Michigan
Secretary of State, et al.,

Defendants.

Case No. 2:17-cv-14148

Hon. Eric L. Clay
Hon. Denise Page Hood
Hon. Gordon J. Quist

PLAINTIFFS' SUBMISSION OF PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

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**PLAINTIFFS' SUBMISSION OF PROPOSED
FINDINGS OF FACT AND CONCLUSIONS OF LAW**

Pursuant to the Court's "Order re: Parties' Partial Stipulations and Report" (ECF No. 234) and the Court's instructions at the conclusion of the trial, plaintiffs respectfully submit the attached proposed Findings of Fact and Conclusions of Law. Plaintiffs include their proposed findings based on the evidence and inferences therefrom and their objection (below) to consideration of one exhibit pursuant to the Stipulation, as reserved in the parties' prior submission of exhibit lists.

The Conclusions of Law comply with the Court's 50-page limit, Trial Ex., ECF 250, PageID# 9350:4-19.

Although the Court did not impose a page limit on Findings of Fact, Plaintiffs acknowledge that the Findings attached are voluminous. Plaintiffs tender these Findings and Conclusions in computer searchable format and with a detailed table of contents, as a detailed reference for the Court's use in preparing its entry. The Findings are unusually lengthy in part because of the large volume of important evidence submitted in this action by stipulations rather than in an open court. The plaintiffs' counsel stand ready to provide different or additional material as the Court may advise.

Objection:

Trial Exhibits D-50 and D-52 are hearsay declarations of Dr. Yan Liu and Jeffrey Timmer, respectively, in support of Defendant Secretary of State Ruth

Johnson's Motion in Limine to Exclude the Expert Report of Dr. Jowei Chen (ECF No. 147) (collectively, Liu and Timmer "MIL Declarations"). Plaintiffs reserved the hearsay objection to each exhibit within the Secretary's designation of exhibits (ECF No. 172-2, at 10 (reserving hearsay objection under F.R.E. 802)).

Plaintiffs object to admission of these exhibits, on the basis of hearsay.

However, should the Court determine the Liu and Timmer MIL Declarations should be admitted, plaintiffs respectfully request that the Court also consider the responsive declaration (ECF No. 160-3) of Professor Chen. Professor Chen's responsive motion in limine declaration was not included in Plaintiffs' Exhibit Lists largely because of its hearsay rebuttal of the issues raised in the previous two declarations.

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FINDINGS OF FACT AND CONCLUSIONS OF LAW

This case was tried to the Court on February 5 through February 7, 2019 in Detroit, Michigan before Circuit Judge Eric L. Clay, Chief District Judge Denise Page Hood and District Judge Gordon J. Quist. In addition to the evidence tendered live at trial, the parties have submitted, pursuant to stipulations approved by the Court (ECF No. 234), additional evidence consisting of exhibits, discovery deposition transcripts, and the transcripts of 35 *de bene esse* depositions, which were taken between February 4 and February 12, 2019. The parties submitted trial briefs in advance of trial as well as proposed findings of fact and conclusions of law following the conclusion of trial. Having considered the parties' written submissions, the evidence presented, and the arguments of counsel, the Court **finds in favor of the Plaintiffs** and enters its Findings of Fact and Conclusions of Law as set forth below.

FINDINGS OF FACT

I. Parties and Claims

1. Plaintiffs Roger J. Brdak, Jack E. Ellis, Donna E. Farris, William "Bill" J. Grasha, Rosa L. Holliday, Diana L. Ketola, Jon "Jack" G. LaSalle, Richard "Dick" W. Long, and Lorenzo Rivera are individual Democrats and voters in Michigan.

2. Plaintiff League of Women Voters of Michigan (the "League") is a Michigan nonpartisan organization formed in 1919. The League is pursuing its claims on behalf of itself (independent associational standing), and on behalf of its Democratic members (derivative associational standing).

3. Plaintiffs filed this action on December 22, 2017. (ECF No. 1.) Plaintiffs contend that Michigan's legislative and congressional districts constitute a partisan gerrymander that violates Plaintiffs' Fourteenth Amendment equal protection rights and Plaintiffs' First Amendment free speech and association rights.

4. Plaintiffs seek declaratory and injunctive relief under 42 U.S.C. §1983, against the Michigan Secretary of State in her official capacity. Under Mich. Comp. Laws §168.21, the Secretary is Michigan's "chief election officer" and is responsible for the conduct of Michigan elections, including the enforcement of the redistricting maps at issue in this case, which are codified as MCL §§3.51a-3.55 (congressional) and 4.2001a-4.2002a (state).

5. Following the 2018 election, and pursuant to Federal Rule of Civil Procedure 25(d), defendant Secretary Johnson was replaced in this case by her successor in office, Jocelyn Benson. Secretary Benson does not dispute that the maps at issue were gerrymandered. She has, however, continued to represent the State's interests in the litigation and specifically objects to the special Senate elections sought by Plaintiffs as part of their request for relief.

6. In addition to the Secretary, the following additional defendants have intervened in the case: Congressmen Jack Bergman, Bill Huizenga, John Moolenaar, Fred Upton, Tim Walberg, and Paul Mitchell (collectively, the "Congressional Intervenors") (ECF Nos. 103 & 246); State Representatives Lee Chatfield and Aaron Miller (collectively, the "Legislative Intervenors") (ECF No. 131); and Michigan

Senators Jim Stamas, Ken Horn, Lana Theis, and the Michigan Senate itself (the “Senate Intervenors”) (ECF No. 237). All intervenors were represented by counsel who participated at trial.

7. Plaintiffs initially asserted both district-specific and statewide partisan gerrymandering claims. (ECF No. 1, Compl. ¶ 36, PageID 16) (“Plaintiffs challenge the Current Apportionment Plan district by district and in its entirety.”)). However, following this Court’s ruling on the Secretary’s motion to dismiss (ECF No. 54) and consistent with *Gill v. Whitford*’s later holding with respect to standing to assert partisan gerrymandering claims, Plaintiffs have narrowed their vote dilution claims to challenge only specific districts.¹

8. For 33 of the 34 districts (the “Challenged Districts”), Plaintiffs have identified one or more of the individual plaintiffs and/or one or more members of the League (collectively, the “Voters”) to demonstrate Plaintiffs’ harm in each of the Challenged Districts.²

¹ Plaintiffs challenge the following nine Congressional districts: 1,4,5,7-12; the following ten Senate districts: 8,10-12,14,18,22,27,32,36; and the following fifteen House Districts: 24,32,51,52,55,60,62,63,75,76,83,91,92,94,95.

² House District 92 is the only one of the Challenged Districts as to which no individual plaintiff or League member was identified.

II. The Legislature's Intent

A. Republicans started the 2011 redistricting process with an advantage.

9. The map drawers for the 2011 redistricting cycle did not start with a level playing field. The districts in place for the previous decade in the Michigan House, Senate, and the Michigan delegation to the U.S. House of Representatives heavily favored Republicans. In most of elections held under the 2001 districting maps, the Republicans failed to win the electoral vote but nevertheless won a majority of seats. Even where the Republicans had a narrow majority among the electorate, they were able to translate votes into seats far in excess of their vote share.

Appendix B: Share of Districts and Share of Statewide Vote Won by Republican Candidates In the 2002-2016 Congressional, House, and Senate Elections.		
Election Year	Statewide Republican Vote Share in Congressional Elections	Share of Congressional Districts Won by Republicans
2002	49.44%	60% (9 of 15)
2004	50.51%	60% (9 of 15)
2006	45.80%	60% (9 of 15)
2008	45.65%	46.7% (7 of 15)
2010	54.15%	60% (9 of 15)
2012	47.60%	64.3% (9 of 14)
2014	49.11%	64.3% (9 of 14)
2016	50.55%	64.3% (9 of 14)

Election Year	Statewide Republican Vote Share in State Senate Elections	Share of State Senate Districts Won by Republicans
2002	50.42%	57.9% (22 of 38)
2006	45.58%	55.3% (21 of 38)
2010	54.48%	68.4% (26 of 38)
2014	50.73%	71.1% (27 of 38)

Election Year	Statewide Republican Vote Share in State House Elections	Share of State House Districts Won by Republicans
2002	50.48%	57.3% (63 of 110)
2004	48.59%	52.7% (58 of 110)
2006	45.11%	47.3% (52 of 110)
2008	42.25%	39.1% (43 of 110)
2010	53.86%	57.3% (63 of 110)
2012	46.82%	53.6% (59 of 110)
2014	48.78%	57.3% (63 of 110)
2016	50.03%	57.3% (63 of 110)

(Two-party vote share data, Chen Report, Trial Ex. P-3 at 65; *see also id.* at 8, 12 (expert used two-party vote share); Mayer Report, Trial Ex. P-53 at 12, 18, 22, 29 (same); Warshaw Report, Trial Ex. P-129 at 3, 4, 13, 15 (same).

10. The partisan advantage achieved during the 2001 cycle ensured the Republicans maintained control of the next redistricting cycle via the 2010 election. (McMaster, Dep. at 33:23-34:2) (testifying that it was important for Republicans to

win in 2010 because there is a “belief or idea or assumption” that the party who wins will play a role in redistricting for the next decade).

11. In anticipation of the 2010 Census data and ensuing redistricting cycle, the Republican State Leadership Committee (RSLC) began its planning at a national level. That effort became known as REDMAP (for the “REDistricting MAjority Project”). (RSLC Overview Memo, Trial Ex. P-477 at 1; *see also* Memo, Trial Ex. P-458.)

12. The Speaker of the Michigan House of Representatives, Jase Bolger, worked closely with the RSLC and related groups following the 2010 Census. (Richardville, Dep. at 36:19-37:5; Republican Redistricting Documents, Trial Exs. P-458, P-477, P-478, P-479, P-481, P-482, P-483.) The RSLC’s work included the RSLC’s REDMAP project. (*E.g.*, Trial Exs. P-477, P-481.) Speaker Bolger described REDMAP documents as “ubiquitous” and testified that he had seen information in REDMAP documents “many times.” (Bolger, Dep. at 294:24-295:10.)

13. According to the RSLC:

The [REDMAP] rationale was straightforward: Controlling the redistricting process in these states would have the greatest impact on determining how both state legislative and congressional district boundaries would be drawn. **Drawing new district lines** in states with the most redistricting activity **presented the opportunity to solidify conservative policymaking at the state level and maintain a Republican stronghold in the U.S. House of Representatives for the next decade.**

(REDMAP Memo, Trial Ex. P-270 at 2, emphasis added; *see also* Bolger, Dep. at 296:3-18.)

14. The RSLC raised over \$30 million in 2009-10, and it spent “\$1 million in Michigan working with the Michigan House Republican Campaign Committee and Michigan Republican Party to pick up 20 seats.” (*Id.*; *see also* Bolger, Dep. at 297:5-19.)

15. According to the RSLC, and as evidenced in Findings § III ¶¶ 112-113 described below, the \$1 million spent in Michigan in the 2010 cycle paid off:

The effectiveness of REDMAP is perhaps most clear in the state of Michigan. In 2010, the RSLC put \$1 million into State legislative races contributing to a GOP pickup of 20 seats in the House and Republican majorities in both the House and Senate. Republican Rick Snyder won the gubernatorial race, and with it, Republicans gained control of redrawing Michigan’s 148 legislative and 14 congressional districts. The 2012 election was a huge success for Democrats at the statewide level in Michigan. **Voters elected a Democratic US Senator by more than 20 points and re-elected President Obama by almost 10 points, but Republicans at the State level maintained majorities in both chambers of the legislature and voters elected a 9/5 Republican majority to represent them in Congress.”**

(RSLC Overview, Trial Ex. P-481 at RSLC0001890 emphasis added; *see also* Bolger, Dep. at 297:23-299:19.)

16. Just as the RSLC intended, Michigan Republicans took control of both chambers of the Michigan legislature in 2011, and they immediately began to plan to draw extreme partisan gerrymanders to lock in Republican control for the next decade. (Memo, Trial Ex. P.-271 at 1) (describing 2011 process as “déjà vu” with respect to the 2001 process).)

17. On November 12, 2010, the Republican National Committee (“RNC”) circulated among Michigan party leaders and consultants a memo entitled “Redistricting Essentials: Consolidating the Result of the 2010 Election.” (Memo, Trial Ex. P-587; Email, Trial Ex. P-586; Timmer, Tr. at PageID #9307:6 – 9308:9.) The RNC recommended specific steps “to make sure the Democrats cannot take [the spectacular election outcome] away from us in 2011 and 2012.” (Memo, Trial Ex. P-587). The RNC urged legislators to gather “all the political data you need to draw the lines and to prevail in any litigation.” (*Id.*) The RNC instructed them to “complete work on your election history precinct-level database as quickly as possible and be prepared to incorporate the results of the 2010 election into your redistricting database.” (*Id.*)

18. The RNC’s Redistricting Essentials Memo (Trial Ex. P-587) also included cautions about the likelihood of litigation. It warned that “[y]our redistricting legal record has already begun.” (*Id.*) The RNC urged legislators to “[a]void misstatements in public or emails,” saying things like “We want a FAIR process that follows all the requirements of the law.” (*Id.*)

B. The map drawing process was secretive and excluded any meaningful Democratic input.

The Republicans’ Map Strategy

19. When the 2011 redistricting cycle began, the Michigan Republican Party was led by Chairman Bobby Schostak, who became the Republican Party Chairman in

February or March of 2011. (Schostak, Dep. at 7:19-22.) He had been the Party's finance chair for the two prior years. (*Id.* at 8:8-10.) Schostak's interest was in electing Republican candidates. (*Id.* at 93:24-94:1.) He did not want just defensible districts; he wanted districts that would elect Republican candidates. (*Id.* at 94:5-12; *see also* 39:14-17.)

20. Chairman Schostak and his assistant organized weekly Thursday morning Republican legislative leadership meetings to discuss redistricting at the law firm of Dickinson Wright. (*E.g.*, Email, Trial Ex. P-463.) Mr. Schostak's assistant sent out reminders for these Thursday morning leadership meetings. (Schostak, Dep. at 30:25-31:16; Email Meeting Reminder, Trial Ex. P-384.) Mr. Schostak personally attended between three and eight of these meetings. (Schostak, Dep. at 13:12-14:19, 20:24-21:3, 43:1-18.)

21. Other Republican legislators and attorneys were regular attendees at the Thursday meetings. Speaker of the House Jase Bolger, Senate Majority Leader Richardville, attorney Pete Ellsworth, Jeff Timmer, and others attended. (*Id.* at 15:7-18.) A staff member for then Republican Representative Thaddeus McCotter also participated in these meetings by teleconference. (Richardville, Dep. at 151:8-152:25.)

22. Meeting agendas, labeled "CONFIDENTIAL," included specific notes to "include Bobby Schostak." (Agenda, Trial Ex. P-274.) Schostak understood these meetings were "discussions amongst leadership that were to be confidential."

(Schostak, Dep. at 49:1-10; Trial Ex. P-274.) Schostak did not talk to Democrats about these meetings. (*Id.* at 49:14-16.) To his knowledge, no one else did either. (*Id.* at 49:17-23, 65:3-11, 125:17-20.)

23. The map drawers, as discussed in greater detail below, shared the same agenda and motivations as the party's leaders. (McMaster, Dep. at 76:2-15 (describing the 2001 Republican map drawers as "selfish" and "power-hungry," trying to see how many seats they could get).)

24. The evidence supports the findings that Republican legislators planned and carried out their gerrymander in secret, in the ways described above.

MRRI's Role

25. The Michigan Redistricting Resource Institute (MRRI) was a secretly-funded partisan organization that was the successor to the Michigan Reapportionment Fund, which was created by Robert LaBrant in 1989 to raise money to defend Republican maps in redistricting litigation. (LaBrant, Dep. at 8:17-22, 85:16, 40:9-12; *see also* Email, Trial Ex. P-416 (discussing MRRI's payment of law firm invoices).) LaBrant, in turn, was known as a "key figure in the [Michigan Chamber of Commerce's] backing of conservative candidates." (Richardville, Dep. at Ex. 317 at 1.)

26. MRRI was the conduit used to pay for Jeffrey Timmer's consulting and map drawing services on behalf of the Republican legislators. (Invoices, Trial Ex. P-393.) MRRI was headed by LaBrant who had long served the Michigan Chamber of

Commerce as its Senior Vice President and General Counsel. (Timmer, Tr. at PageID #9306:1-8; Dep. 32:4-7)

27. MRRI employed political consultants at Sterling Corporation, including Managing Director, Jeff Timmer, in connection with the 2011 redistricting process. (LaBrant, Dep. at 140:23-141:2; Timmer, Dep. at 16:14-17, 23:7-14.) Timmer is an experienced Republican map drawer in Michigan. (Email and Memo, Trial Ex. P-272 at Timmer000486 (identifying Timmer as the principal map drawer in 1991-92 and the “chief map drawer” for 2001-02); Richardville, Dep. at 39:18-20, 41:2-5.) Timmer is also a political consultant who from 2005 to 2009 was employed as executive director of the Michigan Republican Party. (Timmer, Tr. at PageID #9296; Dep. at 20:11-16.)

28. Sterling’s proposals to MRRI touted Timmer’s experience and map making talents, and also the fundraising talents of Timmer’s partner, Steve Linder. (Trial Ex. P-273 at Timmer000417.) One of the services Sterling offered was to raise more than \$1.8 to 2.1 million to pay for legal and technical expertise. (*Id.*)

29. Timmer began working on the Republican redistricting plan and draft maps in 2009, even before census data for 2010 was completed. (Timmer, Dep. at 121:19-21:6.) Sterling Corporation invoiced MRRI \$25,000 for Timmer’s [m]apping and consulting services” performed between “June 1, 2009 thru March 21, 2011.” (Invoice 3827, Trial Ex. P-393.) During 2010 and 2011, Timmer advised and performed technical mapping services for the Republican legislative leadership and

staff, including Richardville and Bolger. (Timmer, Tr. at PageID #9262:15-18; Dep. at 23:3-6.)

30. Sterling Corporation and MRRI shared the same objectives as the Republican leadership. A December 22, 2010, Sterling Corporation memo described the party's advantage as follows: "The table is set in a similar fashion to the last decade; with a GOP governor, control of both chambers of the legislature, and a majority on the Supreme Court." (Trial Ex. P-273 at Timmer000415.) The memo emphasized that accomplishing the Republican's redistricting objectives would require "a great deal of planning, strategy, expertise, money, stamina, patience, money, luck, and money." (*Id.*)

31. Preserving Republican party unity was also an important consideration. Much later, when Timmer learned that two Republican legislators had voted against their legislation, he said that one of them "should be slapped." (Email, Trial Ex. 581; Timmer, Tr. at PageID #9334:9 – 9335:6.)

The Secretive Process

32. Republicans directly involved in preparing the 2011 maps viewed their work as a confidential partisan endeavor that would be hidden from view by other legislators or the public. In Sterling's December 2010 proposal to MRRI, for example, Timmer emphasized that voters were unlikely to favor the Republicans' redistricting agenda and that it would be important to manage public relations and prevent the Democrats from rallying the public against the legislators. As Timmer put it, "While

the public does not have a vote in the process, they can influence their legislators and judicial opinion. We don't necessarily have to win public support, but we must stop the opposition of gaining any traction with the electorate.” (Email, Trial Ex. 273 at Timmer000419; Timmer, Dep. at 158:9-24.)

33. Timmer pointed out that during the 2001 redistricting process legislators prepared many “secret contingency plans” and he expected that same to occur during 2011. (Email, Trial Ex. P-272 at Timmer000418.) Sterling recommended to LaBrant that Timmer prepare secret contingency plans to arm the Republican leadership with information and alternative maps. (*Id.*; Timmer, Dep. at 156:17 – 157:4.)

34. In a February 17, 2011 email, Sterling Corporation wrote to Republican leaders to address rumors that the consultants had been leaking the secret map proposals to legislators or their staff. (Trial Ex. 359.) The email states that all draft maps have remained confidential since 2009.

35. In addition to the secret Thursday morning leadership meetings, the map drawers also held weekly meetings, also at Dickinson Wright's office. Map drawer participants included Timmer (congressional map drawer), Terry Marquart (Senate map drawer) and Dan McMaster (House map drawer). (Timmer, Tr. at PageID #9320:1-7; Dep. at 56:2-22.) Many draft maps were shared during these weekly meetings. (Timmer, Tr. at PageID #9320:1-7; Dep. at 56:2-22.)

36. Timmer also communicated regularly via email and telephone with Republican legislative staff members. These included staffers Jim Brandell, Jamie,

Roe, Jon DeWitte, Jack Daly, Andy Keiser, and others. (Timmer, Dep. at 107:19 – 108:1.) Timmer also had direct contact with Bobby Schostak, Michigan Republican Party chair. (*Id.* at 108:2-7.) He also had at least indirect communications with the National Republican Congressional Committee. On June 16, 2011, Republican operative Jamie Roe wrote Timmer about a “worried call [Roe received] from the NRCC today about [an alternative map] being in the Free Press and saying it is under serious consideration in Lansing. He’s like ‘this looks nothing like we discussed.’” (Email, Trial Ex. P-427.)

37. Agendas and notes from the Thursday morning leadership redistricting meetings were introduced as Trial Exhibit P-274. Except for the March 24, 2011 meeting agenda (Agenda, Trial Ex. P-274 at LEGR-05291), there were no scheduled discussions regarding whether the proposed redistricting plans complied with Michigan’s statute or traditional redistricting criteria. By contrast, the availability and use of voting data to determine the partisanship of proposed maps were agenda topics in nearly every meeting. (*Id.* at LEGR-005292, 5296, 5295, 5294, 5293, 5298.)

Exclusion of Democrats

38. Those invited to weekly legislative leadership meetings were sent invitations at their *non-governmental* email addresses, including Gmail and Hotmail accounts. (Email, Trial Ex. P-462.) That signified that the purpose of the meetings was political, because legislative staff were instructed not to use government email

addresses for political or other personal purposes. (Richardville, Dep. at 98:22-100:5, 169:8-171:15; Hune, Dep. at 23:15-19.)

39. The Republicans' use of private email accounts also involved communications with their fundraiser. (Hune, Dep. at 87:21-92:24.) For example, on January 24, 2011, consultant Steve Linder discussed a scheduled fundraising meeting through emails sent to Senator Hune's Hotmail account and Scott Bean (Chief of Staff for Senator Tory Rocca) using Bean's Gmail account. (Email, Trial Ex. P-444.)

40. Many other examples of government employees using private emails to discuss redistricting appear throughout the trial exhibits. (*See, e.g.*, Emails, Trial Ex. P-401 (Jack Daley, chief of staff to Republican Congressman Thaddeus McCotter, using Gmail.com); Trial Exs. P-407, P-411, P-412, P-414 (LaBrant emailing Jim Brandell, chief of staff to Republican Congressman Dave Camp, using Yahoo.com address and stating that "[w]e've spent a lot of time providing options to ensure we have a solid 9-5 delegation in 2012 and beyond"); P-415, P-418 (Staffer for Congressman Huizenga writing Timmer and others using private email addresses, asking Timmer to "manipulate" the map to include specific companies in Huizenga's district and attaching a "draft of our best case scenario for MI-02"), P-420, P-422, P-425, P-432, P-435 (Daniel McMaster, Senate staffer and map drawer, using Yahoo.com), P-453 (Terry Marquardt, staffer and map drawer, using Yahoo.com), P-454 (Jamie Roe, chief of staff to Republican Congresswoman Candice Miller, using Yahoo.com), P-460 (Andy Keiser, chief of staff to Congressman Mike Rogers, using Hotmail.com).

41. Democrats were not invited to participate in any meetings with the Republican redistricting leadership or the map drawers group until the maps were released and voted on by the legislature's redistricting committee during June 2011. (Timmer, Tr. at PageID #9341:1-12.) Democrats and Democratic interest groups did not attend any of the leadership or mapdrawers' meetings except for a single meeting in June 2011 after the Republican maps were approved by the Republican-controlled Senate Redistricting Committee. (Timmer, Tr. at PageID #9321:3-12; Dep. at 56:19-22.) Timmer also does not recall meeting with any Democratic members of Congress, their staff, or any Democratic interest groups in connection with the 2011 redistricting. (Timmer, Dep. at 110:8-11; 23-25.) Timmer never provided draft maps or data to the Democrats. (*Id.* at 110:12-22.)

42. Michael Vatter has worked for the Michigan Senate Democrats for over 30 years. His background with the Senate Democrats was in information technology. (Vatter, Tr. at PageID #8985:11 – 8986:10.) He was involved in redistricting following each U.S. Census from 1990 to 2010. He was the principal map drawer for the Senate Democrats. (Vatter, Tr., ECF No. 249 at PageID #8986:11-16.)

43. Vatter was not invited or allowed to participate in drawing the maps that were enacted. (*Id.* at PageID #8993:22-24.) Vatter testified, “we didn’t see anything that they did until they presented it in committee.” The Republican maps were presented in committee shortly before they were adopted. (*Id.* at PageID #8994:1-6.)

44. Vatter met with Republican map drawers only three times during the 2011 process. (*Id.* at PageID #8994:11-18.) Mr. Vatter met twice with Terry Marquardt and then once in a meeting at Dickinson Wright law firm with Gretchen Whitmer and Randy Richardville. (*Id.* at PageID #8994:15-18.) The first meeting with Mr. Marquardt was a discussion about the discussion they were going to have with Senator Whitmer and Leader Richardville. (*Id.* at PageID #8994:20-22.)

45. In the second meeting, Marquardt presented to Vatter one potential map for the city of Detroit that was favored by the Republicans. (*Id.* at PageID #8994:20 – 8995:7.) Marquardt implied that without cooperation those were the districts that were going to be drawn in the city of Detroit. (*Id.* at PageID #8995:8-15.) The legislative leadership Thursday morning meeting agenda refers to “communications with Legislative Black Caucus.” (Schostak, Dep. at 50:2-3; Trial Ex. P-274 at LEGR-5293.) Part of the reason for that communication was to try to get Democratic support for the overall maps. (Schostak, Dep. at 51:5-20.)

46. In the third meeting, lawyers, Richardville, Whitmer, and Vatter discussed alternative plans for Oakland and Macomb Counties for a possible compromise on Detroit. (*Id.* at PageID #8995:18 – 8996:2.) On June 14, 2011, Began sent Timmer and Marquardt “the map, that we will likely use as it **doesn’t primary two Dems in Wayne county so long as they vote our way.**” (Trial Ex. 424) (emphasis supplied).

47. Republicans did not show Vatter any other maps during the three meetings. (*Id.* at PageID #8996:12-17) Vatter is not aware of any other Democratic involvement in the redistricting process before the bills became public. (*Id.* at PageID #8997:13-17.)

48. There is no evidence that any Democratic map or district was adopted. *See, e.g.*, 2011 *Michigan Senate Journal* 58 at 1597 (Vatter map introduced); 1654 (voted down); 1651 (map had fewer breaks and better VRA compliance.)

C. The Republican-controlled legislature's objective was to entrench Republican representation and subordinate Democratic voters.

Drawing the Congressional Maps

49. During 2010, Timmer met privately with Republican legislative staff and the governor's office, along with lawyers for the Senate and House, to discuss census estimates and redistricting strategy and assignments. (Timmer, Dep. at 122:8-25.) That group decided to give Timmer primary responsibility for drawing the congressional districts. (*Id.* at 123:10-13)

50. Timmer's services mostly concerned drawing and finalizing the congressional districts. (Timmer, Dep. at 42:6-11.) Terry Marquardt took responsibility for the Senate districts and Dan McMaster and Brian Began handled the House districts. (*Id.* at 45:13-23.)

51. Timmer agreed at trial that drawing district lines that favor or for the express purpose of achieving a partisan outcome for one party is commonly

understood to be a gerrymander. (Timmer, Tr. at PageID #9315:20-23; Timmer, Dep. at 35:13-17.)

52. Republicans sought to achieve a durable 9 to 5 congressional delegation favoring Republican candidates. Bob LaBrant admitted as much on May 18, 2011 when he sent a late-night email to Congressman Dave Camp's chief of staff, Jim Brandell: "We will accommodate whatever Dave wants in his district even if I am no longer a constituent. **We've spent a lot of time providing options to ensure we have a solid 9-5 delegation in 2012 and beyond.**" (emphasis supplied) (Email, Trial Ex.P- 579, ECF No. 240-8 at PageID #8640; Timmer, Tr. at PageID #9317:14 – 9318:15.) Also copied on the message was Jamie Roe, chief of staff for Congresswoman Candice Miller. (Timmer, Tr. at PageID #9318:16-23.)

53. Timmer prepared a proposed congressional plan on March 8, 2011 that predicted Republican partisanship of the proposed districts using the votes cast in the 2000 to 2008 presidential, gubernatorial, and state election board elections (Email and attachment, Trial Ex. P-400; Timmer, Tr. at PageID #9323:19 - 9324:15.)

54. A few weeks earlier, Timmer and LaBrant had traveled to Washington, D.C., met with Republican congressional incumbents, and presented to them map scenarios designed to achieve a 9-5 Republican advantage in the congressional delegation. (Trial Ex. P-398; Timmer, Tr. at PageID #9324:16-18, 22-24.) Each of the configurations Timmer proposed calculated the expected partisanship of each congressional district based on the votes that citizens cast in 2002-2008 statewide

elections. (*Id.*) Timmer and LaBrant did not meet with anyone in Michigan's Democratic delegation. (*Id.* at PageID #9324:19-21.)

55. When they returned from D.C., Timmer revised the proposed borders of each district to accommodate specific requests from the Republican incumbents. (Email, Trial Ex. P-399; Timmer, Tr. at PageID #9326:2 – 9327:17.) Timmer also calculated the expected partisanship for each proposed district using prior election results. (Attachment, Trial Ex. P-399 at Timmer000349.)

56. Timmer also worried about Republican incumbents being “vulnerable” in their districts, and so used “McCain numbers” to bolster the partisan configuration of the districts. (Email, Trial Ex. P-453 at 1.)

57. On March 23, 2011, Jack Daly, chief of staff for Congressman Thaddeus McCotter, asked Timmer to use his software to analyze a revised configuration using the available census data and election results. (Email, Trial Ex. 401; Timmer, Tr. at PageID #9327:18 – 9328:7.) Timmer quickly complied and observed that the new numbers were “interesting” because the census information for Detroit was about 150,000 less than expected. (*Id.*) Daly then replied, **“In a glorious way that makes it easier to cram ALL of the Dem garbage in Wayne, Washtenaw, Oakland and Macomb counties into only four districts. Is there anyone on our side who doesn’t recognize that dynamic?”** (*Id.*) (emphasis supplied) At trial, Timmer first equivocated, then upon questioning by the Court, agreed there was no way to

interpret what Daly said other than as a desire to pack as many Democratic voters as possible into four counties. (Timmer, Tr. at PageID #9329:2-11.)

58. During redirect examination, Timmer tried to downplay the extent which congressional staff influenced the redistricting results. (Timmer, Tr. at PageID #9340:7-21) (describing McCotter and his chief of staff, Jack Daly, as “largely ignored”). But Timmer’s emails at the time tell a much different story. For example, Bob LaBrant emailed Timmer late at night during his Hawaii vacation to urge Timmer to carry out a specific change that Daly requested. (Email, Trial Ex. P-409.) LaBrant urged Timmer to make the change in a way that was **“a good looking map that did not look like an obvious gerrymander” and “protects all nine [Republican] incumbents.”** (*Id.*) (emphasis supplied).

59. Throughout the redistricting process, Timmer responded to requests from Republican legislators and party leaders to discuss adjustments to the maps, and calculated the expected partisanship of each proposed change. When Congressman Dave Camp’s chief of staff requested that parts of Shiawassee County rather than Bay County be added to the district, Timmer quickly responded with a new map and partisan voting estimates. (Email, Trial Ex. P-219.) Timmer’s May and June 2011 emails detail many district boundary accommodations and partisan analyses performed for the incumbents and their staff, even though none of them would ever vote on the legislation in the Michigan legislature. (*See, e.g.*, Trials Ex. 222, 382, 246, 411, 243, 579, 360, 432, 573).

60. For example, Timmer promoted a Republican donor's request to move the Grosse Pointe community into a congressional district. (Timmer, Tr. at PageID #9329:19 – 9330:1, 9330:20 – 9331:4; Trial Ex. 579.)

61. Timmer's detailed billing reports show that he charged for 103.5 hours of consulting time during June 2011, almost all of which was devoted to drawing congressional maps and meeting with Republican members of congress, their staff, and Michigan's Republican leadership. (Invoice 3833, Trial Ex. 393; Timmer, Dep. at 124:14 – 124:14.) Nowhere in his time entries does Timmer say that he had any meetings or communications with Democrats. Timmer's time records show instead that he made many map adjustments and voting data reports for Republican officeholders. (Jeff Timmer Detailed Time Report for June 1 – June 30, 2011, Trial Ex. P-393.)

Drawing the Senate Maps

62. Experienced map-drawer Terry Marquardt was a senior Senate staffer charged with drawing Senate districts for the 2011 cycle. (Marquardt Dep. 31:3-6; 24:22.)

63. Marquardt drew the Senate districts using software known as Autobound. In addition to census data, political data were also loaded into the software with "political data," being "election results through the years." (Marquardt Dep. 43:5-12.) The Autobound program allows the map drawer to have a spreadsheet or matrix constantly visible at the bottom of the screen while drawing districts. The

matrix shows selected data and updates for the proposed districts as they are drawn. (Marquardt Dep. 195:16-196:7.) Marquardt opted to have population data and political data visible while drafting Senate maps. (Id. at 196:8-198:7.)

64. Marquardt and the other map drawers claim they never prepared or discussed a Michigan Senate configuration that contained fewer county line breaks than the enacted plan. (Timmer, Tr. at PageID #9303:14-25.) However, then-Senator Whitmer, the Democratic leader, proposed such a plan to Timmer and other Republicans on June 23, 2011, just one day after the Republicans publicly announced their proposed maps. (*Id.* at PageID #9304:4-15.)

65. Timmer has told the Court in an expert report that Senator Whitmer's proposed Senate plan "was offered too late in the legislative proceedings to receive serious consideration." (Timmer Report, Trial Ex. D-6 at 22 n.5.) His conclusion is at odds with an agenda from the Republicans' leadership committee meeting at that time. (Trial Ex. P-274 at LEGR-5301.) The agenda indicates that the committee debated whether to consider the proposal or have any meetings with the Senate Democrats. The agenda also states that while the Republican plans were to be made public the following day, "there would still be an opportunity to make changes" and meet with affected incumbent legislators in Oakland and Macomb Counties. (*Id.*)

66. After the Senate map was essentially complete, proposed districts were still held close to the vest by the Republican leadership. For example, Marquardt participated in meetings with individual Senate Republican caucus members and

Leader Richardville in April and June of 2011. (Marquardt, Dep. at 82:23-85:5.) The Republican caucus members were shown only their own districts (see Proposed Sentate Maps, Trial Exs. 329-356); no one saw the map in its entirety, and no one was allowed to keep a copy of the materials showing his or her district. (*Id.* at 127:23-128:2.) These meetings with individual Republican senators to preview their new districts were a “Republican caucus function.” (Richardville, Dep. at 240:13-16.)

Drawing the House Maps

67. Dan McMaster was a Senior Policy Advisor for the House Republican Caucus who sought out the assignment to draw the House districts. (McMaster, Dep. at 36:4; 49:14.) Brian Began was hired to assist McMaster in this process. (*Id.* at 50:4 51:6.)

68. The House maps also were drawn in a highly secretive manner. McMaster and Began worked in a private office “which was locked, no one was allowed in.” (*Id.* at 51:22-24; 61:23-25; 65:4-9 (explaining that they put paper over the door window and that they would not answer the door.) After meetings McMaster had with individual Republican legislators, he collected the proposed maps back “for security.” (McMaster, Dep. at 136:25-137:16.)

69. McMaster regularly attended the Dickinson Wright map drawer meetings. (McMaster, Dep. at 53:13-54:8; Marquardt, Dep. at 86:25-92:4; LaBrant, Dep. at 236:19-238-17.)

70. All of the map drawers shared and discussed draft House districts among themselves. (Timmer, Dep. at 55:22-57:24; Marquardt, Dep. at 82:18-22, 90:5-91:11; McMaster, Dep. at 52:9-19; LaBrant, Dep. at 86:19-187:19.) Map drawers communicated about these maps via emails. (Email, Trial Ex. P-405 at 1 (emails back and forth among map drawers); Email, Trial Ex. P-424 at 1).

71. No one else besides the map makers and attorneys were allowed in these map drawer meetings. (Timmer, Dep. at 56:19-22; 256:18-23. In particular, no Democrats were involved in or invited to the meetings. (Bolger, Dep. at 113:17-20; Richardville, Dep. at 130:6-9, 137:23-138:16.)

72. Like Marquardt with the proposed Senate districts, toward the end of the process, McMaster participated in meetings with Republican members of the Michigan House, where each Republican house member was shown only his or her proposed district. These documents were also collected back at the end of the meeting. (McMaster, Dep. at 133:23-137:13.)

The Republican Chairman and Republican Donors

73. Schostak used confidential redistricting information politically, and with donors. (Schostak, Dep. at 16:23-17:5.) Schostak himself was interested in what the partisan makeup would be of the districts that were being drawn. (*Id.* at 54:8-11.) Senator Hune admitted that the reason party chairman Schostak would be involved in the Legislature's drawing of districts was because Schostak was "[p]robably trying to insert himself in the process" for "[p]olitical gain." (Hune, Dep. at 71:17-21.)

74. Republican donors would seek to influence the redistricting process through Schostak. On April 8, 2011 Jeffrey Timmer sent Schostak, Sandler and LaBrant a set of congressional maps because Schostak had had a request from “some folks on the east side, donors” about how districts were being laid out. (*Id.* at 60:21-61:7.) These people were donors to the Republican party. (*Id.* at 61:12-14.) The email provides options that would have avoided putting the Grosse Pointes into an Oakland and Macomb County district. (Email, Trial Ex. P-385 at 1.)

75. Mr. Cotton is a Republican donor identified on the second page of deposition Exhibit 138, which later became Trial Exhibit P-389. (Schostak, Dep. at 101:2-9; P-389). He asked Mr. Schostak to draw a “favorable Republican district” to keep the “Grosse Pointes” together and he forwarded the request to Mr. Timmer. (*Id.* at 106:20-107:7; Email, Trial Ex. P-389.) Timmer responded to Schostak that his “only concern about this exercise at this stage would be any negative implications/consequences to the inevitable litigation involving the plan.” (*Id.*)

76. Schostak understood Cotton thought he was entitled to influence of the redistricting process because of his relationship with the Republican party Chair. (*Id.* at 113:13-21.) There was good reason for Schostak to have this understanding; on August 6, 2011, Timmer emailed Schostak, explaining that he had “come up with a configuration which likely also satisfies the Grosse Pointes wrinkle you’ve been dealing with.” (Trial Ex. P-438.) Timmer asked Schostak to “[k]eep this all under hat,

though, because there is still a reasonable probability this fizzles. **But you may be able to deliver a victory to the GP \$\$ folks.**” (*Id.*; emphasis added.)

Extensive Use of Partisan Data

77. Timmer had quickly assembled political data for the Republicans to use in redistricting even though such information was not needed for them to satisfy the requirements of the Michigan redistricting statutes. (Timmer, Tr. at PageID #9308:16 – 9309:2.)

78. During January 2011, before the U.S. Census data was available, Combat Data Inc. linked voting results from the 2010, 2008, 2006, 2004, and 2002 election to US Census Estimates from 2009 so that Timmer and others could use their software to predict the partisanship of proposed maps. (*Id.* at PageID #9316:1 – 9317:2; Invoice, Trial Ex. P-403 at Timmer000863.) Timmer hired Combat Data to collect and organize election data and voter lists. (Timmer, Dep. at 16:21 – 17:10.)

79. Data from prior elections do not have any bearing on traditional redistricting criteria. (Timmer, Dep. at 41:11-14; Tr. at PageID #9304:16-22.) Yet Timmer, Republican party officials, and Republican legislators consistently referred to those results when considering map proposals. Timmer’s correspondence, for example, show that he supplied election results data to the legislature with nearly every map he drew for the Republican legislators. The Maptitude and Autbound software that Republican consultants employed mapped statewide election data at the census block level so that legislators could quickly determine expected partisanship

for each configuration the mapmakers proposed. See, e.g. Trial Ex. P-227 – P-231, Timmer draft maps with detailed historical political data, from two statewide elections, applied to new districts.

80. Marquardt agreed with Timmer that when map drawers had choices to make, they used political data to make them. For example, Marquardt testified as follows:

Q. Did you intend for the map that you drew for the Senate to be [more] favorable for Republicans than Democrats?

A. Did I consider that?

Q. You were the drawer, so did you have that in mind as you're drawing it, that where you've got choices to make, you're going to make the map more favorable for Republicans than Democrats?

A. In the few choices that we had, I would say that's true, but the choices are very few.

(Marquardt Dep. 73:10-74:3.) Marquardt went on to identify these “few” geographies as Oakland County, Kent County, Macomb County, and Wayne County—which, when combined, represent over 45% of Michigan's total population. (Id. at 74:5-76:22; *see also* Hune, Dep. at 102:12-104:1 (conceding that Wayne, Macomb, Kent, and Livingston Counties were susceptible to more than one configuration while still complying with Apol); McMaster, Dep. at 80:4-11 (conceding that a map drawn to maximize partisan advantage can, on his definition, still be “fair and legal”); Timmer,

Dep. at 49:12-50:8 (testifying that where it did not impact the Apol criteria or the Voting Rights Act the concerns of the Republican members of Congress were taken into account); Timmer, Dep. at 259:24-260:13 (testifying that protecting incumbents was taken into account to secure votes for the passage of the plan); LaBrant, Dep. at 62:16-19 (testifying that map drawers have “latitude” to draw districts consistent with Apol); LaBrant, Dep. at 250:24-251:2 (agreeing that Apol standards have not eliminated partisan gerrymandering entirely).)

81. The technical process utilized by the map drawers confirms they prioritized the use of political data and applied it at an almost microscopic level. For example, once the census data was released, Timmer used a software package called Maptitude to draw Senate districts again and again. (Timmer, Dep. at 28:17-20.)

82. The Maptitude software contained both population and political data. (Timmer, Dep. at 29:14-17; LaBrant, Dep. at 16:8-17:15) (explaining that they looked at base party vote, which “means based upon votes for various offices that are on the partisan ballot, you know, how that particular precinct ... might perform over ... a ten-year period of time”).

83. For each of the meetings with the Senate Republican caucus members, Marquardt directed the preparation of a one-page document. (Marquardt, Dep. at 101:1-2, 10-11.) These documents each showed the district as it existed under the 2001 redistricting – labeled the “Current District” – and the district for the 2011 cycle – labeled the “Proposed District.” The document included four data points for the

current district: the 2000 population, the 2010 population, and two sets of political data for the new district, based on – the average vote in that district from the last three governor’s races and MRBD data. (Marquardt, Dep. at 101:10-105:16.) Similarly, for the proposed district, Marquardt included the 2010 population for the district, a calculation of the “percent of the new district represented currently” and the same two political data points. (Id.; see also Maps, Trial Exs. P-329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356 (side-by-side maps comparing “current” and “proposed” districts with political data for almost every state senate district).)

84. Marquardt testified as follows regarding the role that political data played in drawing Senate districts:

Q. These two numbers at the bottom that you said were political data, why is political data on this document?

A. Because the senators obviously would be interested in knowing whether their district got better or worse.

Q. So you think these numbers help show whether it got better or worse?

A. They help. I mean, as I mentioned earlier, different political climates in different election years certainly change but it gives you a bit of a guideline.

Q. And to be clear, by “better or worse,” better would mean more Republican?

A. From my perspective, yes.

Q. And then worse would be either less Republican or more Democrat?

A. Correct.

(Marquardt Dep. 103:23-104:15.)

85. B40. Timmer also sent Schostak draft maps with such data. (Schostak, Dep. at 60:13 20; Email, Trial Ex. P-385.) For example, all the districts attached to an April 8, 2011 email from Mr. Timmer had political data reflecting the expected performance of each draft district based on past elections including for governor, election board, and president in 2018 and 2010. (Email, Trial Ex. P-385 at Timmer000561.)

86. Senate Majority Leader Randy Richardville, for example, believed that gerrymandering – drawing of districts with the intent to favor one political party over another – was illegal. (Richardville, Dep. at 212:9-214:12.)

87. Vatter drew the Senate Democratic versions of the Senate map in 2001 and 2011. None of those maps was adopted. (*Id.* at PageID #8993:2-13.)

88. These findings regarding intent are also supported by inferences from the evidence below regarding the extreme likelihood of the enacted maps and districts arising absent partisan intent.

Rushed Legislation Timeline

89. By statute, the Legislature was allotted roughly seven months from the March release of the census data through November 1 to complete redistricting. Mich. Comp. Laws §§ 3.62, 4.261. Rather than use that seven-month window to

engage, for example, in a bipartisan process or to interact with constituent or public interest groups, after the release of census data on March 22, 2011 the process was crammed into three months.

90. The Republican-controlled legislature had a “real strong devotion” to getting the process of enacting maps done before its summer break. (Richardville, Dep. at 117:2-4; *see* Article, Trial Ex. P-465 at 1 (Richardville saying, “I’d like to see a June vote on bills”); Article, Trial Ex. P-464 at 1 (House Speaker Jase Bolger “wants to have maps passed by early July”).

91. The districts were unveiled around Friday, June 17, 2011. But even this unveiling was not as transparent as one might expect.

92. Senate Republicans could not count on Democrats to vote for the Plans, and so Senate Majority Leader Randy Richardville shared the maps first with his caucus so that he could ensure he had the 20 votes needed. (Richardville, Dep. at 143:13-22.) As the Majority Leader testified, “These were our bills. . . we certainly operated individually [as different parties].” (Richardville, Dep. at 220:2-19.)

93. In June of 2011, as president of the League, Susan K. Smith attended a House Elections Committee public hearing on bill for the redistricting based on the 2010 census. (S.K. Smith, Tr., ECF No. 248 at PageID #8771:6-9.) Ms. Smith went to that hearing as president of the state League of Women Voters. The meeting was in the Senate Varum building. (*Id.* at PageID #8771:10-14.)

94. As the meeting began, at the back of the room there was a table that included a stack of bills to follow along the hearing. (*Id.* at PageID #8771:14-20.) Ms. Smith picked up the bill and when she sat down she discovered it was a shell bill: a cover and a back sheet with nothing in between. Later when the committee members came in, the staff person brought in a stack of bills and put them on the table at the back of the room. (*Id.* at PageID #8771:21 – 8772:5.)

95. Ms. Smith picked up one of those bills expecting to see a description of the maps but instead saw census data description, numerical descriptions of property like any tax bill. It was not possible for her to even figure out which district she was in. Then another staff person came in and set up easels with maps that were about 30 inches wide and 36 inches high. (*Id.* at PageID #8772:6-19.) Except for the large Congressional District 1, these maps were not large enough to display individual districts clearly. This was particularly true in southeastern Michigan with a large population and smaller districts. (*Id.* at PageID #8772:20 - 8773:7.)

96. By the end of the hearing, there was no better information given. (*Id.* at PageID #8773:11-15.) A number of people complained about the lack of transparency at the hearing, the lack of public involvement, and the lack of information regarding the maps. (*Id.* at PageID #8773:11-21.)

97. Despite complaints about a lack of transparency, the House Redistricting Committee Chairman took a vote, which was party line with Republicans for and Democrats against. (*Id.* at PageID #8773:22-24.) This experience was part of what

convinced Ms. Smith that “the League has got to get involved.” (*Id.* at PageID #8774:2-6.)

98. On June 23, the Senate passed the bills containing the redistricting plans. The House passed an amended bill on June 28th. The Senate adopted the amended bill on June 29th. The entire process in the legislature took fewer than two weeks, leaving almost three months to spare under the statutory time frame. The bill was sent to the Governor on July 26th, which he signed on August 9, 2011.

D. Politics trumped statutory guidelines.

99. Michigan has a statutory scheme that outlines certain requirements for how redistricting is done, commonly known as the Apol standards. But the map drawers testified that even while adhering to that regime there are many alternative maps that could be drawn, allowing for other considerations, including partisanship, to play a role in drawing specific districts. Timmer acknowledged that the legislature intended to follow Apol “**to the extent that was possible, practicable in order to also get ... the number of votes sufficient to pass legislation** from each chamber.” (Timmer, Tr. at PageID #9267:2-11, emphasis added.) Timmer admitted that in multiple instances, the Apol criteria were not followed at the request of Republican legislators. (Timmer, Dep. at 72:13-73:13, 165:25-166:4.)

100. Timmer views the process of enacting legislation to draw the district lines is “inherently political.” (Timmer, Tr. at PageID #9264:2-4.) In terms of how the legislature treats redistricting, he maintains that it is no different than any other

legislation and that political concerns determine the results. (Id. at PageID #9264:5-14.)

101. Each of the map drawers testified that after satisfying legal requirements, like the VRA, the overarching objective was to have a map with districts that satisfied the Republican majority. (See, e.g., Marquardt, Dep. at 63:9-13 (“[S]itting, you know, representatives or senators, you know, obviously in many cases want to be re-elected, so that was probably the major consideration as far as getting the vote”).) (See also McMaster, Dep. at 83:6-7, 125:18-24, 201:10-11, 216:13-16; Timmer, Dep. at 92:12-23, 218:7-10, 257:3-7.) The use of political data and the partisan analysis ensured those votes. (E.g., Marquardt, Dep. at 69:11-22.)

102. Emails that the mapmakers exchanged illustrate the profound extent to which partisan political considerations played into their redistricting efforts. For example, a staffer wrote Timmer about “a glorious way that makes it easier to cram ALL of the Dem garbage in Wayne, Washtenaw, Oakland, and Macomb counties into only four districts.” (Email, Trial Ex. P-401 at 1.) Timmer responded, “[i]nteresting numbers overall. Detroit being 150k less than projected shakes things up.” (Id.) When shown this “Dem garbage” email, Republican Senate Majority Leader Randy Richardville said that, “hell yeah,” that would concern him, that it was “deplorable,” and was a “terrible thing to say.” (Richardville, Dep. at 158:18-160:22.) Richardville admitted that gerrymandering “could be a factor” as “something that might impact an election.” (Richardville, Dep. at 288:22-289:16.)

103. In a different email, a Republican staffer approved of one of Timmer's proposed maps, saying it was "perfect" because "it's giving the finger to [S]andy [L]evin," a long-time Democratic United States Congressman. (Email, Trial Ex. P-426 at 1.)

104. In another email, Timmer remarked that a proposed district "is a bit less GOP, but not so much less so that it is in jeopardy of going south on us." (Email, Trial Ex. P-432 at 1.) In the same email, Timmer explained that, under the new districts, "the new 3rd would become slightly less Republican" to allow another seat "to become slightly more so." (Id.)

105. Vatter did thorough research on all the Congressional, Senate and House maps as part of the legislative process. (Id. at PageID #9007:15-23.) He participated in that research personally. (Id. at PageID #9007:24-25.) Mr. Vatter evaluated and reviewed these maps based on his own experience. (Id. at PageID #9008:1-3.)

106. A May 16, 2011 email from congressional staffer Jamie Roe to Timmer reacted to a draft plan and complained that Rogers loses "good stuff in Rochester Hills and gets the 'bad' part of Clinton County, ... Rogers loses a full 1% on the McCain number and Thad picks up 1.5%" (Trial Ex. P-223 at 1.)

107. Vatter is aware of the written statutory language that says if you break a county or a municipality you shift as few municipalities as possible to minimize the break. (Vatter, Tr., ECF No. 249 at PageID #9025:2-8; MCL §4.261 (f).) The legislature disregarded that requirement in several parts of the 2011 maps.

- In Senate Districts 18 and 22 (*Id.* at PageID #9025:9-12), the 2011 map shifted 14 municipalities into Livingston County to create the 22nd District. That could easily have been done with six municipalities. (*Id.* at PageID #9025:9-20.) The 18th would become Ann Arbor, add a different part of Washtenaw County making it less Democratic and the 22nd would be competitive, maybe 50/50. (*Id.* at PageID #9025:21 – 9026:15.)
- Approximately ten municipalities shifted from Genesee County to Saginaw in the 32nd District. But just six instead of the ten would have been enough. (*Id.* at PageID #9027:19 – 9028:4.) If the shift in municipalities would have been confined, the 32nd District would have leaned Democrat instead of Republican without changing much the heavily Democratic 27th much at all. (*Id.* at PageID #9028:5-13.)
- House District 32 does not shift the minimum number of townships. The base of the population of the district is Macomb and the district shifts eight municipalities, though it could have been done with five. (*Id.* at PageID #9032:6-17.) The shifts are from St. Clair County to Macomb County. Absent these shifts, this would have been a competitive Democratic district as before the redistricting. (*Id.* at PageID #9032:6-19.)
- Vatter also testified in detail about how the drawing of House District 63, House District 72, House District 86, House District 98, House District 99, House District 102 and House District 107 could all have been drawn with the shift of fewer municipalities and/or fewer people within the municipalities. (*Id.* at PageID #9037:16 – 9044:18.)

108. None of these shifts of excessive municipalities and/or population complies with the text of subsection (f) of MCL §4.261.

109. Vatter's testimony on these issues of district partisanship and alternative configurations including the counting of shifts was not contested by other evidence. Mr. Timmer testified the following day and said nothing to rebut Mr. Vatter's account on these issues.

110. At the same time the drafters were considering moving rural townships from Ingham County into the 24th District, one wrote “this change does not upset the deviation range from either of the districts involved.” If the legislators had been following subsection (f) this would not have been a consideration, as moving “more townships” into a district where not necessary to balance population would be forbidden if subsection (f) were being followed. (Agenda, Trial Ex. P-274 at LEGR-005301.)

111. Neither did the legislators suffer under the misperception that incumbent protection could be a legal consideration. It is not listed in the statute. And, page LEGR-005295, in the May 5, 2011 “CONFIDENTIAL Agenda” regarding the Thursday leadership meetings, there is the handwritten note: “Protecting incumbents is not a Standard.” (*Id.* at 48:21-24; Agenda, Trial Ex. P-274, page LEGR-5295.) Indeed, mapmaker Marquardt sent mapmaker Timmer a list of “Incumbent Addresses” on August 4, 2011. (Email, Trial Exs. P-436-37; *see also* Email, Trial Ex. P-450 (May 6, 2011 Began email to Timmer attaching “Incumbent File”).)

III. The Effects of the Redistricting Scheme

112. The gerrymander worked. As acknowledged in an RSLC memorandum, the 2010 redistricting was “widely heralded as one of the most innovative and successful plans for ensuring Republican dominance of state legislatures and Congress through gaining control of the once in a decade 2010 redistricting processes, a function of the party in control of state legislatures.” (REDMap Powerpoint, Trial Ex.

P-271 at 53 of 54.) Michigan House Speaker Jase Bolger received the PowerPoint discussing the Republican dominance of the 2010 redistricting process from the Republican State Leadership Committee. (Bolger, Dep. at 308:1-7.)

113. By all accounts, the gerrymander Republicans implemented in 2011 was a success and it continued during the elections that followed. In 2012, 2014, and 2016, the Republican congressional delegation, for example, was nine as compared to only five Democratic congressional representatives. (Timmer, Tr. at PageID #9335:15-20; Dep. at 111:17-25.) Until the Democrats picked up two additional seats in the 2018 congressional election and produced a 50/50 split, the Republicans held 64 percent of Michigan's congressional seats with far less than 50 percent of the votes cast each time. Timmer considers only five of Michigan's fourteen congressional districts to be competitive. (Timmer, Dep. at 112:16-20). Timmer considers only 20 of Michigan's House districts to be competitive. (*Id.* at 113:1-3.)

A. The district level evidence shows vote dilution and/or associated harm at a district level generally, and in each Challenged District.

114. As described on a district-by-district basis below, Voters in each district suffered dilution of their votes and/or harm to their ability to associate and express themselves politically in an effective manner, which harm would not have arisen absent the legislature's intentional partisan discrimination.

115. Brandon Dillon, former State Representative, former campaign chairman of the State House Democratic Caucus, and former Chairman of the

Michigan Democratic Party, described the difficulties that Democrats face recruiting volunteers in cracked districts. “Volunteers, at least in my experience as party chair and as caucus chair and as a candidate, are much more easy to mobilize and energize when they feel they’re actually going to have a positive impact on winning the race.” (Dillon, Tr., ECF No. 249 at PageID #9099:24 – 100:3.) “[N]o matter how hard that the voters or the volunteers work, no matter what the circumstances, the chances are more likely that their efforts are going to be futile [in cracked districts], and [so] there is less incentive to participate in the process.” (*Id.* at PageID #9101:1-4.)

116. Dillon testified that “volunteers and donors are virtually nonexistent” in packed districts “because they know, conversely to what happens in cracked districts, it doesn’t matter what they do, they can do virtually nothing and their candidate is certain to be elected” anyway. (Dillon, Tr., ECF No. 249 at PageID #9109:24 – 9110:3.) “Particularly for those donors who are what I would term institutional donors or donors that are more sophisticated, they tend to not want to contribute to a race where they don’t believe their money is going to have an impact on the outcome.” (*Id.* at PageID #9100:15-19.)

117. Democratic “party leadership and other activists are interested in more than just having someone occupy the seat” in packed districts. (Dillon, Tr., ECF No. 249 at PageID #9111:21-23.) “They want activity, they want people engaged in the process. That’s why they do this. They don’t get paid for it. When they have easy

elections without competition, it defeats the purpose of their engagement.” (*Id.* at PageID #9111:21 – 9112:1.)

118. Findings § III(A) below summarize the district-specific evidence before the Court on the effects of the 2011 redistricting. In addition to voter testimony, the following categories of evidence are found under each district-specific heading:

- (a) Evidence from other witnesses of the district-level effect of the districts drawn in 2011 from witnesses such as Michael Vatter, a long-time Senate Democratic staffer with extensive personal knowledge of the relevant districts and the partisan impact of the decisions made in the 2011 redistricting by legislative Republicans;
- (b) Comparison of the enacted districts to computer-simulated districts drawn by Professor Jowei Chen, as detailed below. These comparisons show the partisanship of the enacted district compared to the partisanship of the 1,000 randomly generated districts both on an overlapping district basis (Chen Report, Trial Ex. P-3 at 54-56, 73-88) and on an address-level basis (by comparing the enacted district for each voter to the 1,000 alternative districts in which that voter would actually live) (Warshaw Report, Trial Ex. P-278); and
- (c) Various other district-level email and testamentary evidence.

Congressional District 1

119. Voter Jane Elizabeth Speer has lived at 10790 Robert Boulevard, Alpena, Michigan, 49707 for the last 18 years. (Speer, Dep. at 6:4-12.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 10:19-23, 11:10-15.) She is a long-time League member and supports the League’s mission. (*Id.* at 8:20-9:12.)

120. Ms. Speer believes that her vote does not count in Congressional District 1. (*Id.* at 11:18-12:21.) The nature of Congressional District 1 makes her feel

“frustrated, [in that she has] less confidence that [her] vote is going to make a difference, less enthusiastic about voting because essentially [she is] pretty sure what the results are going to be.” (*Id.* at 12:24-13:6; *see also id.* at 22:23-23:8, 24:1-3.)

121. Ms. Speer has reduced her political activity because of the 2011 redistricting. She donates less money to the candidates she supports, including in Congressional District 1, because she knows that those candidates do not have a chance to win. (*Id.* at 13:7-14:23, 23:16-23.) As other voters in the Congressional District 1 have told Ms. Speer, “why bother” with voting, because they can never get candidates they support to be elected. (*Id.* at 14:24-15:24, 33:2-13.)

122. Ms. Speer’s representative in Congressional District 1 is less responsive to her because he represents a “safe” district. (*Id.* at 15:25-17:25.) In Ms. Speer’s view, a more fairly-drawn map would increase the competitiveness of the 1st Congressional District and the responsiveness of the representative who holds that position, and would reduce the extreme partisanship that plagues our nation’s politics. (*Id.* at 19:21-20:11.)

123. Voter Trina Borenstein has lived at 4680 Wissmiller Rd., Greenbush, Michigan, 48738 since 2009. (Borenstein, Dep. at 10:17-11:3.) She is a registered Democrat. (*Id.* at 69:1-6.) She is a long-time League member and supports its mission. (*Id.* at 9:2-10:16.) She is on the board of the local Democratic Party. (*Id.* at 23:23-18.)

124. Ms. Borenstein explained that, because of the cracked nature of Congressional District 1, “[w]hen [she] participate[s], she does so “because [she]

thinks it's the right thing to do ... on a cosmic scale," but "it is disheartening because it does feel futile." (*Id.* at 83:10-17.)

125. Ms. Borenstein has reduced her political activity because of the 2011 redistricting. While she tended, before moving into Congressional District 1, to "donate[] to specific candidates," she now donates less to the candidates she supports because "for the most part, don't have a fighting chance." (*Id.* at 24:9-22.)

126. Ms. Borenstein's representative in Congressional District 1 is not responsive to her. She explained that when she writes to her representative, she gets responses only "[a]bout half the time," and that these responses "[g]enerally ... don't even refer to the topic on which [she] wrote the letter." (*Id.* at 30:16-31:9.)

127. Voter Melissa Shaffer-O'Connell has lived at 3578 East 18 Mile Road, Pickford, Michigan, 49774 since 2011. (Shaffer-O'Connell, Dep. at 5:3-6:6.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 8:25-9:16.) She has been a League member since 2013 and supports its mission. (*Id.* at 6:9-18.) She is a political science professor at Lake Superior State University and teaches American politics, including the topic of gerrymandering. (*Id.* at 7:6-9.)

128. Ms. Shaffer-O'Connell believes that her vote does not count. (*Id.* at 9:17-10:18.) She testified that the nature of Congressional District 1 has "reduced the feelings of political efficacy among the Democrats and Liberals that exist in the district today." (*Id.* at 11:3-10; *see id.* at 12:17-14:16.)

129. Ms. Shaffer-O’Connell has reduced her political activity because of the 2011 redistricting. She is “less likely to work on get-out-the-vote campaigns because [she does not] believe it makes a large difference in cracked districts because they are no longer competitive.” (*Id.* at 11:11-13.) When she has engaged in those efforts, there have been “fewer people willing to register to vote because they believe their vote doesn’t matter.” (*Id.* at 12:7-16.) Ms. Shaffer-O’Connell would “like to be more involved both on campus encouraging students to vote, and out in the public encouraging people to vote,” but does not “feel able to do that when [she does not] believe that the current districts are fair. And so [she] feel[s] [that the 2011 redistricting has] restricted [her] ability to be civically engaged, as well as [her] ability to encourage others to be civically engaged.” (*Id.* at 15:10-20.)

130. Ms. Shaffer-O’Connell feels unable to tell her political science students that their votes matter because “if they live in Michigan, the chance is they’re in a noncompetitive district due to gerrymandering.” (*Id.* at 11:14-18; *see id.* at 14:20-15:7.)

131. Voter Linda Stoetzer has lived at 5805 Scenic Drive, Sault Sainte Marie, Michigan, 49783 since 2002. (Stoetzer, Dep. at 10:9–14.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 10:18-11:4.) She is a long-time League member and supports the League’s mission. (*Id.* at 8:21-9:17.)

132. Ms. Stoetzer believes that her vote does not count in Congressional District 1. (*Id.* at 28:13-23.) Specifically, her vote is “thrown in with a huge quantity of Republican voters.” (*Id.* at 35:3-16.)

(Trial Ex. P-278 at PageID #3881.)⁴ This demonstrates that Ms. Speer and Ms. Borenstein reside in a cracked district that is more Republican than most of Dr. Chen's simulation districts. (Note: with respect to Ms. Shaffer-O'Connell and Ms. Stoetzer, the two other Voters who testified and live in the First Congressional District, the League is asserting only First Amendment claims, not Fourteenth Amendment claims.)

136. Congressional District 1 is a partisan outlier according to Professor Chen's District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

137. Vatter testified that in the 2011 redistricting process, the map drawers took Bay, Arenac, and Iosco Counties, which were part of the Democratic base of the previous Congressional District 1, out of that district and added parts of the state that were much more Republican. (Vatter, Tr. at PageID #9000:5-15.) Those Democratic counties were placed into Congressional District 5. (*Id.* at PageID #9000:17-21.) The net effect of the change was to make District 1 much more Republican. (*Id.* at PageID #9000:22-25.)

138. No Democratic candidate has won Congressional District 1 since 2011. (*Id.* at PageID #9001:1-3.)

⁴ Dr. Warshaw's chart includes more voters than are discussed in these Findings, because some of these voters did not provide testimony at trial or via deposition.

139. Vatter is familiar with the concept and operation of the term “county break” under the Apol standards. (*Id.* at PageID #9001:4-24.) Those standards require minimization of county and municipal breaks. (*Id.* at PageID #9001:13-18.) In general, if a map drawer reaches into a county to take only part of that county for a district, that breaks the county line. (*Id.* at PageID #9001:13-24.)

140. Congressional districts require zero percent population deviation from perfectly equal districts, so county breaks are almost always required. (*Id.* at PageID #9001:22-9002:13, 9004:1-3.) In congressional districts, the map drawers need to go down to a block level to get the perfect population deviation. (*Id.* at PageID #9002:3-13.) There are both county and municipal breaks in District 1. (*Id.* at PageID #9002:23-9003:25.) Neither break is necessary. (*Id.* at PageID #9004:4-8.)

Congressional District 4

141. Voter Karen Sherwood lives at 6005 Millbrook Drive, Midland, Michigan 48640. (Sherwood, Tr. at PageID #8943:25.) She expects to live at that address in 2020 during the next census. (*Id.* at PageID #8944:5.) Ms. Sherwood votes Democratic and “will vote for the Democrats” in the 2020 elections. (*Id.* at PageID #8945:15-19.) Ms. Sherwood has been a League member since 1994 and, since she retired in 2004, has served as either the Treasurer or the President of the Midland-area League. (*Id.* at PageID #8950:18-25.) She supports the League’s mission, which “is to inform voters on issues and candidates and then to get them to be registered and then further to get them to vote.” (*Id.* at PageID #8951:3-6.) She participates in activities to

further that mission, such as registering voters at high schools and food pantries. (*Id.* at PageID #8951:9-13.)

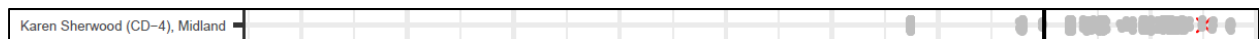
142. Ms. Sherwood has voted for Democratic congressional candidates in Congressional District 4 since the 2011 redistricting, but in that time, only Republicans have been elected. (*Id.* at PageID #8946:14-21.) She testified that John Moolenaar, who currently represents Congressional District 4, “really doesn’t represent [her] views.” (*Id.* at PageID #8947:19-20.)

143. Ms. Sherwood supported the 2018 Voters Not Politicians ballot initiative by carrying petitions and knocking on doors. (*Id.* at PageID #8954:17-955:6.) Despite engaging in this sort of political activity, she has decreased her political activities in Congressional District 4 because she believes “[t]here’s no hope that [Democrats] will win[.]” (*Id.* at PageID #8953:4-8, 8955:7-9.)

144. Plaintiff Rosa Holliday engages in political activities in Congressional District 4, which she testified was “very difficult” because of the composition of that district. (Holliday, Tr. at PageID #9228:12-15.) Specifically, it is “difficult for [her] to get volunteers, and when [she gets] volunteers to go into the area[,] to keep them[.]” (*Id.* at PageID #9229:6-9.) When her volunteers knock on doors on behalf of Democratic candidates in Congressional District 4, a typical response is, “Well, for what? You know, it’s already rigged. We know that we [are] not going to win, [so] why should we vote?” (*Id.* at PageID #9229:11-14.) Democratic voters in Congressional

District 4 feel that it is a “waste of [a] vote” to vote for Democratic candidates.⁵ (*Id.* at PageID #9230:12.) Ms. Holliday testified that in gerrymandered districts such as Congressional District 4, “it’s impossible ... for a Democrat to win or to even be competitive in it, and that is absolutely a shame.” (*Id.* at PageID #9233:4-6.)

145. Dr. Warshaw’s chart places Ms. Sherwood’s address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Sherwood lives in a cracked district that is more Republican than most of the simulated districts. (*See also* Vatter, Tr. at PageID #9006:22-23.) Congressional District 4 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

146. An email from Jeff Timmer to Schostak and Stu Sandler attached plans with slight changes to Congressional District 2 and District 3. (Email, Trial Ex. P-387.) The attached maps have detailed political data. (Schostak, Dep. at 93:2-14; Email, Trial Ex. P-385.)

147. On May 17, 2011, Timmer wrote LaBrant, Jim Brandell, and Jamie Roe about a new draft map, explaining that “[a]ll GOP seats improve except CD02 and

⁵ There was no hearsay objection made at trial as to this testimony, so any such objection was waived. Even if such an objection had been raised, however, Ms. Holliday’s testimony on this point would not be excluded by the rule against hearsay pursuant to Fed. R. Evid. 803(3).

CD03 (both still the most GOP through). [Congressman Thaddeus] McCotter's district cannot get better unless we put Ottawa County in it," and including chart showing political data for proposed districts. (Trial Ex. P-412.)

148. Timmer suggested to LaBrant that changing how Saginaw County was drawn as "one way to accomplish" the goal of creating safer Republican districts. (Email, Trial Ex. P-498 at 1.)

149. In 2016, according to Dillon, Democrats were unable "to even have a candidate [for District 4] get enough signatures to qualify for the ballot at the filing deadline." (Dillon, Tr. at PageID #9101:18-20.) They "had a very difficult time finding anybody who was willing to run." (*Id.* at PageID #9101:20-21.) Democrats "actually had to run a write-in campaign at the primary election to ensure that a Democrat would even appear on the ballot in November." (*Id.* at PageID #9101:23 – 9102:1.) In fact, Congressional District 4 was, for Democrats, a "no way in hell" district. (*Id.* at PageID #9135:19-21.) Dillon's testimony about Congressional District 4 was "[b]ased on conversations that [he] had with people in [that] district[,] and donors that had been reached out to to gauge their interest in providing resources for [that] campaign[.]"⁶ (*Id.* at PageID #9135:12-15.)

⁶This testimony is admissible and not excluded by the rule against hearsay, because it is testimony regarding "[a] statement of the declarant's then-existing state of mind ... or emotional, sensory, or physical conditional (such as mental feelings, pain, or bodily health)[.]" Fed. R. Evid. 803(3). Similarly, other witnesses' testimony about what citizens have told them regarding their mental feelings with respect to their districts are admissible pursuant to Rule 803(3).

150. Vatter testified that when Congressional District 4 was drawn, instead of adding Iosco, Arenac and Bay Counties from the 1st Congressional District, the map drawers added Republican areas into District 4, which made it marginally more Republican. (Vatter, Tr. at PageID #9004:14-9006:19.) The new map of Congressional District 4 was drawn to put Frankenmuth, a Republican-leaning community, in Congressman Dave Camp's district (District 4). (LaBrant, Dep. at 213:21-214:13.) In the map-drawers' opinions, Camp could have "Saginaw any way he wants." (*Id.* at 10:10-13.)

Congressional District 5

151. Plaintiff Rosa Holliday has lived for 35 years at 6261 Greenview Place, Bay City, Michigan 48706. (Holliday, Tr. at PageID #9222:3-23.) She is registered to vote at that address, and has no plans to move before the 2020 elections. (*Id.* at PageID #9222:24-223:8.) Ms. Holliday "vote[s] Democrat" and "vote[s] in every election[.]" (*Id.* at PageID #9224:7-20.) She intends to vote for Democrats in the 2020 elections. (*Id.* at PageID #9225:10-13.)

152. Ms. Holliday has been politically active since as a "young kid" she helped her grandmother register voters in Camden, Mississippi. (*Id.* at PageID #9225:20-226:5.) Since then, Ms. Holliday has continued her political activities: she has worked on many campaigns, registering people to vote, phone-banking, and knocking on "thousands of doors." (*Id.* at PageID #9226:18-20; *id.* at PageID #9228:1-5.)

153. Ms. Holliday has held various positions with the Michigan Democratic Party, and has run for “vice [chairperson] of the party.” (*Id.* at PageID #9232:7-10.)

154. Ms. Holliday testified that Congressional District 5, where she lives, is packed. (*Id.* at PageID #9230:21-22.) As she testified, “[w]hen you pack ‘em [Democrats] all in one area, the vote is wasted. Actually, it’s wasted.” (*Id.* at PageID #9231:11-12.)

155. Voter Deborah Lee Cherry has lived at 3068 Falcon Drive, Burton, Michigan, 48519 since at least 2002. (Cherry, Dep. at 4:23-5:12.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 10:9-11, 11:5-12:11.) She is a long-time League member and supports its mission. (*Id.* at 7:8-8:18.) She served as a Democratic elected official for decades (as a Genessee County Commissioner, member of the Michigan House of Representatives, Michigan Senate, and currently as the Genessee County treasurer). (*Id.* at 9:10-24.)

156. Ms. Cherry testified that she feels that her vote does not count in Congressional District 5, where she lives, because it is “almost a given that a Democrat will win [that seat] and there is not much that will change that.” (*Id.* at 12:15-14:3.) Ms. Cherry does not believe that her vote in District 5 is “as important as if [she] voted” in other, more competitive races. (*Id.* at 14:4-10; *see id.* at 15:1-5 (“my vote doesn’t mean as much because I know they’re going to win”).)

157. Ms. Cherry has reduced her political activity in Congressional District 5 because of the 2011 redistricting. She donates less money to the candidates she

supports in that district because she knows that her money is not necessary to elect the candidates she supports in Congressional District 5 and her “dollar can mean more somewhere else.” (*Id.* at 15:10-16:9.) She has also spent less time door knocking and on other get-out-the-vote efforts in Congressional District 5 because that district is not competitive. (*Id.* at 16:14-23, 20:10-12.)

158. As a former legislator who ran in competitive legislative districts, Ms. Cherry testified that a more competitive district requires candidates to “work harder,” to be out more “trying to meet constituents, convince them to vote for them,” and to “prove that you’re going to be a good representative for them.” (*Id.* at 14:16-25.)

159. Voter Paul Purcell has lived at 4470 Seidel Place, Saginaw, Michigan, 48638, for 40 years. (Purcell, Dep. at 10:18-20). He has been a League member for over a year. (*Id.* at 7:14-22). Mr. Purcell votes for Democrats and plans to support Democrats in 2020. (*Id.* at 11:21-12:12.) Mr. Purcell is a long time active member in the Saginaw County Democratic Party. (*Id.* at 24:9-11.)

160. Mr. Purcell believes his U.S. Congressional District is packed. (*Id.* at 14:14-18.) Mr. Purcell bases this belief on “observing numbers over the years,” how people have voted, and “the actual diagrams of the districts themselves.” (*Id.* at 21:11-14.) Mr. Purcell is “just lumped in with all the other Democrats.” (*Id.* at 32:10-11.)

161. Mr. Purcell testified that he is “angry” because he does not “have a chance to vote for someone that holds my beliefs who has a chance to win.” (*Id.* at 34:21-25.)

162. Voter Sherrill Leigh Smith has lived at 129 North Alexander Street, Saginaw, Michigan, 48602, for nine years. (Smith, Dep. at 7:9-16.) Ms. Smith votes for Democrats and intends to vote in 2020. (*Id.* at 12:2-4, 434:2-9.) Ms. Smith has been a member of the League since 1976, and has continued to be involved because she strongly identifies with the way the organization is run. (*Id.* at 6:2-15.) Ms. Smith has been the president of her local League for the past 10 years. (*Id.* at 9:21-23.)

163. Ms. Smith believes her district is gerrymandered to “pit Saginaw against Flint.” (Smith, Dep. at 20:20-21:4.) Ms. Smith finds that the political clout of her representatives has been lessened due to the foregone conclusions of the races due to gerrymandering. (*Id.* at 23:5-10.)

164. Ms. Smith believes that gerrymandering affects the ability of the League to accomplish its First Amendment goals, particularly by affecting the way people feel about voting and being engaged and discouraging them from being involved at all. (*Id.* at 26:23-27:24.) It also affects the League’s ability to attract candidates from both parties to League events. For example, Democratic Representative Dan Kildee has twice refused to participate in the League’s legislative interviews. (*Id.* at 34:4-18, 68:24-69:4.) If candidates from both sides were engaged with the process, “the opportunity for [voters] to meet candidates of either party might excite [voters] more about the process.” (*Id.*) Ms. Smith also believes that because of the gerrymandering in her districts, “I just think it makes it a little more difficult to engage voters who are

perhaps less motivated about voting to actually become excited about the process.”

(*Id.* at 66:4-11.)

165. Voter Doris Sain has lived at 8139 Fenton Road in Grand Blanc, Michigan, 48439, since 1977. (Sain, Dep. at 11:11-16.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 11:23-12:2, 12:14-19.) She is a long-time League member and supports its mission. (*Id.* at 9:10–10:12.)

166. Ms. Sain testified that she feels that her voice is “lacking significantly” in Congressional District 5. (*Id.* 16:2-8.) Ms. Sain feels that her and her family’s legacy of voting is affected by the redistricting. (*Id.* at 17:24-18:9.)

167. Ms. Sain has also reduced her political activity in Congressional District 5 because of the 2011 redistricting. She donates less money to the candidates she supports, including those in Congressional District 5, because she knows those candidates will win. (*Id.* at 18:16–19:1; *see also id.* at 33:2-8.) In some cases, the 2011 redistricting has stopped her from donating money to a candidate at all. (*Id.* at 42:23-43:8.) Ms. Sain testified that she does not generally support her representative, Democrat Dan Kildee, because she knows he is going to win so she puts her money somewhere else. (*Id.* at 20:15-24.) Other voters in Congressional District 5 have told Ms. Sain they are “not interested” in political activity because they “know what the outcome will be.” (*Id.* at 22:8-19.) Ms. Sain Testified that her local League chapter has changed its political activity because of redistricting and has “discontinued forums because people are not attending forums.” (*Id.* at 22:24-23:3.)

168. Voter Thomas Haley has lived at 448 Roosevelt Avenue, Mount Morris, Michigan, for the last 20 years. (Haley, Tr. at PageID #9167:24-9168:3.) Throughout the course of his voting history, Mr. Haley has voted overwhelmingly for Democrats and plans to support Democrats in 2020. (*Id.* at 9173:3-9174:3.) He has been an active League member since 2006 (*Id.* at 9171:11-24.)

169. Mr. Haley testified that he generally will not give a campaign donation to Representative Kildee, his representative in District 5, because Representative Kildee is “going to win” regardless. (*Id.* at PageID #9175:20-9176:4.) Instead, Mr. Haley said he tends to give money to other candidates in districts “away from Flint”. (*Id.*)

170. When asked whether he believed that his vote would have more of an impact if he lived in a legislative district that was more competitive, Haley testified: “Yes, I would like to see more competitive races” because “ideas need to be discussed and the best ideas should come to bear.” (*Id.* at Page ID #9178:9-16.)

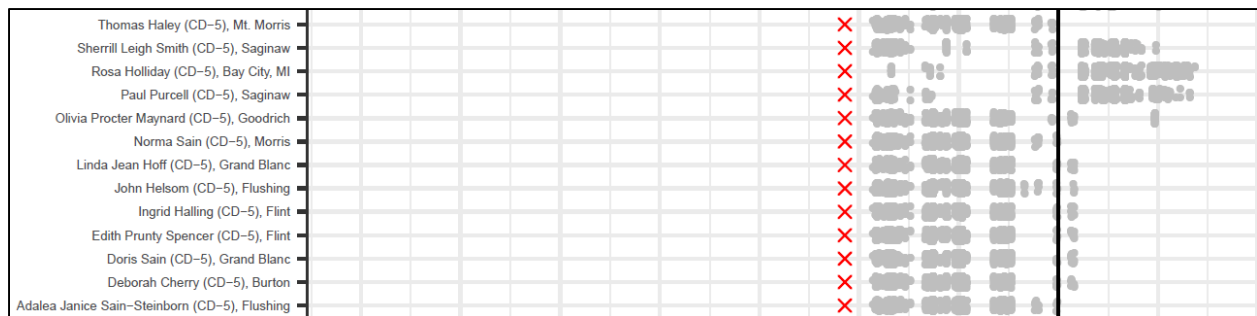
171. Voter Jan Sain-Steinborn has lived at 5448 North Seymour in Flushing, Michigan, 48433, for 24 years. (Sain-Steinborn, Dep. at 9:13–18.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 10:5–15.) She is a League member and supports its mission. (*Id.* at 8:14-9:5.)

172. Ms. Sain-Steinborn testified she believes her “vote doesn’t really matter.” (*Id.* at 18:11–14; *see also id.* at 30:12-17.) She believes the 2011 redistricting is “absolutely cheating” and that it has “weakened the Democratic Party.” (*Id.* at 30:21-24; *see also id.* at 20:2-8.)

173. Ms. Sain-Steinborn has reduced her First Amendment political activity because of the 2011 redistricting. She testified that she donates less time to candidates in her districts, including those in Congressional District 5, after the 2011 redistricting. (*Id.* at 19:15-18.)

174. Ms. Sain-Steinborn testified regarding how the 2011 redistricting affected her and her family’s legacy of voting. She recalls one of her sons not wanting to come home from college to vote. (*Id.* at 58:12-22.) Her son believed “the whole thing is rigged anyway so [his] vote doesn’t really matter.” (*Id.* at 59:4-6.)

175. Dr. Warshaw’s chart places Ms. Holliday’s, Ms. Cherry’s, Mr. Purcell’s, Ms. Smith’s, Ms. Sain’s, Mr. Haley’s, and Ms. Sain-Steinborn’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Holliday, Ms. Cherry, Mr. Purcell, Ms. Smith, Ms. Sain, Mr. Haley, and Ms. Sain-Steinborn reside in a packed district that is more Democratic than all of Dr. Chen’s simulation districts. Vatter calls Congressional District 5 “a super-Democratic congressional district.” (*Id.* at PageID #9008:19-22.) Congressional District 5 is a partisan outlier according to

Professor Chen's District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

176. Vatter testified that to create Congressional District 5, the map drawers added Iosco, Arenac, and Bay City to Flint. (Vatter, Tr. at PageID #9008:4-16.) In making the district, Flint, Bay City, and the Democratic parts of Saginaw were all packed together, making the 10th, 4th, and even the 8th districts less Democratic. (*Id.* at PageID #9008:23-9009:6.)

Congressional District 7

177. Voter Christine Canning-Peterson has lived at 10249 Tims Lake Boulevard, Grass Lake, Michigan, 49240, for nine years. (Canning-Peterson, Dep. at 5:1-11.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 10:17-11:6.) She is a long-time League member and supports the League's mission. (*Id.* at 7:20-9:5.)

178. Ms. Canning-Peterson testified she feels that her vote does not count. (*Id.* at 12:22-25.) She stated: "I don't feel my vote has any power since the district is stacked and written so that Republicans are going to win." (*Id.* at 13:9-14.)

179. Ms. Canning-Peterson has reduced her political activity because of the 2011 redistricting. She donates less money to the candidates she supports, including in Congressional District 7, because those candidates do not have a to be elected. (*Id.* at 14:1-24.) She also no longer pays dues to the local Democratic party because it has struggled to put forth quality candidates. (*Id.* at 15:22-16:9; *see id.* at 14:25-15:9.) The

2011 redistricting “reduced civic activity[.] She has supported other candidates in other districts, but [has] not been as participative in civic activity as [she] would have liked to have been.” (*Id.* at 18:7-13; *see also id.* at 20:1-16, 29:8-15, 31:3-8.)

180. Republican Tim Walberg, Ms. Canning-Peterson’s representative in Congressional District 7, is also less responsive to her because he lives in a safe district. (*Id.* at 17:6-21.) Representative Walberg does not show up to nonpartisan League forums. (*Id.* at 17:10-12.) By contrast, Ms. Canning-Peterson’s representative before the 2011 redistricting, Democrat Mark Schauer, did show up and engage with Ms. Canning-Peterson. (*Id.* at 17:23-25.) Ms. Canning-Peterson was confused and upset that after the 2011 redistricting, the Democrat who previously represented her, was moved to a different district. (*Id.* at 11:7-12:5.) Representative Schauer reflected her views, but his replacement does not. (*Id.* at 12:7-14.)

181. Voter Carolyn Vertin has lived at 806 River Acres in Tecumseh, Michigan, 49286, since 1976. (Vertin, Dep. at 10:20-11:4.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 11:8-21.) She is a League member and supports its mission. (*Id.* at 8:9–9:2.)

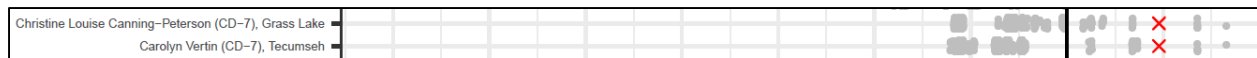
182. Ms. Vertin testified that her voice was “lost” in Congressional District 7 after the 2011 redistricting and feels that her district is unfairly drawn. (*Id.* at 13:14–22; *see also id.* at 20:20-24.)

183. Ms. Vertin has reduced her First Amendment political activity in Congressional District 7 because of the 2011 redistricting. She does not donate her

time to political campaigns in her district because she feels her party is “set up to lose.” (*Id.* at 14:14-20.) Ms. Vertin does not “give time or money because it would be money not well spent.” (*Id.* at 34:2-3.)

184. Ms. Vertin’s representative in Congressional District 7, Tim Walberg, is less responsive to her because he lives in a safe district. (*Id.* at 14:22-15:1.) When she contacted her Rep. Walberg, he “didn’t listen to what [she] had to say.” (*Id.* at 15:4-12.)

185. Dr. Warshaw’s chart places Ms. Canning-Peterson’s and Ms. Vertin’s, addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Canning-Peterson and Ms. Vertin reside in a cracked district that is more Republican than most of Dr. Chen’s simulation districts. Congressional District 7 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

186. Vatter testified that before 2011, Congressional District 7 was competitive and went back and forth between Democrat Mark Schauer and Republican Congressman Walberg. (Vatter, Tr. at PageID #9009:11-21.) In March 2011, LaBrant and Timmer discussed a map that “manage[d] to not harm

[Congressman] Walberg and keeps both West Bloomfield and the Farmingtons out of [Congressman] McCotter's seat[.]” (Email, Trial Ex. P-383.)

187. In 2011, the legislature removed Calhoun County, a Democratic county and Mark Schauer's home, from the District 7. (*Id.* at PageID #9009:19-24.) Parts of western Washtenaw, which are more Republican, were added. (*Id.* at PageID #9010:3-7.) The net effect was that the District 7 became much more Republican in 2011. It has stayed that way. (*Id.* at PageID #9010:8-13.)

Congressional District 8

188. Voter Harold Lynn Jondahl has lived at 2539 Koala Drive, East Lansing, Michigan, 40823, since November 2013. (Jondahl, Dep. at 12:2-6.) Mr. Jondahl previously lived at 4709 Woodcraft Road, Okemos, Michigan, 48864 from the mid-1980s through November 2013. (*Id.* at 12:7-20.) Mr. Jondahl is a Democrat and expects to vote for Democrats in 2020. (*Id.* at 13:5-14.) He is a long-time League member and supports its mission. (*Id.* at 10:13-11:16.)

189. Mr. Jondahl testified that he felt Congressional District 8 “previously was competitive, periodically elected Democrat, and then a Republican, and that went back and forth” but that since 2011, “it’s consistently been quite lopsided in electing Republicans[.]” (*Id.* at 16:7-24.) Mr. Jondahl testified that he would like Congressional District 8 to become “more competitive[.]” so that “someone has to run, and discuss issues, and be available to – the give and take of the political arena.” (*Id.* at 25:22-26:9.)

190. Mr. Jondahl has reduced his First Amendment political activity in his district because of the 2011 redistricting. Specifically, he has reduced the amount of time he spends volunteering for Democrats' campaigns because the "odds were pretty lopsided in terms of how effective [he] could be[.]" (*Id.* at 16:4-6, 16:10-21.) Mr. Jondahl testified that he has experienced "less participation and enthusiasm" at "public forums, public meetings[,] around candidates," and has noticed a decrease in voter turnout. (*Id.* at 17:10-18:5.)

191. Mr. Jondahl's, representative in Congressional District 8, is less responsive due to the 2011 redistricting. Mr. Jondahl testified that he has noticed "a lack of visibility of the incumbent." (*Id.* at 18:6-19:2.) Mr. Jondahl believes that Congressman Bishop is less responsive because "the assurance of [Congressional District 8] being a safe district . . . puts lesser demand on him to be present and show up[.]" (*Id.* at 19:4-14.)

192. Voter Andrea Yokich lives at 3843 Windy Heights Dr., Okemos, Michigan, 48864. (Yokich, Tr. at PageID #9139:23-9140:1) Ms. Yokich has lived at her current address for two years and in Ingham County for over 37 years. (*Id.* at PageID #9140:7-13.) She is a Democrat. (*Id.* at PageID #9142:4-5.) She has been a League member since the 1980s. (*Id.* at PageID #9150:6-8.)

193. Ms. Yokich testified that she lives in Congressional District 8, where Republican Mike Bishop won the general elections in 2012, 2014, and 2016. (*Id.* at PageID #9145:6-15.) According to Ms. Yokich, Mr. Bishop did not have an office in

Ingham County and was not responsive to Ingham County constituents. (*Id.* at PageID #9145:16-9146:20.)

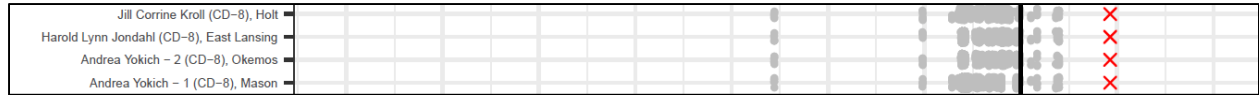
194. Voter Jill Corrine Kroll has lived at 1949 Dean Avenue, Holt, Michigan, 48842, since 1994. (Kroll, Dep. at 5:1-12.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 9:5-14.) She has been a League member since 2016 and supports its mission. (*Id.* at 6:24-7-19.)

195. Ms. Kroll lives in Congressional District 8. (*Id.* at 8:15-16.) She testified that Congressional District 8 was a safe Republican district, and that her representative was not responsive to a “big chunk of his constituents because he was going to win either way.” (*Id.* at 9:15-10:7; *see id.* at 15:1-9.)

196. Ms. Kroll testified that it required “superhuman” political activity in 2018 to get a candidate she supported, Elissa Slotkin, elected in Congressional District 8. (*Id.* at 12:1-8.) (*Id.* at 14:14-22; *see id.* at 20:11-14.) By contrast, in prior elections, Republican incumbent Bishop did not “put any effort at all in honestly. There wasn’t a lot of campaigning, there wasn’t much of anything.” (*Id.* at 17:9-18.)

197. Ms. Kroll also believes that gerrymandering in Congressional District 8 and across Michigan contributes to polarization, allowing her congressional representative to “hold much more extreme views than his district reflected because it was a safe district. And he also then played to the base that allowed him to continue to be reelected, and did not have to listen to the other half of the district.” (*Id.* at 29:13-30:3.)

198. Dr. Warshaw’s chart places Ms. Kroll’s, Mr. Jondahl’s, and Ms. Yokich’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Kroll, Mr. Jondahl, and Ms. Yokich reside in a cracked district that is more Republican than all of Dr. Chen’s simulation districts.⁷ Congressional District 8 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

199. Vatter testified that before 2001, Congressional District 8 was competitive. (Vatter, Tr. at PageID #9010:18-21.) In 2001, District 8 was redistricted to add the Republican part of Oakland County; that was not changed in the 2011 redistricting. The district remains more Republican than it had been before 2001. (*Id.* at PageID #9010:22-9011:8; *see also* Trial Exs. P-406; P-421 (Timmer noting that a proposed map including District 8 “definitely seems contrived enough and oddly shaped enough to make the redistricting hall of shame”); P-422.)

200. The year 2018 was a very strong year for Michigan Democrats; a Democrat won in District 8 in 2018 for the first time in more than 15 years. (Vatter, Tr. at PageID #9011:9-23.)

⁷ Ms. Yokich’s current address, at 3843 Windy Heights, Okemos, Michigan 48864, is represented by the “Andrea Yokich – 2” line on Dr. Warshaw’s chart.

Congressional District 9

201. Voter Maria Woloson lives at 572 Tally Ho Court, Bloomfield, Michigan, 48305. (Woloson, Dep. at 8:20-23.) Ms. Woloson is a League member and supports the League's mission with respect to providing information to voters. (*Id.* at 6:16-7:5.) Ms. Woloson tends to vote for Democrats. (*Id.* at 10:15-11:4.)

202. The 2011 redistricting has decreased the likelihood that Ms. Woloson will "vote[,] because the district is just so heavily packed with Democrats that it's a done deal[,] It's going to be a foregone conclusion." (*Id.* at 12:23-24:1.) Ms. Woloson does not volunteer for campaigns because of the "pre-determined outcome" in gerrymandered districts. (*Id.* at 24:18.)

203. Ms. Woloson, who is involved with the League's candidate forums, has noticed that Republican candidates have refused to participate in those forums. (*Id.* at 26:21-22.)

204. Voter Nanette Noorbakhsh lives at 30600 Greater Mack Avenue, St. Clair Shores, Michigan, 48082. (Noorbakhsh, Dep. at 8:10-11.) Ms. Noorbakhsh intends to vote in 2020 and has consistently voted for Democratic candidates. (*Id.* at 8:17-20, 9:21-22.) Ms. Noorbakhsh is a League member and supports its mission to engage and "educate voters." (*Id.* at 6:16-20.)

205. Voter Nancy Duemling lives at 20776 Moxon Drive, Clinton Township, Michigan, 48036. (Duemling, Dep. at 7:21-24.) Ms. Duemling is a League member.

(*Id.* at 6:3-12.) She is a Democrat, votes for Democratic candidates, and intends to vote in 2020. (*Id.* at 9:1-12.)

206. Ms. Duemling believes that her vote is diluted because her district is drawn such that there is a “lack of competition” that “doesn’t really allow [her] to really have more of a choice.” (*Id.* at 24:7-22.)

207. Ms. Duemling cannot recall seeing Republican candidates in 2014, 2016, or 2018 engaging and campaigning with the community. (*Id.* at 51:24-52:24.)

208. Voter Gerald Demaire has lived at 12429 Lyford Drive, Sterling Heights, Michigan, 48312 for nine years. (Demaire, Dep. at 8:7-10.) Mr. DeMaire is a League member. (*Id.* at 6:23-7:2.) Mr. DeMaire votes most often for Democratic candidates. (*Id.* at 10:8-15.)

209. Mr. Demaire has declined to donate to candidates in his district because of how the district is drawn. (*Id.* at 24:12-14.)

210. Voter Jack Ellis has lived at 21700 Statler Street, St. Clair Shores, Michigan, 48081, for nine years. (Ellis, Dep. at 8:21-9:2.) Mr. Ellis is a Democrat, votes for Democrats, and plans to support Democrats in 2020. (*Id.* at 10:9-11:17.)

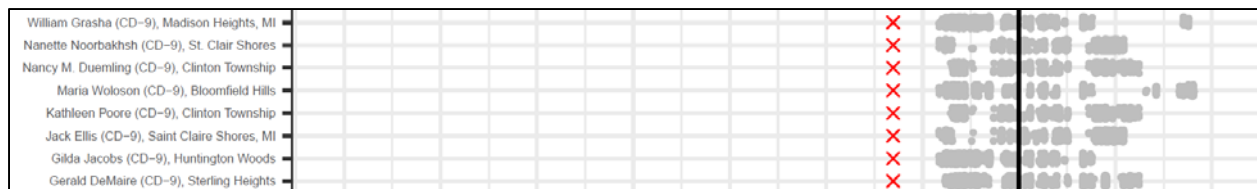
211. Mr. Ellis’s political activity has been reduced, as he only minimally donates in his congressional district. (*Id.* at 28:16-29:24.) Mr. Ellis testified that he would be far likelier to become involved in his Congressional district if it was competitive. (*Id.* at 33:25-34:7.) Mr. Ellis feels that his vote does not have “much influence” because the district is drawn so heavily Democratic. (*Id.* at 37:20-23.)

212. Voter Kathleen Poore has lived at 43596 Hillsboro Drive, Clinton Township, Michigan, 48038, since before January 1, 2011. (Poore, Dep. at 11:1-13.) Ms. Poore has been a League member since 2015, and founded a non-partisan Macomb County group to help combat gerrymandering. (*Id.* 9:3-25.) Her political views align with Democrats, and she will support candidates in 2020 who espouse those views. (14:12-15:17.)

213. Voter William Grasha lives at 28167 Palmer Boulevard, Madison Heights, Michigan, 48071, and has lived at that address for 31 years. (Grasha, Tr. at PageID #9195:17-22.) Mr. Grasha votes regularly and plans to support Democrats in 2020. (*Id.* at PageID #9196:15-20, 10:4-9.)

214. Mr. Grasha testified that his vote is “diluted” and “of less worth in Congressional District 9 because of the 2011 redistricting.” (*Id.* at PageID #9202:15-24m 9203:5-9.)

215. Dr. Warshaw's chart places Ms. Woloson's, Ms. Noorbakhsh's, Ms. Duemling's, Mr. Demaire's, Mr. Ellis's, Ms. Poore's, and Mr. Grasha's addresses against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Woloson, Ms. Noorbakhsh, Ms. Duemling, Ms. Poore, and Messrs. Demaire, Ellis, and Grasha

reside in a packed district that is more Democratic than all of Dr. Chen's simulation districts. Congressional District 9 is a partisan outlier according to Professor Chen's District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

216. Vatter testified that Congressional District 9 was formed from the southern parts of Macomb and Oakland Counties, packing the district with Democrats and making it, in Vatter's words, a super-Democratic district. (Vatter, Tr. at PageID #9011:24-9012:10.) That, in turn, makes the surrounding districts more Republican. (*Id.* at PageID #9012:11-13.)

217. In drawing the district, map drawers broke the border between Macomb and Oakland Counties and added in other municipalities and part of Clawson. The district goes up to Bloomfield Township and wraps around Bloomfield Hills. (*Id.* at PageID #9013:11-9014:13.) The partisan impact from including Bloomfield Township and Southfield Township but excluding Bloomfield Hills and Birmingham is that the last two are more Republican than the surrounding areas. Those two municipalities were moved into the 11th District and out of the 9th, contributing to the District 9 being particularly packed with Democrats. (*Id.* at PageID #9014:14-20.) Clinton Township, Mount Clemens, Fraser, Sterling Heights, and Warren are all in the super-Democratic District 9. (*Id.* at PageID #9015:20-9016:1.)

218. This is also the district that, as a result of the 2011 redistricting, paired incumbent Congressmen Democrat Peters and Levin. (*Id.* at PageID #9014:21-25; LaBrant, Dep. at 221:20-222:5.)

Congressional District 10

219. Plaintiff Roger Brdak has lived at 48824 Jamaica St., Chesterfield, Michigan, 48047, since 1976. (Brdak, Dep. at 10:5-13.) Mr. Brdak is a veteran, having served in Vietnam in the United States Army. (*Id.* at 6:4-22.) He is a registered Democrat and intends to vote for Democratic candidates in 2020. (*Id.* at 11:15-17, 12:1-6, 15:5-16:9.)

220. Voter Lisa Morse has lived at 3535 Armour Street in Port Huron, Michigan, 48060, since 2004. (Morse, Dep. at 9:7-12.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 9:16-10:6.) She is a League member and supports its mission. (*Id.* at 8:16–9:6.)

221. Ms. Morse testified that Congressional District 10, where she lives, is “stacked against Democratic candidates” and feels that her vote does not count. (*Id.* at 12:3-24.) She does not believe a Democratic candidate has a chance of winning. (*Id.* at 12:16-17.)

222. Ms. Morse has reduced her First Amendment political contributions in Congressional District 10 because of the 2011 redistricting. She donates less money to the candidates she supports, including Congressional District 10, because those candidates will not win. (*Id.* at 13:4-11.) Ms. Morse feels that donating money after the

packed into the 9th District as Timmer moved the more Republican areas into Congresswoman Miller's 10th District. Roe also wrote Timmer on June 2, 2011, asking Timmer to include an area in Congresswoman Miller's district with "[s]ome good companies ... we would like to grab[.]" (Trial Ex. P-419.)

225. According to Dillon, in 2016, Democrats "had a very difficult time finding a candidate" to run in Congressional District 10. (Dillon, Tr. at PageID #9102:9-10.) Eventually, "a candidate stepped forward who historically had some strong ties with some of the donors in the district, particularly in organized labor." (*Id.* at PageID #9102:10-12.) Those donors, however, "had no interest" in supporting that candidate, Frank Accavitti, "because they felt the district was not winnable." (*Id.* at Page ID #9102:12-15.) Dillon's testimony about Congressional District 10 was "[b]ased on conversations that [he] had with people in [that] district[,] and donors that had been reached out to to gauge their interest in providing resources for [that] campaign[.]" (*Id.* at PageID #9135:12-15.)

226. Vatter testified that Congressional Districts 9 and 10 are very intertwined. By packing Democrats into the 9th District, the 10th was made much more Republican. The areas of Macomb in District 10 are generally north of the 9th. (Vatter, Tr. at PageID #9015:15-19.) Shelby Township, Macomb Township, and Chesterfield Township, all in the 10th, are very Republican. (*Id.* at PageID #9015:20-24; Trial Ex. D-3.) As a result, the 10th District is very Republican, and no Democrat has represented the 10th since 2011. (Vatter, Tr. at PageID #9016:2-8.)

Congressional District 11

227. Voter Paula Bowman lives at 9000 North Lilley, Plymouth Michigan, 48170. (Bowman, Dep. at 8:7-8.) Ms. Bowman is a Democrat who intends to vote for Democratic candidates in 2020. (*Id.* at 9:11-22.) Ms. Bowman has been a League member for 25 years. (*Id.* at 6:10-12.)

228. Ms. Bowman testified that she “felt [her] vote had no impact on District 11 because ... Democratic voters were in such a minority that there was no way [they] would ever be able to elect [.]” (*Id.* at 33:7-12.)

229. Ms. Bowman finds that the district lines harm the League’s ability to carry out its mission. For example, Republican candidate Lena Epstein failed to respond to repeated requests to attend a League forum for Republican primary candidates. (*Id.* at 21:17-22:6.) In other races as well, “the League often ha[s] had trouble with Republican candidates coming.” (*Id.* at 22:18-19, 23:15-16.)

230. Voter Janice Watkins lived at 6625 Waterford Hill Terrace, Clarkston, Michigan 48346 until December 2015. (Watkins, Dep. at 9:14-10:9.) She voted in general elections and primaries at this address. (*Id.* at 10:4-7.) Ms. Watkins now lives at 5412 West Alyssa Court, White Lake 48383. (*Id.* 10:11-12.) Ms. Watkins is a Democrat and will likely vote for Democrats in 2020. (*Id.* 12:2-23.)

231. Ms. Watkins feels that her vote “doesn’t count” and believes that others feel that way as well. (*Id.* at 27:1-4.)

232. Ms. Watkins testified that Republicans in her district are not engaged; for example, Republican candidates fail to attend a candidate forum. (*Id.* at 13:22-25.) The League also had to cancel candidate forums because all of the Republican candidates turned them down. (*Id.* at 15:22-25.) Ms. Watkins also attempted to attend a forum hosted by Congressman Trott and was turned away, (*Id.* at 27:5-28:7, 28:8-14.)

233. Voter Josephine Feijoo lives at 5241 North Milford Road, Highland, Michigan, 48356. (Feijoo, Dep. at 8:1-3.) She votes primarily for Democratic candidates. (*Id.* at 9:3-11.) Ms. Feijoo has been a League member for two or three years because she wants to promote the right to vote and working to combat laws that “seemed to [her] to be prohibiting voting.” (*Id.* at 6:7-15.)

234. Ms. Feijoo feels that her vote carries less weight in her congressional district. (*Id.* at 25:15-16.)

235. Voter Angela Ryan has lived at 15512 Liverpool Street, Livonia, Michigan, 48154, for 19 years. (Ryan, Dep. at 12:1-5.) She is a Democrat and likely will vote for Democrats in 2020. (*Id.* at 12:9-13:3.) Ms. Ryan has donated to the national League of Women Voters since 1981 and has been actively involved in the League since 2004. (*Id.* 9:7-12, 8:10-18.) She has been the president of her local League chapter since July 2012. (*Id.* at 10:11-13.)

236. Ms. Ryan lives in Congressional District 11. (Ryan Dep. 13:4-6.) She testified that the 2011 redistricting “dilute[d] the significance of [her] vote.” (*Id.* at 14:6-21.)

237. At League events, Ms. Ryan has observed a diminution in potential voters’ political interest. (*Id.* at 16:22-17:12.) Her League chapter attends a school festival twice a year in Livonia, and “ha[s] found, in more recent years, more students saying they don’t want to register to vote, they don’t plan to ever vote.” (*Id.*)

238. Ms. Ryan testified “[t]here were very few, even – I’m not sure if there were any [candidate events] to attend, with at least [Congressman David Trott].” (*Id.* at 16:8-17.)

239. Congressional District 11 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

240. Incumbent Congressman Thaddeus McCotter expressed strong views about the configuration to Timmer and others. He demanded that the Rochester Hills area of Oakland County be split so that the 11th Congressional District would include Troy, Michigan. (Timmer, Dep. at 102:1 – 104:1.) While the bulk of the county was leaning Democrat, the Rochester Hills area was leaning Republican, according to Timmer. (*Id.* at 104:2-24.) To accommodate the Congressman, Timmer added the approximately 6,000 adults in the identified portion of Rochester Hills to District 11. (*Id.* at 105:1 – 106:11.) On May 11, 2011, Timmer proposed a map that redrew the

Congressional District 11 such that the “McCotter seat now wraps around Pontiac and picks up Bloomfield, Birmingham and Southfield Twp[.]. *[I]t’s hard to envision a Dem winning this seat even in a year like 2008.*” (Email, Trial Ex. P-221 at 1, ¶ 6) (emphasis supplied.) On June 7, 2011, Timmer boasted that his modifications to Congressman McCotter’s district “gains a full percent on McCain08 and 0.8% on Bush04” election results. (Email, Trial Ex. P-360.)

241. Unique circumstances led to there being two elections to fill the seat for Congressional District 11 in 2012. Republican Congressman Thaddeus McCotter, resigned in July 2012 after having failed to qualify for the primary ballot.” *See, e.g.,* Aaron Blake, *Thaddeus McCotter unexpectedly resigns from the House*, WASHINGTON POST, July 6, 2012, https://www.washingtonpost.com/blogs/the-fix/post/thaddeus-mccotter-unexpectedly-resigns-from-congress/2012/07/06/gJQAfxqWSW_blog.html?utm_term=.72621357c03c). The result was a natural experiment to test the effects of the 2011 redistricting. One election was to fill the balance of Representative McCotter’s term under the maps as they existed after the 2001 redistricting. (Dillon, Tr. at PageID #9103:21-22.) “[T]he other election occurred under the map that [was drawn] as part of the 2011 redistricting.” (*Id.* at Page ID #9103:22-23.) In other words, “there were simultaneous elections for the same seat with different boundaries.” (*Id.* at Page ID #9103:24-25.) In “the election for the seat under the old boundaries for the balance” of Representative McCotter’s term, the “Democratic candidate won.” (*Id.* Page ID

#9104:1-3.) But in the election for the district as redrawn in 2011, “[t]he Republican candidate won.” (*Id.* Page ID #9104:4-7.; *see also* Vatter, Tr. ECF No. 249 at PageID #9019:3-14.)

242. Vatter testified that Congressional District 11 is in Oakland County. It goes down into Livonia, Plymouth, Northville, Northville Township, and Canton on the west, wraps north around Pontiac, and comes back down south on the east side of the district and picks up Troy. (Vatter, Tr. at PageID #9017:3-22.)

243. The district was trending Democratic because of Oakland County. (*Id.* at PageID #9018:11-12.) The 2011 “wrap around” made the district more Republican, allowing incumbent McCotter to withstand a Democratic challenge. (*Id.* at PageID #9018:10-15.) Indeed, on May 17, 2011, Timmer wrote LaBrant and others about a new draft map, explaining that “[a]ll GOP seats improve except CD02 and CD03 (both still the most GOP though). [Congressman Thaddeus] McCotter’s district [Congressional District 11] cannot get better unless we put Ottawa County in it,” and demonstrated his point by including a chart showing political data for the proposed districts. (Trial Ex. P-412; *see also* Trial Exs. P-407; P-409 (LaBrant explaining to Timmer that a “10-4 [Republican-Democrat] map drawn by “Dale at the RNC,” and one that served “the obvious objective – putting dems in a dem district and reps in a gop district” would not work because “we needed for legal and PR purposes a good looking map that did not look like an obvious gerrymander”); P-432; Hune, Dep. at 116:22-118:8.)

Congressional District 12

244. Voter Susan K. Smith has lived at 5629 Morgan Road, Ypsilanti Township, Michigan, 48197, since 2007. (Smith, Tr., PageID #8751:19-752:3.)

245. Ms. Smith is affiliated with the Democratic party. (*Id.* at PageID #8752:22-25.) She is registered to vote and she plans to vote for Democratic candidates in the 2020 election. (*Id.* at PageID #8754:9-14.)

246. She has voted for Democrats consistently over the years. When she was working for Central Michigan University, she ran twice for the state House as a Democrat. (*Id.* at PageID #8753:1-9.)

247. Ms. Smith ran for school board in the 1980s in Mount Pleasant and served two terms and was president for five years. (*Id.* at PageID #8760:10-16.)

248. As part of that campaign, she knocked on approximately 10,000 doors. (*Id.* at PageID #8753:10-11.)

249. Ms. Smith has made political contributions to Democratic candidates. (*Id.* at PageID #8753:16-18.)

250. Ms. Smith lives in Senate District 18 and Congressional District 12. (*Id.* at PageID #8755:23 – 8756:2.) Ms. Smith understands, based on her own knowledge, that Senate 18 and Congressional 12 are both packed districts. (*Id.* at PageID #8757:19-25.) This affects Ms. Smith as a voter in several ways. Because a Democrat is going to win no matter what, she might be able to impact or have more influence in another district as to the outcome of a particular election. (*Id.* at PageID #8758:8-14.)

It further affects her in that “it really doesn’t matter how I vote if there’s a candidate running that I’m not interested in supporting, it doesn’t make any difference whether I vote for that person or not, that person is guaranteed that they’re going to win.” (*Id.* at PageID #8758:8-17.)

251. Voter Julia Caroff has lived at 345 Orchard Hills Drive, Ann Arbor, Michigan, 48104, since August 2013. (Caroff, Dep. at 7:19-21.) Ms. Caroff is a former Assistant United States Attorney. (*Id.* at 4:23-5:1.) She is a registered Democrat and intends to vote for Democratic candidates in 2020. (*Id.* at 11:15-17; 14:8; 15:5-16:9; 70:5-23.) She is a member of the League and has worked to advance the League’s “overall goal [to] support an active and engaged citizenry in the [d]emocratic process” by, among other activities, giving voter-education presentations about the 2018 “Voters Not Politicians” anti-gerrymandering ballot initiative. (*Id.* at 29:24-30:19.)

252. Ms. Caroff was personally harmed by the gerrymandering of the 12th Congressional District, even though she voted for Rep. Dingell, who won election. (*Id.* at 13:18-14:23.) For example, because of the gerrymandered nature of Congressional District 12, Ms. Caroff has reduced her political activity in that district. Specifically, she testified that she “would never give any money to Debbie Dingell because you don’t need to. [Rep. Dingell is] going to win. And [she is] already well-funded because of that. The funding matters only in the [p]rimary.” (*Id.* at 29:8-14.)

253. Voter Heidi Kromrei has lived at 3025 Van Alstyne Street, in Wyandotte, Michigan, 48192, for over 14 years. (Kromrei, Dep. at 11:11-16.) She is a League member and supports its mission. (*Id.* at 8:24-10:1.)

254. Ms. Kromrei testified that she is less inclined to vote because the candidate in Congressional District 12 is “already predetermined because of the district being predominantly Democrat[.]” (*Id.* at 13:22-14:4.) She believes “the way the districts are organized now is not an equitable and fair process, and because of that, [she] think[s] that it furthers, sort of, the feelings of apathy that [she] and others possess relative to a lack of faith in the fairness of the political process.” (*Id.* at 13:4-18.) Ms. Kromrei testified “the knowledge that districts can be shifted at political whims creates a sense of helplessness to me around the power of my vote.” (*Id.* at 20:4-7.)

255. Ms. Kromrei has also reduced her political activity in Congressional District 12 because of the 2011 redistricting. She donates less money to the candidates she supports because she knows those candidates will win. (*Id.* at 14:15-15:2; *see also id.* at 17:11-18:2.) In the case of Congressional District 12, the 2011 redistricting has completely stopped her from donating money to her representative, Democrat Debbie Dingell, because she knows Dingell will win and that money will not have an impact in her district. (*Id.* at 14:15-15:2; *see also id.* at 30:9-17.)

256. Voter Harvey Somers has lived at 2129 Autumn Hill Drive, Ann Arbor, Michigan, 48103, since fall 2009. (Somers, Dep. at 12:25-13:4.) He is a Democrat. (*Id.*

at 13:24-14:3.) Mr. Somers plans to support Democrats in 2020. (*Id.* at 14:6-8.) He is a long-time League member and supports its mission. (*Id.* at 11:19–12:9.)

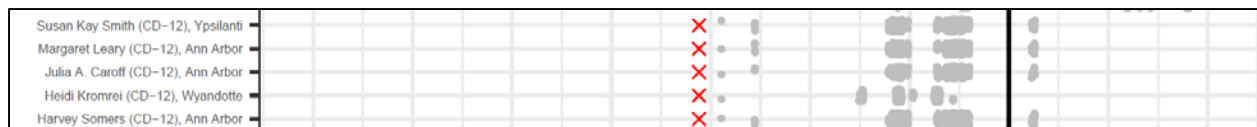
257. Mr. Somers testified that Congressional District 12, where he lives, is preordained to go to a Democratic candidate and states Democrat Debbie Dingell wins reelection with “no trouble.” (*Id.* at 22:7-10; *see also id.* at 49:10-14.) Mr. Somers has also reduced his political activity because of the 2011 redistricting. He describes how he was previously “heavily engaged” politically, attending “many events” and donating “a fair amount of money,” but how his enthusiasm and involvement was “much reduced” because of the 2011 redistricting. (*Id.* at 17:5-18:22.) Mr. Somers states he was initially “enthusiastic about the campaigns” in his districts, but that by the end of the 2014 election cycle, he “saw that the impact of [his] activity was much less than [he] hoped for, less than [he] had expected, and, therefore, [he] became less willing to spend the time to make the donations compared to earlier years.” (*Id.* 19:14–20:8.) He states he “fought very hard to get people involved” in campaigns in Congressional District 12, but that it was difficult to encourage other voters to get involved, which made him “sad” and “discourag[ed].” (*Id.* at 20:24-21:1.) Mr. Somers believes “competitive districts are critically important for our country” and that if districts have “real competition,” then the campaigns will “attract the interest of voters,” but if districts are “preordained,” it “undermine[s] the whole sense of enthusiasm amongst voters.” (*Id.* at 21:6-22.)

258. Mr. Somers has reduced his First Amendment political contributions because of the 2011 redistricting. He donates less money to the candidates he supports, including Congressional District 12, because he knows those candidates will win. (Somers Dep. 22:25-23:3.) Mr. Somers states he reduced his financial support for his representative, Democrat Debbie Dingell, because she had “no problems being reelected.” (*Id.* at 18:6-22; *see id.* at 22:7-10.)

259. Voter Margaret Leary lives at 1056 Newport Road, Ann Arbor, Michigan, 48103. (Leary, Dep. at 9:4:12.) She is a Democrat who votes for and supports Democratic candidates. (*Id.* at 9:16-25.) She plans to vote in 2020. (*Id.* at 10:1-2.) She has been a League member since 2015. (*Id.* at 6:11.)

260. Ms. Leary has been discouraged from contributing to candidates in her “packed, gerrymandered” districts. (*Id.* at 55:1-6; *see id.* at 18:5-22.)

261. Dr. Warshaw’s chart places Ms. Caroff’s, Ms. Kromrei’s, Mr. Somers’, Ms. Leary’s, and Ms. Smith’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3881.) This demonstrates that Ms. Caroff, Ms. Kromrei, Mr. Somers, Ms. Leary, and Ms. Smith reside in a packed district that is more Democratic than most of Dr. Chen’s simulation districts. Congressional District 12 is

a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D1 through D3, at 55-56, 73-75; Trial Exs. 36-38.)

262. Vatter testified that Congressional District 12 starts in Dearborn, in Wayne County, goes south through Democratic territory referred to as “downriver,” then turns west, taking in municipalities across the southern part of Wayne County, turns back north to Van Buren Township, and then comes west again into Washtenaw County and grabs the Democratic territories of Ann Arbor, Ypsilanti, Ypsilanti Township and Pittsfield Township. (Vatter, Tr. at PageID #9019:15 – 9020:1; Trial Ex. D-3.) Congressional District 12 is a “super-Democratic” district packed with Democrats. (*Id.* at PageID #9020:2-4.) As a result, the nearby 7th and 11th Districts became more Republican. (*Id.* at PageID #9020:5-17.)

Senate District 8

263. Plaintiff Roger Brdak, identified *supra* at ¶249 (discussing Congressional District 10), also lives in Senate District 8, which he believes is a gerrymandered district. (Brdak, Dep. 18:17-23; 31:8-32:5.)

264. Mr. Brdak testified that he would not find it confusing to vote in a special Senate election. (Brdak, Dep. at 36:21-24.)

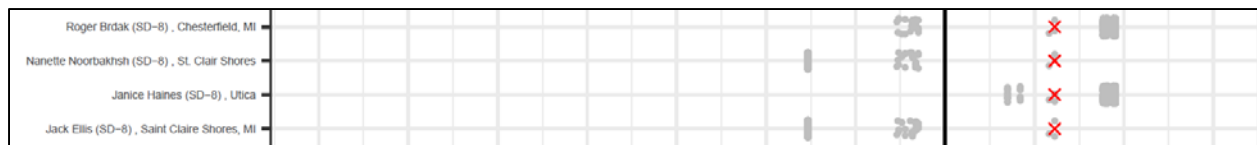
265. Voter Nanette Noorbakhsh, identified *supra* at ¶234 (discussing Congressional District 9), also lives in Senate District 8. (Noorbakhsh, Dep. at 8:10-11.)

266. Voter Jack Ellis, identified *supra* at ¶240 (discussing Congressional District 9), also lives in State Senate District 8. (Ellis, Dep. at 9:19-25.)

267. Mr. Ellis’s political activity is harmed in his state senate district. He gave, at most, a “token contribution” in 2014 to his state senate candidate because “there was [were] incredibly small odds that the Democrat could win the race.” (*Id.* at 29:20-30:11.) Mr. Ellis would be far more involved with his State Senate district if it were competitive. (*Id.* at 33:25-34:7.) Mr. Ellis believes his vote in his state senate district has “zero impact” because of the way the district is drawn to deliver large Republican margins. (*Id.* at 38:13-22.)

268. Mr. Ellis’s state senator, Jack Brandenburg, has not responded to emails from Mr. Ellis in the six years he was a state representative or the eight years he was his state senator. (Ellis Dep. at 35:13-20.) Senator Brandenburg also did not speak with Mr. Ellis and his wife when they went to the capitol to speak with him about the Michigan Tenure Act repeal. (*Id.* at 36:2-7.)

269. Dr. Warshaw’s chart places Mr. Brdak’s, Ms. Noorbakhsh’s, and Mr. Ellis’ addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Mr. Brdak, Ms. Noorbakhsh, and Mr. Ellis reside in a cracked district. Senate District 8 is a partisan

outlier according to Professor Chen's District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D4 through D6, at 54, 76-78; Trial Exs. 39-41.)

270. Dr. Warshaw's analysis is borne out by testimony of Senate map drawer Terry Marquardt, who testified that Senate District 8 was one of the places where map drawers could comply with the Apol criteria while making "choices" that favored Republicans. (Marquardt, Dep. at 72-76, 115-28.) Marquardt testified that other ways of drawing Senate Districts 8, 9, and 10 could exist and that there "may have been a way" of drawing these districts to avoid a municipal break. (*Id.*; *see also* Richardville, Dep. at 177:16-22, 180:7-17.)

271. Vatter testified that Senate Districts 8, 9, and 10 are in Macomb County. The 9th is packed with Democrats making the 10th and the 8th much more Republican. (Vatter, Tr. at PageID #9020:19-9021:23.)

272. Vatter testified that Senate District 9 breaks the Clinton Township line, which was not necessary. (*Id.* at PageID #9021:12-9022:4.)

Senate District 10

273. Voter Nancy Duemling, identified *supra* at ¶235 (discussing Congressional District 9), also lives in Senate District 10. (Duemling, Dep. at 8:17-22.)

274. Ms. Duemling believes her state senate district is "cracked." (*Id.* at 11:23-12:3.) Ms. Duemling bases this upon the fact that Clinton Township is divided among three senate districts and divides up three solidly Democratic areas. (*Id.* at 12:6-19.)

Ms. Duemling feels her vote in her state senate district "had less weight," because

even with a “strong candidate” it was an “uphill battle to even have a chance of unseating a Republican” in that district. (*Id.* at 26:6-14.) If the district weren’t gerrymandered, Ms. Duemling “would feel that [she] had more influence when – if there was an issue [she] cared about, and [she] called Lansing, ... perhaps the elected official would be more inclined to pay attention.” (*Id.* at 26:15-25.)

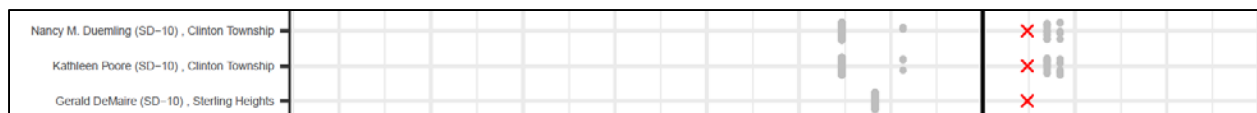
275. Voter Gerald DeMaire, identified *supra* at ¶238 (discussing Congressional District 9), also lives in Senate District 10. (DeMaire, Dep. at 9:17-20.)

276. Mr. Demaire has declined to donate to candidates in his district because of how it is drawn, saying “it’s like he’s got the primary, he’s going to win, so why bother?” (*Id.* at 24:12-14.)

277. Mr. DeMaire’s state senator is less responsive to local issues because of how the maps are drawn. (*Id.* at 31:2-25.)

278. Voter Kathleen Poore, identified *supra* at ¶242 (discussing Congressional District 9), also resides in State Senate District 10. (Poore, Dep. 12:17-20). Ms. Poore believes that any gerrymandering in her state senate district is “cheating.” (*Id.* at 26:18-21.)

279. Dr. Warshaw’s chart places Ms. Duemling’s, Mr. DeMaire’s, and Ms. Poore’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Ms. Duemling, Mr. DeMaire, and Ms. Poore reside in a cracked district that is more Republican than most of Dr. Chen's simulation districts.

280. See *supra* at ¶¶253-256 (Warshaw, Marquardt, and Vatter testimony regarding Senate Districts 8-10.)

Senate District 11

281. Voter William Grasha, identified *supra* at ¶243 (discussing Congressional District 9), also lives in Senate District 11. (Grasha, Dep. at 13:6-10.) He testified that his vote in Senate District 11 is “extremely diluted.” (*Id.* at 15:15-24, 16:10-12.) In Mr. Grasha’s view, his vote would be less diluted if fewer Democratic voters had been added into the district. (*Id.* at 18:4-10.)

282. Mr. Grasha testified that before the 2011 redistricting, he engaged in political activity by knocking on doors and participating in canvassing. (*Id.* at 17:2-4.) However, after the 2011 redistricting, Mr. Grasha limited his political activity to making contributions and sending occasional communications. (*Id.* at 17:5-9.)

283. Moreover, even though his is represented by Democrats, the legislative districts in Michigan, as drawn, have diluted his political power because his elected representatives “will never” be in the majority party. (*Id.* at 20:5-12.)

284. Dr. Warshaw's chart places Mr. Grasha's addresses against Dr. Chen's neutrally drawn simulated districts as follows:

William Grasha (SD-11), Madison Heights, MI

(Trial Ex. P-278 at PageID #3883.) This demonstrates that Mr. Grasha resides in a packed district that is more Democratic than most of Dr. Chen’s simulation districts.

285. Dr. Warshaw’s analysis is borne out by testimony of Senate map drawer Marquardt, who testified that Senate District 11 was drawn as part of a group of Senate Districts in Oakland County where map drawers had “choices” about where to draw lines while complying with the Apol criteria. Marquardt testified that partisan choices were made to favor Republicans in drawing this group of senate districts. (Marquardt, Dep. at 72-76, 128-45, 152, 202-05.)

286. Vatter testified in Senate Districts 11, 12 and 13, the 11th is the southern part of Oakland County and packs Democrats. (Vatter, Tr. at PageID #9022:15-23.) Vatter calls it a “super-Democratic” district. This makes Districts 12 and 13 more Republican; they have been Republican since 2011. (*Id.* at PageID #9023:1-18.)

287. In 2018, Democrats were elected in Senate Districts 12 and 13 for the first time in 20 years. (*Id.* at PageID #9023:21-25.)

Senate District 12

288. Voter Maria Woloson, identified *supra* at ¶231 (discussing Congressional District 9), also lives in Senate District 12. (Woloson, Dep. at 10:1-2.)

289. Ms. Woloson is “frustrated” by the results in her district because “what’s the point [in voting] if the verdict is going to be the same?” (Woloson, Dep. at 23:13-15.) Ms. Woloson has declined to volunteer with campaigns because of the “pre-determined outcome” in gerrymandered districts. (*Id.* at 24:18.)

290. Ms. Woloson has been involved with candidate forums run by the League in which Republican candidates have refused to participate. (*Id.* at 26:21-22.)

291. Dr. Warshaw's chart places Ms. Woloson's address against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Ms. Woloson resides in a cracked district—*i.e.*, a district that is more Republican than most of Dr. Chen's simulation districts.

292. Dr. Warshaw's analysis is borne out by testimony of Senate map drawer Marquardt, who testified that Senate District 12 was drawn as part of a group of Senate Districts in Oakland County where map drawers had "choices" about where to draw lines while complying with the Apol criteria. Marquardt testified that partisan choices were made to favor Republicans in drawing of this group of senate districts. (Marquardt Dep. 72-76, 128-45, 152, 202-05.)

293. *See supra* at ¶¶ 269-273, 291-92 (Warshaw, Marquardt, and Vatter testimony regarding Senate Districts 11-13.)

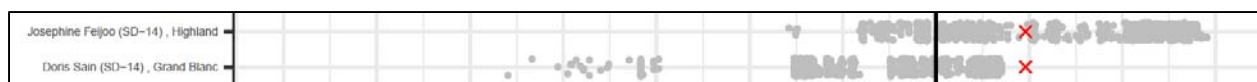
Senate District 14

294. Voter Josephine Feijoo, identified *supra* at ¶203 (discussing Congressional District 11), also lives in Senate District 14. (Feijoo, Dep. at 8:6.) Ms. Feijoo feels that her "vote doesn't have the same weight that it would have if it was not gerrymandered." (*Id.* at 25:23-24.)

295. Voter Doris Sain, identified *supra* at ¶195 (discussing Congressional District 5), also lives in Senate District 14. She testified that her vote in Senate District 14 does not “carry much weight” and that she doesn’t have a “significant voice.” (Sain, Dep. at 16:16–17:3.)

296. Ms. Sain has reduced her political activity in Senate District 14 because of the 2011 redistricting. For example, she donates less money to the candidates she supports, including in Senate District 14, because she knows those candidates “couldn’t win” and “don’t have a ghost of a chance.” (*Id.* at 19:17–20:2; *see also id.* at 33:2–25.) In some cases, the 2011 redistricting has stopped her from donating money to a candidate at all. (*Id.* at 42:23–43:8.) Ms. Sain feels that the 2011 redistricting left her with “no voice” and “no influence.” (*Id.* at 20:25–21:4.) Other voters in Senate District 14 have expressed to Ms. Sain they are “less interest[ed] in voting” and “not interested” in political activity because they “know what the outcome will be.” (*Id.* at 22:8–19; *see also id.* at 17:4–20.) Ms. Sain testified that because of the 2011 redistricting, the local League chapter has “discontinued forums because people are not attending forums.” (*Id.* at 22:24–23:3.)

297. Dr. Warshaw’s chart places Ms. Feijoo’s and Ms. Sain’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Ms. Feijoo and Ms. Sain reside in a cracked district that is more Republican than most (and in Ms. Sain's case, than *all*) of Dr. Chen's simulation districts.

298. Dr. Warshaw's analysis is borne out by Senate map drawer Marquardt, who testified that Senate Districts 14, 27, and 32 were drawn as a group that stretched from Northwest Oakland County through Genesee and Saginaw Counties. Marquardt acknowledged that there were multiple possible configurations of these three senate districts and that Republicans benefitted from how these districts were drawn.

(Marquardt, Dep. at 51-52, 65-69, 142, 185-88, 206-07.) Vatter testified that Senate Districts 14, 27, and 32 are in Genesee, Saginaw, and Oakland Counties. (Vatter, Tr. at PageID #9026:16-20.) Senate 27 is, in Vatter's terms, a "packed super-Democratic," district. (*Id.* at PageID #9027:6-8.) It includes Flint and the other Democratic parts of Genesee County. (*Id.* at PageID #9027:6-8.) Oakland County is broken, giving Republican territory to the 14th District. (*Id.* at PageID #9027:5-13; Trial Ex. D-1.) The 32nd District is competitive and the 14th is Republican. (*Id.* at PageID #9027:14-18.) Marquardt and Timmer discussed finding the "magic combo" to split the Genesee, Oakland, and Saginaw districts in such a way that "Mike Green [who represented Senate District 31] would benefit most." (Email, Tr. Ex. P-358.)

Senate District 18

299. Voter Margaret Leary, identified *supra* at ¶289 (discussing Congressional District 12), also lives in Senate District 18. Ms. Leary believes that her state senate

district is “packed.” (Leary, Dep. at 13:3-4.) Ms. Leary believes that her “vote had less weight [in her Senate District] because there was such a super majority of Democrats packed into the district.” (*Id.* at 26:2-4.) Ms. Leary is not comforted by the fact that she has Democratic representatives, because gerrymandering still “weakens the vote of many people, and situations that weaken the vote of individuals compared to other individuals [are], in [her] opinion, anti-democratic.” (*Id.* at 54:6-9.) Further, Ms. Leary is discouraged from contributing to candidates in her “packed, gerrymandered” districts.” (*Id.* At 55:1-6.)

300. Voter Julia Caroff, identified *supra* at ¶281 (discussing Congressional District 12), also lives in Senate District 18, which she believes is a gerrymandered district. (Caroff, Dep. at 17:21-18:12, 21:20-22:18.)

301. Notwithstanding the fact that she voted for the candidate in Senate District 18 who ultimately won election, Ms. Caroff testified that she is harmed by the gerrymandering of Senate District 18 (*Id.* at 23:23-26:13, 62:19-21.)

302. Ms. Caroff has reduced her political activity because of the packed nature of Senate District 18. For example, while she donated to an unsuccessful candidate in the primary election, she “certainly didn’t give any money to Jeff Irwin,” the Democratic contender in 2018. (*Id.* at. 29:8-11.)

303. Voter Susan K. Smith, identified *supra* at ¶274, also resides in Senate District 18. She believes that District 18 is packed. (Smith, Tr. at PageID #8755:23-25; *see* ¶280 above.)

into [District] 22 as opposed to into [District 18] [was to make] District 18 more Democrat[-]leaning than Republican[-]leaning[.]” (*Id.* at 185:22-186:5; *see also* Vatter, Tr. at PageID #9024:4-6.)

Senate District 22

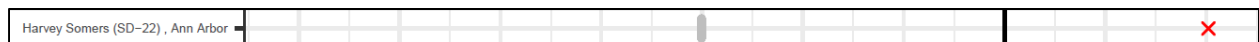
306. Voter Harvey Somers, identified *supra* at ¶286 (discussing Congressional District 5), also lives in Senate District 22 (Somers, Dep. at 14:11-14.) He testified that Senate District 22 is preordained to go to a Republican candidate; for example, Republican Lana Theis won her election with “no trouble.” (Somers Dep. 22:8–10; *see also id.* at 18:11–13.) Mr. Somers lost enthusiasm in the electoral process after the 2011 redistricting. (*Id.* at 44:11–16.)

307. Mr. Somers has reduced his political activity because of the 2011 redistricting. He previously was “heavily engaged” politically, attending “many events” and donating “a fair amount of money,” but his enthusiasm and involvement were “much reduced” because of the 2011 redistricting. (*Id.* at 17:5–18:22.) Mr. Somers was initially “enthusiastic about the campaigns” in his districts, but that by the end of the 2014 election cycle, he “saw that the impact of [his] activity was much less than [he] hoped for, less than [he] had expected, and, therefore, [he] became less willing to spend the time to make the donations compared to earlier years.” (*Id.* 19:14–20:8.) He testified that he “fought very hard to get people involved” in campaigns in Senate District 22, but that it was difficult to encourage other voters to get involved, which made him “sad” and “discourag[ed].” (*Id.* at 20:24–21:1.) Mr. Somers believes

“competitive districts are critically important for our country” and that if districts have “real competition,” then the campaigns will “attract the interest of voters,” but if districts are “preordained,” it “undermine[s] the whole sense of enthusiasm amongst voters.” (*Id.* at 21:6-22.)

308. Mr. Somers has reduced his First Amendment political contributions because of the 2011 redistricting. For example, he donates less money to the candidates he supports, including Senate District 22, because the outcome is preordained. (Somers Dep. 21:17-22.) Mr. Somers reduced his financial support for candidates he supports in Senate District 22 because Republicans have “no problems” being elected in it. (*Id.* at 18:11–22; *see id.* at 22:8-10.)

309. Dr. Warshaw’s chart places Mr. Somers’ address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Mr. Somers resides in a cracked district that is more Republican than all of Dr. Chen’s simulation districts. Senate District 22 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D4 through D6, at 54, 76-78; Trial Exs. 39-41.)

310. *See supra* at ¶¶334-35, 339 (Warshaw, Marquardt and Vatter testimony regarding Senate Districts 18 and 22.)

Senate District 27

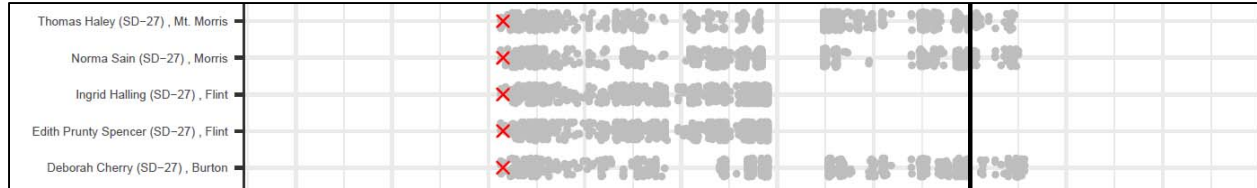
311. Voter Deborah Cherry, identified *supra* at ¶185 (discussing Congressional District 5), also lives in Senate District 27. (Cherry, Dep. at 10:17-19.) Ms. Cherry testified that her vote doesn't mean as much because I know they're going to win[.]” (*Id.* at 12:15-14:3, 15:1-5.) Ms. Cherry testified that the effect of living in a packed district is that “Republicans win the majority [statewide]” and thus that policies that she thinks are important “will not get addressed [at the state level]; or they will be addressed in a way that I don't agree with.” (*Id.* at 18:6-16; *see also id.* at 25:24-26:20.)

312. Ms. Cherry has also reduced her political activity in Senate District 27 because of the 2011 redistricting. (*Id.* at 15:24-16:5.) She donates less money to the candidates she supports in that district because she knows that her money is not necessary to elect the candidates she supports in Senate District 27 and her “dollar can mean more somewhere else.” (*Id.* at 15:10-16:9.) She has also spent less time on door knocking and other get-out-the-vote efforts in Senate District 27 because that district is not competitive. (*Id.* at 16:14-23, 20:10-12.) The packed nature of Senate District 27 has “limited [Ms. Cherry's] contact with [her representatives].” (*Id.* at 21:6-10.)

313. Voter Thomas Haley, identified *supra* at ¶ 198 (discussing Congressional District 5), also lives in Senate District 27. (Haley, Dep. at 9167:24-9168:3.) Mr. Haley also testified that Senate District 27, where he lives, is represented by Democrat Jim Ananich. (*Id.* at PageID #9176:19-25.) Mr. Haley's vote in Senate District 27 is

“wasted” because he “know[s] [Senator Ananich is] going to win.” (*Id.* at 9177:17-9178:2.)

314. Dr. Warshaw’s chart places Ms. Cherry’s and Mr. Haley’s addresses against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3883.) This demonstrates that Ms. Cherry and Mr. Haley reside in a packed district that is more Democratic than almost all of Dr. Chen’s simulation districts. Senate District 27 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D4 through D6, at 54, 76-78; Trial Exs. 39-41.)

315. Dr. Warshaw’s analysis is borne out by Senate map drawer Terry Marquardt, who testified that Senate District 27 was one of three districts drawn as a group, that stretched from Northwest Oakland County through Genesee and Saginaw Counties. Marquardt acknowledged that there were multiple possible configurations of these three senate districts and that Republicans benefitted from how these districts were drawn. (Marquardt Dep. 51-52, 65-69, 142, 185-88, 206-07.)

316. *See supra* at ¶¶ 327-28, 344-45 (Warshaw, Marquardt, and Vatter testimony regarding Senate Districts 14, 27, and 32.)

Senate District 32

317. Voter Paul Purcell, identified *supra* at ¶189 (discussing Congressional District 5), also lives in Senate District 32. (Purcell, Dep. at 11:10-15.) Mr. Purcell testified that he feels as though he will never have “the chance to elect someone who believes what I believe.” (*Id.* at 34:15-16.)

318. Mr. Purcell testified that he is discouraged from engaging in political activity by the way the districts are drawn and that if the district were drawn more competitively it would be easier to get candidates and people would be more willing to volunteer. (*Id.* at 26:12-16.) In 2018, the Democratic candidate in the 32nd district, Phil Phelps, “had tremendous difficulty getting money — and I know that personally — we tried fundraising events, we tried donations, we tried calling lots of Representatives of labor organizations and other[s].” (*Id.* at 28:8-13.)

319. Voter Sherrill Leigh Smith, identified *supra* at ¶192 (discussing Congressional District 5), also lives in Senate District 32. (Smith, Dep. at 8:6-8.)

320. Voter Jan Sain-Steinborn, identified *supra* at ¶201 (discussing Congressional District 5), also lives in Senate District 32 (Sain-Steinborn, Dep. at 12:9-14.) She testified that she believes Senate District 32 was drawn to go to a Republican candidate. (*Id.* at 14:23–15:16.) Ms. Sain-Steinborn testified that her vote has been diluted. (*Id.* at 18:11–14; *see also id.* at 20:2-8, 30:12-24, 33:2-15.)

321. Ms. Sain-Steinborn has also reduced her First Amendment monetary contributions because of the 2011 redistricting. (*Id.* at 18:23–19:7.) She testified she

donates less time to candidates in her districts after the 2011 redistricting. (*Id.* at 9:15–18.) Ms. Sain-Steinborn explains she has stopped donating her time because her candidates do not have a “shot at winning.” (*Id.* at 19:19–20:1.)

322. Senate District 32 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D4 through D6, at 54, 76-78; Trial Exs. 39-41.)

323. *See supra* at ¶¶327-28, 344-45 (Warshaw, Marquardt, and Vatter testimony regarding Senate Districts 14, 27, and 32; *see also* McMaster, Dep. at 126:21-127:8.)

Senate District 36

324. Voter Jane Speer, identified *supra* at ¶149 (discussing Congressional District 1), also lives in Senate District 36 (Speer, Dep. at 12:10-14.) She testified that Senate District 36, where she lives, is a cracked district and believes that her vote does not count. (*Id.* 11:18-12.)

325. Ms. Speer has reduced her political activity in Senate District 36 because of the 2011 redistricting. For example, she donates less money to the candidates she supports, including those in Senate District 36, because she knows that those candidates do not have a chance at winning. (*Id.* at 13:7-14:23, 23:16-23.)

326. Voter Trina Borenstein, identified *supra* at ¶153 (discussing Congressional District 1), also lives in Senate District 36, which she believes is a cracked district. (Borenstein, Dep. at 19:9-23.)

327. Ms. Borenstein explained that the most recent Democrat to run for office in Senate District 36, Joe Weir, was “a sacrificial candidate.” (*Id.* at 29:16-22.) “[E]ven he knew that there was absolutely no way ...that he was going to win. He was just trying to make the process more democratic.” (*Id.* at 29:23-30:12.) She believes, based on “going door-to-door,” that “people across the spectrum politically mostly feel that their votes don’t count.” (*Id.* at 34:6-9.) “They tell me a lot that their votes don’t matter,” she said. (*Id.* at 35:17-20.)

328. Ms. Borenstein found that her senator, Republican Jim Stamas, was not responsive to her, in that his responses to her letters were “usually just canned ... form-letter responses that don’t really address the issues that I wrote to him about.” (*Id.* at 31:17-22.)

329. Ms. Borenstein has also reduced her political activity in Senate District 36 because of the 2011 redistricting. She donates less money to the candidates she supports, including in Senate District 36, because she knows that those candidates do not have a chance of winning. (*Id.* at 29:3-8; *see also id.* at 30:2-12.) For example, while she made a nominal donation (\$20) to Joe Weir, the Democratic candidate for Senate District 36 in 2018, in general, she “thought [her] money would be better spent on other candidates[.]” (*Id.* at 28:17-29:8.) She came to that conclusion because it was “apparent that [Mr. Weir] was a sacrificial candidate” and “when you have limited resources, you try to put them where you think [they] will have the most impact.” (*Id.* at 29:16-22.)

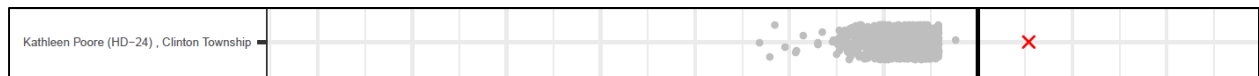
(Trial Ex. P-278 at PageID #3883.) This demonstrates that Ms. Speer, Ms. Borenstein, and Ms. Sherwood reside in a cracked district that is more Republican than most (and in Ms. Sherwood’s case, than *all*) of Dr. Chen’s simulation districts.

334. At the request of the Senate Democratic Leadership and Caucus, former Michigan Democratic Party Chairman Dillon attempted to recruit a Democratic candidate to run for Senate in District 36 in the 2018 elections. (Dillon, Tr. at PageID #9103:2-4.) Dillon spoke with a potential candidate, Joe Weir, who was “adamant that he would become a candidate [only] if he was not required to do anything because he knew he couldn’t win, and we said that was fine.” (*Id.* at PageID #9103:4-7.) Mr. Weir lost the race. (*Id.* at PageID #9103:8-9.)

House District 24

335. Voter Kathleen Poore, identified *supra* at ¶242 (discussing Congressional District 9), also resides in State House District 24. (Poore, Dep. 12:8-12.) Ms. Poore believing that any gerrymandering in her State House District is “cheating.” (*Id.* at 26:18-21.)

336. Dr. Warshaw’s chart places Ms. Poore’s address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Poore resides in a cracked district that is more Republican than all of Dr. Chen’s simulation districts.

337. According to former Michigan Democratic Party Chairman Dillon, in 2016, the Republican candidate for House District 24 “had been captured on audiotape saying many things that proved to be untrue” and making “disparaging remarks about fellow Republican colleagues.” (Dillon, Tr. at PageID #9104:21-24.) Mr. Dillon was involved in the Democrats’ efforts to raise funds for that race. (*Id.* at PageID #9105:2.) Potential donors were uninterested, however, and had a “sense ... that the district still was not winnable, even though ... those things on tape, because of the boundaries and the gerrymandering of it.” (*Id.* at PageID #9105:5-7.)

338. Dr. Warshaw’s analysis is confirmed by House map drawer McMaster, who testified that House District 24 became more Republican after the 2011 redistricting. (McMaster, Dep. at 191.)

339. Vatter testified House District 24 breaks Clinton Township and part of Macomb Township. It is a Republican district. (Vatter, Tr. at PageID #9030:22 -9031:5.) This makes District 18 (nearby in the St. Clair Shores area) more Democratic. (*Id.* at PageID #9031:6-9; *see also* Trial Ex. D-1.)

House District 32

340. Voter Roger Brdak, identified *supra* at ¶249 (discussing Congressional District 10), also lives in House District 32, which he believes is a gerrymandered district. (Brdak, Dep. at 18:17-23; 26:2-28:3.)

341. Dr. Warshaw’s chart places Mr. Brdak’s address against Dr. Chen’s neutrally drawn simulated districts as follows:

Kimball, Columbus, and Casco Townships. (Vatter, Tr. at PageID #9031:20-25; Trial Ex. D-1.) The old district was competitive, but the new district is Republican. (*Id.* at PageID #9032:1-5.)

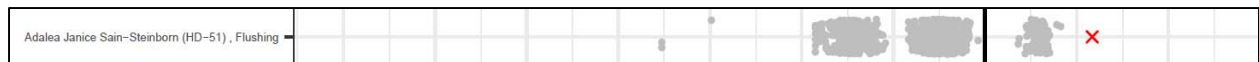
House District 51

345. Voter Jan Sain-Steinborn, identified *supra* at ¶201 (discussing Congressional District 5), also lives in House District 51. (Sain-Steinborn, Dep. at 12:15-17.) Ms. Sain-Steinborn testified she doesn't feel like her vote has any power in her districts and her "vote doesn't really matter." (*Id.* at 18:11–14; *see also id.* at 30:12–17.)

346. Ms. Sain-Steinborn has reduced her First Amendment political activity because of the 2011 redistricting. For example, she donated less time to candidates in her districts after the 2011 redistricting. (*Id.* at 19:15-18.) Ms. Sain-Steinborn explained that she stopped donating her time because her preferred candidates do not have a "shot at winning." (*Id.* at 19:19-20:1.) In particular, Ms. Sain-Steinborn recalls Democrat David Lawson running in an election in House District 51 in which he did "everything to win this election"—he "knocked on many, many doors, he had a large volunteer staff, he was doing mass mailings, he was doing everything he possibly could to win this election" but "he lost by 20 points" because the district leans so far Republican. (*Id.* at 16:24-17:21.)

347. Ms. Sain-Steinborn has reduced her First Amendment monetary contributions because of the 2011 redistricting because she feels as though the outcome is already determined. (*Id.* at 18:23-19:7.)

348. Dr. Warshaw's chart places Ms. Sain-Steinborn's address against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Sain-Steinborn resides in a cracked district that is more Republican than all of Dr. Chen's simulation districts. House District 51 is a partisan outlier according to Professor Chen's District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D12 and D15, at 54, 84, 87; Tr. Exs. 47, 50.)

349. Dr. Warshaw's analysis is borne out by House map drawer McMaster, who testified that House District 51—which had previously been held by both Democrats and Republicans—became more Republican after the 2011 redistricting. (McMaster, Dep. at 119-26, 154-59.)

350. With respect to House District 51, former Michigan Democratic Party Chairman Dillon testified that Democrats “ran up against the same criticisms from donors and potential candidates, that given the current construction or drawing of the district, that it was going to be an exercise in futility to even compete even though the

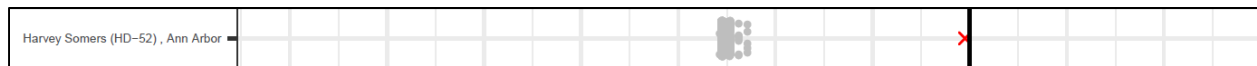
district is very close to other strong Democratic areas.” (Dillon, Tr. at PageID #9107:4-8.)

351. Vatter testified that House District 51 in Genesee County wraps almost all the way around Flint. (Vatter, Tr. at PageID #9032:20-9033:10; Trial Ex. D-1.) The district takes the Republican parts of Genesee County to make it more Republican than it used to be. (*Id.* at PageID #9033:11-16.) The old district was largely the lower part of Genesee County, which mixed Democrat and Republican areas and was competitive. (*Id.* at PageID #9033:18-24.)

House District 52

352. Voter Harvey Somers, identified *supra* at ¶286 (discussing Congressional District 5), also lives in House District 52. (Somers, Dep. at 14:9-14.)

353. Dr. Warshaw’s chart places Mr. Somers’ address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Mr. Somers resides in a cracked district that is more Republican than all of Dr. Chen’s simulation districts. House District 52 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D12 and D15, at 54, 84, 87; Tr. Exs. 47, 50.)

354. Vatter testified District 52 is the western three rows of townships and cities in Washtenaw County plus two other townships across the top. This collects all the Republican areas of the district into the same House district. (Vatter, Tr. at PageID #9034:10-14; see also Trial Ex. D-1.)

House District 53

355. Districts 53-55 are heavily Democratic (Vatter, Tr. at PageID #9034:15-22.)

356. A less partisan alternative map includes some of these Democratic areas in a district also covering some of the western part of Washtenaw, making a more competitive district. (*Id.* at PageID #9034:23 -9035:2.)

House District 55

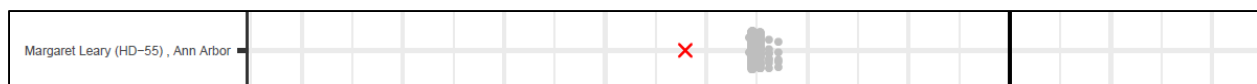
357. Voter Margaret Leary, identified *supra* at ¶289 (discussing Congressional District 12) lives in House District 55. (Leary, Dep. at 9:6-12.)

358. Ms. Leary believes that her state house district is “packed. (*Id.* at 13:3-4.) Ms. Leary is concerned that her state senate district has a margin of victory much higher than the state-wide margin for Democrats. (*Id.* at 13:11-25.)

359. Ms. Leary testified that if the districts she lived in were more competitive, she would not have focused her efforts on other candidates and locations. (*Id.* at 21:14-17.) Ms. Leary believes that “because of the preponderance of Democrats that have been packed into that district, my vote had less weight than it would have[had] in a more competitive district.” (*Id.* at 26:11-15.)

360. Ms. Leary believes that the packed nature of her district prevents strong candidates from running. (*Id.* at 25:1-3.) The Republican candidate in her state house district, Bob Baird, ran ads only once a month in the Ann Arbor Observer. (*Id.* at 25:10-19.) Ms. Leary’s concerns are not assuaged by the fact that she has a Democratic representative. (*Id.* at 54:6-9.) Further, Ms. Leary is discouraged from contributing to candidates in her “packed, gerrymandered” districts. (*Id.* at 55:1-6.)

361. Dr. Warshaw's chart places Ms. Leary's address against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Leary resides in a packed district that is more Democratic than all of Dr. Chen’s simulation districts. House District 55 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D12 and D15, at 54, 84, 87; Tr. Exs. P-47, P-50.)

362. Then-Senator Rebekah Warren (Senate District 18) voted in favor of SB 498. (Hune, Dep. at 61:14-15.) According to Senator Hune, Senator Warren had “an extreme willingness ... to come to the table” to discuss the composition of the maps. (*Id.* at 63:21-24.) Warren was term-limited in the Senate, but was “presumably going to

be elected to the [S]tate House” in 2018.⁸ (*Id.* at 62:5-6.) She “had an interest in how the [S]tate House map in Washtenaw County [what would become House District 55] particularly appeared.” (*Id.* at 62:6-8.) Hune testified that Warren “had a vision that she had another term she wanted to serve in the House,” and agreed that “the location of where specific lines had a bearing on how successful she ultimately would be in that vision[.]” (*Id.* at 65:15-21.)

363. *See supra* at ¶¶385-86 (Vatter testimony regarding House Districts 53-55.)

House District 60

364. Voter Denise Louise Hartsough has lived at 2690 Timber Leaf Lane, Kalamazoo, Michigan, 49006, for 15 years. (Hartsough, Dep. at 5:7-22.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 9:22-10:21.) She is a long-time League member and supports its mission. (*Id.* at 7:1-8:9.)

365. Ms. Hartsough testified that her vote in House District 60 is “less meaningful because the outcome is already known before I vote.” (*Id.* at 18:20-21.)

366. Ms. Hartsough has reduced her political activity in House District 60 because of the 2011 redistricting. She does “not donate money to the candidate running for the 60th House District spot; nor do I feel inclined to do any campaigning for a candidate running for the 60th House District.” (*Id.* at 12:12-17; *see*

⁸ Ms. Warren was elected as the 55th District Representative in 2014, winning more than 72% of the vote. *See* 2018 Election Results, Michigan Secretary of State, *available at* <https://mielections.us/election/results/14GEN/> (last accessed Feb. 19, 2019).

House District 61⁹

368. Vatter testified House District 63 starts on the Eastern side of Calhoun County, excludes the Democratic area, Battle Creek, then breaks Kalamazoo County to pick up the eastern municipalities of Kalamazoo making it a Republican district. (Vatter, Tr. at PageID #9035:3-13.) A less partisan alternative would be to take Battle Creek and put it with Calhoun to minimize the break and make a competitive district. (*Id.* at PageID #9035:17-20.)

House District 62

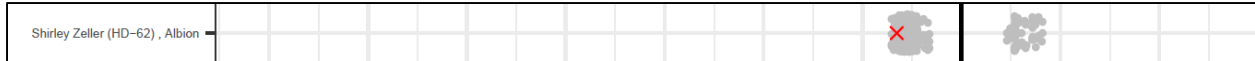
369. Voter Shirley Zeller lives at 702 Burr Oak street, Albion, Michigan 49224, since before January 1, 2011. (Zeller, Dep. at 7:22-23, 8:1-2.) Ms. Zeller is a Democrat. (*Id.* at 8:21-25.) Ms. Zeller is a past president of the Idaho League of Women Voters. (*Id.* at 16:13-21.)

370. Ms. Zeller contributes to candidates in the Jackson area, rather than her own, because they represent her issues better than the candidates she can vote for in her own districts. (*Id.* at 12:24-13:14.) Ms. Zeller has also chosen to volunteer in districts other than hers, based on the competitiveness of the races in those districts. (*Id.* at 13:15-25.) Ms. Zeller has not found her state House member responsive or

⁹ Although House District 61 is not being challenged by the Voters, House District 61, as enacted, implicates the League's First Amendment claim.

engaged in the community and has only seen him at one community gathering. (*Id.* at 20:4-14.)

371. Dr. Warshaw’s chart places Ms. Zeller’s address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Zeller resides in a packed district that is more Democratic than most of Dr. Chen’s simulation districts. House District 62 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D12 and D15, at 54, 84, 87; Tr. Exs. 47, 50.)

372. *See supra* at ¶398 (Vatter testimony regarding House District 63).

House District 63

373. Voter Jessica Reiser has lived at 10726 Wildwood Drive in Richland, Michigan, 49083, for more than 20 years. (Reiser, Dep. at 9:4-9.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 9:13-24.) She is a long-time League member and supports its mission. (*Id.* at 7:5-18.)

374. Ms. Reiser testified that House District 63, where she lives, is a cracked district and she believes that her vote does not count. (*Id.* at 11:11-14; *see also id.* at 13:12-14.) Ms. Reiser feels that “Democrats are not likely to run in her district because they know that they will not win.” (*Id.* at 24:11-16; *see also id.* at 13:17-22.) Ms. Raiser

377. Dr. Warshaw's analysis is confirmed by House map drawer McMaster, who testified that there were several Apol-compliant versions of District 63 and that the adopted version slightly increased the Republican base of the district. (McMaster, Dep. at 126-31, 213-16.)

378. *See supra* at ¶398 (Vatter testimony regarding House District 63).¹⁰

House District 75

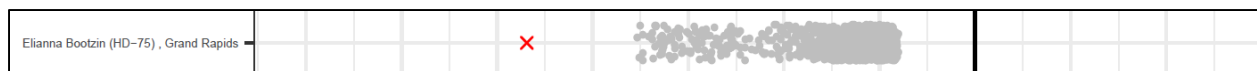
379. Voter Elianna Bootzin has lived at 447 Cedar Street Northeast, Grand Rapids, Michigan, 49503, since the 2011 redistricting. (Bootzin, Dep. at 5:5-14.) She typically votes for Democratic candidates and is likely to vote for Democrats in 2020. (*Id.* at 10:5-20, 12:22.) She has been a League member since the spring of 2016 and joined because “[t]hings were feeling really weird that spring leading up to the election” and she “wanted to get involved in a way that wasn’t as confrontational or

¹⁰ Former Michigan Democratic Party Chairman Dillon testified about Democrats’ difficulties in House District 63. (*See* Dillon, Tr. at PageID #9107:21–108:7.) Mr. Dillon testified that Democrats had difficulty recruiting a candidate even though then-Speaker of the Michigan House of Representatives, Jase Bolger, was “under a grand jury investigation for an election rigging scheme in the 76th District.” (*Id.* at PageID #9108:1-4.) Mr. Dillon’s recollection with respect to the sequence of events seems to have been mistaken: Democrats had actually recruited a candidate *before* the grand jury story broke, but Speaker Bolger nonetheless was able to achieve a narrow victory, winning by 756 votes, as compared with a margin of 8,527 votes the previous cycle. (*See* 2010 Michigan Election Results, Michigan Secretary of State, <https://mielections.us/election/results/10GEN/>; 2012 Michigan Election Results, Michigan Secretary of State, <https://mielections.us/election/results/12GEN/>; *see also* Nate Reens, *Read text messages between House Speaker Bolger, Rep. Schmidt plotting party switch, fake candidate*, MLIVE.COM, July 18, 2012, https://www.mlive.com/news/grand-rapids/index.ssf/2012/07/read_text_message_exchange_bet.html.)

partisan as a lot of groups and organizations. (*Id.* at 8:9-16.) She likes that the League “is focused on having an engaged, informed electorate, that all of our voices matter. (*Id.* at 8:17-18.)

380. Ms. Bootzin lives in House District 75. (*Id.* at 10:25.) Ms. Bootzin believes that House District 75 is a packed district. (*Id.* at 11:12-13.) She testified it is discouraging and “it’s not fair to other people who have different beliefs that aren’t being represented. . . . [I]t makes people feel like, well, my vote doesn’t matter, why do I need to come vote.” (*Id.* at 11:17-22.) She described that her vote “doesn’t feel as important” because it is a “foregone conclusion” that a Democrat will win in House District 75. (*Id.* at 15:25-12-6.) Ms. Bootzin testified that her district is not competitive and “it’s almost not worth the effort of trying . . . [Y]ou know how it’s going to turn out.” (*Id.* at 12:20-13:7.)

381. Dr. Warshaw’s chart places Ms. Bootzin’s address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Bootzin resides in a packed district that is more Democratic than all of Dr. Chen’s simulation districts. House District 75 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D12 and D15, at 54, 84, 87; Tr. Exs. 47, 50.)

382. Dr. Warshaw's analysis is borne out by House map drawer McMaster, who testified there were other ways to draw House Districts 75 and 76, both entirely within the city of Grand Rapids, that would have complied with the Apol criteria. (McMaster, Dep. Tr. 171-76, 179-80.)

383. Brandon Dillon was the Representative for House District 75 from 2011 until 2015. (Dillon, Tr. at PageID #9093:24-94:1.) In that capacity, Dillon voted on the 2011 redistricting plans. (*Id.* at PageID #9094:4-7.) Though Dillon's "district became far more Democratic," going "from a competitive seat to a safe, super-Democratic seat," which "would make the general elections much easier" for him, Dillon voted against the Plans. (*Id.* at PageID #9094:17-23.) He did so, he said, "[b]ecause [he] felt the overall maps were unfair" in that they "were designed specifically to benefit" the Republicans. (*Id.* at PageID #9094:25- 95:5.) Describing the Grand Rapids area, Dillon testified that "the Republicans drew the map to basically pack all of the Democrats into the center of the city, and then drew a district that kind of ran as a backwards C around that district to try to make one of the districts a competitive seat for Republicans." (*Id.* at PageID #9095:11-15.)

384. Dillon saw first-hand the effects of the new district lines on House District 75. In 2010, he won election "by a very small margin [in] one of the most contributed-to races" of that year. (*Id.* at PageID #9110:15-16.) He "had hundreds of volunteers [who] would come out and knock on doors [and] hold events." (*Id.* at PageID #9110:16-18.) After the 2011 redistricting, House District 75 became a

“super[-]Democratic seat where there was no reason for either side to engage[.]” (*Id.* at PageID #9111:11-12.) “As soon as the district was changed into its current configuration, it was difficult for [Dillon] to engage volunteers and donors to contribute to that campaign because they knew it was a foregone conclusion that [Dillon] was going to win.” (*Id.* at PageID #9110:19-22.) In the 2012 election, Dillon “knocked on virtually zero doors and got about 76 percent” of the vote, “whereas [he] had knocked on 20,000 doors in the 2010” race and won with “just under 50 percent” of the vote. (*Id.* at PageID #9111:4-6.)

House District 76

385. Plaintiff Donna Farris has lived at 2731 Littlefield Drive, Grand Rapids, Michigan, 49506, and has lived at that address for 39 years. (Farris, Dep. at 5:12-6:15.) She is a Democrat and plans to support Democrats in 2020. (*Id.* at 9:11-10:8, 12:23-13:8.) She is a long-time member of the Democratic party, having served as a precinct captain, executive committee member, and vice chair of the Kent County Democratic party over the last 16-17 years. (*Id.* at 7:9-8:25.)

386. Ms. Farris testified that House District 76, where she lives, is a gerrymandered district. (*Id.* at 10:9-16.) In Ms. Farris’s words, its shape is “crazy. It goes from the northwest side of Grand Rapids, all the way across the top, all the way down the side and all the way over to the south side. So when it comes to campaigning or canvassing or whatever, it’s a nightmare.” (*Id.* at 10:16-21.) Its shape alone shows that House District 76 it “not a fairly drawn district. It’s not a balanced

district. It's a district that favors one party over another. And if you have a balanced district, it's a fair fight. If you don't have a balanced district, then it's not." (*Id.* at 20:13-17.)

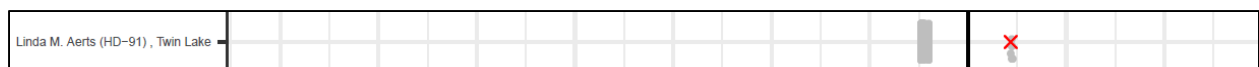
387. Ms. Farris has limited her political activity because of the 2011 redistricting. Because she lives in a cracked district, she must focus so much of her time and money on trying to get her preferred candidate elected in that district that she cannot spend time and money supporting other Democratic candidates across Michigan. (*Id.* at 15:2-10.) Her donations to other candidates have "pretty much stopped," because she has to fight so hard to get her candidate re-elected in House District 76, that she "can't give to the other Democrats running in the State of Michigan, if I have to focus it all here." (*Id.* at 15:14-16:4; *see id.* at 20:23-21:2, 25:9-19, 31:16-32:7.)

388. Ms. Farris has also been unable to band together with like-minded Democrats because of the gerrymandering in House District 76. (*Id.* at 16:5-16.) She "can't reach out and work with other Democrats across the state for statewide offices or for other senate – other representatives going to Lansing who can then work with [her House District 76 representative] to get what I need." (*Id.* at 16:17-22; *see id.* at 20:18-22, 33:19-34:5.)

389. Dr. Warshaw's chart places Ms. Farris's address against Dr. Chen's neutrally drawn simulated districts as follows:

397. Ms. Aerts lives in House District 91. (*Id.* at 10:25.) Ms. Aerts testified that living in a cracked district has made it “very difficult.” (*Id.* at 12:25-13:1.) She testified that House District 91 was “no longer blue as it used to be” and “[i]t’s very difficult to get a blue candidate elected.” (*Id.* at 15:23-16:09, 17:19-23.) Ms. Aerts testified that Democrats “often feel that their votes don’t count because [they] haven’t been able to get good candidates elected.” (*Id.* at 16:13-15.)

398. Dr. Warshaw's chart places Ms. Aerts' address against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Aerts resides in a cracked district that is more Republican than almost all of Dr. Chen’s simulated districts. House District 91 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D13 and D16, at 54, 85, 88; Tr. Exs. 48, 51.)

399. Dr. Warshaw’s analysis is borne out by House map drawer McMaster, who testified that House Districts 91 and 92, both entirely contained within Muskegon County, were drawn to be the “most favorable” for the Republican incumbent in District 91, Holly Hughes. (McMaster, Dep. at 97-101, 199-206.)

400. The partisan drawing of House Districts 91 and 92 is also reflected in an email that Timmer sent to McMaster with the subject line, “A gift for my friends in

the House GOP.” (*See* Email, Trial Ex. P-374 at 1.) House district 91 is the product of advice that Timmer gave to McMaster to satisfy the demands of Republican incumbent state representative Holly Hughes. (McMaster, Dep. at 98, 101, 202.) The map reflected in Trial Exhibit P-374 was adopted into law.

401. Vatter testified that House Districts 91 and 92 are in Muskegon County. District 92 is drawn to include the Democratic areas including the city of Muskegon, North Muskegon, and Roseville Park. (Vatter, Tr. at PageID #9035:1-4.) The 91st District wraps around Muskegon, picking up outlying municipalities that make it more Republican. (*Id.* at PageID #9036:5-10; Trial Ex. D-1.) The 91st District was won by Democrats in a favorable Democratic year and has not been won since. (*Id.* at PageID #9036:7-10.)

House District 92¹¹

402. House District 92 is a partisan outlier. (Chen Report, Trial Ex. P-3 at 56, 70-72, 79-80, 85, 88.) Since 2012, Democratic candidates have won House District 92 in every election, always with at least 67% of the vote.

House District 94

403. Voter Paul Purcell, identified *supra* at ¶189 (discussing Congressional District 5), also lives in House District 94. (Purcel, Dep. at 17:22-18:14.) Mr. Purcell

¹¹ House District 92 is no longer being challenged by the Voters. Nevertheless, House District 92, as enacted, implicates the League’s First Amendment claim.

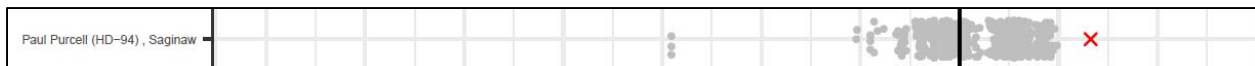
believes that his state house district is cracked. (*Id.* at 15:2-5.) Mr. Purcell bases this belief on “observing numbers over the years,” how people have voted, and “the actual diagrams of the districts themselves.” (*Id.* at 21:11-14.) Mr. Purcell feels that he is “never going to get anyone, the way it’s drawn now, with the people who live in that district, to represent [his] -- what [he] believe[s] in.” (*Id.* at 33:13-16.)

404. Mr. Purcell has been discouraged from engaging in his First Amendment political involvement due to the gerrymander of his state house district. (*Id.* at 22:20-24:1.) Mr. Purcell declined to campaign for the Democratic candidate in 2014 because he “felt, and others felt, that it was too hard to beat him in that area, just because of the way — it just is too hard to beat him. It’s not winnable for a Democrat in that district the way it’s drawn currently.” (*Id.*) Mr. Purcell finds that his and others’ political activity is discouraged by the way the districts are drawn because “nobody wants to go out and knock on doors and just no, no, no, no, no, constantly making phone calls and running and spending a lot of money, and the money aspect is not there for those races.” (*Id.* at 26:12-16.)

405. Mr. Purcell testified that the Saginaw Democratic Party has a difficult time recruiting candidates to run in House District 94 because of the current map. (*Id.* at 24:9-15.) Mr. Purcell himself thought about running in House District 94 in 2014; but did not because the “numbers are too bad for a Democrat to win there.” (*Id.* at 25:1-2.)

406. Former State House Representative Tim Kelly was not responsive to Mr. Purcell. Mr. Purcell “would write him letters, [but] would never get a response. [Mr. Purcell] called his office, never get a response.” (*Id.* at 30:8-10.)

407. Dr. Warshaw’s chart places Mr. Purcell’s address against Dr. Chen’s neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Mr. Purcell resides in a cracked district that is more Republican than all of Dr. Chen’s simulation districts. House District 94 is a partisan outlier according to Professor Chen’s District Level analysis. (Chen Report, Trial Ex. P-3 & Appendices D13 and D16, at 54, 85, 88; Tr. Exs. 48, 51.)

408. Dr. Warshaw’s analysis is borne out by House map drawer McMaster, who testified that there were alternative ways of drawing House Districts 94 and 95 that would have satisfied the Apol criteria. (McMaster, Dep. at 137-48.) Vatter testified that House Districts 94 and 95 are in Saginaw County. District 95 has the city of Saginaw and other Democratic areas. It is a heavily Democratic district. (Vatter, Tr. at PageID #9036:14-23.) District 94 is a Republican district. (*Id.* at PageID #9037:1-6.) It wraps around District 95, continuing the theme of wrapping around Democratic areas. (*Id.* at PageID #9036:24-9037:2.)

House District 95

409. Voter Sherrill Leigh Smith, identified *supra* at ¶192(discussing Congressional District 5), also lives in House District 95. (Smith, Dep. at 8:9-11.) Ms. Smith believes her State House District is gerrymandered, which prevents her representative from having much influence in the legislature. (*Id.* at 23:2-18; *see also id.* at 31:4-13.))

410. Dr. Warshaw's chart places Ms. Smith's address against Dr. Chen's neutrally drawn simulated districts as follows:



(Trial Ex. P-278 at PageID #3885.) This demonstrates that Ms. Smith resides in a packed district that is more Democratic than almost all of Dr. Chen's simulation districts.

411. See *supra* at ¶438 (McMaster and Vatter testimony regarding House Districts 94 and 95.)

B. The gerrymander also harmed the League directly and through its member voters.

412. The League of Women Voters of the United States was formed in 1920. It grew out of the women's suffrage movement. There are leagues in every state and in the District of Columbia. (S.K. Smith, Tr., ECF No. 248 at PageID #8762:4-8.)

Each state league is organized under its own state laws. The Michigan League was formed in 1919 because women got the right to vote in Michigan in 1919, one

year before the 19th Amendment to the United States Constitution passed in 1920. (*Id.* at PageID #8762:10-21.)

413. The League and local leagues share the mission of “empowering voters, defending democracy.” (*Id.* at PageID #8762:6-8.)

414. Ms. Smith has been a member of the Lansing, Mount Pleasant and Ann Arbor leagues, starting in Lansing 48 years ago. She later joined the Mount Pleasant League when she moved there. When Ms. Smith moved back to Ann Arbor, she joined the Ann Arbor League. All these leagues are part of the League of Women Voters of Michigan. (*Id.* at PageID #8764:20 – 8765:6.)

415. Ms. Smith became president of the Ann Arbor League and served on the state League board (*Id.* at PageID #8765:8-10). She was president of the state League from 2011 to 2015. (*Id.* at PageID #8765:10-11.) For four years before 2011, she was first vice-president. (*Id.* at PageID #8765:11-13.) For two years Ms. Smith had special responsibilities for redistricting, and is currently still on the state board where she is redistricting director. (*Id.* at PageID #8765:15-17.)

416. The League “encourages informed and active participation of citizens in government and influences public policy through education and advocacy.” (Trial Ex. P-258 at 2, 33.)

417. The League’s detailed statement of principles includes belief in representative government, belief that the government depends on informed and active participation of its citizens, belief that “every citizen should be protected in the

right to vote,” belief that responsible government “should be responsive to the will of the people,” and finally that all powers of the U.S. government should be “exercised within the constitutional framework of a balance among the three branches of government.” (*Id.* at 42.)

418. The League’s primary efforts are centered around advocating for the democracy agenda. Among the League’s achievements are voter service and voter protection including training and access to election information, which provide voters with on-line guides promoting election reform. (*Id.* at 3.)

419. The documents at Trial Exhibit P-258 pages 2 through 5 and 16 through 32, for example, depict an active, vigorous statewide organization engaging its members to pursue its mission of “empowering voters” and “defending democracy.” For example, the League conducts workshops on voter registration to educate members on the “League way” to register and process registrations, and to engage membership to use its skills to further the League’s impact. (*Id.* at 21; Smith, Trans, ECF No. 248, PageID #8762:6-8.)

420. The League addresses civic education and engagement of voters in a variety of ways. (*Id.* at PageID #8762:22 -8764:4.) The education that the League does is an important part of “empowering voters” in the League mission statement. (*Id.* at PageID #8764:5-13.)

421. For example, the League puts out a nonpartisan voter guide that provides information gathered from candidates running for office. (*Id.* at PageID #8763:3-6.)

422. That information is distributed to voters in two ways. One is an on-line voter's guide called vote411.org. (*Id.* at PageID #8763:16-18.) Michigan has the highest percentage of people participating nationwide; the state had over 100,000 hits on this guide in the most recent election. (*Id.* at PageID #8763:16-21.)

423. The state League also prints the voter guide like a newspaper and distributed over 100,000 copies in one year. (*Id.* at PageID #8763:21 – 8764:4.)

424. The League also works hard at the second part of the mission, defending democracy, by advocating at the legislature on bills on which the League has taken a position. (*Id.* at PageID #8764:13-17.)

425. Exhibit P-258 reflect League activities, including annual reports, activities of the state League, the Michigan Voter publication published four times a year by the League highlighting local league activity and documents that talk about the advocacy activities done by the state League in the Michigan legislature. (*Id.* at PageID #8765:23 – 8766:14.)

426. Pages 10-15 of Trial Ex. P-258 relate to legislation the League has acted upon. The League supported 64 bills listed in those pages during the 2017-2018 election cycle. (*Id.* at PageID #8766:17 – 8767:6.)

427. The League also registers voters. For example, the Ann Arbor League registered over 1,000 high school students to vote. Voter registration is a very important activity for all local leagues. The local leagues participate in National Voter Registration Day each September. (*Id.* at PageID #8767:9-15.)

428. The League became more involved in redistricting in 2011. After the state maps were published, the League decided to take a position on redistricting. It went through a detailed study process on the question. (*Id.* at PageID #8768:2-24.) The League adopted its position statement in support of an independent redistricting commission in June 2012. (*Id.* at PageID #8768:20-24.)

429. During the study process the League determined that regardless of which party is in power, it will try to stay in power by using redistricting to get re-elected. (*Id.* at PageID #8769:3-11.) The League decided that it is not fair to voters when the legislature draws the maps in a way that favors that party's candidates. (*Id.* at PageID #8769:12-16.)

430. The League decided it needed to educate Michigan voters on this issue as it generally does on important public issues. It selected eight people for a speaker's bureau to help train speakers. (*Id.* at PageID #8770:1-12.) For example, the League did 37 presentations on this in the fall of 2015. (*Id.* at PageID #8770:14-18.)

431. Ms. Smith testified to the following aspects of League work that she believed may have been affected by the gerrymander. (*Id.* at PageID #8774:18-20 *et seq.*)

432. As part of the goal of empowering voters, and in addition to the on-line and print voter guide, the League has candidate forums. (*Id.* at PageID #8774:18-25.) The local league or state League invites candidates for offices to a structured forum for live television and internet viewers. (*Id.* at PageID #8775:2-24.) Since 2011, it has been difficult to get the participation of Republican candidates in some community candidate forums. There were some districts year after year where Republican candidates did not submit responses to the questions submitted for voter guides. (*Id.* at PageID #8776:8 – 8777:1.)

433. The League also, in promoting its mission, encourages local leagues to work with legislators to develop relationships and promote the League's positions. However, in certain communities, the legislators are not open to sitting down and talking with League members. (*Id.* at PageID #8777:2 - 2778:7.)

434. Ms. Smith has given presentations all over Michigan on redistricting and other proposals and has talked with League members and other voters about those topics. (*Id.* at PageID #8778:13-19.) Some League members and voters say they are not going to vote stating for example: "I know that the person I want to support is not going to win anyway" (*Id.* at PageID #8778:17 – 8779:6), or "it doesn't matter what we do, they're going to do what they want to do anyway, and so I just don't see any point in my participating." (*Id.* at PageID #8779:6-10.)¹²

¹² Voters offered this evidence under Fed. R. Evid. 803(3). It was admitted over objection. (*Id.* at PageID #8778:20-24.)

435. In 2012, Ms. Smith and several members from the state board met with the Secretary of State Johnson regarding no-reason absentee voting. The Secretary said she was interested but wanted it introduced by Republicans (*Id.* at PageID #8779:22 – 8780:2.) A bill was introduced, but did not get a hearing and never came to the floor. (*Id.* at PageID #8779:14 – 8780:4.)

436. Ms. Smith had the same experience when meeting with committee chairs in both houses on voting rights and no-reason absentee voting. Those issues went nowhere. (*Id.* at PageID #8780:5-9.)

437. Ms. Smith acknowledged that the Republican legislature and governor supported the League on two of the 64 bills on which the League took a position. (*Id.* at PageID #8807:5-7.)

438. Based on her observations and extensive League experience, Ms. Smith believes the foregoing difficulties are connected to the 2011 gerrymander. (*Id.* at PageID #8781:13 – 8783:18.)

439. Because districts are packed and cracked, the real decision about who will be elected happens in the primary. The August primary in Michigan has low turnout and the people who come out are party activists and tend to be more liberal or more conservative than the mainstream. (*Id.* at PageID #8781:17 – 8782:4.) She testified, “we tend to get Democrats who are really liberal reelected and Republicans who are really conservative elected.” This has made it very difficult for the League to

make any progress on voting rights issues as described earlier. (*Id.* at PageID #8782:7-11.)

440. The problems Ms. Smith discussed have made it very difficult to accomplish the League's agenda of defending democracy, which means protecting voting rights passed in the legislature. (*Id.* at PageID #8782:12-20.) In fact the legislature has added a number of signature requirements that make it more difficult for ballot proposals to get on the ballot. (*Id.* at PageID #8783:6-19.)

441. As discussed in Findings at § IV(B) and in Professor Warshaw's report (Trial Ex. P-129 at 20-28, 36-41), the data indicate a high correlation between the asymmetrical maps resulting from the Michigan gerrymander, and both policy outcomes in the legislature and voters' trust in government. This data further supports Ms. Smith's testimony regarding the impact of gerrymandering on the League's work.

C. Other evidence shows the 2011 gerrymander had real impacts on representation.

442. According to former Michigan Democratic Party Chairman Brandon Dillon, the fact that the Challenged Districts are all either packed or cracked causes the Michigan Democratic Party difficulties in its electoral activities. For example, "in the cracked districts it [has] become very difficult to recruit credible candidates[,] to raise money, [and] to energize volunteers because people don't believe that there is a legitimate chance for a Democrat to win in those districts." (Dillon, Tr., ECF No. 249 at PageID #9099:4-8.) "[I]t is very difficult, if not impossible, in many cases for a

Democratic candidate to compete no matter what the quality of the candidate is or their personal attributes vis-à-vis their opponent on the Republican side.” (*Id.* at PageID #9099:18-21.) In packed districts, it is “similarly difficult [for Democrats to] recruit volunteers and others because people assume it’s a foregone conclusion that a Democrat will be elected.” (*Id.* at PageID #9099:9-12.)

443. Mr. Dillon believes, as former Michigan Democratic Party Chairman, that gerrymandering “weaken[s] the party and local party organizations by hindering their basic function of electing Democrats to office[.]” (Dillon, Tr., ECF No. 249 at PageID #9112:2-7.)

444. Mr. Dillon also believes, as former party chairman, “that the 2011 redistricting plans diluted the electoral speech and power of voters who support non-Republican candidates[.]” (Dillon, Tr., ECF No. 249 at PageID #9112:8-11.)

445. In addition, as set forth in Findings IV.B. below, Professor Christopher Warshaw demonstrated quantitatively that gerrymandering’s high partisan asymmetry correlates with low voter satisfaction and policy outcomes adverse to the targeted party members.

IV. Extensive Expert Evidence Supports Findings of Partisan Intent and Partisan Effect at Statewide, District, and Address Levels, and Causation

A. Jowei Chen

Qualifications

446. Pursuant to stipulation, plaintiffs submitted the deposition and Expert Report (“Chen Report”) of Jowei Chen, Ph.D. Professor Chen holds a Master’s Degree in Statistics and a Ph.D. in political science from Stanford University and is an associate professor in the department of political science at the University of Michigan. He has a long list of publications and has testified or provided reports in at least 12 redistricting cases. (Chen Report, Trial Ex. P-3 at 1.) The Pennsylvania Supreme Court relied heavily on Professor Chen’s “extremely compelling” testimony to find that the Pennsylvania legislature had not drawn maps by nonpartisan traditional criteria. *League of Women Voters v. Commonwealth*, 178 A.3d 737, 818 (Pa. 2018). That Court added that Professor Chen’s analysis alone established that the plan at issue in this case was not drawn in compliance with traditional redistricting requirements. *Id.* at 820. Similarly, in *Common Cause v. Rucho*, the U.S. District Court for the Middle District of North Carolina accepted Professor Chen’s testimony as compelling evidence that the state legislature intended to disadvantage non-Republican voters in drawing the plan at issue. *Common Cause v. Rucho*, 279 F. Supp. 3d 587, 647 (M.D.N.C. 2018), vacated *sub nom. Rucho v. Common Cause*, ___ U.S. ___ (2018). After remand from the United States Supreme Court for reconsideration in

light of *Gil v. Whitford*, 138 S.Ct. 1916 (2018), the court maintained its findings regarding Professor Chen’s credibility and opinions. *See generally Common Cause v. Rucho*, 318 F. Supp. 3d 777 (M.D.N.C. 2018), *on remand from Rucho v. Common Cause*, — U.S. —, 138 S.Ct. 2679 (2018).

447. Professor Chen’s expertise includes “legislative elections, spatial statistics, geographic information systems (GIS) data, redistricting, racial politics, legislatures, and political geography.” He has unique expertise in the use of computer simulations of legislative redistricting. (*Id.*)

448. Professor Chen’s mapping simulations have been peer reviewed and widely accepted in the academic literature. (Warshaw, Tr. at PageID #8863:9-14.) Professor Chen is viewed as one of the foremost experts on drawing simulated maps and the consequences thereof. (*Id.* at PageID #8863:14-16; *see also* #8824:5-8.)

449. Professor Chen does not align himself with the Democratic or Republican party. (Chen, Dep. at 27:23-25.)

Methodology

450. In Professor Chen’s academic research and prior witness consultant service he has developed and applied computer simulation programming to produce large numbers of nonpartisan districting plans that adhere to certain districting criteria. (Chen Report, Trial Ex. P-3 at 1.)

451. The general principle of drawing geographic boundaries using a computer algorithm is commonly used in the commercial world. (Chen, Dep. at 167:2-8.)

452. His simulations are programmed to optimize various districting goals such as contiguity, population equality, compactness, and preserving certain political boundaries. Professor Chen's simulation process sets aside partisan considerations when drawing districts. (Chen Report, Trial Ex. P-3 at 2.) He compares an enacted plan, and its districts, to a set of his simulations to evaluate whether partisan considerations played a role in the drawing of the enacted plan and its districts. (*Id.*)

453. In this case Professor Chen reviewed Michigan statutory redistricting guidelines MCL § 3.63 *et seq.* and MCL § 4.261 *et seq.* ("Apol criteria") and applied those written criteria to his simulations with the two partial exceptions described at Findings 460 below.

454. Professor Chen details his algorithm in Appendix A to his report. (Chen Report, Trial Ex. P-3 at 59-64.) It starts by aggregating random contiguous collections of appropriate geographic building blocks into properly sized draft districts. The algorithm then makes millions of random small changes to each draft district. Each of those random changes is retained or discarded based on whether it advances or undermines Apol compliance. (*Id.* at 59-63.) By continuing this process, the algorithm gradually decreases the number of breaks in each simulated plan, and concludes with districts that minimize county and municipal breaks consistent with roughly equal

population and contiguity. (*Id.*) The algorithm then randomly selects municipalities to be broken when necessary to equalize population in the congressional map as required by law. (*Id.* at 61-63.)

455. Finally, the algorithm seeks compactness after prioritizing the other criteria. (Chen Report, Trial Ex. P-3 at 64.)

VRA Districts

456. Professor Chen's algorithm did not simulate, but accepted as drawn by the legislature, the enacted boundaries for Congressional Districts 13 and 14, Senate Districts 1 through 5, and House Districts 1 through 10. These districts are majority-minority districts ("VRA Districts"). He also freezes Senate Districts 6 and 7, and House Districts 15 and 35 because their boundaries are effectively frozen by the VRA Districts. (Chen Report, Trial Ex. P-3 at 4.) Professor Chen's algorithms also avoided retrogression under the Voting Rights Act by rejecting any House district for the city of Flint that would reflect less than 55% black voting age population. (*Id.* at 4-5.)

Measuring Partisanship

457. Professor Chen used past statewide election results in each census block to determine the baseline partisanship of early enacted and simulated districts. He used results from 2006 to 2016. (Chen Report, Trial Ex. P-3 at 1, 5-6.) He opined that such data are the best basis for comparison because they are less subject to temporary local factors that may deviate from the long-term voting trends of the area. (Chen Report, Trial Ex. P-3 at 6.) Professor Chen used results from U.S. president, U.S.

senator, governor, secretary of state, attorney general and Michigan election boards. (Chen Report, Trial Ex. P-3 at 7.) The 2011 Michigan redistricters themselves used very similar statewide data to estimate the partisan outcomes to be expected from plans they were preparing. (Findings § II(C) (*see esp.* “Extensive Use of Partisan Data.”).)

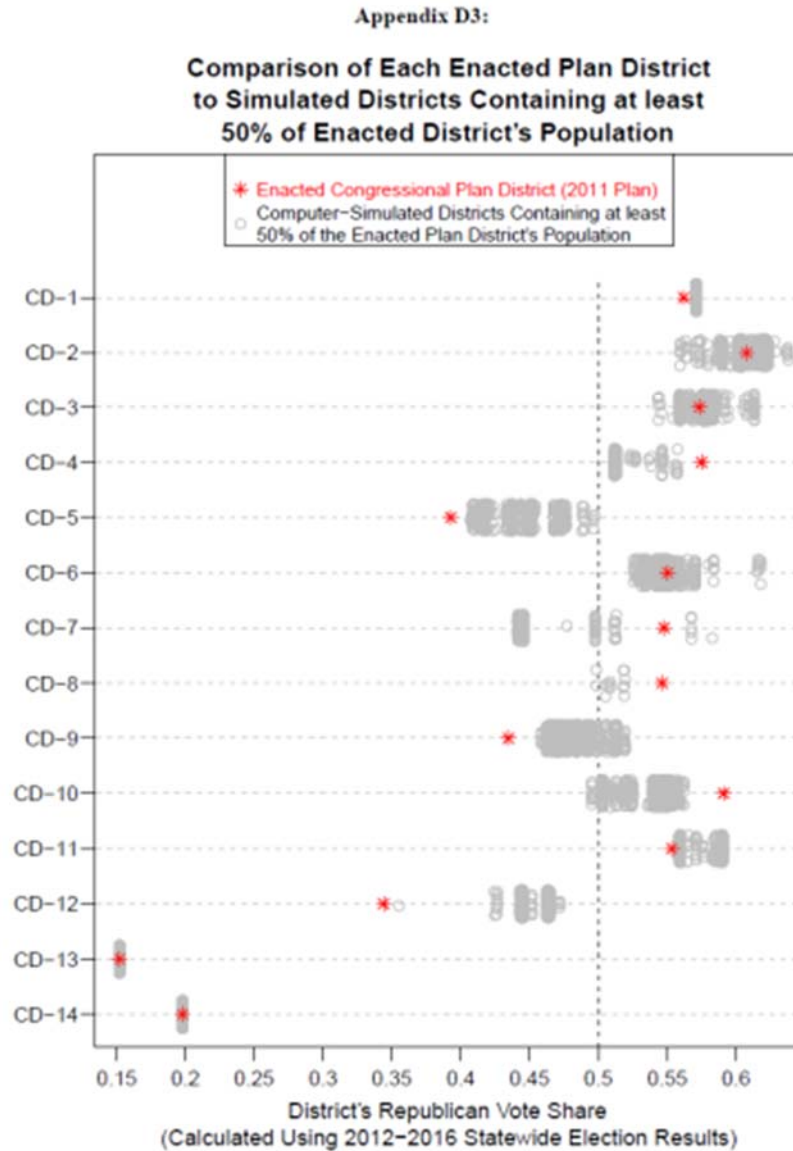
Packing and Cracking: Single District Comparisons of Partisanship of Individual Districts

458. Professor Chen went on to compare, in several ways, the individual districts in the enacted plans to comparable individual districts in the simulated plans to determine the partisanship of each district and identify which districts may have been packed or cracked.

459. Professor Chen did this in two ways. First, he ranked the districts from each plan from least to most Republican. This allowed him to compare the partisanship of the most Republican district of each enacted plan to the most Republican district of each of the thousand simulated plans. (Chen Report, Trial Ex. P-3 & Appendices D1, D4, and D7 (Congressional, Senate, and House, respectively), at 54, 73, 76, 79; Trial Exs. P-36, 39, 42.) Second, he compared districts based on district geography by comparing each enacted district to (1) each simulated plan district with the greatest geographic overlap with the enacted district, and (2) each simulated plan district that overlaps at least 50% of the enacted district’s population. (Chen Report, Trial Ex. P-3 & Appendices D5 - D6 (Senate) and Appendices D11 -

D16 (House)), at 54, 77-78, 83-88; Trial Exs. P-40-41, 46-51.) In determining which districts are outliers, Professor Chen considered only districts outside the middle 95% range of the simulated overlapping districts. (Chen Report, Trial Ex. P-3, at 55.)

460. Dr. Chen's single-district comparisons demonstrate that the enacted plans were replete with outlier districts. For example, Appendix D3 shows that, of the challenged districts, Congressional Districts 1, 4-5, and 7-12 all fall outside of the simulated districts covering at least 50% of the same population:



461. The single district comparison of Congressional District 5 provides yet another example. Appendices D1 through D3 show that not a single computer-simulated congressional district covering Saginaw, Flint, and Bay City (Congressional District 5) would have packed Democrats together as heavily as the enacted plan. (*Id.* at 55.)

462. According to Professor Chen, when an enacted district is a partisan outlier compared with simulated districts covering the same area, he can infer that the boundaries were manipulated in a manner inconsistent with the redistricting criteria. (*Id.* at 54.)

463. Professor Chen's single-district comparisons demonstrate that, of the challenged districts, the following are partisan outliers: Congressional Districts 1, 4, 5, and 7-12; Senate Districts 8, 18, 22, 27, and 32; and House Districts 32, 51-52, 55, 60, 62-63, 75-76, 91-92, and 94. (*Id.* at 55-56, 73-88.) According to Professor Chen, absent some other explanation, the single-district comparison analysis "strongly suggests" that outlier districts are the most effectively cracked and packed districts in the enacted maps. (*Id.* at 56.)

Statewide Analysis

464. Separately, Professor Chen compared the partisanship of the simulated maps to the partisanship of the enacted maps on a statewide basis, using three different methods.

465. The plaintiffs' complaint makes clear they are not seeking a proportional system. (Complaint, ECF No. 1 at PageID #21.)

466. First, he simply counted the number of Republican v. Democratic districts—the most basic and commonly used method of measuring the partisanship of a districting plan. (Chen Report, Trial Ex. P-3 at 9.)

467. As of the time of Chen’s report, this method predicted actual statewide Congressional election outcomes under the enacted plan. (*Id.* at 10.)

468. Professor Chen’s second metric for evaluating the partisanship of a plan is the median-mean¹³ difference. (*Id.* at 11.) Redistricting scholars commonly use median-mean to determine the partisan bias, or asymmetry, of different redistricting plans. The median-mean difference simply compares the average Republican vote share across all districts with the vote share in the median district. For example, if the statewide Republican vote share is 46.8%, while the median district has a Republican vote share of 53.52%, the median-mean difference is 6.72%, reflecting that the median—or average—district is skewed significantly more Republican than the state’s average district. (*Id.*)

469. The enacted plan in the hypothetical would distribute voters across districts in a way that is significantly more Republican, giving Republicans an advantage. (*Id.*)

470. Third, Professor Chen applies the efficiency gap metric. The efficiency gap compares the votes each party “wastes” as they are cast for losing candidates or exceed the 50% cast for a winning candidate. (*Id.* at 12.) The efficiency gap is simply the difference statewide between the parties’ respective wasted votes divided by the total number of two-party votes. (*Id.*) It is not a district-level measure. A map with a

¹³ Sometimes called “mean-median.”

pro-Republican efficiency gap is a map in which Republican votes are used more efficiently, foregoing larger wins in packed districts for more wins in cracked districts.

471. Professor Chen does not assume that a high median-mean or a high efficiency gap by itself reflects partisan gerrymandering, acknowledging that both the median-mean difference and the efficiency gap, by themselves, leave open the question of whether the partisan bias they reflect arise from the state's political geography, from statutory redistricting guidelines, or from intent of the legislature to benefit one party. (*Id.* at 12-13.)

472. Professor Chen proceeds to evaluate the Republican-favoring skews in median-mean and efficiency gap by comparing the 3,000 simulated plans—drawn without partisan input—to the three enacted plans, thereby controlling for geographical and statutory criteria taken into account by the simulated plans. (*Id.* at 13.)

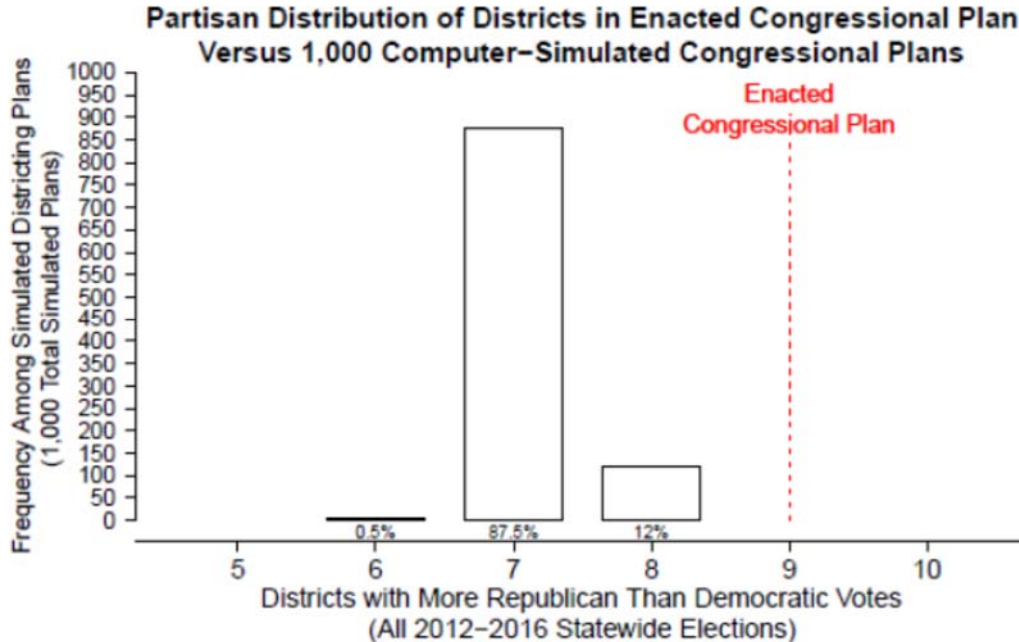
473. In summary, Professor Chen found that each enacted plan was a partisan outlier compared to the computer simulated plans. Each enacted plan created more Republican districts than every single one of the simulated plans. This was also true as measured by efficiency gap or median-mean difference. (*Id.* at 2-3.)

474. In addition, the simulated plans are reasonably compact geographically—all contain fewer county breaks and fewer municipal breaks than Michigan's enacted plan. (*Id.* at 2-3, 15, Table 2.)

Partisan Advantage of Congressional Plan

475. Professor Chen used the three different metrics he had selected—the number of Republicans in districts, median-mean, and efficiency gap—to compare the enacted congressional plan to the simulated plans. (Chen Report, Trial Ex. P-3 at 13-18.)

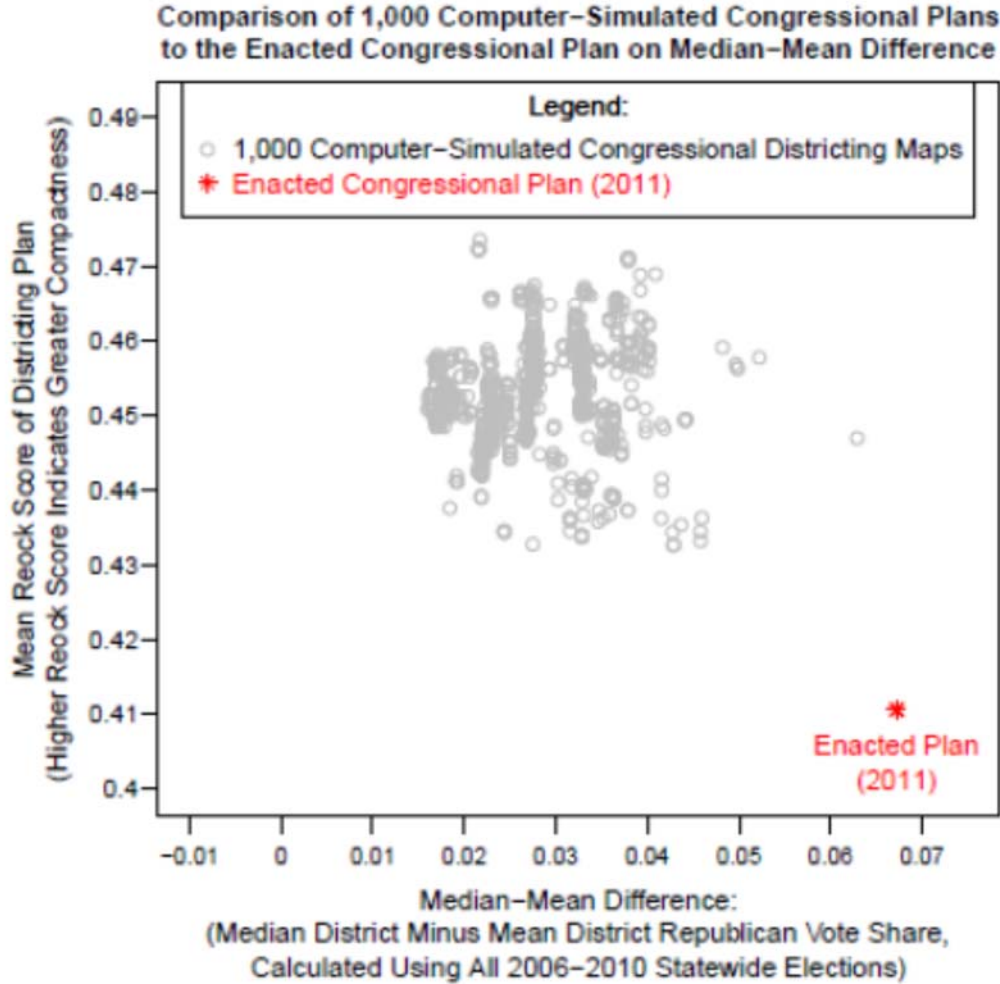
476. Using the 2012-2016 decision data to compare the actual post-redistricting partisanship of districts, the great majority of the simulated plans produced seven districts, 13% of the plans produced eight, and none produced the nine that the enacted plan would produce. (*Id.* at 13-14, 16; Chen Figure 2, Trial Ex. P-7.)



477. This data suggests a partisan goal in the drawing of the enacted plan.
(Chen Report, Trial Ex. P-3 at 14.)

478. The median-mean for the enacted Congressional plan was 6.72% using 2006 to 2010 partisanship data and 7.5% using 2012 to 2016 partisanship data. (*Id.*) By comparison nearly all the computer simulated plans have median-mean differences of 3.8% or less based on any election data. (Chen Report, Trial Ex. P-3 at 22, Chen Figure 5, Trial Ex. P-10.; *see also* Trial Exs. P-261, 263 (correcting erroneous labeling in earlier figures).)

479. The 2006-2010 chart in P-10 illustrates this point and shows graphically how the enacted plan is a partisan outlier.:

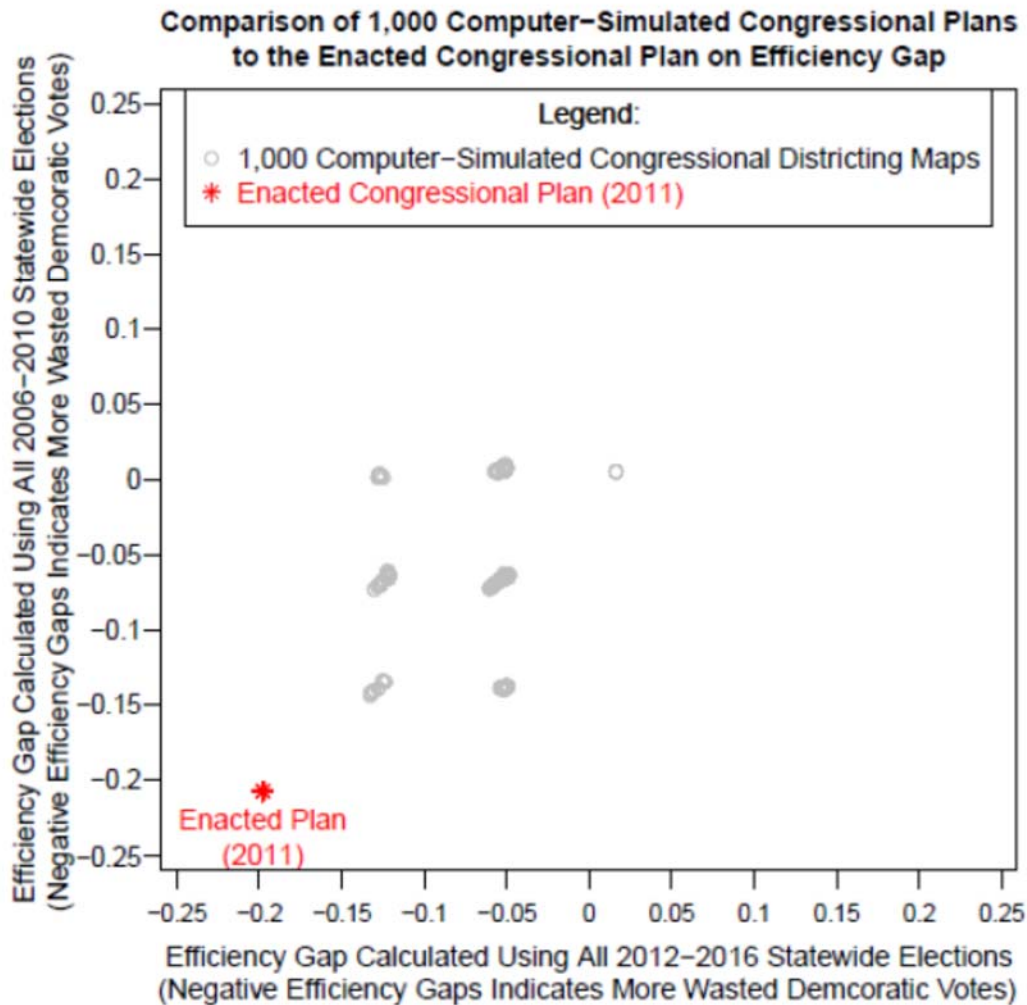


480. Professor Chen concludes from this data with extremely high statistical certainty that the enacted plan's median-mean difference is not the result of Michigan's natural political geography but is the result of partisan intent. (Chen Report, Trial Ex. P-3 at 21.)

481. Finally, Professor Chen compared the simulated plans to the enacted plan using the efficiency gap. (*Id.*) The result is reflected in a single chart with the 2012

to 2016 partisanship data reflected on the horizontal axis and the 2006 to 2010 data reflected on the vertical axis. (Trial Ex. P-11; Trial Ex. P-3 at 24.)

Figure 6:



482. Like the median-mean data, this efficiency gap data shows that the enacted plan is an outlier beyond the entire partisanship range of 1,000 computer simulated plans.

483. The enacted plan shows an efficiency gap of -20.7% or -19.8% (minus being pro-Republican) depending on which decade's election results are used.

484. The most extreme of the simulated plans have efficiency gaps of approximately -15%, while the majority of the simulated plans have efficiency gaps within five percent of zero. Professor Chen concludes “to produce a map with significant electoral bias deviating by over 15% from a zero efficiency gap would require extraordinary and deliberate partisan map drawing efforts.” (Chen Report, Trial Ex. P-3 at 25.)

Partisan Advantage of Senate Plan

485. Professor Chen conducted a parallel analysis using the same process with regard to the enacted Senate plan with similar results. (*Id.* at 26-38.) For example, see the following exhibit Figure 11 (Trial Ex. P-117.) Professor Chen demonstrates similar outlier results on median-mean and efficiency gap with similar graphics as shown for the congressional comparison. (*Id.* at 33-38.) He concludes “with overwhelmingly high statistical certainty” that the enacted Senate plan is a partisan outlier. (*Id.* at 38.)

Partisan Advantage of House Plan

486. Finally, Professor Chen conducted the same comparisons for House plans. (*Id.* at 39-51.) As with the other maps, Professor Chen’s Michigan House analysis reflects high efficiency gaps, high median-mean metrics and a high asymmetry based on simple enumeration of Republican districts. (*Id.*; *see esp. id.* at 16-17.) And, as with the other plans, after considering all metrics he concludes with over 99.9%

certainty “that the enacted plan is a partisan outlier that intentionally created a pro-Republican partisan outcome.”

Partisan Durability

487. The Court has the benefit of the history of elections in 2012, 2014, and 2016, and some evidence from 2018, to evaluate whether the Republican advantage in the enacted maps was durable. (Chen Report, Trial Ex. P-3 at 65.)

**Appendix B:
Share of Districts and Share of Statewide Vote Won by Republican Candidates
In the 2002-2016 Congressional, House, and Senate Elections.**

Election Year	Statewide Republican Vote Share in Congressional Elections	Share of Congressional Districts Won by Republicans
2002	49.44%	60% (9 of 15)
2004	50.51%	60% (9 of 15)
2006	45.80%	60% (9 of 15)
2008	45.65%	46.7% (7 of 15)
2010	54.15%	60% (9 of 15)
2012	47.60%	64.3% (9 of 14)
2014	49.11%	64.3% (9 of 14)
2016	50.55%	64.3% (9 of 14)

Election Year	Statewide Republican Vote Share in State Senate Elections	Share of State Senate Districts Won by Republicans
2002	50.42%	57.9% (22 of 38)
2006	45.58%	55.3% (21 of 38)
2010	54.48%	68.4% (26 of 38)
2014	50.73%	71.1% (27 of 38)

Election Year	Statewide Republican Vote Share in State House Elections	Share of State House Districts Won by Republicans
2002	50.48%	57.3% (63 of 110)
2004	48.59%	52.7% (58 of 110)
2006	45.11%	47.3% (52 of 110)
2008	42.25%	39.1% (43 of 110)
2010	53.86%	57.3% (63 of 110)
2012	46.82%	53.6% (59 of 110)
2014	48.78%	57.3% (63 of 110)
2016	50.03%	57.3% (63 of 110)

488. The 2018 elections occurred after the discovery and expert report deadlines in this case. Nonetheless, the Court takes judicial notice that while Republicans lost the popular vote on all three maps, they retained majority control of the state House and state Senate and gained only a split in the state's Congressional delegation.

489. Professor Chen performed a “uniform swing analysis” to determine how much of a vote swing would be necessary to flip any of the maps. Uniform swing analysis is supported by the political science literature. It evaluates how a map will respond to a uniform swing of political results in every district to estimate results in a year more favorable to one party or the other. (Chen Report, Trial Ex. P-3 at 52.)

490. Chen Table 5 (*id.* at 57; P-26) presents the results of that analysis, and Chen's Appendix C, Figures C1 through C7 (Chen Report, Trial Ex. P-3 at 66-72, P-29 – P-35) show district-by-district analysis of how far votes would have to shift to flip the majority in each map. Professor Chen's analysis was that in 2012, a successful year for Democrats, Democrats would have had to increase their votes by an additional 3.37% to split the Congressional delegation evenly. (*Id.* at 53.) In more favorable Republican years of 2014 and 2016, Democrats would have had to improve their showing by 6.45% and 7.79%, respectively, in order to split the delegation. (Chen Report, Trial Ex. P-3 at 53.) In the November 2014 Senate elections, Democrats were 6.4% away from winning half the districts. (*Id.*)

491. Professor Chen concludes that these results demonstrate that Republican majority control was durable in all these districts even under a reasonable range of alternative electoral conditions. (Chen Report, Trial Ex. P-3 at 53.)

492. The actual historical results support Professor Chen's conclusion. (Chen Appendix B, Trial Ex. P-28.)

Critique: Motion in Limine

493. Trial Exhibits D-50 and D-52 are declarations ("MIL Declarations") of Dr. Yan Liu and Timmer, respectively, in support of the Secretary's December 4, 2018 Motion in Limine to Exclude the Expert Report of Dr. Jowei Chen ("MIL"). Plaintiffs responded to the MIL (ECF Nos. 148, 160-161.) On January 15, 2019 the Court denied the MIL determining to admit the evidence and "afford it whatever weight the Court deems appropriate." (ECF No. 193 at PageID #7592.)

494. The Secretary's attack on Dr. Chen's credibility focuses on a dispute regarding the production of "source code" during discovery, the argument that Professor Chen's plans were pro-Democratic by design rather than neutral, and the claim that Professor Chen did not use the Apol criteria properly. (*See, e.g.*, ECF No. 147 PageID 5361-62, *et seq.*)

495. Professor Chen turned over to the Secretary the actual compiled computer code used to run his simulations. (Chen, Dep. at 52:23-53:2.) When asked, Professor Chen also provided draft "source code" "structurally identical to the ultimately compiled code that I used to produce the three different sets of simulations

in my report.” (*Id.* at 50:4-16.) Professor Chen saves draft code as he makes changes to it. The draft source code he produced is “identical in structure to the simulations that I ran.” (*Id.* at 52:4-7.) Professor Chen did not save every iteration of every single word that was changed in the source code. He only saved source code when there was a structural or substantial change made. (*Id.* at 54:5-7.) It is not his normal practice to save drafts of Java code after every single cosmetic change that makes no substantial or structural change. (*Id.* at 59:5-7.) He has not produced source code in other cases. (*Id.* at 60:16-25; 61:1-9.)

496. Professor Chen further testified that there were only cosmetic changes between the draft source code he produced here and the final version. Those cosmetic changes are not “part of the essential structure of the simulation.” (Chen, Dep. at 55:13-19.) They include a graphic that displays certain data and redundancy checks on the progress of the simulation process. (*Id.* at 56:1-6; 16-20.) When producing large numbers of simulations, he does not want those functions taking up processing power, taking up computer memory. (*Id.* at 56:21-24.) They just slow things down. (*Id.* at 57:1.)

497. Third, the Secretary speculates that Professor Chen “may” have instructed his computer to only output simulations that were more favorable to Democrats. (ECF No. 147 at PageID #5378.)

498. Professor Chen testified about all the criteria used in developing his algorithm. (*See generally* Chen, Dep. at 50-280; Chen Report, Trial Ex. P-3 at 2-3, 59-

64.) A hypothetical pro-Democrat gerrymander of the simulated maps is simply not any part of the evidence in this action. To the contrary, Professor Chen testified he instructed the computer to ignore partisan considerations. (Chen, Dep. at 15:2-3.)

499. Neither the Secretary nor the Intervenors have demonstrated any prejudice that would have arisen from the format and timing of the production of computer code by Professor Chen.

500. The Court concludes that Professor Chen's algorithms largely excluded plans similar to the enacted plan for the reasons set forth in Dr. Chen's proposal; that is, that they excluded partisan considerations, not because of some hypothetical secret line in his computer code.

Critique: Yan Liu

501. Yan Liu submitted a critique of Professor Chen's report. (Liu Report, Trial Ex. D-16.) Dr. Liu is not a political scientist. (*Id.* at 18; Tr. at PageID #8930:9-11.) He received his Ph.D. in Informatics in December 2017. Informatics is an interdisciplinary field that includes computer science, geographic information, and operations research. (Liu, Dep. at 30:2-15.) Dr. Liu's training is in computer programming, computer science, and computer engineering. (Liu C.V., Trial Ex. D-18.) Dr. Liu's assignment in this case was to analyze Dr. Chen's expert report only from a computer science perspective. (Liu Dep. 7:15-18.) Dr. Liu made no independent analysis of the partisanship of Michigan maps or districts. Dr. Liu made

no attempt to generate any maps for the congressional, House or Senate districts using any other computers or algorithms. (*Id.* at 49:15-20.)

502. Dr. Liu testified he was unable to produce any map simulations when he attempted to run the code on his laptop for six hours but there is no evidence he ran the algorithm on a higher capacity computer, such as a server. (*Id.* at 14:8 – 15:11.)

503. Dr. Liu's report criticizes Dr. Chen's mapping algorithm. (Liu Report, Trial Ex. D-16 at 27.) It is worth noting, however, that Dr. Chen's methods and results have been peer reviewed and published in academic journals. *See, e.g.*, Jowei Chen, "The Impact of Political Geography on Wisconsin Redistricting: An Analysis of Wisconsin's Act 43 Assembly Districting Plan," ELECTION LAW JOURNAL (2017); Jowei Chen and Jonathan Rodden, "Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures," QUARTERLY JOURNAL OF POLITICAL SCIENCE 8 (3): 239-269 (2013).

504. Dr. Liu's chief criticism of the Chen algorithm is that the algorithm is designed so that "none of these [simulation] maps is worse than the enacted plan in terms of compactness and the number of city or county breaks, population deviation, and political measures, including the Republican district measure and mean-median difference, and ... the efficiency gap." (Liu, Dep. at 16:3-10.)

505. This observation is factually correct but in no way undermines Professor Chen's work. Dr. Chen's simulations apply statutory and real-world criteria, just as the legislature did. (*Id.* at 68:24 – 70:20.) That the 3,000 simulations follow state criteria

better than the legislature's maps did only proves Professor Chen's point: putting partisanship aside allows for more compliant maps.

506. Dr. Liu agreed that it would make little sense to sample from a set of simulated maps that have far more city/county line breaks than the enacted maps. (*Id.* 41:5-17.) He concedes that he is not qualified to calculate or define how large a theoretical set of all legally valid maps could be. (*Id.* 71:7-10.) Dr. Liu conducted no experiments of his own to determine how his theoretical universe of mathematically possible, nonpartisan, legal Michigan maps would be distributed. (*Id.* at 39:6-41:4.)

507. Dr. Liu states in his report that he was surprised that Dr. Chen chose to measure the partisanship of each enacted and simulated district by counting the number of Republicans and Democrats within the boundaries. (Liu Report, Trial Ex. D-16 at 18.) Dr. Liu contends this is misleading because each party's totals theoretically could differ by only one voter, yet Dr. Chen would count such a competitive district as belonging to the party that wins by even a single vote. (*Id.* at 19.) Dr. Liu urges the Court to consider Dr. Chen's results according to how competitive (i.e., within the range of 45 – 55%) or safe (i.e., exceeding 55%) the Republicans' vote share is in each district. (*Id.* at 20.)

508. Dr. Warshaw defends Dr. Chen's approach and is highly critical of Dr. Liu's "competitiveness" metric from a political science perspective. He correctly observes that Michigan's elections are always conducted on a winner-take-all basis in each district. In other words, it is highly meaningful to treat a district as either

Democratic or Republican based on each party's voters. (Warshaw Rebuttal Report, Trial Ex. P-157 at 17.)

509. Dr. Liu's report also reveals his fundamental misconception of the efficiency gap. (Warshaw, Tr. at PageID #8930:25 – 8931:5.) Dr. Liu incorrectly described the efficiency gap metric in his report. (Warshaw, Tr. at PageID #8930:12-24.) It does not “merely characterize how many seats are won and lost by each party.” (Warshaw, Tr. at PageID #8930:22-23.) The efficiency gap captures the packing and cracking of each district and shows how many extra seats one party wins over and above what would be expected if neither party were advantaged in the translation of votes to seats. (Warshaw Rebuttal Report, P-157 at 17.)

510. The Court finds nothing in Dr. Liu's opinions that undercuts the conclusion that Dr. Chen applied a nonpartisan methodology and created hundreds of alternative maps that were more optimal as to the number of county line and MCD breaks, and compactness.

Critique: Professor Johnson

511. Defense expert Douglas Johnson is the owner and primary consultant for National Demographics Corporation. He holds a Ph.D. in political science from Claremont Graduate University. (Johnson Report, Trial Ex. D-14 at 1.)

512. One gerrymandering case held “[f]or several reasons, we find Dr. Johnson's analysis and opinion as to the alleged racial targeting in the Recommended Plans unreliable and not persuasive.” *Covington v. North Carolina*, 283 F. Supp. 3d 410,

449-51 (M.D.N.C. 2018), *aff'd in part and reversed in part on other grounds*, *North Carolina v. Covington*, 138 S.Ct. 2548 (2018).

513. Dr. Johnson argues that Professor Chen's simulated maps are "not random" and stated that he does not believe it is possible for a simulated map to be created through a combination of randomness and traditional redistricting criteria. (Johnson Report, Trial Ex. D-14 at 4-6; Johnson, Dep. at 139:3-9.)

514. As set forth above, however, Professor Chen describes in detail the rigorous and detailed manner in which he did just that.

515. Dr. Johnson argues that Professor Chen claimed to have frozen certain districts in his analysis, but did not in fact freeze those districts. Dr. Johnson extrapolated this finding to assert that there were likely additional problems in Professor Chen's analysis. (Johnson Report, Trial Ex. D-14 at 6-7.)

516. Professor Chen had in fact frozen those districts in his analysis. (Findings 457 above.) Dr. Johnson acknowledged that he had only based his conclusion on two of the four relevant charts in Professor Chen's report (D4 and D8), and admitted that, when the two additional charts were pointed out to him (D5 and D11), that they were relevant to his opinion and that the districts at issue could, in fact, have been frozen as Professor Chen stated. (Johnson, Dep. at 179:11-16, 180:8-15.)

517. Dr. Johnson misunderstands how the metric works, and misapprehends Professor Chen's use of the metric. (Johnson Report, Trial Ex. D-14 at 8-10.)

518. Dr. Johnson's statement that "where one party has 60% of the votes and gets 60% of the seats," the result is "a perfect Efficiency Gap of 0%" is both confusing and incorrect. Such a scenario would result in an efficiency gap of minus 10% for the party that received 60% of the vote and seats, as Dr. Johnson later admitted. (Johnson Report, Trial Ex. D-14 at 17; Johnson, Dep. at 104:5-21; Warshaw Rebuttal, Trial Ex. P-157 at 5.)

Critique: Professor Brunell

519. Defense expert Thomas Brunell is a professor at the University of Texas in political science. He holds a master's and Ph.D. in political science from the University of California, Irvine. Professor Brunell is the publisher of "Redistricting and Representation: Why Competitive Elections are Bad for America." 2008 New York: Routledge. (Brunell Report, Trial Ex. D-19 at 1, 23.)

520. Professor Brunell conducted no analysis of the partisanship of Michigan's enacted districts or enacted maps. His report reflects critiques of the analysis conducted by Professors Chen, Warshaw and Mayer. (Brunell Report, Trial Ex. D-19 at 1.)

521. Professor Brunell neither reviewed Professor Chen's computer code or simulated maps, nor is there evidence he sought additional time to do so, nor did he submit a supplemental report.

522. Professor Brunell first argues that Professor Chen's simulations are not valid because they followed the Apol criteria rather than the criteria actually followed

by the 2011 legislature, citing *LeRoux v. Sec'y of State*, 640 N.W.2d 849 (Mich. 2002). (Brunell Report, Trial Ex. D-19 at 3-4.)

523. Professor Brunell tells the Court that it should not “care about these [Chen’s] maps.” He argues that the maps do not take into account a number of factors that, he says, the legislature did, or in his view, should, for example, that one Texas legislator wanted his grandchildren’s school in his district. (Brunell Report, Trial Ex. D-19 at 8-9.) But Professor Brunell claims no knowledge whatsoever of the factors actually used by the Michigan legislature. He does not appear to have reviewed any of the depositions taken in the case or had any other input regarding the actual legislative process.

524. Professor Chen applied five state criteria in producing plans: contiguity, population, minimizing county breaks, minimizing municipal breaks and as to some districts, compactness. (Chen Report, Trial Ex. P-3 at 2-3.) Professor Chen was not in a position to make legal judgments about the impact or legality of the criteria listed in the Apol statute. (Chen Dep. 13:12-14:21; 15:13-19; 67:16-22.)

525. Professor Chen arguably departed from the statutory Apol language in two partial ways, involving the moving of municipalities between districts (“Subsection (f)”), and considering compactness throughout his simulations.

526. The Intervenors and Secretary have acknowledged, and the evidence supports, that the legislature took advantage of the decision in *LeRoux v. Sec'y of State*, 640 N.W.2d 849 (Mich. 2002) allowing the legislature to follow or disregard statutory

Apol language as it wishes. (Marquardt Dep. 111:24-112:8, 107:14-16 (compactness was a goal in map drawing); Timmer, Tr. at PageID #9279:1-11; (Defendant Secretary of State Ruth Johnson's Motion in Limine to Exclude the Expert Report of Dr. Jowei Chen; ECF No. 147 at PageID #5379, n.9; 5383) (Secretary argument that Apol criteria may be changed by implication at any time); *Id.* at 13, n.9, 17.)

527. Professor Chen confirmed at his deposition that he did not strictly follow the text of Subsection (f) of MCL §4.261. (Chen, Dep. at 103:7-105:20.) That subsection on its face would require the legislature to minimize the number of municipalities ("MCDs") or voters moved through county breaks, and applies only to state legislative plans not congressional apportionment.

528. However, the testimony of Michael Vatter established that in drawing the enacted state House and Senate maps, the Michigan legislature itself disregarded Subsection (f). Mr. Vatter testified at length regarding at least eight instances in which the legislature could have moved fewer MCDs, or MCDs containing fewer people, in balancing population. (Vatter, Tr., ECF No. 249 at PageID #9037 – 9044; *see also* Findings § II(D) *see esp.* ¶¶ 107-111.)

529. Defense/Intervenor expert and fact witness Jeffrey Timmer, who testified the day after Mr. Vatter, did not dispute Mr. Vatter's testimony on this point. To the contrary, he acknowledged generally that mapmakers put aside the written Apol criteria where necessary to satisfy legislator demands. (Timmer, Tr. at PageID #9279:1-11.)

530. Both MCL § 4261 and MCL § 3.63 include references to compactness and a general definition of compactness. Neither is prescriptive about when to apply and when not to apply compactness. However one reads those statutes, the 2011 legislature also applied compactness as a criteria. (*See, e.g.*, Marquardt, Dep. at 107:14-16, 111:24-112:8.)

531. Because Professor Chen's process seeks to follow the Michigan legislature's actual redistricting process, setting aside partisanship, Professor Chen's choices not to apply the Subsection (f) rule in state district maps, and to make generally compact maps, mirror the Michigan legislature's own conduct. As a result, his choices do not detract from, but instead enhance, the validity of the comparison between the enacted plans and the simulated plans.

532. Given the evidence, and the lack of any evidence of a material difference between Professor Chen's application of criteria and the Michigan legislature's application of criteria in 2011, the Court accepts Professor Chen's conclusion that his simulations parallel the legitimate state considerations for the Michigan legislature in 2011 in all ways, material to his conclusions.

533. Professor Brunell next criticizes Professor Chen for freezing districts Congressional 13 and 14, state Senate 1 through 7, and House 1 through 10, 15 and 35 in his simulations. (Brunell Report, Trial Ex. D-19 at 4.)

534. By freezing the very majority-minority districts that the legislature actually enacted, Professor Chen's analysis is strengthened, not weakened, as he eliminates VRA compliance as a reason for the partisanship of the enacted maps.

535. Professor Brunell next criticizes Professor Chen for using statewide elections to measure partisanship of enacted and simulated maps and districts, rather than using legislative-level elections. (Brunell Report, Trial Ex. D-19 at 5-6.) However, experts in this field typically use statewide elections rather than legislative elections to make long-term forecasts of the most likely results of a particular districting plan. (Findings § II(C).) And, the consultants and staff conducting the 2011 redistricting in Michigan themselves actually used all statewide races to evaluate the partisanship of their work. (*Id.*) As Professor Warshaw explained in his rebuttal report, Professor Chen's results are actually quite accurate in the long run, and the deviations that do exist from election to election generally favor the Republicans. (Warshaw Rebuttal, Trial Ex. P-157 at 12-13.)

536. Next, Professor Brunell criticizes Professor Chen's use of the efficiency gap, but in doing so misapprehends Professor Chen's use of the metric and misstates how the metric works. (Brunell Report, Trial Ex. D-19 at 7-8.)

537. Professor Brunell's statement that "elections that are 50-50 and 75-25 both yield an efficiency gap of zero" is both confusing and incorrect. But fifty-fifty elections could correspond to a wide range of possible efficiency gaps based on the number of wasted votes. (*Id.* at 13; Warshaw Rebuttal, Trial Ex. P-157 at 13-14.)

538. Likewise, Professor Brunell's critique that there is no "bright line" for the efficiency gap misapprehends Professor Chen's, and plaintiffs' generally, use of the metric. No plaintiffs' expert in this case has opined that any particular efficiency gap is "too much." Instead the experts have conducted proper evaluations of plans using a variety of metrics, compared against historical, national and nonpartisan data to determine whether the enacted plans are outliers. (*See, e.g.*, Warshaw Rebuttal, Trial Ex. P-157 at 13-14.)

539. Professor Brunell goes on to complain that Professor Chen's work is "biased." (Brunell Report, Trial Ex. D-19 at 10.) But Professor Warshaw confirms, "Professor Chen's mapping algorithm has been peer reviewed in multiple articles (Chen and Rodden 2013; Chen 2017)" and in fact in other settings has shown there is a natural bias in favor of Republicans. (*Id.*) As Professor Warshaw points out, Professor Chen's algorithm in other settings typically yields simulated maps that would cut against rather than for plaintiffs' arguments in this case, which make his findings here based on the political geography of Michigan "all the more remarkable." As Professor Warshaw explains, Professor Chen's report shows the partisan bias in the Michigan plans due to intentional gerrymandering by the Republican legislature "swamps any effects of geography." (*Id.*; *see, e.g.*, Chen Report, Figure 5, Trial Ex. P-10; Chen Report, Figure 11, Trial Ex. P-17; Chen Report, Figure 17, Trial Ex. P-24.)

540. Finally, Professor Brunell criticizes Professor Chen's district-level conclusions because in some instances the range of partisanship of simulated districts

approaches that of the enacted districts, and in other instances the enacted district is slightly inside the partisanship range of random districts. (Brunell Report, Trial Ex. D-19 at 13-16.) Professor Brunell submitted no alternative simulations to demonstrate that the enacted plans, contrary to the testimony from plaintiffs' experts, fell within the range of neutrally generated plans.

541. An intentionally packed or cracked district does not become "neutral" simply because a random simulation of 1,000 maps might generate a handful of districts that are just as partisan. The question of whether a particular district is packed or cracked for purposes of this case is not eliminated simply because that map *might* have shown up somewhere at the margins of a 1,000-district simulation. The voters have submitted voluminous intent and expert data to support the natural inference that the highly partisan challenged districts did not arise by chance.

542. Professor Warshaw summarizes how far how outside neutrality the challenged maps and districts fall, and reiterates the conclusion that Professor Chen's analysis "shows that Democrats would gain a substantial number of seats in all three chambers using politically neutral maps. Moreover, these gains are large and politically consequential." (Warshaw Rebuttal, Trial Ex. P-157 at 14-15.)

543. Based on the academic and map evaluating experience of Professor Chen, his detailed explanations of his work, the extensive discovery of the parties, and the lack of any opposing simulations, the Court's credits Professor Chen's testimony.

544. Professor Chen applied the Apol criteria as written but testified further than he included compactness on all districts (not just those covered by the statutes, and disregarded subsection (f) regarding minimizing the number of municipalities moved between counties.

B. Christopher Warshaw

Qualifications

545. Professor Christopher Warshaw holds a Ph.D. in political science from Stanford University and a JD from Stanford Law School. (Warshaw, Tr., ECF No. 248 at PageID #8819:21-23.) Professor Warshaw served as an assistant professor and an associate professor at the Massachusetts Institute of Technology and since 2017 has been an assistant professor of Political Science at the George Washington University. (*Id.* at PageID #8820:6-10.)

546. Professor Warshaw teaches political science and American politics. His research interests focuses on elections, public opinion and representation, and the link between public opinion and outcomes. (*Id.* at PageID #8820:12-20.) Professor Warshaw's research publications include 15 peer-reviewed articles and six books, chapters or Law Review articles. He has given invited talks at BYU, University of Virginia, UCLA, Washington University in St. Louis, Yale, Columbia, Duke, Princeton, Boston University, and other institutions. (Warshaw CV, Trial Ex. P-156 at 4.)

547. In *League of Women Voters v. Commonwealth*, the Pennsylvania trial court accepted Dr. Warshaw as an expert in American politics. 178 A.3d 737, 777 (Pa. 2018). The trial court found “Dr. Warshaw’s testimony to be credible, particularly with respect to the existence of an efficiency gap in Pennsylvania.” *Id.* at 778. The trial court rejected the opinion of an expert witness who criticized Dr. Warshaw’s testimony. *Id.* at 781.

Chen-Warshaw Address Level Analysis

548. Professor Warshaw created a chart that summarizes Professor Chen’s data for the partisanship of simulated districts and enacted districts at an individual voter address level. (*Id.* at #8824:10 – 8828:15.) (“Address Level Chart,” Trial Ex. P-278.) In the Address Level Chart, Professor Warshaw marked red X’s to show the partisanship of the enacted district being evaluated, and he added for comparison gray circles showing Professor Chen’s simulated districts for that voter’s address. (*Id.* at PageID #8824:20-23; Trial Ex. P-278.)

549. The Address Level Chart does not use efficiency gap. (*Id.* at PageID #8915:20 – 8916:1.) It summarizes the partisanship of neutrally simulated districts versus the partisanship of the enacted district at an individual voter address level. (*Id.* at PageID #8824:10-15.) It shows graphically whether a district is cracked or packed.

550. The address level chart shows that there are alternative districts less cracked and packed for each of the individual plaintiffs. (*Id.* at PageID #8861:9-15.) Comparing the red X’s for the enacted districts to the gray circles for the simulated

districts, one can see whether the range of simulations includes the enacted districts. (*Id.* at PageID #8824:24 - 8825:2.) If an enacted district lies outside the gray circles, then it would be very highly unlikely to have occurred by chance. (*Id.* at PageID #8825:11-14.) If an enacted district is within just the margin of the random distribution, there would still be a very small chance (one or two percent) that the district would have occurred by chance under nonpartisan criteria. That would indicate that partisan criteria were probably used to draw the map. (*Id.* at PageID #8933:8-19.)

551. At trial Professor Warshaw was pushed repeatedly to agree that an enacted district within the span of Professor Chen's simulations was a "nonpartisan district." (*Id.* at PageID #8919:3 – 8922:5.) Professor Warshaw declined to agree with this inaccurate characterization, instead explaining that while an enacted district at the margins of the span of simulated district partisanship could happen by chance, it was extremely unlikely. (*Id.*; *see especially*, at PageID #8919:18-20.)

552. Table 1 at page 259 below summarizes selected backup data underlying the Address Level Chart. Table 1 contains, in more legible form, certain columns from Exhibits P-169 through P-171, which exhibits contain Professor Chen's detailed numerical data about simulated and enacted districts for each listed voter address. As examples, Table 1 includes the partisanship of the enacted district for that address using 2012-2016 data, the mean partisanship of all the corresponding simulated districts using 2012-2016 data, and a 1 or zero for the significance of the overall

partisanship differences between the simulated and the enacted districts. Voters claim cracking or packing only where the difference is significant.

553. Exhibits P-169, P-170, and P-171 were provided to Secretary's and Legislative Intervenors' counsel in October 2018. (*See, e.g.*, Plaintiffs' Supplemental Trial Exhibit List, ECF No. 172-1 at PageID #7309-7311.) Their authenticity is not disputed. (*Id.*, Proposed Joint and Final Pretrial Order, ECF No. 159-1 at PageID #6359, ¶ 9.) Professor Warshaw testified about creating the Address Level Chart (Trial Ex. P-278) from Professor Chen's data. (Warshaw, Tr., ECF No. 249 at PageID #8824:10 – 8828:15.) The voters' names and hometowns on the Address Level Chart correspond to those on Table 1 and on Exhibits P-169, P-170 and P-171.

554. The partisanship of many voters' enacted districts lies wholly outside the edge of the range of partisanship of the simulated districts for that voter's address. For example, the address level analysis for Rosa Holliday appears on the second page of Exhibit P-278. For Ms. Holladay's address, none of the 1,000 simulated districts were as Democratic as the enacted district. (Warshaw, Tr., ECF No. 248 at PageID 8825:14-18. (*Id.* at PageID #8827:13-16.)



555. The partisanship of other voters' enacted districts lies within, but at the edge of, the partisanship of the simulated districts for that voter's address. For example, Karen Sherwood's Congressional District 4 is within the range of the

simulations for her address; however, its partisanship “is certainly more extreme than the vast majority” of the simulated districts. (*Id.* at PageID #8827:10 - 8828:7; *see also* Table 1, page 2 (Sherwood stat. sig equals 1).)



556. The results of the Warshaw/Chen address level packing/cracking analysis for each voter is set forth within that Voter’s section of these findings. *See* Findings § III(A) above.

Demonstration Maps for Each Challenged District

557. Professor Warshaw also selected certain of Professor Chen’s 3,000 simulated plans to portray alternative districts for demonstration purposes. (*Id.* at PageID #8828:16 - 8830:25.) First, Professor Warshaw reviewed the simulation set to find maps that for all the voters in the case were not outliers. (*Id.* at PageID #8828:23 - 8829:1.)¹⁴ Professor Warshaw found between over a dozen simulated maps in which the partisanship of the simulated district for each voter was within the middle range of the partisanship of all the simulations for that voter. (*Id.* at PageID #8829:1-16.) Next, using Michigan statutory compactness criteria, Professor Warshaw selected from that set one state House, one state Senate and one congressional demonstration plan. (*Id.* at PageID #8829:17-23.) From these three demonstration

¹⁴ Professor Warshaw used the term “plaintiffs.” He later explained that he meant “voters” as he did not distinguish between plaintiffs and League voters. (*Id.* PageID #8861:16-22.)

plans Professor Warshaw created district-by-district demonstrative exhibits. (*Id.* at PageID #8829:24 - 8830:4; Demo. P-1 – P39 (Chen cong. simulation 80); P-40 – P-64 (State Senate simulation 471); P64 – P-79 (State House simulation 515).)

558. Plaintiffs' Demonstrative Exhibits P-1 through P-79 therefore draw on only three maps to show, for each voter, an unpacked, uncracked demonstration district. (*Id.* at PageID #8828:15 - 8831:1.) In other words, these maps show that all voters' claims can be remedied together by single maps for state House, state Senate, and Congress, respectively.

Metrics for Historical Comparison of Enacted Maps

559. Because there is no single perfect metric for determining asymmetry in a plan, in his report Professor Warshaw used a number of different metrics to analyze the enacted maps, all of which yield almost identical answers. (*Id.* at PageID #8834:4-11.)

560. First Professor Warshaw uses the efficiency gap with mathematically quantifies the number of wasted votes for each party, takes the difference between the two and dividing by the total number of votes in the election. (Warshaw Report, Trial Ex. P-129 at 6.) A high efficiency gap indicates that Democrats are wasting far more votes than Republicans. (Warshaw, Tr., ECF No. 248 at PageID #8850:15-16.)

561. The efficiency gap captures the essence of the gerrymander very well. Election to election variance does not undermine its validity according to Professor Warshaw. (*Id.* at PageID #8843:10-25.) And, voting patterns today are extremely

stable over time. (*Id.* at PageID #8877:13-14.) He also applied the median-mean metric, and a third metric called declination. (*Id.* at #8834:15 – 8835:3.)

562. Efficiency gap is extremely highly correlated with the other metrics he looked at. (*Id.* at PageID #8870:16-23.) In Michigan as in the vast majority of other plans Professor Warshaw has studied all three of the metrics yield very similar if not identical answers. (*Id.* at PageID #8835:3-5.)

State Legislative National and Historical Analysis

563. Professor Warshaw provided a variety of figures and charts demonstrating first that the vast majority of efficiency gaps in American state legislative elections over the past 45 years are relatively small in size; very few are actually more than plus or minus ten percent. (*Id.* at PageID #8837:9-19.) There is a slight advantage to Democrat bias in the historical set, not Republican. (*Id.* at PageID #8838:1-8; Warshaw Figure 12, Trial Ex. P-144.)

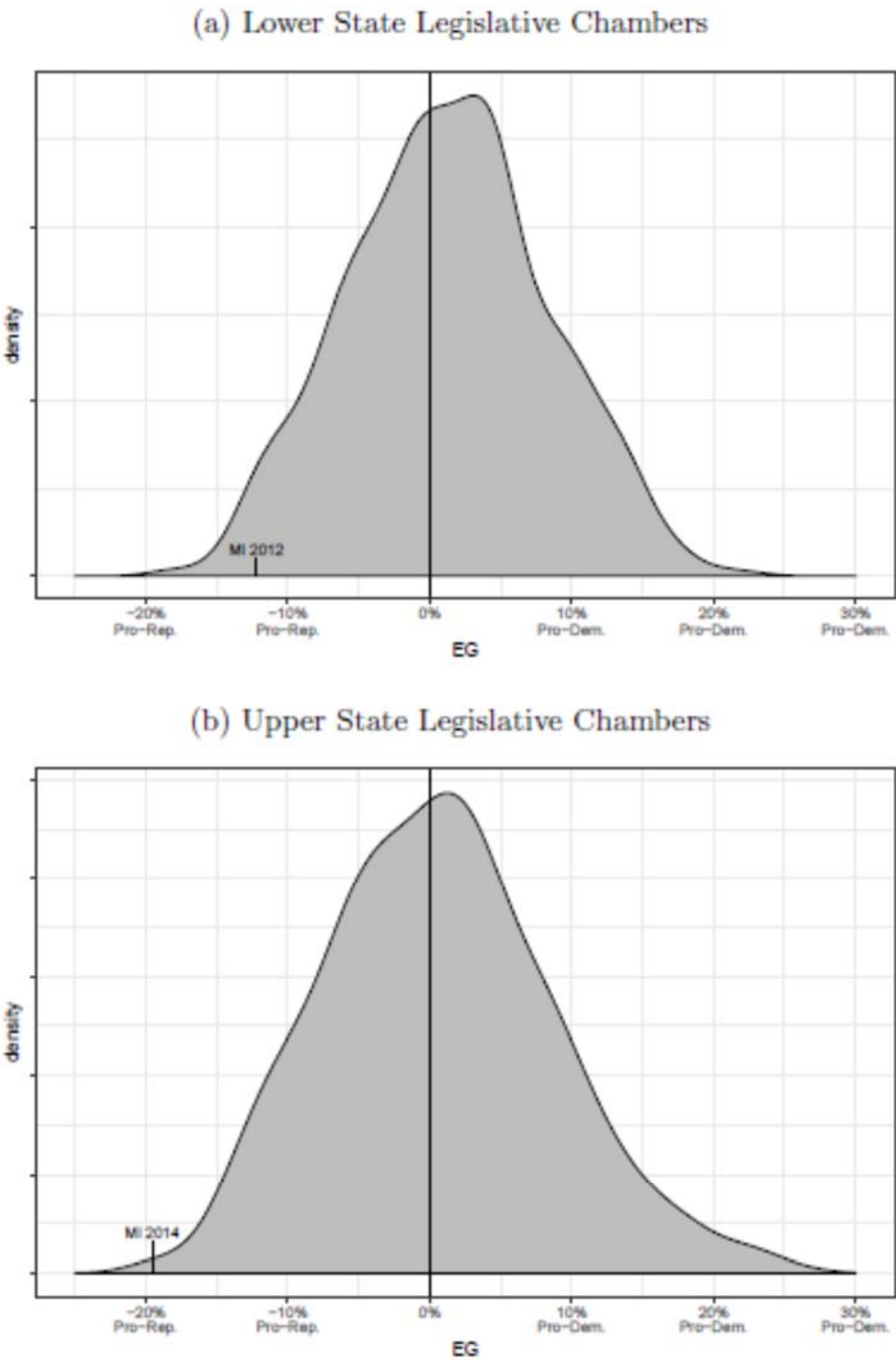


Figure 12: National Distribution of Efficiency Gaps in State Legislative Lower and Upper Chambers: 1972-2016.

564. By contrast, the Michigan 2012 election reflected one of the most pro-Republican efficiency gaps in the nation over the past 45 years. (*Id.* at PageID #8837:20-25; Warshaw Figure 12, Trial Ex. P-144.)

565. Similarly, the Michigan Senate election in 2014 was more extreme than almost any state Senate election over the past 45 years. (*Id.* at PageID #8839:7-13.)

566. Professor Warshaw also demonstrated that before the 1990's there was a slight national Democratic advantage in state plans because the Democrats controlled the redistricting process. (*Id.* at PageID #8839:18 – 8840:7; Warshaw Figure 13, Trial Ex. P-145.) He explained that there was no pronounced national advantage for either party in the 1990's and 2000's but that after 2011 there was a sharp change in which Republicans gained an advantage across many states. (Warshaw, Tr., ECF No. 248 at PageID #8840:8-10; Warshaw Figure 13, Trial Ex. P-145.)

567. Political scientists have long known that partisan control of government enables gerrymandering, and in the 2011 period Republicans were able to get a large and persistent party advantage because they controlled those state governments. (*Id.* at PageID #8841:4-17; *see also* Warshaw Report, Trial Ex. P-129 at 32., citing scholarly authority.)

568. Professor Warshaw also displayed the historical asymmetry data for Michigan House. (Warshaw Figure 15, Trial Ex. P-147.) The data show that in 2012 the Republicans moved from almost no advantage to a 13% pro-Republican efficiency gap. (Trial Ex. P-147; Warshaw, Tr., ECF No. 248 at PageID #8842:13 – 8843:5.)

This high asymmetry for Republicans in the Michigan House map was durable and continued right through 2016. (*Id.* at PageID #8843:21-25.) Similarly, in 2014 Democrats received about 49% of the votes in Michigan state Senate elections yet only won 29% of the seats, yielding a very large pro-Republican efficiency gap of almost -20%, one of the largest in history. (Warshaw Report, Trial Ex. P-129 at 33 (last paragraph) to 34 (first paragraph); Trial Ex. P-147.

569. Though geography can contribute to an efficiency gap, geography tends to change slowly over time. There is no evidence that anything geographic distribute of voters changed significantly between 2010 and 2012. (Warshaw, Tr., ECF No. 248 at PageID #8844:1-13; 8883:8 – 8884:10.)

570. In the 2010s and after 2011, Michigan drifts away from the central part of the national plans to a Republican extremity as reflected in Trial Exhibit P-148. (Warshaw Report, Trial Ex. P-129 at 35; Warshaw Figure 16, Trial Ex. P-148.) In the 2012 Michigan state House elections Democrats won 54% of the vote but only 46% of the House seats yielding an efficiency gap of -12.3%. (Trial Ex. P-129 at 34.) By all measures, the pro-Republican biases in the Michigan state legislative plan since 2011 are among the most biased towards Republicans that the nation has ever seen. (*Id.* at 35.) The 2012 Michigan state House efficiency gap was more pro-Republican than 98% of state House elections over the entire past five decades nationwide and had a larger absolute bias than 91%. (*Id.* at 35-36.) The same was true of the plan measured by median-mean and declination which produced more extreme values than 97% and

90% of previous state House elections historically. (*Id.*; *see also* Warsaw, Tr., ECF No. 248 at PageID #8845:13 – 8846:18.)

571. The 2014 Senate election showed a larger absolute efficiency gap than 98% of previous state Senate elections nationwide and a larger pro-Republican bias and 99.7% of all prior state Senate elections. (Warsaw Report, Trial Ex. P-129 at 36; *see also* Warsaw, Tr., ECF No. 248 at PageID #8846:19 – 8847:14.) As with the state House, the median-mean and declination data support the efficiency gap data with high pro-Republican median-mean and declination values from this election as well. (*Id.*; *see also* Trial Ex. P-129 at 36.)

572. Professor Warsaw concluded that “all three metrics tell a very similar story” as to the state legislature that the plan for both the House and Senate “was one of the largest outliers in history.” Professor Warsaw concluded that that kind of outcome described above does not occur by accident. (*Id.* at PageID #8847:12-18.)

Congressional Plan Evaluation

573. Professor Warsaw made a similar evaluation of the Congressional plan. (*Id.* at PageID #8847:19 – 8848:22; Trial Ex. P-129 at 12-13.)

574. The Warsaw Report Figure 2 (Trial Ex. P-133) shows the distribution of all efficiency gaps across all American Congressional elections between 1972 and 2016 in every state with at least six Congressional districts. (*Id.*) The distribution looks similar to the legislative distributions discussed above. Michigan’s 2012 congressional efficiency gap of approximately 20% for Republicans was among the highest.

(Warshaw, Tr., ECF No. 248 at PageID #8850:2-7; Warshaw Report, Trial Ex. P129 at 17.)

575. Professor Warshaw explained that there was not substantial partisan bias in favor of either party until the 2000's when some Republican advantage developed, but that the advantage became much larger when the 2011 plan went into place. (*Id.* at PageID #8849:16-21; P-129 at 16-17.) Like the state legislature maps, the congressional map saw a dramatic increase in efficiency gap between 2010 and 2012. (Warshaw Figure 5, Trial Ex. P-136.) In 2012 Michigan saw a “huge” pro-Republican efficiency gap of approximately 19.7% in its congressional map. (Warshaw Report, Trial Ex. P-129 at 17; *see also* Warshaw, Tr., ECF No. 248 at PageID #8849:15 – 8850:7.)

576. Professor Warshaw also demonstrated where the Michigan plan lies within the distribution of other states' plans for each election starting in 1972. (*Id.* at PageID #8850:25 – 8851:24; Warshaw Figure 6, Trial Ex. P-137; Warshaw Report, Trial Ex. P-129 at 18.) Only five or six Congressional elections in all the studied history have a larger pro-Republican bias than the Michigan elections of 2012. (*Id.* at PageID #8852:2-6.)

577. The three elections under the current plan are outliers both historically, and compared to other contemporaneous U.S. elections. (*Id.*) The dramatic change from 2010 to 2012 rebuts the notion that the high efficiency gap was due to

geographic factors, which change more slowly. (*See, e.g.*, Warshaw Report, Trial Ex. P-129 at 18-19.)

578. Finally, Professor Warshaw evaluated the median-mean difference and declination for the congressional plan. Both of those metrics show the same extreme outlier status for the 2011 congressional plan. (*Id.* at 19-20; Warshaw, Tr., ECF No. 248 at PageID #8852:23 – 8853:18.)

579. As an example, in 2012 the Republicans won a large majority in Congressional seats while Democrats won a majority of the votes which “violated the basic principle in a democracy that if you win a majority of the votes, you should win the majority of the seats.” (*Id.* at PageID #8853:19 – 8854:1.)

580. Professor Warshaw rendered the opinion that in his experience this kind of asymmetry does not occur by accident. (*Id.* at PageID #8853:17-19.) These data indicate that this was a partisan gerrymander. (*Id.* at PageID #8853:10-16.)

Impacts of High Asymmetry

581. Professor Warshaw further provided data regarding the real-world impact of these high asymmetries. In summary, he demonstrated that because of the high ideological polarization between Democrats and Republicans, high partisan asymmetry in apportionment leads to significant changes in policy outcomes. (*Id.* at PageID #8854:2 – 8858:23; Warshaw Figure 8, Trial Ex. P-139.) There are policy consequences of gerrymandering. (*Id.*)

582. Finally, Professor Warshaw also presented data establishing a relationship between highly asymmetrical maps and voters' trust in their representative to do what is right. In particular, Michigan's high efficiency gap correlated with a significantly higher level of distrust of representatives. (*Id.* at PageID #8858:24 – 8860:12; Trial Ex. P-134A.)

Summary

583. Over the four elections in 2012 to 2018, the Michigan efficiency gap remains strongly pro-Republican despite good and bad electoral years for the Republicans. (Warshaw, Tr., ECF No. 248 at PageID #8893:9-19.) Even in 2018 in all chambers Democrats won majority votes but not seats. The current map still has a bias in favor of Republicans. (*Id.* at PageID #8891:18-25.)

584. This is not a borderline case. All three chambers show consistent large asymmetries in favor of Republicans using three different metrics, and that bias increased dramatically after the 2011 plan went into place. (*Id.* at PageID #8879:13-25.)

Critiques

585. Professor Warshaw's report does not specifically address a voter who is a ticket splitter who votes Democrat and Republican in the same election, because there are relatively few ticket splitters, fewer than there were early in American history. (*Id.* at PageID #8928:15 – 8929:8.)

586. Professor Warshaw did not try to use a redline or threshold for an efficiency gap value that would define whether a map is a gerrymander because he testified there is no way to do that. Instead he compared the Michigan efficiency gap data to that for other states over the last 45 years, and examined the differences between the 2001 cycle and the 2011 cycle. Other metrics besides efficiency gap all agreed as well. (*Id.* at PageID #8931:9 – 8932:5.)

Critique: Professor Johnson

587. Defense expert Douglas Johnson submitted an expert report critiquing various aspects of Professor Warshaw's report. In Professor Warshaw's Rebuttal Expert Report ("Warshaw Rebuttal"), Professor Warshaw detailed his responses. (Warshaw Rebuttal, Trial Ex. P-157.) The Court credits those responses.

588. Dr. Johnson begins with a misinterpretation of Professor Warshaw's report, claiming that it "reflects a common conception that the Efficiency Gap is at all related to competitiveness or fairness." Dr. Johnson admitted, however, that Professor Warshaw did not assert that the efficiency gap measures competitiveness. Dr. Johnson further acknowledged that gerrymandering "deprives voters of a fair and effective voice in their representation and reduce[s] the responsiveness of the legislature to changes in the will and opinions of the electorate," and, echoing Professor Warshaw, stated that sometimes, "gerrymandering increases voters' alienation from the political process, reduces public support for the legislature in question, and undermines the legitimacy of our system of government," both

statements he had made in his doctoral dissertation. (Johnson Report, Trial Ex. D-14 at 16; Johnson, Dep. at 94:16-24; 97:5-100:7; Warshaw Rebuttal, Trial Ex. P-157 at 5.)

589. Dr. Johnson also could not point to any specific parts of Professor Warshaw's report that he believed were wrong or inaccurate because of the use of this data. Dr. Johnson claimed that this was because he did not "get the data in time." However, Dr. Johnson did not make a separate request for additional data while he was preparing his report or ask for more time, and claimed that he was confident in his opinions despite the limited amount of time he had. (Johnson, Dep. at 51:21-24; 108:19-109:6; Warshaw Rebuttal, Trial Ex. P-157 at 6.)

590. Professor Warshaw's Rebuttal Report effectively addresses Dr. Johnson's methodological critiques of Professor Warshaw's use of state legislative plans and the manner in which he models turnout in uncontested state legislative districts, and further notes that in neither case did Dr. Johnson opine in his report as to any specific bias or inaccuracies introduced by these alleged methodological problems. Dr. Johnson also admitted at deposition that while his report claims a "strong chance" of "significant distortion of the data and results" due to these methodologies, nowhere in his report is there an analysis showing that supposed distortion, and he was unable to opine that there was in fact a "significant distortion." (Johnson Report, Trial Ex. D-14 at 18-19; Warshaw Rebuttal, Trial Ex. P-157 at 6-7; Johnson, Dep. at 116:15-25.)

591. Dr. Johnson also critiques Professor Warshaw for allegedly not examining the effect of geography on the efficiency gap. However, Professor Warshaw explains in his rebuttal report that he does address the geography issue, and Dr. Johnson also admitted that he had no knowledge himself as to the potential influence of geographic factors on the Michigan redistricting process, or lack thereof. (Johnson Report, Trial Ex. D-14 at 20; Warshaw Rebuttal, Trial Ex. P-157 at 8-9; Johnson, Dep. at 125:23-126:2.)

592. Dr. Johnson claims that one of Professor Warshaw's data sources, the National Political Awareness Test (NPAT), has "well known problems." However, the very blog post that Dr. Johnson cites in support of that statement says that the NPAT is "the best candidate survey." Professor Warshaw further addresses Dr. Johnson's concerns related to this data in his rebuttal report, noting that the report on state legislator ideological estimates he used, which relies in part on the NPAT, "has achieved canonical status in the Political Science literature" and has been cited over 470 times. When asked about the latter point, Dr. Johnson did not disagree. (Johnson Report, Trial Ex. D-14 at 21-22; Warshaw Rebuttal, Trial Ex. P-157 at 10-11; Johnson, Dep. at 134:1-7; 136:3-6.)

593. Nothing in the Johnson report contradicts the central conclusions of the Warshaw Report: that commonly used metrics show that Michigan's enacted maps are historically extreme partisan gerrymanders, and that gerrymandering has a significantly negative effect on legislator responsiveness and voters' faith in their government.

C. Kenneth Mayer

Qualifications

594. Plaintiffs submitted the Evaluation of Michigan Congressional and State Legislative District Plans of Kenneth R. Mayer, Ph.D. (“Mayer Report”), a professor of political science at the University of Wisconsin. Professor Mayer’s *curriculum vitae* is attached as Appendix B to his report. (Mayer Report, Trial Ex. P-53 at 96.) He holds a master’s and Ph.D. in political science from Yale University. (*Id.*) Professor Mayer was a distinguished chair at the Australian National University directed the data and computation center at the University of Wisconsin for seven years, and worked for the Rand Corporation and Naval Air Systems Command in the 1980’s and 1990’s. (*Id.*) Professor Mayer has received multiple teaching and scholarship awards and has served as an expert in a variety of cases involving the district including *Whitford v. Gill*. (*Id.* at 97.)

595. Professor Mayer has published in multiple peer review political science journals including *Journal of Politics*, *American Journal of Political Science*, *Election Law Journal*, and others, as well as three law reviews. (*Id.* at 3.)

Methodology

596. Professor Mayer's report addresses whether the enacted plans constitute extreme partisan gerrymanders. Because unlike Professor Chen and Professor Warshaw his analysis is solely statewide, it is summarized here at a high level.¹⁵

597. Professor Mayer reports that a partisan gerrymander violates the two fundamental tests of a minimally democratic system: that a shift of votes from one party to another should yield an increased share of legislative seats, and that districting should be relatively unbiased—treating Democrats and Republicans alike. (*Id.* at 9.)

598. Professor Mayer explains and applies all these metrics, thus supporting Professor Chen's and Professor Warshaw's use of efficiency gap, median-mean, and declination. (*Id.* at 15-28.) In summary, he concluded that by every metric, partisan bias, seat-bias, vote-bias, partisan symmetry efficiency gap, median-mean or declination, the Michigan plans are extreme gerrymanders. (Trial Ex. P-53, *see esp.* p. 4.)

599. Professor Mayer further concluded that the partisan nature of the plans does not result from majority-minority districts required under the Voting Rights Act. Even excluding those districts from his analysis, all metrics continue to show that the plans are extreme gerrymanders. (*Id.*; *see also id.* at 58.)

¹⁵ Professor Mayer submitted corrections to typographical mistakes in his report that are not material here. (Errata, Trial Exs. D-261, 262.)

600. Professor Mayer indicates that there are differences in opinion about which quantity or combination of metrics is the best indicator. However, all three capture the same underlying phenomenon: partisan imbalance and how votes are converted to seats. (*Id.*) As Professor Mayer explains, the debate over which measure is preferable becomes relevant only when the metrics themselves say different things—when they converge, there is no debate about asymmetry reflected. (*Id.* at 28.)

601. Finally, Professor Mayer concluded that demonstration plans he described in his report are more balanced, reduced partisan bias to levels consistent with majority-minority district preservation, and that when majority-minority districts are excluded from the analysis, the remaining districts in his demonstrative plans show almost no evidence of partisan bias. (*Id.*)

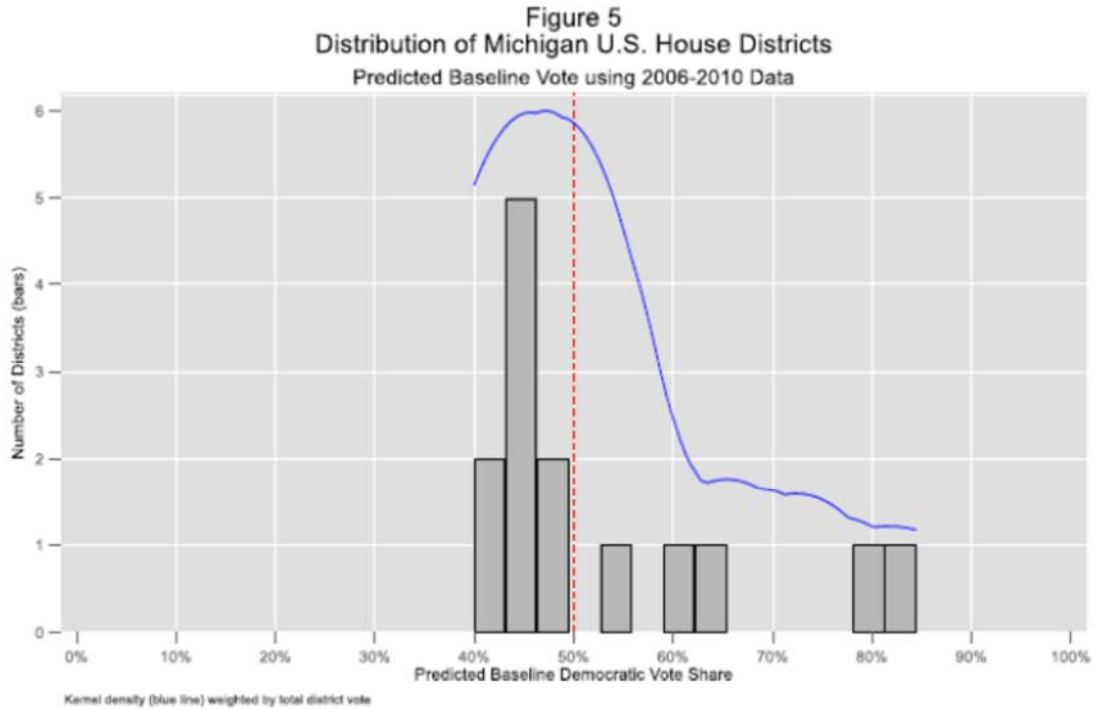
Congressional District Data

602. Professor Mayer's Table 5 accumulates all the metrics for the Michigan congressional map under both the 2006-2010 and 2012-2016 data. (*Id.* at 30; Mayer Table 5, Trial Ex. P-62.)

Table 5
Michigan US House of Representatives
Statewide Election Baseline

	2006-2010	2012-2016
Democratic Share of Statewide Vote	53.2%	52.3%
Seats Won By Democrats	5	5
Democratic Share of Seats	35.7%	35.7%
Partisan Bias, actual	-17.5%	-16.6%
Partisan Bias @50%	-14.3%	-14.3%
Republican Seats won at Democratic Vote Share	10	9
Republican Share of Seats at Democratic Vote Share	71.4%	64.3%
Democratic Vote Share Needed to Win Majority of Seats	57.2%	57.5%
Efficiency Gap	-20.9%	-19.7%
Mean-Median	-6.8%	-7.7%
Average Democratic Win %	69.1%	69.7%
Average Republican Win %	55.4%	56.9%
Declination	0.415	0.398

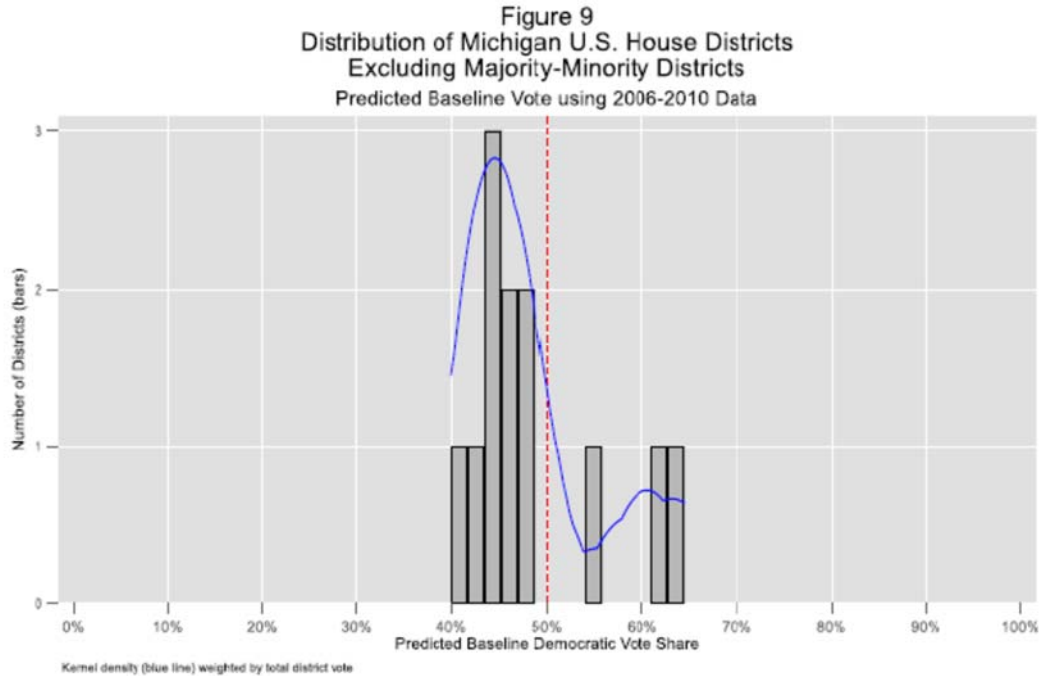
603. Professor Mayer's Figure 5, the distribution of Michigan U.S. House Districts based on the 2006 to 2010 data. (Mayer Figure 5, Trial Ex. P-63.)



604. Here, one can see graphically illustrated the clustering of nine Republican districts between 40% and 50% of the Democratic vote share, compared to five more spread out Democratic districts, two with vote shares in the 80's and two more with vote shares in the 60's. None of the Republican districts had that large a majority—instead the Republican votes were spread among the nine Republican districts. (Mayer Report, Trial Ex. P-53 at 33.)

605. Professor Mayer also examined the impact of the majority-minority districts in Michigan in his analysis. (*Id.* at 36.) When Professor Mayer did his analysis excluding those districts and considering only the rest of the state, the results still showed extreme values. (*Id.*, *see* Table 6 at 36-37.) The concentration of Democratic

votes in majority-minority districts 13 and 14 does not explain the extent of the asymmetry in the map. (*Id.* at 36.)



State House District Data

606. Professor Mayer conducted a similar analysis in the Michigan House of Representatives and it showed very similar results. (*Id.* at 40-49.)

607. The summary table reflects significant pro-Republican efficiency gaps, median-means, and other metrics, including the calculation that Democrats would need to win between 54.8% and 56.2% of the popular vote to win a majority of seats as reflected in Professor Mayer's Table 7. (Mayer Report, Trial Ex. 53 at 40; Mayer Table 7, Trial Ex. P-72.)

Table 7
Michigan State Lower House
Statewide Election Baseline

	2006- 2010	2012- 2016
Democratic Share of Statewide Vote	53.2%	52.3%
Seats Won By Democrats	49	49
Democratic Share of Seats	44.5%	44.5%
Partisan Bias, actual	-8.6%	-7.8%
Partisan Bias at 50%	-10.9%	-9.1%
Republican Seats won at Democratic Vote Share	72	70
Republican Share of Seats at Democratic Vote Share	65.5%	63.6%
Democratic Vote Share Needed to Win Majority of Seats	54.8%	56.2%
Efficiency Gap	-13.8%	-12.0%
Mean-Median	-5.3%	-6.9%
Average Democratic Win %	68.2%	69.0%
Average Republican Win %	59.4%	59.4%
Declination	0.266	0.243

608. Professor Mayer went on to measure the asymmetry of the map, even excluding the majority-minority districts, as he had on Congressional map. (*Id.* at 45.) By nearly every measure, partisan bias and asymmetry are just as apparent as in the full map. Democrats would still need to win a majority of the statewide vote in order to win a majority of the seats and the packing and cracking remain evident. (*Id.* at 46.)

State Senate District Data

609. Finally, Professor Mayer conducted the same analysis on the state. Again, in summary form, in 2014 Democratic candidates won 49.3% of the actual vote but only 11 of 38 seats. (*Id.* at 49.) The baseline tables for all metrics for the Senate plan in Professor Mayer's Table 9 reflect this severe asymmetry. (*Id.* at 50; Mayer Table 9, Trial Ex. P-82.)

Table 9
Michigan State Senate
Statewide Election Baseline

	2006-2010	2012-2016
Democratic Share of Statewide Vote	53.2%	52.3%
Seats Won By Democrats	15	14
Democratic Share of Seats	39.5%	36.8%
Partisan Bias, actual	-13.7%	-15.5%
Partisan Bias at 50%	-13.2%	-15.8%
Republican Seats won at Democratic Vote Share	27	27
Republican Share of Seats at Democratic Vote Share	71.1%	71.1%
Democratic Vote Share Needed to Win Majority of Seats	56.1%	55.7%
Efficiency Gap	-18.0%	-19.3%
Mean-Median	-6.3%	-6.1%
Average Democratic Win %	67.9%	69.5%
Average Republican Win %	55.8%	56.9%
Declination	0.348	0.380

610. The efficiency gap is between 18% and 19.3% pro-Republican.

611. Professor Mayer again reaches the same conclusions: even evaluating only the non-VRA districts, the plan is severely biased with efficiency gaps between 19% and 20% and median-means between 3% and 2% pro-Republican.

Asymmetry of Enacted Maps

612. Professor Mayer concludes that the maps are biased, that they are asymmetric, that they require Democrats to win more than a majority of the vote to win a majority of the seats, and that they pack Democrats into a small number of districts, while splitting other Democrats into districts where they are a minority of voters. (*Id.* at 58.)

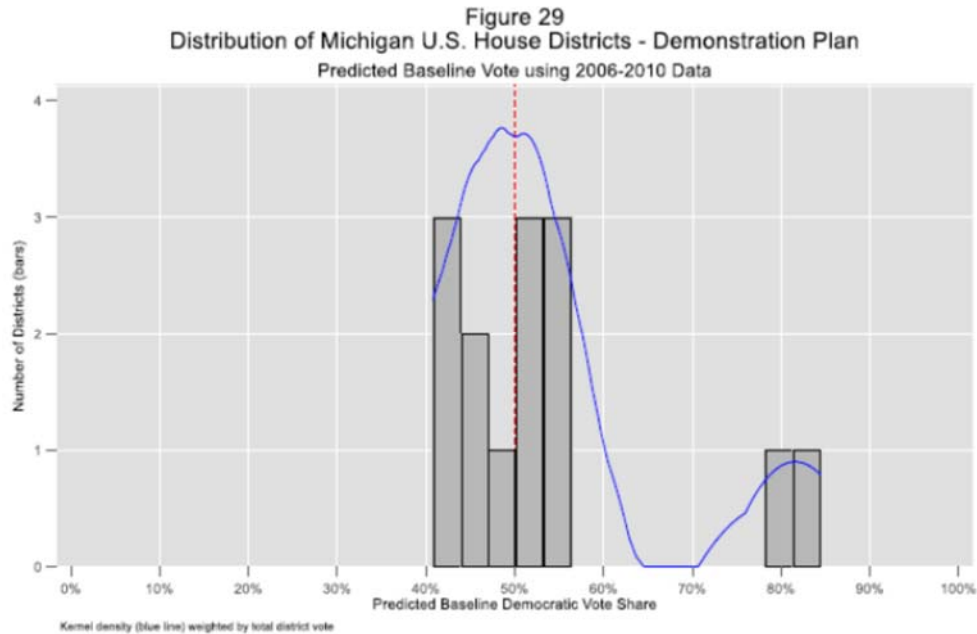
613. Professor Mayer concludes that these data are not due to the existence of majority-minority districts because the asymmetries persist even outside those districts, and in fact, sometimes even become worse. (*Id.*)

Demonstration Maps Comparison

614. Professor Mayer then evaluated three demonstration maps. (*Id.* at 59.) No witness has suggested these maps do not comply with Michigan law.

615. Professor Mayer found that the congressional demonstration map is more balanced than the actual map, provides the Democrats with three additional seats, and creates a small partisan bias in favor of the Democrats more consistent with

the normal premium that majority parties receive. (*Id.* at 60-61; Mayer Figure 29, Trial Ex. P-93.)



616. Professor Mayer concludes that this demonstration map does not represent a gerrymander, that indicators of partisan bias or asymmetry diminish greatly when the majority-minority districts are excluded, and the map is competitive. (*Id.* at 67.)

617. Similarly, detailed analysis of the demonstration map for the Michigan House shows fewer cracked districts and much diminished asymmetry compared to the enacted map. (*Id.* at 67-74.)

618. Finally, Professor Mayer evaluated a demonstration map for the state Senate. (*Id.* at 74-79.) It also shows no significant indicators of gerrymandering. (*Id.*; see *esp. id.* at 75.)

619. Professor Mayer shows that all three demonstration maps are far more balanced than the enacted maps. (*Id.* at 80.)

620. Professor Mayer concludes that the enacted plans are extreme partisan gerrymanders based on the metrics, the comparison to demonstration maps, and the visual clustering of highly packed districts for Democrats and cracked districts for Republicans. (*Id.* at 80-81.)

621. “Without exception in any of the plans, Democratic voters have been packed into districts where they constitute safe majorities, while they have been cracked in others to allow Republicans to win with comfortable but not overwhelming margins.” (*Id.*)

Critique: Professor Brunell

622. Defense expert Thomas Brunell submitted an expert report critiquing certain aspects of Professor Mayer’s report. In the Rebuttal Expert Report of Kenneth R. Mayer, Ph.D. (“Mayer Rebuttal”), Professor Mayer detailed his responses. (Mayer Rebuttal, Trial Ex. P-126.)

623. In particular, Professor Brunell criticizes Professor Mayer’s treatment of average win percentages and uniform swing analysis. Professor Mayer’s rebuttal effectively rebuts these critiques, largely from Professor Brunell’s own writings. (Mayer Rebuttal, Trial Ex. P-126 at 7-8.) The Court credits these responses.

Critique: Professor Johnson

624. Defense expert Douglas Johnson also critiqued various aspects of Professor Mayer's report. In the Mayer Rebuttal, Professor Mayer detailed his responses. (Mayer Rebuttal, Trial Ex. P-126.)

625. Defense expert Douglas Johnson submitted an expert report critiquing various aspects of Professor Mayer's report. In his rebuttal report, Professor Mayer detailed his responses. (Mayer Rebuttal, Trial Ex. P-126.) The Court credits those responses.

626. Dr. Johnson claims that Professor Mayer's logic would label all Federal Voting Rights Act-compliant districts unconstitutional. Professor Mayer's rebuttal report details how this opinion is flatly wrong, and rests on a misunderstanding of the difference between an electoral system and a single district, and a misstatement of the source Dr. Johnson cites (Tufte). (Johnson Report, Trial Ex. D-14 at 12-13; Mayer Rebuttal, Trial Ex. P-126 at 2-3.)

627. In his rebuttal report, Professor Mayer addresses Dr. Johnson's critique that Professor Mayer did not take into account Professor Chen's freezing of certain districts in his calculations controlling for Voting Rights Act districts. Professor Mayer explains that he had not done so because he had not yet seen Professor Chen's report, and that the subsequent analyses he did after having reviewed Professor Chen's report show that there was no material change to his conclusions. Dr. Johnson quibbled over the definition of "material" in his deposition and ultimately admitted

that any change was not “significant.” (Johnson Report, Trial Ex. D-14 at 14; Mayer Rebuttal, Trial Ex. P-126 at 4-6; Johnson, Dep. at 80:2-81:5.)

628. Dr. Johnson mistakenly examined the wrong table in Professor Mayer’s report to arrive at his conclusion that the Plaintiffs’ experts “cannot agree on how to measure the efficiency gap.” He acknowledged this mistake at deposition. Dr. Johnson had used this alleged discrepancy to opine that “[t]hese are only a few examples of the measurement differences that run throughout” the reports of Professor Chen and Professor Mayer. However, following acknowledgment of his error, Dr. Johnson could not recall specifically identifying any other such alleged examples of “measurement differences” in the rest of his report. (Johnson Report, Trial Ex. D-14 at 15-16; Mayer Rebuttal, Trial Ex. P-126 at 3-4; Johnson, Dep. at 50:18-24; 91:1-92:13.)

629. Nothing in the Johnson or Brunell reports contradicts the central conclusion of the Mayer Report: that commonly used metrics show that Michigan’s enacted maps show extreme degrees of bias and asymmetry.

Defense Experts

630. Intervenors submitted the reports of five experts—Jeffrey Timmer, David Doyle, Thomas Brunell, Douglas Johnson, and Yan Liu. Those experts’ direct criticisms of Professors Chen, Warshaw and Mayer are addressed above in the context of the Chen, Warshaw and Mayer opinions.

631. Of Intervenor's experts, only David Doyle submitted an independent analysis of the Michigan districts or maps. Except for Mr. Doyle's limited analysis, discussed below, neither Intervenor nor the Secretary provided any analysis of the partisanship of the districts in the enacted plans, provided any analysis of the statewide partisanship of the enacted maps in historical and national context, explained why the Mayer alternative maps all of the 3,000 Chen alternative maps were less biased than the enacted maps, or otherwise conducted independent analysis to rebut the Chen, Warshaw and Mayer conclusions regarding the packed and cracked nature of the Challenged Districts, and the historically extreme asymmetry and unfairness of the enacted maps.

632. The Court finds that no defense expert has provided independent analysis or critique of the Mayer, Warshaw or Chen reports sufficient to disturb the finding above, by a preponderance of the evidence, regarding the facts demonstrated by Warshaw, Chen and Mayer.

David Doyle

633. David J. Doyle is the only defense expert who conducted any analysis of Michigan enacted maps or districts. He is a Republican consultant and previously served as Chairman of the Michigan Republican Party, as a member of the Republican National Committee, on various Republican campaigns, and in other positions for state Republican caucuses. (Doyle Report, Trial Ex. D-13, at 2.) He is not a professor or a Ph.D. (*Id.* at 2; Doyle Dep. 44:11-12.) Mr. Doyle has written no academic papers

or other papers that relate to his opinion in any way. (*Id.* at 42:16-20.) He does not subscribe to any journals of political science. Doyle does not recall any articles or papers that would have related directly to the subject of his report. He has never served as an expert witness before. Doyle has never done this particular type of analysis before. (*Id.* at 43:25-46:4.)

634. Doyle was asked to render an opinion on the competitiveness of the districts in the enacted map. (*Id.* at 24:12-19.) The actual text of Doyle's report covers approximately four full and partial pages, including one large table reflecting election results. (Doyle Report, Trial Ex. D-13.) He analyzed only the 2012 state House election, not the 2014 and 2016 elections (Doyle Dep. 65:14-16.), even though he had the 2014 and 2016 data. (*Id.* at 65:14-24.) Before his report Doyle had never done assessments of baseline partisanship of districts. (*Id.* at 37:7-14.)

635. In his report, Doyle used a Michigan average of state-wide education board seat votes (MRBD – a statewide election) to calculate Democrat base percentages for districts. (Doyle Report, Trial Ex. D-13, at 3; Doyle Dep. 33:3-13.) He then categorized as “competitive” all seats within a baseline partisanship of 45 to 55% for either party. (*Id.*)

636. Doyle opined that Democratic candidates for the Michigan House “underperformed” in 2012 based in large part on assuming they should have captured half of the 34 seats he labeled “competitive” (17 of 34). (Doyle Report, Trial Ex. D-13, at 3.) Instead they captured only five of the 34. (*Id.*) Similarly, Doyle argues that

Democratic congressional candidates underperformed in 2012 because Republicans won all seven “competitive” seats, and that the Democratic state Senate candidates in 2014 underperformed, again largely because they lost all “competitive” districts.” (*Id.*) He concludes that “Democratic candidates have a realistic opportunity to capture majorities in the current state house, state senate, and [Michigan’s] congressional districts.” He offers no analysis for this conclusion. (*Id.*)

637. Doyle has not evaluated how much variation from the baselines have actually occurred in past elections, and does not know how much variation there would have been from baseline. (Doyle Dep. 41:5-12, 42:4-9, 56:13-18.) He has never looked at any data whatsoever correlating the base partisanship of the district to the actual election outcomes over time. (*Id.* at 56:19-22.)

638. When he says Democrats have an opportunity to win their safe seats plus all competitive seats plus two safe Republican seats, he is talking about the prospect of a national wave. (*Id.* at 83:7-11.) He does not know the size of a wave that would be necessary to swing any of these elections one way or the other. (*Id.* at 85:22-25.) Based on his data, for example, to gain a majority the Michigan House democrats would have to win all their safe seats (35), all of the “competitive” seats (19) and then win another two which would be safe Republican seats. (*Id.* at 81:4-82:4.)

639. Doyle’s report is of limited use in this matter. He does not provide data about the Challenged Districts, and his statewide conclusions rely on the unsupported

assumption that Republicans have no advantage in districts drawn to give them 52%, 53%, or even 55%, of the vote.

Jeffrey Timmer

640. Timmer prepared an expert report (Trial Ex. D-6) in which he criticized Dr. Chen's analysis on several grounds. At trial, Timmer reiterated the opinions in his report. (Timmer, Tr. at PageID #9267:12 – 9284:2.) Timmer did not consult with the other map drawers when he prepared his expert report in this case. (Timmer, Dep. at 45:24 – 46:1.)

641. Timmer had never prepared an expert report prior to this case. (Timmer, Tr. at PageID #9297:12-14; Dep. 23:19-21.) Timmer's conclusions about law, political science, and his criticisms of the reports of plaintiffs' experts are of limited to no value. Timmer is not qualified to provide expert testimony on those subjects. Timmer did not provide a curriculum vitae to the Court, and his lack of adequate credentials or academic training became apparent from his testimony and report. He has never had any work published in an academic journal. (Timmer, Dep. at 23:22-24.) He has never published or co-authored a paper about redistricting. (Timmer, Tr. at PageID #9297:15-17; Dep. at 23:25 – 24:10.)

642. In 1989, Timmer earned a bachelor's degree in public policy and international relations from Michigan State University. (Timmer, Dep. at 10:19-11:3.) Timmer completed no graduate courses and has no advanced degrees. (Id. 11:4-12:6.) Timmer has completed a single undergraduate class in statistics. (Id. at 11:16-24.)

643. Timmer is not qualified to provide expert opinions about Michigan's laws. He is not a lawyer and has had no legal training. (Timmer, Dep. at 11:6-9.)

644. Timmer is not qualified to provide expert opinions about Dr. Chen's computer model or any other expert's methodology. Timmer is not a computer programmer. (Timmer, Tr. at PageID #9297:4-5.) Timmer does not know how to write software and has never received any computer training. (*Id.* at PageID #9297:6-11; Timmer, Dep. at 11:10-15, 12:5-6.) He has never studied the algorithm that Dr. Chen prepared. (Timmer, Tr. at PageID #9297:19-21; Dep. at 38:6-21.)

645. Timmer disagrees with Professor Chen about whether the shapes of districts in the 2011 maps provide any indication that they were gerrymandered to secure a partisan advantage favoring Republican candidates and the Republican Party. In Timmer's words, "the Michigan Senate, House and Congressional redistricting plans follow state statutory criteria or other legitimate non-partisan considerations; partisan considerations did not predominate over non-partisan considerations." (Timmer Report, Trial Ex. D-6 at 5; Timmer, Tr. at PageID #9274:13-22.) But in almost his next breath, Timmer squarely admitted that the legislature departed from those same criteria for purely partisan reasons, *i.e.* to obtain favorable votes from Republican and fewer than ten Democratic legislators. (Timmer, Tr. at PageID #9274:23 – 9275:25.)

646. Timmer testified that if a county line must be split or broken, Michigan redistricting criteria "require" map makers to shift the fewest MCDs necessary to

meet the equal population requirements of legislative and congressional districts. (Timmer, Tr. at PageID #9270:5-14.) In Timmer's opinion, Michigan's tradition of minimizing the shifts of MCDs to different districts largely explains the odd shapes of the current districts. (*Id.* at PageID #9271:12 – 9272:3.) However, other evidence, which was not rebutted, identified eight or more districts in which the legislature did not follow this criteria in 2011. (Findings § II(D) (*see esp.* ¶¶ 107-111).)

647. Municipal Splits. Timmer's expert report does not identify the materials he reviewed or consulted in order to form his opinion. Timmer testified at his deposition that in 20 percent of the 1,000 congressional maps, Dr. Chen had miscounted the number of times the map split city boundaries. (*Id.* at 97:21-25.) Timmer only reviewed five maps. (Timmer, Dep. at 68:13-14.) Timmer acknowledged at his deposition that he had calculated that error rate based on a single congressional map from the five selected by his counsel. (*Id.* at 98:3-11.) Timmer said that he received one simulation map that contained eleven split municipal boundaries, excluding Detroit, not nine or ten splits as Dr. Chen claimed. (*Id.*)

648. At trial, Timmer further changed his story on this "error rate." From the five congressional maps selected by defense counsel, Timmer said at trial he found that four contained eleven or more municipal breaks, excluding Detroit. (Timmer, Tr. at PageID #9277:23 – 9278:11.)

649. At no point did Timmer ever specifically identify which of Professor Chen's maps contained supposed municipal break miscounts. Timmer also conceded

that there were no errors as to the number of splits that Professor Chen counted in the demonstration map attached to plaintiffs' complaint. (Timmer, Tr. at PageID #9299:16-21.) The Court does not credit Timmer's calculations given his lack of specificity, his inconsistent testimony as to errors found and, most importantly, because his conclusions are based on a very small (and possibly biased) sample. The preponderance of the evidence shows that Dr. Chen's nonpartisan simulations uniformly produced maps with fewer county and municipal splits than the enacted maps.

650. VTDs. Timmer also claims that Professor Chen's use of Voter Tabulation Districts instead of census data blocks to run his mapping simulations introduced flaws that undermine Dr. Chen's conclusions. (Timmer, Tr. at PageID #9280:11 – 9281:25.) Timmer contends that because Professor Chen's maps are drawn using precinct level data instead of the census block data that the legislature used, it would not be possible for any of Chen's simulations to produce a map that is truly identical to the ones Timmer or the legislature prepared. (*Id.* at PageID #9282:1-5.) Timmer explained that VTDs are updated every two years, but census block data only changes every ten years when the U.S. Census is completed. (*Id.* at PageID 9282:6-25.) Timmer has never calculated what difference there might be when comparing Dr. Chen's VTD-based maps to the enacted census-block-based maps. (*Id.* at PageID #9299:22-25; Dep. at 47:19-24.) Timmer also never measured the

compactness of any of the districts in Dr. Chen's simulation maps. (Timmer, Dep. at 64:16-22, 90:11-16.)

651. Chen's Use of Apol. The text of Michigan statutes require the mapmakers to maintain the geographical integrity of counties, cities, and townships as they attempt to equalize the populations of each district proposed to the legislature. (Timmer, Tr. at PageID #9271:12-19.) Some of those boundaries, especially municipal boundaries in southeastern Michigan, are oddly shaped and Timmer says this has an impact on the contours of some of the districts. (*Id.* at PageID #9271:20 – 9272:1-3.)

652. Timmer concedes that these factors are not contained in Michigan's statutes. (Timmer, Dep. at 50:9 – 51:1.) However, Timmer relies on the Michigan Supreme Court's decision in *LeRoux v. Secretary of State*, 465 Mich. 594, 619, 640 N.W.2d 849, 863 (2002), which held that the statutes do not impose "a rigid test" and that the legislature was not bound to follow M.C.L. §3.63 so long as it performed election redistricting "in a constitutional manner." Timmer's view is that this decision "gave the legislators who voted on passage or not of the plans ability to to consider what they wanted when deciding how to vote." (Timmer, Dep. at 52:5-25.) Timmer would have the Court conclude that "a legislature could take in any [political] factor, yeah, any factor." (*Id.* at 53:21-25.)

653. In Timmer's view, Michigan legislators can consider any political considerations that they deem necessary to gain passage of redistricting legislation.

(Timmer, Tr. at PageID #9301:14 – 9302:1, 9304:24 – 9305:2). Timmer argues that accommodating incumbents, and doing whatever is necessary to secure the votes needed to approve a redistricting bill, are “legitimate and neutral considerations.”

(Timmer, Tr. at PageID #9276:22 – 9277:1.)

654. Republican leaders had concerns about legislators making public statements that suggested the legislature was required to follow the statutory criteria. For example, Thaddeus McCotter, a Republican congressman, thought it was necessary to remind Republican legislators that they have wide discretion in drawing district lines “before they say too many regrettable things publicly.” (Trial Ex. P-394; Timmer, Tr. at PageID #9305:4-21.)

655. The Court is not persuaded that these factors are neutral, particularly when they are invoked to protect a durable partisan advantage. Protecting (one party’s) incumbents from potential opponents, and using prior election voting data against the opposing party’s voters are not neutral. The Michigan Supreme Court recognized as much when it directed map maker Bernard Apol not to take the interests of incumbents into account when preparing maps for the court’s approval. (Timmer, Tr. at PageID #9285:7 – 9286:23, 9302:2-13.)

656. At the request of defense counsel, Timmer performed an exercise to try to rebut Professor Chen’s conclusion that the enacted plans are political outliers. (*Id.* at PageID #9272:11 – 9273:1.) Timmer created a congressional plan with ten county line breaks and a partisanship distribution that would likely result in a congressional

delegation of nine or more Republicans and five or fewer Democrats. (*Id.*) The map was not random – Timmer was asked to draw a plan with “more Republican districts than all 1000 of [Chen’s] plans.” (*Id.* at 9272:22 – 9273: 1.)

657. The Timmer Plan, even if it were itself in evidence, would show only that is possible for an experienced Republican consultant to intentionally, not at random, create a co-split map that is extremely biased in his party’s favor. This is unremarkable. Timmer followed gerrymandering instructions and intentionally produced a partisan gerrymander. Timmer’s experiment tells us nothing about the validity of Dr. Chen’s distribution of randomly-generated plans. Timmer intentionally achieved a partisan outcome. None of Dr. Chen’s 1,000 maps were rejected because they turned out to be more favorable or less favorable to Republicans or to Democrats. Unlike the Timmer Plan, Dr. Chen’s simulations have no partisan bias.

V. Any Delay was not Unreasonable or Prejudicial

658. No party defending the challenged districts has identified any particular document or specific memory that has been lost to time that, had it been preserved, would have shown that the maps were more fairly drawn (or not drawn) with partisan intent. That is, the unpreserved documents or faded memories about which Intervenors have made only generalized references most likely would only have further supported the Plaintiffs’ case, not the Intervenors’ affirmative defense.

659. This finds additional support in the Republicans’ surviving documents. Republicans who carried out the 2011 redistricting anticipated litigation from the very

outset, and their 2011 communications confirm they had every incentive to preserve documents and recollections that would show their actions satisfied constitutional requirements. For example, in a June 19, 2011 email, Jase Bolger, who was then Speaker of the Michigan House, said to his fellow Republican House members, “I urge everyone to be careful in commenting on redistricting; everything we say and do can end up in court on this issue.” (Email, Trial Ex. P-277 at LEGR-004700.) Meanwhile, Senate Majority Leader Richardville distributed to his Senate colleagues a set of “Redistricting Message” talking points that addressed the possibility of a court challenge “[a]s we have seen in the past.” (Email, Trial Ex. P-494.)

660. One of the attorneys advising the Republican party leaders about redistricting also warned them and their map maker, Jeffrey Timmer, that the talking points Timmer prepared to justify one of the new districts “may fall into the wrong hands” and could “unnecessarily interfere with the inevitable litigation.” (July 20, 2011 Email, Trial Ex. P-583 at PageID #8657.)

661. These warnings and words of caution show how unlikely it is that Republican legislators and their advisors discarded most of their exculpatory evidence and preserved mostly incriminating documents.

662. The documents introduced at trial also show that Republican party leaders and congressional staffers regularly used personal email accounts rather than their official state and federal email addresses when they communicated about redistricting strategy, partisan requests, and the concerns of Republican incumbents.

This behavior further underscores that the Republicans were engaged in efforts to hide their actions from public view for as long as possible.

663. Taken together, this is evidence of a calculated strategy to create and preserve only items that would be useful and not harmful in expected litigation. Accordingly, the Court must disagree with Intervenor's contention that they were unduly prejudiced by the passage of time before the plaintiffs initiated this action.

CONCLUSIONS OF LAW

Based on the foregoing Findings of Fact, the Court now enters the following Conclusions of Law.¹⁶

I. Plaintiffs Have Standing to Sue.

Voters and the League have established standing to pursue their Fourteenth Amendment and First Amendment claims.

A. Relevant legal principles

“Article III of the Constitution limits the judicial power of the United States to the resolution of ‘Cases’ and ‘Controversies,’ and ‘Article III standing . . . enforces the Constitution’s case-or-controversy requirement.’” *Hein v. Freedom from Religion Found., Inc.*, 551 U.S. 587, 597–98 (2007) (quoting *DaimlerChrysler Corp. v. Cuno*, 547 U.S. 332, 342 (2006)). “In essence, the standing doctrine prompts courts to inquire ‘whether the plaintiff has alleged such a personal stake in the outcome of the controversy as to warrant his invocation of federal-court jurisdiction and to justify exercise of the court’s remedial powers on his behalf.’” *McKay v. Federspiel*, 823 F.3d 862, 866–67 (6th Cir. 2016) (quoting *Warth v. Seldin*, 422 U.S. 490, 498–99 (1975)).

¹⁶ Any Finding of Fact that is more appropriately characterized as a Conclusion of Law is hereby incorporated by reference in the following Conclusions of Law. Conversely, any Conclusion of Law that is more appropriately characterized as a Finding of Fact is hereby incorporated by reference in the foregoing Findings of Fact.

To establish standing, a plaintiff must satisfy three elements. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992); *Federspiel*, 823 F.3d at 866–67. First, a plaintiff must establish that she suffered an “injury in fact” that is “concrete and particularized” and “actual or imminent” rather than “conjectural or hypothetical.” *Lujan*, 504 U.S. at 560 (internal citations omitted). Second, a plaintiff must demonstrate “a causal connection between the injury and the conduct complained of—the injury has to be ‘fairly trace[able] to the challenged action of the defendant, and not . . . th[e] result [of] the independent action of some third party not before the court.” *Id.* (alteration in original) (internal citation omitted). Third, a plaintiff must show that a favorable decision will “likely,” not just “speculative[ly],” redress her injury. *Id.* at 561 (internal citation omitted). Courts often refer to these elements as the “‘injury-in-fact,’ ‘causation,’ and ‘redressability’ requirements.” *Phillips v. DeWine*, 841 F.3d 405, 414 (6th Cir. 2016) (citing *Sprint Commc’ns Co., L.P. v. APCC Servs., Inc.*, 554 U.S. 269, 273 (2008)).

“The party invoking federal jurisdiction,” here the plaintiffs, “bears the burden of establishing these elements.” *Lujan*, 504 U.S. at 561 (citing *FW/PBS, Inc. v. Dallas*, 493 U.S. 215, 231 (1990)). Plaintiffs “must demonstrate standing for each claim.” *Cuno*, 547 U.S. at 352; *ACLU v. NSA*, 493 F.3d 644, 652 (6th Cir. 2007) (quoting *Cuno*, 547 U.S. at 352); *see also Gill v. Whitford*, 138 S. Ct. 1916, 1934 (2018) (“[S]tanding is not dispensed in gross.”)(internal quotation marks and citation omitted). An association like the League must satisfy the same three constitutional requirements

that apply to individuals. *See Am. Canoe Ass'n, Inc. v. City of Louisa Water & Sewer Comm'n*, 389 F.3d 536, 544 (6th Cir. 2004).

B. Application to the matter at hand.

1. Voters have standing to pursue their Fourteenth Amendment claims.

Individual Plaintiffs and the League have each established standing to bring their Fourteenth Amendment claims.

a. Voters have standing to pursue their Fourteenth Amendment claims.

(i) Voters have proven injury in fact.

As the Supreme Court recognized from its earliest gerrymandering cases, the reduction or elimination of voting power is a cognizable injury for purposes of a Fourteenth Amendment claim:

We hold that the appellants do have standing to maintain this suit. Our decisions plainly support this conclusion. . . . [Appellants'] constitutional claim is, in substance, that the 1901 statute constitutes arbitrary and capricious state action, offensive to the Fourteenth Amendment in its irrational disregard of the standard of apportionment prescribed by the State's Constitution or of any standard, effecting a gross disproportion of representation to voting population. The injury which appellants assert is that this classification disfavors the voters in the counties in which they reside, placing them in a position of constitutionally unjustifiable inequality vis-a-vis voters in irrationally favored counties. **A citizen's right to a vote free of arbitrary impairment by state action has been judicially recognized as a right secured by the Constitution[.]**

Baker v. Carr, 369 U.S. 186, 206–08 (1962) (citations omitted, emphasis added).

The right to vote freely for the candidate of one's choice is of the essence of a democratic society, and any restrictions on that right strike at the heart of representative government. **And 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.

Reynolds v. Sims, 377 U.S. 533, 555 (1964) (emphasis added).

Gill v. Whitford confirmed that voters who have had their individual voting strength diluted by a partisan gerrymander have standing to mount challenges to that scheme under the Fourteenth Amendment. Writing for the majority, Chief Justice Roberts reaffirmed that a voter suffers cognizable, redressable injury from vote dilution:

We have long recognized that a person's right to vote is "individual and personal in nature." [*Reynolds*, 377 U.S. at 561]. Thus, "voters who allege facts showing disadvantage to themselves as individuals have standing to sue" to remedy that disadvantage. *Baker*, 369 U.S., at 206, 82 S. Ct. 691.

Gill, 138 S. Ct. at 1934.

In *Gill*, the Supreme Court held that a voter may establish injury in fact by showing that she lives in a "cracked" or "packed" district whose gerrymandered boundaries have placed a "burden on [her] individual vote[.]" *Id.* at 1934; *see also id.* at 1931, 1932 (specifying pertinent statewide evidence). Chief Justice Roberts explained that "harm arises from the particular composition of the voter's own district, which causes her vote—having been packed or cracked—to carry less weight than it would carry in another, hypothetical district." *Id.* at 1931. In other words, the injury giving rise to such a claim "arises through a voter's placement in a 'cracked' or 'packed' district." *Id.* In a concurring opinion, Justice Kagan added that when a voter "shows

that her district has been packed or cracked, she proves, as she must to establish standing, that she is ‘among the injured.’” *Id.* at 1936 (Kagan, J., concurring) (quoting *Lujan*, 504 U.S. at 563).

The Supreme Court also explained that when plaintiffs showed that their voting power has been unconstitutionally diluted because they have been placed in “packed” or “cracked” districts, “that injury is district specific.” *Id.* at 1930. This is because “[t]he boundaries of the district, and the composition of its voters, determine whether and to what extent a particular voter is packed or cracked.” *Id.* Therefore, any injury a voter suffers from vote dilution “results from the boundaries of the particular district in which he resides.” *Id.*

Following *Gill*, plaintiffs may establish standing if they presented evidence “that would tend to demonstrate a burden on their individual votes.” *Id.* at 1934. Plaintiffs are not required, however, to prove that the packing and cracking scheme is insurmountable or fool-proof—only that it has imposed a burden on them. Indeed, the first element of standing—injury in fact—does not impose a particularly heavy burden on plaintiffs. The Supreme Court has acknowledged that “an identifiable trifle is enough for standing” and has rejected the argument that an injury must be “significant,” a small injury, “an identifiable trifle,” is sufficient to confer standing (citation omitted). *United States v. Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U.S. 669, 689 n.14 (1973) (finding organization members’ use of forest area being disturbed by adverse environmental impact sufficient to confer standing).

The following types of injuries have been identified as the sorts of “trifles” sufficient to confer standing: (1) the burden of being required to obtain photo identification before voting (*Common Cause/Georgia v. Billups*, 554 F.3d 1340, 1351 (11th Cir. 2009)); (2) harm to property interests of organization’s members ((*Sierra Club v. U.S. Army Corps of Eng’rs.*, 645 F.3d 978, 988 (8th Cir. 2011) (threat to animal species on an organization member’s property that is “very important to him”) and *Friends of the Earth, Inc. v. Gaston Copper Recycling Corp.*, 204 F.3d 149, 156 (4th Cir. 2000) (pollution of waterway on member’s property in which member swam and fished), accord *Sierra Club, Lone Star Chapter v. Cedar Point Oil Co. Inc.*, 73 F.3d 546, 557 (5th Cir. 1996)); (3) likelihood that organization’s members will be exposed to emissions from challenged development projects (*Sierra Club v. Franklin Cty. Power of Ill., LLC*, 546 F.3d 918, 925 (7th Cir. 2008) and *LaFleur v. Whitman*, 300 F.3d 256, 270 (2d Cir. 2002)); and (4) the shipment of “even a small amount of Russian vodka” to the United States in the context of a false advertising claim (*Joint Stock Soc’y v. UDV N. Am., Inc.*, 266 F.3d 164, 177 (3d Cir. 2001)).

Voters have satisfied the injury-in-fact requirement described in *Gill*. These plaintiffs have come forward with multiple types of district-level evidence that more likely than not proves they have been placed in cracked or packed districts, thereby establishing district-specific evidence that they are among those injured by the 2011 gerrymander.

For example, almost all of the Voters resides and is registered to vote in a Challenged District and testified that his or her vote has been diluted by the Apportionment Plan. (Findings at § III(A).) Additionally, Voters introduced at trial district-specific evidence of cracking and packing by Republican legislators and aides. (Findings at § II(C) and § III(A).)

Finally, Voters introduced at trial two types of district-specific evidence of cracking and packing through expert analysis showing vote dilution in their districts. (Findings at § II(A), § IV(A) (see especially “Packing and Cracking”), § IV(B) (Chen-Warshaw Address Level Analysis”).)

Together, this evidence establishes individual and personal harm sufficient to convey standing to these plaintiffs. *See e.g. Common Cause v. Rucho*, 318 F. Supp. 3d 777, 821 (M.D.N.C. 2018) (finding plaintiffs’ claim that North Carolina congressional district 1 was “packed” to be buttressed by the fact that “of 2,000 simulated districting plans generated by Dr. Chen. . . all but 3 of the plans . . . would have placed [the voter] into a less Democratic-leaning district”).

b. Voters have proven their injuries are traceable to the legislature’s conduct.

Plaintiffs must also prove “a causal connection between the injury and the conduct complained of.” *Shearson v. Holder*, 725 F.3d 588, 592 (6th Cir. 2013) (quoting *Lujan*, 504 U.S. at 560). Voters have presented evidence that the Apportionment Plan

caused their individual injuries by diluting their votes. (Findings at § III(A) and § IV.)

This satisfies the causation requirement. *See Gill*, 138 S. Ct. at 1931.

c. Voters have proven their injuries are redressable.

In *Gill*, the Supreme Court stated that any remedy must be “limited to the inadequacy that produced [the] injury in fact,” and that “the remedy that is proper and sufficient lies in the revision of the boundaries of the individual’s own district.” 138 S. Ct. at 1930 (citing *Lewis v. Casey*, 518 U.S. 343, 357 (1996)) (emphasis added). Plaintiffs seek an injunction that bars Michigan from using the Apportionment Plan in future elections, and they ask the Court to implement, with proper input from the legislature, an alternative districting plan that does not dilute their votes. Complaint, ECF No. 1 at PageID # 32-33.

Voters have supplied evidence from experts Chen, Warshaw, and Mayer that alternate legislative maps are available and less politically biased, and from Chen and Warshaw that alternate *districts* exist in multiple neutrally generated maps that would be less cracked or packed than the Challenged Districts. (Findings at § IV). Professor Warshaw identified simulated maps, each of which would have redressed each of the Challenged Districts. (Demonstration Maps, Demo. Exs. PD-001 through PD-079; Findings at § IV(B) (“Demonstration Maps for Each Challenged District”).) Thus, voters have presented evidence that their individual injuries will be redressed and/or remedied by a favorable decision. *See* Opinion and Order, ECF No. 143 at PageID #5318.

d. The League has standing to pursue its Fourteenth Amendment claims.

The League may establish standing either by showing harm to the League's own organizational interests (independent associational standing) or by showing that the League is an appropriate organization to pursue claims on behalf of its Democratic members in the Challenged Districts (derivative associational standing). Either form is sufficient to satisfy the injury-in-fact requirement for constitutional claims seeking injunctive or declaratory relief. *See Warth*, 422 U.S. at 511; *MX Grp., Inc. v. City of Covington*, 293 F.3d 326, 332-33 (6th Cir. 2002); Opinion and Order, ECF No. 54 at PageID #952-53.

e. The League has direct associational standing to pursue its Fourteenth Amendment claims.

An association has standing to sue on its own behalf if the association independently shows an (1) injury in fact that is (2) fairly traceable to the conduct of the defendants and (3) redressable by a favorable judicial decision. *See Am. Canoe*, 389 F.3d at 544.

(i) The League has proven injury in fact.

The League has shown that its mission has been "perceptibly impaired" by the challenged action, as shown by a "concrete and demonstrable injury to the organization's activities" and a "consequent drain on the organization's resources." *Havens Realty Corp. v. Coleman*, 455 U.S. 363, 379 (1982).

The League’s mission is “Empowering Voters, Defending Democracy.” (Findings at § III(B) (especially at ¶ 415).) The League is dedicated to encouraging the people of Michigan to exercise their right to vote. The League describes its activities as including voter training, voter registration, and the development of non-partisan voter guides. (Findings at § II(B), ¶¶ 419-425; see also League Activities, Trial Ex. 258.)

The Apportionment Plan directly impairs the League’s mission. First, the League has shown that its mission of increasing engagement in the political process was impaired by the legislature’s retaliation. One of the core definitions of retaliation is “an adverse action . . . that would deter a person of ordinary firmness from continuing to engage in [protected] conduct” and that “was motivated at least in part by the . . . protected conduct.” *Thaddeus-X v. Blatter*, 175 F.3d 378, 394 (6th Cir. 1999). The League has presented evidence that the Apportionment Plan deters its members from participating in the political process in Challenged Districts. (Findings at § II(B), ¶ 433-442.). The League has also shown that the dilution of its members’ votes impairs the League’s mission to increase the informed exercise of political power. *Id.* Because the League has shown that the Apportionment Plan hampers the League’s “ability to further its goals,” the League has proven injury in fact. *See Greater Cincinnati Coal. for the Homeless v. City of Cincinnati*, 56 F.3d 710, 716 (6th Cir. 1995) (quoting *Havens*, 455 U.S. at 379); *see Am. Canoe*, 389 F.3d at 546.

(ii) The League has proven its injury is traceable to the legislature's conduct.

The League has established “a causal connection between the injury and the conduct complained of.” *Shearson*, 725 F.3d at 592 (quoting *Lujan*, 504 U.S. at 560). The Voters’ testimony has shown that the League’s members have been deterred from high levels of participation in the political process by the Apportionment Plan’s purpose and effect. The burdens placed on Michigan Democratic voters have diluted their votes and the legislature did so for the purpose of maintaining a Republican advantage. This has resulted in injury to the League, (Findings at § II and § III(B) (especially ¶¶ 433-442).)

(iii) The League has proven its injury is redressable.

The League seeks the same remedy as voters. Complaint, ECF No. 1 at PageID # 32-33. For the reasons discussed above the League has presented evidence that its injuries will be redressed and/or remedied by a favorable decision. (Demonstration Maps, Demo. Exs. PD-001 through PD-079.)

f. The League has derivative associational standing to pursue its Fourteenth Amendment claims.

“An association has standing to bring suit on behalf of its members when [1] its members would otherwise have standing to sue in their own right, [2] the interests at stake are germane to the organization’s purpose, and [3] neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit.”

Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc., 528 U.S. 167, 181 (2000)

(quoting *Hunt v. Wash. State Apple Advert. Comm’n*, 432 U.S. 333, 343 (1977)); and *Cleveland Branch, NAACP v. City of Parma, OH*, 263 F.3d 513, 524 (6th Cir. 2001).

In partisan gerrymandering cases, an organization has standing to challenge a district in which one of its members lives whose vote “was diluted on the basis of invidious partisanship.” *Rucho*, 318 F. Supp. 3d at 827 (finding that the League of Women Voters of North Carolina had standing to bring a Fourteenth Amendment challenge to any gerrymandered district in which its members lived.).

The League has established each of the three requirements for independent associational standing. First, the League has shown that its members have standing to sue in their own right. In *Gill*, 138 S. Ct. 1916, the Supreme Court explained that when a member’s voting power has been unconstitutionally diluted because they have been placed in “packed” or “cracked” districts, “that injury is district specific.” *Id.* at 1930. The League has presented evidence that members in Challenged Districts have individualized, district-specific harms. (Findings at § III(A).)

Second, the League has shown that the interests at stake in this litigation are germane to the League’s purpose of promoting civic engagement, increasing voter participation, and defending democracy. (Findings at § III (B).)

Third, the League’s claims and the relief it requests do not require the participation of individual League members. When an “association seeks a declaration, injunction, or some other form of prospective relief . . . the remedy, if granted, will inure to the benefit of those members of the association actually injured.” *Warth*, 422

U.S. at 515. Here, the League seeks declaratory and injunctive relief. Accordingly, the League members need not participate in the litigation. *Id.*; see Order and Opinion, ECF No. 143 at PageID #5321.

The League has satisfied all three requirements for derivative associational standing. See *Laidlaw Envtl. Servs.*, 528 U.S. at 181; *Cleveland Branch, NAACP*, 263 F.3d at 524.

2. Plaintiffs have standing to pursue their First Amendment claims.

The First Amendment’s prohibition on retaliation bars a state government from penalizing a citizen or depriving her of a benefit on account of her constitutionally protected speech or conduct. See *Rutan v. Republican Party of Ill.*, 497 U.S. 62, 74–76 (1990). The “‘right of qualified voters, regardless of their political persuasion, to cast their votes effectively’” lies near the core of protected First Amendment freedoms. *Anderson v. Celebrezze*, 460 U.S. 780, 787 (1983) (quoting *Williams v. Rhodes*, 393 U.S. 23, 30–31 (1968)). Accordingly, a state law that “restrict[s] the plaintiffs’ political activities within the state and . . . limit[s] their ability to associate as political organizations” gives rise to an injury sufficient to confer First Amendment standing. *Green Party of Tenn. v. Hargett*, 767 F.3d 533, 544 (6th Cir. 2014), *aff’d*, 2017 WL 4011854 (6th Cir. May 11, 2017).

These familiar First Amendment standing principles apply with full force in the gerrymandering context. Partisan gerrymandering implicates “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 v. Jubelirer*, 541 U.S. 267, 314 (2004) (Kennedy, J., concurring in the judgment). In other words, “significant ‘First Amendment concerns arise’ when a State purposely ‘subject[s] a group of voters or their party to disfavored treatment.’” *Gill*, 138 S. Ct. at 1938 (Kagan, J., concurring) (alteration in original) (quoting *Vieth*, 541 U.S. at 314); *see also Ohio A. Philip Randolph Inst. v. Smith*, 335 F. Supp. 3d 988, 997 (S.D. Ohio 2018) (finding First Amendment concerns implicated by partisan gerrymandering); *Rucho*, 318 F. Supp. 3d at 829.

Specifically, as the Court explained in its November 2018 Opinion and Order, partisan gerrymandering implicates the First Amendment in two ways. *See* Opinion and Order, ECF No. 143 at PageID #5324-25. First, partisan gerrymandering creates a dilutionary injury; “[t]he practice of *purposefully* diluting the weight of certain citizens’ votes to make it more difficult for them to achieve electoral success because of the political views they have expressed through their voting histories and party affiliations thus infringes this [First Amendment] representational right.” *Shapiro v. McManus*, 203 F. Supp. 3d 579, 595 (D. Md. 2016) (emphasis in original) (citing *Vieth*, 541 U.S. at 314–15 (Kennedy, J., concurring in the judgment)). This injury echoes the district-specific injury giving rise to a partisan vote dilution claim under the Fourteenth Amendment. *See Shapiro*, 203 F. Supp. 3d at 595 (explaining that “while a State can dilute the value of a citizen’s vote by placing him in an overpopulated district, a State

can also dilute the value of his vote by placing him in a particular district because he will be outnumbered there by those who have affiliated with a rival political party. In each case, the weight of the viewpoint communicated by his vote is ‘debased’”) (quoting *Bd. of Estimate of City of N.Y. v. Morris*, 489 U.S. 688, 693-94 (1989)).

Second, partisan gerrymandering also creates distinct, non-dilutionary First Amendment injuries. As another district court recently observed:

In her concurrence in *Gill*, Justice Kagan—joined by three other Justices—explained the standing requirements for a partisan gerrymandering First Amendment claim. Justice Kagan stated that the injury arising under this theory of harm is “that the gerrymander has burdened the ability of like-minded people across the State to affiliate in a political party and carry out that organization’s activities and objects.” *Gill*, 138 S. Ct. at 1939 (Kagan, J., concurring).

Smith, 335 F. Supp. 3d at 997; see *Rhodes*, 393 U.S. at 30 (stating that the Supreme Court “ha[s] repeatedly held that freedom of association is protected by the First Amendment,” including “the right of individuals to associate for the advancement of political beliefs”); *Gill*, 138 S. Ct. at 1938 (“[T]he associational harm of a partisan gerrymander is distinct from vote dilution.”) (Kagan, J., concurring). “[T]he associational injury flowing from a statewide partisan gerrymander, whether alleged by a party member or the party itself, has nothing to do with the packing or cracking of any single district’s lines.” *Id.* at 1939 (Kagan, J., concurring). Instead, under a non-dilutionary First Amendment challenge, “the valued association and the injury to it are statewide [and] so too is the relevant standing requirement.” *Id.* Accordingly, plaintiffs

do not need to demonstrate a district-specific injury to their First Amendment rights to demonstrate injury in fact. *Id.*

a. Voters have standing to pursue their First Amendment claims.

Voters have proven First Amendment standing. As discussed above, these plaintiffs have presented sufficient evidence of individualized, district-specific dilutionary harm to satisfy standing under the Fourteenth Amendment. (Conclusions at § I(B)(1)(a)(i).) This evidence also suffices to establish dilutionary injury and provides standing to voters under the First Amendment. *Shapiro*, 203 F. Supp. 3d at 595.

Additionally, Voters have proven non-dilutionary injuries that independently support First Amendment standing. These individuals have testified that their ability to associate with like-minded people across Michigan has been burdened by the Apportionment Plan. (Findings at § III(A).) This harm, independent of voters' dilutionary harm, suffices to support their standing to pursue their First Amendment Claims. *Gill*, 138 S. Ct. at 1938-39 (Kagan, J., concurring).

Finally, Voters have established a causal connection between their injuries and the Apportionment Plan and that their individual injuries will be redressed and/or remedied by a favorable decision. (Conclusions at § I(B)(1)(b).)

b. The League has standing to pursue its First Amendment claims.

The League has established that its members have been injured and may pursue First Amendment claims in their own right. (Conclusions at § I(B)(2).) The League has also shown that its interests in this litigation and the remedies sought are germane to the League's purpose. (Conclusions at § I(B)(1)(f).) Additionally, the First Amendment claims and requested relief do not require the participation of individual members in this suit. (Conclusions at § I(B)(1)(f).) Thus, the League has derivative standing to pursue its First Amendment claims.

As discussed above, "an association may have standing to assert an injury to itself regardless of whether its members also have standing." *Am. Canoe*, 389 F.3d at 544 (internal citation omitted). 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." *Havens*, 455 U.S. at 379; *see also Fair Elections Ohio v. Husted*, 770 F.3d 456, 462 (6th Cir. 2014) ("An organization may have standing to sue if its interests are directly impaired.").

As Justice Kagan noted in *Gill*, "what is true for party members may be doubly true for party officials and triply true for the party itself (or for related organizations)." 138 S. Ct. at 1938 (citing *Cal. Democratic Party v. Jones*, 530 U.S. 567, 586 (2000) (holding that a state law violated state political parties' First Amendment rights of

association)); *see also Tashjian v. Republican Party of Conn.*, 479 U.S. 208, 214 (1986) (“The freedom of association protected by the First and Fourteenth Amendments includes partisan political organization.”). “By placing a state party at an enduring electoral disadvantage, the gerrymander weakens its capacity to perform all its functions.” *Gill*, 138 S. Ct. at 1938 (Kagan, J., concurring).

Justice Kagan’s reasoning regarding the harm to the Democratic Party of Wisconsin applies equally to the League. The League’s mission has been burdened by the Apportionment Plan because it contributed to cause a lack of voter interest that continues to hamper the League’s “get out the vote” efforts, and it has prevented the League from fulfilling its mission of informing and engaging voters. (Findings at § III(B) (especially ¶¶ 433-443.) The League has experienced difficulty providing opportunities for its members and other voters to interact with candidates because they had little incentive to actively engage with the electorate in districts whose results were effectively preordained. (Findings at § III(B) (especially 433-435, 437-438, 440).)

The League also has independent associational standing from non-dilutionary injuries to its own First Amendment rights. *See Gill*, 138 S. Ct. at 1939; *see also Ohio A. Philip Randolph Inst. v. Householder*, Case No. 1:18-cv-357, 2019 WL 652980, *19-20 (S.D. Ohio Feb. 15, 2019) (finding that organizations established injury in fact where they showed difficulty engaging voters and an impaired efficacy of their work). The League has presented evidence that the Apportionment Plan impairs its mission. As discussed in detail above, the Apportionment Plan has harmed the League’s ability to

carry out its mission of education and engagement. (Conclusions at § I(B)(1)(f).)

Because the League has shown that the Apportionment Plan has “perceptibly impaired” its mission, the League has established that it suffered an injury in fact to its own First Amendment rights. *See Havens*, 455 U.S. at 379; *Anderson*, 460 U.S. at 792 (holding that plaintiff was injured by election law that made “[v]olunteers . . . more difficult to recruit and retain, media publicity and campaign contributions . . . more difficult to secure, and voters . . . less interested in the campaign”). This injury is more than a “trifle,” and it impairs the League’s very ability to carry out its purpose as an organization. *See, e.g., Billups*, 554 F.3d at 1351.

Because the League has proven injuries in fact, a causal connection between those injuries and the Apportionment Plan, and established that those injuries will be redressed and/or remedied by a favorable decision, the League has standing to pursue its First Amendment claims. *See Gill*, 138 S. Ct. at 1939 (Kagan, J., concurring); *Rucho*, 318 F. Supp. 3d at 828-31; (Conclusions at § I(B)(1)(b).)

II. Plaintiffs’ Claims Are Justiciable.

The Court concludes that judicially manageable standards exist to adjudicate plaintiffs’ Fourteenth Amendment and First Amendment partisan gerrymandering claims, and accordingly, those claims are justiciable. *See Opinion and Order*, ECF No. 143 at PageID #5327-36.

A. Plaintiffs' Fourteenth Amendment claims are justiciable.

In *Davis v. Bandemer*, 478 U.S. 109, 113 (1986), the Supreme Court found “political gerrymandering to be justiciable” under the Equal Protection Clause of the Fourteenth Amendment. But while the Supreme Court held that political gerrymandering claims present justiciable controversies, it “could not, however, settle on a standard for what constitutes an unconstitutional partisan gerrymander.” *Gill*, 138 S. Ct. at 1927 (discussing *Bandemer*, 478 U.S. 109).

The Supreme Court has never overturned *Bandemer*'s holding. Though a four-justice plurality concluded in *Vieth* that political gerrymandering claims were not justiciable because of the lack of a “judicially manageable standard,” Justice Kennedy declined to hold that partisan gerrymandering claims are per se non-justiciable. *Vieth*, 541 U.S. at 291, 310 (Kennedy, J., concurring in the judgment) (“[o]ur 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” and describing *Bandemer*'s holding as “controlling precedent on the question of justiciability”). Furthermore, in *League of United Latin American Citizens v. Perry*, 548 U.S. 399 (2006) and *Gill*, 138 S. Ct. 1916, the Supreme Court declined to reconsider whether partisan gerrymandering claims are justiciable. *See Perry*, 548 U.S. at 414; *Gill*, 138 S. Ct. at 1929.

The Supreme Court has allowed Fourteenth Amendment gerrymandering claims against state legislatures and election boards. Those decisions emphasize that

partisan gerrymandering is “incompatible with democratic principles.” *Ariz. State Leg. v. Ariz. Indep. Redistricting Comm’n*, 135 S. Ct. 2652, 2658, 192 L. Ed. 2d 704 (2015) (quoting *Vieth*, 541 U.S. at 292); see *Reynolds*, 377 U.S. at 562 (noting that “representative government is in essence self-government . . . and each and every citizen has an inalienable right to full and effective participation” and “[t]o the extent that a citizen’s right to vote is debased, he is that much less a citizen”). Partisan gerrymandering violates “the core principle of republican government’ namely, ‘that the voters should choose their representatives, not the other way around.’” *Ariz. State Leg.*, 135 S. Ct. at 2677.

In cases like these, the Court’s proper—indeed, necessary—role is to protect the democratic process and citizen’s trust. Because partisan gerrymandering restricts voting rights, conventional deference to the policy judgments of the political branches is less important. See *Wesberry v. Sanders*, 376 U.S. 1, at 6-7 (1964) (refusing to support a construction of the Elections Clause “that would immunize state congressional apportionment laws which debase a citizen’s right to vote from the power of courts” and noting that “[t]he right to vote is too important in our free society to be stripped of judicial protection by such an interpretation of Article I”); see also Guy-Uriel E. Charles & Luis E. Fuentes-Rohwer, *Judicial Intervention as Judicial Restraint*, 132 Harv. L. Rev. 236, 269 (2018) (noting that “[p]olitical gerrymandering is the most salient and perhaps most consequential expression of the manipulation of electoral rules for partisan gain” and that if the judiciary “does not rein in partisan gerrymandering, it

will communicate to political elites not just that partisan gerrymandering is normatively acceptable, but also that partisan manipulation of electoral rules is permissible”).

This Court previously determined that a manageable standard exists for adjudicating Fourteenth Amendment partisan gerrymandering claims. Opinion and Order, ECF No. 143 at PageID #5331. A plaintiff must prove two elements: (1) discriminatory intent under the predominant purpose standard, i.e., that “a legislative mapdrawer’s predominant purpose in drawing the lines of a particular district was to ‘subordinate adherents of one political party and entrench a rival party in power,’” *Rucho*, 318 F. Supp. 3d at 864 (quoting *Ariz. State Leg.*, 135 S. Ct. at 2658), and (2) discriminatory effects, i.e., that “the lines of a particular district have the effect of discriminating against—or subordinating—voters who support candidates of a disfavored party, if the district dilutes such voters’ votes by virtue of cracking or packing.” *Id.* at 867. *See also Gill*, 138 S. Ct. at 1931 and *Ariz. State Leg.*, 135 S. Ct. at 2658. If a plaintiff proves these elements, the burden shifts to the government to prove “that a legitimate state interest or other neutral factor justified such discrimination.” *Rucho*, 318 F. Supp. 3d at 867 (citing *Cooper v. Harris*, 137 S. Ct. 1455, 1464 (2017) (applying burden shifting framework to racial gerrymandering claims) and *Brown v. Thomson*, 462 U.S. 835, 843 (1983) (one-person, one-vote claims)). This standard draws from racial gerrymandering claims, which have been found to be

justiciable. *See Bandemer*, 478 U.S. at 124-25; *accord Shapiro*, 203 F. Supp. 3d at 591 (citing *Ala. Legis. Black Caucus v. Alabama*, 135 S. Ct. 1257, 1270 (2015)).

Plaintiffs' vote dilution claims also must proceed on a district-by-district basis. *See Gill*, 138 S. Ct. at 1930; Opinion and Order, ECF No. 143 at PageID #5331. The intent prong is evaluated using the "predominant purpose" test, under which a congressional district is considered an unconstitutional partisan gerrymander if the legislative body's predominant purpose in drawing the district was to subordinate the interests of supporters of a disfavored party and to entrench a party's favored representative in power. This test is a manageable and appropriate standard, because in *Gill* the Supreme Court directly analogized partisan gerrymandering claims and racial gerrymandering claims. *Gill*, 138 S. Ct. at 1930. Additionally, because federal courts regularly apply the "predominant purpose" standard to racial gerrymandering claims. *See, e.g., Bethune-Hill v. Va. State Bd. of Elections*, 137 S. Ct. 788, 797 (2017); *Ala. Legis. Black Caucus*, 135 S. Ct. at 1270; *Miller v. Johnson*, 515 U.S. 900, 916 (1995).

The Court therefore concludes that the three-part discriminatory intent, discriminatory effects, and lack of justification test for Fourteenth Amendment partisan gerrymandering claims provides an appropriate standard to adjudicate plaintiffs' Fourteenth Amendment claims. *See* Opinion and Order, ECF No. 143 at PageID #5333.

B. Plaintiffs' First Amendment claims are also justiciable.

Though the Supreme Court has not established a framework for determining whether a political gerrymander violates the First Amendment, it has explicitly rejected a test that focused only on partisan intent. *See Perry*, 548 U.S. at 418. Two recent lower federal court opinions (*Shapiro* and *Rucho*) have found that a judicially manageable standard exists for adjudicating First Amendment partisan gerrymandering claims. *See* Opinion and Order, ECF No. 143 at PageID #5333-34; *Shapiro*, 203 F. Supp. 3d at 597; *Rucho*, 318 F. Supp. 3d at 929. As justification for the three-part intent, injury, and causation standard, these courts relied on “well-established First Amendment jurisprudence” regarding retaliation. *See Shapiro*, 203 F. Supp. 3d at 596.

The Court concludes that the following standard for adjudicating First Amendment partisan gerrymandering claims is judicially manageable. *See* Opinion and Order, ECF No. 143 at PageID #5335. A plaintiff must satisfy three elements. First, a plaintiff must demonstrate that those who drew the districts did so with the “specific intent” to “burden individuals or entities that support a disfavored candidate or political party.” *Rucho*, 318 F. Supp. 3d at 929; *Shapiro*, 203 F. Supp. 3d at 597. Second, a plaintiff must show that the challenged districting plan caused an injury, i.e., “that the districting plan in fact burdened the political speech or associational rights of such individuals or entities.” *Rucho*, 318 F. Supp. 3d at 929. Third, a plaintiff must show causation, i.e., that “absent the mapmakers’ intent to burden a particular group of

voters by reason of their views, the concrete adverse impact would not have occurred.” *Shapiro*, 203 F. Supp. 3d at 597.

III. Plaintiffs Demonstrated That Partisan Gerrymandering Violated The Equal Protection Clause Of The Fourteenth Amendment.

A. The legislature’s predominant purpose was to dilute the voting strength of Democrats and to enhance the voting strength of Republicans.

To satisfy the first prong, plaintiffs must show that the Legislature’s predominant purpose was to “to subordinate adherents of one political party and entrench a rival party in power[.]” (Opinion and Order, ECF No. 143 at PageID #5331.) This predominance inquiry does not turn on whether the legislature could conceivably articulate some post hoc neutral principal but, rather, on the actual purpose behind the gerrymander. *See, e.g., Bethune-Hill*, 137 S. Ct. at 799 (“By deploying those [neutral redistricting] factors in various combinations and permutations, a State could construct a plethora of potential maps that look consistent with traditional, race-neutral principles. But if race for its own sake is the overriding reason for choosing one map over others, race still may predominate.”); *Ala. Legis. Black Caucus*, 135 S. Ct. at 1271 (achieving equal populations in a district might legitimately be the reason that a group of voters was shifted from one district to another – but if the legislature decided which group of voters was to be moved based on race, then race is still predominant under the applicable standard.).

The predominant purpose of a gerrymander maybe determined from the full context of the legislature's actions. [T]he discriminatory purpose need not "appear on the face of the statute." *Davis*, 426 U.S. at 241. Rather, the Court may find discriminatory intent based on "the totality of the relevant facts." *Id.* "Determining whether invidious discriminatory purpose was a motivating factor demands a sensitive inquiry into such circumstantial and direct evidence of intent as may be available." *Vill. of Arlington Heights v. Metro. Hous. Dev. Corp.*, 429 U.S. 252, 266 (1977).

While plaintiffs must proceed on a district-by-district basis, they may (and do) offer statewide evidence to prove the intent of a partisan gerrymander. *Ala. Legislative Black Caucus v. Alabama*, 135 S. Ct. at 1265. Here, the record is replete with evidence that the Legislature's predominant purpose in drawing district lines was to discriminate against non-Republican voters.

The Supreme Court has also clarified that statewide evidence is admissible, even in a district-by-district redistricting case to demonstrate intent and perhaps other matters as well. In *Alabama Legislative Black Caucus*, 135 S.Ct. at 1267, the court observed that the voter plaintiffs there "relied heavily upon statewide evidence to prove that race predominated in the drawing of individual district lines." The court wrote "such evidence is perfectly relevant. ..." There as here the burden in the case was to show that [there, race] "was the predominant factor motivating the legislature's decision to place a significant number of voters within or without a particular

district.” *Id.* The state’s statewide policy and intent was evidence regarding the motivation of the drawing of particular districts. *Id.*

a. The map drawing process was secretive, artificially abbreviated, and excluded meaningful Democratic input.

As detailed above, plaintiffs have demonstrated that the legislature and its operatives carved out much of their gerrymander in secret, using an abbreviated process to maximize their partisan advantage. (Findings at § II(B) and II(C).) Meetings took place in secret. (Findings at § II(B) (especially “The Secretive Process”).) Almost no input from Democrats was solicited or seriously considered during the process. (Findings at § II(B).) The legislation adopting the Apportionment Plan was crammed into three months even though the statutory time period would have allowed up to seven full months to complete and vote on the plans. *Id.*

The substantial deviations from the normal legislative process, coupled with the secretive nature of the participants, provide strong evidence that the legislature elevated partisan considerations above all others to discriminate against non-Republicans in their apportionment scheme. *Arlington Heights*, 429 U.S. at 267; see generally Findings at § II(D) (especially ¶ 100).)

b. The legislature’s objective was to entrench Republican representation and subordinate Democratic voters.

Plaintiffs have shown that the legislature: (1) disregarded the Michigan statutory guidance in favor of maps that protected Republican legislators and enhanced a

Republican congressional majority; and (2) relied on purely partisan data, using Maptitude and Autobound to calculate precise political district boundaries based on past political outcomes (Findings at § II(C).)

Many other contemporaneous statements from participants in the gerrymander display a naked partisanship that predominated over non-partisan concerns. (Findings at § II.) The Court concludes that the predominant purpose of the Apportionment Plan as to the 34 Challenged Districts was to gain and expand partisan advantage.

c. Other evidence demonstrates the legislature's partisan intent.

The evidence also shows that partisan concerns predominated over neutral districting criteria: (1) the legislators directed the map drawers to disregard statutory guidelines when they conflicted with partisan interests (Findings at § II(D) (especially ¶ 100)); (2) their map makers disregarded law that required shifting as few municipalities as possible when breaking a county or municipality to minimize the breakup of the area (Findings at § II(D) (especially ¶¶ 108-112).); and (3) expert analysis has demonstrated actual discriminatory effects in almost every Challenged District (Findings at § III and IV(A), (B).) This evidence further establishes the legislature's discriminatory intent.

3. Plaintiffs presented conclusive evidence of discriminatory effects.

Unchecked partisan gerrymandering corrupts the “core principle [sic] of republican government,’ namely, ‘that the voters should choose their representatives,

not the other way around.” *Ariz. State Leg.*, 135 S. Ct. at 2678 (*quoting* Mitchell N. Berman, *Managing Gerrymandering*, 83 Tex. L. Rev. 781 (2005)). Partisan gerrymandering presents two related harms: vote dilution and partisan entrenchment.

The harm from 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.” *Gill*, 138 S. Ct. at 1931. *See also Ariz. State Leg.*, 135 S. Ct. at 2658 (partisan gerrymandering harms voters by “subordinat[ing] adherents of one political party”).

Gerrymandering, racial or partisan, dilutes votes so that a citizen living in a disfavored district has a right to vote that “is simply not the same right to vote as that of those living in a favored part of the State.” *Reynolds*, 377 U.S. at 563; *see also Vieth*, 541 U.S. at 271 n.1 (plurality opinion) (gerrymandering is “giv[ing] one political party an unfair advantage by diluting the opposition’s voting strength”); *Bandemer*, 478 U.S. at 127 (plurality opinion) (gerrymandering is “the manipulation of individual district lines” causing a party’s “voters over the State as a whole” to be “subjected to unconstitutional discrimination.”). “Accordingly, the lines of a particular district have the effect of discriminating against—or subordinating—voters who support candidates of a disfavored party, if the district dilutes such voters’ votes by virtue of cracking or packing.” *Rucho*, 318 F. Supp. 3d at 867.

Partisan gerrymandering aims at “entrench[ing] a rival party in power.” *Ariz. State Leg.*, 135 S. Ct. at 2658. Politicians in gerrymandered districts have less incentive

to respond to the needs of the minority voters in their district. *See, e.g., Reynolds*, 377 U.S. at 565 (“Since legislatures are responsible for enacting laws by which all citizens are to be governed, they should be bodies which are collectively responsive to the popular will.”).

The effects of this partisan gerrymander are in many respects analogous to those observed in the context of racial gerrymandering: “When a district obviously is created solely to effectuate the perceived common interests of one racial group, elected officials are more likely to believe that their primary obligation is to represent only the members of that group, rather than their constituency as a whole.” *Shaw v. Reno*, 509 U.S. 630, 648 (1993).

a. District-level evidence has demonstrated vote dilution and/or associated harm in each challenged district.

Plaintiffs presented voluminous and detailed district-by-district evidence that the legislature packed and cracked voters in the Challenged Districts. (Findings at § III(A) and IV(A), (B).) Additionally, Brandon Dillon, former campaign chairman of the State House Democratic Caucus and former Chairman of the Michigan Democratic Party, testified at trial that, in cracked districts, “[v]olunteers, at least in my experience. . . are much more easy to mobilize and energize when they feel they’re actually going to have a positive impact on winning the race.” (Findings at § III(A) ¶ 116.) In the packed districts, Dillon testified that “volunteers and donors are almost nonexistent.” (*Id.* at ¶ 117.)

Plaintiffs also presented evidence from specific voters within almost all the Challenged Districts that show the legislature's partisan gerrymandering resulted in their votes being diluted. (Findings at § III(A).) Expert evidence included detailed district-level and Voters' address level comparisons of the Challenged Districts to simulated districts. (Findings at § III(A) and IV(A), (B).) This evidence further proves that the Challenged Districts were cracked and packed by the 2011 gerrymander.

Professor Chen showed how geographically and demographically overlapping simulated districts were less cracked and packed—more fair—than the enacted districts. (Findings at § IV(A).) Professor Warshaw compared each Voter's enacted district to 1,000 alternates, all or nearly all of which were fairer. (Findings at § IV(B).)

Dr. Warshaw concluded that in any of Dr. Chen's 1,000 neutrally generated maps, the individual Voters would have greater voting strength than in the enacted districts. The Court conclude that the 2011 gerrymander materially diluted the value of Voters' votes. This evidence also supports the conclusion that plaintiffs established district-level dilution of the Challenged Districts. Plaintiffs' detailed evidence of the statewide impact of the gerrymander also established dilution and harm. (Findings at § III and IV(A-C).)

4. The legislature had no legitimate justification for its discrimination.

Because plaintiffs established their prima facie case that the legislature violated the Equal Protection Clause, the burden shifts and the Court must consider whether

other parties have proven any “legitimate justification” for the discrimination. (Order and Entry; ECF NO. 143 at PageID #5331). “A determination that a gerrymander violates the [Equal Protection Clause] must rest on . . . the conclusion that the [political] classifications, though generally permissible, were applied in an invidious manner or in a way unrelated to any legitimate legislative objective.” *Vieth*, 541 U.S. at 307 (Kennedy, J., concurring).

The statements of the Republican legislators, their staff, and their mapmakers firmly establish that naked partisanship was the predominant purpose of the scheme. (Findings at § II(C) and II(D).) Intervenors have pointed the Court to no legitimate purpose that would justify the discriminatorily and harmful effects they have caused. As detailed above, their goal was to entrench Republican representatives, and for them, that purpose trumped state law considerations when the two conflicted. (Findings at § II (especially ¶ 100).) The defense cannot hide behind statutory guidelines that the legislature repeatedly violated whenever partisan politics demanded. They have not refuted the logical conclusion that plaintiffs’ right to equal protection under the Constitution was violated. *Vieth*, 541 U.S. at 307 (Kennedy, J., concurring).

IV. The Partisan Gerrymander Violated the Voters' Speech and Associational Rights.

A. The relevant law.

The First Amendment provides that “Congress shall make no law . . . abridging the freedom of speech.” U.S. Const. amend. I. “The right of citizens to inquire, to hear, to speak, and to use information to reach consensus is a precondition to enlightened self-government and a necessary means to protect it.” *Citizens United v. Fed. Election Comm’n*, 558 U.S. 310, 339 (2010). “[P]olitical speech must prevail against laws that would suppress it, whether by design or inadvertence.” *Id.* at 340. It “is beyond debate that freedom to engage in association for the advancement of beliefs and ideas is an inseparable aspect of the ‘liberty’ assured by the Due Process Clause of the Fourteenth Amendment, which embraces freedom of speech.” *NAACP v. State of Ala. ex rel. Patterson*, 357 U.S. 449, 460 (1958). Laws that burden speech because of the viewpoint of the speaker are disfavored. *Rosenberger v. Rector & Visitors of Univ. of Va.*, 515 U.S. 819, 829 (1995); *R.A.V. v. City of St. Paul*, 505 U.S. 377, 391 (1992).

Plaintiffs claim that the legislature through improper partisan gerrymandering violated plaintiffs’ First Amendment rights. Under the test adopted by this Court, plaintiffs must satisfy three elements:

First, the plaintiff must demonstrate that those who drew the districts did so with the “specific intent” to “burden individuals or entities that support a disfavored candidate or political party.” *Shapiro*, 203 F. Supp. 3d at 597; *Rucho*, 318 F. Supp. 3d at 929. Second, the plaintiff must show that the challenged districting plan actually caused an injury, i.e., “that the districting plan in fact burdened the political speech or associational

rights of such individuals or entities.” *Rucho*, 318 F. Supp. 3d at 929. Third, the plaintiff must show causation, i.e., that “absent the mapmakers’ intent to burden a particular group of voters by reason of their views, the concrete adverse impact would not have occurred.” *Shapiro*, 203 F. Supp. 3d at 598.

(Opinion and Order, ECF No. 143 at PageID #5335.)

The discriminatory intent prong for the Fourteenth Amendment claim and the specific intent prong for the First Amendment claim overlap substantially but not entirely – the First Amendment claim, for instance, has no “predominant purpose” requirement. *Arlington Heights*, 429 U.S. at 270-271. Similarly, the discriminatory effects prong for the Fourteenth Amendment claim and the First Amendment claim also overlap substantially. Accordingly, much of the plaintiffs’ evidence demonstrates liability under both theories.

B. Application to the matter at hand

1. Plaintiffs demonstrated that the legislature’s motivating purpose was to burden the speech of non-Republican voters.

Plaintiffs must demonstrate that their protected conduct, *i.e.*, supporting Democratic candidates, was the “motivating factor” in the Legislature’s decision to draw boundaries reducing their voting power. *Mt. Healthy City Sch. Dist. Bd. of Educ. v. Doyle*, 429 U.S. 274, 286 (1977). The Court applies a similar analysis as it does when reviewing discriminatory intent under the Equal Protection Clause. *Id.* (citing *Arlington Heights*, 429 U.S. at 270-271). Likewise, “[t]he government must abstain from

regulating speech when the specific motivating ideology or the opinion or perspective of the speaker is the rationale for the restriction.” *Rosenberger*, 515 U.S. at 829.

The evidence proves that the legislature intended to dilute the Voters’ voting power because they supported non-Republican candidates in prior elections. Because this evidence satisfies the more stringent standard of showing predominant purpose, they have also satisfied the motivational prong of the First Amendment analysis. *Mt. Healthy City Sch. Dist. Bd. of Educ.*, 429 U.S. at 286; *Arlington Heights*, 429 U.S. at 270-271.

The evidence also shows that the legislature intended to impermissibly create viewpoint-based burdens on the speech of non-Republicans because they did not agree with the message of those speakers. Their motivation to dilute the speech and associational rights of non-Republicans is part of “an egregious form of content discrimination.” *Rosenberger*, 515 U.S. at 829.

2. The enacted maps chill the plaintiffs’ speech and associational rights.

A government action may unconstitutionally burden First Amendment rights, even if it does not flatly prohibit speech or association, when the action has a chilling effect or an adverse impact on speech or associational rights. *See, e.g., Bd. of Cty. Comm’rs, Wabaunsee Cty., Kan. v. Umbehr*, 518 U.S. 668, 674 (1996) (“[C]onstitutional 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.)

(internal quotation marks and quoting citation omitted); *Garvin v. Rosenau*, 455 F.2d 233, 239 (6th Cir. 1972).

Restrictions that “affect a political party’s ability to perform its primary functions – organizing and developing, recruiting supporters, choosing a candidate, and voting for that candidate in a general election” can be “severe” First Amendment burdens. *Libertarian Party of Ohio v. Blackwell*, 462 F.3d 579, 587 (6th Cir. 2006).

Restrictions also impose unconstitutional burdens by: (1) making it harder “to recruit and retain” volunteers; (2) to secure “media publicity and campaign contributions”; and (3) depress voter turnout by reducing voter interest. *Anderson*, 460 U.S. at 792 (striking down Ohio election regulations restricting independent candidate access to the ballot). Nor does the First Amendment permit government to “restrict the political participation of some in order to enhance the relative influence of others.” *McCutcheon v. Fed. Election Comm’n*, 572 U.S. 185, 191 (2014) (plurality op.); *Buckley v. Valeo*, 424 U.S. 1, 48–49, (1976), *superseded by statute as stated in McConnell v. Fed. Election Comm’n*, 540 U.S. 93 (2003).

The Court determines whether the legislature’s gerrymander chilled speech and associational rights using an objective test. The Court must determine whether the legislature’s actions would “deter[] a person of ordinary firmness from exercising his or her right[.]” *Thaddens-X*, 175 F.3d at 398 (applying “ordinary firmness” test to prisoner’s First Amendment right to access to courts). *See also The Balt. Sun Co. v. Ehrlich*, 437 F.3d 410, 416 (4th Cir. 2006).

a. The evidence compels the conclusion that the redistricting scheme impermissibly violated the plaintiffs' First Amendment rights.

Plaintiffs presented evidence that “packing” and “cracking” of legislative districts made it very difficult to recruit credible candidates[,] to raise money, [and] to energize volunteers because people don’t believe that there is a legitimate chance for a Democrat to win in those districts.” (Dillon, Tr. at PageID #9099:4-8.) The Supreme Court has found such evidence sufficient to support First Amendment claims. *See, e.g., Anderson*, 460 U.S. at 792 (difficulty recruiting and maintaining volunteers and donations was key evidence of First Amendment violation); *Blackwell*, 462 F.3d at 587 (recruiting volunteers, candidates, and voting for candidates of the public’s choosing).

Voters also testified that the redistricting scheme caused: (1) them to reduce their political contributions (Findings at § III(A)); (2) difficulty in recruiting candidates to run for office (*Id.*); (3) depressed voter turnout during elections (*Id.*); (4) volunteers to scale back their activities (*Id.*); (5) voters to lose faith in the electoral process (*Id.*); and (6) less voters to register in elections due to disinterest (*Id.*). These activities fall squarely within the protections of the First Amendment, and the 2011 gerrymander has burdened the Voters’ ability to exercise these activities.

b. The League also established sufficient evidence that the redistricting scheme burdened its First Amendment rights at the statewide and district levels.

The League changed the nature of its political activity within Challenged Districts because of partisan gerrymandering. (Findings at § III(B).) The League also

presented compelling evidence demonstrating the unconstitutional burden on its speech and associational rights. (*Id.*)

3. The redistricting scheme directly and proximately caused the burden on plaintiffs’ speech and association rights without justification.

The defense presented no justification for the burden imposed on the plaintiffs’ speech and association rights. It is no defense to claim that the legislature “would have reached the same decision . . . even in the absence of the protected conduct.” *Mt. Healthy City Sch. Dist. Bd. of Educ.*, 429 U.S. at 287. Plaintiff evidence has established, especially through credible contemporaneous mapmaker emails and also through expert testimony, that the shape of packed and cracked Challenged Districts—flowed directly from Democratic voters’ exercise of their franchise.

Second, this Court must examine “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.’” *Burdick v. Takushi*, 504 U.S. 428, 434 (1992) (upholding prohibition against write-in candidates on Hawaiian ballot) (*quoting Anderson*, 460 U.S. at 789; *Tashjian*, 479 U.S. at 213–214). The government may not “restrict the speech of some elements of our society in order to enhance the relative voice of others[.]” *Buckley*, 424 U.S. at 48–49. *See also Emily’s List v. Fed. Election Comm’n*, 581 F.3d 1, 5 (D.C. Cir. 2009) (Kavanaugh, J.) (citing the above passage from *Buckley* as “perhaps the most important sentence in the Court’s entire campaign finance jurisprudence”).

Dr. Chen and Dr. Warshaw demonstrated that the legislature could have drawn hundreds of alternative districts and maps that conformed to traditional redistricting principles but did not pack and crack to burden the speech and associational rights of non-Republicans. (Findings at § IV(A) and (B).) Timmer, who was Intervenor’s only witness at trial, also freely admitted that such factors were ignored whenever necessary to satisfy incumbent requests and gather necessary votes to pass the Apportionment Plans. (Findings at § II(D) (especially ¶ 100).)

The Court concludes that the legislature unconstitutionally enhanced the speech of Republican voters and burdened the speech of Democrats. *See, e.g., Buckley* 424 U.S. at 48–49; *Emily’s List*, 581 F.3d at 5. This unjustified burden on speech compels a finding that the 2011 redistricting plan violated Plaintiffs’ First Amendment speech and association rights.

V. The Affirmative Defense of Laches Does Not Bar plaintiffs’ Claims

A. Laches does not apply because plaintiffs seek injunctive relief to stop a continuing harm.

There is “no merit in the defense of laches” where, as here, the claim is “a suit for an injunction.” *France Mfg. Co. v. Jefferson Elec. Co.*, 106 F.2d 605, 609 (6th Cir. 1939) (considering laches defense in patent suit where continuing violation at issue). Courts continue to apply that principle to claims seeking injunctive and declaratory relief in gerrymandering cases. *See, e.g., Smith*, 335 F. Supp. 3d at 1002 (rejecting laches

because the injury caused by gerrymandering is continuing, as a matter of law); *Nartron Corp. v. STMicroelectronics, Inc.*, 305 F.3d 397, 412 (6th Cir. 2002).

Courts also recognize that the affirmative defense of laches does not bar a claim for injunctive relief precisely because an injunction is intended to stop continuing harm. *See, e.g., Transp. Workers Union of Am., Local 100, AFL-CIO v. N.Y.C. Transit Auth.*, 341 F. Supp. 2d 432, 453 (S.D.N.Y. 2004) (“Laches is generally not applicable where a plaintiff seeks only to enjoin continuing future unlawful conduct. Where there is a continuing violation, ‘even in equity . . . laches does not bar a claim for prospective injunctive relief.’”) (footnotes omitted); *3M v. Beantone Specialties, Co.*, 82 F. Supp. 2d 997, 1005 (D. Minn. 2000) (“The general rule is that a finding of laches bars a plaintiff’s ability to recover for past wrongs, but not a plaintiff’s ability to obtain relief for continuing violations.”).

Plaintiffs seek prospective declaratory and injunctive relief concerning the current apportionment plan. Complaint, ECF No. 1 at PageID # 32-33. Plaintiffs do not request the Court to remedy any constitutional harms related to prior elections. The constitutional harms plaintiffs have suffered will continue at least until the next round of redistricting occurs following the 2020 census. Thus, laches does not apply.

B. Laches does not apply to plaintiffs’ partisan gerrymandering claims, which assert ongoing violations of constitutional rights.

“A law that works an ongoing violation of constitutional rights does not become immunized from legal challenge” by the passage of time. *Kuhle Bros., Inc. v.*

Cty. of Geauga, 103 F.3d 516, 522 (6th Cir. 1997) (quoted in *Smith*, 335 F. Supp. 3d at 1002); see also *Concerned Citizens of S. Ohio, Inc. v. Pine Creek Conservancy Dist.*, 429 U.S. 651, 653, 656 (1977) (allowing a party to proceed with its constitutional challenges against a conservation district over a dissenting opinion in which Justice Rehnquist argued that the case should have been barred by laches because the district was formed in 1966 and the lawsuit was not filed until 1975); see also *Shapiro v. Maryland*, 336 F. Supp. 1205, 1210 (D. Md. 1972) (questioning whether it is ever appropriate to dismiss gerrymandering suit on the grounds of laches “and thus forever bar an appropriate judicial inquiry into the merits of an otherwise properly alleged cause of action” challenging unconstitutional gerrymandering). In *Smith*, the court rejected the laches defense to a partisan gerrymandering claim, because laches “only bars damages that occurred before the filing date of the lawsuit.” *Smith*, 335 F. Supp. 3d at 1002 (quoting *Nartron Corp.*, 305 F.3d at 412).¹⁷

Laches does not, however, bear on the future harm that partisan gerrymandering will cause in each election cycle. *Id.* (citing *Nartron Corp.*, 305 F.3d at

¹⁷ That *Smith* cites to a Sixth Circuit principle which stems from the intellectual property context—namely, that laches does not apply to claims requesting to enjoin ongoing violations—does not justify limiting that principle to intellectual property cases. First, in *France Mfg.*, the Sixth Circuit stated that laches “is no defense to a suit for an injunction.” *France Mfg.*, 106 F.2d at 609. Second, as in intellectual property cases (where plaintiff is injured anew with each infringing product), redistricting plaintiffs face recurring injuries with each election under an unconstitutional partisan redistricting plan. And in the partisan gerrymandering context, that recurring injury implicates not just commercial interests, but fundamental constitutional rights.

412). Each time voters are subject to unconstitutional voting districts, they suffer a constitutional reinjury. This “reinjury,” where the violation recurs every election, constitutes an ongoing violation with new damage each year. *See Luna v. Cty. of Kern*, 291 F. Supp. 3d 1088, 1143 (E.D. Cal. 2018) (quoting *Garza v. Cty. of L.A.*, 918 F.2d 763, 772 (9th Cir. 1990) (“[W]here the violation is ongoing, and where ‘the injury plaintiffs suffered at the time has been getting progressively worse,’ plaintiffs’ claims are not barred by laches.”

The gravity and repetition of plaintiffs’ injuries distinguish gerrymandering claims from garden variety claims. Gerrymandering claims go to the heart of an individual voter’s constitutional right to fair representation, and Plaintiffs have shown that their constitutional injuries are ongoing. Accordingly, the affirmative defense of laches is not applicable here.

This Court noted that the *Smith* decision conflicts with three cases upon which the defense relies: *Sanders v. Dooly County, GA*, 245 F.3d 1289 (11th Cir. 2001) (Per curiam); *Fouts v. Harris*, 88 F. Supp. 2d 1351, 1354 (S.D. Fla. 1999) (three judge panel), and *White v. Daniel*, 909 F.2d 99 (4th Cir. 1990). (see ECF No. 143 at PageID #5337).¹⁸

On closer examination, these cases provide little help to the Defendants.

¹⁸ As this Court previously observed: “many of the cases Congressional Intervenor rely on are inapposite. For example, Congressional Intervenor cite *Benisek v. Lamone*, 138 S. Ct. 1942, 1944 (2018), but that case involved a preliminary injunction and did not directly address laches. Congressional Intervenor also cite *Michigan Chamber of Commerce v. Land*, 725 F. Supp. 2d 665 (W.D. Mich. 2010), but that case also involved a preliminary injunction and, in any case, undermines Congressional Intervenor’s

The Eleventh Circuit’s *Sanders* decision specifically held that laches did *not* bar declaratory relief (such as the Plaintiffs seek here) because the defendant showed no prejudice from the delay. 245 F.3d at 1291. In *Sanders*, the district court found prejudice in “two principal ways: (1) redistricting late in the decade would lead to back-to-back redistrictings (the court-ordered one and the one using new census data) that would confuse voters and be unnecessarily costly to the County; and (2) the census data available to redistrict now are over ten years old and thus unreliable.” *Id.* at 1290-91. However, the Eleventh Circuit reversed, finding that these two grounds did not support finding that laches barred a *declaration* that the gerrymander violated the Equal Protection Clause. *Id.* at 1291. *See also Benisek*, 138 S. Ct. at 1944 (finding that laches did not bar *permanent* injunctive relief – merely preliminary injunctive relief based on the facts before the Court). *Sanders* does not support application of the laches doctrine here.

Fouts, similarly, provides no harbor for the defense. The plaintiffs in *Fouts* cited a “single district court case” to oppose dismissal. 88 F. Supp. 2d at 1354. Plaintiffs, by contrast, have presented to the Court numerous authorities—from decades ago through recent months—showing that laches should not apply to their claims.

argument; the Land court denied the defendants’ laches affirmative defense for failure to show prejudice. And the last case that Congressional Intervenors characterize as “particularly informative”—*Block v. North Dakota ex rel. Board of University and School Lands*, 461 U.S. 273 (1983)—is completely inapposite because it involved title to the bed of a river, not gerrymandering.” (Opinion and Order, ECF 143 at PageID #5338.)

The plaintiffs in *White* (upon which *Fouts* relies) *never made the argument that laches cannot apply to ongoing harms*. *White*, 909 F.2d at 102-104. Neither the phrase “ongoing harm,” nor the concept, is found even once in *White*. *Id.* Nor did *White* need to grapple with that principle, because the plaintiffs in *White* sought “completely gratuitous” relief, challenging board-of-supervisors districts with “no elections scheduled” before those districts would be changed. 909 F.2d at 104 at 103-04 & n.4. The decision provides little persuasive value precisely because the *White* court did not need to consider (nor was it presented with) whether laches bars claims involving ongoing harms and did not review the authorities plaintiffs present here.

C. Laches does not apply because no unreasonable delay or prejudice has been shown.

Even if laches could apply to partisan gerrymandering claims that seek only prospective injunctive relief, the defense requires proof of (1) unreasonable delay in asserting one’s rights; and (2) a resulting prejudice to the defending party. *See Knight v. Northpointe Bank*, 832 N.W.2d 439, 442 (Mich. App. 2013) (citing *Lothian v. Detroit*, 324 N.W.2d 9 (Mich. 1982) and *Dunn v. Minnema*, 36 N.W.2d 182 (Mich. 1949)).¹⁹

The evidence does not show that plaintiffs lacked diligence or unreasonably delayed asserting their rights. *See Lyons P’ship, L.P. v. Morris Costumes, Inc.*, 243 F.3d

¹⁹ Courts in the Sixth Circuit applying the laches doctrine to federal claims consider the same two elements. *Vision Info. Techs., Inc. v. Vision IT Servs. USA, Inc.*, 156 F. Supp. 3d 870, 877 (E.D. Mich. 2016) (quoting *Nartron*, 305 F.3d at 408). Because there is no difference between the elements or analysis under Michigan state law compared to federal law, the Court need not make a choice-of-law analysis.

789, 799 (4th Cir. 2001) (“Inherently, [ongoing] conduct cannot be so remote in time as to justify the application of the doctrine of laches.”). Plaintiffs brought this action nearly three years *before* the elections for which they are seeking a remedy. Plaintiffs’ claims seek only *prospective* relief regarding elections that have not yet occurred.

Second, the Court concludes there is no significant prejudice occasioned by any delay. *Knight*, 832 N.W.2d 114-15 (“[L]aches is not triggered by the passage of time alone.... It is the prejudice occasioned by the delay that justifies the application of laches.”). The non-specific descriptions of faded memories and/or lost documents do not appear to have hampered any party’s ability to defend the constitutionality of the Apportionment Plan. No party defending the challenged districts identified any particular document or specific memory lost to time that, had the state preserved it, show that the legislature drew the maps more fairly or without partisan intent. (Findings ¶ 981.)

To the extent gaps in information exist, they prejudice the *plaintiffs*, not the defense, because the answers to those questions, (such as whether political data was discussed at various map drawer meetings) could only help plaintiffs. By contrast, Republican leaders and their attorneys anticipated litigation from the outset and, as the evidence shows, anticipated their duty to preserve documents and information. (Findings at § IV (see especially ¶¶ 662-663)); *see also John B. v. Goetz*, 531 F.3d 448, 459 (6th Cir. 2008) (“As a general matter, it is beyond question that a party to civil litigation has a duty to preserve relevant information, including ESI, when that party

‘has notice that the evidence is relevant to litigation or ... should have known that the evidence may be relevant to future litigation.’”) (citation omitted).

There is evidence of a calculated strategy to create and preserve only items that would be useful and not harmful in expected litigation. (Findings at ¶¶ 17-18; Trial Ex. 587.) Thus, even if laches applied here (it does not), the defense failed to establish the necessary grounds to justify this Court to apply it.

VI. Remedy/Special Election

As this Court has recognized, relief in redistricting cases is ‘fashioned in the light of well-known principles of equity.’” Order Denying MTD, ECF No. 88 at PageID #2051-53; *North Carolina v. Covington*, 137 S. Ct. 1624, 1625 (2017) (quoting *Reynolds*, 377 U.S. at 585). Courts have taken various actions to remedy in a state’s redistricting process, such as ordering that voting district maps be redrawn or ordering special elections. *See, e.g., North Carolina v. Covington*, 138 S. Ct. 2548, 2554 (2018) (holding the federal district court’s appointment of special master to draw remedial voting map was not an abuse of discretion where the state assembly previously failed); *Garrard v. City of Grenada, Miss.*, No. 3:04CV76-B-A, 2005 WL 2175729, at *3 (N.D. Miss. Sept. 8, 2005) (finding the special election procedure to be the most appropriate remedy); *Arbor Hill Concerned Citizens v. Cty. of Albany*, 357 F.3d 260, 262 (2d Cir. 2004) (“It is within the scope of [the court’s] powers to order a governmental body to hold special elections”) (citing *Goosby v. Town Bd. of the Town of Hempstead*, 180 F.3d 476, 498 (2d Cir.1999)); *Vera v. Bush*, 933 F. Supp. 1341,

1347–59 (S.D. Tex. 1996) (holding that state legislature’s failure to act after the district court found congressional districts unconstitutional warranted imposition of interim redistricting plan, despite that an election was scheduled to be held approximately three months from the date of the court order); *Burton v. Hobbie*, 561 F. Supp. 1029, 1036 (M.D. Ala. 1983) (ordering that a special election be held in part because “[the] Court has a solemn duty to relieve the citizens of [the] state” from deprivations of their legal rights). In *North Carolina v. Covington*, 137 S. Ct. 1624, the Supreme Court wrote, “. . . in the context of deciding whether to truncate existing legislators’ terms and order a special election, there is much for a court to weigh.” *Id.* at 1625.

The Supreme Court has not addressed whether or when a special election may be an appropriate remedy for unconstitutional partisan gerrymandering, however, it has identified factors to consider when determining the adequacy of such a remedy. *Id.* at 1626. These factors include “whether or when a special election may be a proper remedy for a racial gerrymander,” and the Court explained precisely how a trial court might consider the ordering of a special election:

Although this Court has never addressed whether or when a special election may be a proper remedy for a racial gerrymander, obvious considerations include the severity and nature of the particular constitutional violation, the extent of the likely disruption to the ordinary processes of governance if early elections are imposed, and the need to act with proper judicial restraint when intruding on state sovereignty. We do not suggest anything about the relative weight of these factors (or others), but they are among the matters a court would generally be expected to consider in its “balancing of the individual and collective interests” at stake.

Id. at 1625-26 (citation omitted).

Plaintiffs have requested relief by asking the Court to “. . . establish legislative and congressional apportionment plans that meet the requirements of the U.S. Constitution and other applicable law” and “[g]rant further relief as the Court deems just and proper.” Compl., ECF. No. 1 at PageID #33; *Covington*, 137 S. Ct. at 1625 (2017); *see also, e.g., Goosby*, 180 F.3d at 498 (affirming the lower court’s decision to order a special election with a six-district plan that does not violate the Voting Rights Act and that does not dilute the vote of racial minorities); *Bell v. Southwell*, 376 F.2d 659, 665 (5th Cir. 1967) (“In this vital area of vindication of precious constitutional rights If affirmative relief is essential, the Court has the power and should employ it.”); *Smith v. Beasley*, 946 F. Supp. 1174, 1212-13 (D. S.C. 1996) (enjoining elections in unconstitutional districts and ordering State General Assembly to adopt a new redistricting plan and propose election schedule for special elections in unconstitutional districts); *Duncan v. Poythress*, 515 F. Supp. 327, 344 (N.D. Ga.), *aff’d*, 657 F.2d 691 (5th Cir. 1981) (ordering special election to fill a vacancy on the Georgia Supreme Court after finding of constitutional violations); *Hackett v. President of City Council of City of Phila.*, 298 F. Supp. 1021, 1029 (E.D. Pa.), *aff’d*, 410 F.2d 761 (3d Cir. 1969) (reserving the right and jurisdiction to call a special municipal election should Defendant fail to do); *Butterworth v. Dempsey*, 237 F. Supp. 302, 307 (D. Conn. 1964) (3-judge panel) (per curiam) (court has power to order special election to correct unconstitutional legislative districts).

Because the Apportionment Plan is unconstitutional and burdens plaintiffs' constitutional rights with regard to the Senate Districts plaintiffs challenged in this action, a remedial special election is appropriate and necessary. The severity of the constitutional violations is extreme. Finally, the remedy the Plaintiffs seek will not require an unworkable timeline. Remedial special elections for the Senate can be ordered to coincide with the 2020 election cycle, resulting in only *de minimis* costs and disruption. *Cf. Rhodes v. Snyder*, 302 F. Supp. 3d 905, n.2 (E.D. Mich. 2018) (recognizing "Governor Snyder's clear preference to coordinate special elections with regularly scheduled elections").

VII. Standing

The League's mission is to encourage "informed and active participation in government," to "increase understanding of major public policy issues," and to "influence public policy through education and advocacy." (Handbook, Trial Ex. P-501 at 2.) The League encourages people to register, vote, and take part in government and politics. League members register voters, sponsor candidates and issue forums or debates, and provide information about voting. Some leagues prepare a *Voter's Guide* providing objective, balanced election information. (*Id.* at 5.)

INJUNCTION

1. Defendant Secretary of State Jocelyn Benson is hereby enjoined from conducting elections in 2020 using the existing maps for the Challenged Districts.

2. Defendant Secretary of State Jocelyn Benson shall conduct on the established election dates in 2020 special elections for the state Senate districts included within the Challenged Districts, and any other Senate district affected by the Court's remedial map to be developed as set forth below.

3. All persons acting in conjunction or collaboration with Jocelyn Benson are, and who have notice of this injunction, are similarly bound. The Court's intent is that the Challenged Districts not be used for any further elections and that the Senate special elections take place in the state of Michigan as set forth above.

4. The legislature may if it chooses submit remedial maps consistent with this opinion to the Court on or before May ____, 2019. Other parties to this action may submit argument regarding any proposed remedial maps submitted by the legislature and may submit their own maps no later than three weeks thereafter. If the Court finds that a remedial map submitted by the legislature is constitutional, and that the districts replacing the Challenged Districts are not partisan outliers, the Court may authorize the conduct of 2020 elections under the remedial map. If the Court does not so find, the Court will consider the submissions of the legislature and other parties and order elections pursuant to a map of the Court's own selection.

Respectfully submitted,

Date: February 22, 2019

/s/ Joseph H. Yeager, Jr.

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Harmony A. Mappes (IN Bar No. 27237-49)
Jeffrey P. Justman (MN Bar No. 390413)
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Counsel for Voters

Certificate of Service

I hereby certify that on February 22, 2019, I caused to have electronically filed the foregoing with the Clerk of the Court using the ECF system, which will send notification of such filing to all counsel of record in this matter.

Respectfully submitted,

/s/ Joseph H. Yeager, Jr.

League.Member.Name	Street	City	Congres sional. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Phoebe Hopps	5352 MacKenzie Drive	Kewadin	1	0.562135276	0.571127067	0
Carolyn DiPonio	3536 Borchers Way	Grayling	1	0.562135276	0.531462487	1
Jane Speer	10790 Robert Boulevard	Alpena	1	0.562135276	0.531462487	1
Trina Rae Borenstein	4680 Wissmiller Road	Greenbush	1	0.562135276	0.531462487	1
Linda Stoetzer	5805 Scenic Drive	Sault Ste Marie	1	0.562135276	0.571127067	0
Melissa Shaffer-O'Connell	3578 E. 18 Mile Road	Pickford	1	0.562135276	0.571127067	0
Diana Ketola	6232 Selsey Lane	Traverse City, MI	1	0.562135276	0.571127067	0
Jon LaSalle	1942 Neidhart Avenue	Marquette, MI	1	0.562135276	0.571127067	0
Linda M. Aerts	4344 Holton Duck Lane Road	Twin Lake	2	0.607721562	0.607330032	0
Pamela Lynk	1337 Calvin Avenue	Muskegon	2	0.607721562	0.60744507	0
Shirley Zeller	702 Burr Oak	Albion	3	0.57338763	0.482547378	1
Elianna Bootzin	447 Cedar Street NE.	Grand Rapids	3	0.57338763	0.575370223	0
Lisa Pishevar	3104 Elmwood Beach Road	Middleville	3	0.57338763	0.505627135	0
Arletta Lee Fevig	13202 Gilkey Lake Road	Delton	3	0.57338763	0.505278477	0
Donna Farris	2731 Littlefield Drive NE	Grand Rapids, MI	3	0.57338763	0.575370223	0
Karen Sherwood	6005 Millbrook Drive	Midland	4	0.575081057	0.502604289	1
Edith Prunty Spencer	1801 Kenwood Avenue	Flint	5	0.392838411	0.443993358	1
Ingrid Halling	800 Pierson Street	Flint	5	0.392838411	0.443993358	1
Thomas Haley	448 Roosevelt Avenue	Mt. Morris	5	0.392838411	0.443820833	1
Norma Sain	7046 Birchwood Mt.	Morris	5	0.392838411	0.443832573	1
Deborah Cherry	3068 Falcon Drive	Burton	5	0.392838411	0.443993358	1
Doris Sain	8139 Fenton Road	Grand Blanc	5	0.392838411	0.443993358	1
Olivia Procter Maynard	9425 Horton Road	Goodrich	5	0.392838411	0.44662429	1
Sherrill Leigh Smith	129 N. Alexander Street	Saginaw	5	0.392838411	0.50817392	1
Linda Jean Hoff	8321 N. Port	Grand Blanc	5	0.392838411	0.443993358	1
Adalea Janice Sain-Steinborn	5448 N. Seymour Road	Flushing	5	0.392838411	0.443832573	1
John Helsom	9468 Beecher Road	Flushing	5	0.392838411	0.443972628	1
Paul Purcell	4470 Seidel Place	Saginaw	5	0.392838411	0.515902472	1
Rosa Holliday	6261 Greenview Place	Bay City, MI	5	0.392838411	0.529115664	1
Denise Louise Hartsough	2690 Timberleaf Lane	Kalamazoo	6	0.550351342	0.54574108	0
Kenneth Storm Manley	230 Oak Street #14	South haven	6	0.550351342	0.550730334	0
Suzanne Dixon	797 Center Street	Douglas	6	0.550351342	0.553058414	0
Catherine Brockington	989 Singapore Drive	Saugatuck	6	0.550351342	0.553058414	0
Jessica Reiser	10726 Wildwood Drive	Richland	6	0.550351342	0.543240001	0

League.Member.Name	Street	City	Congres sional. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Christine Louise Canning-Peterso	10249 Tims Lake Blvd.	Grass Lake	7	0.547797877	0.470421523	1
Carolyn Vertin	806 River Acres	Tecumseh	7	0.547797877	0.469209204	1
Mary Scoblic	421 McPherson Ave.	Lansing	8	0.54635692	0.481013525	1
Harold Lynn Jondahl	2539 Koala Drive	East Lansing	8	0.54635692	0.481013525	1
Rita Klein	5509 Great Lake Drive Apt. B	Holt	8	0.54635692	0.479947718	1
Karen DeGrendel	1245 Kingsview	Rochester Hills	8	0.54635692	0.546825619	0
Jill Greimel	5791 Lost Lane	Rochester	8	0.54635692	0.553928237	0
Jill Corrine Kroll	1949 Dean Avenue	Holt	8	0.54635692	0.47985672	1
Andrea Yokich - 2	3843 Windy Heights	Okemos	8	0.54635692	0.481013525	1
Lorenzo Rivera	2260 Bridgewater	Oxford, MI	8	0.54635692	0.577293657	1
Gerald DeMaire	12429 Lyford Drive	Sterling Heights	9	0.434728869	0.50796975	1
Maria Woloson	572 Tally Ho Ct.	Bloomfield Hills	9	0.434728869	0.496110805	1
Nancy M. Duemling	20776 Moxon Drive	Clinton Township	9	0.434728869	0.514173831	1
Nanette Noorbakhsh	30600 Greater Mack Avenue	St. Clair Shores	9	0.434728869	0.53097935	1
Kathleen Poore	43596 Hillsboro	Clinton Township	9	0.434728869	0.514173831	1
Gilda Jacobs	8353 Hendrie Blvd	Huntington Woods	9	0.434728869	0.484707213	1
Jack Ellis	21700 Statler	Saint Claire Shores, MI	9	0.434728869	0.53097935	1
William Grasha	28167 Palmer Boulevard	Madison Heights, MI	9	0.434728869	0.487000874	1
Barbara Pearson	6894 Excelsior Dr.	Shelby Township	10	0.591089654	0.531491757	1
Janice Haines	46237 Hecker Dr.	Utica	10	0.591089654	0.520744081	1
Lisa Morse	3535 Armour Street	Port Huron	10	0.591089654	0.538772385	1
Roger Brdak	48824 Jamaica Street	Chesterfield, MI	10	0.591089654	0.532981376	1
Julie Gleason	2307 Huff Road	Highland	11	0.553570308	0.578584686	1
Josephine Feijoo	5241 N. Milford Road	Highland	11	0.553570308	0.578479176	1
Janice Yanello Watkins	5412 West Alyssa Court	White Lake	11	0.553570308	0.578584686	1
Angela Ryan	15512 Liverpool	Livonia	11	0.553570308	0.573502607	1
Mary Visos	45497 Augusta Drive	Canton	11	0.553570308	0.486696451	0
Paula Bowman	9000 N Lilley Road	Plymouth	11	0.553570308	0.486696451	0
Ann Megalizzi	1716 Treyborne Circle	Commerce Township	11	0.553570308	0.578584686	1
Richard Long	6858 Longworth Drive	Waterford, MI	11	0.553570308	0.578234644	1
Julia A. Caroff	345 ORCHARD HILLS DR.	Ann Arbor	12	0.344065865	0.469365852	1
Susan Kay Smith	5629 Morgan Road	Ypsilanti	12	0.344065865	0.469365852	1
Margaret Leary	1056 Newport Road	Ann Arbor	12	0.344065865	0.469365852	1
Heidi Kromrei	3025 Van Alstyne	Wyandotte	12	0.344065865	0.45088267	1

League.Member.Name	Street	City	Congres sional. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Harvey Somers	2129 Autumn Hills Drive	Ann Arbor	12	0.344065865	0.469365852	1
Rachel Rion	34141 Fountain Boulevard	Westland	13	0.15227225	0.15227225	0
Elayne Boismier	6383 Heyden St.	Dearborn Heights	13	0.15227225	0.15227225	0
Fred Durhal, Jr.	4800 Leslie Street	Detroit, MI	13	0.15227225	0.15227225	0
Rashida Tlaib	9129 Rathbone	Detroit, MI	14	0.15227225	0.15227225	0
Andrea Yokich - 1	2856 Sleeping Meadow Lane	Mason	NA	0.54635692	0.474688268	1

League.Member.Name	Street	City	Senate. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Heidi Kromrei	3025 Van Alstyne	Wyandotte	1	0.224115564	0.224115564	0
Rashida Tlaib	9129 Rathbone	Detroit, MI	1	0.174692132	0.174692132	0
Fred Durhal, Jr.	4800 Leslie Street	Detroit, MI	4	0.174692132	0.174692132	0
Elayne Boismier	6383 Heyden St.	Dearborn Heights	5	0.18007506	0.18007506	0
Rachel Rion	34141 Fountain Boulevard	Westland	6	0.362212754	0.362212754	0
Angela Ryan	15512 Liverpool	Livonia	7	0.519707851	0.519707851	0
Mary Visos	45497 Augusta Drive	Canton	7	0.519707851	0.519707851	0
Paula Bowman	9000 N Lilley Road	Plymouth	7	0.519707851	0.519707851	0
Barbara Pearson	6894 Excelsior Dr.	Shelby Township	8	0.561209976	0.591169903	1
Nanette Noorbakhsh	30600 Greater Mack Avenue	St. Clair Shores	8	0.561209976	0.424976147	1
Janice Haines	46237 Hecker Dr.	Utica	8	0.561209976	0.591169903	1
Roger Brdak	48824 Jamaica Street	Chesterfield, MI	8	0.561209976	0.589922994	1
Jack Ellis	21700 Statler	Saint Claire Shores, MI	8	0.561209976	0.424977817	1
Gerald DeMaire	12429 Lyford Drive	Sterling Heights	10	0.524166955	0.441440501	0
Nancy M. Duemling	20776 Moxon Drive	Clinton Township	10	0.524166955	0.425908249	1
Kathleen Poore	43596 Hillsboro	Clinton Township	10	0.524166955	0.425908249	1
Gilda Jacobs	8353 Hendrie Blvd	Huntington Woods	11	0.264835913	0.341176076	0
William Grasha	28167 Palmer Boulevard	Madison Heights, MI	11	0.264835913	0.401053074	0
Maria Woloson	572 Tally Ho Ct.	Bloomfield Hills	12	0.535608969	0.482708545	0
Jill Greimel	5791 Lost Lane	Rochester	12	0.535608969	0.578075119	0
Lorenzo Rivera	2260 Bridgewater	Oxford, MI	12	0.535608969	0.589865298	0
Karen DeGrendel	1245 Kingsview	Rochester Hills	13	0.533480357	0.569466547	0
Doris Sain	8139 Fenton Road	Grand Blanc	14	0.547965899	0.465125644	1
Olivia Procter Maynard	9425 Horton Road	Goodrich	14	0.547965899	0.457649129	1
Julie Gleason	2307 Huff Road	Highland	14	0.547965899	0.557686325	0
Josephine Feijoo	5241 N. Milford Road	Highland	14	0.547965899	0.557686325	0
Linda Jean Hoff	8321 N. Port	Grand Blanc	14	0.547965899	0.465125644	1
Richard Long	6858 Longworth Drive	Waterford, MI	14	0.547965899	0.541010618	0
Janice Yanello Watkins	5412 West Alyssa Court	White Lake	15	0.552263627	0.537726353	0
Ann Megalizzi	1716 Treyborne Circle	Commerce Township	15	0.552263627	0.504848112	0
Christine Louise Canning- Peterson	10249 Tims Lake Blvd.	Grass Lake	16	0.598522547	0.598522547	0
Carolyn Vertin	806 River Acres	Tecumseh	17	0.534924235	0.534924235	0
Julia A. Caroff	345 ORCHARD HILLS DR.	Ann Arbor	18	0.28361598	0.349748084	0

League.Member.Name	Street	City	Senate. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Susan Kay Smith	5629 Morgan Road	Ypsilanti	18	0.28361598	0.349748084	0
Margaret Leary	1056 Newport Road	Ann Arbor	18	0.28361598	0.349748084	0
Shirley Zeller	702 Burr Oak	Albion	19	0.572656885	0.508198053	1
Lisa Pishevar	3104 Elmwood Beach Road	Middleville	19	0.572656885	0.599878552	1
Arletta Lee Fevig	13202 Gilkey Lake Road	Delton	19	0.572656885	0.599878552	1
Denise Louise Hartsough	2690 Timberleaf Lane	Kalamazoo	20	0.466660924	0.466660924	0
Jessica Reiser	10726 Wildwood Drive	Richland	20	0.466660924	0.466660924	0
Harvey Somers	2129 Autumn Hills Drive	Ann Arbor	22	0.601061769	0.349748084	0
Mary Scoblic	421 McPherson Ave.	Lansing	23	0.361135883	0.36513697	1
Harold Lynn Jondahl	2539 Koala Drive	East Lansing	23	0.361135883	0.36513697	1
Rita Klein	5509 Great Lake Drive Apt. B	Holt	23	0.361135883	0.485982398	1
Jill Corrine Kroll	1949 Dean Avenue	Holt	23	0.361135883	0.485982398	1
Andrea Yokich - 2	3843 Windy Heights	Okemos	23	0.361135883	0.36513697	1
Lisa Morse	3535 Armour Street	Port Huron	25	0.593073082	0.591564707	0
Kenneth Storm Manley	230 Oak Street #14	South haven	26	0.601558324	0.605854548	1
Suzanne Dixon	797 Center Street	Douglas	26	0.601558324	0.605854548	1
Catherine Brockington	989 Singapore Drive	Saugatuck	26	0.601558324	0.605854548	1
Edith Prunty Spencer	1801 Kenwood Avenue	Flint	27	0.257580883	0.339655197	1
Ingrid Halling	800 Pierson Street	Flint	27	0.257580883	0.339655197	1
Thomas Haley	448 Roosevelt Avenue	Mt. Morris	27	0.257580883	0.386269156	1
Norma Sain	7046 Birchwood Mt.	Morris	27	0.257580883	0.387855268	1
Deborah Cherry	3068 Falcon Drive	Burton	27	0.257580883	0.413052894	1
Elianna Bootzin	447 Cedar Street NE.	Grand Rapids	29	0.499883309	0.481005337	1
Donna Farris	2731 Littlefield Drive NE	Grand Rapids, MI	29	0.499883309	0.481009592	1
Rosa Holliday	6261 Greenview Place	Bay City, MI	31	0.543928266	0.528566531	1
Sherrill Leigh Smith	129 N. Alexander Street	Saginaw	32	0.464812992	0.474106535	0
Adalea Janice Sain-Steinborn	5448 N. Seymour Road	Flushing	32	0.464812992	0.378694853	0
John Helsom	9468 Beecher Road	Flushing	32	0.464812992	0.381343914	0
Paul Purcell	4470 Seidel Place	Saginaw	32	0.464812992	0.474106535	0
Linda M. Aerts	4344 Holton Duck Lane Road	Twin Lake	34	0.499134322	0.499087083	0
Pamela Lynk	1337 Calvin Avenue	Muskegon	34	0.499134322	0.499087083	0
Carolyn DiPonio	3536 Borchers Way	Grayling	35	0.583771441	0.579684678	0
Jane Speer	10790 Robert Boulevard	Alpena	36	0.584677033	0.587300039	0
Trina Rae Borenstein	4680 Wissmiller Road	Greenbush	36	0.584677033	0.558075744	0

League.Member.Name	Street	City	Senate. District	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Karen Sherwood	6005 Millbrook Drive	Midland	36	0.584677033	0.557925418	1
Phoebe Hopps	5352 MacKenzie Drive	Kewadin	37	0.597812968	0.595397666	0
Linda Stoetzer	5805 Scenic Drive	Sault Ste Marie	37	0.597812968	0.596201966	0
Melissa Shaffer-O'Connell	3578 E. 18 Mile Road	Pickford	37	0.597812968	0.596201966	0
Diana Ketola	6232 Selsey Lane	Traverse City, MI	37	0.597812968	0.583564112	1
Jon LaSalle	1942 Neidhart Avenue	Marquette, MI	38	0.510043057	0.512154323	1
Andrea Yokich - 1	2856 Sleeping Meadow Lane	Mason	NA	0.361135883	0.379022395	1

League.Member.Name	Street	City	House.D istrict	enacted_ 1216	mean_sims_ 1216	diff_1216_ statistical_sig
Fred Durhal, Jr.	4800 Leslie Street	Detroit, MI	5	0.042403209	0.042403209	0
Rashida Tlaib	9129 Rathbone	Detroit, MI	6	0.067236899	0.06723972	0
Elayne Boismier	6383 Heyden St.	Dearborn Heights	11	0.307606504	0.395047225	1
Heidi Kromrei	3025 Van Alstyne	Wyandotte	14	0.374423705	0.376283563	1
Rachel Rion	34141 Fountain Boulevard	Westland	16	0.344173619	0.373060483	0
Nanette Noorbakhsh	30600 Greater Mack Avenue	St. Clair Shores	18	0.412010947	0.422841404	0
Jack Ellis	21700 Statler	Saint Claire Shores, MI	18	0.412010947	0.422841404	0
Angela Ryan	15512 Liverpool	Livonia	19	0.543373253	0.542981678	0
Paula Bowman	9000 N Lilley Road	Plymouth	20	0.543715597	0.585317599	1
Mary Visos	45497 Augusta Drive	Canton	21	0.44640512	0.45973845	0
Kathleen Poore	43596 Hillsboro	Clinton Township	24	0.526896485	0.459254346	1
Gerald DeMaire	12429 Lyford Drive	Sterling Heights	25	0.487970523	0.495868816	0
William Grasha	28167 Palmer Boulevard	Madison Heights, MI	26	0.431283477	0.430060389	1
Gilda Jacobs	8353 Hendrie Blvd	Huntington Woods	27	0.256123027	0.262725011	1
Janice Haines	46237 Hecker Dr.	Utica	30	0.540548739	0.565576547	0
Nancy M. Duemling	20776 Moxon Drive	Clinton Township	31	0.432067003	0.44693324	0
Roger Brdak	48824 Jamaica Street	Chesterfield, MI	32	0.573554016	0.549321516	1
Barbara Pearson	6894 Excelsior Dr.	Shelby Township	36	0.641643895	0.623914787	1
Ann Megalizzi	1716 Treyborne Circle	Commerce Township	39	0.538961856	0.533858339	0
Maria Woloson	572 Tally Ho Ct.	Bloomfield Hills	40	0.547895817	0.564469142	0
Richard Long	6858 Longworth Drive	Waterford, MI	43	0.594436949	0.571007692	1
Julie Gleason	2307 Huff Road	Highland	44	0.635902172	0.63437975	0
Josephine Feijoo	5241 N. Milford Road	Highland	44	0.635902172	0.63437975	0
Janice Yanello Watkins	5412 West Alyssa Court	White Lake	44	0.635902172	0.63437975	0
Karen DeGrendel	1245 Kingsview	Rochester Hills	45	0.59670593	0.589296171	1
Jill Greimel	5791 Lost Lane	Rochester	45	0.59670593	0.651380867	0
Lorenzo Rivera	2260 Bridgewater	Oxford, MI	46	0.653236274	0.647107607	0
Norma Sain	7046 Birchwood Mt.	Morris	48	0.422683158	0.367026812	0
Edith Prunty Spencer	1801 Kenwood Avenue	Flint	49	0.286876589	0.17509197	0
Ingrid Halling	800 Pierson Street	Flint	49	0.286876589	0.123316649	0
Thomas Haley	448 Roosevelt Avenue	Mt. Morris	49	0.286876589	0.35463885	0
Deborah Cherry	3068 Falcon Drive	Burton	50	0.441898713	0.36712387	1
Doris Sain	8139 Fenton Road	Grand Blanc	50	0.441898713	0.448734847	0
Linda Jean Hoff	8321 N. Port	Grand Blanc	50	0.441898713	0.448734847	0

League.Member.Name	Street	City	House.District	enacted_1216	mean_sims_1216	diff_1216_statistical_sig
Olivia Procter Maynard	9425 Horton Road	Goodrich	51	0.558463025	0.449111486	1
Adalea Janice Sain-Steinborn	5448 N. Seymour Road	Flushing	51	0.558463025	0.463030552	1
John Helsom	9468 Beecher Road	Flushing	51	0.558463025	0.454537836	1
Harvey Somers	2129 Autumn Hills Drive	Ann Arbor	52	0.497620833	0.373351219	1
Julia A. Caroff	345 ORCHARD HILLS DR.	Ann Arbor	53	0.200577873	0.222249825	1
Susan Kay Smith	5629 Morgan Road	Ypsilanti	54	0.339607301	0.46382526	1
Margaret Leary	1056 Newport Road	Ann Arbor	55	0.339607301	0.373351219	1
Carolyn Vertin	806 River Acres	Tecumseh	57	0.557249735	0.552765487	1
Denise Louise Hartsough	2690 Timberleaf Lane	Kalamazoo	60	0.293069485	0.542586494	1
Shirley Zeller	702 Burr Oak	Albion	62	0.467357193	0.475546873	1
Jessica Reiser	10726 Wildwood Drive	Richland	63	0.590941635	0.542586494	1
Christine Louise Canning-Peterson	10249 Tims Lake Blvd.	Grass Lake	65	0.572224539	0.579276425	0
Kenneth Storm Manley	230 Oak Street #14	South haven	66	0.553407996	0.550084298	0
Rita Klein	5509 Great Lake Drive Apt. B	Holt	67	0.472699633	0.484801281	0
Jill Corrine Kroll	1949 Dean Avenue	Holt	67	0.472699633	0.484801281	0
Andrea Yokich - 2	3843 Windy Heights	Okemos	67	0.379511175	0.356988885	1
Mary Scoblic	421 McPherson Ave.	Lansing	68	0.261156884	0.264761647	0
Harold Lynn Jondahl	2539 Koala Drive	East Lansing	69	0.379511175	0.356951959	1
Elianna Bootzin	447 Cedar Street NE.	Grand Rapids	75	0.265528701	0.428844975	1
Donna Farris	2731 Littlefield Drive NE	Grand Rapids, MI	76	0.47182793	0.42268133	1
Suzanne Dixon	797 Center Street	Douglas	80	0.63753717	0.645234621	0
Catherine Brockington	989 Singapore Drive	Saugatuck	80	0.63753717	0.645234621	0
Lisa Morse	3535 Armour Street	Port Huron	83	0.576061737	0.536250194	1
Lisa Pishevar	3104 Elmwood Beach Road	Middleville	87	0.639985763	0.621685487	1
Arletta Lee Fevig	13202 Gilkey Lake Road	Delton	87	0.639985763	0.621685487	1
Linda M. Aerts	4344 Holton Duck Lane Road	Twin Lake	91	0.52172167	0.477487576	1
Pamela Lynk	1337 Calvin Avenue	Muskegon	92	0.34169133	0.395749354	1
Paul Purcell	4470 Seidel Place	Saginaw	94	0.566213168	0.512382946	1
Sherrill Leigh Smith	129 N. Alexander Street	Saginaw	95	0.246297608	0.321629546	1
Rosa Holliday	6261 Greenview Place	Bay City, MI	96	0.45349602	0.479911032	0
Karen Sherwood	6005 Millbrook Drive	Midland	98	0.583353244	0.604844132	1
Carolyn DiPonio	3536 Borchers Way	Grayling	103	0.603687732	0.60550182	0
Diana Ketola	6232 Selsey Lane	Traverse City, MI	104	0.589499319	0.589499319	0

League.Member.Name	Street	City	House.District	enacted_1216	mean_sims_1216	diff_1216_statistical_sig
Phoebe Hopps	5352 MacKenzie Drive	Kewadin	105	0.626675316	0.634574734	0
Jane Speer	10790 Robert Boulevard	Alpena	106	0.562340777	0.560185545	0
Trina Rae Borenstein	4680 Wissmiller Road	Greenbush	106	0.562340777	0.560185545	0
Linda Stoetzer	5805 Scenic Drive	Sault Ste Marie	107	0.589414819	0.57242025	0
Melissa Shaffer-O'Connell	3578 E. 18 Mile Road	Pickford	107	0.589414819	0.57242025	0
Jon LaSalle	1942 Neidhart Avenue	Marquette, MI	109	0.456027166	0.477254461	0
Andrea Yokich - 1	2856 Sleeping Meadow Lane	Mason	NA	0.472699633	0.484801281	0