UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
SOUTHERN DIVISION

LEAGUE OF WOMEN VOTERS OF MICHIGAN, et al.,	)))	
Plaintiffs,	))	
v.	))	No. 2:17-cv-14148
JOCELYN BENSON, in her official capacity as Michigan Secretary of State, et al.,	))))	OPINION AND ORDER
Defendants.	))))	

BEFORE: **CLAY, Circuit Judge; HOOD and QUIST, District Judges.**

CLAY, Circuit Judge. The League of Women Voters of Michigan ("League"), numerous League members ("League Plaintiffs"), and several Democratic voters ("Individual Plaintiffs") bring suit against Jocelyn Benson, the Michigan Secretary of State in her official capacity, under 42 U.S.C. §§ 1983 and 1988, alleging that Michigan's current legislative apportionment plan (the "Enacted Plan"), which the state legislature implemented as Michigan Public Acts 128 and 129 of 2011, violates Plaintiffs' Fourteenth Amendment equal protection rights and First Amendment free speech and association rights by deliberately discriminating against Democratic voters.[1] (*See* Compl., ECF No. 1.)

After Plaintiffs filed suit, several parties moved to intervene. Ultimately, intervention was granted to several of the Republican members of Michigan's United States congressional delegation and two Republican state house members (together "Congressional and State House

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[1] When referring to the League, League Plaintiffs, and Individual Plaintiffs together, the Court uses the term "Plaintiffs." When referring only to the League Plaintiffs and the Individual Plaintiffs, separate from the League as an organization, the Court uses the term "Voters."

Intervenors") (*see* ECF Nos. 103, 157) and to numerous Republican state senators and the Michigan Senate as a whole (together "Senate Intervenors") (*see* ECF No. 237).[2]

Plaintiffs initially sought to invalidate the entire Enacted Plan. (*See* Compl.) However, they have since narrowed their claims to 34 congressional, House, and Senate districts (the "Challenged Districts").[3]

The Court held a trial on Plaintiffs' claims. (*See* Trial Trs., ECF Nos. 248, 249, 250.) In addition to presenting witnesses at trial, the parties submitted hundreds of exhibits and deposition testimony from numerous witnesses in lieu of in-person testimony, pursuant to the Court's order, which reflected the parties' stipulation about the presentation and admissibility of evidence. (*See* Order Re: Parties' Partial Stipulations and Report, ECF No. 234.) The parties also filed post-trial briefs, including proposed findings of fact and proposed conclusions of law.[4] (*See* ECF Nos. 254, 255, 256, 257, 258.) The Court has carefully considered all the evidence.

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[2] We initially denied the Congressional Intervenors' motion to intervene, in large part because we concluded that they lacked a property interest in their elected offices and merely asserted a generalized interest in the litigation. (ECF No. 47.) The Sixth Circuit reversed, concluding that we should have granted the motion on the basis of permissive intervention. *See League of Women Voters of Mich. v. Johnson*, 902 F.3d 572, 578–80 (6th Cir. 2018). The Sixth Circuit found no need to decide whether the Congressional Intervenors possessed a "substantial legal interest" supporting intervention as of right, *id.* at 579 (internal quotations marks and alteration omitted), but concluded that Congressional Intervenors' interests were sufficiently distinct from the Secretary's and the general citizenry's interests to warrant permissive intervention. *Id.* at 580. We later denied the State House Intervenors' motion to intervene in their official capacities primarily because defense of a state law is a governmental function assigned to the executive branch. (ECF No. 91.) The Sixth Circuit reversed, citing the parties' agreement that intervention was proper in light of the Sixth Circuit's prior decision. (ECF No. 166.) Finally, we granted the Senate Intervenors' motions to intervene because they arguably met the requirements for intervention as of right in light of the Sixth Circuit's earlier decisions. (ECF No. 237.)

[3] The term "Congress" refers to the United States House of Representatives, and the term "congressional" refers to the districts and overall map used to elect Michigan's delegation to the United States Congress. "Senate" refers to Michigan's state senate, Michigan's upper chamber. "House" refers to Michigan's state house of representatives, Michigan's lower chamber.

[4] The parties' proposed findings of fact and conclusions of law total 768 pages. This figure does not include the thousands of pages of underlying deposition testimony, expert reports, and exhibits that the parties cite in their post-trial briefs.

Today, this Court joins the growing chorus of federal courts that have, in recent years, held that partisan gerrymandering is unconstitutional. We find that the Enacted Plan violates Plaintiffs' First and Fourteenth Amendment rights because it deliberately dilutes the power of their votes by placing them in districts that were intentionally drawn to ensure a particular partisan outcome in each district. *See Gill v. Whitford*, 138 S. Ct. 1916, 1929–31 (2018). The Enacted Plan also injures Plaintiffs' First Amendment right to association by discriminating against them and their political party and subjecting them to "disfavored treatment by reason of their views." *Vieth v. Jubelirer*, 541 U.S. 267, 314 (2004) (Kennedy, J., concurring in the judgment). Because we find that these constitutional violations will reoccur if future elections are held under the Enacted Plan, we **HEREBY ENJOIN** the use of the Challenged Districts in any future election.

I.   INTRODUCTION

The term "partisan gerrymandering" describes "the drawing of legislative district lines to subordinate adherents of one political party and entrench a rival party in power." *Ariz. State Leg. v. Ariz. Indep. Redistricting Comm'n*, 135 S. Ct. 2652, 2658 (2015). "By definition, partisan gerrymandering amounts to an effort to dictate electoral outcomes by favoring candidates of one party and disfavoring candidates of another." *Common Cause v. Rucho*, 318 F. Supp. 3d 777, 800 (M.D.N.C. 2018) (three-judge panel) (citing *U.S. Term Limits, Inc. v. Thornton*, 514 U.S. 779, 833–34 (1995)). Partisan gerrymandering thus violates the core purpose of legislative apportionment—providing "fair and effective representation for all citizens." *Reynolds v. Sims*, 377 U.S. 533, 565 (1964).

The Supreme Court has acknowledged that partisan gerrymandering is "incompatible . . . with democratic principles." *Ariz. State Leg.*, 135 S. Ct. at 2658 (quoting *Vieth*, 541 U.S. at 292 (plurality opinion)). It violates "the core principle of republican government . . . that the voters

should choose their representatives, not the other way around." *Id.* at 2652 (internal quotation

marks and citation omitted). Lower federal courts have also noted that partisan gerrymandering

diminishes our democracy, aptly describing it as a "noxious" practice that "has no place in a

representative democracy[,]" *Shapiro v. McManus*, 203 F. Supp. 3d 579, 600 (D. Md. 2016)

(Bredar, J. dissenting) (three-judge panel) (internal citation omitted); a "cancerous" problem that

"undermin[es] the fundamental tenets of our form of democracy," *Benisek v. Lamone*, 266 F.

Supp. 3d 799, 818 (D. Md. 2017) (three-judge panel), *aff'd*, 138 S. Ct. 1942 (2018); and a

phenomenon "widely considered to be repugnant to representative democracy." *Benisek v.*

Lamone, 348 F. Supp. 3d 493, 511 (D. Md. 2018) (three-judge panel).

Drawing district lines is an inherently political process. *See Gaffney v. Cummings*, 412

U.S. 735, 753 (1973) ("The reality is that districting inevitably has and is intended to have

substantial political consequences.") And "because the Constitution commits district

apportionment to political departments [and] it is quintessentially a political process . . . courts

cannot invalidate a redistricting map merely because its drafters took political considerations into

account in some manner." *Benisek*, 348 F. Supp. 3d at 511 (citing *Gaffney*, 412 U.S. at 752–53).

But, as a recent three-judge panel explained,

> the political nature of redistricting does not "immunize state congressional
> apportionment laws which debase a citizen's right to vote from the power of
> courts to protect the constitutional rights of individuals from legislative
> destruction, a power recognized at least since our decision in *Marbury v.*
> *Madison* [1 Cranch 137, 2 L.Ed. 60 (1803)] . . . . The right to vote is too important
> in our free society to be stripped of judicial protection."

Id. (quoting *Wesberry v. Sanders*, 376 U.S. 1, 6–7 (1964) (citations omitted)). As Justice Kagan

recently observed, "the need for judicial review is at its most urgent in [partisan gerrymandering]

cases" because "politicians' incentives conflict with voters' interests, leaving citizens without

any political remedy for their constitutional harms." *Gill*, 138 S. Ct. at 1941 (Kagan, J.,

concurring). Partisan gerrymandering "enables politicians to entrench themselves in power against the people's will. And only the courts can do anything to remedy the problem, because gerrymanders benefit those who control the political branches." *Id.* at 1935 (Kagan, J, concurring).

Federal courts must not abdicate their responsibility to protect American voters from this unconstitutional and pernicious practice that undermines our democracy. Federal courts' failure to protect marginalized voters' constitutional rights will only increase the citizenry's growing disenchantment with, and disillusionment in, our democracy, further weaken our democratic institutions, and threaten the credibility of the judicial branch. *See Vieth*, 541 U.S. at 310 (predicting that "[a] determination by the Court to deny all hopes of intervention" in partisan gerrymandering cases "could erode confidence in the courts"). Judges—and justices—must act in accordance with their obligation to vindicate the constitutional rights of those harmed by partisan gerrymandering.

II. FACTS

A. The Enacted Plan

The Michigan Constitution provides that the Michigan legislature shall redraw Michigan's congressional and state legislative districts by November 1, 2001, and every ten years thereafter. *See* Mich. Comp. Laws §§ 3.62, 4.261. This directive ensures that Michigan legislators will have the benefit of the decennial federal census and population data when they redraw the legislative maps.

As the release of the 2010 census data approached, the Republican State Leadership Committee ("RSLC")[5] engaged in a national effort to ensure that states redrew their congressional lines during the 2011 redistricting cycle to favor Republican candidates and disadvantage Democrats. The RSLC appropriately named their initiative the "REDistrictng MAjority Project," or "Project REDMAP." (*See* Pls.' Trial Ex. 477.) According to a 2013 report from the RSLC, they raised $30 million towards Project REDMAP from 2009 to 2010. (Pls.' Trial Ex. 270 at 2.) The goal of Project REDMAP was simple: "[d]rawing new district lines in states with the most redistricting activity . . . to solidify conservative policymaking at the state level and maintain a Republican stronghold in the U.S. House of Representatives for the next decade." (*Id.*) The report explained that drawing district lines favorable to Republicans was at the core of this strategy. (*Id.*) According to the report, "all components of a successful congressional race . . . rest in the congressional district lines, and this was an area where Republicans had an unquestioned advantage [in the 2012 elections]." (*Id.* at 1.)

James Bolger, a Republican who at the time served as Speaker of the Michigan House of Representatives, worked closely with the RSLC during the 2011 redistricting cycle. Bolger stated that REDMAP materials were "ubiquitous" during the 2011 redistricting cycle and that he had seen redistricting materials from the RSLC "many times." (Bolger Dep. at 294:24–295:14.) Bolger testified that he has attended approximately ten RSLC-related events. (*Id.* at 274:1–7.) He also served as Chairman of the Executive Committee of the Republican Legislative Campaign Committee, a caucus group of the RSLC. (*Id.* at 273:15–25.) According to Randy Richardville, a Republican who served as the Michigan Senate's Majority Leader during the 2011 redistricting cycle, Bolger was "pretty involved" in these groups. (*See* Richardville Dep. at 36:19–37:5.)

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[5] The RSLC describes itself as "the largest caucus of Republican state leaders and the only national organization whose mission is to elect down ballot, state-level Republican office-holders." (Pls.' Trial Ex. 477.)

Project REDMAP proved wildly successful both nationally and in Michigan. As the RSLC said in its 2013 report, in the 113th Congress, elected in November 2012 during the first elections after the 2011 redistricting cycle, "Republicans enjoy[ed] a 33-seat margin" nationally despite the fact that "voters pulled the lever for Republicans only 49 percent of the time in congressional races, suggesting that 2012 could have been a repeat of 2008" when Democrats won the United States House of Representatives. (Pls.' Trial Ex. 270 at 1.) Further, the report found that "[t]he effectiveness of REDMAP is perhaps most clear in the state of Michigan." (*Id.* at 3.) The REDMAP report explained that while "[t]he 2012 election was a huge success for Democrats at the statewide level in Michigan[,]" with voters "elect[ing] a Democratic U.S. Senator by more than 20 points and reelect[ing] President Obama by almost 10 points . . . 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." (*Id.* at 3–4.)

Republicans enjoyed great success in Michigan's 2012 elections due in large part to the efforts of Republican legislators and map-drawers in the redistricting process in 2011. The passage of the Enacted Plan represented the culmination of a calculated initiative by Michigan's Republican legislators and map-makers, in the 2011 redistricting cycle, to deliberately draw Michigan's legislative districts to maximize Republican advantage and, consequently, disadvantage Democratic voters, Democratic candidates, and the Democratic Party. The partisan advantage that Michigan lawmakers achieved through the Enacted Plan persists to this day.

During the 2011 redistricting cycle, Michigan Republican lawmakers engaged various political operatives to draw the congressional, Senate, and House maps to favor Republicans and disadvantage Democrats.

For the congressional districts, Republican lawmakers engaged Robert LaBrant, who provided "advice and counsel" to "legislators and committee chairs . . . ." (LaBrant Dep. at 126:22–127:4.) At the time, LaBrant served as President for the Michigan Redistricting Resource Institute ("MRRI"), an organization that LaBrant had formed to "generate money to finance redistricting litigation" and defend Republican maps.[6] (LaBrant Dep. at 74:21–78:20.) LaBrant, through MRRI, in turn hired Sterling Corporation, a "Republican political consulting firm," and, specifically, Jeffrey Timmer, a Senior Counselor at Sterling, to draw the congressional map. (Timmer Dep. at 13:3–6; 16:14–17; 18:6–8; LaBrant Dep. at 140:23–141:8.) Timmer had extensive map-drawing experience; he had served as the Republicans' lead map-drawer in Michigan's 1991 and 2001 redistricting cycles. (Pls.' Trial Ex. 272 at 1.) He was also a well-known political figure. From 2005 to 2009, Timmer served as the Executive Director of the Michigan Republican Party. (Timmer Dep. at 20:11–16.) Timmer began his mapping and consulting work for the 2011 redistricting cycle in 2009, over a year before the 2010 census data was released. (Timmer Trial Tr., ECF No. 250 at PageID #9306.)

Terry Marquardt drew the Senate map. (Marquardt Dep. at 31:6.) Marquardt had previously served as the Political Director of the Michigan Republican Party during the 2001 redistricting cycle. (Marquardt Dep. at 27:4–6.)

Daniel McMaster had the primary responsibility for drawing the House map. From early 2009 to January 2011, McMaster served as the Director of the House Republican Campaign Committee. (McMaster Dep. at 29:19–23.) Following the 2010 elections, the Michigan House Republican Caucus hired McMaster as a Senior Policy Advisor to draw the House map. (*Id.* at 36:1–5; 49:12–14.) After McMaster informed Pete Lund, a Republican House member who had

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[6] LaBrant formed MRRI in 2005 as a successor to the Michigan Reapportionment Fund, which, like MRRI, was formed to "raise funds" to defend Republican maps in litigation. (LaBrant Dep. at 90:4–11; 40:9–12.)

recently been appointed as Chairman of the Redistricting and Elections Committee, that he needed assistance, Lund hired Brian Began to assist McMaster in drawing the House map. (*Id.* at 50:20–51:19; Lund Dep. 23:15–23.) McMaster appreciated the importance of drawing districts that favored Republicans and disadvantaged Democrats. He candidly stated that "flipping the House in 2010 was more important than in any other year" because "there was just a belief or assumption that the party that wins . . . the majority in the last race of the decade will have a role in the redistricting process the following decade." (McMaster Dep. at 33:18–34:2.)

By statute, redistricting in Michigan must follow a set of criteria known as the "Apol" criteria. The Apol criteria contain a hierarchical set of requirements and provide, among other things, that districts be contiguous, contain either a population within 5% of the ideal district size (for the Senate and House districts) or exactly equal population (for the congressional districts), and minimize county and municipal breaks. *See* Mich. Comp. Laws § 3.63 (Senate and House districts); Mich. Comp. Laws § 4.261 (congressional districts). The Apol statutes provide that redistricting plans shall be created using "only" the Apol guidelines. *See* Mich. Comp. Laws § 3.63 (Senate and House districts); Mich. Comp. Laws § 4.261 (congressional districts). The Apol criteria do not provide that legislators may take political considerations into account when drawing maps. *See generally*, Mich. Comp. Laws § 3.63; Mich. Comp. Laws § 4.261.

The map-makers claim that they drew their respective maps to simply comply with the Apol criteria.[7] But the evidence tells a much different story. The evidence points to only one conclusion: partisan considerations played a central role in every aspect of the redistricting process.

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[7] *See, e.g.*, Timmer Dep. at 28:4–16; 47:25–48:6; 55:3–11; 61:20–62:1; McMaster Dep. at 58:21–60:20; 72:2–16; 73:2–12; 85:20–87:6; 113:3–7; 118:25–119:4; 128:24–129:6; 130:8–13; 160:22–161:2; 165:22–166:3; 172:21–23; Began Dep. at 37:14–38:1; Marquardt Dep. at 53:2–25.

Political data served as the foundation upon which the map-makers constructed their

maps. They used this political data to deliberately draw districts that advantaged Republicans and

disadvantaged Democrats. For example, to draw congressional maps that provided maximum

Republican advantage, Timmer purchased historical voter lists and election data from a company

called Combat Data. (Timmer Dep. at 16:21–17:10.) This political data consisted of historical

election data from a number of historical statewide elections: the 2000, 2004, and 2008

presidential elections; the 2004 and 2008 gubernatorial elections; and the Michigan Board of

Education elections in 2000, 2002, 2004, 2006, and 2008.[8] (Timmer Trial Tr., ECF No. 250 at

PageID #9323:9–9324:15; Pls.' Trial Ex. 149 at 2.) This political data consisted of the number of

Democratic and Republican votes cast in each of these historical elections down to the census

block level.[9] (Timmer Trial Tr., ECF No. 250 at PageID #9316:19–25.) Timmer inputted this

data into Maptitude, the map-drawing software he used to draw the congressional map. (*Id.*;

Timmer Dep. at 28:17–20.) Relying on this granular political data, Timmer began drawing the

congressional map in January 2011, approximately two months before the federal government

released the actual 2010 census data, in March 2011. (Timmer Trial Tr., ECF No. 250 at PageID

#9317:1–2; *id.* at PageID #9344:14–18.) Using this political data in conjunction with Maptitude,

Timmer monitored the partisan composition of the congressional districts as he drew them,

obtained instantaneous updates about the political composition of a district as he altered its

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[8] Education board averages are commonly used as proxies for partisanship. (Timmer
Trial Tr., ECF No. 250 at PageID #9324.) Marquardt explained the theory behind using data
from state education board races: "nobody really knew who those people [running for the state
education board] were and so voters were voting more by party . . . so we used that as kind of a
guideline" for a district's partisan composition. (Marquardt Dep. at 103:2–22.)

[9] Census block data is "exactly what you think. It's . . . like a city block or a country
block . . . it's that small of a unit." (Vatter Trial Tr., ECF No. 249 at PageID #8990:7–12.)

boundaries, and deliberately drew districts that packed or cracked Democratic voters.[10] (*See* Timmer Dep. at 60:14–61:9; 95:1–5.)

Marquardt used a program called AutoBound to draw the Senate map. (Marquardt Dep. at 40:5–15.) Marquardt used political data from a database compiled by the Michigan government that was provided to Michigan's Republican and Democratic caucuses for use in the 2011 redistricting cycle. (Marquardt Dep. at 42:8–43:12; Vatter Trial Tr., ECF No. 250 at PageID #8986:21–8987:16.) This data consisted of "[p]ast election results" from a variety of statewide elections in Michigan, and it showed how Michigan voters voted "down to [the] block level." (Marquardt Dep. at 42:20–43:12; 69:11–22; 102:13–104:15.) Marquardt paid closest attention to past presidential results, as they "give[] you the best gauge on" the political makeup of a district. (Marquardt Dep. at 70:2–20.) Marquardt elected to have AutoBound display a matrix of political data next to his Senate maps as he drew them; the figures in the matrix updated automatically as he altered the shape and contours of a given district. (Marquardt Dep. at 195:16–198:7.) Marquardt was aware of the political makeup of the new districts as he drew them and could tell whether they were more advantageous for Republicans than the maps that had been used in the previous decade. (Marquardt Dep. at 148:13–21; 158:9–15; 174:8–175:19.) Marquardt drew districts that he expected would produce better Republican outcomes compared to the existing map. (Marquardt Dep. at 114:7–11.)

When McMaster began drawing the House maps, he used magic markers to draw district boundaries because he had still not received map-drawing computer software. (McMaster Dep. at 87:16–25.) However, McMaster eventually received AutoBound and used it to draw the House maps. (McMaster Dep at 87:13–15.) While McMaster believes that he did not initially have

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[10] "Packing" involves filling a district with a supermajority of members of a disfavored political party. *Vieth*, 541 U.S. at 287 n.7. "Cracking" involves dispersing members of a disfavored party among several districts to deny that party a majority in any of those districts. *Id.*

access to political data, he eventually received "the election numbers" from previous elections and "plugged in, double-checked" the numbers in AutoBound. (McMaster Dep. at 88:15–24.)

The map-makers believed that they could draw maps to secure a partisan advantage even if doing so required violating the traditional non-partisan redistricting criteria enumerated in the Apol standards. (*See, e.g.*, Timmer Trial Tr., ECF No. 250 at PageID #9301:18–19; PageID #9304:24–9305:2.) Timmer, who drew the congressional districts, stated that map-makers and legislators may consider purportedly "neutral considerations" not listed in the Apol criteria, such as "incumbency considerations" and "achieving support sufficient for passage." (Timmer Report at 6.) However, these factors were not politically neutral given that Republicans dominated both chambers of the state legislature and held the governorship during the 2011 redistricting cycle. Protecting incumbents generally meant protecting Republicans. And securing enough votes for passage did not necessarily require securing a single vote from a Democratic legislator in either chamber. At trial, Timmer went a step further, testifying that legislators may consider "*whatever factors they deem necessary*" and may "take into account *any political consideration they like* in drawing these maps." (Timmer Trial Tr., ECF No. 250 at PageID #9301:18–19; PageID #9304:24–9305:2.)

The map-makers were intimately aware of the political consequences of their map-drawing efforts. For instance, McMaster and Began drew the House maps in a secure location to which nobody else had access because, according to McMaster, "everyone was honing us. Every staffer's political future, every representative's political future, depended on how the lines turned out . . . ." (McMaster Dep. at 63:18–24.) Marquardt drew the Senate maps to ensure that they would garner enough support among Senators to win a majority of votes in the Senate—where the Republicans held 26 seats compared to Democrats' 12—because "if [the maps] don't pass the

legislature, you've . . . done your work for nothing . . . you have to have at least 20 people happy with the draft." (Marquardt Dep. at 56:23–57:13.) Marquardt explained that "sitting, 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—the 20 votes that we needed in the Senate to pass the bill." (Marquardt Dep. at 63:9–14.)

During the spring of 2011, Michigan's Republican leadership held weekly meetings on Thursday mornings at the Dickinson Wright law firm to discuss their redistricting efforts. (Pls.' Trial Exs. 463, 384; Richardville Dep. at 92:14–93:12.) Bobby Schostak, Chairman of the Michigan Republican Party, attended between three and eight of these redistricting meetings, even though he did not serve in the Michigan legislature and would therefore not cast a vote on any of the maps at issue. (Schostak Dep. at 13:12–16; 43:1–18.) Congressional map-drawer Jeff Timmer also attended some of these leadership meetings, even though he was not a legislator and even though he was working on the congressional maps, not the Senate or House maps containing districts whose legislators would vote on the redistricting legislation. (*Id.* at 15:13.) James Bolger, the Republican House member who at the time served as Speaker of the Michigan House, attended "some or all" of these weekly redistricting meetings. (Bolger Dep. at 120:11–122:14.) Randy Richardville, a Republican who served as Michigan's Senate Majority Leader, attended between three and six of these meetings. (Richardville Dep. 85:2–14.) Joe Hune, the Republican Senator who served as Chairman of the Senate Redistricting Committee, attended more than five of these redistricting meetings. (Hune Dep. at 19:2–5; 142:2–5.) Pete Lund, the Republican House member who served as Chairman of the Redistricting and Elections Committee, also attended. (Lund Dep. at 93:7–95:20.)

The Republican leadership took several steps to ensure that these weekly redistricting meetings remained secret. Members of the Republican leadership and their staffs often used personal—rather than governmental—email addresses to communicate about the redistricting meetings. (*See, e.g.*, Pls.' Trial Ex. 462 (email confirming March 10, 2011 meeting sent to the personal email addresses of Suzanne Miller, Chief of Staff to Speaker Bolger (Bolger Dep. at 138:20–25); Laura Dubreuil, Executive Assistant to Speaker Bolger (Bolger Dep. at 149:7–23); Jordan Hankwitz, aide to Senate Majority Leader Richardville (Bolger Dep. at 127:20–22); Keli Saunders, a staffer in Republican Governor Rick Snyder's administration (Bolger Dep. at 126:6–18); and Laurie Rospond, a staffer for Lieutenant Governor Dick Posthumus (Bolger Dep. at 126:19–127:4)); Pls.' Trial Ex. 463 (Speaker Bolger using personal email address to communicate with his top assistant about the April 19, 2011 redistricting meeting).)

Majority Leader Richardville explained the significance of communicating over personal email; he and his staff "were very sensitive" to "doing something with or on government property if there are potential political discussions going on[,]" and he and his staff used non-governmental email addresses for any conversation that was "going to be political." (Richardville Dep. at 99:10–100:5; *see also id.* at 169:11–170:7.) Furthermore, the agendas for each of these meetings were labeled "confidential." (Pls.' Trial Ex. 274.) Democrats were not invited to attend the meetings until June 2011, *i.e.*, *after* the maps had already been voted out of committee by the Michigan legislature. (Timmer Trial Tr., ECF No. 250 at PageID #9341:1–12; *see* Schostak Dep. at 48:25–49:23.)

In addition to the leadership meetings, map-drawer meetings regularly took place at Dickinson Wright. (Timmer Dep. at 56:2–25; 256:18–257:2.) Map-drawer meetings occurred "[p]erhaps as often as weekly." (*Id.* at 56:17–18.) Timmer, Marquardt, McMaster, and Began

frequently attended. (McMaster Dep, at 52:9–54:8.) Robert LaBrant also attended some in his capacity as president of MRRI. (Timmer Dep. at 258:11–20.) Attorneys from Dickinson Wright would also attend as legal counsel. (McMaster Dep. at 53:14–23; Marquardt Dep. at 88:12–89:1.) The map-drawers shared maps with each other, gave "report[s] of where we are, what problems we're having[,]" strategized about the map-making process, discussed technical questions, and worked with counsel to confirm that their maps complied with what they believed to be the relevant legal requirements. (McMaster Dep. at 52:8–19; Marquardt Dep. at 82:18–22.) Like the leadership meetings, the map-drawer meetings were "confidential." (Timmer Dep. at 256:21–23.) No representative from the Democratic Party, or member of any Democratic interest group, ever attended. (*Id*. at 56:19–25.)

Throughout the redistricting cycle, the map-makers regularly met with legislative leaders and incumbent Republican legislators. During these meetings, the map-makers presented incumbent Republicans with drafts of each legislator's proposed district, discussed the boundaries and partisan makeup of each legislator's proposed district, and solicited the incumbent's preferences and/or desired changes to his or her district. Map-makers held these conversations even though they—and the Republican leadership for whom they worked—knew that protecting incumbents was not a permissible standard under the Apol criteria. (*See* Pls.' Trial Ex. 274.)

Marquardt, drawer of the Senate maps, held "meetings [with] and called" each Republican senator between April and June 2011 to show them the partisan composition of their new district compared to their existing district. (Marquardt Dep. at 82:23–84:20.) Marquardt never met with Democrats. (*Id*. at 84:17–20.) Marquardt brought two maps with him to every meeting, which he presented side-by-side on a single piece of paper: one that depicted the

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senator's "Current Senate District" and one that depicted the senator's "Proposed Senate District." (*Id.* at 100:21–106:15.) Marquardt displayed two sets of political data underneath the map of each senator's current and proposed district: the percentage of votes cast within that district for the Republican gubernatorial candidates in the last three elections and the percentage of votes cast within that district for Republican candidates in the last three elections for the Michigan Board of Education.[11] Marquardt displayed this political data on each senator's current and proposed district map "[b]ecause the senators obviously would be interested in knowing whether their district got better or worse[,]" better meaning more Republican and "worse being either less Republican or more Democrat." (*Id.* at 103:23–104:15; *see, e.g.*, Pls.' Trial Exs. 331–56 (side-by-side maps Marquardt prepared for each Republican senator showing the political composition of each senator's current and proposed districts); *see also* Richardville Dep. at 232:19–235:14 (discussing meetings with Marquardt and incumbent Republican senators).)

Like Marquardt, McMaster, the principal architect of the House map, showed incumbent legislators the boundaries and political composition of their proposed districts before the maps were introduced into the legislature. (McMaster Dep. at 65:19–67:13; 71:9–19; Began Dep. at 45:17–25.) McMaster met with Republican House members in May 2011. (McMaster Dep. at 65:19–67:13.) During these meetings, McMaster presented Republican House members with various "choices" for the boundaries of their districts. (*Id.* at 65:19–67:13.) For example, if McMaster had identified multiple ways of splitting a county into two House districts, he would ask, "So, what do you guys want? Do you want this one? Do you want this one? Do you want to flip a coin?" (*Id.* at 66:11–13.) The maps that McMaster brought to the meetings contained historical election data from approximately ten previous elections and allowed incumbent

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[11] As noted above, education board averages are commonly used as proxies for partisanship. (Timmer Trial Tr., ECF No. 250 at PageID #9324; Marquardt Dep. at 103:2–22.)

Republican House members to gauge the partisan composition of their proposed districts. (*Id*. at 71:9–19.) After one of these meetings, McMaster made changes to the House map to accommodate the concerns that an incumbent Republican House member expressed about the "political makeup" of his proposed district and, specifically, "how hard he thought it would be for him to win" in the new district. (*Id*. at 86:1–89:22.)

In late February 2011, Timmer traveled to Washington, D.C., to meet with the Republican members of Michigan's congressional delegation and present them with draft maps of Michigan's congressional districts. (Pls.' Trial Ex. 398; Timmer Trial Tr., ECF No. 250 at PageID #9324:16–9325:6.) Prior to his trip, Timmer sent the proposed congressional districts to LaBrant, the president of MRRI and the person who hired Timmer, and the two discussed the "potential options" that Timmer planned to present to the congresspersons with whom he was scheduled to meet. (*See* Pls.' Trial Ex. 398.) Timmer did not meet with any Democrats during his trip or provide any proposed maps to Democrats during the 2011 redistricting cycle. (Timmer Dep. at 110:2–25.)

When Timmer arrived in Washington, D.C., he met with the Republican members of Michigan's congressional delegation and presented several different configurations of Michigan's statewide congressional map. (*See* Pls.' Trial Exs. 398–99.) Each iteration estimated the political composition of each congressional district based on historical election results from ten recent statewide races. (*See id*.) In this way, each congressperson could evaluate the partisanship of his or her proposed district in each possible configuration, as well as the partisanship of each congressional district in the overall map. (*See id*.) Timmer discussed the potential districts with the incumbent Republican congresspersons and asked them what portions

of their current districts they would most like to continue to represent. (Timmer Dep. at 169:7–11.)

After returning from Washington, D.C., Timmer revised the congressional map to accommodate the preferences expressed by the incumbent Republican congresspersons with whom he had met. (Timmer Trial Tr., ECF No. 250 at PageID #9325:19–9327:17; *see* Pls.' Trial Ex. 399.) On March 6, 2011, he emailed LaBrant an updated version of the congressional map. (*See* Pls.' Trial Ex. 399.) The map contained political data for each proposed district. (*Id.*) Timmer told LaBrant that the map "captures the bulk of what we heard the [congressional delegation] indicate they'd like to see." (*Id.*) Two days later, Timmer emailed LaBrant "the map we discussed yesterday with separate maps for the individual districts." (Pls' Trial Ex. 400.) The map for each district contained the same set of political data that Timmer had included in his statewide maps. (*Id.*)

The map-makers also shared draft maps with each other and strategized about how to best draw maps that advantaged Republicans. For example, in one email exchange from May 9, 2011, Marquardt asked Timmer to send him a plan that Timmer had proposed for Senate districts covering Oakland and Genesee counties. (Pls.' Trial Ex. 358.) After Timmer replied, Marquardt said that one of the proposed Senate districts "would be a little vulnerable under this plan." (*Id.*) By "a little more vulnerable," Marquardt meant that the district was "more competitive, maybe a little more Democratic." (Marquardt Dep. at 137:22–138:6.) Marquardt asked Timmer for the "McCain numbers" for the proposed district because Marquardt wanted to know where the district "landed on the political scale." (*Id.* at 140:4–5.)

Emails between the map-makers and Republican leaders, legislators, and legislative staff further reveal that the motivating factor behind the map-making process was a desire to construct districts that favored Republicans and disadvantaged Democrats.

For example, on May 17, 2011, Jim Brandell, Chief of Staff to Republican Congressman Dave Camp, used his personal yahoo email address to email Timmer and LaBrant about Camp's concerns with the "[l]atest [d]raft" of Camp's district.[12] (Pls.' Trial Ex. 579.) LaBrant—who had hired Timmer to draw the congressional maps—replied that "[w]e will accommodate whatever Dave wants in his district . . . ." (*Id.*) LaBrant also assured Brandell that "[w]e've spent a lot of time providing options to ensure we have a solid 9-5 delegation in 2012 and beyond[,]" (*id.*), meaning a congressional delegation of nine Republicans and five Democrats. (Timmer Trial Tr., ECF No. 250 at PageID #9318:2–7.)

Another example is an email exchange from May 16, 2011, where LaBrant told Timmer that he had just received a call from Jack Daly, Chief of Staff to incumbent Republican Congressman Thad McCotter. (Pls.' Trial Ex. 409.) LaBrant had "walked [Daly] through Thad's proposed district." (*Id.*) LaBrant reported that, according to Daly, "Dale at the RNC has drawn a 10-4 map." (*Id.*) LaBrant told Daly "I suppose you could [draw a map that likely produces a 10-4 Republican/Democratic split] if you broke a [sic] sorts of counties and MCD's . . . ." (*Id.*) But LaBrant told Daly that "we need for legal and PR purposes a good looking map that [does] not look like an obvious gerrymander." (*Id.*) LaBrant complimented Timmer on his latest draft of the congressional map, stating that it "protects all nine [Republican] incumbents and it looks good." (*Id.*)

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[12] Brandell also sent the email to Jamie Roe, a staffer for Republican incumbent Congresswoman Candace Miller. (Pls.' Trial Ex. 579; Timmer Trial Tr., ECF No. 250 at PageID #9318:16–23.) Brandell sent the email to Roe's personal yahoo email address. (Pls.' Trial Ex. 579.)

In a separate email exchange, Daly requested that Timmer evaluate additional district configurations using newly-available population and elections data.[13] (*See* Pls.' Trial Ex. 401.) Timmer responded, "[i]nteresting numbers overall. Detroit being 150k less than projected shakes things up." (*Id.*) Daly replied that it was "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." (*Id.*) Daly also asked, "Is there anyone on our side who doesn't recognize that dynamic?" (*Id.*) Timmer admitted that the only way to interpret Daly's comments was as a request that Timmer pack Democratic voters. (Timmer Trial Tr., ECF No. 250 at PageID #9327:18–9329:11.)

Yet another example is a June 22, 2011 email exchange that began with a Republican operative informing Timmer that he was "[w]orking on damage control" in the Third Congressional District because incumbent Republican Congressman Justin Amash had concerns about the political makeup of his new district. (Pls.' Trial Ex. 432.) Timmer responded that, under the new maps, the Third Congressional District "is a bit less GOP, but not so much less so that it is in jeopardy of going south on us." (*Id.*) Timmer further explained that "the new 3rd would become slightly less Republican" to allow the district held by incumbent Republican Congressman Tim Walberg "to become slightly more so." (*Id.*)

In a different email, Jamie Roe, a staffer for incumbent Republican Congresswoman Candice Miller, expressed his approval 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.[14] (Pls.' Trial Ex. 426; Timmer Dep. 127:2–10.)

Schostak served as a liaison between incumbent Republican congresspersons and Timmer throughout the 2011 redistricting cycle. Congresspersons contacted Schostak—the Chairman of

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[13] Daly used his personal yahoo email address for this exchange. (*See* Pls.' Trial Ex. 401.)
[14] Roe sent this email from his personal yahoo address. (*See* Pls.' Trial Ex. 426.)

the Michigan Republican Party—and expressed preferences or concerns about the contours of

their districts, and Schostak conveyed these concerns to Timmer, who revised the congressional

maps accordingly. (Schostak Dep. at 89:1–94:20.) For example, in June 2011, Timmer emailed

Schostak and explained changes that he had made to Congressional District 2 and Congressional

District 3 based on concerns that Schostak had relayed from Bill Huizenga and Justin Amash, the

incumbent Republican congressmen that represented those districts. (Pls.' Trial Ex. 387.) In

another email, Timmer informed Stu Sandler, an outside consultant working for Schostak, that

despite incumbent Republican congressmen Thad McCotter's disapproval of his new district,

"it's hard to envision a Dem winning this seat even in a year like 2008." (Ex. 65 to Timmer

Dep.)

Republican donors also inserted themselves into the map-drawing process through

Schostak. For example, Schostak forwarded Timmer an email in which a Republican donor had

asked Schostak if the map-drawers could "draw a favorable Republican district with the Pointes

all together[,]" an apparent reference to the five communities in the Grosse Pointes area. (Pls.'

Trial Ex 389.) A few weeks later, Timmer sent Schostak a new set of maps. (*See* Pls.' Trial Ex.

438.) Timmer told Schostak that "as part of the maps I've redrawn, I've come up with a

configuration which likely also satisfies the Grosse Pointes wrinkle you've been dealing with."

(*Id*.) Timmer told Schostak to "[k]eep this all under hat" given the "possibility that this fizzles."

(*Id*.) But Timmer reassured Schostak that "you may be able to deliver a vistory [sic] to the

G[rosse] P[ointes] $$ folks." (*Id*.)

Schostak did not merely act as an intermediary through which Republican donors and

Timmer would communicate. On one occasion, in response to a request from a Republican

donor, Schostak had Timmer speak directly to the donor to "[t]ell them [sic] what's possible." (Schostak Dep. at 109:1–13.)

Even after they formally introduced the redistricting legislation, the Republican-controlled legislature concealed the contents of the redistricting plan and expedited its progression through the legislative process to prevent it from being subject to meaningful public scrutiny.

Shortly after the proposed district maps were introduced in June 2011, the House Elections Committee held a public hearing on redistricting. (*See* Smith Trial Tr., ECF No. 248 at PageID #8771:1–10.) Susan Smith attended the hearing in her capacity as president of the League. (*Id.* at PageID #8771:10–15.) When Smith arrived, she picked up a copy of the bill so that she could follow along during the hearing. (*Id.* at PageID #8771:10–24.) When Smith opened up the bill, she realized that it was a "shell bill"—a "cover and a back sheet, and ending sheet[,] but nothing in between." (*Id.* at PageID #8771:19–24.)

The members of the House Elections Committee entered the room. A staff member brought an additional stack of bills and placed them on a back table. Smith retrieved a copy of the bill, and returned to her seat to read it, "expecting to see a description of the maps[.]" (*Id.* at PageID #8772:6–8.) But the bill did not contain any maps, only rows of census data, "like you see when you get your tax bill . . . ." (*Id.* at PageID #8772:8–10.) It was impossible for Smith to figure out what district she lived in. (*Id*. at PageID #8772:10–11.) Shortly thereafter, a staff person set up three easels, one for each map. (*Id.* at PageID #8772:11–15.) Each map was approximately 30 by 36 inches and portrayed the entire state of Michigan. (*Id.* at PageID #8772:17–19.) Smith approached the maps for a closer examination but, like many other attendees, could not tell with any particularity what districts she lived in. (*Id.* at PageID

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#8772:20–8773:10.) Despite many attendees at the hearing voicing their complaints about the lack of transparency and public involvement, the bill made it out of committee after a vote along party lines, with Democrats voting against the bill and Republicans voting for it. (*Id.* at PageID #8772:20–8773:10.)

Within approximately two weeks of the hearing, both chambers of Michigan's Republican-controlled legislature had voted to pass bills containing the redistricting legislation. The bills went to Governor Snyder, a Republican, who signed the legislation into law on August 9, 2011.[15]

Democrats played no meaningful role in the 2011 redistricting process. On one occasion, Marquardt showed Mike Vatter, the Democratic map-drawer, a Senate map that Marquardt had drawn for the Detroit area. But according to Vatter, Marquardt was not soliciting his input but rather telling him that "these were the districts that were going to be drawn in the City of Detroit," a Democratic stronghold. (Vatter Trial Tr., ECF No. 249 at PageID #8994:20–8995:15.) While Richardville, the Republican Senate Majority Leader, once met with Vatter and then-Democratic Senate Minority Leader Gretchen Whitmer, this meeting did not occur until after the Republican maps were already published. (Timmer Trial Tr., ECF No. 250 at PageID #9320:22–9321:12.) And while Republicans briefly entered into negotiations with the legislative black caucus, these negotiations took place after the Michigan legislature had already approved the Enacted Plan and did not result in any change to the maps. (Timmer Dep. at 149:20–150:1.)

The Enacted Plan proved tremendously successful in advantaging Republicans and disadvantaging Democrats throughout several election cycles. In each of the three statewide

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[15]   *See* Public Acts 128 and 129, available at http://www.legislature .mi.gov/(S(iarreoked0nkcgalxktqk0lv))/documents/2011-2012/publicact/pdf/2011-PA-0128.pdf, last accessed April 19, 2019; http://www.legislature.mi.gov/(S(iarreoked0nkcgalxktqk0lv))/ documents/2011-2012/publicact/pdf/2011-PA-0129.pdf, last accessed April 19, 2019.

elections held under the Enacted Plan between 2012 and 2016, Republicans won 64% of Michigan's congressional seats (*i.e.*, 9 of 14) even though they never earned more than 50.5% of the statewide vote.[16] During this same period, Republicans won at least 53.6% of Michigan's House Districts while never earning more than 50.3% of the total vote.[17] In Michigan's 2014 Senate election, Republicans earned only 50.4% of the vote but won 71.1% of the seats.[18]

The partisan bias in Michigan's legislative maps continued in the 2018 midterm elections. Democrats earned approximately 55.8% of the vote in congressional elections but gained only 50% of the congressional seats;[19] 52.6% of the vote in the House but only 47% of the House seats,[20] and over 50% of the vote in the Senate but only 42% of the Senate seats.[21] In other words, despite earning a sizable majority of aggregate votes for congressional candidates, Democrats merely pulled even with Republicans in terms of seats won. And despite earning a majority of the votes cast in the House and Senate elections, Democrats remained decidedly in the minority in both chambers of the state legislature.

B. Plaintiffs' Expert Evidence

The Court finds that Plaintiffs have proven that the Enacted Plan is a partisan gerrymander. Plaintiffs' expert evidence overwhelmingly supports this conclusion. Plaintiffs introduced testimony from three witnesses, each of whom employed several different statistical analyses and metrics to evaluate the partisan outcomes resulting from the Enacted Plan, clearly demonstrates that the Enacted Plan strongly and systematically advantages Republicans and

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[16] *See* https://mielections.us/election/results/2016GEN_CENR.html (2016); https://mielections.us/election/results/14GEN/ (2014); https://mielections.us/election/results/12GEN/ (2012).

[17] *See* https://mielections.us/election/results/2016GEN_CENR.html (2016); https://mielections.us/election/results/14GEN/ (2014); https://mielections.us/election/results/12GEN/ (2012).

[18] *See* https://mielections.us/election/results/14GEN/ (2014).

[19] *See* https://mielections.us/election/results/2018GEN_CENR.html (2018).

[20] *See id*.

[21] *See id*.

disfavors Democrats. In reaching this conclusion, the Court does not rely primarily on any

individual expert's testimony or on any particular statistical measure; rather, the Court reaches

this determination after considering the totality of Plaintiffs' wide-ranging and extensive expert

evidence. All of this evidence points to the same conclusion: the Enacted Plan gives Republicans

a strong, systematic, and durable structural advantage in Michigan's elections and decidedly

discriminates against Democrats.

1. Dr. Jowei Chen[22]

Plaintiffs' first expert, Jowei Chen, Ph.D. ("Dr. Chen"), analyzed Michigan's

congressional, Senate, and House districts to determine whether the Enacted Plan produced "an

extreme partisan outcome that diverges from possible alternative maps." (Chen Report at 2, 6.)

Dr. Chen compared the Enacted Plan to computer-simulated districting plans drawn without

partisan intent that adhere to "traditional districting criteria," such as "equalizing population,

maximizing geographic compactness, and preserving county, municipal, and ward boundaries."

(*Id.* at 3.) Dr. Chen created an algorithm that used these traditional, non-partisan criteria to

produce randomly-generated districting plans. His algorithm generated 1,000 alternative

congressional districting plans, 1,000 alternative Senate districting plans, and 1,000 alternative

House districting plans. (*Id.*)

Next, using past election results, Dr. Chen measured the partisanship of each legislative

district in the Enacted Plan and in his simulated districting plans. (*Id.* at 5.) Specifically, Dr.

Chen assessed block-level election results for all of Michigan's 40 statewide elections from

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[22] Dr. Jowei Chen is an Associate Professor in the Department of Political Science at the
University of Michigan. He received his B.A. in Ethics, Politics, and Economics from Yale
University, his M.S. in Statistics from Stanford University, and his Ph.D. in Political Science
from Stanford University. He has published several academic articles regarding redistricting in
peer-reviewed journals and has provided expert reports in approximately nine redistricting cases.
(*See* Chen Report at 89–93.)

2006-2010 and 2012-2016, and calculated "the vote totals across these statewide elections within every district." (*Id.* at 6–7.) Dr. Chen then compared the partisan composition of the districts under the Enacted Plan to the partisan composition of the alternative simulated districts. In this way, Dr. Chen was able to deduce whether a district in the Enacted Plan favors Republican or Democratic candidates compared to the corresponding simulated districts drawn without partisan intent. (*Id.* at 7.)

To calculate the partisanship of each district, Dr. Chen used three different measurements. As the Court describes below, each of Dr. Chen's metrics indicates that the Enacted Plan strongly and systematically advantages Republicans and discriminates against Democrats.

a.   Number of Republican and Democratic Districts

First, Dr. Chen simply counted the number of Republican and Democratic districts in the Enacted Plan and each alternative simulated plan based on a district's partisan composition. (*Id.* at 9.) This method is considered the most basic and commonly-used method for measuring the partisanship of a districting plan. (*Id.*) By using this method, Dr. Chen directly and precisely quantified the difference in partisanship between the Enacted Plan and the simulated plans drawn without partisan intent. (*Id.*)

Dr. Chen also determined whether the districts in the Enacted Plan constitute partisan outliers. (*Id.* at 11.) Dr. Chen defined a "partisan outlier" as a district whose partisanship falls "outside the middle 95% range [of partisanship] of the simulated geographically overlapping districts;" he considered a simulated district to be "geographically overlapping" if it contained at least 50% of the same population as the corresponding district under the Enacted Plan. (*Id.* at 55– 56.) Therefore, if Dr. Chen deemed a district in the Enacted Plan a "partisan outlier," the partisan

composition of that district falls outside the middle 95% of the simulated, geographically-overlapping districts drawn without partisan intent. (*Id.*)

i.   Congressional Map

Michigan currently has 14 congressional districts. Using the 2012-2016 election results, the Enacted Plan contains 9 Republican congressional districts and only 5 Democratic congressional districts. (*Id.* at 14.) The vast majority of the Dr. Chen's simulated plans, drawn without partisan intent, created 7 Republican congressional districts and 7 Democratic congressional districts. (*Id.*) Not a single one of Dr. Chen's 1,000 simulated plans created 9 Republican congressional districts and only 5 Democratic congressional districts. (*Id.*) Dr. Chen concluded with overwhelming certainty that the pro-Republican bias in the Enacted Plan's congressional map did not occur because of chance but was rather the product of a deliberate effort to tilt the scales to favor Republicans. (*Id.* at 14–15.)

ii.   Senate Map

There are 38 Senate districts in Michigan. Using the 2012-2016 election results, the Enacted Plan contains 24 Republican Senate districts and only 14 Democratic Senate districts. (*Id.* at 26.) Dr. Chen's simulated plans all created between 18 and 22 Republican Senate districts, and the vast majority of his simulated plans created 19 or 20 Republican Senate districts. (*Id.*) Not a single one of Dr. Chen's 1,000 simulated plans created 24 Republican Senate districts. (*Id.*) Dr. Chen concluded with overwhelming certainty that the Enacted Plan's Senate map is a partisan outlier and was intentionally created to produce a pro-Republican outcome. (*Id.*)

iii.   House Map

There are 110 House districts in Michigan. (*Id.* at 39.) Using the 2012-2016 election results, the Enacted Plan contains 61 Republican House districts and only 49 Democratic House districts. (*Id.*) Dr. Chen's simulated plans produced between 56 and 60 Republican House

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districts, and the vast majority of his simulated plans created 58 Republican House districts. (*Id.*)

Not a single one of Dr. Chen's simulated plans created 61 Republican House districts. (*Id.*) Dr.

Chen determined that the Enacted Plan's House map is a partisan outlier and was intentionally

created to produce a pro-Republican partisan outcome. (*Id.*)

b. Median-mean Difference

Second, Dr. Chen analyzed the partisanship of the maps in the Enacted Plan and the

simulated plans using median-mean difference analysis. Scholars commonly use this method to

compare the partisan bias of different districting plans. (*Id.* at 11.) As Dr. Chen explained, "[f]or

any districting plan, the mean is simply calculated as [the] average of the Republican vote share

across all districts, and the median is the Republican vote share in the district where the

Republicans performed the middle-best." (*Id.*) Higher, positive values signify that the median

district's Republican vote share is higher than the mean district-level Republican vote share,

which indicates that the plan favors Republicans and disadvantages Democrats. (*Id.*) By

calculating the median-mean difference of the Enacted Plan, Dr. Chen assessed whether a

Republican-favoring skew in the median-mean difference resulted from an intentional partisan

effort to favor one party over another. (*Id.* at 12.)

Dr. Chen's median-mean analysis demonstrates that the Enacted Plan strongly

advantages Republicans. Using the 2012-2016 statewide election results, the congressional

districts in the Enacted Plan have a median-mean difference of 7.55%. (*Id.* at 18.) In other words,

the median congressional district is 7.55% more Republican than the Enacted Plan's "average"

district. (*Id.*) Dr. Chen found that this large pro-Republican bias also manifests in the Senate and

House maps; the median-mean difference for the current Senate plan is 5.97% and the median-

mean difference for the current House plan is 6.86%. (*Id.* at 33, 46.) These findings demonstrate

that across the congressional, Senate, and House maps, the median district under the Enacted

Plan is significantly more Republican than the "average" district. Dr. Chen found that these large median-mean differences give Republicans a strong, systematic advantage in elections held under Michigan's congressional, Senate, and House maps. (*Id.* at 21, 33, 46.)

c. Efficiency Gap

Third, Dr. Chen measured the partisanship of the Enacted Plan using the efficiency gap. This measurement is calculated by first determining the partisan composition of each district in the Enacted Plan and the simulated maps, which Dr. Chen measured using the 2012-2016 statewide election results. (*Id.* at 12.) A district is considered a Democratic district if the number of Democratic votes in that district exceeds the number of Republican votes. (*Id.*) If a district is not designated as a Democratic district, Dr. Chen classified it as being a Republican district. (*Id.*) Dr. Chen then calculated "the total sum of surplus votes in districts [each] party won and lost votes in districts where [each] party lost." (*Id.*) In the districts that a party lost, all the votes cast for that party are considered "lost votes." (*Id.*) Conversely, in the districts that a party won, only the party's votes that exceed the 50% threshold needed to win those districts are considered "surplus votes." (*Id.*) The sum of a party's lost and surplus votes is that party's total number of "wasted votes." (*Id.*) The efficiency gap is calculated from "the total wasted Republican votes minus total wasted Democratic votes, divided by the total number of two-party votes cast statewide across all seven[23] elections." (*Id.*)

The efficiency gap may appear to be a rather convoluted statistical measure. But its explanatory power is simple and clear: it indicates whether, and to what extent, votes cast for a particular political party are "wasted" in elections across a given districting plan. (*Id.*) As Dr.

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[23] Dr. Chen is referring to the seven statewide elections that occurred between Enacted Plan's adoption and when he prepared his expert report, specifically, the congressional elections in 2012, 2014, and 2016; the Senate elections in 2014; and the House elections in 2012, 2014, and 2016. (Chen Report at 53.)

Chen explains, "[a] significant positive efficiency gap indicates that there are more Republican wasted votes, while a significantly negative efficiency gap indicates far more Democratic wasted votes." (*Id.*) By comparing the efficiency gap under the Enacted Plan with the efficiency gaps under his simulated plans, Dr. Chen was able to determine whether the Enacted Plan causes Democrats to frequently waste more votes than they would waste under alternative maps drawn without partisan intent. (*Id.*)

Dr. Chen's analysis of Michigan's 2012-2016 statewide elections demonstrates that the Enacted Plan consistently results in more wasted Democratic votes than wasted Republican votes. The current congressional plan has an efficiency gap of −19.8%. (*Id.* at 25.) This figure indicates that the Enacted Plan "consistently results in significantly more wasted Democratic votes than Republican votes." (*Id.*) Furthermore, this efficiency gap "is far more biased than even the most biased" of Dr. Chen's 1,000 simulated congressional maps. (*Id.*) In fact, more than half of Dr. Chen's simulation maps resulted in an efficiency gap within ±5% of 0, meaning that "it is clearly not difficult to create a map that is relatively unbiased according to the efficiency gap" and that complies with Michigan's statutory non-partisan districting criteria. (*Id.*) Dr. Chen concluded that to create a congressional map with an efficiency gap score greater than ±15% "would require extraordinary and deliberate partisan map-drawing efforts." (*Id.*)

The Senate and House districts show similarly staggering pro-Republican efficiency gap scores. The current Senate plan has an efficiency gap of −16.6%. (*Id.* at 38.) The current House plan creates an efficiency gap of −12.1%. (*Id.* at 51.) These heavily pro-Republican efficiency gaps are "entirely outside of the range produced by the simulated plans." (*Id.* at 38, 51.) In other words, according to the efficiency gap metric, the Senate and House districts under the Enacted

Plan are "far more biased than even the most biased" simulated maps drawn without partisan intent. (*Id.*)

d.   Durability

After Dr. Chen concluded that the current legislative plans were partisan outliers compared to the simulated plans using the three metrics described above, he then assessed whether the partisan bias in the Enacted Plan is "politically durable." According to Dr. Chen, the "partisan durability of a districting plan refers to whether a plan would allow a particular political party to preserve its majority control over a chamber or congressional delegation under a reasonable range of alternative electoral conditions." (*Id.* at 52.) Dr. Chen's sought to ascertain if Republicans would still win the majority of Michigan's districts during an election in which the overall Republican electoral performance was worse than normal. (*Id.*) As Dr. Chen explained, if the Enacted Plan "gives Republicans control over a majority of all districts, and only a significant pro-Democratic [] swing would allow Democrats to ever win a majority of districts in a single election, then the Republican's control" is "durable." (*Id.*)

To analyze the partisan durability of the legislative plans, Dr. Chen used the "uniform swing analysis." (*See id.*) This metric begins with the assumption that a political party's performance in a given election is generally not confined to a single district. When a political party performs worse than usual, its vote share typically decreases by a comparable degree in all legislative districts across the state. (*Id.*) Conversely, when a political party performs better than usual, its vote share generally rises in all districts across that state. (*Id.*) The uniform swing analysis involves "simulating a uniform increase (or decrease) in a party's vote share across all districts within a state." (*Id.*)

Using this method, Dr. Chen evaluated how Republicans and Democrats in Michigan "would perform under alternative electoral conditions." (*Id.*) Dr. Chen evaluated the results of

Michigan's seven statewide elections that took place between the adoption of the Enacted Plan and when Plaintiffs filed suit. (*Id.* at 53.) Republicans won a majority of the seats in each of these elections. For each election, Dr. Chen calculated the smallest pro-Democratic uniform swing that would have allowed Democrats to win one-half of the seats. (*Id.*)

Dr. Chen's found that, in each of these seven statewide elections, Republicans would have maintained a majority under any reasonable range of alternative electoral conditions. (*Id.*) Specifically, in November 2012, Republicans won 9 of 14 congressional districts and the Republican vote share in the seventh-most Democratic district was 53.37%. (*Id.*) Therefore, a uniform swing of −3.37% would have been required for Republicans to lose their majority control over the congressional districts and for Democrats to win 7 of the 14 congressional seats. (*Id.*) In 2014 and 2016, Republicans also won 9 of 14 congressional districts. (*Id.*) A uniform swing of −6.45% in November 2014 and −7.79% in November 2016 would have been required for the Democrats to win one-half of the congressional districts in those elections. (*Id.*) In the November 2014 Senate election, Republicans won 27 of 38 districts, and it would have taken a uniform swing of −6.4% for Democrats to win one-half of all Senate districts. (*Id.*) Finally, in the 2012, 2014, and 2016 House elections, the Republicans won 59, 63, and 63 of Michigan's House districts, respectively. (*Id.*) For the Democrats to win one-half of all House districts, it would have taken a uniform swing of −1.04% in November 2012, −2.25% in November 2014, and −4.14% in November 2016. (*Id.*)

Based on the large uniform swings required for Democrats to win a majority of the seats in these seven state-wide elections that took place over three separate election cycles, Dr. Chen concluded that "Republican majority control" was "durable" across "a reasonable range of alternative electoral conditions." (*Id.*) In other words, given the large pro-Republican bias in the

Enacted Plan, it would take an extraordinarily strong showing by Democrats to unseat the Republican majority.

e. Single District Comparisons

Dr. Chen also compared the partisanship of the districts in the Enacted Plan to the partisanship of the corresponding districts in his alternative, simulated maps. By comparing the partisanship of the actual and simulated districts, Dr. Chen determined whether the districts in the Enacted Plan constitute "partisan outliers." Specifically, he evaluated whether the districts in the Enacted Plan are "packed" and/or "cracked" to favor Republicans. "Packing" involves filling a district with a supermajority of members of a disfavored political party. *Vieth*, 541 U.S. at 287 n.7. "Cracking" involves dispersing members of a disfavored party among several districts to deny that party a majority in any of those districts. *Id.*

At first glance, it might appear perplexing that a dominant party would deliberately pack a large majority of members of the disfavored party into a small number of districts, thereby guaranteeing that the disfavored party would win those districts handily. However, upon closer examination, that strategy can prove quite effective for the party in power, if it chooses to use its power for nefarious ends; by packing a large proportion of the disfavored party's voters into a small number of districts, the dominant party can crack (i.e., disperse) the remaining members of the disfavored party across many districts such that the disfavored party can never obtain a majority of votes in those districts. While the disfavored party will consistently prevail by large margins in the small number of districts where its members are packed, it will inevitably lose, albeit by somewhat lesser margins, across the larger number of districts where its members are cracked. Through packing and cracking, a dominant party can prevent a disfavored party from ever obtaining a majority of the seats in a legislature or congressional delegation.

Dr. Chen compared the individual districts under the Enacted Plan and the simulated plans in two ways. First, Dr. Chen aligned the districts from least to most Republican. (*Id.* at 54.) Then, he compared the partisanship of the most Republican congressional district from the Enacted Plan to the most Republican district from each of the 1,000 simulated congressional plans. (*Id.*) Dr. Chen subsequently compared the second-most Republican congressional district in the Enacted Plan to the second-most Republican congressional district in the simulated plans, and so forth. (*Id.*) Dr. Chen also applied the same procedure to the Senate and House districts. (*Id.*)

Second, Dr. Chen compared the districts under the Enacted Plan and the simulated maps using district geography. (*Id.*) Dr. Chen compared each district under the Enacted Plan to the district from the simulated plans that overlaps with it the most. (*Id.*) Comparing geographically-overlapping districts in this way allowed Dr. Chen to "identify partisan differences" between the Enacted Plan and the simulated districts "in terms of how each region in Michigan is districted." (*Id.*) When a district under the Enacted Plan is a partisan outlier compared to the simulated districts that cover the same geographic area, Dr. Chen inferred that the district's boundaries were manipulated in violation of the Apol criteria, Michigan's non-partisan statutory redistricting guidelines. *See* Mich. Comp. Laws § 3.63; Mich. Comp. Laws § 4.261.

Using these methods to compare individual districts, Dr Chen determined whether the districts in the Enacted Plan constitute partisan outliers. (Chen Report at 55.) As discussed above, Dr. Chen labeled a district a "partisan outlier" if the partisan composition of that district falls outside the middle 95% of the simulated, geographically-overlapping districts drawn without partisan intent. (*Id.*) Dr. Chen concluded that Congressional Districts 1, 4, 5, 8, 9, 10, 11, and 12; Senate Districts 8, 9, 18, 22, 24, 27, and 32; and House Districts 11, 12, 14, 16, 19, 20,

21, 30, 31, 32, 36, 43, 44, 45, 51, 52, 53, 55, 57, 60, 62, 63, 65, 69, 75, 76, 80, 87, 91, 92, 94, 98, 103, 105, 106, and 107 are partisan outliers. (*Id.* at 56.) Dr. Chen determined that these districts "are the most effectively cracked and packed districts" in the Enacted Plan. (*Id.*)

f. Criticisms

Congressional and State House Intervenors argue that Dr. Chen's expert evidence is unreliable because he misapplied the Apol criteria in two respects. (Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #10986.) First, they argue that when he conducted his simulations, Dr. Chen considered the Apol criteria to be absolute, which they contend is contrary to the Michigan State Supreme Court's ruling in *LeRoux v. Secretary of State*, 465 Mich. 594, 615 (2002) (*Id.*). We are skeptical about the validity of *LeRoux*'s holding. In *LeRoux*, the Michigan Supreme Court decided that the 2001 Michigan legislature was not required to follow the guidelines set forth in Mich. Comp. Laws § 3.63 that were adopted by the 1999 Michigan legislature. (*Id.*) This holding conflicts with the plain language of Mich. Comp. Laws § 3.63, which provides that Michigan's redistricting plans can "only" be drawn using the guidelines set forth in that statute. However, regardless of the validity of *LeRoux*'s holding, *LeRoux*, as a state court case, does not insulate the Enacted Plan from Plaintiffs' claims alleging a violation of the United States Constitution. *See* U.S. Const. art. VI, cl. 2. ("This Constitution . . . shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.")

Intervenors also assert that Dr. Chen's methodology and data is flawed because he improperly applied the Apol criteria in creating his simulations. They claim that Dr. Chen's algorithm failed to follow the Apol requirement that, when choosing between two townships or municipalities to shift, the one with the lesser population shall be shifted, and that his algorithm improperly always favored compactness, not just in the limited circumstances required by the

Apol criteria. (Cong. and State House Intervenors' Proposed Conclusions of Law, ECF No. 258 at PageID #11107–11; Senate Intervenors' Proposed Conclusions of Law, ECF No. 254 at PageID #10373–76.) Simultaneously to arguing that Dr. Chen's algorithm applied the *wrong* Apol criteria, Senate Intervenors argue that Dr. Chen's simulations are flawed because his algorithm applied the Apol criteria *too strictly* and failed to appreciate that they "are only guidance, not mandatory." (Senate Intervenors' Proposed Conclusions of Law at PageID #10376.) In other words, they contend that Dr. Chen's simulations are irrelevant because they failed to account for map-maker discretion and the political considerations that factored into the creation of the Enacted Plan. (*Id.*)

Intervenors cannot have it both ways. They cannot convincingly argue both that Dr. Chen's algorithm is flawed because it failed to properly apply the mandatory Apol criteria, and because it erroneously considered the Apol criteria as binding when, in fact, they are merely non-binding guidelines that the map-drawers may discard whenever they desire. Further, the map-makers did not scrupulously follow the Apol criteria when drawing the districts in the Enacted Plan. Instead, they drew districts with the predominant purpose of advantaging Republicans and disadvantaging Democrats. The map-makers regularly discarded the Apol criteria to achieve their aim of entrenching Republicans in power. In fact, Timmer—the congressional map-drawer—testified that "a legislator can take into account any political consideration they like in drawing these maps." (Timmer Trial Tr., ECF No. 250 at PageID #9304:24–9305:2) (emphasis added). Further, Intervenors have not presented any evidence that Dr. Chen's conclusions would be any different if his algorithm perfectly applied the Apol criteria. Under these circumstances, the fact that Dr. Chen's algorithm may not have flawlessly followed the Apol criteria does not

diminish the value of Dr. Chen's simulations or undermine the validity of his conclusion that the Enacted Plan is a partisan gerrymander.

Intervenors additionally contend that Dr. Chen's data is flawed because he erroneously used Voter Tabulation Districts ("VTDs") as the "building blocks" of his simulations, while the map-makers used census tracks and census blocks. (Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #10989; Senate Intervenors' Proposed Findings of Fact, ECF No. 255 at PageID #10423–24.) Census block data changes every ten years following the release of the U.S. census data, while precinct level data is adjusted every two years by the local election clerks within their respective jurisdictions. (Timmer Trial Tr., ECF No. 250 at PageID #9282:9–25.) According to Timmer, the census block data is more static and neutral than the precinct level data. (*Id.* at PageID #9283:12.) However, Timmer testified that he has never "actually calculated what percentage difference" using VTDs instead of census data "actually makes." (*Id.* at PageID #9299:23–25.) Further, Intervenors have not presented any evidence to support their assertion that Dr. Chen's using VTDs rendered his simulations inaccurate. Nor have they provided any reason for this Court to believe that Dr. Chen's algorithm would have produced materially different results had he had used census block data in his simulations. Accordingly, we reject Intervenors' argument that Dr. Chen's using VTDs instead of census data undermines his findings.

Yan Liu, Ph.D.,[24] ("Dr. Liu"), Defendants' expert, articulated several criticisms of Dr. Chen's findings, which the Congressional and State House Intervenors separate into three

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[24] Dr. Yan Liu is a Senior Research Programmer at the National Center for Supercomputing Applications at the University of Illinois at Urbana-Champaign. He received his B.S. in Computer Science from Wuhan University, his M.E. in Computer Engineering from Wuhan University, his M.C.S. in Computer Science from the University of Iowa, and his Ph.D. in Informatics from the University of Illinois at Urbana-Champaign. He has published more than forty research articles that are primarily in computer and computational sciences and the

categories. (*See* Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #10990.) First, Dr. Liu criticizes Dr. Chen's entire simulation methodology.[25] (Liu Report at 27.) Second, Dr. Liu claims that Dr. Chen's compactness analysis is flawed because he uses the Reock measure of compactness, which is not the compactness measure required by Michigan law, and because it is unclear whether there is a substantively meaningful difference between the compactness of the Enacted Plan and Dr. Chen's simulated maps. (*Id.* at 11–14.) Third, Dr. Liu asserts that Dr. Chen failed to provide him with a copy of the source code used to create his simulations, which would have allowed Dr. Liu to evaluate Dr. Chen's algorithm and "critique additional flaws as to his methodology." (*Id.* at 25.)

The Court finds that Dr. Chen's data is reliable notwithstanding Dr. Liu's criticisms. Dr. Chen's data has been peer reviewed, published in academic journals, and deemed credible and admissible in several other redistricting cases. Further, Dr. Liu has not shown that Dr. Chen's data would produce alternate results if Dr. Chen's methodology were altered in the manner that Dr. Liu suggests. Moreover, Dr. Liu has neither personally generated any simulated maps nor evaluated the partisanship of Michigan's maps under the Enacted Plan. Dr. Liu's examination of Dr. Chen's simulated maps merely consisted of an "eyeball assessment." (*Id.* at 12.) Regarding

interdisciplinary science domains of scientific computing, geographic information science, and operations research. He specializes in developing scalable spatial analysis and optimization algorithms. (*See* Liu Report at 1.)

[25] Specifically, Dr. Liu contended that Dr. Chen's methodology was unreliable because: (1) he did not provide a proper comparison set to prove that his data was reliable because the set that he did put forward was too small and was not a random sample; (2) his algorithm does not yield a random sample and consequently produced biased results; (3) he lacks a theoretical basis for his work in either his statistical or operations research, and cannot make claims about optimization, outliers, or statistical certainty in his analysis; (4) he problematically conflated small numerical differences as substantively important findings; (5) he presented his results in a misleading manner by playing with the presentation of the plots; (6) his argument for how to determine if a plan is drawn with partisan intent is logically flawed; and (7) he made numerous errors throughout his analysis, including inconsistencies in his tables and in describing which data set was being used. (Liu Report at 27.)

Dr. Chen's source code, Dr. Chen testified that he provided the final computer-readable code that he used to run his simulations and a near-final version of the source code, which was structurally identical and substantially the same as the source code that was compiled to create the simulated maps. (Chen Dep. at 50:4–52:7.) Dr. Liu contends that if he had access to a version of Dr. Chen's source code that was more easily readable, he *could have* found other "flaws" in Dr. Chen's methodology. But there is no evidence that Dr. Chen's findings were erroneous in any way, or that Dr. Liu *would* have found that Dr. Chen's methodology lacked credibility. Dr. Chen's findings are not excludable merely because Dr. Liu did not receive Dr. Chen's source code in the exact format that would have been ideal for Dr. Liu.

2. Dr. Christopher Warshaw[26]

Plaintiffs next expert, Christopher Warshaw, Ph.D. ("Dr. Warshaw"), evaluated the partisanship of the Enacted Plan using three different statistical measures: the efficiency gap, median-mean difference, and declination. (Warshaw Report at 6–12.) He also used a historical lens to evaluate the degree of partisan bias in the Enacted Plan. Like Dr. Chen, Dr. Warshaw concluded that the Enacted Plan strongly and systematically advantages Republicans and disadvantages Democrats. (*Id.* at 4–5.)

a. Efficiency Gap

i. Congressional Plan

Dr. Warshaw found that, in recent congressional elections, Michigan had a pro-Republican efficiency gap that is extreme compared to its own historical efficiency gaps and the

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[26] Dr. Christopher Warshaw is an Assistant Professor of Political Science at George Washington University. Previously, he was an Associate and Assistant Professor at the Massachusetts Institute of Technology. He received his B.A. in Economics and Political Science from Williams College, his J.D. from Stanford Law School, and his Ph.D. in Political Science from Stanford University. His work has been published in numerous peer-reviewed journals. He previously provided an expert report in *League of Women Voters of Pennsylvania v. Commonwealth of Pennsylvania*. (Warshaw Report at 1–4; 60–64.)

historical efficiency gaps in other states. (*Id.* at 16–19.) Dr. Warshaw reported that the efficiency gaps in Michigan's past three congressional elections "were among the most Republican-leaning efficiency gaps the nation has ever seen." (*Id.* at 17.)

For example, in the 2012 Michigan congressional election, there was a pro-Republican efficiency gap of approximately −19.7%. (*Id.* at 17.) Democrats wasted over 1.5 million votes, while Republicans wasted only 650,000 votes. (*Id.*) Republicans' greater efficiency at translating their votes into seats resulted in their enjoying 64.3% of the congressional seats despite earning only 47.3% of the vote. (*Id.*)

The 2014 and 2016 Michigan congressional elections also had efficiency gaps that greatly advantaged Republicans. These elections had efficiency gaps of approximately −16% and −13.2%, respectively. (*Id.* at 18) In these elections, Republicans won 64.3% of Michigan's congressional seats, even though they lost the statewide vote in 2014 and only narrowly earned the statewide vote in 2016. (*Id.*) Dr. Warshaw explained that these efficiency gaps "imply that Republicans in Michigan won 2-3 more seats in these elections than they would have won if Michigan had no partisan bias in its [e]fficiency [g]ap." (*Id.*)

Overall, Dr. Warshaw found that the efficiency gaps in Michigan were similar to the efficiency gaps of other states until the Enacted Plan came into effect. (*Id.* at 19.) However, "[a]fter the most recent redistricting, Michigan had more extreme pro-Republican [e]fficiency [g]aps than it has ever had before." (*Id.*) According to Dr. Warshaw, the 2012 efficiency gap in Michigan's congressional elections was "more extreme than 95% of previous plans in states with more than six seats over the past 45 years, and it was more Republican-leaning than 98% of previous congressional districting plans." (*Id.*)

Using the efficiency gap measure, Dr. Warshaw concluded that the Enacted Plan's congressional maps have one of the largest partisan biases of any congressional districting plan in history. (*Id.*) He further found that the extreme pro-Republican advantage in Michigan's congressional districts, which manifested immediately after the Enacted Plan was implemented, is unlikely to have been caused by political geography. (*Id.*)

ii.   Senate and House Plans

Dr. Warshaw found that the efficiency gaps in Michigan's House and Senate districts during the 2012, 2014, and 2016 elections were among the most pro-Republican efficiency gaps in history. (*Id.* at 33.) For example, in the 2012 House elections, Democratic candidates earned 54% of the votes but only gained 46% of Michigan's House seats, which yielded a pro-Republican efficiency gap of approximately −12.3%. (*Id.* at 34.) In the 2014 Senate elections, Democrats received about 49% of the votes but only 29% of the Senate seats, which yielded a pro-Republican efficiency gap of almost −20%. (*Id.* at 33–34.)

When considered in a historical context, the pro-Republican efficiency gaps in Michigan's Senate and House plans are as problematic as the pro-Republican efficiency gaps in Michigan's congressional plan. Dr. Warshaw explained that Michigan's 2014 Senate election had a larger pro-Republican efficiency gap than 99.7% of the of the state senate elections over the past fifty years. (*Id.* at 36.) He also found that Michigan's House election in 2012 had a larger pro-Republican efficiency gap than 98% of the state house elections over the past 50 years and had a "larger absolute bias" than 91% of previous plans. (*Id.* at 35.)

b. Median-mean Difference[27]

Dr. Warshaw's median-mean analysis also demonstrates that the Enacted Plan strongly favors Republicans. Dr. Warshaw found that, in the 2012 congressional election, there was a 6.9% pro-Republican bias in the partisan composition of the median congressional district compared to the "average" congressional district. (*Id,* at 19.) This was "more extreme than the median-mean difference in 78% of previous elections and more pro-Republican than the median-mean difference in 89% of previous [congressional] elections." (*Id*.) Furthermore, like Dr. Chen, Dr. Warshaw found that the Enacted Plan packed Democratic voters into 5 congressional districts, which Democratic candidates generally won by "overwhelming margins," and cracked the remaining Democratic voters across the other 9 congressional districts. (*Id.* at 9–10.)

Dr. Warshaw concluded that the median-mean differences in Michigan's Senate and House districts are similarly extreme. For example, the median-mean difference in Michigan's 2014 Senate election was more extreme than in 95% of previous state senate elections nationwide. (*Id.* at 36.) And in the three House elections that took place between 2012 and 2016, the median-mean difference was greater than in 97% of previous state house elections. (*Id.*)

c. Declination

As Dr. Warshaw explains, the declination metric assumes "that a plan drawn with the intent to advantage one party will arrange the distribution of district vote shares in a way that treats the 50 percent threshold for victory differently than other vote values." (*Id.* at 10.) If all the districts in a plan drawn without partisan intent are lined up from the least Democratic to the most Democratic, "then the mid-point of the line formed by one party's seats should be about as far from 50 percent on average as the other party's." (*Id.*) If a plan is not deliberately drawn to

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[27] Throughout Dr. Warshaw's report, he refers to this metric as the "mean-median" measure. To avoid confusion, the Court refers to this metric as the "median-mean" measure as Dr. Chen does in his report.

favor one party over the other, the angles of the lines representing each parties' mean vote share in each district should be roughly equal. (*Id.* at 11.) When the lines deviate from each other, the smaller angle will "generally identify the favored party." (*Id.*) In Michigan, the line representing Republicans' mean vote share across congressional elections has a much smaller angle than that representing Democrats' mean vote share, indicating that the Enacted Plan's congressional districts favor Republicans. (*Id.*)

Dr. Warshaw notes that one weakness of the declination approach is that it lacks a "clear interpretation in terms of the number of seats that a party gains through gerrymandering." (*Id.* at 15.) However, Dr. Warshaw also explains that some scholars claim that it represents a better measure of intent in the gerrymandering process than the efficiency gap. (*Id.*) Additionally, declination is arguably less sensitive to the outcome of close elections than the efficiency gap or the median-mean difference. (*Id.*)

The declination measure demonstrates that the Enacted Plan favors Republicans. Michigan's 2012 congressional election had a declination score that was more extreme than 91% of previous congressional elections and more pro-Republican than 96% of previous congressional elections over the past 45 years. (*Id.* at 20.) Michigan's 2014 Senate election had a more extreme declination value than 96% of previous state senate elections and a larger pro-Republican declination value than 99% of the previous state senate elections. (*Id.* at 36.) Similarly, Michigan's 2012 House election had a more extreme declination value than 90% of previous state house elections and a larger pro-Republican declination value than 97% of the previous state house elections. (*Id.*) Therefore, like the efficiency gap and the median-mean difference, the declination metric indicates that the Enacted Plan strongly advantages Republicans and disadvantages Democrats.

d. Review of Dr. Chen's Simulations

In addition to conducting his own analysis, Dr. Warshaw reviewed Dr. Chen's findings. Dr. Warshaw created charts comparing the partisanship of each Individual Plaintiff and League Member's district under the Enacted Plan to the partisanship of that same district under Dr. Chen's simulations. (*See* Pls.' Trial Ex. 278.) The charts contain red X's showing the partisanship of each current district and gray bars denoting Dr. Chen's simulated districts for each Individual Plaintiff and League Member's current address under each type of map, congressional, Senate, and House. (Warshaw Trial Tr., ECF No. 248 at PageID #8824:20–23.) By comparing the red X's to the gray bars, Dr. Warshaw determined whether a district under the Enacted Plan falls within the range of simulated districts drawn without partisan intent that include that same Individual or League Plaintiff's address. (*Id.* at PageID #8824:24–8825:2.)

Dr. Warshaw explained that if a district under the Enacted Plan falls outside the range of simulated districts, its partisan composition is extremely unlikely to have occurred by chance. (*Id.* at PageID #8825:11–14.) However, the mere fact that a district falls within Dr. Chen's simulations does not indicate that the district was drawn without partisan intent. For example, if a district falls within only a small number of Dr. Chen's simulations, it could still exhibit "more extreme partisanship than 99 percent of Dr. Chen's simulations." (*Id.* at PageID #8918:14–19.) Thus, if a current district falls along the outer range of Dr. Chen's simulated districts, it is extremely unlikely that that the district's partisan composition occurred by chance. (*Id.* at PageID #8918:2–5.)

Dr. Warshaw determined that many of the Enacted Plan's districts contained pro-Republican partisan compositions that fall completely outside the range of Dr. Chen's simulated districts. (Pls.' Trial Ex. 278.) At trial, Dr. Warshaw used Plaintiff Rosa Holliday, who resides in Congressional District 5, as an example of this phenomenon. Dr. Warshaw explained that none

of the 1,000 simulated congressional districts containing Holliday's address were as heavily Democratic as the district in which she lives, indicating that Congressional District 5 "packs" Democratic voters. (Warshaw Trial Tr., ECF No. 248 at PageID #8826:14–18.)

Dr. Warshaw also found that the partisanship of some districts lies within, but at the extreme outer ranges of, the partisanship of Dr. Chen's simulated districts. At trial, Dr. Warshaw used Plaintiff Karen Sherwood, who lives in Congressional District 4, as an example of this phenomenon. Dr. Warshaw explained that while Congressional District 4, as currently drawn, is within the range of Dr. Chen's simulations for districts containing Sherwood's address, Congressional District 4's partisanship is "certainly more extreme than the vast majority" of simulated districts. (*Id.* at PageID #8827:17–8828:7.) Dr. Warshaw testified that the 4th Congressional District's partisanship is more extreme than 95% of the simulated congressional districts, indicating that its partisan composition is very unlikely to have occurred by chance. (*Id.* at PageID #8828:8–14.)

e.   Criticisms

The Congressional and Senate Intervenors attempt to discredit Dr. Warshaw's findings, but the Court is not convinced that his results are unreliable. Their first critique is that the efficiency gap is not a dependable measure because it has been criticized by some political scientists. (Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #11008–9; Senate Intervenors' Proposed Findings of Fact, ECF No. 255 at PageID #10421.) The Court is not swayed by this argument. Contrary to Intervenors' assertion, recent literature has characterized the efficiency gap metric as a "powerful way" to evaluate the existence of partisan gerrymandering.[28] Furthermore, as noted above, Dr. Warshaw does not rely

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[28] *See, e.g.*, Warshaw Report at 6 (citing recent scientific literature that supports the efficacy and use of the efficiency gap to measure partisan gerrymandering).

on the efficiency gap in isolation. He compares the efficiency gap of the Enacted Plan to historical measures of the efficiency gap. He also uses the median-mean difference and the declination metric. Each comparison and metric strongly supports his conclusion that the Enacted Plan advantages Republicans and disfavors Democrats.

Next, the Congressional and State House Intervenors challenge the legitimacy of Dr. Warshaw's two other measures—median-mean difference and declination. The Congressional and State House Intervenors argue that these measures have not been widely accepted in the political science community and urge the Court to consider them flawed. (Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #11018–20.) In support of their contention, Congressional and State House Intervenors cite to sections of Dr. Warshaw's deposition testimony where he discusses criticisms of these two measures that have been voiced in some scientific publications. (Warshaw Dep. at 171:5–7; 177:3–8.) However, Congressional and State House Intervenors conveniently fail to cite other parts of Dr. Warshaw's deposition testimony where he explains why the criticisms concerning the median-mean difference and declination measures do not undermine his conclusions in this case. Dr. Warshaw explains that "it's important to remember that the measure you use is relatively unimportant . . . at the end of the day all these measures of gerrymandering are extremely highly correlated, particularly in states like Michigan with competitive elections." (*Id.* at 167:2–12.)

Dr. Warshaw's point, with which the Court agrees, is that while one could reasonably criticize certain aspects of each measure used to evaluate partisan gerrymandering, these criticisms do not diminish Plaintiffs' experts' findings given that all of the measures they use uniformly and unequivocally point to the same conclusion: the Enacted Plan strongly, and systematically, advantages Republicans and disadvantages Democrats.

3. Dr. Kenneth Mayer[29]

Plaintiffs' last expert, Kenneth Mayer, Ph.D., ("Dr. Mayer"), evaluated whether the Enacted Plan constituted an extreme partisan gerrymander. (Mayer Report at 3.) Dr. Mayer used various metrics to analyze the partisanship of Enacted Plan, namely: (1) partisan bias;[30] (2) partisan symmetry;[31] (3) efficiency gap; (4) median-mean difference; and (5) declination.[32] Like the evidence presented by Plaintiffs' other experts, Dr. Mayer's statistical analyses all indicate that the Enacted Plan constitutes a pro-Republican partisan gerrymander.

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[29] Dr. Kenneth Mayer is a Professor of Political Science at the University of Wisconsin, Madison. He received his B.A. in Political Science from the University of California, San Diego, his M.A. and M.Phil. from Yale University, and his Ph.D. in Political Science from Yale University. He has served as an expert witness in approximately five cases regarding redistricting. (*See* Mayer Report at 96–107.)

[30] Dr. Mayer explained that, to calculate the partisan vote-bias, "n, the number of districts a party must win to obtain a majority, will be $i = (n+1)/2$ rounded up to the nearest integer. If the districts are sorted in ascending order of the vote share of the minority party, the ith district will be the pivotal district. Subtracting the vote share in this district from 0.5, and adding the result to the aggregate vote share that party received, will show the statewide vote share that the minority party would need to win in order to gain a majority of seats, assuming a uniform swing." (Mayer Report at 17 (footnotes omitted).)

[31] Dr. Mayer stated that partisan symmetry is calculated by "using the results from an election or a measure of baseline partisanship, [and] calculat[ing] the aggregate vote share and seat share for the party holding a majority of the seats. Then[,] conduct[ing] a uniform swing analysis, shifting the statewide vote by the amount needed to give the other party the equivalent vote share, and applying the shift in each district, determining the winner of each district election at the shifted vote percentage. If both parties have the same share of seats at the equivalent vote share, the electoral system is symmetric. If not, the difference in seat shares obtained at the same vote share is a measure of symmetry." (Mayer Report at 19.)

[32] Dr. Mayer relied on the data file that was provided to him that has one observation for each of Michigan's 329,885 census blocks, and includes population, VTD assignments, district assignments to Michigan's current congressional, Senate, and House districts, and data allocating to each block Democratic and Republican votes in a series of statewide elections. (Mayer Report at 28.) The election data that Dr. Mayer used was aggregated from the stipulated data into baseline measures by Dr. Chen. While Dr. Mayer analyzed statewide election data from between 2006 and 2010 and between 2012 and 2016, the Court only discusses his data from 2012 to 2016.

a.   Partisan Bias and Partisan Symmetry

i.   Congressional Map

Dr. Mayer found that in the congressional elections that took place from 2012 to 2016, the partisan bias was −16.6%, which when adjusted to 50% of the statewide vote using a uniform swing analysis, becomes −14.3%. (Mayer Report at 30–31.) In other words, if Republicans won 50% of the statewide vote under the Enacted Plan, they would be estimated to win approximately 64.3% of the congressional seats. (*Id.*) Dr. Mayer further found that, to win a majority of the congressional seats under the Enacted Plan, Democrats would need to win 57.5% of the statewide vote. (*Id.* at 30.) This is in stark contrast to Republicans, who won 9 of the 14 congressional seats (64.3%) in each election between 2012 and 2016 despite never securing more than 50.5% of the statewide vote. Dr. Mayer also determined that if the Republicans received the same percentage of the statewide vote as Democrats across these congressional elections, they would have won 9 seats compared to the 5 seats that the Democrats won. (*Id.*)

ii.   Senate Map

Dr. Mayer found that during the 2014 Senate elections, the partisan bias of the Senate map was −15.5%, which when adjusted to 50% of the statewide vote using a uniform swing analysis, becomes −15.8%. (*Id.* at 50.) In other words, even if Republicans only won 50% of the vote, they were estimated to win approximately 65.8% of the Senate seats. (*Id.*) Dr. Mayer also found that, if Republicans received the same percentage of the aggregate vote as Democrats received in the 2014 Senate election, they would have won 27 seats compared to the 14 that Democrats won. (*Id.*)

iii.   House Map

Dr. Mayer found that during the House elections that took place between 2012 and 2016, the partisan bias of the House map was −7.8%, which when adjusted to 50% of the statewide

vote using a uniform swing, becomes −9.1%. (*Id.* at 40.) In other words, even if Republicans only won 50% of the vote, they would be estimated to win 59.1% of the House seats. (*Id.*) Dr. Mayer also found that if Republicans received the same percentage of the aggregate vote as Democrats, they would have won 70 seats compared to the 49 that Democrats won on average. (*Id.*)

b. Efficiency Gap

Dr. Mayer determined that the efficiency gap for the congressional elections held between 2012 and 2016 was "extraordinarily large and negative," meaning that it strongly favored Republicans. (*Id.* at 31–32.) Specifically, the efficiency gap for these elections was −19.7%, which translated to Republicans winning approximately 3 additional seats in each congressional election. (*Id.* at 32.) Dr. Mayer similarly found that efficiency gap for the Senate map in the 2014 elections was −19.3%. (*Id.* at 51.) He further found that efficiency gap for the House map between 2012 and 2016 was −11.9%, which indicates a pro-Republican bias that "endur[ed] over multiple election cycles." (*Id.* at 41.)

c. Median-mean Difference

Like the other statistical metrics used by Dr. Mayer, the median-mean difference demonstrates a strong pro-Republican bias across all three maps. Dr. Mayer found that the median-mean measure for the congressional, Senate, and House maps is −7.7%, −6.1%, and −6.9%, respectively. (*Id.* at 32; 42; 51.) These results indicate that the Enacted Plan weighs Republican and Democratic votes unequally. (*Id.*)

d. Declination

Dr. Mayer also found that the declination measure demonstrates the Enacted Plan's strong pro-Republican bias. According to Dr. Mayer, the declination metric for Michigan's current congressional, Senate, and House plans for 2012-2016 is 0.398, 0.380, and 0.243,

respectively. (*Id.* at 35; 44; 54.) These values suggest that the Enacted Plan cracks and packs Democrats and thus advantages Republicans. (*Id.*)

e. Criticisms

Intervenors' main criticism of Dr. Mayer's findings is that they are based on Dr. Chen's data, which Intervenors claim is unreliable. (*See, e.g.*, Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #11002–3.) However, as previously noted, Dr. Chen is widely-renowned as an expert in his field and he has provided admissible expert testimony in several redistricting cases. Furthermore, the Court has determined that Dr. Chen's data and expert findings are reliable.

Congressional and State House Intervenors also argue that the Court should disregard Dr. Mayer's findings because he relied on the efficiency gap, which they contend is an inherently flawed measure, and because Dr. Mayer's efficiency gap scores did not perfectly match those calculated by Dr. Chen. (Cong. and State House Intervenors' Proposed Findings of Fact, ECF No. 258 at PageID #11062.) But, as the Court noted above, the efficiency gap is a widely-accepted measure of partisan gerrymandering. While reasonable criticisms of the measure exist, these criticisms fail to diminish the power of Plaintiffs' experts' findings given that all the metrics unvaryingly point towards the Enacted Plan being a partisan gerrymander. The same is true with the discrepancies in Dr. Chen and Dr. Mayer's efficiency gap scores; while their scores do not perfectly match, both experts' analyses show an extremely large and durable pro-Republican efficiency gap across Michigan's congressional, Senate, and House maps. Minor inconsistencies between their data do not diminish the power of their findings, particularly given that all of Plaintiffs' experts' evidence unequivocally supports the same conclusion: the Enacted Plan profoundly, and systematically, advantages Republicans and disadvantages Democrats.

C. Summary

Based on the robust qualitative evidence of discriminatory partisan intent discussed in Part II.A, and the equally powerful quantitative evidence of discriminatory partisan intent and discriminatory partisan effects discussed in Part II.B, the Court concludes that the Enacted Plan was designed with the predominant purpose of advantaging Republicans and discriminating against Democrats. The Court further finds that the Enacted Plan achieved its intended effects because it discriminated against Democratic voters in numerous elections across multiple election cycles. Therefore, the Enacted Plan constitutes a durable partisan gerrymander.

Having made its factual findings above, the Court will now turn to the relevant legal issues.

III. LACHES

A. Introduction

Intervenors argue that the equitable doctrine of laches bars Plaintiffs claims because Plaintiffs unreasonably delayed in asserting their rights. Intervenors observe that Plaintiffs did not file suit until December 2017, over six years after passage of the Enacted Plan and after three election cycles had already been held under the Enacted Plan. (*See* Senate Intervenors' Proposed Conclusions of Law, ECF No. 254 at PageID #10382–88; Cong. and State House Intervenors' Proposed Conclusions of Law, ECF No. 258 at PageID #11148–49.) Intervenors argue that Plaintiffs should have known that the Enacted Plan constituted an alleged partisan gerrymander in June 2011 and, at the very latest, Plaintiffs knew that the Enacted Plan was an alleged partisan gerrymander in 2015 when the League hired expert witnesses to examine the issue. (Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11148–49.) They also argue that laches bars Plaintiffs' claims because any relief would require drawing new maps using

census data from 2010 which is no longer accurate. (Senate Intervenors' Proposed Conclusions of Law at PageID #10383–86.)

In response, Plaintiffs contend that laches does not apply to Plaintiffs' partisan gerrymandering claims as a matter of law because Plaintiffs are entitled to seek injunctive relief to prevent continuing constitutional harms and because the Enacted Plan causes ongoing violations of their constitutional rights. (Pls.' Proposed Conclusions of Law, ECF No. 260-1 at PageID #11480–85.) Plaintiffs alternatively argue that, even if laches applies to partisan gerrymandering claims in theory, it does not bar their claims here, because Plaintiffs acted diligently to assert their rights and because Intervenors have not demonstrated that they have suffered any prejudice because of any alleged delay. (*Id.* at PageID #11485–87.)

The Court holds that laches does not apply to Plaintiffs' partisan gerrymandering claims as a matter of law. In the alternative, the Court holds that even if laches applies to these types of claims, Intervenors have failed to establish that laches bars Plaintiffs claims in this case.

B. Legal Standard

"Where a plaintiff seeks solely equitable relief, his action may be barred by the equitable defense of laches if (1) the plaintiff delayed unreasonably in asserting his rights and (2) the defendant was prejudiced by this delay." *Am. Civil Liberties Union of Ohio, Inc. v. Taft*, 385 F.3d 641, 647 (6th Cir. 2004) (citing *Brown–Graves Co. v. Cent. States, Se. and Sw. Areas Pension Fun*d, 206 F.3d 680, 684 (6th Cir. 2000)). The Sixth Circuit has defined laches as the "'negligent and unintentional failure to protect one's rights.'" *Nartron Corp. v. STMicroelectronics, Inc.*, 305 F.3d 397, 408 (6th Cir. 2002) (quoting *Elvis Presley Enter., Inc. v. Elvisly Yours, Inc.*, 936 F.2d 889, 894 (6th Cir. 1991)).

"Laches only bars damages that occurred before the filing date of the lawsuit." *Id.* at 412 (internal citation omitted). "It does not prevent plaintiff[s] from obtaining injunctive relief or

post-filing damages." *Id.*; *see Kellogg Co. v. Exxon Corp.*, 209 F.3d 562, 568 (6th Cir. 2000) (holding that laches "does not bar injunctive relief") (citing *TWM Mfg. Co., Inc. v. Dura Corp.*, 592 F.2d 346, 349–50 (6th Cir. 1979)). Laches does not apply to ongoing or recurring harms because while "[l]aches stems from prejudice to the defendant occasioned by the plaintiff's past delay . . . almost by definition, the plaintiff's past dilatoriness is unrelated to a defendant's ongoing behavior that threatens future harm." *Danjaq LLC v. Sony Corp.*, 263 F.3d 942, 959–60 (9th Cir. 2001) (citing *Lyons P'ship, L.P. v. Morris Costumes, Inc.*, 243 F.3d 789, 799 (4th Cir. 2001)); *see also Kuhnle Bros., Inc. v. Cty. of Geauga*, 103 F.3d 516, 522 (6th Cir. 1997) (holding that "a law that works an ongoing violation of constitutional rights does not become immunized from legal challenge" merely because the plaintiff failed to sue within the applicable statute of limitations).

Notably, a recent three-judge panel in the Sixth Circuit held that laches does not apply as a matter of law to partisan gerrymandering claims. *See Ohio A. Philip Randolph Inst. v. Smith*, 335 F. Supp. 3d 988, 1002 (S.D. Ohio 2018) (three-judge panel).

C. Laches Does Not Apply as a Matter of Law Because Plaintiffs Seek to Redress Ongoing Harms and Recurring Violations of Their Constitutional Rights

The Court finds that laches does not bar Plaintiffs' claims as a matter of law. Plaintiffs seek declaratory and injunctive relief. The Sixth Circuit has held that laches does not apply to claims for prospective relief, *see Nartron Corp.*, 305 F.3d at 412 and *Kellogg Co.*, 209 F.3d at 568, and a three-judge panel in the Sixth Circuit has held that laches does not apply to allegations of partisan gerrymandering, *see Smith*, 335 F. Supp. 3d at 1002. In this case, Plaintiffs assert that the Enacted Plan has injured, and will continue to harm, their First and Fourteenth Amendment rights. They ask this Court to declare the Challenged Districts unconstitutional and enjoin their use in future elections to prevent further harm to their constitutional rights. Laches does not

apply to Plaintiffs' claims for declaratory and injunctive relief. *See Nartron Corp.*, 305 F.3d at 412; *Kellogg Co.*, 209 F.3d at 568; *Smith*, 335 F. Supp. 3d at 1002.

Our holding—that laches does not apply as a matter of law to partisan gerrymandering claims—is consistent with the Supreme Court's pronouncement, in *Bandemer*, that

> an equal protection violation may be found only where the electoral system substantially disadvantages certain voters in their opportunity to influence the political process effectively. In this context, such a finding of unconstitutionality must be supported by evidence of continued frustration of the will of a majority of the voters or effective denial to a minority of voters of a fair chance to influence the political process.

Davis v. Bandemer, 478 U.S. 109, 133 (1986). In *Bandemer*, the Supreme Court held that "[r]elying on a single election cycle to prove unconstitutional discrimination is unsatisfactory" to establish partisan gerrymandering. *Id.* Given that relying on a single election cycle is "unsatisfactory" and that plaintiffs must demonstrate a "continued frustration" to prevail on their partisan gerrymandering claims, laches cannot bar Plaintiffs' claims on the basis that they waited three election cycles to sue. *See generally*, *id*. To hold otherwise would force plaintiffs to sue after exactly two elections have been held under a challenged districting plan. This Court is not aware of any authority supporting such a rigid temporal requirement.

To argue that laches applies to Plaintiffs' claims, Intervenors unconvincingly cite cases that this Court has *already distinguished* in our opinion on summary judgment. For example, Congressional and State House Intervenors rely on *Benisek v. Lamone*, 138 S. Ct. 1942, 1944 (2018) (*see* Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11147). But as we previously stated, *Benisek* involved a preliminary injunction and did not directly address laches. *See League of Women Voters of Michigan v. Johnson*, 352 F. Supp. 3d 777, 808 (E.D. Mich. 2018) (three-judge panel). Congressional and State House Intervenors also rely on *Block v. N. Dakota ex rel. Bd. of Univ. & Sch. Lands*, 461 U.S. 273 (1983). (Cong. and

State House Intervenors' Proposed Conclusions of Law at PageID #11147.) However, as we have already observed, *Block* "is completely inapposite because it involved title to the bed of a river, not gerrymandering." *Id.* at 809. These misguided analogies to *Benisek* and *Block* failed to convince us at the summary judgment stage and similarly fail to persuade us now.

D. In the Alternative, Intervenors Have Failed to Prove Their Affirmative Defense of Laches

Even if the doctrine of laches were applicable to partisan gerrymandering claims, it would not bar Plaintiffs' claims in this case for two independently sufficient reasons. First, Plaintiffs did not unreasonably delay in asserting their rights. Second, Intervenors did not suffer prejudice from any alleged delay. *See, e.g.*, *Taft*, 385 F.3d at 647. Therefore, Intervenors have failed to establish their affirmative defense of laches. *See generally E.E.O.C. v. Watkins Motor Lines, Inc.*, 463 F.3d 436, 439 (6th Cir. 2006) ("As laches is an affirmative defense, the burden of establishing both of these elements is on the party raising the defense.")

Plaintiffs did not unreasonably delay in asserting their rights. *See Taft*, 385 F.3d at 647. The three election cycles that occurred under the Enacted Plan before Plaintiffs filed their lawsuit solidified Plaintiffs' concerns that the Enacted Plan is a partisan gerrymander and added legitimacy and support to Plaintiffs' legal claims. Given that the Supreme Court has held that relying on a single election cycle is "unsatisfactory" to prove partisan gerrymandering, Plaintiffs did not act unreasonably by waiting until three elections had been held to sue. Furthermore, this is an evolving area of the law that has experienced significant developments in recent years; it was not unreasonable for Plaintiffs to wait to sue until the law in this area had developed sufficiently to allow Plaintiffs to articulate and support their partisan gerrymandering claims. Intervenors have therefore failed to satisfy their burden of proving that Plaintiffs unreasonably delayed in asserting their rights. *Id.*

Additionally, Intervenors have not demonstrated that they suffered prejudice because of any delay in Plaintiffs' decision to sue. *See id*. In support of their assertions of prejudice, Intervenors posit that, because of Plaintiffs' alleged delay, witnesses might have failed to remember certain events and may have lost emails and other documents. (Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11148; Senate Intervenors' Proposed Findings of Fact, ECF No. 255 at PageID #10447–48.) However, Intervenors have failed to substantiate these amorphous allegations. They argue, in a speculative and conclusory fashion, that "they were unable to potentially mount as vigorous [a] defense" as they would have had Plaintiffs sued sooner (Senate Intervenors' Proposed Findings of Fact at PageID #11148), but they have not explained with any particularity which emails, documents, and conversations were lost to the passage of time or how access to these materials would have helped them defend against Plaintiffs' claims. Further, Intervenors undoubtedly benefitted from the fact that Plaintiffs did not sue until 2016 insofar as, to date, four election cycles have been held under the Enacted Plan. Intervenors have therefore failed to satisfy their burden of proving that they suffered prejudice because of Plaintiffs' alleged delay. *Id.*

Intervenors have failed to prove their affirmative defense of laches. Even if laches applied to partisan gerrymandering claims, it would not bar Plaintiffs' claims in this case.

IV. JUSTICIABILITY AND SUBSTANTIVE STANDARDS

The Supreme Court has held that partisan gerrymandering claims are justiciable. *See Bandemer*, 478 U.S. at 127 (holding that partisan gerrymandering claims present justiciable controversies under the Equal Protection Clause of the Fourteenth Amendment). It is true that, in *Bandemer*, the Supreme Court "could not . . . settle on a standard for what constitutes an unconstitutional partisan gerrymander." *Gill*, 138 S. Ct. at 1927 (discussing *Bandemer*, 478 U.S.

at 125, 127). Nonetheless, the Supreme Court has never overturned *Bandemer*'s holding that political gerrymandering claims are justiciable. In *Vieth*, a four-justice plurality would have overturned *Bandemer* because they believed that a judicially-manageable standard does not exist to analyze claims of partisan gerrymandering. *Vieth*, 541 U.S. at 288–91; 305–07. However, Justice Kennedy, who concurred in the judgment, refused to hold that partisan gerrymandering claims are categorically non-justiciable and reaffirmed that *Bandemer* constitutes "controlling precedent on the question of justiciability." *Id.* at 310 (Kennedy, J., concurring in the judgment) (stating that "[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"). The Supreme Court declined to reconsider *Bandemer*'s holding in its most recent decisions involving partisan gerrymandering, *League of United Latin Am. Citizens v. Perry*, 548 U.S. 399 (2006) and *Gill*, 138 S. Ct. 1916.

In recent years, several three-judge panels have held that partisan gerrymandering claims are justiciable. *See, e.g.*, *Ohio A. Philip Randolph Inst. v. Householder*, No. 1:18-CV-357, 2019 WL 652980, at *2–7 (S.D. Ohio Feb. 15, 2019) (three-judge panel); *Rucho*, 318 F. Supp. 3d at 838; *see Benisek*, 348 F. Supp. 3d at 513; *see also Shapiro*, 203 F. Supp. 3d at 594. And lower federal courts have formulated judicially-manageable standards for adjudicating partisan gerrymandering claims. *Householder*, 2019 WL 652980, at *3–4 (explaining that federal courts have "converged considerably on common ground in establishing standards for determining whether a partisan gerrymander is unconstitutional"). In these cases, federal courts have largely agreed on a three-part framework for evaluating the constitutionality of alleged partisan gerrymanders whereby, to prevail, Plaintiffs must demonstrate: (1) discriminatory partisan intent,

(2) discriminatory partisan effects, and (3) causation and/or a lack of justification. *See id.* at *4 (applying three-part discriminatory partisan intent, discriminatory partisan effects, and lack of legitimate justification test for Fourteenth Amendment and First Amendment claims); *Rucho*, 318 F. Supp. 3d at 860–68 (articulating three-part discriminatory intent, discriminatory effects, and lack of justification test for Fourteenth Amendment claims and a similar three-part test for First Amendment claims); *Benisek*, 348 F. Supp. 3d at 515 (formulating a three-part discriminatory intent, discriminatory effects, and causation test for First Amendment claims); *Shapiro*, 203 F. Supp. 3d at 598 (using a three-part intent, effects, and causation standard for First Amendment claims).

In keeping with these other federal courts, we previously determined, at the summary judgment stage, that judicially-manageable standards exist to adjudicate Plaintiffs' partisan gerrymandering claims under the three-part discriminatory intent, discriminatory effects, and lack of justification test. *See Johnson*, 352 F. Supp. 3d at 804–05.

We will evaluate Plaintiffs' Fourteenth Amendment Equal Protection claims under the standard articulated by the *Rucho* panel. *Id.*; *see Rucho*, 318 F. Supp. 3d at 860–68. Under this framework, Plaintiffs bear the burden of establishing 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,'"[33] *see Rucho*, 318 F. Supp. 3d at 864 (quoting *Ariz.*

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[33] We previously explained why we will employ the "predominant purpose" test to analyze the "intent" prong of the three-part standard:

> The Court will evaluate the intent prong using the "predominant purpose" test, under which "a congressional district amounts to an unconstitutional partisan gerrymander *only if* the legislative body's *predominant* purpose in drawing the district was to subordinate the interests of supporters of a disfavored party and entrench a representative from a favored party in power." *Id.* at 852 (emphasis in

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 Gill*, 138 S. Ct. at 1931 and *Ariz. State Leg.*, 135 S. Ct at 2658. If Plaintiffs establish these elements, the burden shifts to Intervenors to show "that a legitimate state interest or other neutral factor justified such discrimination." *Id.* (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) (applying burden-shifting framework to one-person, one-vote claims)).

We will apply a similar three-part test for adjudicating Plaintiffs' First Amendment claims. *Johnson*, 352 F. Supp. 3d at 805–07. Under this framework, Plaintiffs bear the burden of establishing three elements: (1) that the districts were drawn with the "'specific intent' to 'burden individuals or entities that support a disfavored candidate or political party,'" *id.* at 807 (quoting *Shapiro*, 203 F. Supp. 3d at 597 and *Rucho*, 318 F. Supp. 3d at 929); (2) that the Enacted Plan "actually caused an injury" and "'burdened the political speech or associational rights of such individuals or entities,'" *id.* (quoting *Rucho*, 318 F. Supp. 3d at 929); and (3) causation, namely that "'absent the mapmakers' intent to burden a particular group of voters by reason of their

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original). The Court adopts the "predominant purpose" test because, in *Gill*, the Supreme Court directly analogized partisan gerrymandering claims and racial gerrymandering claims, *see Gill*, 138 S. Ct. at 1930, and because federal courts regularly apply the "predominant purpose" standard to racial gerrymandering claims. *See, e.g.*, *Bethune-Hill v. Virginia State Bd. of Elections*, ⸺ U.S. ⸺, 137 S. Ct. 788, 797, 197 L.Ed.2d 85 (2017); *Alabama Legislative Black Caucus v. Alabama*, ⸺ U.S. ⸺, 135 S. Ct. 1257, 1270, 191 L.Ed.2d 314 (2015); *Miller v. Johnson*, 515 U.S. 900, 916, 115 S. Ct. 2475, 132 L.Ed.2d 762 (1995).

Johnson, 352 F. Supp. 3d at 804–05.

views, the concrete adverse impact would not have occurred.'" *Id.* (quoting *Shapiro*, 203 F. Supp. 3d at 598).

Before analyzing the merits of Plaintiffs' claims, we observe that the fact that Plaintiffs' rely on social-scientific data to *support* their claims does not render their claims non-justiciable. Plaintiffs do not ask the Court to derive a substantive standard from their statistical evidence or constitutionalize their empirical methodologies. Rather, Plaintiffs offer robust social science *evidence* to support their constitutional claims—*i.e.*, as *evidence* to prove their allegation that the Enacted Plan violated their constitutional rights.

There is nothing unusual about this approach. "Courts routinely utilize statistical analyses in other contexts, including the similar context of racial vote-dilution cases under the [Voting Rights Act]." *Householder*, 2019 WL 652980, at *8. Furthermore, the Supreme Court has long "relied on statistical and social science evidence as proof that a government action was motivated by discriminatory intent or had a discriminatory effect . . . ." *Rucho*, 318 F. Supp. 3d at 853. *See e.g.*, *Brown v. Bd. of Ed. of Topeka, Shawnee Cty., Kan.*, 347 U.S. 483 (1954). And, as Justice Kennedy aptly observed in *Vieth*, "new technologies may produce new methods of analysis that make more evident the precise nature of the burdens gerrymanders impose on the representational rights of voters and parties [which] would facilitate court efforts to identify and remedy the burdens" caused by partisan gerrymanders. *Vieth*, 541 U.S. at 312–13 (Kennedy, J. concurring).

We are aware of no convincing reason why we should not consult statistical and social-scientific evidence—which federal courts regularly employ in cases involving similar issues, and which may help elucidate the nature and extent of the injuries allegedly caused by the Enacted

Plan—in determining whether Plaintiffs have proven the elements of their partisan gerrymandering claims.

V. STANDING

A. Introduction

"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)). Standing "is the threshold question in every federal case, determining the power of the court to entertain the suit." *Warth v. Seldin*, 422 U.S. 490, 498 (1975). "[T]the standing question is 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." *Id.* at 498–99 (quoting *Baker v. Carr*, 369 U.S. 186, 204 (1962)).

A plaintiff must satisfy three elements to establish standing. *See Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560 (1992). First, 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 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, that a favorable decision will "likely" redress her injury. *Id.* at 561 (internal citation omitted). Courts 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 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)).

"[S]tanding is not dispensed in gross." *Gill*, 138 S. Ct. at 1934. Therefore, "a plaintiff must demonstrate standing for each claim." *Cuno*, 547 U.S. at 352.

B. Plaintiffs Have Established Standing for Their Fourteenth Amendment Vote Dilution Claims for Most of the Challenged Districts

"The Equal Protection Clause guarantees citizens that their State will govern them impartially." *Bandemer*, 478 U.S. at 166 (Powell, J., concurring in part and dissenting in part). This guarantee is of "critical importance" in the redistricting context "because the franchise provides most citizens their only voice in the legislative process." *Id.* (citing *Reynolds*, 377 U.S. at 561–62.) Because "the contours of a voting district powerfully may affect citizens' ability to exercise influence through their vote, district lines should be determined in accordance with neutral and legitimate criteria." *Id*. Therefore, "[w]hen deciding where those lines will fall, the State should treat its voters as standing in the same position, regardless of their political beliefs or party affiliation." *Id.* (citing *Chapman v. Meier*, 420 U.S. 1, 17 (1975) and *Gaffney*, 412 U.S. at 751).

The Court will first analyze whether Voters have established standing for their vote dilution claims. The Court will then evaluate whether the League has established derivative standing for its vote dilution claims based on district-specific injuries to its members. As discussed below, the Court finds that Voters and, by extension, the League, have established standing to proceed on their vote dilution claims for most of the Challenged Districts.

1. Voters

The Court finds that Voters have established standing for their Fourteenth Amendment vote-dilution claims for most of the Challenged Districts.

a. Relevant Legal Standard

In *Gill*, the Supreme Court articulated the standing requirements for a partisan gerrymandering claim asserting vote dilution in violation of the Fourteenth Amendment's Equal Protection Clause. *See Gill*, 138 S. Ct. at 1929–31. The Supreme Court reaffirmed the well-established principle that "a person's right to vote is 'individual and personal in nature.'" *Id.* at 1929 (quoting *Reynolds*, 377 U.S. at 561). Therefore, only "'voters who allege facts showing disadvantage to *themselves as individuals* have standing to sue'" under the Fourteenth Amendment. *Id.* (emphasis added) (quoting *Baker*, 369 U.S. at 206).

When plaintiffs allege that their votes have been diluted because of packing or cracking, "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.* Accordingly, under a theory of vote dilution, any injury a voter suffers as an individual "results from the boundaries of the *particular district* in which he resides." *Id.* (emphasis added). And "the remedy that is proper and sufficient lies in the revision of the boundaries of the individual's own district." *Id.*

The plaintiffs in *Gill* failed to establish standing because they asserted only statewide injuries, not district-specific harms. They proceeded on a theory that "their legal injury is not limited to the injury that they have suffered as individual voters, but extends also to the statewide harm to their interest in their collective representation in the legislature, and in influencing the legislature's overall composition and policymaking." *Id.* at 1931 (internal quotations and citations omitted). The Supreme Court rejected the plaintiffs' theory as "the kind of undifferentiated, generalized grievance about the conduct of government that we have refused to countenance in the past." *Id.* (internal quotation marks and citation omitted).

The Supreme Court observed that "[f]our of the plaintiffs" had sufficiently "pleaded a particularized burden" to their individual right to vote because they alleged that the challenged apportionment plan "diluted the influence of their votes as a result of packing or cracking in their legislative districts." *Id.* (citation, quotation marks, and alteration omitted). But, after the pleading stage, "the plaintiffs failed to meaningfully pursue their allegations of individual harm." *Id.* at 1932. In fact, at trial, "not a single plaintiff sought to prove that he or she lives in a cracked or packed district." *Id.* Instead, the plaintiffs "rested their case at trial—and their arguments before [the Supreme] Court—on their theory of statewide injury to Wisconsin Democrats" which did not demonstrate harm to an individual voter in any specific district. *Id.* Recognizing that the *Gill* plaintiffs could satisfy the injury-in-fact requirement by presenting evidence "that would tend to demonstrate a burden on their individual votes," the Supreme Court remanded the case to the district court to allow the plaintiffs to present the requisite evidence of individual, district-specific harms. *Id.* at 1934.

As *Gill* points out, individual voters have standing to challenge an apportionment plan if they can show a constitutional, redressable injury resulting from the imposition of an unconstitutional partisan gerrymander. This Court must then look at each district wherein a constitutional injury is alleged to determine standing. This Court has studied the parties' proofs and has determined that the Plaintiffs have carried their burden of proof on most, but not all, of the Challenged Districts.

Plaintiffs challenge the following 34 districts as being unconstitutionally cracked or packed: Congressional Districts 1, 4, 5, 7, 8, 9, 10, 11, and 12; Senate Districts 8, 10, 11, 12, 14, 18, 22, 27, 32, and 36; and House Districts 24, 32, 51, 52, 55, 60, 62, 63, 75, 76, 83, 91, 92, 94, and 95. The Court has found standing in those districts where Plaintiffs have shown that (1) at

least one Individual or League Plaintiff resides in the Challenged District; (2) Plaintiff intends to live in the district in 2020; (3) Plaintiff identifies with the Democratic party, consistently votes for Democrats, and/or is likely to vote for the Democratic candidate for the district in 2020; (4) Plaintiff's vote is diluted because he or she has been placed in a packed or cracked district; and (5) Plaintiff's vote would carry more weight if the map were drawn without partisan considerations.

Given the above criteria, Plaintiffs have established standing in all but the following Challenged Districts: Senate Districts 10, 22, and 32; and House Districts 52, 62, 76, and 92.

b. Voters Have Established Standing with Respect to Most of the Challenged Districts

i. Congressional District 1

Congressional District 1 spans the entire Upper Peninsula, the northern portion of the Lower Peninsula, and a few counties along the west side of the state.

League Plaintiff Jane Elizabeth Speer is a registered voter who has resided in Congressional District 1 for at least the past 18 years and plans to reside in the same district in 2020. (Speer Dep. at 6:4–12.) Speer consistently votes for Democrats and intends to vote for Democrats in 2020. (*Id*. at 10:19–11:15.) Speer feels frustrated and less enthusiastic about voting because she is "pretty sure what the results are going to be." (*Id*. at 12:24–13:2.) Speer believes that her representative in Congressional District 1 is less responsive to her because the congressman will likely be reelected regardless of his responsiveness. (*Id*. at 15:25–17:25.) League Plaintiff Trina Rae Borenstein also is a registered voter and has resided in Congressional District 1 since before the 2011 redistricting and plans to reside in Congressional District 1 in 2020 and vote for Democrats. (Borenstein Dep. at 10:17–11:9.) Borenstein is a Democrat and serves on the board of her local Democratic Party. (*Id*. at 23:10–18.) Borenstein participates in

local politics but feels disheartened because participation feels "futile." (*Id.* at 83:10–17.) Borenstein stated that when she wrote letters to the congressman for Congressional District 1, she received responses only "[a]bout half the time," and the responses she did receive often did not refer to the topic on which she wrote the letter. (*Id.* at 30:16–31:4.)

Congressional District 1 is more Republican than the vast majority of Dr. Chen's 1,000 alternative maps, meaning that the district is cracked. Most of the alternative maps would place Speer and Borenstein in a competitive or Democratic-leaning district where their votes would carry more weight, thereby redressing their harms. (Pls.' Trial Ex. 278 at p. 3.) Congressional District 1 is a partisan outlier. (Chen Report at 56.)

Vatter, who was the principal map-drawer for the Senate Democrats in 2000 and 2010, testified that the Enacted Plan removed Bay, Arenac, and Iosco Counties—Democratic-leaning counties—from Congressional District 1 and added counties from the western side of the state, making Congressional District 1 "much more Republican." (Vatter Trial Tr., ECF No. 249 at PageID #9000:5–25.) Since the 2011 redistricting, no Democratic candidate has won in Congressional District 1. (*Id.* at PageID #9001:1–3.) Moreover, the Enacted Plan contains both county and municipal breaks in Congressional District 1, but, as Vatter testified, it was possible to draw Congressional District 1 without those breaks. (*Id.* at PageID #9003:1–8.)

ii. Congressional District 4

Congressional District 4 covers the middle portion of the Lower Peninsula without touching any coastline of the Great Lakes. Congressional District 4 has an odd shape that has been described as a man with a beard wearing a chef's hat and smoking a pipe.

League Plaintiff Karen Sherwood is a registered voter residing in Congressional District 4, and she plans to reside at the same address in 2020. (Sherwood Trial Tr., ECF No. 249 at PageID #8944:3–5, 8945:9–13.) Sherwood votes Democratic and plans to vote for Democrats in

the 2020 election. (*Id.* at PageID #8945:14–19.) Sherwood has voted for Democrats since the 2011 redistricting, but Congressional District 4 has elected only Republicans in that timeframe. John Moolenaar is the current representative of Congressional District 4, and Sherwood opined that "he really doesn't represent [her] views." (*Id.* at PageID #8946:14–8947:20.)

The Warshaw Charts show that for Sherwood, Congressional District 4 is more Republican than the majority of alternative districts Dr. Chen provided, making Congressional District 4 a cracked district. Numerous alternative maps would place Sherwood in a competitive or Democratic-leaning district, giving her vote more weight and redressing her harm. (Pls.' Trial Ex. 278 at p. 3.) Congressional District 4 is a partisan outlier. (Chen Report at 56.)

As Brandon Dillon, a former chair of the Michigan Democratic Party, testified: in 2016, the Democratic Party was unable to have a candidate for Congressional District 4 get enough signatures to qualify for the ballot by the filing deadline because the party had a difficult time finding anybody who was willing to run. (Dillon Trial Tr., ECF No. 249 at PageID #9101:17– 21.) Dillon attributed the difficulty of finding a candidate to run in Congressional District 4 to an attitude that no Democrat could win in the district. (*Id.* at PageID #9102:2–4.) Vatter testified that when Congressional District 4 was drawn, instead of adding Iosco, Arenac, and Bay Counties from the former Congressional District 1, the map-drawers added Republican areas, making Congressional District 4 more Republican. (Vatter Trial Tr., ECF No. 249 at PageID #9004:24–9005:3.) The map-drawers knew that there would have to be a break in Saginaw County, but to achieve the break, the map for Congressional District 4 was drawn with an odd-shaped addition that included Frankenmuth, a Republican-leaning area of Saginaw County. (LaBrant Dep. at 213:18–214:13.)

iii.   Congressional District 5

Congressional District 5 encompasses the entirety of Iosco, Arenac, Bay, and Genessee Counties, and portions of Saginaw and Tuscola Counties. Congressional District 5 is a thin strip of land with several jagged edges.

Individual Plaintiff Rosa Holliday is a registered voter residing in Congressional District 5 and plans to reside at the same address through the 2020 elections. (Holliday Trial Tr., ECF No. 250 at PageID #9222:23–9223:10.) Holliday has voted in every election since she was eligible to vote and typically votes for Democratic candidates. (*Id*. at PageID #9224:7–18.) Holliday intends to vote for Democrats in the 2020 election. (*Id*. at PageID #9225:10–13.) Holliday considers herself "[v]ery active" in politics, but she feels that her vote in Congressional District 5 is "wasted" because Congressional District 5 is packed with Democrats. (*Id*. at PageID #9225:16–17, 9231:11–12.) League Plaintiff Deborah Lee Cherry is a registered voter who has resided in Congressional District 5 for at least the past 16 years and plans to live at the same address in 2020. (Cherry Dep. at 5:5–24.) Cherry is a Democrat and plans to support Democrats in 2020. (*Id*. at 10:9–11, 11:5–12:11.) Cherry has also served as a Democratic elected official in various capacities. (*Id*. at 9:10–24.) Cherry does not believe that her vote counts as much in Congressional District 5 as it would in other, more competitive races because it is "almost a given that a Democrat will win" in Congressional District 5. (*Id*. at 14:2–10.)

For Holliday and Cherry, Congressional District 5 is more Democratic than any of the 1,000 alternative districts that Dr. Chen provided, making Congressional District 5 a packed district. Every alternative map would place Holliday and Cherry in a more competitive district than their current district where their votes would carry more weight, which would redress their harms. (Pls.' Trial Ex. 278 at p. 3.) Dr. Chen identified Congressional District 5 as a partisan outlier. (Chen Report at 56.)

Vatter refers to Congressional District 5 as "a super-Democratic congressional district." (Vatter Trial Tr., ECF No. 249 at PageID #9008:21–22.) According to Vatter, by adding the Democratic-leaning counties of Bay, Iosco, and Arenac from the former Congressional District 1 to Genessee County (Flint) and the Democratic parts of Saginaw County, the map packed Democrats into one district, making the surrounding districts—Congressional Districts 4, 8, and 10—more Republican. (*Id*. at PageID #9008:11–9009:6.)

iv.   Congressional District 7

Congressional District 7 touches the southeastern corner of the Lower Peninsula and includes Monroe, Lenawee, Hillsdale, Branch, Jackson, and Eaton Counties, plus the portion of Washtenaw County that excludes Ann Arbor and Ypsilanti. Eaton County attaches to Congressional District 7 by only a corner.

League Plaintiff Christine Canning-Peterson is a registered voter who has resided in Congressional District 7 since before the 2011 redistricting and plans to reside at the same address in 2020. (Canning-Peterson Dep. at 5:2–6:2.) Canning-Peterson identifies as a Democrat, has voted for Democrats in the elections since 2012, and plans to vote for Democrats in 2020. (*Id*. at 10:14–11:7.) When the lines were redrawn in 2011, Canning-Peterson no longer resided in the same district as the congressman who had previously been her representative, and she was upset that she could no longer vote for that representative. (*Id*. at 11:7–21.) Canning-Peterson does not feel her vote has any power because "the district is stacked and written so that Republicans are going to win." (*Id*. at 13:11–12.) League Plaintiff Carolyn Vertin is a registered voter who resides in Congressional District 7, and she has lived at the same address for more than 40 years. (Vertin Dep. at 10:20–11:7.) Vertin identifies as a Democrat, consistently votes for Democrats, and most likely intends to vote for Democrats in 2020. (*Id*. at 11:8–21.)

Congressional District 7 is a cracked district. It is more Republican than the vast majority of the alternative districts identified by Dr. Chen. Several alternative maps would place Canning-Peterson and Vertin in a more competitive, often Democratic-leaning district, which would give their votes greater weight and redress their harms. (Pls.' Trial Ex. 278 at p. 3.) Dr. Chen found Congressional District 7 to be a partisan outlier. (Chen Report at 56.)

Vatter testified that before the Enacted Plan went into effect, Congressional District 7 was a competitive district that went back and forth between Democrat Mark Shauer and Republican Tim Walberg. (Vatter Trial Tr., ECF No. 249 at PageID #9009:7–17.) The Enacted Plan removed Calhoun County, a Democratic-leaning county and the home of Shauer, from Congressional District 7, while adding the Republican-leaning portion of Washtenaw County, resulting in a much more Republican district. (*Id*. at PageID #9009:19–9010:13.)

v. Congressional District 8

Congressional District 8 contains Ingham County, Livingston County, and the northernmost portion of Oakland County in an odd configuration.

League Plaintiff Harold Lynn Jondahl has resided in Congressional District 8 at least since the implementation of the Enacted Plan, though he changed addresses within Congressional District 8 during that time. (Jondahl Dep. at 12:2–20.) Jondahl has voted consistently for Democrats while residing in Congressional District 8 and considers himself a Democrat. (*Id*. at 12:21–13:9.) Jondahl intends to live in Congressional District 8 and vote for Democrats in 2020. (*Id*. at 13:10–14, 15:2–4.) Jondahl recalls his previous district being competitive, going back and forth between electing Democrats and Republicans, until the 2011 redistricting made the district "quite lopsided in electing Republicans." (*Id*. at 15:16–21.) League Plaintiff Jill Corrine Kroll has lived at the same address within Congressional District 8 for the last 25 years and intends to live there in 2020. (Kroll Dep. at 5:4–9.) Kroll is a registered voter

and "always votes Democratic." (*Id*. at 9:5–9.) Kroll intends to vote for Democrats in 2020. (*Id*. at 9:13–14.) Kroll found her representative in Congressional District 8 to be "non-responsive" after the 2011 redistricting and believed the decreased level of responsiveness was "because the district was a safe district" for that representative. (*Id*. at 9:18–10:7.) Kroll stated that "superhuman effort" was required to overcome the gerrymandered district and get a different candidate elected. (*Id*. at 12:3–8.)

The Warshaw Charts show that for Jondahl and Kroll, Congressional District 8 is more Republican than all of the alternative districts identified by Dr. Chen, making Congressional District 8 a cracked district. Numerous alternative maps would place Jondahl and Kroll in a more competitive or Democratic-leaning district, giving their votes more weight and redressing their harms. (Pls.' Trial Ex. 278 at p. 3.) Dr. Chen found that Congressional District 8 is a partisan outlier. (Chen Report at 56.)

Vatter testified that prior to 2001, Congressional District 8 was a competitive district. (Vatter Trial Tr., ECF No. 249 at PageID #9010:18–21.) The 2001 redistricting added the Republican-leaning portion of Oakland County, making District 8 more Republican. (*Id*. at PageID #9010:22–9011:8.) In 2018, a "very strong" year for Democrats, a Democrat was elected to represent Congressional District 8 for the first time in more than 15 years. Despite that fact, Jondahl and Kroll still have standing to sue because Plaintiffs have shown that the Enacted Plan placed Jondahl and Kroll in a district that diluted their votes (harm) and that alternative maps would make their district more competitive or Democratic-leaning (redressability).

vi.   Congressional District 9

Congressional District 9 covers portions of Macomb and Oakland Counties, in an odd shape that wraps around Bloomfield Hills without including Bloomfield Hills or Birmingham.

Individual Plaintiff Jack Ellis has resided in Congressional District 9 since the implementation of the Enacted Plan and intends to reside in the same district in 2020. (Ellis Dep. at 8:21–25, 10:23–11:2.) Ellis has consistently voted for the Democratic Party and intends to vote for a Democrat for Congressional District 9 in 2020. (*Id*. at 10:5–11:2.) Ellis believes that Congressional District 9 is a packed district because since 2011 a Democrat has won the congressional seat with somewhere between 57 to 61 percent of the vote, whereas before the redistricting, the district was much more competitive. (*Id*. at 17:20–18:3.) Individual Plaintiff William Grasha has resided at an address within Congressional District 9 for 31 years and plans to live at that same address in 2020. (Grasha Trial Tr., ECF No. 250 at PageID #9195:17–25.) Grasha is a registered voter who regularly votes Democratic and intends to vote for Democrats in 2020. (*Id*. at PageID #9196:1–9197:6.) Grasha considers Congressional District 9 to be a district packed with Democrats and feels that his "vote is of less worth" because of the 2011 redistricting. (*Id*. at PageID #9202:21–9203:4.)

The Warshaw Charts show that for Ellis and Grasha, Congressional District 9 is more Democratic than all the alternative districts identified by Dr. Chen, making Congressional District 9 a packed district. (Pls.' Trial Ex. 278 at p. 3.) Almost every alternative map would place Ellis and Grasha in a more competitive district, giving their votes more weight and redressing their harms. (*Id*.) Dr. Chen found that Congressional District 9 is a partisan outlier. (Chen Report at 56.)

Vatter referred to Congressional District 9 as a "super Democratic district," that contains two county breaks, two municipal breaks, and "wraps around Bloomfield Hills." (Vatter Trial Tr., ECF No. 249 at PageID #9012:10, 9013:13–9014:12.) By including the Democratic-leaning communities of Bloomfield Township and Southfield Township and excluding the Republican-

leaning communities of Bloomfield Hills and Birmingham, the Enacted Plan packed Democrats

into Congressional District 9 while making Congressional District 11 more Republican. (*Id*. at

PageID #9014:14–20.) The change in the map in 2011 also placed two Democratic incumbents

in the same district. (*Id*. at PageID #9014:21–24.)

vii. Congressional District 10

Congressional District 10 encompasses the "thumb" of the Lower Peninsula, including

the entirety of Huron, Sanilac, Lapeer, and St. Clair Counties, and portions of Tuscola and

Macomb Counties.

Individual Plaintiff Roger Brdak has resided at the same address in Congressional District

10 since 1976 and plans to reside in Congressional District 10 for the 2020 elections. (Brdak

Dep. at 10:3–24.) Brdak is a registered Democrat and has voted consistently for Democrats in all

two-year elections since 2011. (*Id*. at 11:9–12:4.) Brdak intends to vote for a Democrat for

Congressional District 10 in the 2020 elections. (*Id*. at 15:14–18.) League Plaintiff Lisa Morse

has resided at the same address within Congressional District 10 since 2004 and plans to live at

that address in 2020. (Morse Dep. at 9:7–12, 10:25–11:2.) Morse identifies as a Democrat, has

voted for Democrats consistently since 2011, and intends to vote for Democrats in 2020. (*Id*. at

9:16–10:6.) Morse does not think a Democrat has a chance of winning in her district because the

district is "stacked against Democratic candidates." (*Id*. at 12:16–24.)

The Warshaw Charts show that for Brdak and Morse, Congressional District 10 is

significantly more Republican than any of the alternative district maps provided by Dr. Chen,

making Congressional District 10 a cracked district. (Pls.' Trial Ex. 278 at p. 3.) Every

alternative map would place Brdak and Morse in a more competitive district, giving their votes

more weight and redressing their harms. (*Id*.) Dr. Chen identified Congressional District 10 as a

partisan outlier. (Chen Report at 56.)

Vatter testified that Congressional Districts 9 and 10 "are very intertwined"—by packing Democrats into Congressional District 9, Congressional District 10 was made to be much more Republican. (Vatter Trial Tr., ECF No. 249 at PageID #9015:11–14.) No Democrat has represented Congressional District 10 since the 2011 redistricting. (*Id.* at #9016:6–8.) Dillon testified that the Democratic Party had a difficult time finding a candidate to run in Congressional District 10 after the redistricting, and even when a candidate did step forward with strong ties to donors in the district, the donors expressed "no interest in [supporting the candidacy] because they felt the district was not winnable." (Dillon Trial Tr., ECF No. 249 at PageID #9102:7–15.)

viii.   Congressional District 11

Congressional District 11 sits northwest of Detroit and contains portions of Oakland and Wayne Counties. The district snakes around Pontiac to include Auburn Hills, a portion of Rochester Hills, Troy, a portion of Clawson, Birmingham and Bloomfield Hills.

League Plaintiff Paula Bowman has resided at the same address in Congressional District 11 since before 2011 and intends to stay at that address through 2020. (Bowman Dep. at 8:2–11.) Bowman is a registered voter who has voted consistently for Democrats and will likely vote for Democrats in the 2020 elections. (*Id.* at 8:12–14, 9:8–22.) Bowman testified that until 2018 she felt that her vote had no impact on Congressional District 11 because "Democratic voters were in such a minority" that it seemed unlikely to elect a Democrat. (*Id.* at 33:5–12.) In 2018, though, Congressional District 11 saw "historic vote totals" that changed how the district voted. (*Id.*) League Plaintiff Angela Ryan has resided at the same address in Congressional District 11 since 2000 and intends to reside in Congressional District 11 in 2020. (Ryan Dep. at 12:1–5, 14:1–3.) Ryan mostly identifies with the Democratic Party, has voted consistently, and tends to vote for Democrats. (*Id.* at 12:9–22.) Ryan intends to vote in the 2020 election and more than likely will

vote for the Democratic candidate. (*Id*. at 12:23–13:3.) Ryan testified that the way Congressional District 11 is drawn "dilutes the significance of [her] vote." (*Id*. at 14:18–21.)

Dr. Chen determined that Congressional District 11 is a partisan outlier. (Chen Report at 56.) Vatter testified that when Congressional District 11 was redrawn, it included a "wrap around" that avoided a Democratic-trending area and made the district more Republican-leaning. (Vatter Trial Tr., ECF No. 249 at PageID #9018:11–15, 9019:3–5.)

In 2012, there were two elections to fill the seat for Congressional District 11 because Republican Congressman Thaddeus McCotter resigned in July 2012 after failing to qualify for the primary ballot. One election was to fill the balance of McCotter's term using the 2001 Apportionment Plan, and one election was to fill the seat under the Enacted Plan. Thus, "there were simultaneous elections for the same seat with different boundaries." (Dillon Trial Tr., ECF No. 249 at PageID #9103:24–25.) For an election held at the same time for the same seat but under different redistricting plans, a Democrat won the election under the old maps and a Republican won the election under the new maps. (*Id*. at PageID #9104:1–9.)

Despite Democrats winning the 2018 election with historic voter turnout, Congressional District 11 is a cracked district, as illustrated through the double election in 2012. Multiple alternative maps would place Bowman and Ryan in a more competitive district where their votes would carry more weight, thereby redressing their harms.

ix.   Congressional District 12

Congressional District 12 encompasses the Ann Arbor and Ypsilanti communities of Washtenaw County and an irregular U-shaped portion of southern Wayne County.

League Plaintiff Julia Caroff is a registered voter who resides in Congressional District 12 and intends to reside at the same address in 2020 (Caroff Dep. at 7:19–8:10.) Caroff is a registered Democrat and intends to vote in the 2020 elections. (*Id*. at 8:4–6, 14:8.) Even though

Caroff's preferred candidates won in the past election cycle, she believes that gerrymandering has harmed her personally because it has led to polarization of candidates and less of an opportunity to hear views from strong Republican candidates. (*Id*. at 8:16–9:9, 13:11–23.) League Plaintiff Harvey Somers resides in Congressional District 12. (Somers Dep. at 12:25–13:4.) Somers votes consistently and identifies himself as "a strong supporter of the Democratic Party." (*Id*. at 13:12–21.) Somers intends to vote in the 2020 elections and will vote "[f]or the Democrats as much as [he] can." (*Id*. at 14:4–8.) Somers believes that election results are "preordained," noting that Democratic Congresswoman Debbie Dingel won Congressional District 12 with 70 percent of the vote in the most recent election. (*Id*. at 21:20–22:10.)

The Warshaw Charts show that for Caroff and Somers, Congressional District 12 is more Democratic than any of the alternative district maps provided by Dr. Chen, making Congressional District 12 a packed district. (Pls.' Trial Ex. 278 at p. 3.) Every alternative map would place Caroff and Somers in a more competitive district, giving their votes more weight and redressing their harms. (*Id*.) Dr. Chen identified Congressional District 12 as a partisan outlier. (Chen Report at 56.)

Vatter refers to Congressional District 12 as "a super Democratic district, a packed district," and testified that District 12 starts in the city of Dearborn in Wayne County, moves to the "Democratic territory downriver," and then "comes over and grabs the very Democratic territories of Ann Arbor, Ypsilanti, Ypsilanti Township, [and] Pittsfield Township." (Vatter Trial Tr., ECF No. 249 at PageID #9019:20–9020:4.)

x. Senate District 8

Senate District 8 covers Macomb County and includes the Townships of Bruce, Chesterfield, Harrison, Lenox, Ray, Shelby, and Washington and the Cities of Mt. Clemens,

Utica, St. Clair Shores, and the Village of Grosse Pointe Shores. Senate District 8 meanders through Macomb County in an unusual shape.

Individual Plaintiff Roger Brdak has lived in Chesterfield Township, in Senate District 8, since 1976. (Brdak Dep. at 10:10–15.) Brdak has voted in all elections since 2011, and now votes consistently for Democratic candidates. (*Id.* at 11:9–14, 13:2–7, 41:11–15.) Brdak plans to reside in Senate District 8 in 2020 and to vote for Democrat candidates in the 2020 election. (*Id.* at 10:22, 11:4–17, 15:3–16:6.) League Plaintiff Nanette Noorbakhsh has lived in Senate District 8 since before the 2011 redistricting and plans to live there in 2020. (*Id.* at 8:2–16.) Since 2011, Noorbakhsh has consistently voted for Democrats and plans to vote in the 2020 election. (*Id.* at 9:17–22, 10:9–11.) Individual Plaintiff Jack Ellis has lived in Senate District 8 since before the implementation of the Enacted Plan. (Ellis Dep. at 8:17–23.) Ellis has consistently voted for Democrats since 2011 and plans to vote for Democrats in 2020. (*Id.* at 10:12–22.)

Brdak, Noorbakhsh, and Ellis reside in a cracked district. Senate District 8 is significantly more Republican than most of Dr. Chen's alternative nonpartisan maps. (Pls.' Trial Ex. 278 at p. 5.) Senate District 8 is a partisan outlier. (Chen Report at 56.) Senate District 8 falls within the range of Dr. Chen's alternative nonpartisan maps, but several of the alternative maps place Brdak, Noorbakhsh, and Ellis in a more competitive district, thereby giving their votes more weight and redressing their harms. (*Id.*)

xi. Senate District 10

Senate District 10 is located in part of Macomb County and is comprised of part of Clinton Township, Macomb Township, and the City of Sterling Heights.

League Plaintiff Nancy Duemling has resided in Senate District 10 since at least 2011. (Duemling Dep. at 7:18–24.) She votes for Democratic candidates and plans to vote in the 2020 election. (*Id.* at 9:1–12.) League Plaintiff Gerald DeMaire has resided in Senate District 10 since

at least January 2001. (DeMaire Dep. at 8:3–6.) He votes most often for Democrats and plans to

vote in the 2020 election. (*Id.* at 10:8–17.) DeMaire is less likely to donate to candidates, and he

believes his state senator is less responsive to local issues, because of how the map is drawn. (*Id.*

at 24:6–14, 31:2–25.) League Plaintiff Kathleen Poore has resided in Senate District 10 since at

least January 2011. (Poore Dep. at 11:2–13.) Her political views align with the Democrats and

she plans to vote in the 2020 election. (*Id.* at 14:12–12.)

The Warshaw Charts suggest that Duemling, DeMaire, and Poore reside in a cracked

district that is more Republican than many of Dr. Chen's simulated districts. (Pls.' Trial Ex. 278

at p. 5.) However, all of Dr. Chen's alternative maps would place Duemling, DeMaire, and Poore

in a less competitive district, exacerbating the dilutionary effect on their votes rather than

redressing their harms. Duemling, DeMaire, and Poore have failed to demonstrate that the

Enacted Plan dilutes their votes. Therefore, Plaintiffs lack standing for their vote-dilution claim

to challenge Senate District 10.

xii.   Senate District 11

Senate District 11 covers part of Oakland County and is comprised of the Cities of

Farmington, Farmington Hills, Ferndale, Hazel Park, Huntington Woods, Lathrup Village,

Madison Heights, Oak Park, Pleasant Ridge, and Southfield, and Royal Oak Township, in a

somewhat odd, elongated shape.

Individual Plaintiff William Grasha has lived in Madison Heights for 31 years and plans

to continue living there through 2020. (Trial Tr. Vol. III, 8:18–25.) Grasha votes regularly and

plans to vote for Democrats in the 2020 election. (*Id.* at 10:1–6.)

Grasha resides in a packed district that has significantly more Democrats than

Republicans and is more Democratic than almost all of Dr. Chen's alternative nonpartisan maps.

(Pls.' Trial Ex. 278 at p. 5.) Nearly every alternative map would place Grasha in a competitive district, which would redress his harm.

xiii.   Senate District 12

Senate District 12 covers part of Oakland County. Senate District 12 starts in the north with the Townships of Oxford, Addison, Independence, Orion, and Oakland, and the Village of Clarkston, then abruptly dips south to encompass the Cities of Auburn Hills, Keego Harbor, Pontiac, and Sylvan Lack, and the Townships of Bloomfield and Southfield.

League Plaintiff Maria Woloson has resided in Senate District 12 since approximately 1989. (Woloson Dep. at 6:12–14.) Woloson has no plans to move, tends to vote for Democrats, and plans to vote in the 2020 election. (*Id.* at 10:13–11:1.)

Senate District 12 is cracked, meaning that it is more Republican than most of Dr. Chen's nonpartisan alternative maps. (Pls.' Trial Ex. 278 at p. 5.) Numerous alternative maps would place Woloson in a more competitive district, thereby redressing her harm.

xiv.   Senate District 14

Senate District 14 covers part of Genesee and Oakland Counties and is comprised of the Cities of Davison, Fenton, Grand Blanc, and Lake Angelus, and the Townships of Atlas, Davison, Grand Blanc, Mundy, Brandon, Groveland, Highland, Holly, Rose, Springfield, and Waterford. Senate District 14 connects to Waterford Township and the City of Lake Angelus by only a corner.

League Plaintiff Josephine Feijoo has resided in Senate District 14 since before January 1, 2011. (Feijoo Dep. at 7:22–8:3.) Feijoo considers herself an independent, but more recently has voted for Democratic candidates. (*Id.* at 9:1–11.) She intends to vote in the 2020 election. (*Id.* at 9:15–17.) League Plaintiff Doris Sain has lived at her residence in Senate District 14 for

over 40 years. (Sain Dep. at 11:14–16.) Sain votes for Democrats and plans to vote for Democrats in the 2020 election. (*Id.* at 12:2–19.)

Feijoo and Sain reside in a cracked district that is more Republican than most of Dr. Chen's alternative maps (and in Sain's case more Republican than all of Dr. Chen's maps). (Pls.' Trial Ex. 278 at p. 5.) Several alternative maps would place Feijoo and Sain in a more competitive district where their votes would carry more weight, thereby redressing their harms.

xv.   Senate District 18

Senate District 18 covers part of Washtenaw County and is comprised of the Cities of Ann Arbor (in part), Milan, Saline, and Ypsilanti, and the Townships of Ann Arbor, Augusta, Lodi (in part), Pittsfield, Salem, Saline (in part), Superior, York, and Ypsilanti.

League Plaintiff Margaret Leary has resided in Senate District 18 since at least before January 2011. (Leary Dep. at 8:25–9:2.) Leary is a Democrat, votes for Democrat candidates, and plans to vote in the 2020 election. (*Id.* at 9:16–10:2.) League Plaintiff Julia Caroff has resided in Senate District 18 since August 2013 and intends to continue residing at the same address. (Caroff Dep. at 7:17–8:3.) Caroff is a registered Democrat and plans to vote in the 2020 election. (*Id.* at 8:4–6, 14:8.) League Plaintiff Susan K. Smith has resided in Senate District 18 since 2007. (Smith Trial Tr., ECF No. 248 at 36:21–37:1.) Smith is affiliated with the Democratic party and has voted for Democrats consistently. (*Id.* at 37:22–38:3.) Smith plans to vote for Democrats in the 2020 election. (*Id.* at 39:10–14.)

Leary, Caroff, and Smith reside in a packed Democratic district. (Pls.' Trial Ex. 278 at p. 5.) Senate District 18 is a partisan outlier—it is significantly more packed than any of Dr. Chen's alternative district maps. (Chen Report at 56.) Every alternative map would place Leary, Caroff, and Smith in a less packed district, giving their votes more weight and redressing their harms.

xvi. Senate District 22

Senate District 22 covers Livingston and part of Washtenaw Counties and is comprised

of the Cities of Ann Arbor (in part) and Chelsea, and the Townships of Bridgewater, Dexter,

Freedom, Lima, Lodi (in part), Lyndon, Manchester, Northfield, Saline (in part), Scio, Sharon,

Sylvan, and Webster.

League Plaintiff Harvey Somers has resided in Senate District 22 since 2009. Sommers

identifies as a Democrat and intends to live and vote for Democrats in Senate District 22 in the

2020 election. (Somers Dep. at 13:1–14:9, 15:11–14.)

Senate District 22 is a cracked district that is heavily Republican. (Pls.' Trial Ex. 278 at p.

5.) According to Dr. Chen's analysis, Senate District 22 is a partisan outlier—it is significantly

more Republican than any of his alternative maps. (Chen Report at 56.) However, all of Dr.

Chen's nonpartisan alternatives would place Somers in a non-competitive, heavily packed

Democratic district, which would not redress any cognizable harm to Somers, as his vote would

be even more diluted. Therefore, Plaintiffs lack standing for their vote-dilution claim to

challenge Senate District 22.

xvii. Senate District 27

Senate District 27 covers part of Genesee County and is comprised of the Cities of

Burton, Clio, Flint, Mt. Morris, and Swartz Creek and the Townships of Flint, Forest, Genesee,

Mt. Morris, Richfield, Thetford, and Vienna. Swartz Creek extends from Senate District 27 like a

tail.

League Plaintiff Deborah Cherry has resided in Senate District 27 since approximately

2002 and plans to reside there in 2020. (Cherry Dep. at 5:5–21.) Cherry is a Democrat and plans

to vote for Democratic candidates in the 2020 election. (*Id.* at 11:9–12:11.) League Plaintiff

Thomas Haley has resided in Senate District 27 for twenty years. (Haley Trial Tr., ECF No. 249

at 230:23–231:3.) Haley plans to reside there in 2020. (*Id.* at 231:7–9.) Haley has consistently

voted for Democrats and plans to vote for Democrats in 2020. (*Id.* at 236:5–237:3.)

Senate District 27 is a packed district that is more Democratic than almost all of Dr.

Chen's alternative maps. (Pls.' Trial Ex. 278 at p. 5.) Senate District 27 is a partisan outlier.

(Chen Report at 56.) Placing Cherry and Haley in almost any of Dr. Chen's alternative districts

would increase the weight of their votes and therefore redress their harms.

xviii.   Senate District 32

Senate District 32 covers all of Saginaw County and a leg-shaped strip encompassing the

following areas of Genesee County: the Cities of Flushing, Linden, and Montrose, and the

Townships of Argentine, Clayton, Fenton, Flushing, Gaines, and Montrose.

League Plaintiff Paul Purcell has resided at his address in Senate District 32 for forty

years. (Purcell Dep. at 10:16–20.) Purcell has consistently voted for Democrats. (*Id.* at 11:21–

25.) Purcell intends to continue residing at his current residence and plans to vote in the 2020

election. (*Id.* at 12:1–5.) League Plaintiff Sherrill Smith also resides in Senate District 32. Smith

has resided at her present address since January 2011. (Smith Dep. at 7:9–16.) Smith is not

affiliated with a political party but tends to vote for Democrats. (*Id.* at 9:10–20, 43:2–9.) Smith

intends to vote in the 2020 election. (*Id.* at 12:2–4.) League Plaintiff Jan Sain-Steinborn has

resided in Senate District 32 for twenty-four years. (Sain-Steinborn Dep. at 9:13–18.) Sain-

Steinborn identifies with the Democratic party and votes consistently for Democratic candidates.

(*Id.* at 9:25–10:8.) Sain-Steinborn plans to vote for Democratic candidates in the 2020 election.

(*Id.* at 10:11–17.)

The Warshaw Chart places Purcell, Smith, and Sain-Steinborn in a Democratic-leaning

competitive district. (Pls.' Trial Ex. 278 at 5.) In other words, it indicates that they currently

reside in a packed district. On the other hand, Vatter testified that Senate District 32 is a

competitive Republican-leaning district (Vatter Trial Tr., ECF No. 249 at PageID #9028:7–9), and the results from the 2014 and 2018 elections bear this out. As such, the Warshaw Chart contradicts Plaintiff's other evidence. Plaintiffs have failed to meet their burden of showing that Purcell, Smith, and Sain-Steinborn live in a packed or cracked district and that their votes would carry more weight in an alternative district. Therefore, Plaintiffs lack standing for their vote-dilution claim to challenge Senate District 32.

xix.   Senate District 36

Senate District 36 winds through the northeast and central portions of Michigan's lower peninsula, comprising the Counties of Alcona, Alpena, Arenac, Gladwin, Iosco, Midland, Montmorency, Oscoda, Otsego, and Presque Isle.

League Plaintiff Jane Speer has resided in Senate District 36 since prior to the 2011 redistricting. (Speer Dep. at 6:6–9.) Speer is a member of the Democratic party and votes consistently for Democrats. (*Id.* at 10:19–11:2.) Speer plans to continue living at her current address and to vote for Democrats in the 2020 election. (*Id.* at 11:10–15.) League Plaintiff Trina Borenstein has resided in Senate District 36 since 2009. (Borenstein Dep. at 10:21–11:3.) Borenstein is a member of the Democratic Party. (*Id.* at 69:1–3.) Borenstein plans to continue residing at her current residence and to vote for Democrats in the 2020 election. (*Id.* at 11:4–12.) League Plaintiff Karen Sherwood has resided in Senate District 36 since prior to 2011. (Sherwood Trial Tr., ECF No. 248 at 6:24–7:2.) Sherwood plans to continue residing at her current address through at least 2020. (*Id.* at 7:3–5.) Sherwood votes consistently for Democrats and plans to vote for Democrats in the 2020 election. (*Id.* at 8:14–19.)

Senate District 36 is a cracked district that is heavily Republican. (Pls.' Trial Ex. 278 at p. 5.) Speer and Borenstein live in a district that is more Republican than most of Dr. Chen's alternative maps, and for Sherwood, all of Dr. Chen's alternative maps are less Republican. (*Id.*)

Numerous alternative maps would place Speer, Borenstein, and Sherwood in a more competitive district, thereby increasing the weight of their votes and redressing their harms.

xx.   House District 24

House District 24 is comprised of Harrison Township and odd-shaped portions of Macomb and Clinton Townships. League Plaintiff Kathleen Poore resides in House District 24. (Poore Dep. at 11:2–13.) Poore has voted exclusively for Democrats since 2011 and intends to vote in the 2020 elections. (*Id*. at 13:13–14:24.)

The House map-drawer, Daniel McMaster, testified that House District 24 became more Republican after the 2011 redistricting. (McMaster Dep. at 191:18–25.) Vatter testified that the breaks in Macomb and Clinton Townships resulted in a Republican district, rendering the neighboring House District 18 more Democratic. (Vatter Trial Tr., ECF No. 249 at PageID #9031:2–9.) Former Michigan Democratic Chairman Dillon testified that in 2016, even though the Republican candidate in House District 24 had made "some very damaging statements" that were captured on audiotape, a Democratic candidate still could not win the district. (Dillon Trial Tr., ECF No. 249 at PageID #9104:17–9105:12.)

The Warshaw Charts show that for Poore, House District 24 is more Republican than any of the alternative district maps provided by Dr. Chen, making the district cracked. (Pls.' Trial Ex. 278 at p. 7.) Several alternative maps would place Poore in a competitive, Democratic-leaning district, thereby redressing her harm. (*Id*.)

xxi.   House District 32

House District 32 encompasses portions of St. Clair and Macomb Counties in a cross-like shape. Individual Plaintiff Roger Brdak resides in House District 32. (Brdak Dep. at 17:5–8.) Brdak intends to vote for a Democrat for House District 32 in the 2020 election. (*Id*. at 15:13–21, 18:17–23.)

Vatter reported that prior to the 2011 redistricting, House District 32 was competitive, but after the redistricting, House District 32 became a Republican district. (Vatter Trial Tr., ECF No. 249 at PageID #9032:1–5.) The district shifted Republican with the addition of the "top part of the cross," including Kenockee, Riley, Wales, Kimball, Columbus, and Casco Townships. (*Id*. at PageID #9031:16–25.) Dillon similarly testified that House District 32 was competitive before the 2011 redistricting—with a Democrat holding the seat until a Republican won in 2010—but that the district became "unwinnable" for Democrats after the redistricting. (Dillon Trial Tr., ECF No. 9105:16–25.)

The Warshaw Charts show that for Brdak, House District 32 is more Republican than any alternative district map provided by Dr. Chen, making House District 32 a cracked district. (Pls.' Trial Ex. 278 at p. 7.) Every alternative map would place Brdak in a more competitive (though still Republican-leaning) district, giving his vote more weight and redressing his harm. (*Id*.) Dr. Chen has identified House District 32 as a partisan outlier. (Chen Report at 56.)

xxii.   House District 51

House District 51 covers the northwest corner of Oakland County and wraps around Flint in Genesee County. League Plaintiff Adalea Janice Sain-Steinborn resides in House District 51. (Sain-Steinborn Dep. at 12:15–17.) Sain-Steinborn is a Democrat and plans to support Democrats in 2020. (*Id*. at 10:5–17.) Sain-Steinborn feels that her "vote doesn't really matter" because of the 2011 redistricting. (*Id*. at 31:7–17.)

McMaster testified that House District 51 was a competitive district before the 2011 redistricting, but that House District 51 was deliberately drawn to be the one Republican district in Genesee County. (McMaster Dep. at 119:16–121:16, 154:20–155:15.) Vatter testified that House District 51 is much more Republican than it was under the old maps. (Vatter Trial Tr., ECF No. 249 at PageID #9033:5–7.) According to Vatter, the prior House District 51 was

competitive and covered the lower part of Genesee County, mixing Democratic and Republican areas. (*Id*. at PageID #9033:22–24.) After the 2011 redistricting, House District 51 wraps around Flint to include the Republican areas of Genesee County, and pack Democrats into other districts. (*Id*. at PageID #9033:8–16.)

The Warshaw Charts show that for Sain-Steinborn, House District 51 is more Republican than any of the alternative district maps provided by Dr. Chen, making House District 51 a cracked district. (Pls.' Trial Ex. 278 at p. 7.) The majority of alternative maps would place Sain-Steinborn in a more competitive district, with almost all of alternative districts leaning Democratic, which would redress Sain-Steinborn's harm. (*Id*.) Dr. Chen has identified House District 51 as a partisan outlier. (Chen Report at 56.)

xxiii.   House District 52

House District 52 contains the western half and northeast corner of Washtenaw County. League Plaintiff Harvey Somers, referenced earlier in regard to Congressional District 12, resides in House District 52. (Somers Dep. at 14:11–14.) Somers recognizes that House District 52 is competitive but states that "the amount of real competitiveness was less than [he] had hoped for." (*Id*. at 18:14–18.)

The Warshaw Charts show that for Somers, House District 52 is more Republican than any of the alternative maps provided by Dr. Chen, which suggests that House District 52 may be cracked. (Pls.' Trial Ex. 278 at p. 7.) However, House District 52 is currently a competitive district, with a slight edge to the Democrats, so Somers's vote is not diluted. (*Id*.) Moreover, every alternative map would place Somers in a packed Democratic district, which *would* dilute his vote. (*Id*.) Thus, because Somers cannot show injury or redressability based on Plaintiffs' own evidence, Plaintiffs have failed to demonstrate standing to challenge House District 52.

xxiv. House District 55

House District 55 includes Augusta and York Townships and portions of Ann Arbor Township, Ann Arbor, Milan, and Pittsfield Township, wrapping around the southern half of Ann Arbor and excluding Saline. House District 55 looks like an "L" with two chunks removed.

League Plaintiff Margaret Leary resides in House District 55 and has resided at the same address since 2011. (Leary Dep. at 8:25–9:12.) Leary is a registered voter and considers herself a member of the Democratic Party. (*Id*. at 9:13–25.) Leary intends to vote in the 2020 elections. (*Id*. at 10:1–2.) Leary believes that House District 55 is packed, based on the very high margin by which her Democratic State House Representative won in the 2018 elections. (*Id*. 13:3–22.)

The Warshaw Charts show that for Leary, House District 55 is more Democratic than any of the alternative district maps provided by Dr. Chen, making House District 55 a packed district. (Pls.' Trial Ex. 278 at p. 7.) Every alternative map would place Leary in a more competitive district where her vote would carry more weight. (*Id*.) House District 55 is a partisan outlier. (Chen Report at 56.)

Vatter testified that House District 52 was drawn to gather the Republican portions of Washtenaw County, making House Districts 53 to 55 more Democratic. (Vatter Trial Tr., ECF No. 249 at PageID #9034:15–22.)

xxv. House District 60

House District 60 has many jagged edges and includes the City of Kalamazoo and portions of Kalamazoo and Portage Townships. League Plaintiff Denise Louise Hartsough resides in House District 60, has resided at the same address for the past 15 years, and intends to live at the same address in 2020. (Hartsough Dep. at 5:10–15.) Hartsough plans to vote in 2020. (*Id*. at 9:19–21.) Hartsough has voted exclusively for Democratic candidates since 2012 and will likely vote for a Democrat in 2020. (*Id*. at 10:2–10.)

The Warshaw Charts show that for Hartsough, House District 60 is significantly more Democratic than any of the alternative district maps provided by Dr. Chen, making House District 60 a packed district. (Pls.' Trial Ex. 278 at p. 7.) Every alternative map would place Hartsough in a competitive district, reducing the dilution of her vote and redressing her harm. (*Id*.) Dr. Chen has identified House District 60 as a partisan outlier. (Chen Report at 56.)

xxvi.   House District 62

House District 62 sits in the northern part of Calhoun County, including the cities of Albion, Battle Creek, and Springfield, and the townships of Albion, Bedford, Clarence, Convis, Lee, Pennfield, and Sheridan. League Plaintiff Shirley Zeller resides in House District 62 and has resided at the same address since before the 2011 redistricting. (Zeller Dep. at 7:22–8:2.) Zeller considers herself a Democrat and intends to vote in 2020. (*Id*. at 8:23–9:2.)

The Warshaw Charts show that for Zeller, House District 62 is more Democratic than most of the alternative district maps provided by Dr. Chen, suggesting that House District 62 is a packed district, but the current map and all alternative maps place Zeller in a competitive district. (Pls.' Trial Ex. 278 at p. 7.)

Zeller testified that she chooses to donate and campaign in a neighboring district in the Jackson area because the representatives there better represent her political interests; in other words, she considers House District 62 to be a cracked district and her chief complaint is that her district does not contain enough Democrats. (Zeller Dep. at 12:21–13:25.) Election results since the 2011 redistricting show House District 62 to be competitive—a Democrat won in 2012, a Republican won in 2014 and 2016, and a Democrat won in 2018. Making House District 62 more Republican—which would be the appropriate remedy if this Court finds that House District 62 is packed—would exacerbate Zeller's claimed injury rather than redress it. Because the

evidence does not establish harm or redressability, Plaintiffs have failed to establish standing to challenge House District 62.

xxvii.   House District 63

House District 63 covers portions of Calhoun and Kalamazoo Counties in an unusual shape. League Plaintiff Jessica Reiser has resided at the same address in House District 63 for more than 20 years. (Reiser Dep. at 9:4–9.) Reiser is a registered voter who votes "predominantly Democratic," and she intends to vote in the 2020 elections. (*Id*. at 9:10–21.) Reiser feels that her vote does not count in House District 63 because Democrats cannot win. (*Id*. at 11:5–25, 24:8–16.)

The Warshaw Charts show that for Reiser, House District 63 is more Republican than any of the alternative district maps provided by Dr. Chen, making House District 63 a cracked district. Every alternative map would place Reiser in a more competitive district, which would redress Reiser's harm. (Pls.' Trial Ex. 278 at p. 7.) Dr. Chen has identified House District 63 as a partisan outlier. (Chen Report at 56.)

Vatter testified that House District 63 covers a lot of territory in Calhoun County but excludes the biggest Democratic area of Calhoun County, which is Battle Creek. House District 63 then picks up the eastern municipalities of Kalamazoo County, creating a Republican district. Vatter further testified that an alternative to the 2011 map for House District 63 would include Battle Creek with the rest of Calhoun County, minimizing the breaks and creating a competitive district. (Vatter Trial Tr., ECF No. 249 at PageID #9035:8–20.) McMaster, the House map-drawer, testified that the Speaker of the House in 2010 represented House District 63.[34] Speaker Bolger requested that McMaster draw a map for House District 63 that would include portions of

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[34] McMaster mistakenly named Paul Scott as the Speaker of the House in 2010, but the Speaker of the House in 2010 was James Bolger, and Speaker Bolger did, in fact, represent House District 63 in 2010. Thus, the Court assumes this was simply a misnomer.

Kalamazoo County. McMaster obliged, making House District 63 a more Republican district. (McMaster Dep. at 126:3–127:20, 213:6–214:16.)

xxviii.   House District 75 and 76

House District 75 covers part of Kent County and part of Grand Rapids. House District 76 covers part of Kent County and includes part of the City of Grand Rapids. House District 76 is probably the most odd-shaped of all the districts in the Enacted Plan. It surrounds House District 75 roughly on three sides.

League Plaintiff Elianna Bootzin has lived at her address in House District 75 since the Enacted Plan was adopted and plans to live there in 2020. (Bootzin Dep. at 5:12–16.) She is not affiliated with a political party, but typically votes for Democrats. (*Id.* at 9:21–10:1.) Bootzin will likely vote for Democrat candidates in the 2020 election. (*Id.* at 10:23–11:1.)

House District 75 is a packed district that is more Democratic than all of Dr. Chen's alternative maps. (Pls.' Trial Ex. 278 at p. 7.) Dr. Chen's analysis shows that House District 75 is a partisan outlier. (Chen Report at 56.) All of Dr. Chen's alternative maps would place Bootzin in a more competitive district, giving her vote more weight and redressing her harm.

Plaintiff Donna Farris has resided at her current address in Grand Rapids in House District 76 for 39 years. (Farris Dep. at 6:1–2.) She is a registered Democrat and plans to vote for Democrats in the 2020 election. (*Id.* at 7:10–17, 12:23–13:2.)

Plaintiffs suggest that Farris lives in a cracked district—one in which a party's supporters have been placed so they fall short of a majority—but the Warshaw chart suggests otherwise. Farris resides in a competitive Democratic-leaning district. (Pls.' Trial Ex. 278 at p. 7.) The election results from 2012–2018 bear this out; a Democrat has won handily every year since 2012. (Farris Dep. at 22:16–18.)

Farris has not been injured by the Enacted Plan. According to Dr. Chen, House District 76 is a partisan outlier (Chen Report at 56), but the current map places Farris in a district that is less dilutive than all of Dr. Chen's alternative maps. Moreover, to the extent Farris has suffered an injury, almost all of Dr. Chen's maps would place Farris in a packed district, which would further dilute her vote and exacerbate her harm. Thus, her injury is not redressable. Accordingly, Plaintiffs have failed to establish standing to challenge House District 76.

xxix. House District 83

House District 83 is located in Michigan's "thumb" on the east side of the state and covers Sanilac County and a small jut-out in St. Clair County along the coast of Lake Huron that includes the City of Port Huron and the Townships of Burtchville and Fort Gratiot.

League Plaintiff Lisa Morse has resided in Port Huron in House District 83 since 2004. (Morse Dep. at 9:7–12.) Morse is a registered Democrat and plans to vote for Democratic candidates in 2020. (*Id.* at 9:20–10:4.)

House District 83 is a cracked district that is more Republican than all of Dr. Chen's alternative nonpartisan districts. (Pls.' Trial Ex. 278 at p. 7.) Any alternative map would redress Morse's injury by placing her in a more competitive district.

xxx. House District 91

House District 91 covers part of Muskegon County and includes the Cities of Montague, Norton Shores, Roosevelt Park, and Whitehall and the Townships of Blue Lake, Casnovia, Cedar Creek, Dalton, Egelston, Fruitport, Holton, Montague, Moorland, Ravenna, Sullivan, and White River. House District 91 wraps around House District 92 entirely, which covers the remainder of Muskegon County and includes the Democratic areas of the county, including the Cities of Muskegon and North Muskegon. (Vatter Trial Tr., ECF No. 249 at PageID #9035:25–9036:6.)

League Plaintiff Linda Aerts has resided in House District 91 since 2000 and plans to remain at her current address through 2020. (Aerts Dep. at 5:4–12.) Aerts is a member of the Democratic party and plans to support Democrats in the 2020 election. (*Id.* at 11:11–12:22, 15:1–2.) Aerts said that House District 91 is "no longer as blue as it used to be," making it "very difficult" to get a Democrat elected. (*Id.* at 14:19–23.)

Aerts lives in a cracked district that is more Republican than almost all of Dr. Chen's alternative maps. (Pls.' Trial Ex. 278 at 7.) Most of Dr. Chen's alternative maps would redress her injury by placing her in a competitive, Democratic-leaning district.

xxxi. House District 92

Plaintiffs included House District 92 in their list of challenged districts. However, because Plaintiffs have failed to identify a single Individual or League Plaintiff who resides in the district, Plaintiffs have failed to establish standing to challenge House District 92.

xxxii. House District 94

House District 94 covers part of Saginaw County and includes the City of Frankenmuth and the Townships of Albee, Birch Run, Blumfield, Frankenmuth, Saginaw, St. Charles, Swan Creek, Taymouth, Thomas, and Tittabawasse. The district snakes around the City of Saginaw and other portions of House District 95 in the shape of an uneven "U."

League Plaintiff Paul Purcell has lived in House District 94 for 40 years. (Purcell Dep. at 10:16–20.) Purcell has consistently voted for Democrats. (*Id.* at 11:21–25.) Purcell intends to continue residing at his current residence and plans to vote in the 2020 election. (*Id.* at 12:1–5.)

House District 94 is a cracked district that is more Republican than all of Dr. Chen's alternative maps. (Pls.' Trial Ex. 278 at p. 7.) Dr. Chen's analysis shows that House District 94 is a partisan outlier. (Chen Report at 56.) Almost all of Dr. Chen's alternative maps would place Purcell in a competitive district, thereby redressing his harm.

xxxiii. House District 95

House District 95 covers part of Saginaw County and includes the Cities of Saginaw and Zilwaukee and the Townships of Bridgeport, Buena Vista, Carollton, James, Kochville, Spaulding, and Zilwaukee.

League Plaintiff Sherrill Smith resides in House District 95. She has resided at her present address since January 2011. (Smith Dep. at 7:9–16.) She is not affiliated with a political party but tends to vote for Democrats. (*Id.* at 9:10–20, 43:2–9.) Smith intends to vote in the 2020 election. (*Id.* at 12:2–4.)

Smith resides in a heavily-packed Democratic district. (Pls.' Trial Ex. 278 at p. 7.) House District 95 is more Democratic than the vast majority of Dr. Chen's simulation maps. Placing Smith in any of those districts would redress the harm that she has suffered by rendering her vote less diluted.

c. Intervenors' Arguments

The Congressional and Senate Intervenors present various arguments for why they believe that Voters cannot establish standing. Some of their arguments concern purported flaws in Voters' expert evidence, and some concern the purported problems with Voters themselves. None of these arguments persuades the Court.

Intervenors contend that Voters cannot establish standing with respect to any individual district because their expert reports focus on statewide, rather than district-specific, harms. (Cong. and State House Intervenors' Proposed Conclusions of Law, ECF No. 258 at PageID #11111–15; Senate Intervenors' Proposed Conclusions of Law, ECF No. 254 at PageID #10377–80.) However, Voters' expert evidence does not merely measure partisan bias on the statewide level. Dr. Chen's simulations show the partisan composition of each specific district. Further, Dr. Warshaw's charts locate each Voter in a specific district, both under the Enacted Plan and under

Dr. Chen's 1,000 alternative simulated districts drawn without partisan intent. Federal courts have relied on this exact type of expert evidence in finding that plaintiffs have established injury-in-fact for vote-dilution claims. *See Rucho*, 318 F. Supp. 3d at 821; *Householder*, 2019 WL 652980, at *16–17.

Congressional and State House Intervenors also argue that Dr. Chen's simulations are fundamentally flawed because they depict what each district's boundaries might look like if all the districts were redrawn at once, rather than if only the Challenged Districts were revised. (Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11102–05.) Essentially, they contend that Dr. Chen's simulations assume a counterfactual that does not describe reality—a scenario where Michigan's entire legislative maps are redrawn, rather than only the Challenged Districts—and therefore cannot satisfy the requirement that Voters show district-specific harms and district-specific remedies.

This argument is unavailing. Plaintiffs have demonstrated district-specific harms through Dr. Chen's simulations and Dr. Warshaw's charts, which show that each Voter's current district dilutes his or her vote through packing or cracking. Further, while Voters challenge only a limited number of districts, additional districts will likely need to be redrawn if the Court holds that the Challenged Districts violate the Constitution. In fact, a large portion of the statewide map may need to be revised, as Justice Kagan acknowledged in *Gill*; "with enough plaintiffs joined together—attacking all the packed and cracked districts in a statewide gerrymander— those obligatory revisions could amount to a wholesale restructuring of the State's districting plan." *Gill*, 138 S. Ct. at 1937 (Kagan, J. concurring). Finally, the boundaries of a single legislative district necessarily affect the boundaries of the adjoining districts which, in turn, affect the boundaries of the districts that adjoin those districts. Given the interconnected nature

of the districts in a districting plan, it would make little sense to require Voters to provide

simulations for the Challenged Districts without also accounting for the way that changing those

districts to comply with constitutional requirements would also necessitate altering the other

districts in the plan.

Congressional and State House Intervenors additionally argue that Voters currently

represented by Democrats have not suffered an injury in fact and thus lack standing. (Cong. and

State House Intervenors' Proposed Conclusions of Law at PageID #11122.) Essentially,

Congressional and State House Intervenors argue that one cannot suffer an injury-in-fact if he or

she lives in a packed district and votes for the winning candidate. However, in *Gill*, the Supreme

Court stated that packing constitutes an injury-in-fact. *Gill*, 138 S. Ct. at 1931 (explaining that

the harm from a partisan gerrymander "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") (emphasis added). Voters residing in packed

districts have suffered cognizable harms because packing dilutes their votes. *See id.* Their ability

to elect Democrats in their district does not mitigate this harm.

Congressional and State House Intervenors also assert that the Voters who testified that

they desire proportional representation have not suffered injuries-in-fact. (Cong. and State House

Intervenors' Proposed Conclusions of Law at PageID #11124.) True, there is no right to

proportional representation, *see Bandemer*, 478 U.S. at 132, and a mere interest in the overall

composition of the legislature does not constitute an injury in fact for standing purposes, *Gill*,

138 S. Ct. at 1931. But even those Voters who may prefer proportional representation have not

merely suffered harms to their "abstract interest" *id.*; they have suffered injuries-in-fact by being

placed in packed or cracked districts. *Id*. Therefore, Congressional and State House Intervenors' argument fails.

Finally, Congressional and State House Intervenors assert that Voters residing in a district that falls within the range of Dr. Chen's simulations (as indicted by the gray bars on Dr. Warshaw's charts) have not suffered an injury-in-fact. (Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11114.) However, as Dr. Warshaw testified, the fact that the current district falls within a small number of Dr. Chen's simulations does not indicate that the current district was not drawn with predominantly partisan intent. (Warshaw Trial Tr., ECF No. 248 at PageID #8917:5–8919:20.) For example, a district that falls within a small number of Dr. Chen's simulations could still exhibit "more extreme partisanship than 99 percent of Dr. Chen's simulations." (*Id.* at PageID #8918:14–19.) If a current district falls along the outer range of Dr. Chen's simulated districts, it is extremely unlikely that that the district's partisan composition occurred by chance. (*Id.* at PageID #8918:2–5.) Therefore, the fact that a Voter lives in a district within a small fraction of Dr. Chen's simulated districts does not preclude that Voter from demonstrating an injury-in-fact.

2. The League

The Supreme Court has explained that "[a]n 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)).

The Court finds that the League has standing, based on its members, with respect to any Challenged District in which at least one of its members lives. *See Johnson*, 2018 WL 6257476,

at *10; *see Rucho*, 318 F. Supp. 3d at 827. First, League Plaintiffs residing in the Challenged

Districts have standing to sue in their own right, as indicated above. Second, the interests at stake

are germane to the League's purpose. Ms. Smith testified that the League's mission is to

"empower voters and defend democracy." (Smit Trial Tr., ECF No. 248 at PageID #8764:11–

17.) The League carries out its mission through voter education, voter registration efforts, and by

advocating for redistricting reforms and other legislation. (*See generally*, *id.* at PageID #8763:1–

8768:24.) As an organization that strives to "empower voters and defend democracy," the

League has a clear interest in the constitutionality of Michigan's legislative districts. Third,

because the League seeks injunctive relief, "the remedy, if granted, will inure to the benefit of

those members of the association actually injured," *Warth*, 422 U.S. at 515, and the individual

League members need not directly participate in the lawsuit, *Johnson*, 352 F. Supp. 3d at 798.

Therefore, the League has standing, based on its membership, for each Challenged District where

one of its members resides.

C. Plaintiffs Have Established Standing for Their First Amendment Vote Dilution Claims for Any Challenged District Where They Also Established Fourteenth Amendment Standing

Partisan gerrymandering can injure voters' First Amendment rights by subjecting

members of the disfavored party to discrimination because of their viewpoints. *See generally*

Rosenberger v. Rector & Visitors of Univ. of Va., 515 U.S. 819, 829 (1995) ("Viewpoint

discrimination is . . . an egregious form of content discrimination. The 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."); *Citizens United v. Fed. Election Comm'n*, 558

U.S. 310, 340 (2010) (explaining that "the First Amendment stands against attempts to disfavor

certain subjects or viewpoints"). Partisan gerrymandering burdens voters' First Amendment

rights by "'*purposely* dilut[ing] 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.'" *Rucho*, 318 F. Supp. 3d at 829 (emphasis in original) (quoting *Shapiro*, 203 F. Supp. 3d at 595); *see Benisek*, 348 F. Supp. 3d at 514 (explaining that "partisan vote dilution . . . involves the State penalizing voters for expressing a viewpoint while, at the same time, rewarding voters for expressing the opposite viewpoint" and noting that "[t]his targeting of a citizen's viewpoint is typical of First Amendment violations in other contexts"); *Householder*, 2019 WL 652980, at *6 (characterizing partisan gerrymandering as "a double-barreled constitutional issue" because it simultaneously violates voters' Fourteenth and First Amendment rights).

The "dilutionary aspect of the First Amendment injury associated with partisan gerrymandering echoes the district-specific injury giving rise to a partisan vote dilution claim under the Equal Protection Clause." *Rucho*, 318 F. Supp. 3d at 829 (citing *Shapiro*, 203 F. Supp. 3d. at 595); *see Householder*, 2019 WL 652980, at *18 (explaining that "to the extent that the First Amendment theory is based upon vote dilution, the same [standing] analysis applies as in the Fourteenth Amendment context"). Accordingly, to establish standing for their First Amendment vote-dilution claims, Plaintiffs must demonstrate the same elements as necessary to establish standing for their Fourteenth Amendment vote-dilution claims. *See id.*; *Householder*, 2019 WL 652980, at *18.

We have already concluded, in our discussion of Plaintiffs' Fourteenth Amendment vote-dilution claims, that at least one Voter has established standing to challenge most of the Challenged Districts.[35] Therefore, at least one Voter also has standing to challenge each of these

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[35] Specifically, Plaintiffs have standing with respect to their Fourteenth Amendment vote-dilution claims for all Challenged Districts except for Senate Districts 10, 22, and 32, and House Districts 52, 62, 76, and 92.

same districts under a First Amendment vote dilution theory. *See Rucho*, 318 F. Supp. 3d at 829. *Householder*, 2019 WL 652980, at *18.

D. Plaintiffs Have Established Standing for Their First Amendment Claims for Non-Dilutionary Injuries to Their Right of Association for Every Challenged District

Partisan gerrymandering also causes non-dilutionary injuries to the First Amendment right of association. *See Gill*, 138 S. Ct. at 1938 ("[T]he associational harm of a partisan gerrymander is distinct from vote dilution.") (Kagan, J., concurring); *Householder*, 2019 WL 652980, at *18 (distinguishing First Amendment association claims from vote-dilution claims); *Rucho*, 318 F. Supp. 3d at 829 ("Partisan gerrymandering also implicates 'distinct,' non-dilutionary First Amendment injuries.") (quoting *Gill*, 138 S. Ct. at 1939 (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 [vote dilution or] the packing or cracking of any single district's lines." *Gill*, 138 S. Ct. at 1939 (Kagan, J., concurring).

Under a First Amendment associational theory, the alleged 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). When plaintiffs allege a First Amendment associational injury, "the valued association and the injury to it are statewide [and] so too is the relevant standing requirement." *Id.*; *Householder*, 2019 WL 652980, at *15 (stating that "the alleged separate associational harm under the First Amendment is a statewide injury"). Therefore, plaintiffs may seek a statewide remedy to redress injuries to their First Amendment associational rights. *See Gill*, 138 S. Ct. at 1940 (Kagan, J., concurring); *Householder*, 2019 WL 652980, at *7 (quoting *Gill*, 138 S. Ct. at 1934).

While First Amendment association claims can entail statewide remedies, Plaintiffs in this case only seek relief with respect to the Challenged Districts under both their vote-dilution and First Amendment association claims. (*See* Pls.' Proposed Conclusions of Law, ECF No. 257 at PageID #10805–06.) To understand why Plaintiffs would limit their requested remedy to specific districts for a claim that could implicate the entire statewide map, some background information on this litigation is in order.

Plaintiffs filed a two-count complaint, alleging a violation of their First Amendment right of association in Count I and a violation of their Equal Protection rights in Count II.[36] (*See* Compl.) Plaintiffs sought statewide relief for both claims. (*Id.*) Ruth Johnson, who in the early stages of this case was both Michigan's Secretary of State and a Defendant in her official capacity, filed a Motion to Dismiss for Lack of Standing. (ECF No. 11.) In our opinion granting in part and denying in part Johnson's motion to dismiss, we held that Plaintiffs lacked standing to challenge the Enacted Plan "on a statewide basis" and dismissed Plaintiffs' statewide claims. (Op. & Order, ECF No. 54 at PageID #957.) In dismissing Plaintiffs' statewide claims, we did not distinguish between Plaintiffs' dilutionary and non-dilutionary claims. (*See id.*)

After we dismissed Plaintiffs' statewide claims, the Supreme Court issued its opinion in *Gill*. In her concurrence, Justice Kagan explained that unlike vote-dilution claims, which require

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[36] Senate Intervenors erroneously claim that Plaintiffs "did not bring any non-dilutionary claims." (Senate Intervenors' Proposed Conclusions of Law, ECF No. 254 at PageID #10350.) However, nothing in Count I of Plaintiffs' Complaint, which alleges a violation of Plaintiffs' First Amendment associational rights, limits this claim to dilutionary harms. (*See* Compl., ECF No. 1 at ¶¶ 75–80.) In fact, while Plaintiffs' Fourteenth Amendment claim (contained in Count II) alleges dilutionary harms because the Enacted Plan "packs and cracks Democratic voters, thus diluting their votes," *id.* at ¶ 83, Count I contains no similar allegations of vote-dilution. Rather, it alleges non-dilutionary First Amendment injuries, for example, that the Enacted Plan "has the purpose and effect of subjecting Democrats to disfavored treatment, including burdening their representational rights by reason of their views." (*Id.* at ¶ 79.) Therefore, contrary to Senate Intervenors' contention, Plaintiffs asserted non-dilutionary First Amendment associational claims in their Complaint.

showing district-specific injuries for standing purposes and, if proven, entail district-specific remedies, claims alleging violations of voters' First Amendment right to association may proceed on a statewide basis. *See id*. at 1939–40 (Kagan, J., concurring). Since Justice Kagan's clarification in *Gill*, federal courts have found that plaintiffs may seek a statewide remedy if they prevail on their First Amendment association claims. *See, e.g.*, *Householder*, 2019 WL 652980, at *7; *Rucho*, 318 F. Supp. 3d at 829–31 (explaining that injuries to the First Amendment right of association are "statewide").

Plaintiffs have continued to pursue their First Amendment association claim throughout the course of the litigation and have presented robust evidence of non-dilutionary First Amendment harms at trial and in their stipulated evidentiary submissions.[37] However, Plaintiffs did not revisit this Court's dismissal of their "statewide claims" after *Gill* was published. In fact, at the summary judgment stage, Plaintiffs explicitly disavowed a statewide challenge to the Enacted Plan; Plaintiffs explained that they had "narrowed their list of challenged districts" to: Congressional Districts 1, 4, 5, and 7–12; Senate Districts 8, 10–12, 14, 18, 22, 27, 32, and 36; and House Districts 24, 32, 51, 52, 55, 60, 62 63, 75, 76, 83, 91, 92, 94, and 95. (Pls.' Resp. Br., ECF No. 129 at 15, fn. 11.) And in their Proposed Conclusions of Law, Plaintiffs limit their requested relief to enjoining the use of the Challenged Districts in future elections. (*See* Pls.' Proposed Conclusions of Law, ECF No. 257 at PageID #10793–94.) They do not ask this Court to invalidate the entire Enacted Plan.

While Plaintiffs seek less than the maximum relief they could obtain if they proved their First Amendment associational claim—enjoining use of the 34 Challenged Districts, rather than the Enacted Plan in its entirety—Plaintiffs still have First Amendment associational rights to be

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[37] Unlike the plaintiffs in *Gill*, *see* 138 S. Ct. at 1939 (Kagan, J. concurring), Plaintiffs have "sufficiently advance[d]" their First Amendment association claim to demonstrate standing (and, ultimately, to prove the merits of their associational claim).

vindicated. The Court is not aware of any reason why it could not still consider statewide evidence with respect to Plaintiffs' First Amendment association claim, even though Plaintiffs ultimately only seek relief for the Challenged Districts. *See Gill*, 138 S. Ct. at 1939–40 (Kagan, J., concurring); *See, e.g.*, *Householder*, 2019 WL 652980, at *7; *Rucho*, 318 F. Supp. 3d at 829–31. Therefore, the Court will use statewide evidence to evaluate whether Plaintiffs' have established standing for this claim and, if so, to determine whether Plaintiffs have prevailed on the merits. However, if the Court finds that the Enacted Plan violates Plaintiffs' First Amendment rights to association, the Court will limit any remedy to the Challenged Districts.

1. Voters

Voters have established standing for their First Amendment association claim. Voters identify as Democratic voters and/or regularly vote for Democratic candidates, and they plan to support Democratic candidates in the 2020 election cycle. (*See, generally*, Pls.' Proposed Findings of Fact, ECF No. 257 at PageID #10591–10675.) Voters have presented robust evidence that the Enacted Plan 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). Specifically, the Enacted Plan has made it more difficult to energize the Democratic party's base, register voters, recruit candidates, mobilize and attract volunteers, raise money, and motivate people to vote. (*See, e.g.*, Dillon Trial Tr., ECF No. 249 at PageID #9098:23–9112:11; Bootzin Dep. at 11:15–12:14; Borenstein Dep. at 34:6–35:20; Cherry Dep. at 14:4–17:2; Canning-Peterson Dep. at 13:1–16:9; Caroff Dep. at 28:22–29:14; Demaire Dep. at 24:1–20, 31:2–33:4; Ellis Dep. at 27:18–30:11; Hartsough Dep. at 12:12–14:25; Jondahl Dep. at 15:7–18:18; Kromrei Dep. at 13:22–15:2; Morse Dep. at 12:3–15:6; Reiser Dep. at 11:5–25, 24:8–16; Sain Dep. at 18:2–21:4, 33:2–25; Sain-Steinborn Dep. at 18:20–20:8; Schaffer-O'Connell Dep. at 11:3–15:20; Somers Dep. at 17:5–21:1; Speer Dep. at 12:18–15:19;

Vertin Dep. at 14:8–21, 34:2–3.) Several Voters testified that they believe their votes—and their voices—have been weakened or do not count at all because of the partisan bias in the Enacted Plan. (*See, e.g.*, Aerts Dep. at 16:4–15; Canning-Peterson Dep. at 13:9–14; Cherry Dep. at 12:15–14:3; Morse Dep. at 12:3–24; Reiser Dep. at 11:11–25; Speer Dep. at 11:18–12:21; Stoetzer Dep. at 28:13–21; Watkins Dep. at 26:18–27:4.) Federal courts have held that plaintiffs have demonstrated standing for First Amendment associational claims based on evidence of associational harms analogous to those present in this case. *See Householder*, 2019 WL 652980, at *18; *Rucho*, 318 F. Supp. 3d at 829–30. Therefore, Voters have established standing for their First Amendment association claim.

2. The League

The League has derivative standing to pursue its First Amendment association claim based on its members. First, League Plaintiffs have standing to sue in their own right under a First Amendment association theory. *See* Part V.D.1, *supra*. Second, the interests at stake are germane to the League's purpose. *See* Part V.B.2, *supra*. And third, the individual League members need not directly participate in the lawsuit. *See* Part V.B.2, *supra*. Therefore, based on its membership, the League has standing to pursue a First Amendment claim based on injuries to its members' right of association. Because we have found that Voters have standing to challenge the Enacted Plan based on First Amendment associational injuries and that the League has derivative standing, we need not reach the issue of whether the League has independent standing on First Amendment associational grounds.

VI. ANALYSIS

A. The Enacted Plan Violates Plaintiffs' Fourteenth Amendment and First Amendment Rights by Diluting the Weight of Democratic Voters' Votes

1. Statewide Evidence and Findings

We may consult statewide evidence to determine whether Plaintiffs have established the intent element of their vote-dilution claims. *Rucho*, 318 F. Supp. 3d at 868 ("Plaintiffs can—and do—rely on statewide evidence to prove their partisan vote dilution claims") (internal citations omitted); *Gill*, 138 S. Ct. at 1937 (Kagan, J., concurring) (explaining that a district court may consider "statewide (as well as local) evidence" when adjudicating the merits of the plaintiffs' vote-dilution claims and that the plaintiffs could present "evidence about the mapmakers' goals in formulating the *entire statewide map*" to prove intent with respect to a specific district because such intent "would predictably carry down to individual districting decisions") (emphasis added); *see Ala. Legislative Black Caucus v. Alabama*, 135 S. Ct. 1257, 1265 (2015) ("Voters, of course, can present statewide evidence in order to prove racial gerrymandering in a particular district.") (internal citation omitted).

As discussed in Part II, *supra*, the map-makers, political operatives, and legislators elevated partisan considerations at every step in the 2011 redistricting process. Their primary goal was to draw maps that advantaged Republicans, disadvantaged Democrats, and ensured that Republicans could enjoy durable majorities in Michigan's congressional delegation and in both chambers of the Michigan legislature for the entire decade. The expert evidence, documentary evidence, and testimony from map-drawers, legislators, and political operatives undeniably points to this conclusion.

Senate Intervenors argue that emails from individual legislators and their staff members do not demonstrate "legislative intent." (Senate Intervenors' Proposed Conclusions of Law, ECF

No. 254 at PageID #10380–82.) Certainly, extemporaneous statements from a small number of individual legislators may not suffice to ascribe intent to an entire legislature. *See Hunter v. Underwood*, 471 U.S. 222, 228 (1985). However, in concluding that the Enacted Plan was designed and implemented with the predominant purpose of discriminating against Democrats, we do not rely on isolated off-hand comments from individual legislators. Rather, we base our finding on Plaintiffs' extensive expert evidence; testimony from the map-drawers; testimony from several legislators who played central parts in the Enacted Plan's creation and passage as party leaders or committee chairs; statements from legislative staff and political operatives who collaborated with the map-drawers during the redistricting process; and a wide-range of documentary evidence, such as emails between the map-drawers, emails from legislators, agenda minutes and the handwritten notes from the weekly leadership meetings, the Project REDMAP materials, and the proposed district maps, that contained detailed political data and depicted the partisan composition of the prosed districts, that the map-drawers and legislators relied on in creating the Enacted Plan. The breadth of evidence of discriminatory intent, from these multifarious sources, renders Senate Intervenors' "legislative intent" argument meritless.

Based on the statewide evidence of discriminatory partisan intent discussed in Part II, *supra*, and based on the district-specific evidence of discriminatory partisan intent discussed below, we find that Plaintiffs have demonstrated that the Enacted Plan is an unconstitutional partisan gerrymander. The Enacted Plan was devised with discriminatory intent; the predominant purpose of the Enacted Plan is to subordinate the interests Democrats and entrench Republicans in power by diluting the weight of Democratic voters' votes. The Enacted Plan has caused concrete discriminatory effects; it succeeded in discriminating against Democratic voters by packing and/or cracking them into districts where their votes carry less weight. The

Congressional and State House Intervenors and Senate Intervenors have failed to establish that any legitimate or neutral factor justifies this discrimination.

As explained below, Plaintiffs have established that most of the Challenged Districts violate their Fourteenth Amendment and First Amendment rights by diluting the weight of their votes through packing or cracking.[38]

2. District-Specific Evidence and Findings

a. Congressional District 1

League Plaintiffs Speer and Borenstein assert that Congressional District 1 dilutes the weight of their votes by cracking them into a safely Republican district. The vast majority of Dr. Chen's simulated districts, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Speer and Borenstein in a district that is less Republican than their current district, and in some instances, in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 1 is a "partisan outlier." (Chen Report at 56.) In other words, the partisanship of Congressional District 1 falls outside the middle 95% of simulated, geographically overlapping districts. (Chen Report at 55.)

During the 2011 redistricting cycle, the map-makers removed Iosco, Arenac, and Bay counties—all of which are Democratic-leaning—from Congressional District 1 and moved them to Congressional District 5. (Vatter Trial Tr., ECF No. 249 at PageID #9000:8–21.) These changes made Congressional District 1 "much more Republican." (*Id.* at PageID #9000:24–25.) Further, Congressional District 1 unnecessarily breaks counties and municipalities. (*Id.* at PageID #9002:23–9004:8.)

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[38] Plaintiffs have failed to carry their burden with respect to the districts for which they lack standing, i.e., Senate Districts 10, 22, and 32; and House Districts 52, 62, 76, and 92.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 1 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 1 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 1. Therefore, Congressional District 1 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

b. Congressional District 4

League Plaintiff Sherwood asserts that Congressional District 4 dilutes the weight of her vote by cracking her into a safely Republican district. The vast majority of Dr. Chen's simulated districts, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Sherwood in a district that is significantly less Republican than her current district, and in some instances, in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 4 is a "partisan outlier" because it cracks Democratic voters. (Chen Report at 55.)

Vatter testified that, when drawing Congressional District 4, the map-makers faced a choice: include the three Democratic-leaning counties that they had removed from Congressional District 1, or instead include Republican-leaning Ogemaw County. (Vatter Trial Tr., ECF No. 249 at PageID #9004:9–9006:16.) The map-makers chose to include Ogemaw County, which made Congressional District 4 more Republican. (*Id.* at PageID #9006:19.) Further, the map-makers deliberately drew Congressional District 4 to give incumbent Republican Congressman Dave Camp the City of Frankenmuth, a Republican area. (LaBrant Dep. at 213:21–214:13.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 4 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 4 had the effect of diluting the weight of such voters' votes; and that (3) no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 4. Therefore, Congressional District 4 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

c.   Congressional District 5

League Plaintiffs Holliday, Cherry, Purcell, Smith, Sain, Haley, and Sain-Steinborn assert that Congressional District 5 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Holliday, Cherry, Purcell, Smith, Sain, Haley, and Sain-Steinborn in a district that is less packed with Democratic voters than their current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 5 is a "partisan outlier" because it packs Democratic voters. (Chen Report at 55.)

The map-makers added the three Democratic-leaning counties they removed from Congressional District 1 to Congressional District 5. (Vatter Trial Tr., ECF No. 249 at PageID #9008:7–16.) This resulted in Congressional District 5 becoming a "super-Democratic district." (*Id.* at PageID #9008:21–22.) By concentrating so many Democratic voters in Congressional District 5, the map-drawers made Congressional Districts 10, 4, and 8 more Republican. (*Id.* at PageID #9009:1–6.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 5 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Congressional District 5 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in Congressional District 5. Therefore, Congressional District 5 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

d. Congressional District 7

League Plaintiffs Canning-Peterson and Vertin assert that Congressional District 7 dilutes the weight of their votes by cracking them into a safely Republican district. Nearly all of Dr. Chen's simulated districts, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Canning-Peterson and Vertin in a district that is significantly less Republican than their current district, and most of Dr. Chen's simulations place them in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 7 is a "partisan outlier" because it cracks Democratic voters. (Chen Report at 56.)

Vatter testified that from 2001 to 2011, Congressional District 7 was a competitive district. (Vatter Trial Tr., ECF No. 249 at PageID #9009:11–18.) However, during the 2011 redistricting cycle, the map-makers removed Calhoun County, a Democratic-leaning county that was the home of the incumbent Democratic Congressman Mark Schauer, and moved it to Congressional District 3, a more Republican district. (*Id.* at PageID #9009:19–9010:5.) These changes caused Congressional District 7 to become "much more Republican." (*Id.* at PageID

#9010:9–13.) In fact, a Democrat has not won Congressional District 7 since the Enacted Plan went into effect. (*Id.* at PageID #9010:9–13.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 7 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 7 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 7. Therefore, Congressional District 7 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

e.   Congressional District 8

League Plaintiffs Kroll, Jondahl, and Yokich assert that Congressional District 8 dilutes the weight of their votes by cracking them into a safely Republican district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Kroll, Jondahl, and Yokich in a district that is significantly less Republican than their current district, and the vast majority of Dr. Chen's simulations place them in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 8 is a "partisan outlier" because it cracks Democratic voters. (Chen Report at 55.)

Vatter testified that Congressional District 8 was competitive prior to the 2001 redistricting cycle, when the Republican-dominated legislature added a Republican-leaning part of Oakland County, which made the district much more Republican. (Vatter Trial Tr., ECF No. 249 at PageID #9010:18–9011:8.) In the 2011 redistricting, the map-makers decided to draw Congressional District 8 in much the same way as in 2001, meaning that it remained a heavily

Republican district. (*Id.* at PageID #9010:18–9011:8.) While a Democrat won Congressional District 8 in 2018—a historically strong year for Democrats—it had been eighteen years since a Democrat had carried the Eighth District. (*Id.* at PageID #9011:18–23.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 8 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 8 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 8. Therefore, Congressional District 8 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

f. Congressional District 9

League Plaintiffs Woloson, Noorbakhsh, Duemling, Demaire and Poore, and Individual Plaintiffs Ellis and Grasha, assert that Congressional District 9 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Woloson, Noorbakhsh, Duemling, Demaire, Ellis, Poore, and Grasha in a district that is less packed with Democratic voters than their current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 9 is a "partisan outlier" because it packs Democratic voters. (Chen Report at 55.)

Vatter testified that, prior to the 2011 redistricting, the southern parts of Oakland and Macomb counties were divided into two different congressional districts. (Vatter Trial Tr., ECF No. 249 at PageID #9012:4–13.) During the 2011 redistricting cycle, the map-makers combined the strongly Democratic portions of Oakland and Macomb counties in Congressional District 9,

which made it a "super Democratic" district and made the surrounding congressional districts correspondingly more Republican. (*Id.* at PageID #9012:9–13.) The map-makers also drew the Ninth District to stretch west to include Southfield Township and Bloomfield Township, but to strategically wrap around, in a snakelike fashion, Bloomfield Hills and Birmingham, which are considerably more Republican than the surrounding areas and excluded from the Ninth District as currently composed. (*Id.* at PageID #9014:8–20.) This strategic—and conspicuous—exclusion of Republican areas also contributes to the packing of Democratic votes in Congressional District 9.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 9 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Congressional District 9 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in Congressional District 9. Therefore, Congressional District 9 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

g.   Congressional District 10

Individual Plaintiff Brdak and League Plaintiff Morse assert that Congressional District 10 dilutes the weight of their votes by cracking them into a reliably Republican district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Brdak and Morse in a district that is significantly less Republican than their current district, and some of Dr. Chen's simulations place them in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr.

Chen concluded that Congressional District 8 is a "partisan outlier" because it cracks Democratic voters. (Chen Report at 55.)

Vatter testified that Congressional District 10 is "very intertwined" with Congressional District 9. (Vatter Trial Tr., ECF No. 249 at PageID #9015:11–19.) By drawing the Ninth District to pack Democratic voters, the map-makers made the Tenth District "much more Republican." (*Id.* at PageID #9015:11–14.) Specifically, the map-makers drew the border between the Ninth and Tenth Districts such that "super Democratic" areas, such as Clinton Township, Mount Clemens, Fraser, Sterling Heights, and Warren, were packed into the Ninth District, while Republican-leaning areas, such as Shelby Township, Macomb Township, and Chesterfield, were placed in the Tenth District, making the Tenth District more Republican. (*Id.* at PageID #9015:11–9016:7.) No Democrat has been elected in Congressional District 10 under the Enacted Plan. (*Id.* at PageID #9016:6–8.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 10 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 10 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 10. Therefore, Congressional District 10 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

h. Congressional District 11

League Plaintiffs Bowman, Watkins, Feijoo, and Ryan assert that Congressional District 11 dilutes the weight of their votes by cracking them into a reliably Republican district. Dr. Chen concluded that Congressional District 11 is a "partisan outlier." (Chen Report at 56.) Some of Dr.

Chen's simulations would place Bowman, Feijo, and Ryan in a district less Republican than their current district. (*See* Pls.' Trial Ex. 278.) Plaintiffs have presented additional evidence of cracking—the double election in 2012 where, on the same exact day, a Democrat won the election under the old maps and a Republican won the election under the new maps. (Dillon Trial Tr., ECF No. 249 at PageID #9104:1–9.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Congressional District 11 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Congressional District 11 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Congressional District 11. Therefore, Congressional District 11 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

i.   Congressional District 12

League Plaintiffs Caroff, Kromrei, Somers, Leary, and Smith assert that Congressional District 12 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Nearly every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Caroff, Kromrei, Somers, Leary, and Smith in a district that is less packed with Democratic voters than their current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Congressional District 12 is a "partisan outlier" because it packs Democratic voters. (Chen Report at 55.)

Vatter testified that the map-makers drew Congressional District 12 to begin in Wayne County and extend westward to capture the "very Democratic" areas of Ann Arbor, Ypsilanti,

Ypsilanti Township, and Pittsfield Township, making it a "super Democratic district." (Vatter

Trial Tr., ECF No. 249 at PageID #9019:20–9021:7.) By drawing the Twelfth District to pack

Democratic voters, the Enacted Plan makes the neighboring Seventh and Eleventh Districts

"much more Republican" than they otherwise would be. (*Id.* at PageID #9020:5–7.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II

and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed

Congressional District 12 with the predominant purpose of diluting the weight of Democratic

voters' votes through packing; (2) that the packing of Democratic voters in Congressional

District 12 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate

state interest or other neutral factor justified packing Democratic voters in Congressional District

12. Therefore, Congressional District 12 violates the Fourteenth Amendment's Equal Protection

Clause and the First Amendment.

j. Senate District 8

League Plaintiff Noorbakhsh, and Individual Plaintiffs Ellis and Brdak, assert that Senate

District 8 dilutes the weight of their votes by cracking them into a safely Republican district. The

vast majority of Dr. Chen's simulated district maps, drawn in accordance with traditional non-

partisan redistricting criteria and without invidious partisan intent, place Noorbakhsh and Ellis in

a district that is Democratic-leaning. (*See* Pls.' Trial Ex. 278.) Similarly, many of Dr. Chen's

simulations place Brdak in a Democratic-leaning district. (*See id.*) Dr. Chen concluded that

Senate District 8 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the map-makers cracked Democratic voters in Senate District 8 by

drawing horizontal districts rather than vertical districts and by strategically placing the

Democratic-leaning communities of Warren, Centerline, Eastpointe, Roseville, Fraser, and part

of Clinton Township in the neighboring Ninth Senate District. (Vatter Trial Tr., ECF No. 249 at

PageID #9021:10–16.) By placing these Democratic-leaning communities all in the Ninth Senate District, the map-makers made the Eighth District "much more Republican." (*Id.* at PageID #9021:19–23.) Vatter also testified that the map-makers created a gratuitous municipality split; they could have "very easily drawn" a map that did not split Clinton Township and would have resulted in two "competitive districts." (*Id.* at PageID #9022:1–10.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 8 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Senate District 8 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Senate District 8. Therefore, Senate District 8 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

k. Senate District 10

As noted above, Plaintiffs lack standing to challenge Senate District 10 under a vote-dilution theory.

l. Senate Districts 11 and 12[39]

Individual Plaintiff Grasha asserts that Senate District 11 dilutes the weight of his vote by packing him into an overwhelmingly Democratic district. Dr. Chen did not characterize Senate District 11 as a "partisan outlier." However, the overwhelming majority of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria

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[39] The Court will evaluate several of the Senate and House Districts in groups. At trial, Plaintiffs' expert testified about many of the Senate and House Districts in groups, and we believe that these districts are most appropriately considered together. The way that each district in a group was drawn had profound consequences on the partisanship of the other districts in that same group. One cannot fully grasp the partisan implications of the design of an individual district in each group without simultaneously evaluating the partisanship of the other districts in that group.

and without invidious partisan intent, place Grasha in a district that is significantly less packed with Democratic voters than his current district. (*See* Pls.' Trial Ex. 278.)

League Plaintiff Woloson asserts that Senate District 12 dilutes the weight of her vote by cracking her into a safely Republican district. Dr. Chen did not characterize Senate District 12 as a "partisan outlier." However, it appears that most of Dr. Chen's simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Woloson in a district that is less Republican than her current district. (*See id.*) In fact, many of Dr. Chen's simulations place Woloson in a Democratic-leaning district. (*See id.*)

Vatter testified that the map-makers drew Senate District 11 to "pack all the Democrats in the southern part of Oakland [County] into one Senate district." (Vatter Trial Tr., ECF No. 249 at PageID #9022:18–9023:22.) By placing the communities of Farmington Hills, Farmington, Southfield, Lathrup Village, Huntington Woods, Oak Park, Ferndale, Hazel Park, and Pleasant Ridge in Senate District 11, the map-makers made it a "super Democratic district." (*Id.* at PageID #9023:8–9.) And by packing the Democratic voters from these communities into a single super-Democratic district, the map-makers correspondingly made Senate District 12 "more Republican." (*Id.* at PageID #9023:10–20.) While Senate District 12 elected a Democrat in 2018, it had been approximately 20 years since a Democrat had prevailed in that district. (*Id.* at PageID #9023:21–9024:3.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 11 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Senate District 11 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral

factor justified packing Democratic voters in Senate District 11. Therefore, Senate District 11 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 12 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Senate District 12 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Senate District 12. Therefore, Senate District 12 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

m. Senate District 18

League Plaintiffs Leary, Caroff, and Susan Smith assert that Senate District 18 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Leary, Caroff, and Smith in a district that is less packed with Democratic voters than their current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that Senate District 18 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the map-makers designed Senate District 18 to pack Democratic voters and correspondingly drew Senate District 22 to be solidly Republican. (Vatter Trial Tr., ECF No. 249 at PageID #9024:4–21.) Vatter also testified that when drawing these two districts, the map-makers ignored the Apol requirement that, when breaking a county between multiple districts, a map must shift the fewest number of municipalities as required to achieve population

equality. (*Id.* at PageID #9024:22–9026:15.) Specifically, the Enacted Plan breaks Washtenaw County and shifts fourteen municipalities into Livingston County to create Senate District 22. (*Id.* at PageID #9025:14–9026:15.) However, the map-makers could have "easily" shifted only six municipalities from Washtenaw to Livingston. (*Id.* at PageID #9025:14–20.) Shifting only six municipalities would have made Senate District 22 "a competitive seat" and caused Senate District 18 to be less packed with Democrats. (*Id.* at PageID #9026:10–15.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 18 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Senate District 18 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in Senate District 18. Therefore, Senate District 18 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

n. Senate District 22

As noted above, Plaintiffs lack standing to challenge Senate District 22 under a vote-dilution theory.

o. Senate Districts 14 and 27

League Plaintiffs Feijoo and Sain assert that Senate District 14 dilutes the weight of their votes by cracking them into a safely Republican district. Dr. Chen did not characterize Senate District 14 as a "partisan outlier." However, every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Sain in a district that is less Republican than her current district, and many of Dr. Chen's simulated districts place her in a Democratic-leaning district. (*See* Pls.'

Trial Ex. 278.) Similarly, many of Dr. Chen's simulated districts place Ms. Feijoo in a district that is less Republican than her current district. (*See id*.)

League Plaintiffs Cherry and Haley assert that Senate District 27 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Nearly every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Cherry and Haley in a district that is less packed with Democratic voters than their current district. (*See id*.) Dr. Chen concluded that Senate District 27 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the map-makers packed Democratic voters into Senate District 27 by creating the district out of the City of Flint and the Democratic-leaning regions of Genesee County. (Vatter Trial Tr., ECF No. 249 at PageID #9027:6–9.) Vatter also testified that the map-makers designed Senate District 14 to be a safe Republican district; they achieved this outcome by packing Democratic voters into the neighboring Twenty Seventh District and by breaking Oakland County to pick up several Republican-leaning areas, such as Waterford Township. (*Id.* at PageID #9027:6–18.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 14 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in Senate District 14 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in Senate District 14. Therefore, Senate District 14 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 27 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Senate District 27 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in Senate District 27. Therefore, Senate District 27 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

p. Senate District 32

As noted above, Plaintiffs lack standing to challenge Senate District 32 under a vote-dilution theory.

q. Senate District 36

League Plaintiffs Speer, Borenstein, and Sherwood assert that Senate District 36 dilutes the weight of their votes by packing them into an overwhelmingly Democratic district. Dr. Chen did not characterize Senate District 36 as a "partisan outlier." However, every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Sherwood in a district that is less packed with Democratic voters than her current district. (*See* Pls.' Trial Ex. 278.) Many of Dr. Chen's simulated district maps place Borenstein and Speer in districts that are less packed with Democrats than their current district. (*See id*.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed Senate District 36 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in Senate District 36 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral

factor justified packing Democratic voters in Senate District 36. Therefore, Senate District 36 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

r. House District 24

League Plaintiff Poore asserts that House District 24 dilutes the weight of her vote by cracking her into a safely Republican district. Dr. Chen did not characterize House District 24 as a "partisan outlier." However, every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Poore in a district that leans Democratic. (*See id.*)

Vatter testified that the map-makers drew House District 24 to make it a Republican District. (Vatter Trial Tr., ECF No. 249 at PageID #9030:22–9031:5.) He also testified that drawing House District 24 as a Republican District had the effect of making the neighboring Eighteenth House District, which comprises the Saint Clair Shores community, more Democratic. (*Id.* at PageID #9030:21–9031:9.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 24 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 24 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 24. Therefore, House District 24 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

s. House District 32

Individual Plaintiff Brdak asserts that House District 32 dilutes the weight of his vote by cracking him into a safely Republican district. Every single one of Dr. Chen's 1,000 simulated

district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Brdak in a less Republican district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 32 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the before the 2011 redistricting cycle, House District 32 was a competitive district. (Vatter Trial Tr., ECF No. 249 at PageID #9032:1–3.) However, the map-makers added several Republican-leaning townships to House District 32 to make it more Republican, such as Kenockee Township, Wales Township, Kimball Township, Columbus Township, and Casco Township. (*Id.* at PageID #9031:16–25.) These changes transformed House District 32 into a Republican district. (*Id.* at PageID #9032:4–5.) Furthermore, to achieve their aim of making House District 32 a safe Republican district, the map-makers shifted eight municipalities, when they could have drawn a competitive map that shifted only five. (*Id.* at PageID #9032:8–19.) Accordingly, when drawing House District 32, the map-makers and legislators subordinated the Apol criteria to their desire to devise a map that favored Republicans and disadvantaged Democrats.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 32 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 32 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 32. Therefore, House District 32 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

t. House District 51

League Plaintiff Sain-Steinborn asserts that House District 51 dilutes the weight of her vote by cracking her into a safely Republican district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Sain-Steinborn in a less Republican district, and many of Dr. Chen's simulations place her in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 51 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that House District 51 used to comprise both Democratic and Republican areas and was competitive prior to the 2011 redistricting cycle. (Vatter Trial Tr., ECF No. 249 at PageID #9033:20–25.) However, the map-makers redrew House District 51 to wrap almost all the way around Flint and encompass the Republican-leaning parts of Genesee County. (*Id.* at PageID #9033:8–17.) These changes made House District 51 much more Republican. (*Id.*)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 51 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 51 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 51. Therefore, House District 51 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

u. House District 52

As noted above, Plaintiffs lack standing to challenge House District 52 under a vote-dilution theory.

v. House District 55

League Plaintiff Leary asserts that House District 55 dilutes the weight of her vote by packing her into an overwhelmingly Democratic district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Leary in a district that is less packed with Democratic voters than her current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 55 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the Enacted Plan places the Republican areas of Washtenaw County into House District 52 and packs the Democratic-leaning areas into House Districts 53, 54, and 55. (Vatter Trial Tr., ECF No. 249 at PageID #9034:10–9033:22.) Vatter testified that the map-makers could have configured these districts so that some of the Democratic-leaning areas extended into districts that included the western part of Washtenaw County, which would have rendered these packed districts less Democratic and more competitive. (*Id.* at PageID #9034:23–9035:2.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 55 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in House District 55 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in House District 55. Therefore, House District 55 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

w. House Districts 60, 62, and 63

League Plaintiff Hartsough asserts that House District 60 dilutes the weight of her vote by packing her into an overwhelmingly Democratic district. Every single one of Dr. Chen's

1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Hartsough in a district that is less packed with Democratic voters than her current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 60 is a "partisan outlier." (Chen Report at 56.)

League Plaintiff Zeller asserts that House District 62 dilutes the weight of her vote by packing her into a strongly Democratic district. Most of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Zeller in a district that is less packed with Democratic voters than her current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 62 is a "partisan outlier." (Chen Report at 56.)

League Plaintiff Reiser asserts that House District 63 dilutes the weight of her vote by cracking her into a safely Republican district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Reiser in a less Republican district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 63 is a "partisan outlier." (Chen Report at 56.)

Vatter testified that the map-makers could have drawn House Districts 60, 62, and 63 to be competitive districts. Specifically, the map-makers could have drawn House District 63, currently a safe Republican district, to include Battle Creek, currently located in House District 62. (Vatter Trial Tr., ECF No. 249 at PageID #9035:8–20.) This would have made House District 63 a competitive district and, by extension, reduced the packing of Democrats in House District 62. (*Id*.)

The map-makers also could have drawn House District 60, which is currently packed with Democrats, to be a competitive district. (*Id.* at PageID #9038:4–10.) Specifically, the map-

makers could have extended House District 60 further eastward to include Republican-leaning townships in Calhoun County. (*Id.* at PageID #9038:4–10.) This change would render House District 63, where Democrats are currently cracked, less Republican and more competitive. (*Id.* at #9038:14–18.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 60 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in House District 60 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in House District 60. Therefore, House District 60 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

As noted above, Plaintiffs lack standing to challenge House District 62 under a vote-dilution theory.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 63 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 63 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 63. Therefore, House District 63 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

x. House District 75

League Plaintiff Bootzin asserts that House District 75 dilutes the weight of her vote by packing her into an overwhelmingly Democratic district. Every single one of Dr. Chen's 1,000

simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Bootzin in a district that is less packed with Democratic voters than her current district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 75 is a "partisan outlier." (Chen Report at 56.)

House District 75, which comprises downtown Grand Rapids, is almost completely enclosed by House District 76, which wraps around the southern, eastern, and northern edges of House District 75 in a narrow band, reminiscent of a snake. (*See* Benson Demonstrative 1, "Michigan's 110 House Districts.") Brandon Dillon, a Democrat, represented House District 75 from 2011 until 2015. (Dillon Trial Tr., ECF No. 249 at PageID #9093:23–9094:3.) Dillion represented House District 75 during the 2011 redistricting cycle. (*Id.* at PageID #9094:9–14.) Dillon voted against the Enacted Plan, even though it transformed his district from a "competitive seat to a safe, super-Democratic seat." (*Id.* at PageID #9094:13–14.) Dillon voted against the Enacted Plan because he believed that the Enacted Plan was unfair and that the districts in Grand Rapids "were extremely gerrymandered." (*Id.* at PageID #9094:22–9095:4.) Dillon testified that the Republicans drew the House districts "to basically pack all of the Democrats into the center of the city," in House District 75, and then drew House District 76 "as a backwards C around [House District 75] to try and make one of the districts a competitive seat for Republicans." (*Id.* at PageID #9095:4–15.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 75 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in House District 75 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral

factor justified packing Democratic voters in House District 75. Therefore, House District 75 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

y. House District 76

As noted above, Plaintiffs lack standing to challenge House District 76 under a vote-dilution theory.

z. House District 83

League Plaintiff Morse asserts that House District 83 dilutes the weight of her vote by cracking her into a safe Republican district. Dr. Chen did not characterize House District 83 as a "partisan outlier." However, the vast majority of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Morse in a less Republican district. (*See* Pls.' Trial Ex. 278.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 83 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 83 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 83. Therefore, House District 83 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

aa. House District 91

League Plaintiff Aerts asserts that House District 91 dilutes the weight of her vote by cracking her into a safe Republican district. The vast majority of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without

invidious partisan intent, place Aerts in a Democratic-leaning district. (*See* Pls.' Trial Ex. 278.)

Dr. Chen concluded that House District 91 is a "partisan outlier." (Chen Report at 56.)

House District 91 is entirely in Muskegon County. Vatter testified that the Enacted Plan packs the Democratic-leaning areas in Muskegon County into House District 92, while House District 91 comprises the outlying Republican-leaning municipalities. (Vatter Trial Tr., ECF No. 249 at PageID #9035:21–9036:6.) As a result, Democrats are cracked in House District 91, which is a reliably-Republican district. (*Id.* at PageID #9035:21–9036:6.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 91 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 91 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 91. Therefore, House District 91 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

bb.   House District 92

As noted above, Plaintiffs lack standing to challenge House District 92 under a vote-dilution theory.

cc.   House Districts 94 and 95

League Plaintiff Purcell asserts that House District 94 dilutes the weight of his vote by cracking him into a safe Republican district. Every single one of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, places Purcell in a district that more Democratic than his current

district. (*See* Pls.' Trial Ex. 278.) Dr. Chen concluded that House District 94 is a "partisan outlier." (Chen Report at 56.)

League Plaintiff Sherrill Smith asserts that House District 95 dilutes the weight of her vote by packing her into an overwhelmingly Democratic district. Dr. Chen did not characterize House District 95 as a "partisan outlier." However, the vast majority of Dr. Chen's 1,000 simulated district maps, drawn in accordance with traditional non-partisan redistricting criteria and without invidious partisan intent, place Smith in a district less packed with Democratic voters. (*See* Pls.' Trial Ex. 278.)

Vatter testified that the Enacted Plan packs heavily-Democratic areas, including the City of Saginaw, Kochville, Zilwaukee Township, Zilwaukee, Spaulding Township, Bridgeport Township, and James into House District 95. (Vatter Trial Tr., ECF No. 249 at PageID #9036:15–20.) House District 94 wraps around House District 95 like a snake, starting with Tittabawassee Township to the northwest, continuing south through Swan Creek and Saint Charles, then stretching east to Frankenmuth and from there north to Blumfield. (*Id.* at PageID #9036:24–9037:6.) Vatter testified that this configuration makes House District 95 "super Democratic" and House District 94 a "very Republican district." (*Id.* at PageID #9036:19–9037:6.)

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 94 with the predominant purpose of diluting the weight of Democratic voters' votes through cracking; (2) that the cracking of Democratic voters in House District 94 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified cracking Democratic voters in House District 94. Therefore, House

District 94 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

Based on this district-specific evidence and the statewide evidence discussed in Parts II and V.A.1.a. *supra*, the Court finds (1) that the map-makers and legislators designed House District 95 with the predominant purpose of diluting the weight of Democratic voters' votes through packing; (2) that the packing of Democratic voters in House District 95 had the effect of diluting the weight of such voters' votes; and (3) that no legitimate state interest or other neutral factor justified packing Democratic voters in House District 95. Therefore, House District 95 violates the Fourteenth Amendment's Equal Protection Clause and the First Amendment.

3. Summary

The Court concludes that the following Challenged Districts constitute unconstitutional partisan gerrymanders, in violation of the First and Fourteenth Amendments, because they dilute the votes of Democratic voters: Congressional Districts 1, 4, 5, 7, 8, 9, 10, 11, and 12; Senate Districts 8, 11, 12, 14, 18, 27, and 36; and House Districts 24, 32, 51, 55, 60, 63, 75, 83, 91, 94, and 95.

The Court finds that Plaintiffs have failed to establish that Senate Districts 10, 22, and 32, and House Districts 52, 62, 76, and 92 are unconstitutional partisan gerrymanders under a vote-dilution theory.

B. Every Challenged District Violates Plaintiffs' First Amendment Right to Association

Voters and the League have proven their First Amendment association claims with respect to every Challenged District.

First, we have already held that the "predominant purpose" of the Enacted Plan was to subordinate the interests of Democratic voters and entrench Republicans in power. *See* Part

V.A.1, *supra*. Therefore, we similarly find, based on the state-wide evidence discussed in Parts II

and V.A.1.a., *supra*, that the map-makers and legislators formulated the Enacted Plain with the

"specific intent" to burden the associational rights of Democratic voters. *Johnson*, 352 F. Supp.

3d at 807 (quoting *Shapiro*, 203 F. Supp. 3d at 597 and *Rucho*, 318 F. Supp. 3d at 929).

Specifically, the map-makers and legislators discriminated against Democratic voters by diluting

the weight of their votes because these voters had voted for Democrats, rather than Republicans,

in previous elections. Because Plaintiffs have established that their protected First Amendment

speech was the "predominant purpose" of the map-makers' and legislators' decision to dilute

their votes, they have necessarily satisfied the lower threshold, applicable to First Amendment

retaliation cases, of showing that their protected speech was a "motivating factor" for the

challenged activity. *See Rucho*, 318 F. Supp. 3d at 929 (applying "motivating factor" test to First

Amendment association claim based on partisan gerrymandering); *Mt. Healthy City Sch. Dist.*

Bd. of Educ. v. Doyle, 429 U.S. 274, 287 (1977) (applying "motivating factor" test to First

Amendment retaliation claim).

Second, Plaintiffs have demonstrated that the Enacted Plan burdened their First

Amendment associational rights. *Johnson*, 352 F. Supp. 3d at 807; *Rucho*, 318 F. Supp. 3d at

929. Intervenors argue that the Enacted Plan does not burden Plaintiffs' First Amendment

associational rights because it does not preclude them from "speaking to, endorsing,

campaigning for, making political contributions to, and/or voting for candidates." (Cong. and

State House Intervenors' Proposed Conclusions of Law, ECF No. 258 at PageID #11145–46; *see*

Senate Intervenors' Proposed Conclusions of Law, ECF No. 254 at PageID #10352–53

(articulating the same argument).) Certainly, the Enacted Plan does not categorically prevent

Plaintiffs from engaging in political activity. But "constitutional violations may arise from the

deterrent, or 'chilling,' effect of governmental [efforts] that fall short of a direct prohibition against the exercise of First Amendment rights." *Bd. of Cty. Comm'rs, Wabaunsee Cty., Kan. v. Umbehr*, 518 U.S. 668, 674 (1996) (internal citation omitted). An adverse action "chills" speech if it would "deter a person of ordinary firmness from the exercise of the right at stake." *Thaddeus-X v. Blatter*, 175 F.3d 378, 396 (6th Cir. 1999) (internal citation and quotation marks omitted). This same principle applies to First Amendment association claims based on partisan gerrymandering. *See Rucho*, 318 F. Supp. 3d at 931.

Voters have satisfied this standard. By diluting the weight of Democratic voters' votes, the Enacted Plan has made it more difficult to energize the party's base, register voters, recruit candidates, mobilize and attract volunteers, raise money, and motivate people to vote. (*See, e.g.*, Dillon Trial Tr., ECF No. 249 at PageID #9098:23–9112:11; Bootzin Dep. at 11:15–12:14; Borenstein Dep. at 34:6–35:20; Cherry Dep. at 14:4–17:2; Canning-Peterson Dep. at 13:1– 16:9; Caroff Dep. at 28:22–29:14; Demaire Dep. at 24:1–20, 31:2–33:4; Ellis Dep. at 27:18–30:11; Hartsough Dep. at 12:12–14:25; Jondahl Dep. at 15:7–18:18; Kromrei Dep. at 13:22–15:2; Morse Dep. at 12:3–15:6; Reiser Dep. at 11:5–25, 24:8–16; Sain Dep. at 18:2–21:4, 33:2–25; Sain-Steinborn Dep. at 18:20–20:8; Schaffer-O'Connell Dep. at 11:3–15:20; Somers Dep. at 17:5–21:1; Speer Dep. at 12:18–15:19; Vertin Dep. at 14:8–21, 34:2–3.) Several Voters believe their votes—and their voices—have been weakened or do not count at all because of the partisan bias in the Enacted Plan's districts. (*See, e.g.*, Speer Dep. at 11:18–12:21; Stoetzer Dep. at 28:13–23; Cherry Dep. at 12:15–14:3; Canning-Peterson Dep. at 13:9–14; Morse Dep. at 12:3– 24; Watkins Dep. at 26:18–27:4; Reiser Dep. at 11:11–25; Aerts Dep. at 16:4–15.) Plaintiffs have therefore demonstrated that the Enacted Plan chills their First Amendment rights. *See Thaddeus-X*, 175 F.3d at 396.

Intervenors argue that Voters have not suffered an injury to their First Amendment associational rights because the First Amendment does not guarantee them the right to vote for the winning candidate or be represented by a specific political party. (*See* Cong. and State House Intervenors' Proposed Conclusions of Law at PageID #11124–27 and 11145–46; Senate Intervenors' Proposed Conclusions of Law at PageID #10352.) Of course, the First Amendment "does not guarantee political success." *Badham v. Mar. Fong Eu*, 694 F. Supp. 664, 675 (N.D. Cal. 1988). However, the First Amendment prevents the government from discriminating against citizens based on their viewpoints. *See, e.g.*, *Rosenberger*, 515 U.S. at 829 (describing viewpoint discrimination as "an egregious form of content discrimination" and stating that "[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.") And "[t]he concept that government may restrict the speech of some elements of our society in order to enhance the relative voice of others is wholly foreign to the First Amendment." *Emily's List v. Fed. Election Comm'n*, 581 F.3d 1, 5 (D.C. Cir. 2009) (Kavanaugh, J.) (quoting *Buckley v. Valeo*, 424 U.S. 1, 49 (1976)). By discriminating against Democratic voters based on their voting history, the Enacted Plan constitutes the quintessential type of viewpoint discrimination that the First Amendment prohibits.

The League also suffered First Amendment harms. The League's mission is to "empower voters and defend democracy." (Smit Trial Tr., ECF No. 248 at PageID #8764:11–17.) The Enacted Plan has injured the League by engendering voter apathy that hampers the League's voter engagement, voter education, and get out the vote efforts; preventing the League from making progress on voting rights issues through legislative reforms; and making it difficult for the League to secure Republican candidates' participation in candidate forums and voter

education guides. (*Id.* at PageID #8776:2–8782:11.) Accordingly, the League has established that the Enacted Plan burdened its First Amendment association rights. *See Rucho*, 318 F. Supp. 3d at 935 (finding that the individual plaintiffs and the North Carolina League of Women Voters established injuries to their First Amendment association rights under similar circumstances).

Third, Plaintiffs have demonstrated causation. *See Johnson*, 352 F. Supp. 3d at 807; *Shapiro*, 203 F. Supp. 3d at 597. Plaintiffs would not have suffered injuries to their First Amendment association rights absent the map-makers' and legislators' intent to burden their First Amendment rights through the Enacted Plan. In fact, the map-makers deliberately designed and implemented the Enacted Plan to injure Democrats' First Amendment rights.

We find that Plaintiffs have proven their First Amendment association claim with respect to every Challenged District. Because Plaintiffs' First Amendment association claim does not require proving vote-dilution in a given district, Plaintiffs have established that every Challenged District violates their First Amendment association right, including those Challenged Districts— specifically, Senate Districts 10, 22, and 32, and House Districts 52, 62, 76, and 92—for which Plaintiffs failed to demonstrate unconstitutional vote-dilution.

VII.   SPECIAL SENATE ELECTION

A. Federal Courts May Order Special Elections in Appropriate Circumstances

"It is within the scope of [a court's] equity powers to order a governmental body to hold special elections" to redress constitutional violations. *See Arbor Hill Concerned Citizens v. Cty. of Albany*, 357 F.3d 260, 262 (2d Cir. 2004) (reversing district court's order that refused to hold special election and requiring county to hold special election after district court invalidated electoral maps as violative of the Voting Rights Act) (internal citation omitted); *Pope v. Cty. of Albany*, 687 F.3d 565, 569 (2d Cir. 2012) (explaining that federal courts possess the "power to order special elections" to redress constitutional violations); *Marks v. Stinson*, 19 F.3d 873, 889

(3d Cir. 1994) (holding that "[i]f the district court finds a constitutional violation, it will have authority to order a special election" regarding state senate district); *Griffin v. Burns*, 570 F.2d 1065, 1080 n.15 (1st Cir. 1978) (affirming district court's power to "call a special election" to remedy constitutional violation to voting rights); *Ketchum v. City Council of City of Chicago, Ill.*, 630 F. Supp. 551, 565 (N.D. Ill. 1985) ("Federal courts have often ordered special elections to remedy violations of voting rights. Prospective relief alone is 'of little consequence to the many voters who sought to vote . . . and could not do so effectively.'" (quoting *Coal. for Educ. in District One v. Bd. of Elections*, 370 F. Supp. 42, 58 (S.D.N.Y.), *aff'd*, 495 F.2d 1090 (2d Cir. 1974))). Indeed, "in cases involving unconstitutional burdens on the right to vote . . . numerous courts . . . have concluded that shortening the terms of elected officials and ordering a special election does not unduly intrude on state sovereignty, particularly when the constitutional violation is widespread or serious." *Covington v. North Carolina*, 270 F. Supp. 3d 881, 896 (M.D.N.C. 2017) (three-judge panel) (collecting cases).

The Supreme Court recently discussed the factors district courts must consider in determining whether to order special state elections after invalidating a state's apportionment plan. In *North Carolina v. Covington*, 137 S. Ct. 1624 (2017) (per curium), the Supreme Court explained that although it had "never addressed whether or when a special election may be a proper remedy" when a district court invalidates an apportionment plan, courts must engage in an "equitable weighing process." *Id.* at 1625. The Supreme Court stated that, when determining whether to order a special election, "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." *Id.* at 1625–26. Because the district court failed to weigh these

factors appropriately and "addressed the balance of equities in only the most cursory fashion," the Supreme Court remanded the case for the district court to determine whether a special election was appropriate under these principles. *Id.* at 1626.

On remand, the district court found that an equitable weighing of the factors articulated by the Supreme Court did not warrant a special election. *Covington*, 270 F. Supp. 3d at 889.

The district court found that the first enumerated factor—the nature and severity of the constitutional violation—counseled in favor of granting a special election. *Id.* at 894. The court explained that "because the right to vote is 'preservative of all rights,' any infringement on that right . . . strikes at the heart of the substantive rights and privileges guaranteed by our Constitution." *Id.* at 890 (citing *Reynolds*, 377 U.S. at 562–63). The court further found that the constitutional violations were particularly severe because of the expansive geographic scope of the racial gerrymander at issue, the fact that the constitutional violations harmed millions of voters, and the fact that the unconstitutional legislative plan "persisted over six years, tainting three separate election cycles and six statewide elections." *Id.* at 894.

The district court found that the second enumerated factor—judicial restraint and state sovereignty—also counseled in favor of granting a special election. *Id.* at 898. Two factors guided the court's analysis of this issue: first, that "any intrusion on state sovereignty [must be evaluated] from the perspective of the people of North Carolina," *id.* at 984, because a "'basic principle[] of our democratic system' is that 'sovereignty is vested in the people,'" *id.* (quoting *U.S. Term Limits, Inc. v. Thornton*, 514 U.S. 779, 793–94 (1995)); second, that "the Fourteenth Amendment was 'specifically designed as an expansion of federal power and an intrusion on state sovereignty.'" *Id.* at 894–95 (quoting *Gregory v. Ashcroft*, 501 U.S. 452, 468 (1991)).

In finding that these two considerations counseled in favor of holding a special election, the court addressed, and ultimately dismissed, several arguments against a special election that Secretary Benson and Senate Intervenors make in this case. For instance, the court explained that, "because sovereignty lies with the people . . . inconvenience to legislators elected under an unconstitutional districting plan resulting from such legislators having to adjust their personal, legislative, or campaign schedules to facilitate a special election does not rise to the level of a significant" intrusion on state sovereignty. *Id.* at 895. The court also held that truncating the two-year terms of legislators, as provided for by the North Carolina Constitution, was not "unduly intrusive" and that the "serious and widespread nature of the constitutional violation . . . substantially outweigh[ed] the intrusion associated with temporarily shortening the terms of legislators elected in districts that must be redrawn." *Id.* at 896.

The court found that the final enumerated factor—disruption to the ordinary processes of government—counseled against ordering a special election. *Id.* at 901. The court first explained that there was no merit in the legislative defendants' contention that a burden on the state legislators precluded a special election because the court must instead view any disruption from the perspective of the voters who, because of the unconstitutional districts, "have long lacked constitutionally adequate representation in their General Assembly." *Id.* at 898. However, the court found that holding a special election would be unduly disruptive given the circumstances. The court noted that holding special primary and general elections, on days when elections were not otherwise scheduled, would result in county election boards having to hold five different elections, on five different dates, over an approximately twelve-month period. *Id.* at 899. The court found that the "close succession during which voters would be called upon to participate in both special and regularly scheduled elections risks generating substantial voter confusion and

resulting low voter turnout, as voters may believe they need only vote in state legislative elections once during a single calendar year." *Id.* The court further found that adding a special election to North Carolina's election calendar would cause "problematic scheduling overlaps" because the special election schedule proposed by the plaintiffs would have required legislative candidates to file to run for the regularly-scheduled November 2018 general election *before* the remedial special election was to take place. *Id.* Therefore, under the plaintiffs' proposed special election schedule, "the same candidates would be running for the same seats twice in a single calendar year—with overlapping election schedules." *Id.*

The court also found that plaintiffs' proposed schedule for the special elections—which would have required the general assembly to enact remedial districts approximately two weeks after the district court held an evidentiary hearing on the special elections issue—did not allow adequate time for the legislature to "obtain and incorporate public input on its redistricting criteria and draft districting plans and to engage in the robust debate and discussion necessary to enact plans that fully remedy the constitutional violations." *Id.* Because the plaintiffs' proposed special election schedule was compressed, allowed insufficient time for review, and would therefore likely cause confusion and poor voter turnout, the court held that ordering a special election would "undermine one of the primary goals this Court must pursue in crafting a remedy: putting districting plans and election procedures in place that will allow North Carolinians to choose their representatives under constitutional districting plans." *Id.* at 901.

B. Under an "Equitable Weighing Process," a Special Senate Election Is Warranted in This Case

With *Covington* as guidance, we evaluate the balance of equities regarding the question of whether to order a special Senate election. We find that the balance of equities leans in Plaintiffs' favor and that a special Senate election is warranted.

The first enumerated factor—the nature and severity of the constitutional violation—weighs strongly in favor of granting a special Senate election. The nature of the constitutional violation is extremely grave. "[T]he right to exercise the franchise in a free and unimpaired manner is preservative of other basic civil and political rights . . . ." *Reynolds*, 377 U.S. at 562. Partisan gerrymandering also subverts the fundamental purpose of legislative apportionment—providing "fair and effective representation for all citizens." *Id.* at 565. And because sovereignty is vested in the people, *see Thornton*, 514 U.S. at 793–94, by preventing the people of Michigan from fairly and effectively exercising their franchise, the Enacted Plan infringes on state sovereignty, further exacerbating its constitutional harm.

The constitutional violations in this case are particularly severe. Evidence from numerous sources demonstrates that the map-drawers and legislators designed the Enacted Plan with the specific intent to discriminate against Democratic voters. (*See* Part II.A.) A wide breadth of statistical evidence indicates that the Enacted Plan's partisan bias has proven severe and durable; it has strongly advantaged Republicans and disadvantaged Democrats for eight years and across four separate election cycles. Moreover, the Enacted Plan represents a political gerrymander of historical proportions. Dr. Warshaw found that the 2014 Senate elections had a larger pro-Republican efficiency gap score than 99.7% of previous state senate elections nationwide; that the 2012 congressional elections had a greater pro-Republican efficiency gap score than 98% of previous congressional plans nationwide; and that the 2012 House elections had a larger pro-Republican efficiency gap score than 98% of previous state house elections nationwide. (Warshaw Report at 16–19, 33–35.) Dr. Warshaw also found that the Enacted Plan's partisan bias is historically extreme using the median-mean and declination measures. (Warshaw Report at 9–11, 19–20, 36.) Finally, the geographic scope of unconstitutionality is vast. The Enacted

Plan taints thirty-four total legislative districts across the state, including ten Senate districts. Accordingly, we find that the constitutional violations in this case are particularly severe.

The second enumerated factor—judicial restraint and state sovereignty—also weighs in favor of granting a special Senate election. Because sovereignty emanates from the people, *see Thornton*, 514 U.S. at 793–94, we evaluate this factor from the perspective of the people of Michigan. *See Covington*, 270 F. Supp. 3d at 894. Like the court in *Covington*, we find that inconvenience to legislators elected under the Enacted Plan does not constitute a significant intrusion on state sovereignty. *Id.* at 895. We similarly find that the fact that a special Senate election would truncate the four-year terms of senators is not "unduly intrusive" given the gravity and extent of the constitutional violations at issue in this case. *Id.* at 895. While senators may be disappointed that their four-year terms will be reduced to two years, the sentiment of the legislators elected under an unconstitutional apportionment plan does not outweigh the constitutional rights of millions of Michiganders to elect their senators under constitutional maps.

The final enumerated factor—disruption to the ordinary processes of government— weighs towards granting a special Senate election. In this regard, we find it useful to contrast the circumstances present in this case with those in *Covington*, 270 F. Supp. 3d 881, where the court appropriately found that a special election would cause substantial disruption to the ordinary processes of government, and therefore decided not to order a special election.

In *Covington*, the schedule proposed by the plaintiffs would have entailed holding a special primary election in December 2017 and a special election in March 2018, only two months before the next primary election in May 2018, and eight months before the next general election in November 2018. *Id.* at 899. The special election would have resulted in county

election boards holding five different elections, on five different dates, over an approximately twelve-month period. *Id.* at 899. For these reasons, the court found that the special election could cause voter confusion and result in low voter turnout. In the instant case, Plaintiffs ask us to order a special Senate election on the *same date* as the regularly-scheduled general elections in November 2020. No additional election would be scheduled; voters would simply cast their votes for one additional office on election day (both in the primary and in the general election). Because the special Senate election would occur on a regular election day and at a regularly-scheduled interval, it would not result in any additional election being held during the calendar year, and there would little risk of voter confusion or low turnout. Therefore, holding the Senate election in November 2018 would not impose a heavy burden on Michigan's normal electoral process.

In *Covington*, the plaintiffs' extremely compressed timetable for the special elections would not have allowed sufficient time for the legislature to adequately consider remedial maps or for the court to evaluate their constitutionality. These concerns are not present here. Under the deadlines specified in this Court's order, the Michigan legislature will have over four months to enact remedial maps. Moreover, the Court will have ample time to ensure their constitutionality, as the November 2020 elections are still eighteen months away. Therefore, unlike in *Covington*, time considerations are not a factor weighing against ordering a special election.

After having undertaken an "equitable weighing process," we find that all three factors articulated by the Supreme Court in *Covington* counsel towards ordering a special Senate election. Accordingly, we will require Secretary Benson to hold a special Senate election along with the regularly scheduled elections in November 2020.

VIII.   REMEDY

Absent unusual circumstances, "once a State's legislative apportionment scheme has been found to be unconstitutional . . . [the] appropriate action [is] to insure that no further elections are conducted under the invalid plan." *Reynolds*, 377 U.S. at 585; *see Rucho*, 318 F. Supp. 3d at 942.

We have found that 27 of the 34 Challenged Districts violate Plaintiffs' First and Fourteenth Amendment rights by diluting the weight of their votes. We have also found that every Challenged District violates Plaintiffs' First Amendment right to association. Additionally, we have found that these harms will reoccur if future elections are held under the Enacted Plan.

Therefore, we **hereby enjoin** the use of the Challenged Districts in future elections. Further, we **hereby order** Secretary of State Benson to conduct special elections in 2020 for the Senate districts that are included in the Challenged Districts, and for any Senate district affected by any remedial map approved by this Court.

After a federal court finds that a state legislative apportionment scheme violates the Constitution, it should, when practicable, "afford a reasonable opportunity for the legislature to meet constitutional requirements by adopting a substitute measure rather than for the federal court to devise and order into effect its own plan." *Wise v. Lipscomb*, 437 U.S. 535, 539–40 (1978); *see Rucho*, 318 F. Supp. 3d at 943.

Accordingly, the Court will provide the Michigan legislature the opportunity to devise remedial maps that are consistent with this opinion, that remedy the constitutional violations discussed above, and that otherwise comply with the United States Constitution. We will only consider any remedial plan passed by both chambers of the Michigan legislature, and signed into law by the Governor of Michigan, on or before **August 1, 2019**. The Court will not entertain any redistricting plans enacted after that date.

In the event that the Michigan legislature passes remedial redistricting plans and the Governor of Michigan signs said plans into law by August 1, 2019, Intervenors are **hereby ordered** to file within **10 days** said remedial plans to the Court, with the following:

1. A description of the process the Michigan legislature, and all constituent committees or members thereof, followed in drawing and enacting the proposed remedial plan, including, without limitation, the identity of all participants involved in the process, including any person, corporation, or organization formally or informally consulted by any committee, committee member, or legislator involved in the map-drawing process;

2. Any and all criteria, formal or informal, the Michigan legislature or its leadership, any constituent committee responsible for drawing the remedial plan, and all formal or informal consultants responsible for drawing the remedial plan, applied in drawing the proposed remedial plan, including, without limitation, all criteria related to partisanship, the use of political data, and the protection of incumbents, with a description of how the map-drawers used any such criteria;

3. All alternative plans considered by the Michigan legislature, any constituent committee responsible for drawing the remedial plan, or the leadership of the Michigan legislature or any such committee, including a detailed explanation of why such alternative remedial plan was not ultimately proposed by any committee or adopted by the Michigan legislature;

4. A map of each proposed remedial congressional, Senate, and House district—for the Challenged Districts and any other district(s) affected by the remedial plan— that depicts the boundaries of each proposed remedial district; and

5. A detailed explanation for why Intervenors believe that any enacted remedial plan remedies the constitutional harms identified above in each Challenged District.

Plaintiffs and Secretary Benson may respond to any proposed remedial maps and associated materials by filing responsive briefs to this Court within **30 days** of when Intervenors file the materials discussed above.

If the Michigan legislature enacts and the Governor of Michigan signs into law a proposed remedial plan by August 1, 2019, and the Intervenors file the proposed remedial plan and the other materials described above within 10 days of said law's enactment, the Court will evaluate the constitutionality of any proposed remedial maps. If the Michigan legislature fails to

pass, or the Governor of Michigan fails to sign into law, proposed remedial plans by August 1, 2019, or Intervenors fail to file the required materials within 10 days of said law's enactment, or if the Court finds that any proposed remedial maps fail to remedy the constitutional harms in the Challenged Districts or otherwise fail to comply with constitutional requirements, the Court will draw remedial maps itself.

To aid it in these efforts, the Court may appoint a special master, pursuant to Federal Rule of Civil Procedure 53. *See, e.g.*, *Rucho*, 318 F. Supp. 3d at 944 (appointing special master to assist court in evaluating constitutionality of remedial legislative maps). We **hereby order** the parties to file, by **July 1, 2019, at 5:00 pm**, a list of three mutually-agreeable, qualified, special master candidates from which the Court will select a special master. If the parties fail to agree on three qualified candidates by the deadline, the Court may appoint a special master of its own choosing.

IT IS SO ORDERED.

ENTERED: April 25, 2019

S/ Eric L. Clay
Signed for and on behalf of the panel:

HONORABLE ERIC L. CLAY
United States Circuit Judge

HONORABLE DENISE PAGE HOOD
United States District Judge

HONORABLE GORDON J. QUIST
United States District Judge