

No. \_\_\_\_\_

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**IN THE SUPREME COURT OF ILLINOIS**

---

TONY MCCOMBIE, in her official capacity )  
as Minority Leader of the Illinois House of )  
Representatives and individually as a )  
registered voter; ROBERT BERNAS, )  
individually as a registered voter; THOMAS )  
J. BROWN, individually as a registered )  
voter; and SERGIO CASILLAS VAZQUEZ, )  
individually as a registered voter; JOHN )  
COUNTRYMAN, individually as a )  
registered voter; and ASHLEY )  
HUNSAKER, individually as a registered )  
voter, )

Plaintiffs, )

v. )

ILLINOIS STATE BOARD OF )  
ELECTIONS and JENNIFER M. )  
BALLARD CROFT, CRISTINA D. CRAY, )  
LAURA K. DONAHUE, TONYA L. )  
GENOVESE, CATHERINE S. MCCRORY, )  
RICK S. TERVEN, SR., CASANDRA B. )  
WATSON, and JACK VRETT, all named in )  
their official capacities as members of the )  
State Board of Elections, )

Defendants. )

) Original Action under  
) Article IV, Section 3 of the  
) Illinois Constitution

---

**MOTION FOR LEAVE TO FILE COMPLAINT**

Now come the Plaintiffs, TONY MCCOMBIE, in her official capacity as  
Minority Leader of the Illinois House of Representatives and individually as a  
registered voter; and ROBERT BERNAS, THOMAS J. BROWN, SERGIO

CASILLAS VAZQUEZ, JOHN COUNTRYMAN, and ASHLEY HUNSAKER, as individual voters (“Movants”), by and through their attorneys, Mayer Brown LLP and the Law Office of John Fogarty, Jr., and pursuant to Supreme Court Rule 382, move this Court for leave to file the attached Complaint for declaratory judgment and injunctive relief as an original action in the Supreme Court as authorized by Article IV, Section 3 of the Illinois Constitution. In support thereof, Movants state as follows:

1. Movants seek leave to file a Complaint for declaratory judgment and injunctive relief invoking the original and exclusive jurisdiction of this Court pursuant to Article IV, Section 3 of the Illinois Constitution. Movants will ask this Court to declare unconstitutional the revised legislative redistricting plan for election of members of the Illinois General Assembly, signed into law on September 24, 2021 (Public Act 102-0663 or the “Enacted Plan”).

2. There is ample evidence that the Enacted Plan contains numerous districts that were gerrymandered for strictly partisan purposes. The mapmaker for the Illinois Democratic Party has admitted it, and a federal court has acknowledged it.

3. The effects of this partisan gerrymander are stark. Movants’ expert, Dr. Jowei Chen, ran computer simulations and determined that “the Enacted Plan creates a significant pro-Democratic electoral bias,” resulting in

as many as 11 fewer Republican-favoring districts when compared to the median outcome among the non-partisan computer-simulated plans.

4. This intentional partisan gerrymandering, and its related effects, violate the Illinois Constitution’s requirement that “[a]ll elections shall be free and equal.” ILL. CONST. art III, § 3. It also runs afoul of this Court’s mandate that legislative redistricting maps “meet all legal requirements regarding political fairness.” *People ex rel. Burriss v. Ryan*, 147 Ill. 2d 270, 296 (1992).

5. The U.S. Supreme Court has put the burden of stopping partisan gerrymandering with the states and their courts. *See Rucho v. Common Cause*, 588 U.S. 684, 719–20 (2019). This Court should pick up the torch and declare that partisan gerrymandering necessarily results in elections that are neither “free” nor “equal.”

6. This Court would not be the first to so declare. Courts in Pennsylvania and North Carolina—interpreting identical or substantively similar constitutional provisions as Illinois’s Free and Equal Elections clause—have determined that partisan gerrymanders are unconstitutional.

7. Additionally, the Enacted Plan violates the Illinois Constitution’s requirement that legislative and representative districts are compact. *See* ILL. CONST. art IV, § 3(a). Using this Court’s decision in *Schrage v. State Board of Elections*, 88 Ill. 2d 87 (1981), as a benchmark, Dr. Chen determined that nearly half of Illinois’s 118 House Districts are insufficiently compact. And a visual examination of these House Districts reveals that they are thin and

gangly, and not compact in any sense. With this many noncompact House Districts, the Enacted Plan must be redrawn in full.

8. This is also the right moment for this Court to act. Timing is no concern: With nearly two years left until the next House election, there is ample opportunity to redraw House Districts. Additionally, the time since the Enacted Plan was established has allowed Movants to gather data from multiple elections. This data makes clear the pernicious effect of partisan gerrymandering in Illinois.

9. The proposed Complaint raises constitutional issues that can only be resolved by this Court. Resolution of the issues raised in the Complaint is needed to ensure that all Illinois citizens enjoy the right to elect their state representatives in elections that are free and equal, as guaranteed by the Illinois Constitution.

10. This Court has entertained challenges to past legislative redistricting plans, including in *Schrage*, 88 Ill. 2d 87, and *Cole-Randazzo v. Ryan*, 198 Ill. 2d 233 (2001).

11. Pursuant to Rule 382, Movants attach herewith (a) a Brief in Support of this Motion; (b) their Complaint; and (c) supporting exhibits, including an expert report from Dr. Chen.

Wherefore, Movants request that this Court grant them leave to proceed as plaintiffs in this original action, and that this Court establish a schedule for the submission of evidence and the presentation of briefs.



Date: January 28, 2025

Respectfully submitted,

/s/ Charles E. Harris, II

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) Original Action under  
) Article IV, Section 3 of the  
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)

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**NOTICE OF FILING OF MOTION FOR LEAVE TO FILE COMPLAINT**

PLEASE TAKE NOTICE that on January 28, 2025, the undersigned electronically filed the Motion for Leave to File Complaint in the above-captioned case with the Clerk of the Supreme Court of Illinois using Odyssey eFileIL. A copy is hereby served upon you.

Dated: January 28, 2025

Respectfully submitted,

*/s/ Charles E. Harris, II*

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**CERTIFICATE OF SERVICE**

I, Charles E. Harris, II, an attorney, hereby certify that on January 28, 2025, I caused a Notice of Filing and the Motion for Leave to File Complaint to be electronically filed with the Clerk of the Supreme Court of Illinois by using the Odyssey eFileIL system. I further certify that I will cause one copy of the above-named filings to be served upon counsel listed below via electronic mail on January 28, 2025.

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Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct.

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*Counsel for Plaintiffs*

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Defendants. )

) Original Action under  
) Article IV, Section 3 of the  
) Illinois Constitution

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**BRIEF OF PLAINTIFFS IN SUPPORT OF MOTION FOR LEAVE TO  
FILE COMPLAINT**

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**ORAL ARGUMENT REQUESTED**

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## NATURE OF THE CASE

Democracy thrives when all voters can participate. But under Illinois’s current legislative map (Public Act 102-0663 or the “Enacted Plan”), certain voters cannot effectively participate. This is because of two pernicious practices: partisan gerrymandering and non-compact legislative districts. Both practices are antidemocratic. And both are prohibited by the Illinois Constitution.

This lawsuit seeks to put an end to both practices in Illinois. Invoking this Court’s original jurisdiction, *see* ILL. CONST. art. IV, § 3, Plaintiffs<sup>1</sup> request a declaration that the Enacted Plan is unconstitutional and an order leading to the drawing of a new map. Two grounds support Plaintiffs’ requests.

*First*, Democratic lawmakers, as well as their mapmakers, have made clear that they drew the Enacted Plan with a singular objective: to improve the electoral chances of Democrats. This fact has been recognized by a federal court, *McConchie v. Scholz*, 577 F. Supp. 3d 842, 885 (N.D. Ill. 2021), and by the mapmakers themselves. It is now also confirmed by Dr. Jowei Chen, an expert in the use of computer simulations of legislative redistricting maps.

The General Assembly’s purpose—to enact extreme partisan gerrymanders—runs headlong into the Illinois Constitution’s guarantee that “[a]ll elections shall be free and equal.” ILL. CONST. art. III, § 3. Other state

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<sup>1</sup> Plaintiffs are the Minority Leader of the Illinois House of Representatives, Tony McCombie, and several individual voters, Robert Bernas, Thomas J. Brown, Sergio Casillas Vazquez, John Countryman, and Ashley Hunsaker.

courts, analyzing substantively similar constitutional provisions, have come to the same conclusion. See *League of Women Voters v. Commonwealth*, 645 Pa. 1, 128 (2018) (“An election corrupted by extensive, sophisticated gerrymandering and partisan dilution of votes is not ‘free and equal.’”); *Harper v. Hall*, 868 S.E.2d 499, 542 (N.C. 2022) (“[P]artisan gerrymandering . . . is cognizable under the free elections clause because it can prevent elections from reflecting the will of the people impartially and by diminishing or diluting voting power on the basis of partisan affiliation.”). This Court should join them.

*Second*, a significant number of Illinois’s legislative districts have “tortured, extremely elongated form[s].” *Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 98 (1981). In other words, they are “not compact in any sense,” *id.*, and thus run afoul of the Illinois Constitution. See ILL. CONST. art. IV, § 3(a) (requiring districts to “be compact, contiguous and substantially equal in population”). In *Schrage*, this Court ordered legislative districts to be redrawn for lack of compactness (88 Ill. 2d at 108) and should do so again here. After all, the “compactness standard . . . cannot be ignored in redistricting the State. It cannot be written out or replaced by another requirement short of redrafting or amending our present constitution.” *Id.* at 96.

This is the right moment for the Court to decide these issues. Timing is no concern: With nearly two years left until the next House election, there is ample opportunity to redraw House Districts. And the time since the Enacted Plan was established has allowed Plaintiffs to gather critical data from

multiple elections, all of which makes clear the pernicious effect of partisan gerrymandering in Illinois.

Plaintiffs should be granted leave to file their Complaint to litigate these important issues.

**ISSUE PRESENTED**

1. Whether this Court should grant Plaintiffs leave to file their Complaint pursuant to Article IV, Section 3 of the Illinois Constitution, where the Complaint presents genuine issues of law as to the validity of the Enacted Plan, as the Enacted Plan features admitted partisan gerrymandering and numerous districts fail the basic compactness requirement set forth in Article IV, Section 3 of the Illinois Constitution.

**STATEMENT OF JURISDICTION**

This Court has original and exclusive jurisdiction over this matter under Article IV, Section 3 of the Illinois Constitution. *See, e.g., Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 91 (1981).

## CONSTITUTIONAL PROVISIONS INVOLVED

ILL. CONST. art. III, § 3:

All elections shall be free and equal.

ILL. CONST. art. IV, § 3:

(a) Legislative Districts shall be compact, contiguous and substantially equal in population. Representative Districts shall be compact, contiguous, and substantially equal in population.

(b) In the year following each Federal decennial census year, the General Assembly by law shall redistrict the Legislative Districts and the Representative Districts.

If no redistricting plan becomes effective by June 30 of that year, a Legislative Redistricting Commission shall be constituted not later than July 10. The Commission shall consist of eight members, no more than four of whom shall be members of the same political party.

The Speaker and Minority Leader of the House of Representatives shall each appoint to the Commission one Representative and one person who is not a member of the General Assembly. The President and Minority Leader of the Senate shall each appoint to the Commission one Senator and one person who is not a member of the General Assembly.

The members shall be certified to the Secretary of State by the appointing authorities. A vacancy on the Commission shall be filled within five days by the authority that made the original appointment. A Chairman and Vice Chairman shall be chosen by a majority of all members of the Commission.

Not later than August 10, the Commission shall file with the Secretary of State a redistricting plan approved by at least five members.

If the Commission fails to file an approved redistricting plan, the Supreme Court shall submit the names of two persons, not of the same political party, to the Secretary of State not later than September 1.

Not later than September 5, the Secretary of State publicly shall draw by random selection the name of one of the two persons to serve as the ninth member of the Commission.

Not later than October 5, the Commission shall file with the Secretary

of State a redistricting plan approved by at least five members.

An approved redistricting plan filed with the Secretary of State shall be presumed valid, shall have the force and effect of law and shall be published promptly by the Secretary of State.

The Supreme Court shall have original and exclusive jurisdiction over actions concerning redistricting the House and Senate, which shall be initiated in the name of the People of the State by the Attorney General.

## STATEMENT OF FACTS

Plaintiffs challenge the constitutionality of Illinois’s current legislative map (Public Act 102-0663 or the “Enacted Plan”). Plaintiffs’ allegations center on the fact that the Enacted Plan is the byproduct of extreme partisan gerrymandering and also features a significant number of Representative Districts that flunk the Illinois Constitution’s requirement of “compactness.” Some background is needed to understand how we got here.

### **I. The First Try: the June Redistricting Plan**

The Illinois Constitution requires the General Assembly to enact a new plan for Representative (House) Districts and Legislative (Senate) Districts after each decennial census. Compl. ¶ 25 (citing ILL. CONST. art. IV, § 3(b)). If a plan is not effective by June 30 of the year after the census, then control over redistricting shifts from the General Assembly to a bipartisan commission. *Id.*

To avoid ceding political control over the redistricting process to the bipartisan commission, the Illinois General Assembly approved a state legislative redistricting plan (Public Act 102-0010 or the “June Redistricting Plan”) before that deadline. *Id.* ¶¶ 26–27. It did so despite not having received data of official population totals from the 2020 U.S. decennial census. *Id.* ¶ 26.

The June Redistricting Plan was challenged in federal court as violating the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution. *See McConchie v. Scholz*, 567 F. Supp. 3d 861 (N.D. Ill. 2021) (“*McConchie I*”). Plaintiffs there claimed that, in the General Assembly’s rush



to avoid a bipartisan process, it relied on an unreliable source of data that “should not be used for redistricting.” *Id.* at 869, 887.

The federal court agreed that the June Redistricting Plan was unconstitutional. *Id.* at 869. It held that the June Redistricting Plan violated the U.S. Constitution’s promise of “one-person, one-vote,” as it featured districts with population deviations of up to nearly 30%. *Id.* at 885–89 (citing *Reynolds v. Sims*, 377 U.S. 533, 568 (1964)). In coming to this conclusion, the court determined that the General Assembly’s desire to “secur[e] partisan advantage” was not “a proper rationale for violating constitutionally-required mandates,” such as the “one-person, one-vote” principle. *Id.* at 888–89.

## **II. The Second Try: the Enacted Plan**

In response, the Illinois General Assembly approved a revised state legislative redistricting plan (the Enacted Plan). Compl. ¶¶ 28, 33. It was again challenged, but this time on the grounds that legislative districts were racially gerrymandered in violation of Section 2 of the Voting Rights Act of 1965, 52 U.S.C. § 10301, and the Fourteenth Amendment’s Equal Protection Clause. *McConchie v. Scholz*, 577 F. Supp. 3d 842, 851 (N.D. Ill. 2021) (“*McConchie II*”).

This time, the federal court rejected the plaintiffs’ challenge. *Id.* at 885. In so doing, the court made clear its view that, while racial discrimination was not the General Assembly’s goal, something else was: *partisan discrimination*. *Id.* It held that “the voluminous evidence submitted by the parties

overwhelmingly establishes that *the Illinois mapmakers were motivated principally by partisan political considerations.*” *Id.* (emphasis added).

This conclusion was well-supported. The General Assembly’s Democratic leadership itself argued in *McConchie II* that “politics . . . drove the configuration of all of the challenged districts.” *Id.* at 877. This aligned with the deposition testimony submitted to the court in that case of Jonathan Maxson, the Director of Redistricting for the House Democratic Caucus who oversaw the 2021 redistricting process. 577 F. Supp. 3d at 872; *see* Dep. Tr. of Jonathan Maxson (“Maxson Dep.”), Ex. A. When asked about the configuration of certain House Districts (HDs), Maxson repeatedly testified about securing partisan advantage. He said that he tried to “enhance the Democratic performance” of HD 112. Ex. A, Maxson Dep. at 204:9–12. And for HD 113, Maxson testified that the goal was to keep the district “at about an equal Democratic performance, which is where [it] started at.” *Id.* at 204:22–205:3.

That the Enacted Plan was drawn with extreme partisan goals in mind is buttressed by official statements made by Democrats in relevant legislative history. *See* Compl. ¶ 44 (citing H.R. 0443 (the “House Resolution”)). For example, the House Resolution states that HD 26 was altered “for political purposes.” *Id.* ¶ 45. So too does it state that “the ability to increase the partisan advantage” were factors driving the drawing of HDs 3 and 4. *Id.* ¶ 46. And for multiple other House Districts yet, the House Resolution explains that “partisan advantage” was explicitly considered for those that “traditionally

elect members of the Democratic party,” and still more were “drawn for political purposes to assist with increasing the political advantage” and “to impact the political composition of neighboring districts.” *Id.* ¶ 47.

It is no surprise, then, that the court in *McConchie II* saw that enshrining political advantage was the main driver of the Enacted Plan. *E.g.*, 577 F. Supp. 3d at 872 (“[S]tate legislators unabashedly put politics front and center . . . .”); *id.* at 879 (“General Assembly staff and state legislators admit that they divided up HD 112” and HD 113 to “shore up the Democratic vote . . . .”); *id.* at 883 (“[T]he record is replete with political . . . justifications for the districts that the legislature drew.”).

So, the Enacted Plan was drawn with the stated goal of establishing extreme partisan advantages for Democrats. This much is no secret. But with the aid of computer simulations run by Dr. Jowei Chen, it is now clear just how effective this partisan gerrymander was. *See* Compl. ¶¶ 50–54; Expert Report of Jowei Chen, Ph.D. (“Chen Rep.”), Ex. B.

Dr. Chen concluded that “the Enacted Plan creates a significant pro-Democratic electoral bias,” resulting in as many as 11 fewer Republican-favoring districts when compared to the median outcome among the non-partisan computer-simulated plans. Compl. ¶ 53; Chen Rep. at 31–52. He also determined that the gerrymandering worked best in competitive elections—meaning that the better Republican candidates did in an election, the more effective the gerrymander was. Compl. ¶ 53.

### III. The Enacted Plan is Unconstitutional

The Enacted Plan flouts two key provisions in the Illinois Constitution. *First*, its partisan gerrymanders make it impossible that “[a]ll elections shall be free and equal.” ILL. CONST. art. III, § 3. *Second*, the Enacted Plan features a significant number of Representative Districts that come nowhere close to the requirement that these districts be “compact.” *Id.* art. IV, § 3(a).

#### A. The Enacted Plan Violates the Free and Equal Elections Clause

The “Free and Equal Elections” clause, ILL CONST. art III, § 3, prohibits extreme partisan gerrymandering. The Enacted Plan—which is rife with such partisan gerrymandering—is therefore unconstitutional.

The Enacted Plan has both the stated intent and real-world effect of substantially diluting the power of Republican voters in Illinois. Compl. ¶¶ 29–54. This reality runs headlong into the Free and Equal Elections clause’s mandate that “each voter . . . has the same influence as the vote of any other voter.” *Goree v. LaVelle*, 169 Ill. App. 3d 696, 699 (1988) (citing *People v. Deatherage*, 401 Ill. 25, 37 (1948)). This partisan discrimination also violates this Court’s requirement that legislative redistricting maps must “meet all legal requirements regarding political fairness.” *People ex rel. Burris v. Ryan*, 147 Ill. 2d 270, 296 (1992); accord *Cole-Randazzo v. Ryan*, 198 Ill. 2d 233, 236 (2001); see Compl. ¶¶ 74–78.

State courts across the country have interpreted identical or substantially similar constitutional provisions to the Free and Equal Elections

clause and struck down maps that feature extreme partisan gerrymandering. Pennsylvania’s Supreme Court, for example, had no difficulty concluding that a map that was “gerrymander[ed] for unfair partisan political advantage” violated a constitutional provision that “[e]lections shall be free and equal.” *League of Women Voters v. Commonwealth*, 178 A.3d 737, 766, 816–17 (Pa. 2018) (“*LWV*”); see Compl. ¶¶ 56–62. So too did several North Carolina courts strike down maps that were the byproduct of partisan gerrymandering because of, among other things, a state constitutional provision that required free elections. *Common Cause v. Lewis*, No. 18 CVS 014001, 2019 WL 4569584, at \*2 (N.C. Super. Ct. Sept. 3, 2019); *Harper v. Hall*, 868 S.E.2d 499, 556 (N.C. 2022) (“*Harper I*”); *Harper v. Hall*, 881 S.E.2d 156, 181 (N.C. 2022) (“*Harper II*”); see Compl. ¶¶ 63–73 (explaining how these opinions were later overruled when the political control of the North Carolina Supreme Court was flipped). In the views of these courts, “a districting plan that systematically makes it harder for certain voters to elect a governing majority based on partisan affiliation is . . . unconstitutional[,] unless the General Assembly can demonstrate that the plan is narrowly tailored to advance a compelling governmental interest.” *Harper II*, 881 S.E.2d at 181 (cleaned up).

This Court has ample grounds to follow suit and declare that the Enacted Plan violates the Free and Equal Elections clause.

### **B. The Enacted Plan Violates the Compactness Requirement.**

Legislative districts in Illinois must be “compact,” in addition to being “contiguous” and “substantially equal in population.” ILL. CONST. art. IV, § 3(a).

Both from a statistical and visual standpoint, the Enacted Plan features a significant number of House Districts that flunk this requirement of compactness. For this reason too, the Enacted Plan is unconstitutional.

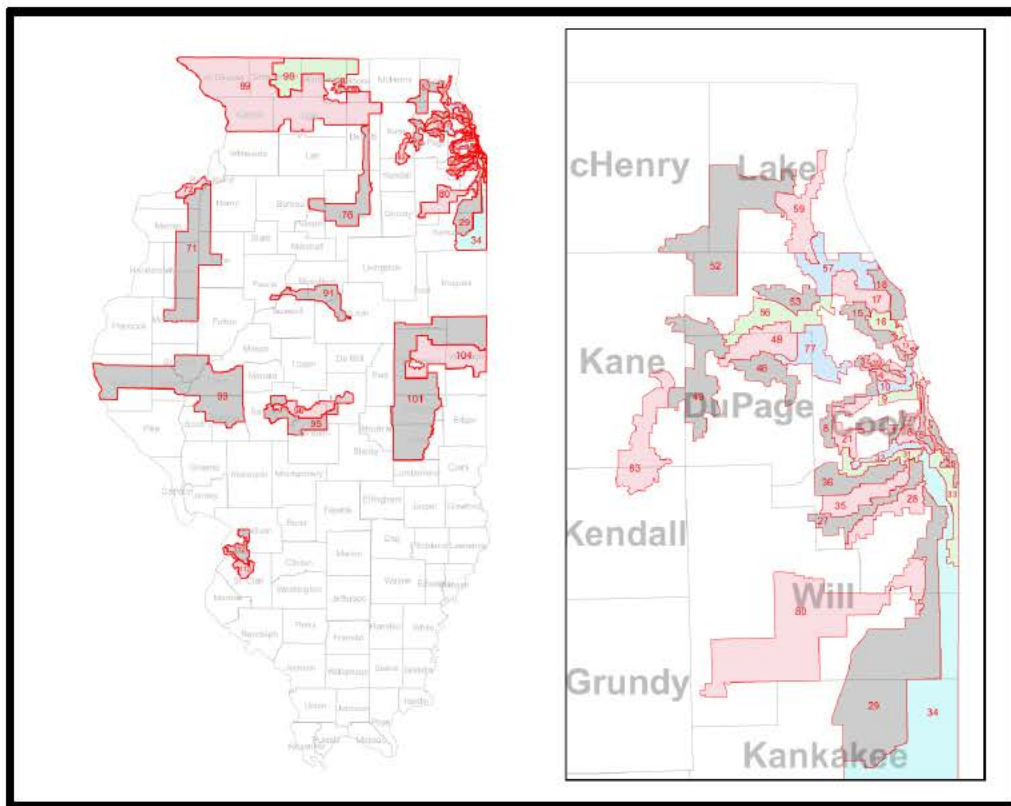
This Court has long recognized that the requirement of compactness is “almost universally recognized’ as an appropriate anti-gerrymandering standard.” *Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 96 (1981) (determining that a district violated compactness requirement). The framers of the Illinois Constitution clearly thought so. They noted that the compactness standard “reflect[s] the objective of improving legislative representation through seeking to insure that districts are not gerrymandered.” 6 RECORD OF PROCEEDINGS, SIXTH ILLINOIS CONSTITUTIONAL CONVENTION 1352–53. They highlighted that, “[w]here no standards of this nature exist, there exists an open invitation to gerrymander.” *Id.* at 1353.

In *Schrage*, this Court instructed that there are two ways to determine whether a district is sufficiently “compact.” 88 Ill. 2d at 98. One way is to compare the district to a “mathematically precise standard of compactness.” *Id.* The other was to “rely on a visual examination of the questioned district.” *Id.* The Enacted Plan has a significant number of districts that do not comply with one or both of those standards. Compl. ¶¶ 84–92.

*First*, mathematical standards show the number of Representative Districts in the Enacted Plan that are not “compact.” Compl. ¶¶ 85–87. Dr. Chen took the district that was found to not be “compact” in *Schrage* and

assigned it a score under both the widely accepted Polsby-Popper and Reock methods of evaluating compactness. *Id.* ¶¶ 85–86. He found that as many as 52 of the 118 Representative Districts in the Enacted Plan were less compact than the district in *Schrage* by at least one of these two measures. *Id.* ¶ 86. In other words, under *Schrage*, nearly half of the districts in the Enacted Plan are not “compact.” *Id.*

*Second*, a visual examination allows one to reach to the same conclusion. Several districts are twisted and contorted; they are, in this Court’s words, not “compact in any sense.” *Schrage*, Ill. 2d at 98.



Chen Rep., fig. 2.

In creating the Enacted Plan, the General Assembly’s goals were simple: to “draw skinny Democratic districts that snake into Republican areas and

absorb as many Republican votes as possible without jeopardizing Democrats' ability to win those districts, thereby making the adjacent areas easier for Democrats to win." Compl. ¶ 96. And specifically for the gangly districts in Chicago and its suburbs, Dr. Chen concludes that, by "drawing long, narrow districts," the General Assembly could "waste' suburban Republican votes in otherwise safe" Democratic districts. *Id.* ¶ 95.

In sum, the pervasive lack of compactness—which is evident both statistically and visually—means that the Enacted Plan is not constitutional.

#### **IV. Plaintiffs' Complaint**

Given these constitutional infirmities, Plaintiffs seek to invoke this Court's "original and exclusive jurisdiction over actions concerning redistricting the House and Senate." ILL. CONST. art. IV, § 3(b).

Plaintiffs have all been negatively affected by the Enacted Plan and its partisan gerrymanders. Tony McCombie is the Minority Leader of the Illinois House of Representatives, and has the obligation to express the views, ideas, and principles of the House Republican caucus in the 104th General Assembly and of Republicans state-wide. *See* Compl. ¶ 9. The individual voters—Robert Bernas, Thomas J. Brown, Sergio Casillas Vazquez, John Countryman, and Ashley Hunsaker—all have had their voting power diluted by the Enacted Plan. *See id.* ¶¶ 10–14, 106, 122.

In their Complaint, Plaintiffs seek a declaration that the Enacted Plan is unconstitutional and an injunction prohibiting Defendants from enforcing



the Enacted Plan. Plaintiffs also request the appointment of a Special Master to draft a valid and constitutionally acceptable redistricting plan.

## ARGUMENT

### I. Plaintiffs Should be Granted Leave to File Their Complaint.

This Court has original and exclusive jurisdiction over Plaintiffs' case. ILL. CONST. art. IV, § 3(b). Proceedings such as this are initiated by the filing of the instant "motion for leave to file a complaint." SUP. CT. R. 382(a). This motion should be granted because the Complaint features important and novel issues of state law that are filed at an opportune time.

"At its most extreme," the practice of partisan gerrymandering "amounts to 'rigging elections.'" *Rucho v. Common Cause*, 588 U.S. 684, 727 (2019) (Kagan, J., dissenting) (quoting *Vieth v. Jubelirer*, 541 U.S. 267, 317 (2004) (Kennedy, J., concurring in the judgment)). But, since 2019, claims of partisan gerrymandering cannot be litigated in federal court. *Id.* at 718 (majority opinion). The fix to this antidemocratic practice, therefore, must come from states and, as relevant here, state courts. *Id.* at 719; *see also* Aroosa Khokher, *Free and Equal Elections: A New State Constitutionalism for Partisan Gerrymandering*, 52 COLUM. HUM. RTS. L. REV. 1, 34 (2020) ("If state courts recognize state protections against partisan gerrymanders, they may be able to transform the national landscape of redistricting reform.").

The Enacted Plan at issue is a byproduct of extreme partisan gerrymandering. This is no secret: the mapmakers admitted it, a federal court has acknowledged it, and statistics confirm it. But these facts are meaningless unless this Court steps in and acknowledges what other courts have already determined—that legislative maps that are the result of extreme partisan

gerrymandering prohibit elections that are “free” or “equal.” See ILL CONST. art III, § 3; see also *LWV*, 178 A.3d at 816–17; *Lewis*, 2019 WL 4569584, at \*2 *Harper I*, 868 S.E.2d at 556; *Harper II*, 881 S.E.2d at 181.

Illinois’s Free and Equal Election Clause requires that “each voter have the right and opportunity to cast his or her vote without any restraint and that his or her vote has the same influence as the vote of any other voter.” *Goree v. LaVelle*, 169 Ill. App. 3d 696, 699 (1988) (citing *People v. Deatherage*, 401 Ill. 25, 37 (1948)). But Plaintiffs—and Republican voters statewide—do not have the same influence as other voters. This is the direct result of the legislative map enacted by the General Assembly, which features admitted, extreme politically gerrymandered districts.

Additionally, the Enacted Plan includes a significant number of districts that do not comply with the constitutional requirement of “compactness.” ILL. CONST. art IV, § 3(a). This requirement is no mere technicality; instead, it’s “almost universally recognized’ as an appropriate anti-gerrymandering standard.” *Schrage*, 88 Ill. 2d at 96. Stuningly, almost half of the 118 Representative Districts in the Enacted Plan are statistically less compact than the district that this Court struck down as being insufficiently compact in *Schrage*. This Court should not allow the General Assembly’s flouting of *Schrage*—and the words of the Illinois Constitution—to continue.

Moreover, this Court has said a districting plan must be “politically fair.” *Burris*, 147 Ill. 2d 270, 296 (1991); *Cole-Randazzo v. Ryan*, 198 Ill. 2d

233, 236 (2001). While this Court has never expressly defined “political fairness,” in *Davis v. Bandemer*, 478 U.S. 109 (1986), a plurality of the U.S. Supreme Court explained that it is politically unfair when an election system “substantially disadvantages certain voters in their opportunity to influence the political process effectively.” *Id.* at 133. This can be proven, it held, if there is “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.” *Id.* The Enacted Plan does exactly this.

The Illinois Constitution specifically vests this Court with jurisdiction over actions concerning redistricting. *See* ILL. CONST. art. IV, § 3(b). As such, this Court can and should resolve these issues as matters involving state constitutional law, as it has done on several occasions. *See, e.g., Burris*, 147 Ill. 2d 270; *Schrage*, 88 Ill. 2d 87; *People ex rel. Scott v. Grivetti*, 50 Ill. 2d 156 (1971). Additionally, the timing is right for this Court to act. For one thing, there is no impending election breathing down the Court’s neck. Plus, the time since the Enacted Plan was passed has allowed critical data to be collected that shows the full, pernicious effect of the General Assembly’s gerrymandering.

In sum, these issues are critically important—and not just for Republicans, but for Illinoisians as a whole. Plaintiffs deserve their day in court to litigate them.

## II. This Court Should Set a Briefing Schedule and Hold Oral Argument.

This Court's rules give broad discretion as to the appropriate procedure in these cases. *See* SUP. CT. R. 382(b). Plaintiffs respectfully submit that this case deserves full briefing and oral argument. While Plaintiffs, of course, defer to this Court's calendaring, we suggest the following briefing schedule may be appropriate:

- **Plaintiffs' Opening Brief:** Due 60 days after leave is granted;
- **Defendants' Response Brief:** Due 30 days after Plaintiffs' Opening Brief is filed;
- **Plaintiffs' Reply Brief:** Due 14 days after Defendants' Response Brief is filed.

### CONCLUSION

For the foregoing reasons, Plaintiffs respectfully request that this Court grant them leave to file their Complaint challenging the Enacted Plan under Article IV, Section 3 of the Illinois Constitution. This Court should additionally set a briefing schedule.

Dated: January 28, 2025

Respectfully submitted,

/s/ Charles E. Harris, II

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**CERTIFICATE OF COMPLIANCE**

I certify that this brief conforms to the requirements of Rules 341(a) and (b). The length of this brief, excluding the pages or words contained in the Rule 341(d) cover, the Rule 341(h)(1) statement of points and authorities, the Rule 341(c) certificate of compliance, and those matters appended to the brief under Rule 342(a) is 22 pages.

/s/ Charles E. Harris, II  
Charles E. Harris, II  
Mayer Brown LLP





**NOTICE OF FILING OF MOTION FOR LEAVE TO FILE COMPLAINT**

PLEASE TAKE NOTICE that on January 28, 2025, the undersigned electronically filed the Brief of Plaintiffs in Support of Motion for Leave to File Complaint in the above-captioned case with the Clerk of the Supreme Court of Illinois using Odyssey eFileIL. A copy is hereby served upon you.

Dated: January 28, 2025

Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I, Charles E. Harris, II, an attorney, hereby certify that on January 28, 2025, I caused a Notice of Filing and the Brief of Plaintiffs in Support of Motion for Leave to File Complaint to be electronically filed with the Clerk of the Supreme Court of Illinois by using the Odyssey eFileIL system. I further certify that I will cause one copy of the above-named filings to be served upon counsel listed below via electronic mail on January 28, 2025.

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Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct.

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*Counsel for Plaintiffs*

No. \_\_\_\_\_

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**IN THE SUPREME COURT OF ILLINOIS**

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TONY MCCOMBIE, in her official capacity )  
as Minority Leader of the Illinois House of )  
Representatives and individually as a )  
registered voter; ROBERT BERNAS, )  
individually as a registered voter; THOMAS )  
J. BROWN, individually as a registered )  
voter; and SERGIO CASILLAS VAZQUEZ, )  
individually as a registered voter; JOHN )  
COUNTRYMAN, individually as a )  
registered voter; and ASHLEY )  
HUNSAKER, individually as a registered )  
voter, )

Plaintiffs, )

v. )

ILLINOIS STATE BOARD OF )  
ELECTIONS and JENNIFER M. )  
BALLARD CROFT, CRISTINA D. CRAY, )  
LAURA K. DONAHUE, TONYA L. )  
GENOVESE, CATHERINE S. MCCRORY, )  
RICK S. TERVEN, SR., CASANDRA B. )  
WATSON, and JACK VRETT, all named in )  
their official capacities as members of the )  
State Board of Elections, )

Defendants. )

) Original Action under  
) Article IV, Section 3 of the  
) Illinois Constitution  
)

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**COMPLAINT**

1. The districts of the Illinois State House of Representatives (the “Enacted Plan”) are the byproduct of extreme partisan gerrymandering. They are drawn by the political party in control and are intended to entrench the

Democratic Party in power. The districts are also meant to prevent voters affiliated with the minority party from electing candidates of their choice. In other words, the general election outcomes are rigged.

2. This is not a secret. A federal court acknowledged it. The mapmaker for the Illinois Democratic Party admitted it. One read through the legislative history confirms it. And a glance at the Enacted Plan—with all its contorted, odd-shaped districts—shows it.

3. The recently completed election cycle made clear how successful the partisan gerrymandering really was. Of the 2024 Illinois House of Representatives elections, Democratic candidates won 55% of the statewide vote. But Democratic candidates won a super-majority of seats (78 of 118, or 66.1%).

4. The 2022 election cycle was worse. There, Republican candidates for the Illinois House of Representatives won a majority—50.9%—of the statewide votes. But Republican candidates won only a third of seats (40 of 118).

5. With this level of entrenched dominance, it is unsurprising that almost half (54 of 118) of the state House elections in 2024 were uncontested. For would-be Republican candidates in artificially “safe” Democratic districts,

there's no point in running. The same goes for would-be Democratic candidates in districts that have been artificially "packed" with Republicans.

6. The volume of uncontested races means that almost half of the state's Representatives will represent Illinoisians, not because they were elected and had to present their policy ideas to voters through debate and outreach, but only because they submitted the proper forms to the Illinois State Board of Elections. This is not how it is supposed to work. Extreme partisan gerrymandering like this is poisonous to the functioning of any democracy.

7. In addition to being bad policy, extreme partisan gerrymandering is unconstitutional. The Illinois Constitution requires that "[a]ll elections shall be free and equal." ILL. CONST. art. III, § 3. But under the Enacted Plan, that is an impossibility. It also requires that all "Legislative Districts shall be compact." *Id.* art. IV, § 3(a). But the Enacted Plan subordinates compactness to the partisan and incumbent-protection goals of the majority political party.

8. The U.S. Supreme Court has given the responsibility of ending extreme partisan gerrymandering to the states. Pennsylvania and, for a time, North Carolina, picked up the torch, striking down redistricting plans on the basis of identical or comparable constitutional provisions. This Court should follow suit and declare that the Enacted Plan is invalid, enjoin the Illinois State Board of Elections from enforcing it, and appoint a special master to draft a redistricting plan that complies with the Illinois Constitution.

## **PARTIES**

9. Plaintiff TONY MCCOMBIE is a state representative from House District 89, a citizen of the United States and of the State of Illinois, and a duly registered voter of Carroll County, Illinois. McCombie is also the Minority Leader of the Illinois House of Representatives, as provided by Article IV, Section 6(c) of the Illinois Constitution. In this role, McCombie has the duty to promote and express the views, ideas, and principles of the House Republican caucus in the 104th General Assembly and of Republicans state-wide.

10. Plaintiff ROBERT BERNAS is a citizen of the United States and of the State of Illinois and a duly registered Republican voter in Cook County within the boundaries of House District 56 of the Enacted Plan.

11. Plaintiff THOMAS J. BROWN is a citizen of the United States and of the State of Illinois and a duly registered Republican voter in Cook County within the boundaries of House District 57 of the Enacted Plan.

12. Plaintiff SERGIO CASILLAS VAZQUEZ is a citizen of the United States and of the State of Illinois and a duly registered Republican voter in Macon County within the boundaries of House District 96 of the Enacted Plan.

13. Plaintiff JOHN COUNTRYMAN is a citizen of the United States and of the State of Illinois and a duly registered Republican voter in DeKalb County within the boundaries of House District 76 of the Enacted Plan.

14. Plaintiff ASHLEY HUNSAKER is a citizen of the United States and of the State of Illinois and a duly registered Republican voter in St. Clair County within the boundaries of House District 113 of the Enacted Plan.

15. Defendant ILLINOIS STATE BOARD OF ELECTIONS is the entity responsible for overseeing and regulating public elections in Illinois, including elections for the Illinois House of Representatives. *See* ILL. CONST. art. III, § 5; 10 ILCS 5/1A-1 *et seq.*

16. Defendant JENNIFER M. BALLARD CROFT is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in her official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

17. Defendant CRISTINA D. CRAY is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in her official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

18. Defendant LAURA K. DONAHUE is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in her official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

19. Defendant TONYA L. GENOVESE is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in her official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

20. Defendant CATHERINE S. MCCRORY is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in his official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

21. Defendant RICK S. TERVEN, SR. is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in his official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

22. Defendant CASANDRA B. WATSON is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in her official capacity as a member of the ILLINOIS STATE BOARD OF ELECTIONS.

23. Defendant JACK VRETT is a member of the ILLINOIS STATE BOARD OF ELECTIONS and is sued only in his official capacity as member of the ILLINOIS STATE BOARD OF ELECTIONS.

### **JURISDICTION**

24. This Court has original and exclusive jurisdiction over this action under Article IV, Section 3 of the Illinois Constitution. *See, e.g., Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 91 (1981); *see also* SUP. CT. R. 382.

### **STATEMENT OF FACTS**

25. The Illinois Constitution requires the General Assembly to enact a new plan for Representative (House) Districts and Legislative (Senate) Districts after each decennial census. ILL. CONST. art. IV, § 3(b). If a plan is not effective by June 30 of the year after the census, then control over redistricting shifts from the General Assembly to a bipartisan commission, as it has many times since the most recent Illinois Constitution took effect in 1970. *Id.*; *see, e.g., Cole-Randazzo v. Ryan*, 198 Ill. 2d 233, 235 (2001); *People ex rel. Burris v. Ryan*, 147 Ill. 2d 270, 275 (1991).

26. In 2021, the results of the 2020 census were delayed. To avoid the risk of a bipartisan process, the General Assembly elected to rely on data from the American Community Survey (“ACS”), a population estimate previously published by the Census Bureau, rather than wait for the release of the official



population totals from the 2020 U.S. decennial census to determine the boundaries of Illinois legislative districts. Thus, the decision to rely on the ACS data estimates, and to rush the creation of the redistricting plan, was driven solely to avoid ceding political control of the legislative redistricting process.

27. On May 28, 2021, the Illinois General Assembly approved a state legislative redistricting plan (the “June Redistricting Plan”). *See* Public Act 102-0010. That plan was enjoined by a federal court because it failed to provide districts that were substantially equal in population.

28. On August 31, 2021, the Illinois General Assembly approved a revised state legislative redistricting plan, which was approved by the Governor on September 24, 2021 (the “Enacted Plan”). *See* Public Act 102-0663. That plan was upheld by the federal court despite challenges by several plaintiff groups, including the NAACP and MALDEF, that it violated federal voting and civil rights laws.

**A. The Enacted Plan features extreme partisan gerrymandering.**

29. Time and again, it has been shown that the Enacted Plan was created with one overarching goal: maximizing the political power of Democrats in Illinois. This fact has been recognized by a federal district court, admitted by the Director of Redistricting for the House Democratic Caucus and Democratic Representatives themselves, and cited in the public legislative record.

**1. The federal district court in *McConchie v. Scholz* concluded the mapmakers were principally motivated by partisan concerns.**

30. In the wake of the June Redistricting Plan, several consolidated lawsuits were filed in federal court, alleging that the plan violated the Equal Protection Clause of the Fourteenth Amendment to the U.S. Constitution. *See McConchie v. Scholz*, 567 F. Supp. 3d 861 (N.D. Ill. 2021) (“*McConchie I*”). Specifically, the plaintiffs there argued that the plan ran afoul of the U.S. Constitution’s promise of “one-person, one-vote,” as legislative districts featured maximum population deviations of more than 20%. *Id.* at 871, 886.

31. The three-judge federal court agreed, finding that the “maximum deviations in the June Redistricting Plan exceed any limit tolerated by any case law.” *Id.* at 887.

32. In coming to this conclusion, the court found that the General Assembly had rushed the completion of the June Redistricting Plan “to avoid ceding political control of the legislative redistricting process” to “a bi-partisan commission.” *Id.* at 888–89. It held that this desire to “secur[e] partisan advantage” was not “a proper rationale for violating constitutionally-required mandates,” such as the “one-person, one-vote” principle. *Id.*

33. In response, the General Assembly passed a second map after the release of the census data: the Enacted Plan. It was again challenged, but this time on the grounds that legislative districts were racially gerrymandered in violation of Section 2 of the Voting Rights Act of 1965, 52 U.S.C. § 10301, and

the Fourteenth Amendment's Equal Protection Clause. *McConchie v. Scholz*, 577 F. Supp. 3d 842, 851 (N.D. Ill. 2021) (“*McConchie I*”).

34. This time, the court rejected the plaintiffs' challenge. But in so doing, the court held that “the voluminous evidence submitted by the parties overwhelmingly establishes that *the Illinois mapmakers were motivated principally by partisan political considerations.*” *Id.* at 885 (emphasis added).

35. This conclusion was supported by the fact that the General Assembly's Democratic leadership argued that “politics . . . drove the configuration of all of the challenged districts.” *Id.* at 877. Time and again, the court made clear that it saw that enshrining political advantage was the main driver of the Enacted Plan. *E.g., id.* at 873 (“[S]tate legislators unabashedly put politics front and center . . . .”); *id.* at 879 (“General Assembly staff and state legislators admit that they divided up HD[s] 112 [and] 113 . . . to shore up the Democratic vote . . . .”); *id.* at 883 (“[T]he record is replete with political . . . justifications for the districts that the legislature drew.”).

**2. The deposition of Jonathan Maxson confirms the mapmakers were principally motivated by partisan concerns.**

36. The federal court's conclusion that partisanship drove the Enacted Plan was largely supported by deposition testimony of Jonathan Maxson, the Director of Redistricting for the House Democratic Caucus who oversaw the 2021 redistricting process. *McConchie II*, 577 F. Supp. 3d at 872; Dep. Tr. of Jonathan Maxson (“Maxson Dep.”), Ex. A at 20:6–19, 21:9–12.

37. Through his testimony, Maxson made clear that the Democratic state legislature put politics front and center in the redistricting process.

38. One focus in *McConchie II* was on House Districts (“HD”) 112 and 113, both of which were “particularly vulnerable to a viable Republican challenge.” 577 F. Supp. 3d at 879.

39. In light of that vulnerability, Maxson described how the primary goals for the configurations of HDs 112 and 113 was shoring up Democratic seats.

40. Maxson stated that the goal of redrawing HD 112 was to “enhance the Democratic performance” of that district. Ex. A, Maxson Dep. at 204:9–12. To this end, he said that he sought to “keep the Edwardsville base of that district together,” as it was “important politically” for the Democratic incumbent. *Id.* at 204:6–8. When asked whether he endeavored to improve Democrats’ performance in HD 112, Maxson responded: “[a]s much as possible, yes.” *Id.* at 208:4–6.

41. As pertains to redrawing HD 113, Maxson testified that the goal was to keep the district “at about an equal Democratic performance, which is where [it] started at.” Ex. A, Maxson Dep. at 204:22–205:3.

42. Maxson further testified that, in drawing these House Districts, he looked at “some countywide election results and the individual results from . . . their previous races” to strategize to protect the Democratic incumbents. Ex. A, Maxson Dep. at 205:18–22.

43. In light of Maxson’s admissions, the court in *McConchie II* made this unsurprising conclusion: “[O]verwhelming evidence demonstrates that” the relevant parts of the Enacted Plan “was drawn to protect Democrats from Republican challenges in . . . HD[s] 112 and 113.” 577 F. Supp. 3d at 879.

**3. Legislative history confirms the mapmakers were principally motivated by partisan concerns.**

44. The Democrats’ partisan motives were far from secret. In the resolution passed by the Illinois House of Representatives that sets forth the redistricting principles and summaries of the proposed district boundaries included in the Enacted Plan, these considerations were explicitly cited as justifications for various district boundaries. H.R. 0443 (the “House Resolution”).

45. The House Resolution states that HD 26 was altered “for political purposes” and was not adjusted in response to testimony requesting that the Black population in the district be increased in part because such a change would “potentially pair multiple incumbent Democratic legislators.”

46. The House Resolution included “incumbent preservation” and “the ability to increase the partisan advantage” as factors driving the drawing of HDs 3 and 4, and “enhancing partisan composition” was a justification for the boundaries of HDs 96 and 98.

47. The House Resolution publicly explains that for multiple other districts, “partisan advantage” was explicitly considered for those that “traditionally elect members of the Democratic party,” and still more were

“drawn for political purposes to assist with increasing the political advantage” and “to impact the political composition of neighboring districts.”

**4. The public believes the process was unfair.**

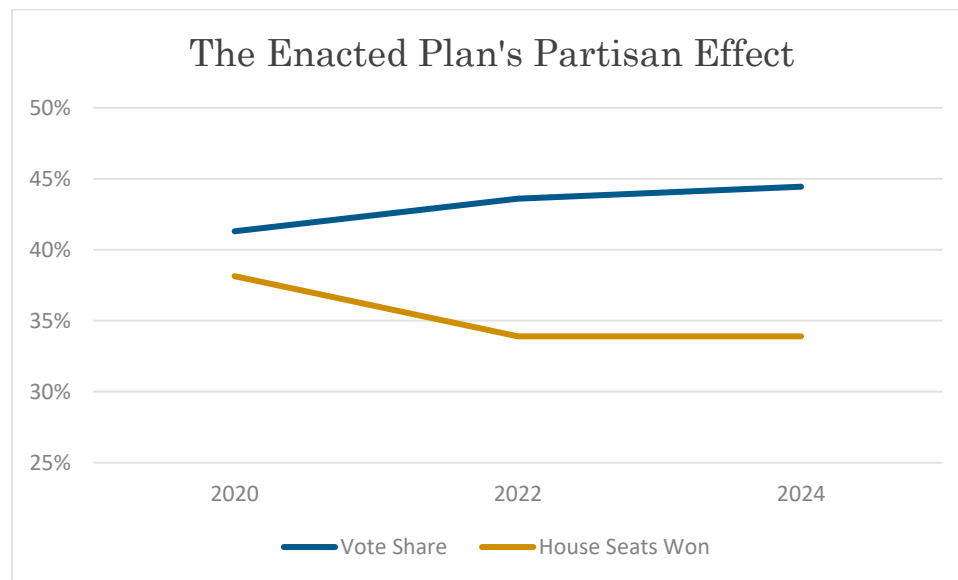
48. The General Assembly received feedback and concern from a wide array of community and advocacy groups reflecting their dismay with the process that led to the 2021 maps and the General Assembly’s lack of responsiveness to public feedback as it instead prioritized its own political goals.

49. The testimony of Ryan Tolley, the Policy Director for CHANGE Illinois, a nonpartisan nonprofit that advocates for ethical government and elections, exemplifies these concerns: “The voices and concerns of those who have already testified this year including Illinois Muslim Civic Coalition, UCCRO, League of Women Voters of Illinois, Latino Policy Forum, Common Cause Illinois, Indivisible Naperville, Better Government Association, Coalition for a Better Chinese American Community, Black Roots Alliance, MALDEF, Chicago Lawyers’ Committee for Civil Rights, Mujeres Latinas en Accion, Nonprofit Utopia, Faith Coalition for the Common Good, Mano a Mano Family Resource Center, and many more organizations need to be heard and reflected in any changes to this map. Many more individual community members provided testimony that is also not reflected in the current maps. I would strongly urge committee members and members of the General Assembly to go back and review the testimony from the Spring that largely

seemed to be ignored and draw maps that prioritize that testimony over any political or self-interest.”<sup>1</sup>

**B. Analysis of data from the recent election clearly shows the effects of extreme partisan gerrymandering.**

50. The intended goals of the redistricting worked. While the Republican statewide vote share has gradually increased since 2020, the Republican share of House seats has decreased, cementing the Democratic Party’s super-majority control over the legislature.



**Figure 1.** The table above shows the share of Republican votes as a percentage of votes cast for Republican and Democratic candidates for president and governor in the relevant election year.

51. While proportionality provides a signal, the conclusion can be drawn from Dr. Jowei Chen’s expert analysis. Expert Report of Jowei Chen, Ph.D. (“Chen Rep.”), Ex. B.

<sup>1</sup> Letter from CHANGE Illinois to House and Senate Redistricting Committees (Aug. 28, 2021), available at <https://ilga.gov/house/committees/Redistricting/102Redistricting/HRED/2021August/CHANGE%20IL%20redistricting%20testimony.pdf>.

52. Dr. Chen performed a simulation of 10,000 Illinois state House District plans. To comply with minimum redistricting requirements, each simulated plan was required (1) to include only contiguous districts, (2) to tolerate a population difference between the most-populated and least-populated districts that was no larger than in the Enacted Plan, (3) to minimize the number of districts whose Polsby-Popper and Reock compactness scores were less than the scores of the “*Schrage* district,” or if possible include only districts with compactness scores above the *Schrage* district scores, and in either case to have plan-wide average compactness scores at least equal to those of the Enacted Plan,<sup>2</sup> and (4) to include at the least the same number of majority-Black and majority-Hispanic districts, measured by voting age population or citizen voting age population, as the Enacted Plan (*i.e.*, 13 majority-Black districts and 11 majority-Hispanic districts). Within those constraints, the plans were then randomly drawn by the computer. *Id.* at 19, 21–23.

53. The results are astonishing yet unsurprising. Dr. Chen found that “the Enacted Plan creates a significant pro-Democratic electoral bias,” resulting in as many as 11 fewer Republican-favoring districts when compared to the median outcome among the non-partisan computer-simulated plans. In

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<sup>2</sup> The Polsby-Popper and Reock scores are two of the most commonly used and accepted measures of compactness and are used broadly by courts. *See, e.g., Cooper v. Harris*, 581 U.S. 285, 311 (2017); *Vesilind v. Virginia State Bd. of Elections*, 813 S.E.2d 739, 743 & n.3 (Va. 2018). The “*Schrage* district” refers to the district that this Court struck down as being insufficiently compact in *Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 91 (1981). *See also infra*, § D (discussing *Schrage*).



the most competitive elections, when Republican candidates have the best opportunity to win, the Enacted Plan's effect is most insidious; that is, the more competitive the election, the larger the Democratic advantage. Put plainly, the better Republican candidates do, the more effective the Democrats' gerrymander is. *Id.* at 31–52.

54. The Enacted Plan accomplishes this result by shifting Democratic votes from uncompetitive areas to the most competitive districts. “When compared to the simulated plans, the Enacted Plan effectively removed Republican voters from districts that would otherwise have been electorally competitive or slightly Republican-leaning, thus weakening these districts' likelihood of electing a Republican. These removed Republican voters were instead placed in districts that were already extremely safe Republican or extremely safe Democratic districts; placing these Republican voters into such lopsided districts had almost no effect on these districts' likelihood of electing a Republican or a Democrat in those safe districts.” *Id.*

**C. There is ample support that extreme partisan gerrymandering is unconstitutional and improper.**

55. In *Rucho v. Common Cause*, the U.S. Supreme Court held that partisan gerrymandering claims cannot be brought in federal court. In so holding, it noted that states—including state courts—bore the responsibility for tamping down this practice. *See* 588 U.S. 684, 719–20 (2019).

**1. Pennsylvania’s Supreme Court determined that partisan gerrymandering violates an identical Free and Equal Election clause under its Constitution.**

56. The Pennsylvania Supreme Court has picked up the torch that was laid down in *Rucho*.

57. A group of voters filed a lawsuit in Pennsylvania in 2017 over the Commonwealth’s redistricting plan for the U.S. Congress. They alleged that the plan, which was adopted in 2011, skewed the representation of the Commonwealth’s 18 districts in favor of the Republican party. This plan, they alleged, violated a requirement in the Pennsylvania Constitution that “[e]lections shall be free and equal.” PA. CONST. art. I, § 5; see *League of Women Voters v. Commonwealth*, 178 A.3d 737, 766 (Pa. 2018) (“LWV”). This constitutional provision is identical to the one found in the Illinois Constitution.

58. After analyzing text, history, and precedent, the court held that the clause “should be given the broadest interpretation, one which governs all aspects of the electoral process, and which provides the people of this Commonwealth an equally effective power to select the representative of his or her choice, and bars the dilution of the people’s power to do so.” *Id.* at 814. It also noted that this clause has no analogy in the U.S. Constitution. *Id.* at 804.

59. The court determined that a violation of the clause can be proven by showing that neutral redistricting criteria—like contiguity, compactness, and equality of population—“have been subordinated, in whole or in part, to extraneous considerations such as gerrymandering for unfair partisan political

advantage.” *Id.* at 816–17. The court also suggested that a redistricting map can violate this clause even if it “minimally comport[s] with these neutral . . . criteria,” but “nevertheless operate[s] to unfairly dilute the power of a particular group’s vote.” *Id.* at 817.

60. It then applied these standards to the 2011 redistricting plan. The court examined expert reports, including one from Dr. Chen that determined that “there is a small geographic advantage for the Republicans, but it does not come close to explaining the extreme 13–5 Republican advantage in the 2011 plan.” *Id.* at 774–75 (cleaned up). Relatedly, it also observed how, in the most recent election, Democrats received 45.9% of the statewide vote, yet only won 27.7% of Congressional seats. *Id.* at 763–64.

61. In light of these and other factors, the court held that “it is clear, plain, and palpable that the 2011 [p]lan subordinates the traditional redistricting criteria in the service of partisan advantage,” thereby violating the Free and Equal Elections clause. *Id.* at 818.

62. The congressional map was redrawn, and the elections became “free and equal”: In the ensuing two congressional elections, the Republicans and Democrats evenly split the Commonwealth’s 18 seats.<sup>3</sup>

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<sup>3</sup> See Pennsylvania Department of State, *2020 General Election – Official Returns*, [https://www.electionreturns.pa.gov/\\_ENR/General/OfficeResults?OfficeID=11&ElectionID=83&ElectionType=G&IsActive=0](https://www.electionreturns.pa.gov/_ENR/General/OfficeResults?OfficeID=11&ElectionID=83&ElectionType=G&IsActive=0); Pennsylvania Department of State, *2018 General Election – Official Returns*, [https://www.electionreturns.pa.gov/\\_ENR/General/OfficeResults?OfficeID=11&ElectionID=63&ElectionType=G&IsActive=0](https://www.electionreturns.pa.gov/_ENR/General/OfficeResults?OfficeID=11&ElectionID=63&ElectionType=G&IsActive=0).

**2. North Carolina courts have previously determined that partisan gerrymandering violates a comparable Free Election clause under its Constitution.**

63. North Carolina's Constitution likewise requires that "[a]ll elections shall be free." N.C. CONST. art. I, § 10.

64. In 2018, plaintiffs filed a lawsuit that alleged that the legislative districts enacted by and for the General Assembly in 2017 violated, among other things, this "Free Elections" clause. *Common Cause v. Lewis*, No. 18 CVS 014001, 2019 WL 4569584, at \*1–2 (N.C. Super. Ct. Sept. 3, 2019). A three-judge trial court agreed. *Id.* at \*2.

65. The court analyzed text, history, and precedent and found that this clause prohibited "extreme partisan gerrymandering—namely redistricting plans that entrench politicians in power, that evince a fundamental distrust of voters by serving the self-interest of political parties over the public good, and that dilute and devalue votes of some citizens compared to others." *Id.* at \*110. It also noted that the Free Elections clause was one of the "clauses that makes the North Carolina Constitution more detailed and specific than the federal Constitution in the protection of the rights of its citizens." *Id.* at \*109.

66. The court was convinced that the General Assembly's redistricting plan struck "at the heart" of the Free Elections clause. *Id.* at \*112. It found that the legislators in power "manipulated district boundaries, to the greatest extent possible, to control the outcomes of individual races so as to best ensure their continued control of the legislature." *Id.*

67. In coming to this conclusion, the court analyzed expert reports—again, including one from Dr. Chen—which determined that the gerrymandered districts made it “nearly impossible for Democrats to win majorities in either chamber in any reasonably foreseeable electoral environment.” *Id.* at \*112.

68. In addition to finding that the plaintiffs had shown that the General Assembly intentionally manipulated the statewide map for political gain, the court held that the manipulation was *effective*. As an example, the court noted that the Republicans maintained a 54% majority in the State House and a 58% majority in the State Senate despite obtaining less than 50% of the two-party statewide vote in 2018. *Id.* at \*74.

69. The remedial maps created after the *Common Cause* ruling resulted in Democratic gains in both the State House and State Senate.<sup>4</sup>

70. Several years later, the North Carolina Supreme Court put its stamp of approval on the logic of this ruling. *Harper v. Hall*, 868 S.E.2d 499, 542 (N.C. 2022) (“*Harper I*”). In *Harper I*, the court determined that “partisan gerrymandering, through which the ruling party in the legislature manipulates the composition of the electorate to ensure that members of its party retain control, is cognizable under the [F]ree [E]lections clause because it can prevent elections from reflecting the will of the people impartially and by diminishing or diluting voting power on the basis of partisan affiliation.” *Id.*

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<sup>4</sup> See *2020 North Carolina Election Results*, N.Y. TIMES, <https://www.nytimes.com/interactive/2020/11/03/us/elections/results-north-carolina.html>.

It then applied strict scrutiny to the 2021 House map and determined that it was not “narrowly tailored to a compelling governmental interest.” *Id.* at 556.

71. That court later repeated this holding, stating that, “when the General Assembly enacts a districting plan that systematically makes it harder for certain voters to elect a governing majority based on partisan affiliation, that plan is subject to strict scrutiny and is unconstitutional unless the General Assembly can demonstrate that the plan is narrowly tailored to advance a compelling governmental interest.” *Harper v. Hall*, 881 S.E.2d 156, 181 (N.C. 2022) (“*Harper II*”) (cleaned up) (determining that remedial plan also did not pass strict scrutiny).

72. After Republicans flipped control of the North Carolina Supreme Court in 2022, it overruled *Harper I*, withdrew the opinion in *Harper II*, and abrogated the holding in *Common Cause*. See *Harper v. Hall*, 886 S.E.2d 393, 447–48 (N.C. 2023) (“*Harper III*”).

73. The dissenting opinion in *Harper III*, however, was strident: “A rigged election is not, in any sense of the word, a free election. Nor is an election in which a voter's voice is worthless because the election's results have been preordained by whoever wields political power in the General Assembly.” 886 S.E. 2d at 457 (Earls, J., dissenting).

**3. This Court requires that legislative redistricting maps be politically fair.**

74. In addition to the decisions in *LWV*, *Common Cause*, *Harper I*, and *Harper II*, precedent from this Court supports a determination that extreme partisan gerrymandering is unlawful.

75. On two occasions, this Court has held that legislative redistricting maps must “meet all legal requirements regarding political fairness.” *People ex rel. Burris v. Ryan*, 147 Ill. 2d 270, 296 (1992); accord *Cole-Randazzo v. Ryan*, 198 Ill. 2d 233, 236 (2001).

76. While this Court has never expressly defined “political fairness,” in *Davis v. Bandemer*, 478 U.S. 109 (1986), a plurality of the U.S. Supreme Court explained that it is politically unfair when an election system “substantially disadvantages certain voters in their opportunity to influence the political process effectively.” *Id.* at 133. This can be proven, it held, if there is “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.” *Id.*

77. Scholars have defined “political fairness” more broadly. One definition is “the absence of partisan bias, where partisan bias is the degree to which the electoral system makes it easier for one party (and harder for the other) to translate its votes into seats.” Adam Cox, *Partisan Fairness and Redistricting Politics*, 79 N.Y.U. L. REV. 751, 765 (2004). Another is “that each person or group in the community should have a roughly equal share of control

over the decisions made by . . . the state legislature.” RONALD DWORKIN, *LAW’S EMPIRE* 178 (1986).

78. Whatever the appropriate definition, the requirement that redistricting maps be “politically fair” must foreclose any extreme partisan gerrymander. After all, it is not “politically fair” to draw districts in such a way to systematically and intentionally suppress a significantly sized political party.

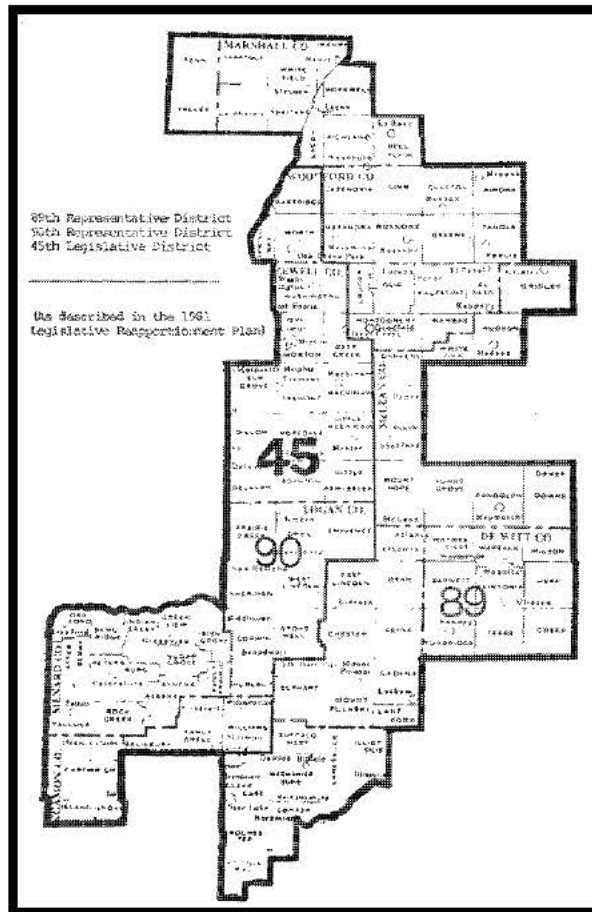
**D. Because the mapmakers were so concerned about partisanship, they flouted the Illinois Constitution’s compactness requirement.**

79. Under the Illinois Constitution, legislative districts must be “compact, contiguous and substantially equal in population.” ILL. CONST. art. IV, § 3(a). The first of these requirements—compactness—is “almost universally recognized’ as an appropriate anti-gerrymandering standard.” *Schrage v. State Bd. of Elections*, 88 Ill. 2d 87, 96 (1981)

80. The framers of the Illinois Constitution agreed. They noted that the compactness standard “reflect[s] the objective of improving legislative representation through seeking to insure that districts are not gerrymandered.” 6 RECORD OF PROCEEDINGS, SIXTH ILLINOIS CONSTITUTIONAL CONVENTION 1352–53. They highlighted that, “[w]here no standards of this nature exist, there exists an open invitation to gerrymander.” *Id.* at 1353.

81. This Court recognized these important principles in *Schrage*, a case that involved a compactness challenge to HD 89, which looked like this:





82. In *Schrage*, this Court determined that there were two ways to decide whether HD 89 was sufficiently “compact.” One was to compare the district to a “mathematically precise standard of compactness.” *Id.* at 98. The other was to “rely on a visual examination of the questioned district.” *Id.*

83. This Court found that a visual examination of HD 89 was sufficient to show that it was not “compact.” This examination “reveal[ed] a tortured, extremely elongated form which is not compact in any sense.” *Id.* So, HD 89 “fail[ed] to meet the compactness standard” of Article IV, Section 3(a) of the Illinois Constitution. *Id.*

84. Here, applying either of *Schrage's* tests to the Enacted Plan leads to one conclusion: A significant number of districts—as many as 52 districts identified by Dr. Chen—are not “compact in any sense.” *Id.*; see Ex. B, Chen Rep. at 7–13.

**1. A mathematical standard of compactness starkly reveals that many districts are not compact.**

85. Dr. Chen computed the Polsby-Popper and Reock scores of the 118 House Districts in the Plan. The Polsby-Popper metric evaluates the perimeter of a district to its area; smooth perimeters score better, while cragged borders score worse. The Reock metric measures the relationship between the area of a district and the area of the smallest circle in which that district could fit; the more closely a district aligns to a circle, which is the most compact shape, the higher the score. Ex. B, Chen Rep. at 9.

86. The General Assembly's disregard for compactness is brazen. Of 118 House Districts, 49 districts have Reock scores less than that of the *Schrage* district, 25 districts have Polsby-Popper scores less than that of the *Schrage* district, 22 districts have both Reock and Polsby-Popper scores less than that of the *Schrage* district, and 52 districts are less compact by at least one of those measures. *Id.* at 11.

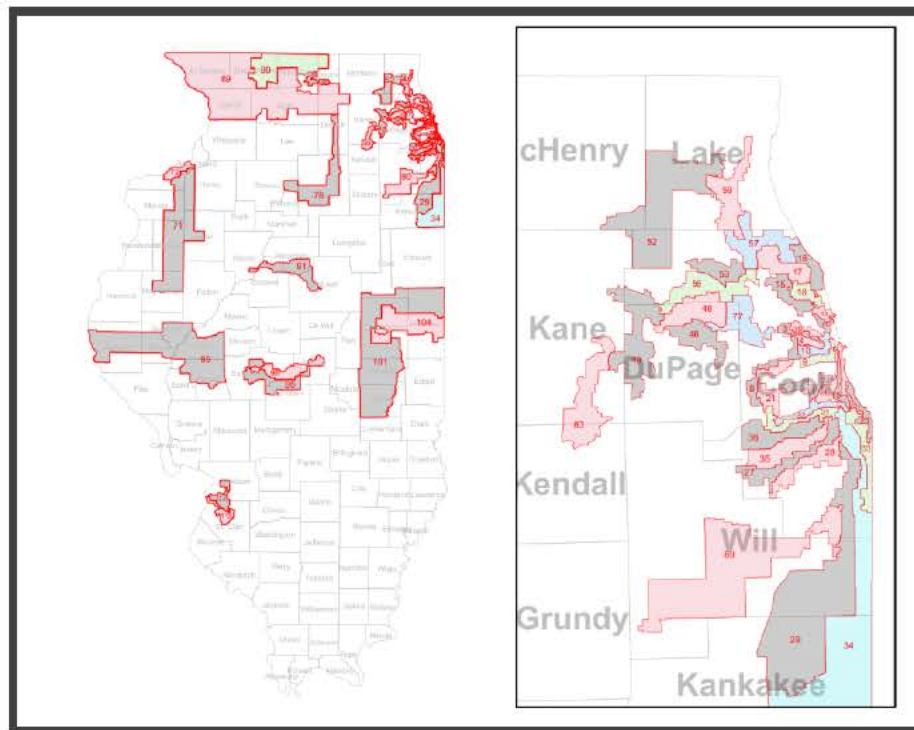
87. As noted above, Dr. Chen instructed his simulation to minimize the number of districts with compactness scores below that of the *Schrage* district. In all 10,000 simulations, *not one* district fell below those minimum scores. In other words, it is possible to draw *every* district to be at least as

compact as the *Schrage* district, even while equalizing population and creating districts that comply with Section 2 of the Voting Rights Act. *Id.* at 22–23.

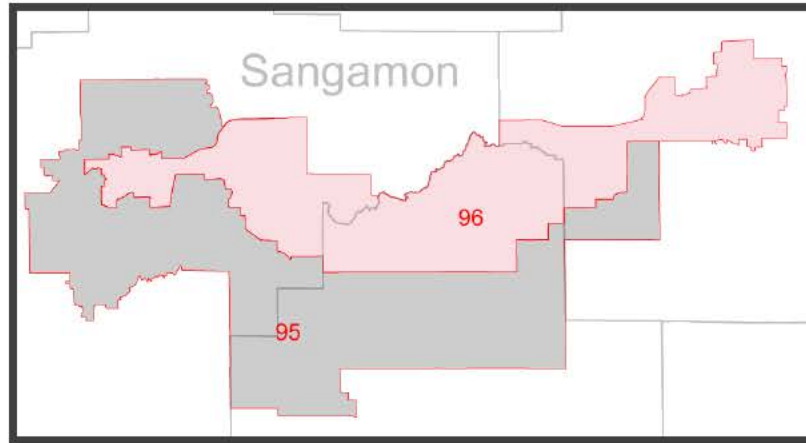
**2. A visual examination also highlights that many districts are not compact.**

88. The Enacted Plan is an embarrassment of oddly shaped districts that resemble nothing like the natural communities they purport to serve.

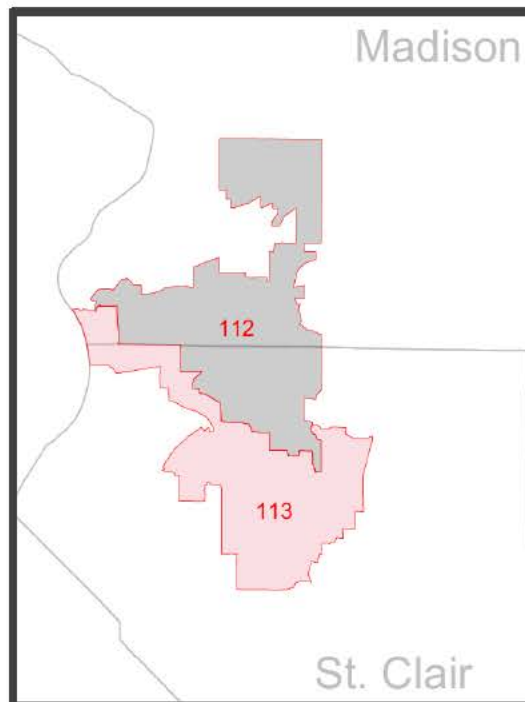
89. Figure 2 from Dr. Chen’s report, which is replicated below, highlights the 52 House Districts that are less compact than the *Schrage* district. Districts in the Chicago region generally emanate from the City and snake into the suburbs. They are thin and gangly, often no more than a few blocks wide in parts while stretching for miles and across county borders. By contrast, the invalidated *Schrage* district was no thinner than an entire township at its narrowest.



90. The non-compact districts are not confined to Chicago. A peculiar pair of districts, HD 95 and 96, intertwine between Springfield and Decatur. HD 95 wraps around HD 96 near Springfield like a hooked finger, only to come back around toward Decatur.

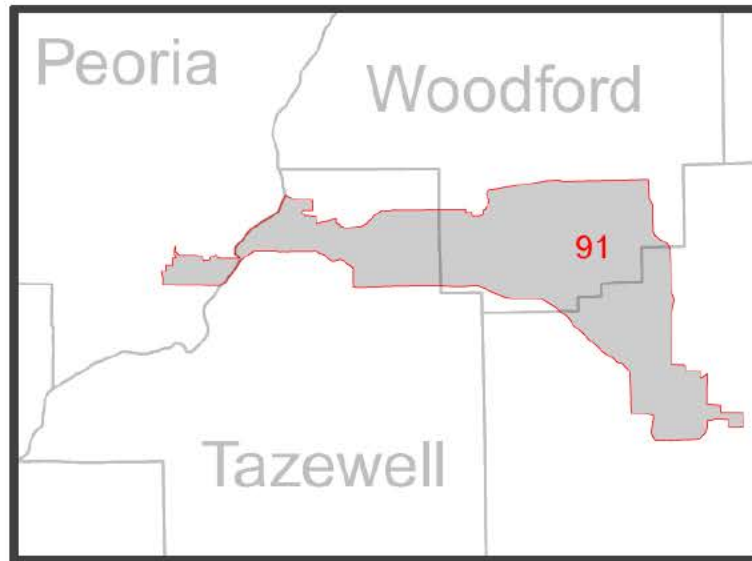


91. The Metro East region is also contorted. HDs 112 and 113 slice through Madison and St. Clair Counties at the expense of natural communities, in places no wider than a few blocks.





92. HD 91 stretches from Bloomington to Peoria. Near East Peoria, the district becomes so thin that it is not even contiguous by land: the connection between the two parts of the district is only as wide as the Illinois River.



**3. Compactness was subordinated to partisan motives.**

93. Across the State, the General Assembly’s motive in drawing non-compact districts was consistent: partisanship advantage. As Dr. Chen concluded, “partisanship subordinated the traditional districting principles of drawing geographically compact districts.” Ex. B, Chen Rep. at 59–60.

94. The majority-Black districts in the Chicago region were drawn to crack Republican votes in the suburbs. HDs 5, 6, 25, 26, 27, 28, and 33 are majority-Black districts starting in the south side of Chicago and stretching to the south suburbs. HDs 27 and 28 stretch from the south side of Chicago to the southwest suburbs. HDs 31 and 32 stretch from the west side of Chicago to the west suburbs. HD 8 begins in the west side of Chicago and wraps around to the

southwest suburbs. Both the Polsby-Popper and Reock compactness measures of all these districts are substantially below those of the *Schrage* district. *Id.* at 10.

95. Dr. Chen’s analysis explains why. His simulations demonstrate that it is never necessary to draw districts with compactness scores below those of the *Schrage* district, even to accommodate at least the same number of majority-Black districts. All of the majority-Black districts in the Enacted Plan but one (HD 30) are less compact than the *Schrage* district, and all are substantially more Republican than would be naturally expected. “[D]rawing long, narrow districts with compactness scores below the *Schrage* District enabled the Enacted Plan’s mapmakers to ‘waste’ suburban Republican votes in otherwise safe Democratic, majority-Black districts.” *Id.* at 52–59.

96. The General Assembly’s goal is evident: draw skinny Democratic districts that snake into Republican areas and absorb as many Republican votes as possible without jeopardizing Democrats’ ability to win those districts, thereby making the adjacent areas easier for Democrats to win. The General Assembly is using Black-majority districts to crack Republican votes solely for partisan purposes. *Id.*

97. Near Springfield, HDs 95 and 96 were also drawn for partisan reasons. The legislature admitted as much in the House Resolution, explaining that its intent in crafting HD 96 was to “enhanc[e] partisan composition” of that district. The result is two districts whose Polsby-Popper and Reock

compactness scores are substantially lower than those of the *Schrage* district. *Id.* at 10.

98. The dissection of the Metro East region for partisan aims was already explained by Maxson. *See supra*, § A.2. Incumbent Democrats in HDs 112 and 113 demanded a careful manipulation of the region to shore up the partisan composition of those districts, notwithstanding any constitutional compactness requirement.

## CAUSES OF ACTION

### COUNT I

#### (Violation of the Illinois Constitution's Free and Equal Election Clause, Art. III, § 3)

99. Plaintiffs hereby incorporate all other paragraphs as if fully set forth herein.

100. Article III, Section 3 of the Illinois Constitution states that “[a]ll elections shall be free and equal.”

101. This “Free and Equal Election Clause” requires that “each voter have the right and opportunity to cast his or her vote without any restraint and that his or her vote has the same influence as the vote of any other voter.” *Goree v. LaVelle*, 169 Ill. App. 3d 696, 699 (1988) (citing *People v. Deatherage*, 401 Ill. 25, 37 (1948)).

102. In many parts of Illinois, Republican voters do not have “the same influence as the vote of any other voter.” *Id.* This is by design.

103. As the federal district court in *McConchie II* noted, the primary intent in the redistricting process was to “shore up Democratic seats.” 577 F. Supp. 3d at 879. As shown above, both the legislative history, as well as the mapmakers’ own testimony, confirms the mapmakers were, at all times, principally motivated by partisan concerns.

104. In addition, the Enacted Plan had the effect of substantially diluting the power of Republican votes.

105. Dr. Chen’s expert report confirms this. He found that the Enacted Plan creates a “significant pro-Democratic electoral bias,” resulting in as many as 11 fewer Republican-favoring districts when compared to the median outcome among the non-partisan computer-simulated plans.

106. Republican voters in many parts of the State—including Plaintiffs ROBERT BERNAS, THOMAS J. BROWN, SERGIO CASILLAS VAZQUEZ, JOHN COUNTRYMAN, and ASHLEY HUNSAKER—therefore have less of an ability to elect representatives of their choice due to the gerrymandered nature of the Enacted Plan.

107. Finally, there is no legitimate, non-partisan justification for this discrimination.

108. In other words, the Enacted Plan—which features extreme partisan gerrymandering—violates the Free and Equal Election Clause. *See Rucho v. Common Cause*, 588 U.S. 684, 735–36 (2019) (Kagan, J., dissenting)



(noting that lower courts have used a framework of (a) intent, (b) effects, and (c) lack of justification to adjudicate partisan gerrymandering cases).

109. As others have recognized, “[b]y drawing districts to maximize the power of some voters and minimize the power of others, a party in office at the right time can entrench itself there for a decade or more, no matter what the voters would prefer.” *Rucho*, 588 U.S. at 727, 750 (Kagan, J., dissenting) (pointing out that both Democrats and Republicans in underlying cases were responsible for their partisan gerrymandering). Partisan gerrymandering, at its most extreme, amounts to “rigging elections.” *Id.* (quoting *Vieth v. Jubelirer*, 541 U.S. 267, 317 (2004) (Kennedy, J., concurring in the judgment)).

110. There is ample support for determining that the Free and Equal Election Clause prohibits extreme partisan gerrymandering. Indeed, the Pennsylvania Supreme Court—examining an identical constitutional provision—held just that. *LWV*, 178 A.3d at 766. It determined that Pennsylvania’s Free and Equal Elections Clause requires that all voters “have an equal opportunity to translate their votes into representation,” and that this requirement is violated where traditional districting criteria such as preserving political subdivisions and compactness are “subordinated, in whole or in part, to extraneous considerations such as gerrymandering for unfair partisan political advantage.” *Id.* at 814, 817.

111. Moreover, North Carolina courts in a variety of cases until 2022 struck down maps that were the byproduct of partisan gerrymandering because

of, among other things, a state constitutional provision that required free elections. *Common Cause*, 2019 WL 4569584, at \*2; *Harper I*, 868 S.E.2d at 556; *Harper II*, 881 S.E.2d at 181. In the views of these courts, “when the General Assembly enacts a districting plan that systematically makes it harder for certain voters to elect a governing majority based on partisan affiliation, that plan is subject to strict scrutiny and is unconstitutional unless the General Assembly can demonstrate that the plan is narrowly tailored to advance a compelling governmental interest.” *Harper II*, 881 S.E.2d at 181 (cleaned up).

112. The Free and Equal Election Clause of the Illinois Constitution protects the rights of voters to at least the same extent as Pennsylvania’s identical provision and North Carolina’s comparable one, as understood by its courts prior to *Harper III*.

113. Additionally, this Court requires that legislative redistricting maps “meet all legal requirements regarding political fairness.” *Burris*, 147 Ill. 2d at 296; *Cole-Randazzo*, 198 Ill. 2d at 236. It is not politically fair to draw an Enacted Plan with the purpose—and effect—of enshrining one political party’s power.

114. The Enacted Plan was drawn with the primary motivation to ensure Democratic victories and is anything but “free and equal.” The Enacted Plan thus denies voters their equal right to participate in the political process and to elect representatives of their choice, violating Article III, Section 3 of the Illinois Constitution.

**COUNT II**  
**(Violation of the Illinois Constitution’s**  
**Compactness Requirement, Art. IV, § 3)**

115. Plaintiffs hereby incorporate all other paragraphs as if fully set forth herein.

116. Under the Illinois Constitution, legislative districts must be “compact, contiguous and substantially equal in population.” ILL. CONST. art. IV, § 3(a).

117. “[R]equiring compactness prevents gerrymandering. In fact, compactness is almost universally recognized as an appropriate anti-gerrymandering standard.” *Schrage*, 88 Ill. 2d at 96 (internal quotations omitted). “Indiscriminate districting, without any regard for political subdivision or natural or historical boundary lines, may be little more than an open invitation to partisan gerrymandering.” *Id.* at 104 (quoting *Reynolds v. Sims*, 377 U.S. 533, 579 (1964)).

118. As Dr. Chen’s expert report shows, the Enacted Plan contains 52 House Districts that fail to comply with the requirement of the Illinois Constitution that House Districts must be compact.<sup>5</sup>

119. These House Districts fracture a significant number of counties, municipalities, and townships.

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<sup>5</sup> These districts are HDs 1, 3, 4, 5, 6, 8, 9, 10, 11, 13, 15, 16, 17, 18, 21, 25, 26, 27, 28, 29, 31, 32, 33, 34, 35, 36, 39, 46, 48, 49, 52, 53, 56, 57, 59, 68, 71, 72, 76, 77, 80, 83, 89, 90, 91, 95, 96, 99, 101, 104, 112, and 113.

120. There is no legitimate justification for the highly irregular, non-compact House Districts within the Plan. As Dr. Chen concluded, it is possible to draw *every* district to be at least as compact as the *Schrage* district, even while equalizing population and creating districts that comply with Section 2 of the Voting Rights Act.

121. The pervasive lack of compactness of the House Districts burdens Plaintiff TONY MCCOMBIE's ability to carry out her constitutionally prescribed duty of representing the interests of her caucus and Republican voters throughout the State of Illinois.

122. The pervasive lack of compactness of the House Districts also affords the voters that reside within them—including Plaintiffs ROBERT BERNAS, THOMAS J. BROWN, SERGIO CASILLAS VAZQUEZ, JOHN COUNTRYMAN, and ASHLEY HUNSAKER—less opportunities than other members of the electorate to participate in the political process and to elect representatives of their choice.

123. The lack of compactness is so pervasive that it is not possible to redraw only several House Districts. In other words, an actual controversy exists between Plaintiffs and Defendants regarding whether the Enacted Plan is invalid and void *ab initio*.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs respectfully pray that this Court:

a. Assume jurisdiction over this action pursuant to Article IV, Section 3(b) of the Illinois Constitution and Supreme Court Rule 382.

b. Set an orderly briefing schedule for all parties herein to plead and file briefs.

c. Declare the Enacted Plan unconstitutional as violative of Article III, Section 3, and Article IV, Section 3(a) of the Illinois Constitution.

d. Issue a permanent injunction enjoining Defendants, their agents, employees, and those persons acting in concert with them, from enforcing or giving any effect to the Plan, including enjoining the Board Members from conducting any elections based on the Plan.

e. Appoint a Special Master to draft a valid and constitutionally acceptable redistricting plan or grant such other appropriate relief that allows for the drafting and implementation of a valid and constitutionally acceptable redistricting plan.

f. Make all further orders as are just, necessary, and proper to ensure complete fulfillment of this Court's declaratory, injunctive, and equitable orders in this case.

g. Grant such other and further relief as it deems is proper and just, including, but not limited to, reasonable costs and attorneys' fees.

Dated: January 28, 2025

Respectfully submitted,

/s/ Charles E. Harris, II

CHARLES E. HARRIS, II (6280169)  
MITCHELL D. HOLZRICHTER (6296755)  
HEATHER A. WEINER (6317169)  
JOSEPH D. BLACKHURST (6335588)  
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/s/ John G. Fogarty

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*Counsel for Plaintiffs*



**NOTICE OF FILING OF COMPLAINT**

PLEASE TAKE NOTICE that on January 28, 2025, the undersigned electronically filed the Complaint in the above-captioned case with the Clerk of the Supreme Court of Illinois using Odyssey eFileIL. A copy is hereby served upon you.

Dated: January 28, 2025

Respectfully submitted,

*/s/ Charles E. Harris, II*

CHARLES E. HARRIS, II (6280169)  
MITCHELL D. HOLZRICHTER (6296755)  
HEATHER A. WEINER (6317169)  
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*Counsel for Plaintiffs*



**CERTIFICATE OF SERVICE**

I, Charles E. Harris, II, an attorney, hereby certify that on January 28, 2025, I caused a Notice of Filing and the Complaint to be electronically filed with the Clerk of the Supreme Court of Illinois by using the Odyssey eFileIL system. I further certify that I will cause one copy of the above-named filings to be served upon counsel listed below via electronic mail on January 28, 2025.

Marni M. Malowitz  
General Counsel  
Illinois State Board of Elections  
69 W. Washington St., Suite LL08  
Chicago, IL 60602  
(312) 814-6440  
mmalowitz@elections.il.gov

Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct.

/s/ Charles E. Harris, II  
Charles E. Harris, II  
Mayer Brown LLP  
71 South Wacker Dr.  
Chicago, IL 60606  
(312) 701-8934  
charris@mayerbrown.com

*Counsel for Plaintiffs*

# **Exhibit A**

*McCombie et al. v. Illinois State Board of Elections et al.*

Deposition Transcript of Jonathan Maxson

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IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

JULIE CONTRERAS, IRVIN FUENTES, )  
ABRAHAM MARTINEZ, IRENE PADILLA, )  
ROSE TORRES, LAURA MURPHY, )  
CRISTINA FLORES, JOSE ALCALA, )  
TROY HERNANDEZ, GABRIEL PEREZ, )  
IVAN MEDINA, ALFREDO CALIXTO, )  
HISPANIC LAWYERS ASSOCIATION OF )  
ILLINOIS and PUERTO RICAN BAR )  
ASSOCIATION OF ILLINOIS, )

Plaintiffs, )

-vs- )

No. 1:21-cv-3139

ILLINOIS STATE BOARD OF )  
ELECTIONS, IAN K. LINNABARY, )  
WILLIAM J. CADIGAN, LAURA K. )  
DONAHUE, WILLIAM M. MCGUFFAGE, )  
CATHERINE S. MCCRORY, RICK S. )  
TERVEN, SR. and CASANDRA B. )  
WATSON, in their official )  
capacities as members of the )  
Illinois State Board of )  
Elections, DON HARMON, in his )  
official capacity as President of )  
the Illinois Senate, and THE )  
OFFICE OF THE PRESIDENT OF THE )  
ILLINOIS SENATE, EMANUEL )  
CHRISTOPHER WELCH, in his )  
official capacity as Speaker of )  
the Illinois House of )  
Representatives, and THE OFFICE )  
OF THE SPEAKER OF THE ILLINOIS )  
HOUSE OF REPRESENTATIVES, )

Defendants. )

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IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

EAST ST. LOUIS BRANCH NAACP, )  
ILLINOIS STATE CONFERENCE OF THE )  
NAACP, and UNITED CONGRESS OF )  
COMMUNITY AND RELIGIOUS )  
ORGANIZATIONS, )

Plaintiffs, )

-vs-

No. 1:21-cv-05512

ILLINOIS STATE BOARD OF )  
ELECTIONS, WILLIAM J. CADIGAN, )  
LAURA K. DONAHUE, IAN K. )  
LINNABARY, CATHERINE S. MCCRORY, )  
WILLIAM M. MCGUFFAGE, RICK S. )  
TERVEN, SR. and CASANDRA B. )  
WATSON, in their official )  
capacities as members of the )  
Illinois State Board of )  
Elections, DON HARMON, in his )  
official capacity as President of )  
the Illinois Senate, THE OFFICE )  
OF THE PRESIDENT OF THE ILLINOIS )  
SENATE, EMANUEL CHRISTOPHER )  
WELCH, in his official capacity )  
as Speaker of the Illinois House )  
of Representatives, and THE )  
OFFICE OF THE SPEAKER OF THE )  
ILLINOIS HOUSE OF )  
REPRESENTATIVES, )

Defendants. )

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IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF ILLINOIS  
EASTERN DIVISION

DAN MCCONCHIE, in his official )  
capacity as Minority Leader of )  
the Illinois Senate and )  
individually as a registered )  
voter, JIM DURKIN, in his )  
official capacity as Minority )  
Leader of the Illinois House of )  
Representatives and individually )  
as a registered voter, JAMES )  
RIVERA, ANNA DE LA TORRE, DOLORES )  
DIAZ, FELIPE LUNA JR., SALVADOR )  
TREMILLO, CHRISTOPHER ROMERO, the )  
REPUBLICAN CAUCUS OF THE ILLINOIS )  
SENATE, the REPUBLICAN CAUCUS OF )  
THE ILLINOIS HOUSE OF )  
REPRESENTATIVES, and the ILLINOIS )  
REPUBLICAN PARTY, )

Plaintiffs, )

-vs- )

No. 1:21-cv-03091

IAN K. LINNABARY, CASANDRA B. )  
WATSON, WILLIAM J. CADIGAN, LAURA )  
K. DONAHUE, CATHERINE S. MCCRORY, )  
WILLIAM M. MCGUFFAGE, and RICK S. )  
TERVEN, SR., in their official )  
capacities as members of the )  
Illinois State Board of )  
Elections, EMANUEL CHRISTOPHER )  
WELCH, in his official capacity )  
as Speaker of the Illinois House )  
of Representatives, the OFFICE OF )  
THE SPEAKER OF THE ILLINOIS HOUSE )  
OF REPRESENTATIVES, DON HARMON, )  
in his official capacity as )  
President of the Illinois Senate, )  
and the OFFICE OF THE PRESIDENT )  
OF THE ILLINOIS SENATE, )

Defendants. )

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1                   Deposition via videoconference of JONATHAN  
2 MAXSON taken before TRACY L. BLASZAK, CSR, CRR, and  
3 Notary Public, pursuant to the Federal Rules of Civil  
4 Procedure for the United States District Courts  
5 pertaining to the taking of depositions, at 82 South  
6 LaGrange Road, in the Village of LaGrange, Cook County,  
7 Illinois at 10:08 a.m. on the 3rd day of November, A.D.,  
8 2021.

9                   There were present at the taking of this  
10 deposition via videoconference the following counsel:

11                   MEXICAN AMERICAN LEGAL DEFENSE AND EDUCATIONAL  
12 FUND by  
13 MR. ERNEST HERRERA  
14 643 South Spring Street  
15 Suite 1100  
16 Los Angeles, California 90014  
17 (213) 629-2512  
18 eherrera@maldef.org

19                   -and-

20

21

22

23

24

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www.depo.com

1 A No.

2 Q Now, when you met with counsel, about how long  
3 did you meet?

4 MR. VAUGHT: Objection, that's privileged.

5 MR. HERRERA: Q Other than speaking with your  
6 attorney, did you speak to anyone else in preparation  
7 for this deposition?

8 A No.

9 Q Have you spoken to any current or former members  
10 of the speaker or the president's staff about your  
11 deposition?

12 A No.

13 Q Okay. So we're going to go into a little bit  
14 about your background.

15 Where did you grow up?

16 A River Forest, Illinois.

17 Q Okay. And in what city do you reside now?

18 A Springfield.

19 Q And what is your educational background?

20 A A bachelor's degree in political science from  
21 Augustana College in Rock Island, Illinois.

22 Q And do you have any graduate or professional  
23 degrees?

24 A I do not.

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1 Q And are you currently employed?

2 A Yes.

3 Q Where are you employed?

4 A Member of the House Democratic staff in the  
5 State of Illinois General Assembly.

6 Q And what is your current job title or role?

7 A Director of redistricting.

8 Q Do you have anything to do with the House  
9 Democratic caucus?

10 A Yes.

11 Q And what is your role with the House Democratic  
12 caucus?

13 A Director of redistricting for the House  
14 Democratic caucus.

15 Q Okay. And in terms of -- what are -- Generally  
16 speaking, what are your duties in your current job?

17 A I oversee a team of technicians who are  
18 responsible for operating redistricting software as part  
19 of the process.

20 Q And before your current role, where were you  
21 employed, if any?

22 A I was a communications director for the House  
23 Democratic caucus.

24 Q And what kind of work was involved in that



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1 position?

2 A Advising members of the House Democratic caucus  
3 with regard to communication decisions.

4 Q And when was that?

5 A I'm sorry, can you clarify?

6 Q Sorry. For how long were you doing that before  
7 your redistricting?

8 A Oh, for -- since January of 2017.

9 Q Okay. And just to return to what you were  
10 saying about being the director of redistricting, when  
11 did you start that position?

12 A January of 2021.

13 MR. HERRERA: All right. So I'm going to show you a  
14 document. And for the attorneys and for the record,  
15 this is a document that says Illinois House Speaker  
16 redistricting page screen shot.

17 MS. YANDELL: If there is a Bates number attached,  
18 could you read that into the record, and if there is not  
19 we'll have to live with that.

20 MR. HERRERA: Sure. Yes, I plan to do that. Not  
21 everything -- I think like half of them have a Bates  
22 stamp. Okay. So I'm going to show the witness what's  
23 on my screen here.

24 Q Mr. Maxson, can you see this document?

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1 A Yes, I can.

2 Q Okay. Do you recognize this document?

3 A Yes.

4 Q Okay. I'll represent to you that this is a  
5 screen shot that I took of the Illinois speaker's  
6 redistricting page.

7 Do you see where it says, "View approved  
8 legislative districts"?

9 A Yes.

10 Q I want to -- so you said you recognize this  
11 document.

12 Where do you recognize it from?

13 A The public website of the House redistricting  
14 committee.

15 Q And is this something that you helped put  
16 together for the public?

17 A Yes.

18 Q So you're familiar with what can be viewed  
19 through this website, right?

20 A I would say so.

21 Q Okay. And do you see that it says updated  
22 08312021 along the side?

23 A Yes.

24 MR. HERRERA: Sorry, for the court reporter, could

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1 we mark this as Exhibit 1. Thank you.

2 (Exhibit 1 marked as requested.)

3 MR. HERRERA: Q And do you know what this link and  
4 the updated language refer to?

5 A I'm sorry, can you repeat the question.

6 Q Do you know what this link that says updated  
7 03 -- sorry -- Do you know what this link that says  
8 updated 08312021 refers to?

9 A I don't believe updated 08312021 is itself a  
10 link.

11 Q Okay. What about the picture underneath it?

12 A The graphic beneath that would link to a Google  
13 Map showing the legislative districts that were approved  
14 by the General Assembly.

15 Q Okay. And when were those approved?

16 MS. YANDELL: Objection, vague.

17 MR. HERRERA: Q You can answer.

18 A August 31st, 2021.

19 Q And when you say approved, do you mean passed by  
20 both houses of the Illinois General Assembly?

21 MS. YANDELL: I'm just going to object to the extent  
22 that the witness isn't looking at the districts you're  
23 asking about, Ernest. I don't know if you have another  
24 screen shot.

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1 with individual members. And as much as possible, I  
2 tried to have that be regional.

3 Obviously, because of the distribution of our  
4 Democratic members throughout the state, that was not  
5 always possible. And based on individual staff people's  
6 availability, I often had to have different staff  
7 available to assist members as needed.

8 Q Are you familiar within Illinois of the  
9 geographic term Metro East?

10 A Yes.

11 Q What is your understanding of Metro East?

12 A My layman's understanding would be a definition  
13 of Metro East is that's the area to the east of  
14 St. Louis, Missouri.

15 Q And do you have in your own mind an idea of how  
16 far east of St. Louis, how far north of St. Louis, and  
17 how far south of St. Louis?

18 A I really don't. I would consider it to be  
19 largely in Madison and St. Clair Counties, though.

20 Q And did you have a particular staff member that  
21 was assigned to Metro East?

22 A I wouldn't say I had someone who was assigned to  
23 the Metro East. I had an individual staff person who  
24 worked closely with me on Metro East.

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1 Q What staff member was that?

2 A Darrin Reinhart.

3 Q And did you say that person's first name was  
4 Darrin?

5 A Darrin with a D, yes.

6 Q For ease of purpose, man or woman?

7 A He is a man.

8 Q Man.

9 And so you and Mr. -- you worked with  
10 Mr. Reinhart with respect to Metro East, fair to say?

11 A Mr. Reinhart and I both worked with the members  
12 of the delegation, of the caucus to create this  
13 district, yes.

14 Q And which members are those?

15 A Representative Greenwood, Representative  
16 Hoffman, Representative Katie Stuart.

17 Q With Representative Stuart representing 112,  
18 Representative Hoffman representing 113, and  
19 Representative Greenwood representing 114?

20 A That's correct.

21 Q What, if anything, did Representative Stuart say  
22 to you or to Mr. Reinhart as to what her goals were with  
23 respect to district 112?

24 A I don't recall what specifically the goals that

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1 Representative Stuart had for her district.

2 Q What goals did you have? Did you or  
3 Mr. Reinhart identify any goals for district 112?

4 A First and foremost, the district needed to be  
5 drawn to equal population.

6 I think second of all keeping the Edwardsville  
7 base of that district together was important politically  
8 for Representative Stuart.

9 And then beyond that what could be done within  
10 reason to enhance the Democratic performance of the  
11 112th district.

12 Q And did you feel like you accomplished all three  
13 of those goals in HB2777?

14 A I would say that the -- in terms of population  
15 questions, we did that as much as -- using the best  
16 information we had.

17 With regard to the political questions, I would  
18 wait and see what the outcome of the future elections is  
19 to weigh in on that.

20 Q How about Representative Hoffman, did he  
21 identify goals that he had with respect to district 113?

22 A Representative Hoffman's goals were to maintain  
23 the Belleville senator of his district and as much as  
24 possible to be politically in a position where he and

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1 Representative Stuart -- and Representative Greenwood's  
2 districts would be at about an equal Democratic  
3 performance, which is where they started at.

4 Q And how did you know that that's where they  
5 started?

6 A Looking at those races that I had identified for  
7 the MALDEF attorney, they were approximately the same  
8 level of Democratic performance of those districts.

9 Q And you're referring to the presidential races  
10 in 2016 and 2020, the gubernatorial race in 2014, and  
11 the controller's race in 2016?

12 A That's correct.

13 Q Did I leave any out?

14 A Not that I recall.

15 Q Prior to the passage of SB927, did you look at  
16 any other races other than those to assess Democratic  
17 performance?

18 A I believe we also looked at some countywide  
19 election results and the individual results from  
20 Representatives Greenwood, Hoffman, and Stuart in their  
21 previous races.

22 Q Did you do that anywhere else in the state?

23 A Yes.

24 Q Where else in the state did you look at local

1 races?

2 A In the Chicago suburbs.

3 Q And were those numbers integrated into the  
4 Democratic performance numbers that would show up when  
5 you were on the AutoBound system?

6 A No.

7 Q Those were things that you looked at  
8 independently of that?

9 A That's correct.

10 Q Now, in Exhibit 23, I can pull that up, share my  
11 screen. If I did this correctly, it should say combo  
12 race figures on the top?

13 A That's correct.

14 Q All right. So, you know, looking at -- You  
15 recall looking at this document when Mr. Herrera was  
16 asking you questions?

17 A I do.

18 Q Okay. So in terms of this document, did this  
19 document reflect at all in the D index column the local  
20 races that you referenced?

21 A No.

22 Q Why did you choose to look at some of the local  
23 races in Metro East?

24 A Because the individual legislators in that area



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1 often have results that are different, significantly  
2 different than statewide and nationwide candidates.

3 Q And, in fact, with respect to these districts,  
4 the results in 2020 of the three candidates, there was  
5 some differences, correct?

6 A I'm sorry, could you repeat that.

7 Q In 2020 there were differences in how the three  
8 Democrats, 112, 113 and 114, performed, correct?

9 A I am not familiar with their 2020 election  
10 results off the top of my head.

11 Q Okay. Now, you said that before you started  
12 looking at the -- before you started looking at the  
13 local election results, the performance numbers were  
14 similar for the three districts, is that right?

15 A The districts as they were configured in 2011  
16 when they were plugged into AutoBound in 2021, they  
17 all -- they resulted in similar political Democratic  
18 performance.

19 Q Do you recall what those numbers were?

20 A Not off the top of my head, no.

21 Q Were they over 50 percent?

22 A Yes.

23 Q All three?

24 A No, the 112th district I don't believe was over

1 50 percent.

2 Q But 113 and 114 were over 50 percent?

3 A Yes.

4 Q Did you then endeavor to improve the performance  
5 of 112?

6 A As much as possible, yes.

7 Q Now, I believe in earlier testimony you said  
8 that you -- when you're on AutoBound, in addition to the  
9 performance numbers, political performance numbers, you  
10 could look at racial numbers, as well, correct?

11 A That's correct.

12 Q When looking at these three districts, to what  
13 extent did you look at the race numbers?

14 A I don't recall looking at the racial numbers in  
15 these three districts.

16 Q Were you aware at any point in time that SB927  
17 reduced the black population of 114?

18 A I am aware that SB927 has a lower percentage of  
19 African-American residents than the map that was enacted  
20 in 2011.

21 However, it's my understanding that the total  
22 number of African-American residents as a total number  
23 is higher than it was in 2011 -- I beg your pardon, is  
24 higher than it was in the House bill 2777 map.

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1 Q But the voting age population in 114 is less  
2 under SB27 -- sorry, SB927 than what it was under the  
3 2011 plan, correct?

4 A As a percentage, yes.

5 Q And did you do anything to correct for that?

6 A I believe that's implied that we're drawing  
7 along purely racial lines.

8 Q Now, isn't it true that with respect to  
9 St. Clair County -- Let's start with this. HD 114 both  
10 in the 2020 -- September, 2021, plan, SB927, and in the  
11 2011 plan is completely located in St. Clair County,  
12 correct?

13 A That's correct.

14 Q And you are aware, aren't you, that St. Clair  
15 County lost more population than any county in the  
16 state, correct?

17 A I am not certain that it lost more than any  
18 county in the state. But I am aware it lost a  
19 significant amount of population.

20 Q All right. I'm going to show you a document.  
21 Exhibit 21. Mr. Herrera asked you some questions about  
22 Exhibit 21, Mr. Maxson.

23 Do you recognize it?

24 A Yes.

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1 Q Now, if you look at the bottom of page 4 and the  
2 top of page 5, it talks about the counties that lost  
3 population. And it indicates that St. Clair County lost  
4 the highest number of people.

5 Do you see that, Mr. Maxson?

6 A Yes.

7 Q Do you have -- by the way, who was responsible  
8 for coming up with some of the data like this in Exhibit  
9 21?

10 A I don't recall.

11 Q Did it come out of your office?

12 A I think parts of it came out of my office. I  
13 think parts of it might have come from analysis done by  
14 Kim Brace.

15 Q All right. Do you have any doubt in reading  
16 this that St. Clair County was a county that lost the  
17 most population between 2010 and 2020 in Illinois?

18 A No, I would defer to what's in the resolution.

19 Q Okay. Now, with respect to district 112, that  
20 was a district that when you -- when you imported the  
21 2010 data, that district -- or the 2011 plan, that  
22 district was only underpopulated by a couple hundred  
23 people, right?

24 A That seems to be correct, yes.

## **Exhibit B**

*McCombie et al. v. Illinois State Board of Elections et al.*

Expert Report of Jowei Chen, Ph.D.

No. \_\_\_\_\_

---

**IN THE SUPREME COURT OF ILLINOIS**

---

TONY MCCOMBIE, in her official capacity as )  
Minority Leader of the Illinois House of )  
Representatives and individually as a registered )  
voter; ROBERT BERNAS, individually as a )  
registered voter; THOMAS J. BROWN, )  
individually as a registered voter; and SERGIO )  
CASILLAS VAZQUEZ, individually as a )  
registered voter; JOHN COUNTRYMAN, )  
individually as a registered voter; and ASHLEY )  
HUNSAKER, individually as a registered voter, )

Plaintiffs, )

v. )

ILLINOIS STATE BOARD OF ELECTIONS )  
and JENNIFER M. BALLARD CROFT, )  
CRISTINA D. CRAY, LAURA K. DONAHUE, )  
TONYA L. GENOVESE, CATHERINE S. )  
MCCRORY, RICK S. TERVEN, SR., )  
CASANDRA B. WATSON, and JACK VRETT, )  
all named in their official capacities as members of )  
the State Board of Elections, )

Defendants. )

) Original Action under Article  
) IV, Section 3 of the Illinois  
) Constitution

---

**EXPERT REPORT OF JOWEI CHEN, Ph.D.**

I, Dr. Jowei Chen, upon my oath, declare and say as follows:

1. I am over the age of eighteen (18) and competent to testify as to the matters set forth herein.
2. I am an Associate Professor in the Department of Political Science at the University of Michigan, Ann Arbor. I am also a Research Associate Professor at the Center for Political Studies of the Institute for Social Research at the University of Michigan and a Research Associate at the Spatial Social Science Laboratory at Stanford University. In 2004, I received a B.A. in Ethics, Politics, and Economics from Yale University. In 2007, I received a M.S. in Statistics from Stanford University, and in 2009, I received a Ph.D. in Political Science from Stanford University.
3. I have published academic papers on legislative districting and political geography in several political science journals, including *Yale Law Journal*, *Stanford Law Review*, *The American Journal of Political Science*, *The American Political Science Review*, and *Election Law Journal*. My academic areas of expertise include legislative elections, spatial statistics, geographic information systems (GIS) data, redistricting, racial politics, legislatures, and political geography. I have expertise in the use of computer simulations of legislative districting and in analyzing political geography, elections, and redistricting. In 2019, Common Cause honored me as a “Defender of Democracy” for developing the use of random computer-simulated districting maps in partisan gerrymandering court challenges around the country.<sup>1</sup>
4. I have authored expert reports in the following redistricting court cases: *The League of Women Voters of Florida v. Detzner* (Fla. 2d Judicial Cir. Leon Cnty. 2012); *Romo v. Detzner* (Fla. 2d Judicial Cir. Leon Cnty. 2013); *Missouri National Association for the Advancement of Colored People v. Ferguson-Florissant School District & St. Louis County*

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<sup>1</sup> <https://www.commoncause.org/press-release/common-cause-honors-four-defenders-of-democracy/>

*Board of Election Commissioners* (E.D. Mo. 2014); *Raleigh Wake Citizens Association v. Wake County Board of Elections* (E.D.N.C. 2015); *Brown v. Detzner* (N.D. Fla. 2015); *City of Greensboro v. Guilford County Board of Elections* (M.D.N.C. 2015); *Common Cause v. Rucho* (M.D.N.C. 2016); *The League of Women Voters of Pennsylvania v. Commonwealth of Pennsylvania* (No. 261 M.D. 2017); *Georgia State Conference of the NAACP v. The State of Georgia* (N.D. Ga. 2017); *The League of Women Voters of Michigan v. Johnson* (E.D. Mich. 2017); *Whitford v. Gill* (W.D. Wis. 2018); *Common Cause v. Lewis* (N.C. Super. 2018); *Harper v. Lewis* (N.C. Super. 2019); *Baroody v. City of Quincy, Florida* (N.D. Fla. 2020); *McConchie v. Illinois State Board of Elections* (N.D. Ill. 2021); *Adams v. DeWine* (Ohio 2021); *Harper v. Hall* (N.C. Super. 2021); *Rivera v. Schwab and Abbott* (Wyandotte County D. Ct. 2022); *Norelli v. David Scanlan* (Hillsborough County Super. Ct. 2022); *Republican Part of New Mexico v. Oliver et al.* (Lea County D. Ct. 2023). I have testified at deposition or at trial in the following cases:

*Romo v. Detzner* (Fla. 2d Judicial Cir. Leon Cnty. 2013); *Missouri National Association for the Advancement of Colored People v. Ferguson-Florissant School District & St. Louis County Board of Election Commissioners* (E.D. Mo. 2014); *Raleigh Wake Citizens Association v. Wake County Board of Elections* (E.D.N.C. 2015); *City of Greensboro v. Guilford County Board of Elections* (M.D.N.C. 2015); *Common Cause v. Rucho* (M.D.N.C. 2016); *The League of Women Voters of Pennsylvania v. Commonwealth of Pennsylvania* (No. 261 M.D. 2017); *Georgia State Conference of the NAACP v. The State of Georgia* (N.D. Ga. 2017); *The League of Women Voters of Michigan v. Johnson* (E.D. Mich. 2017); *Whitford v. Gill* (W.D. Wis. 2018); *Common Cause v. Lewis* (N.C. Super. 2018); *Baroody v. City of Quincy, Florida* (N.D. Fla. 2020); *McConchie v. Illinois State Board of Elections* (N.D. Ill. 2021); *Harper v. Hall* (N.C. Super.



2021); *Rivera v. Schwab and Abbott* (Wyandotte County D. Ct. 2022); *Republican Part of New Mexico v. Oliver et al.* (Lea County D. Ct. 2023).

5. I have been retained by Plaintiffs' counsel in the above-captioned matter. I am being compensated \$700 per hour for my work in this case.

6. **Questions Addressed:** Plaintiffs' counsel asked me to analyze Illinois' state house districting map (hereinafter: the "Enacted Plan"), as passed by the Illinois General Assembly through Senate Bill 927 and signed into law by Governor Pritzker on September 24, 2021. Plaintiffs' counsel instructed me to produce a set of random, non-partisan computer-simulated plans for Illinois' state House districts adhering to the traditional districting criteria of population equality, contiguity, and compactness, as detailed later in this report. Plaintiffs' counsel also instructed me to ensure that each computer-simulated plan contains at least as many majority-Black and majority-Latino districts as the Enacted Plan. Plaintiffs' counsel asked me to answer the following questions:

- 1) What are the compactness scores of House District 89 in the 1981 Legislative Redistricting Commission plan (the "*Schrage* District"), which was invalidated by the Illinois Supreme Court in *Schrage v. State Bd. of Elections* (1981)?
- 2) What are the compactness scores of the districts in the Enacted Plan, and do any Enacted Plan districts have worse compactness scores than the *Schrage* District?
- 3) What are the Black and Latino percentages of the Enacted Plan districts, and how many majority-Black and majority-Latino districts does the Enacted Plan contain?
- 4) Taking into account the goal of creating at least as many majority-Black and majority-Latino districts as the Enacted Plan, is it necessary to draw House districts that are less compact than the *Schrage* District?
- 5) How do the computer-simulated plans compare to the Enacted Plan in terms of partisanship, both statewide and at the district level?
- 6) How do the majority-Black districts in the Enacted Plan compare to simulated majority-Black districts with respect to both their compactness and their partisan composition?

7. ***Summary of Findings:*** I digitized the *Schrage* District and measured its compactness using the Reock and Polsby-Popper scores. I then found that 52 of the 118 House districts in the current Enacted Plan exhibit worse compactness scores than the *Schrage* District's scores. By programming a partisan-blind algorithm to produce a large number of computer-simulated maps, I determined that when drawing a statewide House plan, it is not necessary to draw districts that are less compact than the *Schrage* District. All 10,000 of the computer-simulated plans that the algorithm produced either match or exceed the Enacted Plan's number of majority-Black and majority-Latino districts, and none of the simulated plans contain a single district with compactness scores worse than the *Schrage* District's Reock or Polsby-Popper scores.

8. Furthermore, using the results of recent competitive statewide elections from 2014 to 2022, I found that the Enacted Plan creates a significant pro-Democratic electoral bias, resulting in 4 to 11 fewer Republican-favoring districts when compared to the median outcome among the non-partisan computer-simulated plans. Using each of these competitive statewide elections, the partisan difference between the Enacted Plan and the computer-simulated maps is statistically significant, with the Enacted Plan creating fewer Republican-favoring districts than nearly all the computer-simulated plans.

9. Importantly, the Enacted Plan's pro-Democratic electoral bias is largest in elections in which Republican candidates have their strongest performances. When Republican candidates win 47% to 52% of the statewide vote, the Enacted Plan delivers the greatest reduction in the number of Republican-favoring districts, compared to the median computer-simulated plan. By creating the largest pro-Democratic electoral bias in elections in which Republican candidates have their strongest performances, the Enacted Plan effectively serves as

an insurance policy for the House Democrats, insuring against large seat losses when Democratic candidates have their worst performances in terms of statewide vote share.

10. A district-level comparison of the Enacted Plan to the computer-simulated plans reveals how the Enacted Plan created this significant degree of partisan bias: When compared to the simulated plans, the Enacted Plan effectively removed Republican voters from districts that would otherwise have been electorally competitive or slightly Republican-leaning, thus weakening these districts' likelihood of electing a Republican. These displaced Republican voters were instead placed in districts that were already extremely safe Republican or extremely safe Democratic districts; placing these Republican voters into such lopsided districts had almost no effect on these districts' likelihood of electing a Republican or a Democrat.

11. I found that the Enacted Plan's mapmakers carried out this strategy by sacrificing the compactness of the majority-Black districts in Cook County in order to add Republican voters to these otherwise extremely Democratic districts. Almost all of the Enacted Plan's majority-Black districts in Cook County have compactness scores lower than the *Schrage* District, and these majority-Black districts also have more Republican voters than the vast majority of the computer-simulated plans' majority-Black districts. Visually, it is clear how these two outlier characteristics of the Enacted Plan's majority-Black districts are related: The Enacted Plan's mapmakers created long, thin, non-compact districts in order to connect majority-Black districts in Cook County to Republican precincts in the suburbs of the Chicago metro area. Connecting these Republican voters into majority-Black, heavily Democratic districts through very long, thin, non-compact districts effectively removed these Republicans from suburban districts that would have been more electorally competitive or Republican-leaning.

12. This report is organized as follows: I first analyze the compactness of the *Schrage* District and identify the Enacted Plan districts with worse compactness scores than the *Schrage* District. I then identify the majority-Black and majority-Latino districts in the Enacted Plan. Next, I describe the computer-simulated plans, which are programmed to create at least as many majority-Black and majority-Latino districts as the Enacted Plan, while avoiding districts less compact than the *Schrage* District. I compare the partisan characteristics of the Enacted Plan to the computer-simulated plans, both statewide and at a district-by-district level. Finally, I compare the majority-Black districts in the Enacted Plan to those in the simulated plans, both in terms of their compactness and their partisanship.

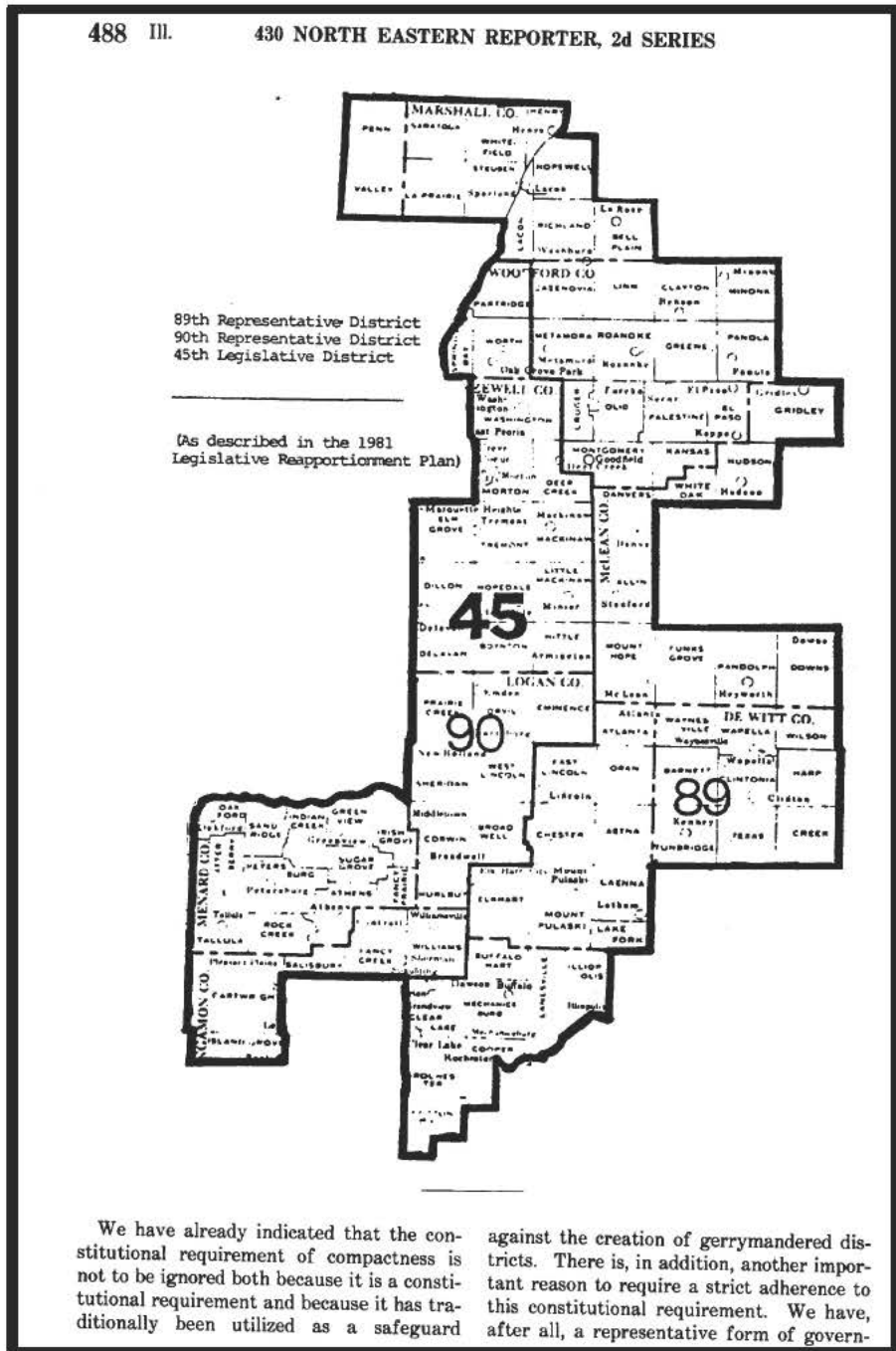
**Compactness Scores of the 2021 Enacted House Plan Districts  
And *Schrage v. State Bd. of Elections* (1981)**

13. In *Schrage v. State Bd. of Elections* (1981), the Illinois Supreme Court invalidated House District 89 in the 1981 House Plan (hereinafter: the “*Schrage* District”). Plaintiffs’ counsel provided me a copy of the Supreme Court’s opinion in the case, which included a visual depiction of the invalidated *Schrage* District, as well as the legal description of the invalidated district prepared by the Legislative Redistricting Commission in 1981.

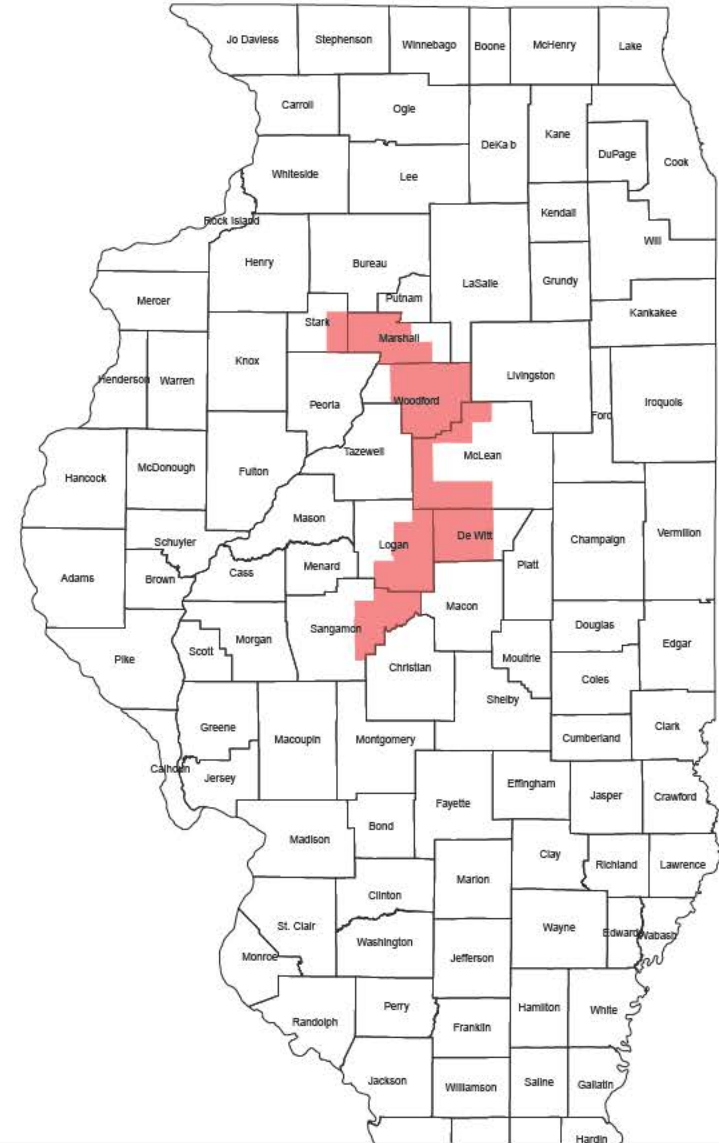
14. Based on this legal description as well as the Supreme Court’s visual depiction, I produced a digitization of the invalidated *Schrage* District. The map on the right half of Figure 1 displays my digitization of the *Schrage* District. As detailed in the Legislative Redistricting Commission’s legal description, the borders of the *Schrage* District mostly follow township boundaries and includes portions of DeWitt, Logan, Marshall, McLean, Sangamon, Stark, and Woodford Counties. The left half of Figure 1 displays the Illinois Supreme Court’s visual depiction of the invalidated *Schrage* District, House District 89, as well as the adjoining House

Figure 1: The 1981 House Plan District 89, Invalidated in Schrage v. State Bd. of Elections (1981)

Illinois Supreme Court's Visual Depiction of House District 89, Invalidated in Schrage v. State Bd. of Elections (1981):



Digitization of 1981 House Plan District 89, Based on Legislative Redistricting Commission's Legal Description:



Compactness Scores for 1981 House Plan District 89:  
 Reock: 0.29395  
 Polsby-Popper: 0.17476

District 90. Together, these two House Districts comprised Senate District 45 in the original 1981 Senate Plan and are both displayed in the Supreme Court's map.

15. Next, I calculated the compactness scores for the invalidated *Schrage* District using my digitization of the original House District 89 from the 1981 House Plan. I calculated the compactness of the *Schrage* District, as well as all other House districts analyzed in this report, using the two most common measures of compactness in redistricting: The Polsby-Popper score and the Reock score. Both measures of compactness are commonly used by redistricting map-drawers across many states, as well as in the academic literature by scholars of redistricting.

16. ***The Polsby-Popper Score:*** The Polsby-Popper score for any individual district is calculated as the ratio of the district's area to the area of a hypothetical circle whose circumference is identical to the length of the district's perimeter, on a scale of 0 to 1. Therefore, higher Polsby-Popper scores indicate greater district compactness, while lower scores indicate a less compact district. I found that the *Schrage* District has a Polsby-Popper score of 0.17476.

17. ***The Reock Score:*** The Reock score for any individual district is calculated as the ratio of the district's area to the area of the smallest bounding circle that can be drawn to completely contain the district, on a scale of 0 to 1. Therefore, higher Reock scores indicate more geographically compact districts, while lower scores indicate a less compact district. I found that the *Schrage* District has a Reock score of 0.29395.

18. I then calculated the Polsby-Popper and Reock scores for each of the 118 House Districts in the 2021 Enacted Plan and compared them to the compactness scores for the *Schrage* District. Table 1 reports the Polsby-Popper and Reock scores for each Enacted Plan district. To calculate these compactness scores for the Enacted Plan districts, I obtained a shapefile of the



**Table 1:****Compactness Scores of Districts in the 2021 Enacted House Plan**

House District:	Reock:	Polsby-Popper:	House District:	Reock:	Polsby-Popper:	House District:	Reock:	Polsby-Popper:
1	0.15051	0.14744	41	0.43663	0.23720	81	0.44646	0.32610
2	0.31472	0.29501	42	0.41195	0.36217	82	0.46744	0.33096
3	0.09530	0.12380	43	0.33774	0.21376	83	0.29124	0.19181
4	0.12748	0.17932	44	0.51380	0.50683	84	0.41963	0.40512
5	0.11052	0.13195	45	0.34743	0.19491	85	0.42850	0.33283
6	0.18095	0.14860	46	0.25655	0.22270	86	0.41957	0.47076
7	0.36611	0.30686	47	0.44624	0.25089	87	0.61413	0.57233
8	0.12875	0.10367	48	0.26595	0.28996	88	0.51512	0.36578
9	0.21381	0.20836	49	0.35517	0.14578	89	0.19074	0.20005
10	0.29289	0.18621	50	0.59975	0.45115	90	0.23099	0.26822
11	0.27788	0.20194	51	0.51863	0.32703	91	0.13086	0.17266
12	0.36166	0.29245	52	0.28821	0.22835	92	0.49048	0.24659
13	0.26927	0.19544	53	0.21706	0.28230	93	0.36944	0.33567
14	0.33254	0.33464	54	0.38815	0.33188	94	0.36951	0.19385
15	0.23540	0.16826	55	0.48358	0.21618	95	0.18839	0.10420
16	0.27475	0.24617	56	0.15262	0.14532	96	0.11195	0.12389
17	0.29095	0.29357	57	0.27836	0.15172	97	0.54478	0.29932
18	0.25530	0.23050	58	0.44411	0.32990	98	0.39992	0.23176
19	0.38585	0.26224	59	0.25696	0.15978	99	0.20941	0.23077
20	0.49797	0.23954	60	0.38063	0.17621	100	0.36581	0.43042
21	0.30283	0.12603	61	0.45218	0.29257	101	0.28520	0.19940
22	0.45000	0.53501	62	0.30969	0.20854	102	0.44218	0.29269
23	0.31080	0.28612	63	0.40486	0.35027	103	0.40100	0.31321
24	0.49762	0.19740	64	0.39283	0.36559	104	0.27333	0.20442
25	0.14344	0.12834	65	0.51698	0.37754	105	0.51933	0.34229
26	0.07890	0.06947	66	0.34741	0.25311	106	0.35049	0.29339
27	0.10194	0.09692	67	0.37212	0.18096	107	0.55184	0.48949
28	0.13664	0.13729	68	0.19594	0.12986	108	0.41796	0.30151
29	0.23807	0.23525	69	0.33588	0.28796	109	0.42182	0.27230
30	0.37229	0.19913	70	0.33109	0.32814	110	0.35234	0.36788
31	0.10515	0.09916	71	0.27398	0.31271	111	0.39846	0.21951
32	0.07526	0.10035	72	0.20595	0.29931	112	0.35272	0.16950
33	0.13414	0.13818	73	0.39054	0.26950	113	0.23945	0.16647
34	0.16653	0.17479	74	0.32750	0.30222	114	0.44102	0.23733
35	0.15911	0.19840	75	0.60195	0.48256	115	0.41699	0.42057
36	0.18383	0.24641	76	0.20716	0.17881	116	0.32092	0.35037
37	0.49515	0.45198	77	0.27253	0.20956	117	0.49569	0.31288
38	0.36934	0.36961	78	0.46178	0.33553	118	0.45068	0.30316
39	0.16659	0.21029	79	0.29719	0.27424			
40	0.31392	0.22507	80	0.16808	0.16807			

Note: Highlighted scores indicate districts with a lower Reock score or a lower Polsby-Popper score than District 89 in the 1981 House Plan, which was invalidated in *Schrage v. State Bd. of Elections* (1981).

Enacted Plan districts from the Illinois State Board of Elections website.<sup>2</sup> All scores that are lower than the *Schrage* District's compactness scores are highlighted in yellow in Table 1.

19. In total, 52 of the 118 House districts in the 2021 Enacted Plan have compactness scores lower than the *Schrage* District, as detailed in Table 2. In the Enacted Plan, 49 House districts have a lower Reock score than the *Schrage* District, while 25 House districts have a lower Polsby-Popper score than the *Schrage* District. 22 House Districts have both a lower Reock score and a lower Polsby-Popper score than the *Schrage* District.

**Table 2:**

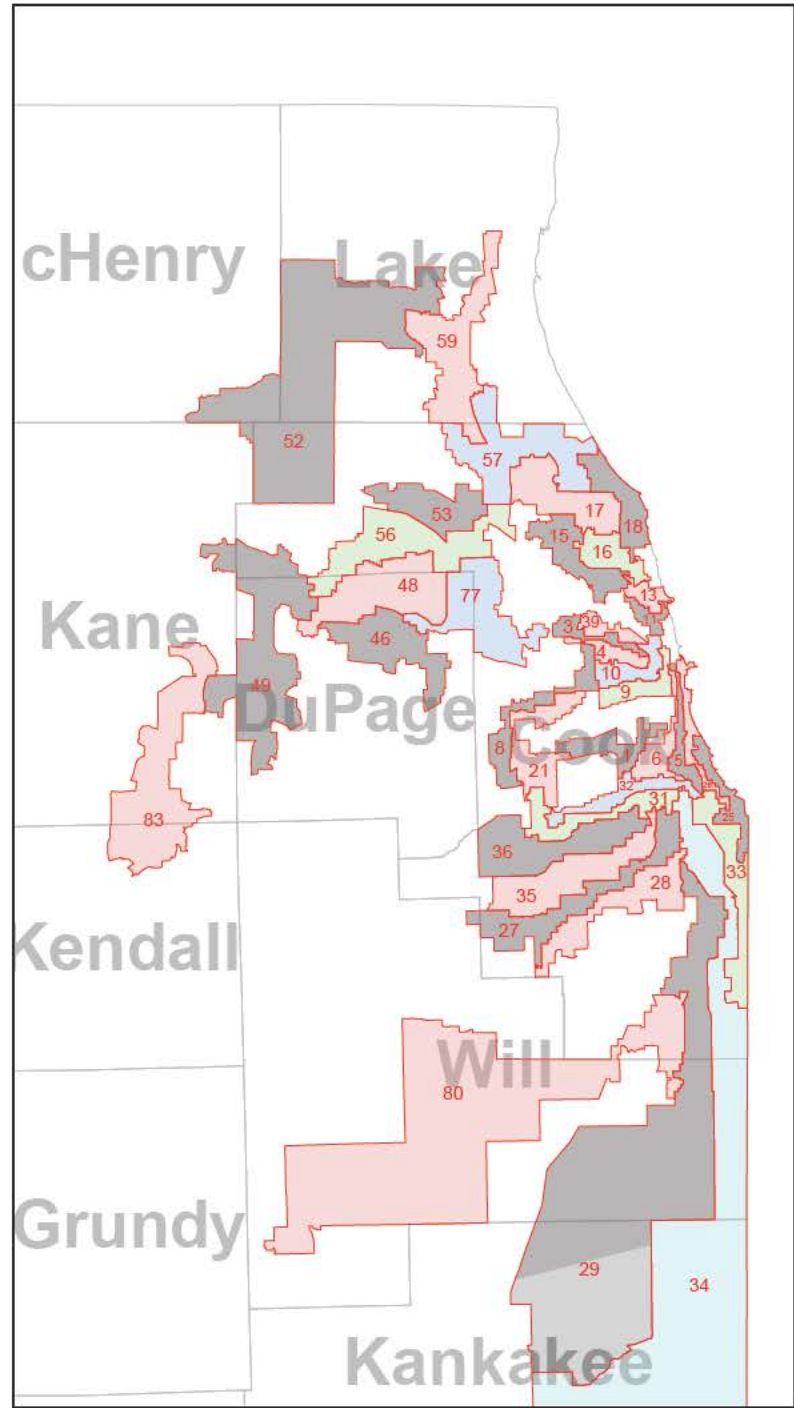
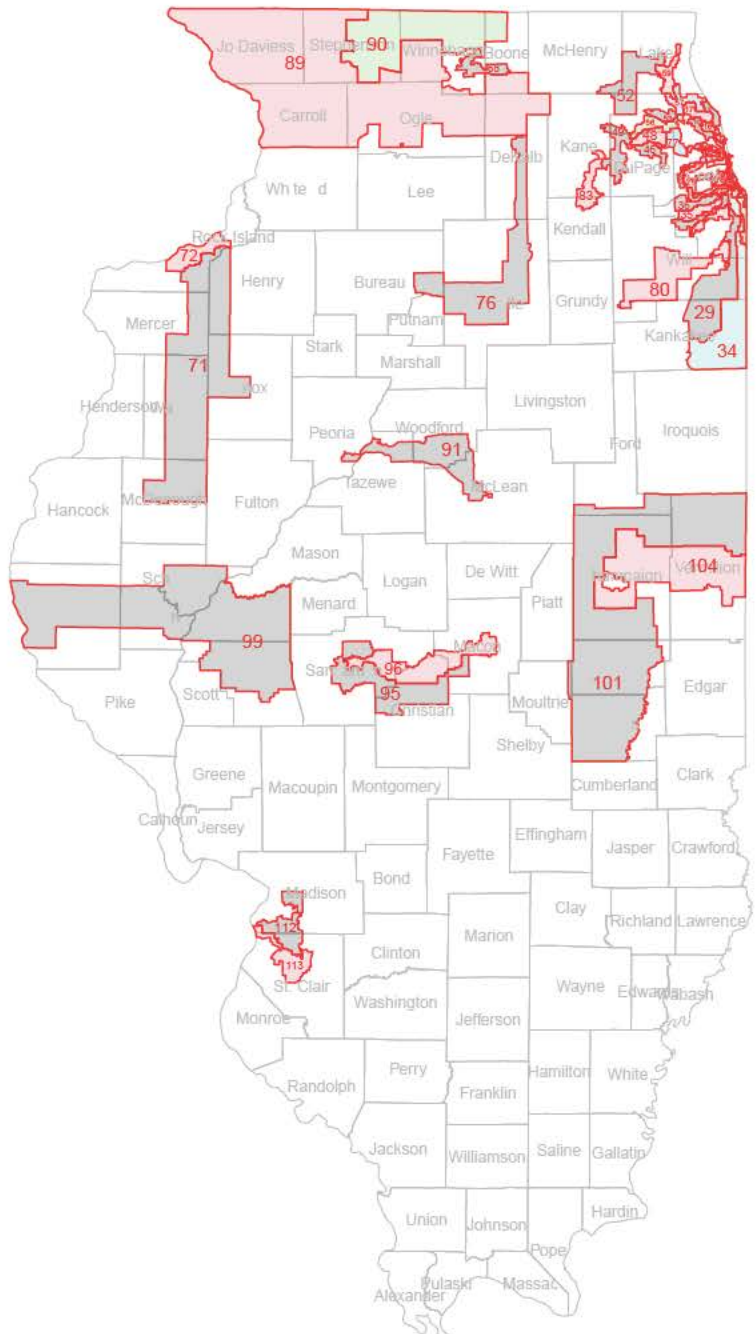
<b>2021 Enacted Plan Districts with Both Lower Reock and Lower Polsby-Popper Scores than the Schrage District:</b>	22 House Districts
<b>2021 Enacted Plan Districts with Lower Reock Scores (but Higher Polsby-Popper Scores) than the Schrage District:</b>	27 House Districts
<b>2021 Enacted Plan Districts with Lower Polsby-Popper Scores (but Higher Reock Scores) than the Schrage District:</b>	3 House Districts

20. Figure 2 presents a map identifying the 2021 Enacted House Plan districts that have lower compactness scores than the *Schrage* District. The districts shaded in Figure 2 are the 52 Enacted Plan districts that have a lower Reock score than the *Schrage* District, a lower Polsby-Popper score than the *Schrage* District, or both. The Figure 2 map illustrates that these 52 Enacted Plan districts are located throughout the state. Many of these districts are primarily

<sup>2</sup> The shapefile was downloaded from: <https://www.elections.il.gov/agencyforms/Redistricting%202022%20Shape%20Files/IL%20State%20Representative%20Districts/>



2021 House Plan Districts with Compactness Scores Lower than District 89 from the 1981 House Plan (Schrage v. State Bd. of Elections)



based in the Chicago metropolitan area, but many others are in the Central and Western portions of the state, while two are in the Metro East area.

21. Across its 118 House districts, the 2021 Enacted Plan exhibits an average Reock score of 0.32665 and an average Polsby-Popper score of 0.25798. Plaintiffs' counsel instructed me to ensure that all computer-simulated House districting plans produced and analyzed in this report exhibit an average Reock score no lower than the Enacted Plan's average Reock score and an average Polsby-Popper score no lower than the Enacted Plan's average Polsby-Popper score.

### **Majority-Black and Majority-Latino Districts in the 2021 Enacted House Plan**

22. Plaintiffs' counsel asked me to determine the number of majority-Black and majority-Latino districts in the 2021 Enacted Plan. I obtained the block assignment file of the Enacted Plan from the Illinois State Board of Elections website.<sup>3</sup> I analyzed this block assignment file to calculate the racial and ethnic characteristics of the Enacted Plan districts. For each district in the Enacted Plan, I calculated the Latino share and the Black share of the Voting Age Population (VAP) and of the Citizen Voting Age Population (CVAP). The VAP calculations come from 2020 Census data, while the CVAP calculations come from the most recent American Community Survey, as described below.

23. **2020 Census P.L. 94-171 Redistricting Data:** The racial and ethnic breakdowns of the VAP in this report are calculated from block-level 2020 Census data. After each decade's Census, the Bureau releases redistricting data summary files per Public Law (PL) 94-171 (the "PL 94-171 redistricting data"). These data files report each Census block's population count, as

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<sup>3</sup> The block assignment file was downloaded from:  
<https://www.elections.il.gov/agencyforms/Redistricting%202022%20Shape%20Files/IL%20State%20Representative%20Districts/>

well as various racial and ethnic breakdowns of each block's population. The PL 94-171 redistricting data report these racial and ethnic counts for the Voting Age Population, but not for the Citizen Voting Age Population.

24. **American Community Survey (ACS) 5-Year Estimates:** The ACS is a continually ongoing survey that samples a small percentage of the US population. For each 5-year period (e.g., 2015-2019), the Census Bureau releases ACS estimates based on survey responses collected during the period. ACS estimates are often used to measure various population characteristics, such as a racial minority's share of the total population or Citizen Voting Age Population (CVAP). To analyze the racial and ethnic breakdown of the Enacted Plan's districts, I use the 2015-2019 ACS 5-Year estimates, as these data were the most recent ACS estimates available when the General Assembly drew the 2021 Enacted Plan.

25. The ACS 5-Year estimates are released at the level of Census block groups, but not at the level of individual Census blocks. I thus disaggregate the ACS 5-Year estimates down to the block level, to estimate the racial and ethnic breakdown of the CVAP in each district. It is common for experts to disaggregate ACS 5-Year block group CVAP estimates in this manner. Specifically, disaggregating ACS 5-Year data down to the block level means that each ACS-reported population at the block group level must be allocated among the individual blocks within the block group. For example, suppose that the ACS reports that 100 individuals reside in block group 1, and this block group consists of Census Blocks A, B, and C. The process of disaggregation requires that we estimate how many of these 100 individuals reside within Census Block A, how many reside within Block B, and how many reside in Block C. As is typical for redistricting experts working with ACS CVAP estimates, I disaggregate the CVAP estimates for any block group down to its individual Census blocks by using the 2020 Census Voting Age

Population (VAP) of each block. Using the earlier example, if the ACS estimates that 100 individuals reside within block group 1, then I allocate these 100 individuals to the three Census blocks within the block group proportionally, based on the VAP of the three Census blocks. Disaggregating CVAP estimates from the block group to the block level in this manner is common among redistricting experts and academic scholars of redistricting.

26. Table 3 reports the racial and ethnic characteristics of each district in the 2021 Enacted House Plan. Specifically, each row reports the calculations for one district within the Enacted Plan. Within each row, the second column reports the Latino share of the district's VAP, while the third column reports the Black share of the district's VAP. The calculations in this third column includes multi-racial Blacks and is sometimes referred to as "Any-Part Black" VAP.

27. The fourth column in Table 3 reports the Latino share of each district's CVAP. The fifth column reports the single-race Black share of the district's CVAP. "Single-race Black" refers to those individuals who identify only as Black and does not include anyone identifying as multi-racial.

28. The ACS CVAP data do not include breakdowns for every possible multi-racial combination. However, the ACS CVAP data do include breakdowns for two multi-racial groups that are partially Black: Individuals who are both Black and White, as well as individuals who are both Black and Native American. I therefore combine these multi-racial Blacks with single-race Blacks together to calculate the "Total Black" share of each district's CVAP. Hence, the "Total Black CVAP" of each district counts both single-race Blacks, as well as all groups of multi-racial Blacks for whom the ACS reports data.



**Table 3:  
Racial and Ethnic Composition of Districts in the 2021 Enacted House Plan**

House District:	Latino VAP (2020 Census):	Any-Part Black VAP (2020 Census):	Latino CVAP (2015-19 ACS):	Single-Race Black CVAP (2015-19 ACS):	Total Black CVAP (2015-19 ACS):
1	76.09%	6.40%	64.78%	9.58%	9.79%
2	64.57%	4.42%	55.28%	4.13%	4.18%
3	54.13%	5.89%	47.61%	4.97%	5.31%
4	52.65%	14.45%	45.42%	15.97%	16.32%
5	5.00%	53.42%	4.41%	54.50%	55.28%
6	26.19%	47.41%	13.83%	57.72%	58.25%
7	22.49%	44.05%	14.58%	48.42%	49.11%
8	15.11%	51.26%	10.16%	54.59%	54.94%
9	9.32%	42.30%	8.01%	46.24%	46.73%
10	11.41%	40.77%	7.79%	43.03%	43.83%
11	9.43%	4.74%	8.19%	3.59%	4.07%
12	6.45%	5.55%	5.28%	5.39%	5.83%
13	14.24%	12.58%	11.41%	9.64%	10.30%
14	16.96%	20.98%	12.37%	19.19%	20.41%
15	14.48%	3.30%	12.53%	2.42%	2.62%
16	14.42%	10.15%	11.65%	8.37%	8.69%
17	6.67%	4.51%	5.03%	3.68%	3.88%
18	9.15%	14.60%	7.50%	13.36%	13.99%
19	27.32%	3.48%	24.04%	2.16%	2.74%
20	19.02%	1.78%	16.02%	1.06%	1.20%
21	51.74%	7.35%	42.79%	7.25%	7.44%
22	62.79%	2.50%	52.75%	2.66%	2.73%
23	84.44%	7.83%	71.16%	16.51%	16.69%
24	48.50%	4.68%	43.71%	3.77%	4.07%
25	18.15%	56.46%	16.61%	56.74%	57.77%
26	5.51%	48.26%	4.12%	52.56%	53.00%
27	6.49%	53.35%	4.93%	53.21%	53.72%
28	15.49%	46.75%	11.06%	49.79%	50.37%
29	6.12%	58.85%	3.98%	57.83%	58.39%
30	15.74%	53.25%	9.19%	55.78%	56.51%
31	11.23%	53.50%	8.81%	56.92%	57.37%
32	31.17%	52.22%	19.27%	61.51%	62.40%
33	20.83%	64.65%	15.68%	66.07%	66.62%
34	8.58%	69.16%	5.01%	68.22%	68.74%
35	8.67%	22.11%	6.99%	21.94%	22.23%
36	14.12%	14.12%	11.46%	14.13%	14.28%
37	6.40%	2.40%	5.50%	1.22%	1.39%
38	5.82%	48.67%	4.23%	49.33%	49.58%
39	51.61%	4.92%	45.66%	3.11%	3.58%
40	42.76%	5.62%	34.59%	4.86%	5.49%



**Table 3 (Continued):  
Racial and Ethnic Composition of Districts in the 2021 Enacted House Plan**

<b>House District:</b>	<b>Latino VAP (2020 Census):</b>	<b>Any-Part Black VAP (2020 Census):</b>	<b>Latino CVAP (2015-19 ACS):</b>	<b>Single-Race Black CVAP (2015-19 ACS):</b>	<b>Total Black CVAP (2015-19 ACS):</b>
41	8.05%	5.85%	5.71%	5.63%	5.99%
42	7.55%	5.34%	5.87%	4.22%	4.66%
43	51.19%	7.12%	35.00%	7.73%	8.16%
44	26.93%	5.84%	19.65%	5.74%	6.30%
45	9.85%	3.37%	7.67%	2.90%	3.15%
46	23.85%	6.43%	15.12%	6.87%	7.62%
47	7.79%	4.17%	4.79%	3.92%	4.14%
48	12.35%	2.61%	9.00%	2.30%	2.42%
49	23.85%	4.79%	16.44%	3.84%	4.23%
50	48.78%	8.85%	36.91%	9.47%	9.94%
51	6.23%	1.86%	3.83%	1.63%	1.73%
52	9.57%	1.66%	6.17%	1.36%	1.46%
53	14.22%	3.37%	8.42%	2.96%	3.17%
54	14.00%	2.80%	8.73%	1.94%	2.30%
55	12.06%	3.16%	10.24%	3.34%	3.62%
56	16.91%	4.12%	11.73%	3.53%	3.88%
57	14.12%	1.87%	8.82%	1.93%	2.18%
58	9.75%	4.87%	6.65%	3.44%	3.78%
59	18.89%	2.85%	11.93%	2.51%	2.91%
60	50.27%	20.79%	31.34%	26.81%	28.00%
61	23.22%	13.35%	14.33%	11.71%	12.30%
62	27.32%	4.80%	16.89%	4.16%	4.59%
63	13.59%	1.64%	8.22%	1.37%	1.73%
64	9.04%	2.09%	6.45%	1.46%	1.57%
65	9.81%	2.36%	7.16%	2.24%	2.69%
66	16.92%	3.89%	11.77%	2.39%	2.75%
67	16.53%	22.04%	10.16%	20.19%	20.77%
68	17.48%	11.00%	11.29%	10.21%	11.07%
69	13.67%	2.05%	8.95%	2.05%	2.23%
70	9.00%	2.57%	6.65%	2.29%	2.37%
71	6.07%	8.40%	4.54%	5.76%	6.24%
72	13.74%	13.07%	10.59%	10.09%	11.03%
73	2.66%	1.57%	1.74%	0.85%	1.06%
74	12.24%	3.57%	9.27%	2.81%	3.07%
75	12.33%	5.01%	9.48%	4.66%	4.93%
76	11.66%	8.05%	7.64%	6.80%	7.15%
77	52.73%	3.99%	43.69%	3.02%	3.20%
78	14.76%	32.86%	10.54%	32.46%	33.19%
79	8.81%	25.64%	5.72%	23.34%	23.80%
80	15.37%	27.94%	11.05%	27.52%	28.15%

**Table 3 (Continued):  
Racial and Ethnic Composition of Districts in the 2021 Enacted House Plan**

<b>House District:</b>	<b>Latino VAP (2020 Census):</b>	<b>Any-Part Black VAP (2020 Census):</b>	<b>Latino CVAP (2015-19 ACS):</b>	<b>Single-Race Black CVAP (2015-19 ACS):</b>	<b>Total Black CVAP (2015-19 ACS):</b>
81	6.81%	4.99%	5.80%	4.46%	4.69%
82	7.50%	3.51%	6.37%	4.03%	4.28%
83	20.63%	7.18%	14.35%	6.11%	6.59%
84	18.69%	11.93%	15.52%	12.09%	12.65%
85	23.27%	15.65%	14.71%	15.82%	16.64%
86	30.41%	17.34%	18.44%	19.37%	20.21%
87	2.14%	2.55%	1.83%	2.67%	2.82%
88	2.88%	4.65%	1.80%	3.99%	4.37%
89	4.43%	1.77%	2.38%	0.58%	0.98%
90	5.12%	6.49%	3.11%	5.12%	5.72%
91	5.84%	11.06%	3.75%	8.47%	8.92%
92	6.15%	28.14%	3.81%	25.20%	26.48%
93	3.10%	2.61%	1.91%	2.15%	2.32%
94	1.77%	1.87%	1.23%	1.71%	1.86%
95	2.18%	9.00%	1.49%	7.14%	7.67%
96	2.89%	29.14%	2.00%	23.80%	25.41%
97	15.85%	9.56%	13.63%	9.32%	9.66%
98	22.57%	15.26%	17.34%	14.16%	14.72%
99	3.98%	6.72%	2.33%	6.18%	6.48%
100	1.23%	1.49%	0.77%	1.10%	1.18%
101	4.04%	2.91%	2.64%	2.07%	2.33%
102	1.68%	2.92%	1.28%	2.94%	3.08%
103	9.19%	18.49%	5.83%	17.03%	17.85%
104	5.51%	15.04%	3.33%	14.39%	14.87%
105	2.91%	2.51%	2.14%	2.32%	2.52%
106	5.87%	1.47%	3.82%	0.85%	1.09%
107	2.09%	1.01%	0.72%	0.93%	1.12%
108	1.27%	1.94%	0.93%	1.65%	1.79%
109	2.67%	2.70%	1.80%	2.30%	2.38%
110	1.99%	3.85%	1.11%	3.75%	4.06%
111	3.38%	10.04%	1.71%	8.05%	8.47%
112	5.66%	15.67%	3.38%	13.58%	14.40%
113	4.64%	31.21%	3.74%	25.47%	26.33%
114	2.38%	34.90%	1.52%	37.98%	38.24%
115	2.44%	5.92%	1.67%	6.56%	6.65%
116	1.45%	3.21%	1.26%	3.06%	3.25%
117	1.86%	4.41%	1.02%	3.83%	4.06%
118	3.79%	11.13%	2.72%	11.76%	12.29%

Note: 'Total Black CVAP' includes those identifying as single-race Black, mixed-race Black and White, or mixed-race Black and Native American.

29. In Table 3, each percentage reporting that either Latinos or Blacks comprise over 50% of a district's VAP or CVAP is highlighted in yellow. Additionally, Table 4 identifies and counts the majority-Black and majority-Latino districts in the Enacted Plan. As identified in Table 3 and summarized in Table 4, the Enacted Plan contains 11 majority-Latino VAP districts and 4 majority-Latino CVAP districts. As the Enacted Plan contains more majority-Latino VAP districts than majority-Latino CVAP districts, Plaintiffs' counsel therefore instructed me to ensure that all computer-simulated House districting plans produced and analyzed in this report also contain at least 11 majority-Latino VAP districts.

30. As identified in Table 3 and summarized in Table 4, the Enacted Plan contains 10 majority-Black VAP districts, 12 majority-single-race-Black CVAP districts, and 13 majority-Total Black CVAP districts. Among these three types of majority-Black districts, counting each district's Total Black CVAP is the broadest definition, resulting in the largest number of majority-Black districts in the Enacted Plan. Plaintiffs' counsel therefore instructed me to ensure that all computer-simulated House districting plans produced and analyzed in this report contain at least 13 majority-Total Black CVAP districts, thus either matching or exceeding the Enacted Plan's total.

### **The Computer-Simulated Districting Algorithm**

31. *The Use of Computer-Simulated Districting Plans:* In conducting my academic research on legislative districting, partisan and racial gerrymandering, and electoral bias, I have developed various computer simulation programming techniques that allow me to produce a large number of nonpartisan districting plans that adhere to traditional districting criteria using US Census geographies as building blocks. This simulation process ignores all partisan



**Table 4:**  
**Number of Majority–Black and Majority–Latino Districts**  
**in the 2021 Enacted House Plan**

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**2021 House Plan Districts Containing Over 50% Latino VAP:**

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11 Districts

(HD–1, HD–2, HD–3, HD–4, HD–21, HD–22, HD–23, HD–39, HD–43, HD–60, HD–77)

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**2021 House Plan Districts Containing Over 50% Any–Part Black VAP:**

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10 Districts

(HD–5, HD–8, HD–25, HD–27, HD–29, HD–30, HD–31, HD–32, HD–33, HD–34)

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**2021 House Plan Districts Containing Over 50% Latino CVAP:**

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4 Districts

(HD–1, HD–2, HD–22, HD–23)

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**2021 House Plan Districts Containing Over 50% Single–Race Black CVAP:**

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12 Districts

(HD–5, HD–6, HD–8, HD–25, HD–26, HD–27, HD–29, HD–30, HD–31, HD–32, HD–33, HD–34)

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**2021 House Plan Districts Containing Over 50% Total Black CVAP:**

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13 Districts

(HD–5, HD–6, HD–8, HD–25, HD–26, HD–27, HD–28, HD–29, HD–30, HD–31, HD–32, HD–33, HD–34)

considerations when drawing districts. Instead, the computer simulations are programmed to draw districting plans following various traditional districting goals, such as equalizing population, drawing contiguous districts, and pursuing geographic compactness. By randomly generating a large number of districting plans that closely adhere to these traditional districting criteria, I am able to assess an enacted plan drawn by a state legislature and determine whether partisan goals motivated the legislature to deviate from these traditional districting criteria. More specifically, by holding constant the application of nonpartisan, traditional districting criteria through the simulations, I can determine whether the enacted plan could have been the product of something other than partisan considerations. With respect to Illinois' 2021 Enacted House Plan, I determined that it could not.

32. I produced a set of 10,000 random computer-simulated plans for Illinois' House districts using a computer algorithm programmed to strictly follow nonpartisan, traditional districting criteria, including population equality, ensuring district contiguity, and pursuing geographic compactness. By randomly drawing districting plans with a process designed to strictly follow nonpartisan, traditional districting criteria, the computer simulation process gives us an indication of the range of districting plans that plausibly and likely emerge when mapmakers are not motivated primarily by partisan goals. By comparing the Enacted Plan against the distribution of simulated plans with respect to partisan measurements, I can determine the extent to which a mapmaker's subordination of nonpartisan districting criteria, such as geographic compactness, was motivated by partisan goals.

33. These computer simulation methods are widely used by academic scholars to analyze districting maps. For over a decade, political scientists have used such computer-simulated districting techniques to analyze the racial and partisan intent of legislative

mapmakers.<sup>4</sup> In recent years, several courts have also relied upon computer simulations to assess partisan bias in enacted districting plans.<sup>5</sup>

34. ***Redistricting Criteria:*** I programmed the computer algorithm to create 10,000 independent simulated plans adhering to the following four districting criteria:

- a. **Population Equality:** Illinois' 2020 Census population was 12,812,508, so districts in every 118-district House plan have an ideal population of 108,580.6. The Enacted House Plan's districts have populations ranging from 108,339 to 108,861. I therefore programmed the computer simulation algorithm to keep all district populations within these same bounds, with no computer-simulated district having a population smaller than 108,339 or larger than 108,861.
- b. **Contiguity:** The simulation algorithm required all legislative districts to be geographically contiguous.
- c. **Racial Considerations:** As explained in the previous section, Plaintiffs' counsel instructed me to ensure that every computer-simulated plan contains at least 11 majority-Latino VAP districts and at least 13 majority-Total Black CVAP districts.
- d. **Geographic Compactness:** I determined that it was possible for the computer simulation algorithm to produce House plans in which all 118 districts have a Reock score no lower than the *Schrage* District's Reock score (0.29395) and a

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<sup>4</sup> *E.g.*, Carmen Cirincione, Thomas A. Darling, Timothy G. O'Rourke. "Assessing South Carolina's 1990s Congressional Districting," *Political Geography* 19 (2000) 189–211; Jowei Chen, "The Impact of Political Geography on Wisconsin Redistricting: An Analysis of Wisconsin's Act 43 Assembly Districting Plan." *Election Law Journal*.

<sup>5</sup> *See, e.g.*, *League of Women Voters of Pa. v. Commonwealth*, 178 A. 3d 737, 818-21 (Pa. 2018); *Raleigh Wake Citizens Association v. Wake County Board of Elections*, 827 F.3d 333, 344-45 (4th Cir. 2016); *City of Greensboro v. Guilford County Board of Elections*, No. 1:15-CV-599, 2017 WL 1229736 (M.D.N.C. Apr 3, 2017); *Common Cause v. Rucho*, No. 1:16-CV-1164 (M.D.N.C. Jan 11, 2018); *The League of Women Voters of Michigan v. Johnson* (E.D. Mich. 2017); *Common Cause v. David Lewis* (N.C. Super. 2018); *Harper v. Hall* (N.C. Feb 14, 2022).

Polsby-Popper score no lower than the *Schrage* District's Polsby-Popper score (0.17476), while also complying with the three afore-mentioned criteria.

Therefore, I programmed the algorithm to guarantee that each of the 118 House districts in every computer-simulated plan has a Reock score and a Polsby-Popper no lower than the *Schrage* District's compactness scores. Additionally, I also programmed the algorithm to guarantee that each simulated House plan exhibits an average Reock score no lower than the 2021 Enacted Plan's average Reock score of 0.32665 and an average Polsby-Popper score no lower than the Enacted Plan's average Polsby-Popper score of 0.25798.

35. Table 5 summarizes the characteristics of the 2021 Enacted House Plan and the computer-simulated plans. As explained earlier, every computer-simulated plan contains at least 11 majority-Latino VAP districts and 13 majority-Black CVAP districts, matching or exceeding the Enacted House Plan. With respect to the districting criteria described above, the main difference between the Enacted House Plan and the computer-simulated plans is in geographic compactness. Whereas 52 House districts in the Enacted Plan have compactness scores lower than the *Schrage* District, none of the 118 districts in any of the 10,000 simulated plans exhibit Reock or Polsby-Popper scores worse than the *Schrage* District's compactness scores.

**Table 5:  
Summary of the Enacted 2021 House Plan and the Computer-Simulated House Plans:**

	<b>2021 Enacted House Plan:</b>	<b>10,000 Computer-Simulated House Plans</b>
<b>Description:</b>	Current Enacted Plan	Simulated House maps drawn using only non-partisan districting criteria
<b>District Populations:</b>	108,339 to 108,861	108,339 to 108,861
<b>Number of Majority-Black CVAP Districts:</b>	13	13 to 15
<b>Number of Majority-Latino VAP Districts:</b>	11	11 to 12
<b>Number of Districts with a Worse Reock Score than the Schrage District:</b>	49 of 118 districts	0 districts
<b>Number of Districts with a Worse Polsby-Popper Score than the Schrage District:</b>	25 of 118 districts	0 districts
<b>Number of Republican-Favoring Districts, Measured Using the Statewide Election Composite</b>	40 Republican Districts	47 Republican Districts in the median simulated plan

### **Measuring the Partisanship of Districting Plans**

36. In general, I use actual election results from recent, statewide election races in Illinois over the past decade to assess the partisan performance of the 2021 Enacted Plan and the computer-simulated plans analyzed in this report. Overlaying these past election results onto a districting plan enables me to calculate the Republican or Democratic share of the votes cast from within each district in the Enacted Plan and in each simulated plan. I am also able to count the total number of Republican and Democratic-leaning districts under each election within each simulated plan and within the Enacted Plan. All these calculations thus allow me to directly compare the partisanship of the Enacted Plan and the simulated plans. These partisan comparisons allow me to determine whether the partisanship of individual districts and the partisan distribution of seats in the Enacted Plan could reasonably have arisen from a non-partisan districting process adhering to traditional districting criteria. Past voting history in federal and statewide elections is a strong predictor of future voting history. Mapmakers thus can and do use past voting history to identify the class of voters, at a precinct-by-precinct level, who are likely to vote for Republican or Democratic legislative candidates.

37. To compare the partisanship of different districts, I calculated the percentage of votes from each district favoring the Republican or the Democratic candidate in recent, competitive statewide elections, such as the Presidential, Gubernatorial, Attorney General, Secretary of State, Treasurer, Comptroller, and US Senate elections. Recent statewide elections provide a reliable basis for comparisons of different precincts' partisan tendencies because they provide information about voting patterns throughout the entire state.

38. I do not use the election results from past state House races in measuring the partisanship of districts analyzed in this report. First, many of Illinois' House of Representatives

election contests are uncontested in each election, so voters in many parts of the state are not choosing between competitive candidates from both major political parties. Second, even when both parties do field candidates, the candidates for each party are different across different districts, as is the quality of the party's candidates. In other words, state legislative election results are not measuring the same underlying voter partisanship when these results come from different state House districts. Therefore, I instead use the results of statewide elections, as every voter in Illinois chooses from among the same set of candidates on the ballot in statewide election contests.

39. Moreover, statewide elections are also a more reliable indicator of a district's partisanship than partisan voter registration counts. Voter registration by party is a particularly unreliable method of comparing districts' partisan tendencies because many voters who consistently support candidates from one party nevertheless do not officially register with either major party, while others vote for candidates of one party while registering with a different party. As a result, based on my expertise and my experience studying redistricting practices across many states, I have observed that legislative mapmakers generally do not rely heavily on voter registration data in assessing the partisan performance of districts. I therefore use results from recent statewide elections in order to measure the partisanship of districts in the 2021 Enacted Plan and in the computer-simulated plans, as described below.

40. ***Statewide Elections During 2014-2022:*** To measure the partisanship of each district in the computer-simulated plans and in the 2021 Enacted Plan, I used the results from each competitive statewide general election contest for a political office held in Illinois during 2014-2022. In this context, "competitive" means that the candidates had the ability to compete, regardless of whether the ultimate outcome was close. Specifically, plaintiffs' counsel instructed

me to analyze election contests in which both the Democratic and the Republican candidate expanded at least \$250,000 on the election; the \$250,000 threshold is relevant in Illinois because campaign contribution limits are lifted in Illinois statewide elections if a candidate reaches the self-funding threshold of \$250,000 or if independent expenditures exceed \$250,000. I identified 16 statewide general election contests during 2014-2022 in which both the Democrat and the Republican candidate reached \$250,000 in campaign expenditures. The results of the November 2024 statewide elections in Illinois are not yet available in the form of a merged precinct shapefile, so I only analyzed statewide elections through November 2022.

41. Using this definition of competitive elections, Illinois had a total of 16 competitive statewide election contests during 2014-2022, and Table 6 lists these 16 elections. Table 6 also reports the Republican share of the two-party vote in each of these elections, along with the number of House districts in the 2021 Enacted Plan that favored the Republican candidate in each election.

42. I obtained precinct-level results for each of these 16 election contests during 2014-2022, and I disaggregated these election results down to the census block level. I then aggregated these block-level election results to the district level within each computer-simulated plan and the Enacted Plan, and I calculated the number of districts within each plan that cast more votes for the Republican candidate than for the Democratic candidate in each election. I use these calculations to measure the partisan performance of each simulated plan analyzed in this report and of the 2021 Enacted Plan. In other words, I look at the precincts that would comprise a particular district in each simulated plan and, using the actual election results from those precincts, I calculate whether voters in that simulated district collectively cast more votes for the Republican candidate or for the Democratic candidate in each of the 16 statewide election



**Table 6: List of Competitive Statewide Elections, 2014–2022**

<b>Election contest:</b>	<b>Republican Share of Two-Party Vote:</b>	<b>2021 Enacted House Plan Districts Favoring the Republican Candidate:</b>
2014 US Senate	44.35%	47 Districts
2014 Governor	52.02%	67 Districts
2014 Comptroller	52.04%	67 Districts
2014 Treasurer	49.85%	63 Districts
2016 US President	40.98%	35 Districts
2016 US Senate	42.03%	36 Districts
2016 Comptroller	47.33%	57 Districts
2018 Governor	41.59%	37 Districts
2018 Attorney General	43.86%	40 Districts
2020 US President	41.34%	32 Districts
2020 US Senate	41.44%	33 Districts
2022 Attorney General	44.43%	37 Districts
2022 Governor	43.56%	33 Districts
2022 Secretary of State	44.53%	37 Districts
2022 Treasurer	44.47%	37 Districts
2022 US Senate	42.21%	31 Districts
Statewide Election Composite	44.33%	40 Districts

contests. I performed such calculations for each district under each simulated plan to measure the number of districts Democrats or Republicans would have won under that particular simulated districting map under each statewide election.

43. ***The Statewide Election Composite:*** In addition to calculating whether each House district favors the Republican candidate in each of the 16 separate election contests, I also aggregated together the vote counts of all 16 elections together. Specifically, for any particular district, I added up all the votes cast in favor of the 16 Republican candidates in these statewide elections, and I separately added together all the votes cast in favor of the 16 Democratic candidates in these elections. For each district, I then calculated the Republican share of the aggregated two-party votes across all 16 election contests cast by the district's voters. I refer to this aggregated Republican two-party vote share as the "Statewide Election Composite" measure. I analyze every Enacted Plan district and every computer-simulated plan district by calculating its Republican vote share using the Statewide Election Composite, as well as the Republican vote share using each the results of the 16 statewide elections separately.

44. It is common for both redistricting scholars and redistricting map-drawers to use an aggregated measure of partisanship, based on recent statewide elections, when evaluating the partisanship of a districting plan. Aggregating the results of several recent statewide elections addresses concerns about the influence of anomalous election-specific or candidate-specific factors when measuring voters' partisanship using past election results.

45. In the following section, I present plan-wide comparisons of the Enacted Plan and the simulated plans in order to identify the extent to which the Enacted Plan is a statistical outlier in terms of common measures of districting plan partisanship. I also present district-level

comparisons of the 2021 Enacted Plan and simulated plan districts in order to identify whether any individual districts in the Enacted Plan are partisan outliers.

### **Plan-Wide and District-Level Partisan Comparisons Of the Enacted Plan and Simulated Plans**

46. In this section, I present partisan comparisons of the 2021 Enacted Plan to the computer-simulated plans at both a district-by-district level as well as a plan-wide level using each of the 16 statewide election contests. First, I compare the number of Republican-favoring districts in the Enacted Plan and in the computer-simulated plans. Next, I compare the district-level Republican vote share of the Enacted Plan's districts and the districts in the computer-simulated plans. Overall, I find that at the plan-wide level, the Enacted Plan creates a degree of partisan bias favoring Democrats that is more extreme than virtually all the computer-simulated plans. I find that the Enacted Plan creates 4 to 11 fewer Republican-favoring districts than the median computer-simulated plan. The size of this pro-Democratic electoral bias in the Enacted Plan is largest precisely in elections in which Republican candidates perform unusually well in terms of their statewide vote share.

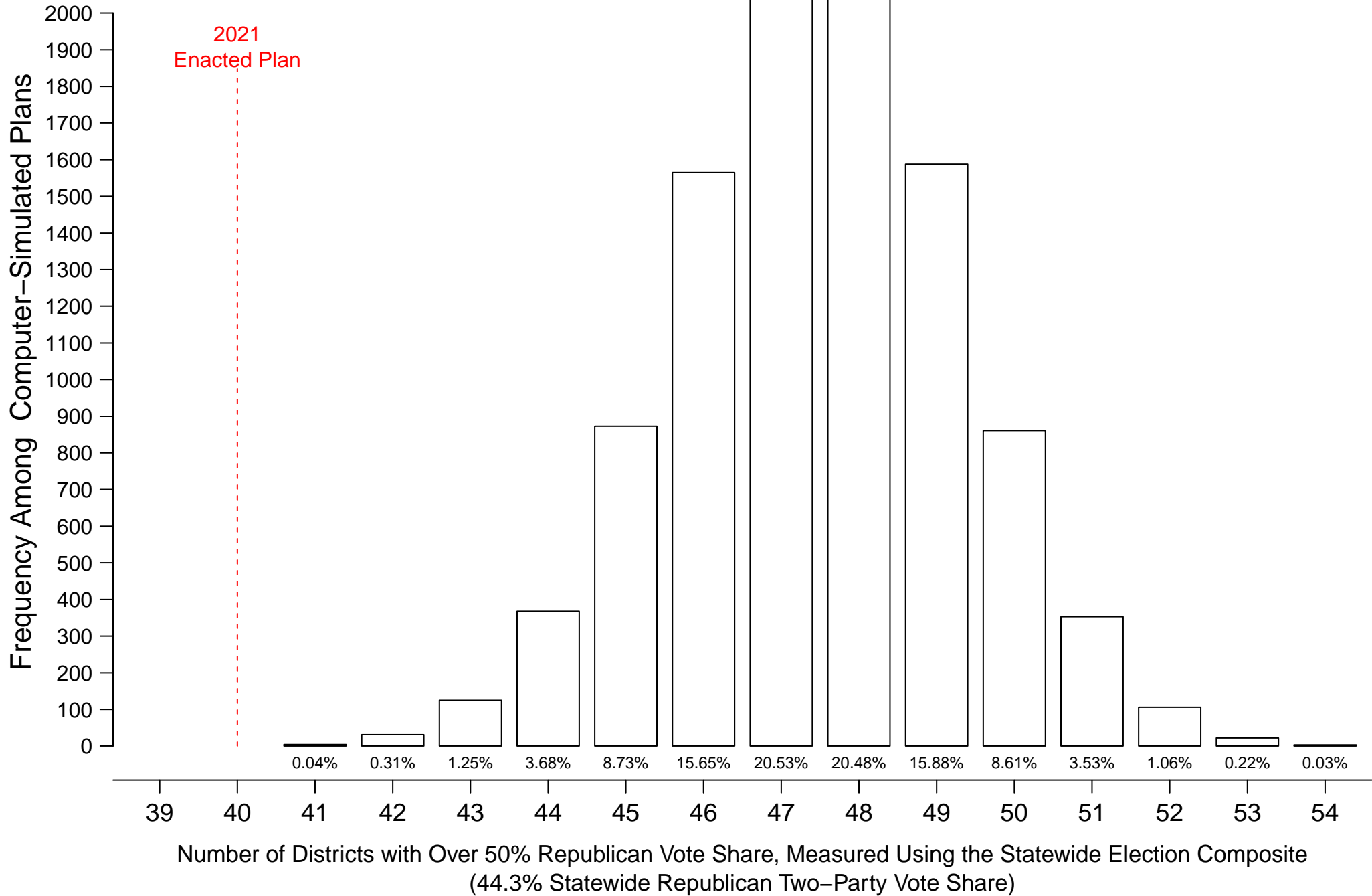
47. I also find that a large number of the individual districts in the 2021 Enacted Plan are statistical outliers, exhibiting extreme partisan characteristics that are rarely or never observed in the computer-simulated plan districts drawn with strict adherence to non-partisan, traditional districting criteria. When compared to the simulated plans, the Enacted Plan effectively removed Republican voters from districts that would otherwise have been electorally competitive or slightly Republican-leaning, thus weakening these districts' likelihood of electing a Republican. These removed Republican voters were instead placed in districts that were already extremely safe Republican or extremely safe Democratic districts; placing these

Republican voters into such lopsided districts had almost no effect on these districts' likelihood of electing a Republican or a Democrat in those safe districts.

48. I describe these findings in detail in the sections below. I first describe the plan-wide level findings regarding the pro-Democratic electoral bias created by the Enacted Plan. I later describe the individual district-level analysis, which illustrates how the Enacted Plan was able to create its significant pro-Democratic electoral bias of 4 to 11 fewer Republican-favoring districts.

49. ***Number of Democratic and Republican Districts:*** Using the Statewide Election Composite, Figure 3 compares the partisan breakdown of the computer-simulated plans to the partisanship of the Enacted Plan. In this Figure, the histogram illustrates the distribution of the 10,000 simulated plans in terms of the number of districts within each plan that favored Republicans – in other words, the number of districts with over a 50% or higher Republican vote share, measured using the Statewide Election Composite. The percentages below each bar in the histogram report the precise percentage of simulated plans that produced each number of Republican-favoring districts; for example, the Figure reports that 20.53% of the simulated plans produced exactly 47 Republican districts. Overall, the histogram reveals that the vast majority of the computer-simulated plans produced from 45 to 50 Republican-favoring districts. Meanwhile, the Enacted Plan, depicted with a dashed red line in this Figure, produced only 40 Republican-favoring districts, fewer than all 10,000 of the simulated plans. In this respect, the Enacted Plan is an extreme statistical outlier, producing fewer Republican-favoring districts than all 10,000 of the simulated plans. I thus conclude with extremely high statistical certainty that the enacted plan created a pro-Democratic partisan outcome that would not have occurred under a districting process adhering to non-partisan traditional criteria. In fact, the Enacted Plan produced seven

**Figure 3: Comparison of Enacted Plan to Computer-Simulated Plans:  
 Number of Districts with Over 50% Republican Vote Share, Measured Using the Statewide Election Composite  
 (44.3% Statewide Republican Two-Party Vote Share)**



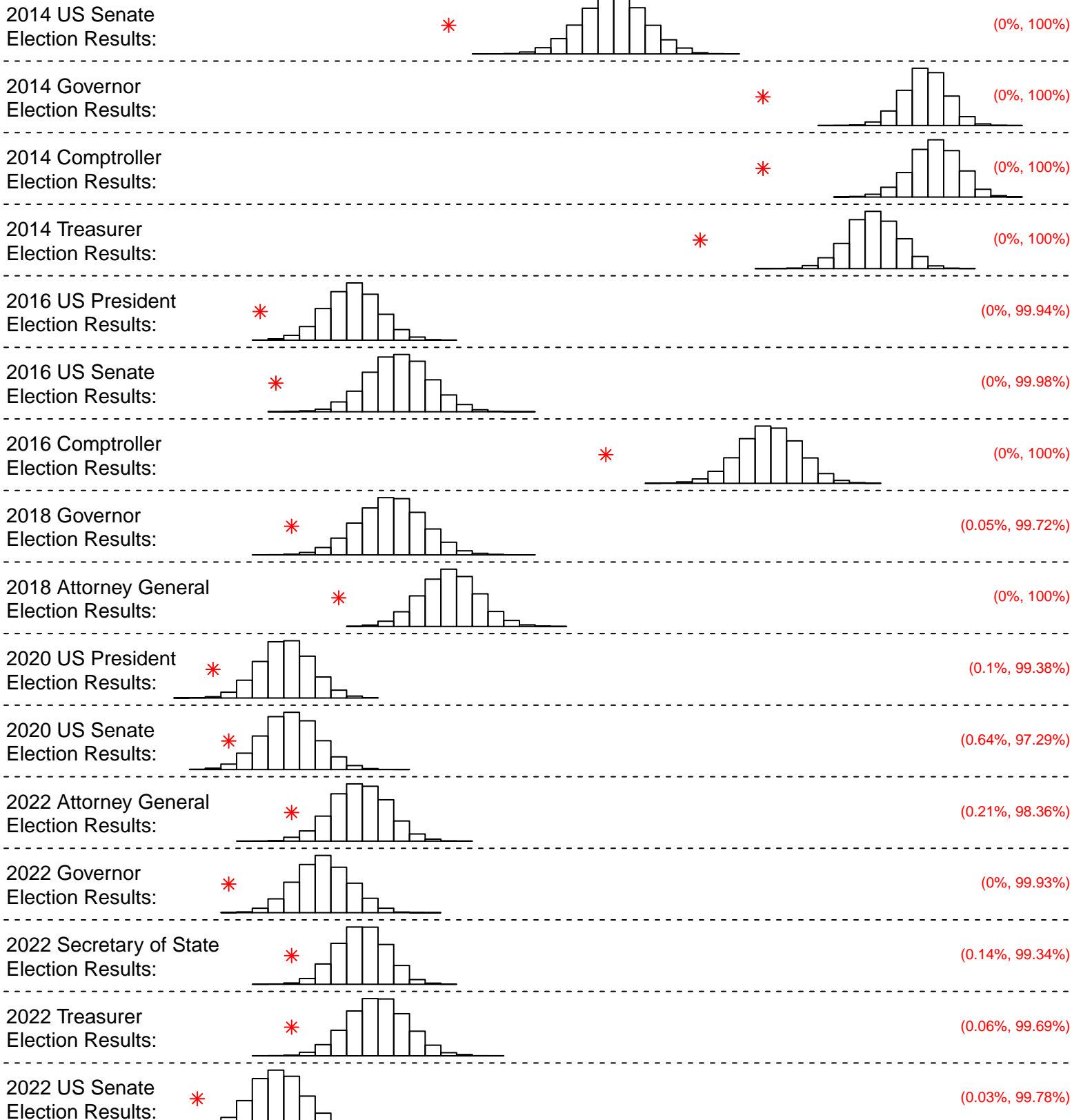
fewer Republican-favoring districts, as measured using the Statewide Election Composite, than the most common outcome among the computer-simulated plans.

50. Figure 4 compares the partisan breakdown of the computer-simulated plans to the partisanship of the Enacted Plan, using each of the individual 16 competitive statewide elections. Specifically, Figure 4 contains 16 rows, and each of the 16 rows corresponds to one of the 16 statewide elections. Within each row, a red star reports the number of districts in the Enacted Plan that favored the Republican candidate in the statewide election, while the histogram illustrates the distribution of the 10,000 simulated plans in terms of the number of districts within each plan that favored the Republican candidate. On the right side of Figure 4, the red percentages in parentheses report the percent of simulated plans that produced fewer Republican-favoring districts and the percent of simulated plans that produced more Republican-favoring districts than the Enacted Plan. These two percentages do not necessarily add up to 100% if some simulated plans have exactly the same number of Republican-favoring districts as the Enacted Plan.

51. For example, the top row of Figure 4 corresponds to the 2014 US Senate election, in which Democrat Dick Durbin defeated Republican Jim Oberweis. The histogram in this top row illustrates that the vast majority of the computer-simulated plans produced between 55 to 60 districts favoring the Republican candidate in this election. No simulated plan produced fewer than 49 such Republican-favoring districts, and the most common outcome among the simulated plans was 57 Republican-favoring districts. By contrast, however, the Enacted Plan contains only 47 districts favoring the Republican candidate. In this respect, the Enacted Plan is an extreme statistical outlier, producing fewer Republican-favoring districts than all 10,000 of the simulated plans. I thus conclude with extremely high statistical certainty that the enacted plan created a

**Figure 4: Partisan Comparison of 2021 Enacted Plan to Computer-Simulated Plans Using the Results of Each Statewide Election Contest**

□ Histograms: 10,000 Computer-Simulated House Districting Plans  
 \* 2021 Enacted House Plan



20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 72 74 76 78 80 82 84

Number of Districts in Each House Plan Favoring the Republican Candidate in Each Statewide Election Contest  
 (Numbers in parentheses report the percentage of simulated plans with fewer and more Republican-favoring districts than the 2021 Enacted House Plan.)

pro-Democratic partisan outcome that would not have occurred under a districting process adhering to non-partisan traditional criteria. In fact, the Enacted Plan produced ten fewer Republican-favoring districts than the most common outcome among the computer-simulated plans.

52. The second row of Figure 4 reveals a similar finding with respect to the 2014 Governor election, in which Republican Bruce Rauner defeated Democrat Pat Quinn. The histogram in this row illustrates that the vast majority of the computer-simulated plans produced 75 to 79 districts favoring the Republican candidate in this election. No simulated plan produced fewer than 71 such Republican-favoring districts, and the most common outcome among the simulated plans was 77 Republican-favoring districts. By contrast, however, the Enacted Plan contains only 67 districts favoring the Republican candidate. In this respect, the Enacted Plan is an extreme statistical outlier, producing fewer Republican-favoring districts than all 10,000 of the simulated plans. I thus conclude with extremely high statistical certainty that the enacted plan created a pro-Democratic partisan outcome that would not have occurred under a districting process adhering to non-partisan traditional criteria. In fact, the Enacted Plan produced ten fewer Republican-favoring districts than the most common outcome among the computer-simulated plans.

53. Similarly, using the results of the 2018 Governor election, in which Democrat JB Pritzker defeated Republican Bruce Rauner, the vast majority of computer-simulated plans produced 40 to 46 Republican-favoring districts. Meanwhile, the Enacted Plan produced only 37 Republican-favoring districts, an outcome which was fewer Republican districts than in 99.72% of the computer-simulated plans.



54. Finally, in the 2022 Governor election, in which Democrat JB Pritzker defeated Republican Darren Bailey, the vast majority of computer-simulated plans produced 36 to 42 Republican-favoring districts. Meanwhile, the Enacted Plan produced only 33 Republican-favoring districts, an outcome which was fewer Republican districts than in 99.93% of the computer-simulated plans.

55. In fact, every row in Figure 4 reveals a similar finding that the Enacted Plan is a statistical outlier, producing fewer Republican-favoring districts than all or nearly all of the computer-simulated plans. Under 14 out of the 16 statewide elections, the Enacted Plan creates more Democratic-favoring districts than over 99% of the computer-simulated plans. Under the remaining 2 statewide elections, the Enacted Plan still creates more Democratic-favoring districts than over 97% of the computer-simulated plans. Together, the 16 elections analyzed in Figure 4 produce a consistent pattern: Under a wide variety of competitive electoral environments, the 2021 Enacted Plan produces more Democratic-favoring districts than almost all of the 10,000 computer-simulated plans. Overall, these findings illustrate that the Enacted Plan creates a pro-Democratic bias when compared to non-partisan districting maps that strictly follow traditional districting principles, and the pro-Democratic bias in the Enacted Plan is durable and persists under a wide variety of relatively competitive electoral environments.

56. Appendix A presents more detailed versions of each of these 16 histograms in Figure 4, reporting the precise percentage of simulations that contain each observed number of Republican-favoring districts under each of the 16 statewide elections.

57. Table 7 calculates and reports the partisan difference between the Enacted Plan and the median computer-simulated plan in terms of the number of Republican-favoring districts. There are 17 rows in Table 7, with the first 16 rows corresponding to one of the 16 statewide

**Table 7: Republican–Favoring Districts in the Enacted Plan and in the Median Computer–Simulated Plan**

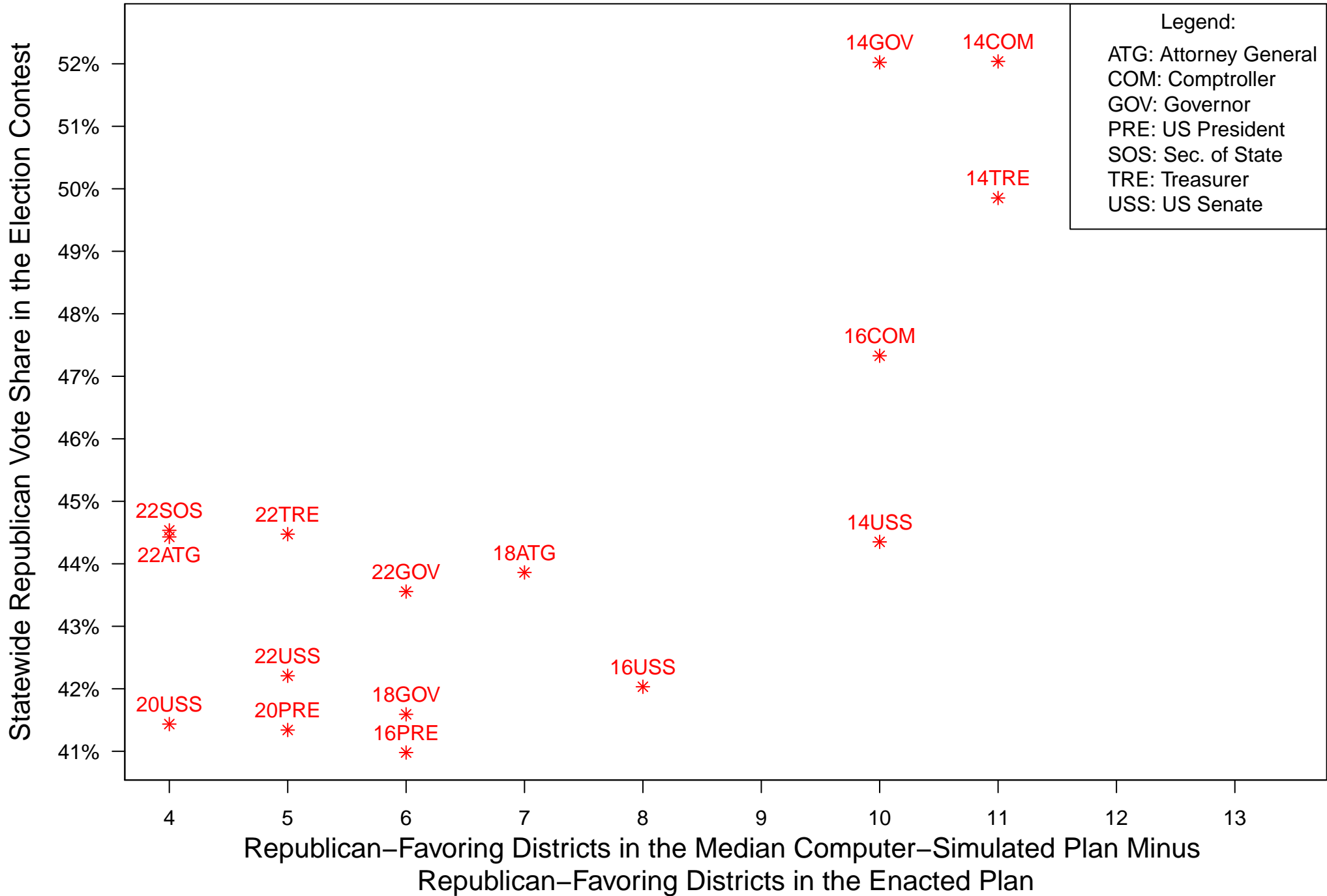
<b>Election contest:</b>	<b>Statewide Republican Share Of Two–Party Vote:</b>	<b>Enacted Plan Districts Favoring the Republican Candidate:</b>	<b>Districts Favoring the Republican Candidate in the Median Simulated Plan:</b>	<b>Difference Between Median Simulated Plan and Enacted Plan:</b>
2014 US Senate	44.35%	47 Districts	57 Districts	+10 Districts
2014 Governor	52.02%	67 Districts	77 Districts	+10 Districts
2014 Comptroller	52.04%	67 Districts	78 Districts	+11 Districts
2014 Treasurer	49.85%	63 Districts	74 Districts	+11 Districts
2016 US President	40.98%	35 Districts	41 Districts	+6 Districts
2016 US Senate	42.03%	36 Districts	44 Districts	+8 Districts
2016 Comptroller	47.33%	57 Districts	67 Districts	+10 Districts
2018 Governor	41.59%	37 Districts	43 Districts	+6 Districts
2018 Attorney General	43.86%	40 Districts	47 Districts	+7 Districts
2020 US President	41.34%	32 Districts	37 Districts	+5 Districts
2020 US Senate	41.44%	33 Districts	37 Districts	+4 Districts
2022 Attorney General	44.43%	37 Districts	41 Districts	+4 Districts
2022 Governor	43.56%	33 Districts	39 Districts	+6 Districts
2022 Secretary of State	44.53%	37 Districts	41 Districts	+4 Districts
2022 Treasurer	44.47%	37 Districts	42 Districts	+5 Districts
2022 US Senate	42.21%	31 Districts	36 Districts	+5 Districts
Statewide Election Composite	44.33%	40 Districts	47 Districts	+7 Districts

elections, and the 17<sup>th</sup> row corresponding to the Statewide Election Composite. Within each row, the second column of Table 7 reports the statewide Republican vote share in the election, and the third column reports the number of Enacted Plan districts that favored the Republican candidate in the election. The fourth column reports the number of districts favoring the Republican candidate in the median computer-simulated plan. The final row then calculates the difference in the number of Republican districts in the Enacted Plan and the number in the median simulated plan.

58. Overall, Table 7 illustrates that when using any of the 16 statewide elections, as well as using the Statewide Election Composite, the Enacted Plan produces several fewer Republican-favoring districts, compared to the median computer-simulated plan. The difference between the Enacted Plan and the median simulated plan ranges from 4 to 11 fewer Republican-favoring districts. Hence, Table 7 illustrates that under any reasonably competitive electoral environment, the Enacted Plan creates an electoral bias harming Republicans by several seats, compared to the median districting plan produced by a non-partisan map-drawing process following traditional districting principles.

59. Figure 5 graphically illustrates the information from Table 7 regarding the 16 statewide elections. Specifically, Figure 5 plots 16 different data points, corresponding to each of the 16 statewide elections listed in Table 7. Each election is labeled with both a red star and an abbreviation; for example, ‘14GOV’ denotes the 2014 Governor election. For each election, the horizontal axis measures the statewide Republican vote share in the election, while the vertical axis measures the difference between the Enacted Plan and the median simulated plan in terms of the plan’s number of Republican-favoring districts, as calculated in the final column of Table 7.

**Figure 5: Partisan Differences by Election**  
**Between the Enacted Plan and in the Median Computer-Simulated Plan**



60. Overall, Figure 5 reveals a striking pattern: There is a statistically strong, positive correlation between the statewide Republican vote share in an election and the gap between the partisanship of the Enacted Plan and the median computer-simulated plan. The election contests that result in the largest gap between the number of Republican districts in the Enacted Plan and the median simulated plan are also the elections with the highest statewide Republican vote shares. These elections appear in the upper right corner of Figure 5: The 2014 Governor, 2014 Comptroller, 2014 Treasurer, and 2016 Comptroller elections were the elections that produced the four highest statewide Republican vote shares, with Republicans winning between 47% to 52% of the statewide vote. These four election contests also resulted in the four largest gaps between the number of Republican districts in the Enacted Plan and the median simulated plan. Using the results of each of these four election contests, the Enacted Plan produces either 10 or 11 more Republican-favoring districts than the median simulated plan.

61. This statistically strong, positive correlation illustrated in Figure 5 illustrates an important feature of the Enacted Plan. The Enacted Plan creates an electoral bias favoring Democrats in all elections, but the magnitude of this electoral bias is largest in elections in which Republican candidates have their strongest performances. As the upper right corner of Figure 5 illustrates, when Republican candidates win between 47% to 52% of the statewide vote, the Enacted Plan delivers the greatest reduction in the number of Republican-favoring districts, compared to the median computer-simulated plan.

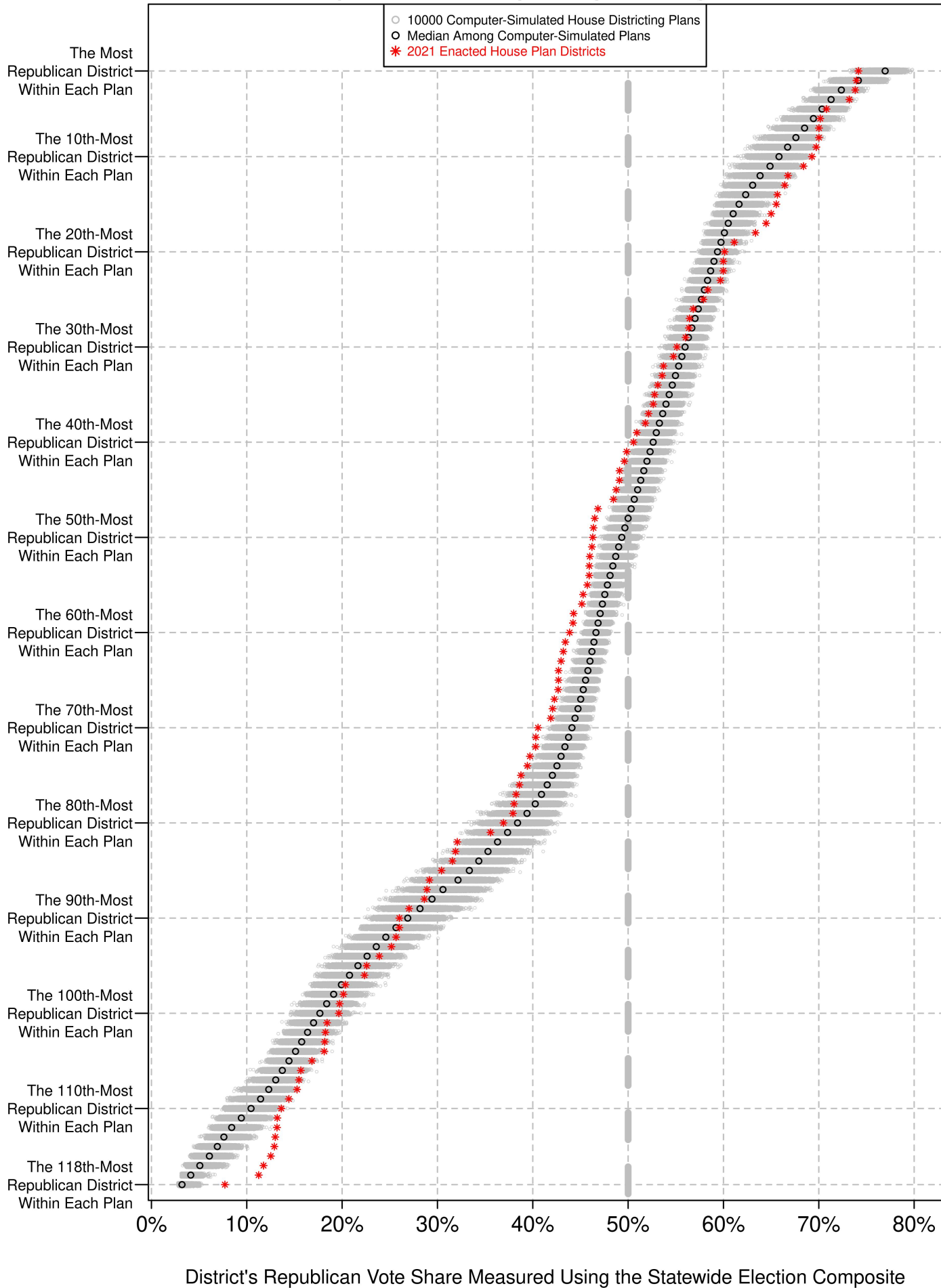
62. By creating the largest pro-Democratic electoral bias in elections in which Republican candidates have their strongest performances, the Enacted Plan effectively serves as an insurance policy for the House Democrats, insuring against large seat losses when Democratic candidates have their worst performances in terms of statewide vote share. Importantly, this

effective insurance policy means that the Enacted Plan delivers the largest number of additional Democratic seats precisely in elections when Republicans perform unusually well, and the Democratic Party is in greatest danger of losing its supermajority status in the House. Such elections are depicted in the upper right of Figure 5.

63. ***Partisan Outlier Districts in the Enacted Plan:*** Figure 6 directly compares the partisan distribution of districts in the Enacted Plan to the partisan distribution of districts in the 10,000 computer-simulated plans. This Figure contains 118 rows, corresponding to the 118 districts in each House plan. Each row contains exactly one district from the Enacted Plan and one district from each of the 10,000 computer-simulated plans. In each row of Figure 6, the Enacted Plan's district is depicted with a red star, while the 10,000 computer-simulated districts are depicted with 10,000 gray circles on each row. The horizontal axis in Figure 6 measures each district's Republican vote share, as measured by the Statewide Election Composite.

64. Across the 118 rows in Figure 6, the Enacted Plan's districts are ordered from the most to the least-Republican district, as measured by the district's Republican vote share using the Statewide Election Composite. The most-Republican district appears on the top row, and the least-Republican district appears on the bottom row. Next, I calculated the Republican vote share of each of the 10,000 computer-simulated plans and similarly ordered each simulated plan's districts from the most- to the least-Republican district. Thus, the top row of Figure 6 directly compares the most-Republican Enacted Plan district to the most-Republican simulated district from each of the 10,000 computer-simulated plans. In other words, I compare one district from the Enacted Plan to 10,000 computer-simulated districts, and I compare these districts based on their Republican vote share, using the Statewide Election Composite. Similarly, the second row of the Figure directly compares the second-most-Republican district in the Enacted Plan to the

**Figure 6:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the Statewide Election Composite**



second-most Republican district from each of the 10,000 simulated plans. I conduct an analogous comparison for each of the 118 districts in the Enacted Plan, comparing the Enacted Plan district to its computer-simulated counterparts from each of the 10,000 simulated plans.

65. For each of the 118 rows in Figure 6, I calculated the percentage of the 10,000 simulated plans whose district in the row has a higher or a lower Republican vote share than the Enacted Plan's district in the same row. For each of the 118 rows, these percentages are reported in Table 8. For example, the second row of Table 8 reports that in Figure 6, the second-most-Republican district in the Enacted Plan, as measured by the Statewide Election Composite, is HD-107, which has a Republican vote share of 73.95%. Table 8 reports that HD-107 is more Republican than 44.22% of the simulated plans' second-most-Republican district and less Republican than 55.78% of the simulated plans' second-most-Republican district.

66. Overall, the results in Figure 6 reveal a dramatic contrast between the partisanship of the Enacted Plan's districts and the partisanship of computer-simulated districts drawn under a non-partisan districting process. The most striking disparity between the Enacted Plan and the computer-simulated plans in this Figure appears in the range from the 37<sup>th</sup> to the 76<sup>th</sup> rows from the top of this Figure. These rows depict the 37<sup>th</sup> to the 76<sup>th</sup>-most Republican districts in each plan. Within each of these 40 rows in Figure 6, the Enacted Plan's district has a lower Republican vote share than all 10,000 of the computer-simulated districts within the same row. Hence, the Enacted Plan districts in these 40 rows are more favorable to the Democrats than 100% of the computer-simulated districts in their respective rows in Figure 6.

67. This contrast between the Enacted Plan's districts and the simulated districts is notable because these rows – depicting the 37<sup>th</sup> to the 76<sup>th</sup>-most Republican districts in each plan – represent a middle range of districts that are relatively competitive or moderately Democratic-



**Percent of Simulated Districts More Republican or Less Republican than Each Enacted Plan District**

Row in Figure 5:	Enacted Plan District:	Enacted Plan District's Republican Vote Share (Statewide Election Composite):	% of Simulated Districts with a Lower / Higher Republican Vote Share than the Enacted District:
Most Republican District:	HD-102	74.16%	0% / 100%
2nd-Most Republican District:	HD-107	73.95%	7.1% / 92.9%
3rd-Most Republican District:	HD-110	73.82%	48.05% / 51.95%
4th-Most Republican District:	HD-116	73.2%	70.1% / 29.9%
5th-Most Republican District:	HD-117	70.81%	23.4% / 76.6%
6th-Most Republican District:	HD-87	70.15%	49.81% / 50.19%
7th-Most Republican District:	HD-100	70.02%	84.57% / 15.43%
8th-Most Republican District:	HD-106	70.01%	97.89% / 2.11%
9th-Most Republican District:	HD-109	69.73%	99.63% / 0.37%
10th-Most Republican District:	HD-99	69.28%	99.91% / 0.09%
11th-Most Republican District:	HD-101	68.39%	99.99% / 0.01%
12th-Most Republican District:	HD-105	66.76%	99.97% / 0.03%
13th-Most Republican District:	HD-115	66.43%	100% / 0%
14th-Most Republican District:	HD-89	65.65%	100% / 0%
15th-Most Republican District:	HD-108	65.54%	100% / 0%
16th-Most Republican District:	HD-88	65%	100% / 0%
17th-Most Republican District:	HD-73	64.47%	100% / 0%
18th-Most Republican District:	HD-94	63.36%	100% / 0%
19th-Most Republican District:	HD-93	61.13%	100% / 0%
20th-Most Republican District:	HD-37	60.12%	99.98% / 0.02%
21st-Most Republican District:	HD-75	59.99%	99.98% / 0.02%
22nd-Most Republican District:	HD-90	59.98%	100% / 0%
23rd-Most Republican District:	HD-69	59.68%	100% / 0%
24th-Most Republican District:	HD-64	58.37%	99.99% / 0.01%
25th-Most Republican District:	HD-74	57.9%	99.98% / 0.02%
26th-Most Republican District:	HD-70	56.83%	99.16% / 0.84%
27th-Most Republican District:	HD-95	56.45%	99.32% / 0.68%
28th-Most Republican District:	HD-82	56.38%	99.84% / 0.16%
29th-Most Republican District:	HD-65	56.03%	99.92% / 0.08%
30th-Most Republican District:	HD-118	55.12%	99.61% / 0.39%
31st-Most Republican District:	HD-52	54.75%	99.75% / 0.25%
32nd-Most Republican District:	HD-71	53.71%	97.75% / 2.25%
33rd-Most Republican District:	HD-63	53.57%	99.36% / 0.64%
34th-Most Republican District:	HD-47	53.12%	99.46% / 0.54%
35th-Most Republican District:	HD-111	52.78%	99.64% / 0.36%
36th-Most Republican District:	HD-104	52.64%	99.88% / 0.12%
37th-Most Republican District:	HD-51	52.14%	99.93% / 0.07%
38th-Most Republican District:	HD-48	51.81%	99.96% / 0.04%
39th-Most Republican District:	HD-68	50.91%	99.65% / 0.35%
40th-Most Republican District:	HD-45	50.56%	99.65% / 0.35%

**Table 8 (continued):****Percent of Simulated Districts More Republican or Less Republican than Each Enacted Plan District**

Row in Figure 5:	Enacted Plan District:	Enacted Plan District's Republican Vote Share (Statewide Election Composite):	% of Simulated Districts with a Lower / Higher Republican Vote Share than the Enacted District:
41st–Most Republican District:	HD–79	49.85%	99.03% / 0.97%
42nd–Most Republican District:	HD–66	49.6%	99.5% / 0.5%
43rd–Most Republican District:	HD–91	49.1%	99.19% / 0.81%
44th–Most Republican District:	HD–97	49.08%	99.81% / 0.19%
45th–Most Republican District:	HD–20	48.74%	99.89% / 0.11%
46th–Most Republican District:	HD–112	48.46%	99.89% / 0.11%
47th–Most Republican District:	HD–83	46.83%	75.64% / 24.36%
48th–Most Republican District:	HD–49	46.5%	72.62% / 27.38%
49th–Most Republican District:	HD–41	46.36%	81.61% / 18.39%
50th–Most Republican District:	HD–114	46.29%	90.34% / 9.66%
51st–Most Republican District:	HD–61	46.2%	95.47% / 4.53%
52nd–Most Republican District:	HD–53	45.98%	96.65% / 3.35%
53rd–Most Republican District:	HD–54	45.93%	98.91% / 1.09%
54th–Most Republican District:	HD–81	45.92%	99.78% / 0.22%
55th–Most Republican District:	HD–42	45.72%	99.91% / 0.09%
56th–Most Republican District:	HD–55	45.28%	99.79% / 0.21%
57th–Most Republican District:	HD–76	45.15%	99.9% / 0.1%
58th–Most Republican District:	HD–62	44.28%	98.7% / 1.3%
59th–Most Republican District:	HD–67	44.22%	99.61% / 0.39%
60th–Most Republican District:	HD–80	43.86%	99.52% / 0.48%
61st–Most Republican District:	HD–113	43.41%	99.31% / 0.69%
62nd–Most Republican District:	HD–56	43.2%	99.66% / 0.34%
63rd–Most Republican District:	HD–35	42.97%	99.8% / 0.2%
64th–Most Republican District:	HD–46	42.7%	99.87% / 0.13%
65th–Most Republican District:	HD–86	42.7%	99.99% / 0.01%
66th–Most Republican District:	HD–96	42.66%	100% / 0%
67th–Most Republican District:	HD–36	42.26%	100% / 0%
68th–Most Republican District:	HD–57	42.08%	100% / 0%
69th–Most Republican District:	HD–72	41.88%	100% / 0%
70th–Most Republican District:	HD–85	40.55%	99.39% / 0.61%
71st–Most Republican District:	HD–92	40.32%	99.5% / 0.5%
72nd–Most Republican District:	HD–98	40.3%	99.84% / 0.16%
73rd–Most Republican District:	HD–59	39.7%	99.17% / 0.83%
74th–Most Republican District:	HD–77	39.43%	99.22% / 0.78%
75th–Most Republican District:	HD–84	38.76%	95.53% / 4.47%
76th–Most Republican District:	HD–44	38.6%	97.46% / 2.54%
77th–Most Republican District:	HD–58	38.25%	97.65% / 2.35%
78th–Most Republican District:	HD–50	38.04%	98.65% / 1.35%
79th–Most Republican District:	HD–15	37.92%	99.66% / 0.34%
80th–Most Republican District:	HD–43	36.92%	97.85% / 2.15%

**Table 8 (continued):****Percent of Simulated Districts More Republican or Less Republican than Each Enacted Plan District**

Row in Figure 5:	Enacted Plan District:	Enacted Plan District's Republican Vote Share (Statewide Election Composite):	% of Simulated Districts with a Lower / Higher Republican Vote Share than the Enacted District:
81st–Most Republican District:	HD–17	35.57%	89.93% / 10.07%
82nd–Most Republican District:	HD–21	32.08%	19.45% / 80.55%
83rd–Most Republican District:	HD–19	31.89%	39.95% / 60.05%
84th–Most Republican District:	HD–22	31.57%	59.57% / 40.43%
85th–Most Republican District:	HD–16	30.43%	58.12% / 41.88%
86th–Most Republican District:	HD–2	29.16%	59.93% / 40.07%
87th–Most Republican District:	HD–60	28.9%	81.76% / 18.24%
88th–Most Republican District:	HD–38	28.63%	94.14% / 5.86%
89th–Most Republican District:	HD–29	27.02%	90.79% / 9.21%
90th–Most Republican District:	HD–103	26.01%	93.89% / 6.11%
91st–Most Republican District:	HD–12	26%	99.29% / 0.71%
92nd–Most Republican District:	HD–28	25.66%	99.87% / 0.13%
93rd–Most Republican District:	HD–27	25.17%	100% / 0%
94th–Most Republican District:	HD–18	23.9%	100% / 0%
95th–Most Republican District:	HD–7	22.58%	99.99% / 0.01%
96th–Most Republican District:	HD–8	22.35%	100% / 0%
97th–Most Republican District:	HD–11	20.35%	99.84% / 0.16%
98th–Most Republican District:	HD–1	20.14%	99.97% / 0.03%
99th–Most Republican District:	HD–30	19.74%	100% / 0%
100th–Most Republican District:	HD–31	19.66%	100% / 0%
101st–Most Republican District:	HD–24	18.42%	100% / 0%
102nd–Most Republican District:	HD–34	18.25%	100% / 0%
103rd–Most Republican District:	HD–78	18.18%	100% / 0%
104th–Most Republican District:	HD–3	18.12%	100% / 0%
105th–Most Republican District:	HD–40	16.84%	100% / 0%
106th–Most Republican District:	HD–26	15.67%	100% / 0%
107th–Most Republican District:	HD–39	15.47%	100% / 0%
108th–Most Republican District:	HD–9	15.27%	100% / 0%
109th–Most Republican District:	HD–10	14.42%	100% / 0%
110th–Most Republican District:	HD–13	13.62%	100% / 0%
111th–Most Republican District:	HD–4	13.2%	100% / 0%
112th–Most Republican District:	HD–32	13.17%	100% / 0%
113th–Most Republican District:	HD–33	12.99%	100% / 0%
114th–Most Republican District:	HD–23	12.89%	100% / 0%
115th–Most Republican District:	HD–5	12.52%	100% / 0%
116th–Most Republican District:	HD–14	11.76%	100% / 0%
117th–Most Republican District:	HD–6	11.25%	100% / 0%
118th–Most Republican District:	HD–25	7.71%	100% / 0%

leaning in the simulated plans. Hence, by decreasing the Republican vote share of the districts in these middle 40 rows, the Enacted Plan is able to significantly increase the number of districts that Democrats are likely to win. Within this middle range, districts that would have been relatively competitive in the simulated plans instead become slightly Democratic-leaning under the Enacted Plan, and districts that would have been slightly Democratic-leaning in the simulated plans instead become relatively safer Democratic districts under the Enacted Plan.

68. Indeed, in Figure 6, the Enacted Plan districts from the 41<sup>st</sup> to the 46<sup>th</sup> rows have slightly below a 50% Republican vote share, whereas the vast majority of the computer-simulated districts in these same rows have over a 50% Republican vote share. Hence, these rows partially illustrate how the Enacted Plan effectively “flipped” Republican-leaning districts in the computer-simulated plans into Democratic-leaning districts.

69. If the Enacted Plan districts in the 41<sup>st</sup> to the 46<sup>th</sup> rows contained fewer Republican voters than the computer-simulated districts in these same rows, then what happened to these “missing” Republican voters that would have been placed into this middle range of districts under the computer-simulated plans? Figure 6 clearly illustrates that the Enacted Plan placed these “missing” Republican voters into the most safely Democratic districts at the bottom of Figure 6 and into several of the most safely Republican districts near the top of Figure 6.

70. As the bottom row in Figure 6 and in Table 8 illustrate, the most-Democratic district in the Enacted Plan contains more Republican voters than 100% of the most-Democratic districts in each of the 10,000 computer-simulated plans. It is thus clear that more Republican votes are “wasted” in the most-Democratic district of the Enacted Plan than in the most-Democratic district of any of the 10,000 computer-simulated plans. I therefore identify the Enacted Plan district in this row as an extreme partisan outlier when compared to its 10,000

computer-simulated counterparts, using a standard threshold test of 95% for statistical significance.

71. In fact, each of the bottom twelve rows in Figure 6 reveals a similar contrast. The Enacted Plan's district in each row is more Republican than over 99% of the 10,000 computer-simulated districts within the same row. All twelve of these rows are extremely safe Democratic districts, both in the Enacted Plan and in the computer-simulated plans. Hence, each of the Enacted Plan's districts in these bottom twelve rows effectively "wastes" more Republican votes than the computer-simulated districts in the same row, as the districts in these rows are extremely unlikely to favor a Republican candidate in any election.

72. The same pattern emerges near the top of Figure 6, which depicts the safest Republican districts in the Enacted Plan and the simulated plans. Specifically, consider the 8<sup>th</sup> to the 18<sup>th</sup> rows from the top of Figure 6, which depict the 8<sup>th</sup> to the 18<sup>th</sup>-most Republican districts in each plan. Within Figure 6, these eleven rows are part of an upper range of districts that are always very safely Republican in any statewide election. Within each of these eleven rows, the Enacted Plan's district in the row is more Republican than over 99% of the 10,000 computer-simulated districts within the same row. As the districts in all eleven of these rows are always safely Republican, each of the Enacted Plan's districts in these bottom twelve rows effectively "wastes" more Republican votes than the computer-simulated districts in the same row, as adding additional Republican voters to the districts in these rows is unlikely to ever change the outcomes of the election contests in these districts.

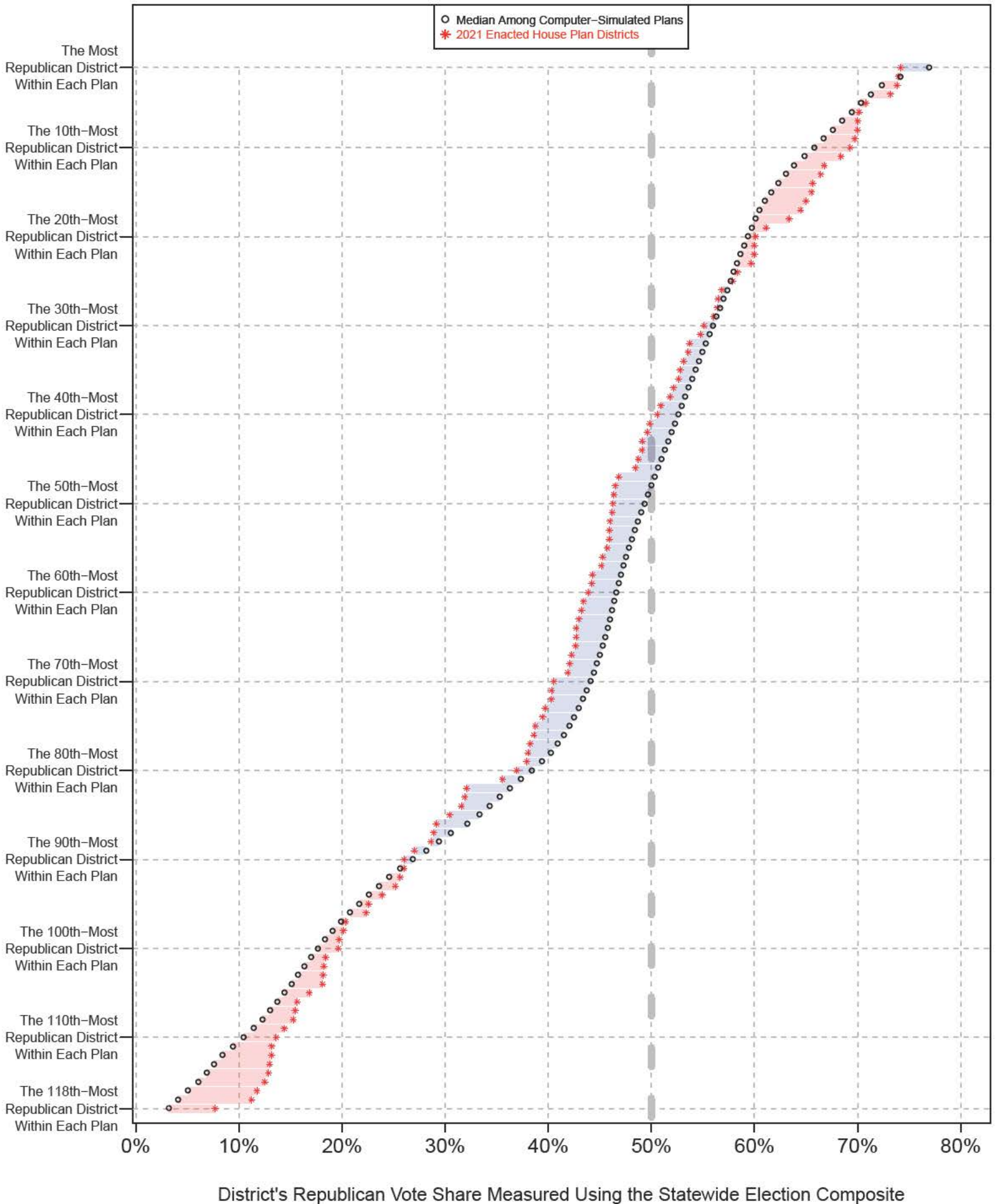
73. Overall, Figure 6 and Table 8 reveal the three coordinated methods through which the Enacted Plan created several additional Republican seats, when compared to the computer-simulated plans. First, the Enacted Plan removed Republican voters from the middle range of

districts that would have been relatively electorally competitive, thereby reducing the number of districts in this middle range that Republicans are likely to win. Second, some of these “missing” Republican voters were placed into the most overwhelmingly Democratic districts, as illustrated in the bottom twelve rows in Figure 6. Finally, other “missing” Republican voters were placed into already-safe Republican districts, where adding even more Republican voters is unlikely to change any House election outcomes. In summary, the Enacted Plan removed Republican voters from relatively competitive districts and placed them instead into overwhelmingly Democratic districts or lopsidedly safe Republican districts.

74. Appendix B of this report contains 16 additional figures following the same layout as Figure 6. However, each of the 16 figures in Appendix B is based upon measuring the partisanship of each Enacted Plan district and each computer-simulated district using one of the 16 individual statewide election contests, instead of using the Statewide Election Composite. Overall, the patterns and the findings revealed by each one of these 16 figures are generally the same as for Figure 6.

75. These three coordinated methods by which the Enacted Plan created several additional Republican districts, compared to the simulated plans, are also illustrated in Figure 7. Similar to Figure 6, this Figure also has 118 rows, with the 118 districts in the Enacted Plan depicted with red stars and arranged in order from the most Republican on the top row to least Republican on the bottom row. However, instead of showing the corresponding district from all 10,000 computer-simulated plans on each row, Figure 7 depicts only the median of the 10,000 computer-simulated districts with a black circle on each row. In the top row, for example, the black circle depicts the median Republican vote share of the 10,000 simulated plans’ most-

Figure 7:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the Statewide Election Composite



District's Republican Vote Share Measured Using the Statewide Election Composite

Republican district. Similarly, in the second row, the black circle depicts the median Republican vote share of the simulated plans' second-most-Republican district.

76. Additionally, within each row, the gap between the Enacted Plan district (red star) and the median simulated district (black circle) is shaded in. The shading in each row is red if the Enacted Plan district is more heavily Republican than the median simulated district, and the shading is blue if the Enacted Plan district is less Republican than the median simulated district.

77. Altogether, the shading across the rows of Figure 7 reveal three distinct sections: The middle range of districts, extending from the 26<sup>th</sup> to the 90<sup>th</sup>s rows in Figure 7, includes the relatively most competitive districts, and the Enacted Plan's district in each of these rows always has a lower Republican vote share than the median simulated district within the same row. The bottom section of Figure 7, extending from the 91<sup>st</sup> row to the 118<sup>th</sup> row, depict overwhelmingly Democratic districts, and the Enacted Plan's district in each of these rows always has a higher Republican vote share when compared to the median simulated district within the same row. The third section in Figure 7 is the upper range of districts, extending from the 3<sup>rd</sup> row to the 23<sup>rd</sup> row. The Enacted Plan's district in each of these upper rows always has a higher Republican vote share when compared to the median simulated district within the same row.

78. These three distinct sections in Figure 7 correspond to the three coordinated methods by which the Enacted Plan created several additional Republican districts, as described earlier in the discussion of Figure 6. In Figure 7, the middle section of blue rows depict the relatively competitive districts in which the Enacted Plan's districts are drawn to be more favorable to Democrats than the simulated plan's districts. Meanwhile, the lower and upper sections of Figure 7, which generally depict extremely Republican or extremely Democratic



districts, are largely shaded in red, indicating that the Enacted Plan's district in each row contains more Republican voters than the simulated plan's districts for the same row.

79. Appendix C of this report contains 16 additional figures following the same layout as Figure 7. However, each of the 16 figures in Appendix C is based upon measuring the partisanship of each Enacted Plan district and each computer-simulated district using one of the 16 individual statewide election contests, instead of using the Statewide Election Composite. Overall, the patterns and the findings revealed by each one of these 16 figures are generally the same as for Figure 7.

### **The Compactness and Partisanship of the Enacted Plan's Majority-Black Districts**

80. How did the Enacted Plan effectively "waste" Republican voters by moving them into some of the most heavily-Democratic districts in the Enacted Plan, as described in the previous section? In this section, I illustrate how the geographic distortion of the majority-Black districts in the Enacted Plan played an important role in causing these "wasted" Republican votes. Specifically, the Enacted Plan's mapmakers used extremely long, narrow, and geographically non-compact districts to connect heavily Black neighborhoods in Chicago's South Side with Republican precincts in the suburbs of the Chicago metro area. These non-compact, majority-Black districts effectively removed Republican voters from suburban districts that would have been more electorally competitive or Republican-leaning.

81. The Enacted Plan contains 13 majority-Black CVAP districts, as detailed in Table 2. Given that Blacks in Illinois overwhelmingly favor Democratic candidates, it is not surprising that every majority-Black district overwhelmingly favors Democratic candidates, both in the Enacted Plan and in the computer-simulated plans. For example, Table 7 reports that all 13 of the

majority-Black districts in the Enacted Plan are among the 30 most-heavily Democratic districts in the Enacted Plan, and each of the Enacted Plan's 13 majority-Black districts has a Republican vote share of 27% or lower, as measured using the Statewide Election Composite. Hence, majority-Black districts in Illinois are unquestionably safe Democratic districts, with Republican candidates having no realistic chance of winning a state House race in such districts.

82. Therefore, geographically contorting their district boundaries to bring suburban Republican voters into these otherwise majority-Black districts would have no significant effect on these districts' certainty of electing Democratic House candidates. In the Enacted Plan, the geographic non-compactness of these majority-Black districts is apparent in several ways. First, it is visually apparent in Figure 2 that many of the majority-Black districts in the Enacted Plan, such as HD-27, 28, 29, 31, and 34, are long and extremely narrow, connecting Black neighborhoods in Chicago's South Side with suburbs in the metro area. Second, Table 1 confirms that 12 of the 13 majority-Black districts in the Enacted Plan (HD-5, 6, 8, 25, 26, 27, 28, 29, 31, 32, 33, and 34) have compactness scores that are lower than the compactness scores of the *Schrage* District. Finally, as a group, the 13 majority-Black districts exhibit an average Reock score of 0.152 and an average Polsby-Popper score of 0.136, both of which are well below the compactness scores of the *Schrage* District.

83. What would have been the partisan and racial composition of these majority-Black districts if the Enacted Plan's mapmakers had not drawn districts with such low compactness scores below those of the *Schrage* District? Figures 8 and 9 compare the majority-Black districts in the Enacted Plan to the majority-Black districts in each of the 10,000 computer-simulated plans. As none of the 118 districts in any computer-simulated plan have compactness scores below the *Schrage* District, this comparison allows me to evaluate how the Enacted Plan's

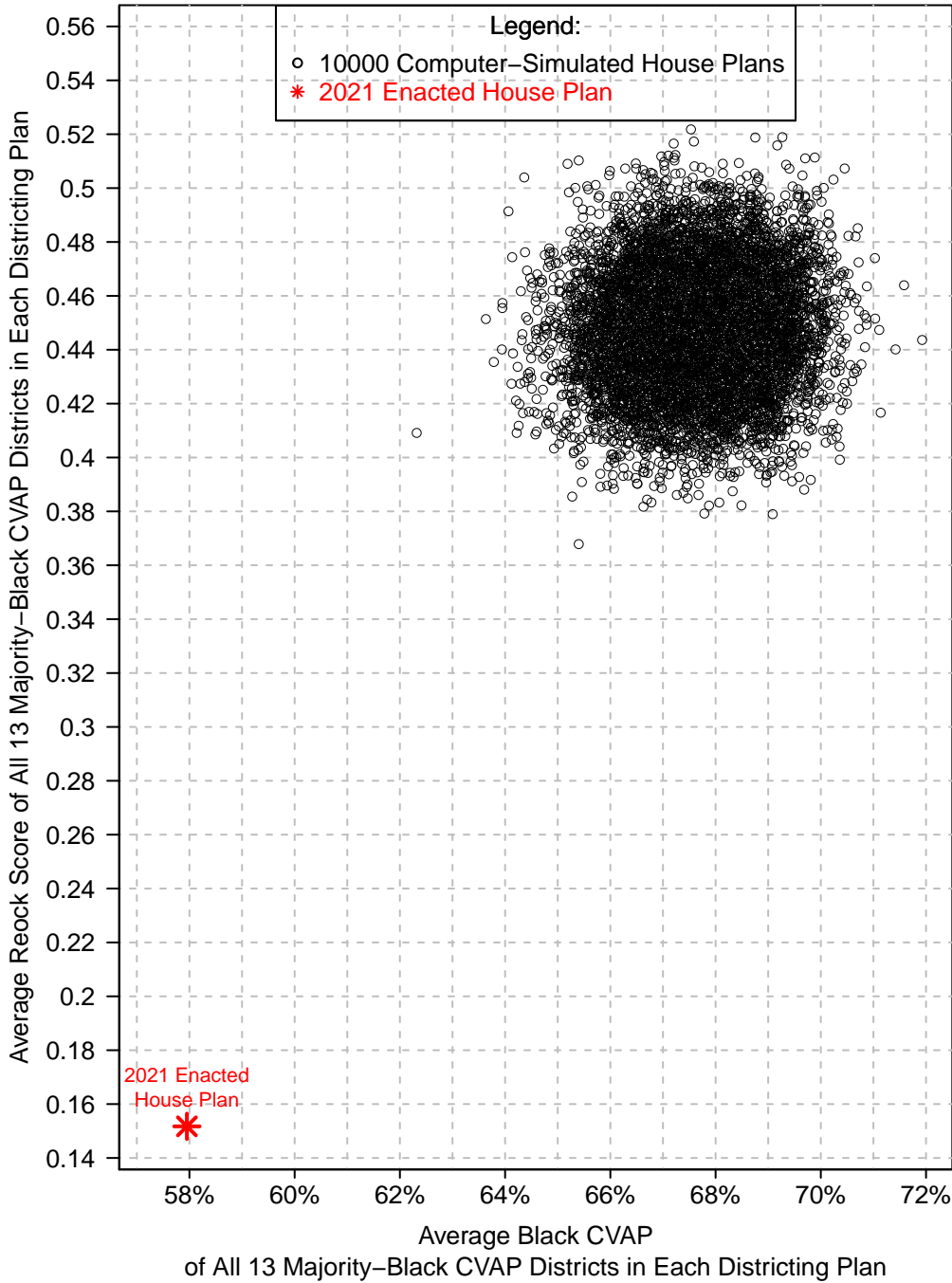
use of geographically non-compact, majority-Black districts affected the partisanship of these districts.

84. In the left plot in Figure 8, the vertical axis measures the average Reock score of the 13 majority-Black districts in each plan, while the horizontal axis measures the average Black CVAP of the 13 majority-Black districts. In the right plot in Figure 8, the horizontal axis measures the average Republican vote share of the 13 majority-Black districts, using the Statewide Election Composite. Note that for purposes of these calculations, if a computer-simulated plan contains more than 13 majority-Black districts, I included only the 13 districts with the highest Black CVAP from each plan.

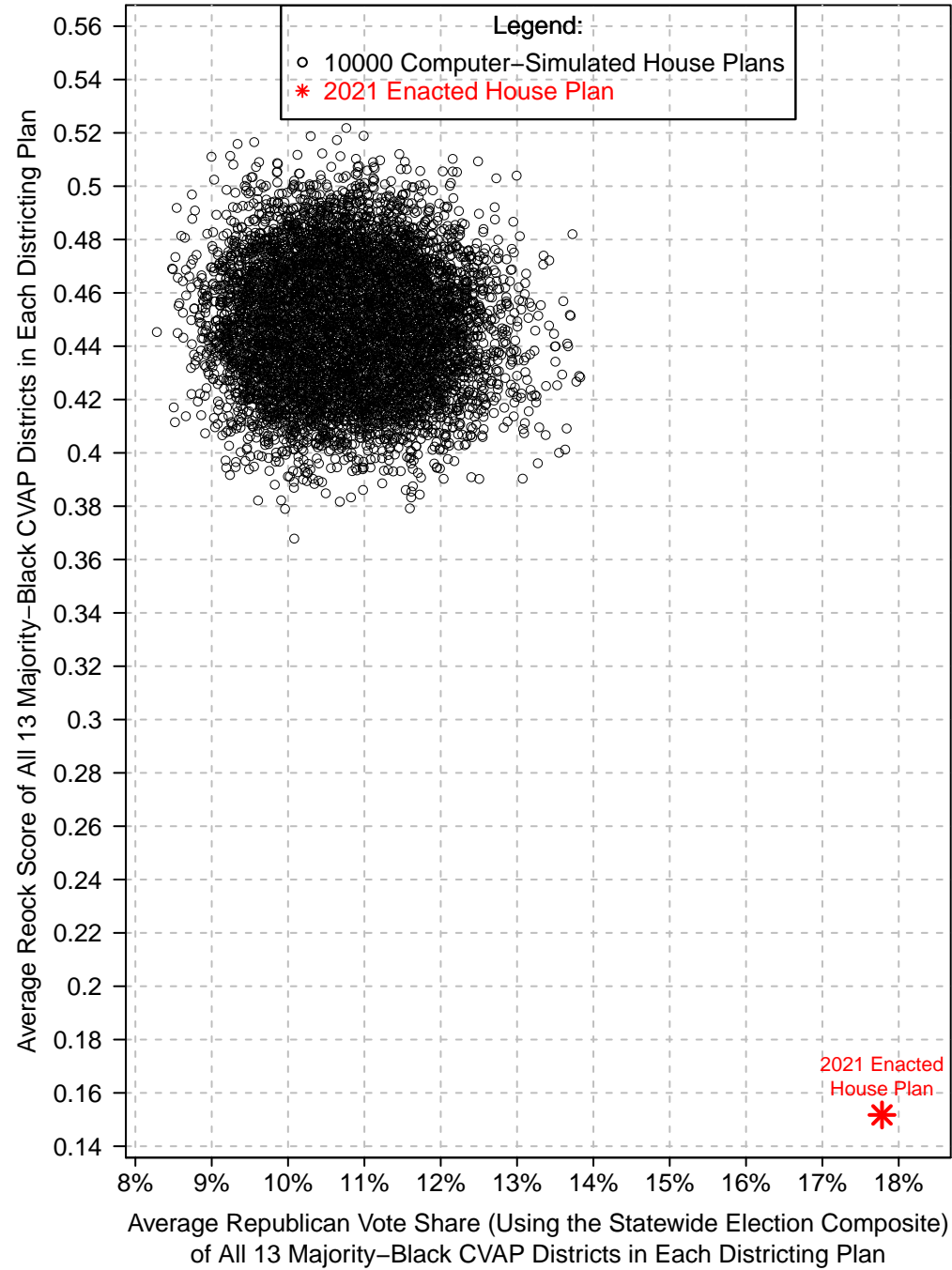
85. Overall, Figure 8 illustrates three findings: First, as 12 of the 13 majority-Black districts in the Enacted Plan have compactness scores below the *Schrage* District, the average Reock score of the 13 Enacted Plan districts is therefore significantly below the average Reock score of the 13 majority-Black districts within each of the 10,000 simulated plans. Second, the Enacted Plan's majority-Black districts have an average Black CVAP that is significantly below those exhibited by all 10,000 of the simulated plans. Finally, the Enacted Plan's majority-Black districts have an average Republican vote share that is significantly higher than those exhibited by all 10,000 of the simulated plans.

86. Together, these findings from Figure 8 illustrate how the non-compactness of the Enacted Plan's majority-Black districts enabled the mapmakers to "waste" additional Republican votes in these majority-Black districts. As noted earlier, every majority-Black district in any Illinois House plan is an overwhelmingly safe Democratic district. The Enacted Plan's mapmakers thus added extra Republican voters to these majority-Black districts from geographically distant suburbs without sacrificing these districts' near-certainty of favoring

Average Compactness and Black CVAP of Majority-Black Districts in 2021 Enacted House Plan and Computer-Simulated Plans



Average Compactness and Partisanship of Majority-Black Districts in 2021 Enacted House Plan and Computer-Simulated Plans:



Note: For computer-simulated plans containing more than 13 majority-Black CVAP Districts, only the 13 districts with the highest Black CVAP within the plan are considered.

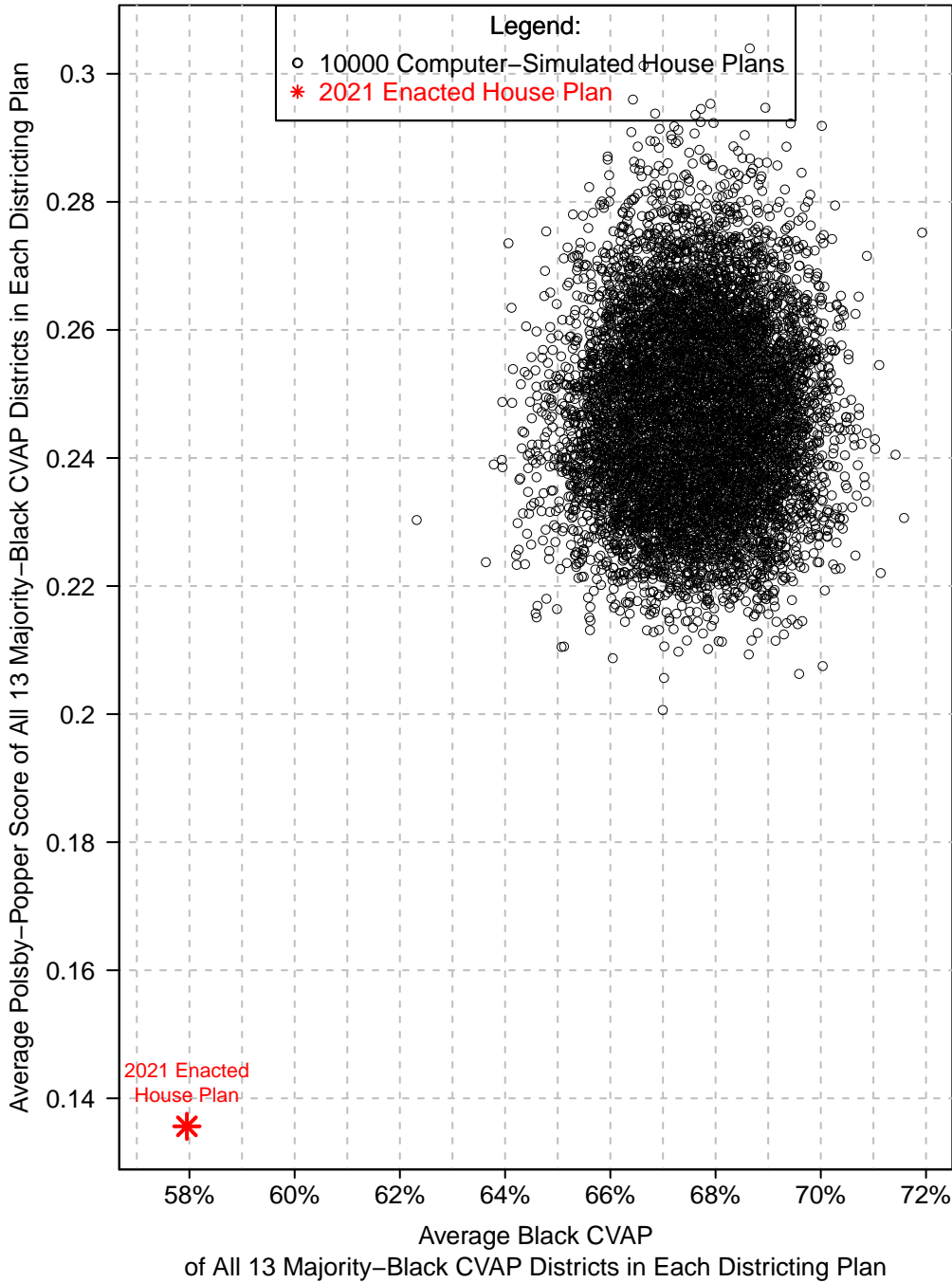
Democrat candidates. The addition of these suburban Republican voters to the majority-Black districts very significantly harmed the Reock compactness scores of these majority-Black districts, as illustrated in Figure 8. Adding these extra suburban Republicans to the majority-Black districts also resulted in the Enacted Plan's majority-Black districts having significantly higher Republican vote shares and lower Black CVAP proportions than observed in the simulated plans' majority-Black districts. In summary, drawing long, narrow districts with compactness scores below the *Schrage* District enabled the Enacted Plan's mapmakers to "waste" suburban Republican votes in otherwise safe Democratic, majority-Black districts.

87. Figure 9 is identical to Figure 8, except that the vertical axis in both plots in Figure 9 measures the geographic compactness of the majority-Black districts in each plan using the districts' average Polsby-Popper scores, rather than their Reock scores. Using the Polsby-Popper measure of district compactness, Figure 9 illustrates exactly the same patterns and the same findings as Figure 8, as described above.

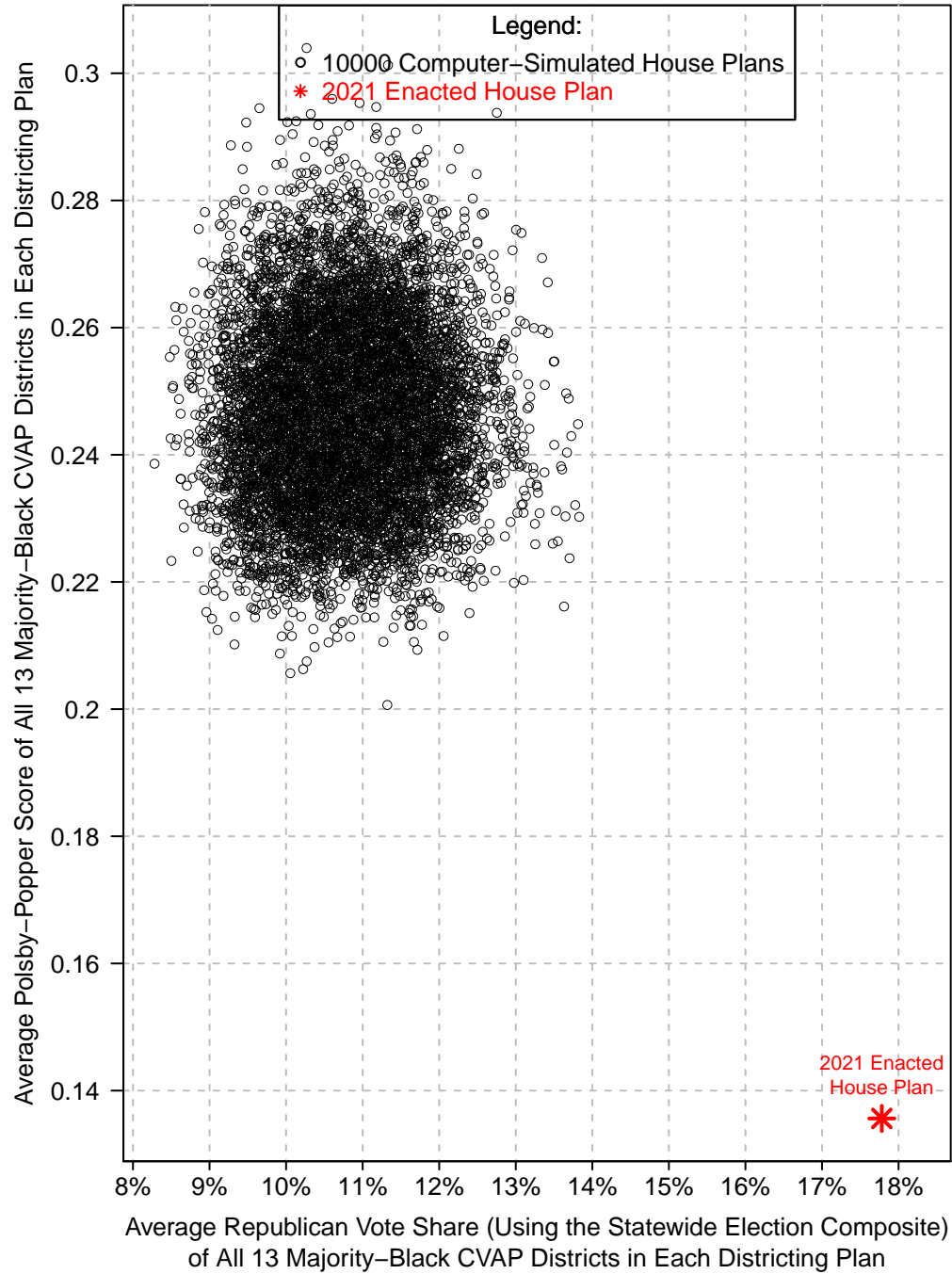
88. Figures 8 and 9 measured the partisanship of the Enacted Plan's majority-Black districts at an aggregate level, illustrating that the average Republican vote share of the Enacted Plan's 13 majority-Black districts is significantly higher than those of the 10,000 simulated plans. Additionally, I compared the individual district-level partisanship of the Enacted Plan's majority-Black districts to those of the simulated plans in Table 9.

89. Specifically, Table 9 contains 13 columns, with each column corresponding to one of the 13 majority-Black districts in the Enacted Plan. These districts are labeled along the bottom of Table 9 (e.g., HD-5, HD-6, etc.). Table 9 also contains 17 rows, with each row corresponding to one of the 16 statewide election contests or to the Statewide Election Composite, and these elections are labeled on the left of Table 9. Each percentage reported in

Average Compactness and Black CVAP of Majority-Black Districts in 2021 Enacted House Plan and Computer-Simulated Plans



Average Compactness and Partisanship of Majority-Black Districts in 2021 Enacted House Plan and Computer-Simulated Plans:



Note: For computer-simulated plans containing more than 13 majority-Black CVAP Districts, only the 13 districts with the highest Black CVAP within the plan are considered.

**Table 9: Percentage of Majority–Black Districts in Simulated Plans  
With a Lower Republican Vote Share than Each Majority–Black District from the 2021 Enacted House Plan,  
As Measured Using Each Statewide Election:**

2014 US Senate	68.60%	57.37%	89.35%	46.92%	74.49%	91.76%	93.55%	97.40%	86.44%	78.05%	66.92%	71.40%	79.96%
2014 Governor	72.41%	58.51%	90.91%	52.39%	81.50%	89.82%	91.81%	95.45%	87.98%	77.75%	63.73%	70.50%	79.91%
2014 Comptroller	71.81%	60.64%	96.95%	46.89%	79.31%	90.40%	92.01%	94.15%	86.76%	78.17%	64.67%	68.88%	77.24%
2014 Treasurer	71.81%	60.00%	93.80%	51.71%	81.02%	91.29%	92.35%	95.28%	87.62%	77.41%	63.27%	69.02%	77.77%
2016 US President	60.63%	58.71%	80.34%	46.94%	69.60%	96.09%	96.78%	98.88%	84.58%	85.36%	70.27%	72.60%	81.29%
2016 US Senate	75.35%	65.22%	91.29%	48.63%	83.18%	96.28%	96.07%	98.69%	85.67%	82.98%	66.91%	70.56%	80.19%
2016 Comptroller	74.94%	62.34%	94.46%	55.27%	83.55%	96.26%	95.94%	97.69%	87.03%	81.58%	64.53%	69.19%	79.31%
2018 Governor	74.66%	63.79%	98.20%	48.39%	82.57%	97.75%	98.09%	99.10%	86.49%	83.31%	66.21%	69.16%	82.33%
2018 Attorney General	71.33%	66.05%	95.28%	43.14%	78.98%	97.25%	98.03%	98.84%	86.23%	83.33%	69.53%	70.50%	81.50%
2020 US President	59.37%	68.41%	84.50%	28.90%	70.04%	98.63%	98.94%	99.34%	85.06%	92.47%	76.88%	70.60%	84.56%
2020 US Senate	73.85%	69.61%	92.23%	36.09%	79.45%	99.18%	99.05%	99.52%	85.15%	92.43%	74.69%	69.89%	86.84%
2022 Attorney General	62.48%	69.82%	91.61%	30.78%	73.85%	98.08%	98.58%	99.21%	84.28%	91.38%	78.12%	68.06%	86.05%
2022 Governor	53.14%	65.97%	89.25%	30.48%	68.17%	98.40%	98.98%	99.35%	84.18%	92.60%	79.46%	68.73%	87.18%
2022 Secretary of State	60.99%	70.44%	93.05%	29.30%	72.98%	98.29%	98.91%	99.36%	84.74%	92.42%	78.76%	67.61%	87.05%
2022 Treasurer	65.49%	70.62%	92.35%	31.17%	75.19%	98.71%	99.10%	99.50%	84.35%	92.24%	78.40%	68.00%	86.74%
2022 US Senate	59.97%	68.11%	91.86%	32.20%	72.82%	98.34%	98.87%	99.38%	84.28%	92.06%	78.04%	67.97%	86.08%
Statewide Election Composite	69.22%	64.72%	91.58%	43.19%	77.03%	97.55%	98.13%	99.10%	85.51%	85.35%	71.02%	70.56%	82.42%
	HD–5	HD–6	HD–8	HD–25	HD–26	HD–27	HD–28	HD–29	HD–30	HD–31	HD–32	HD–33	HD–34

Majority–Black CVAP Districts from the 2021 Enacted House Plan

Note: For computer–simulated plans containing more than 13 majority–Black CVAP districts, only the 13 districts with the highest Black CVAP within the plan are considered.

Table 9 is a comparison of an Enacted Plan district's partisanship to the partisanship of all of the majority-Black districts in the 10,000 computer-simulated plans. Specifically, Table 9 reports the percentage of the majority-Black districts in the simulated plans that have a lower Republican vote share than each of the Enacted Plan's majority-Black districts, measured using each statewide election contest. For example, the first percentage reported in the upper-left corner of Table 9 reports that 68.60% of the majority-Black computer-simulated districts have a lower Republican vote share, using the 2014 US Senate election results, than HD-5.

90. Overall, Table 9 reveals that 12 of the 13 majority-Black districts in the Enacted Plan are more Republican than the vast majority of the computer-simulated plans' majority-Black districts. This finding emerges consistently regardless of which individual election is used to measure the partisanship of districts. Only one of the Enacted Plan's majority-Black districts – HD-25 – fails to follow this pattern. Overall, Table 9 illustrates that at the individual district level, it is clear the Enacted Plan's mapmakers moved extra Republican voters into the majority-Black districts, compared to computer-simulated plans that were drawn by a partisan-blind algorithm.

### **Conclusions Regarding Partisanship and Traditional Districting Criteria**

91. The analyses described in this report lead me to two main findings: First, the 2021 Enacted Plan clearly subordinated the traditional districting criterion of geographic compactness, as measured using the compactness scores of the *Schrage* District. Of the Enacted Plan's 118 House districts, 52 districts have compactness scores below those of the *Schrage* District, including 12 of the 13 majority-Black districts in the Enacted Plan. Second, I found that the 2021 Enacted Plan is an extreme partisan outlier when compared to computer-simulated plans

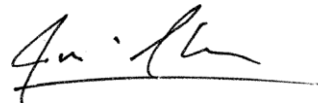


produced by a non-partisan map-drawing process following traditional districting criteria, including equal population and avoiding districts less compact than the *Schrage* District. The partisan outlying nature of the Enacted Plan is apparent both at a plan-wide level and at the individual district level.

92. Based on these two collective findings, I conclude that partisanship predominated in the drawing of the 2021 Enacted Plan, and partisanship subordinated the traditional districting principles of drawing geographically compact districts. Because the Enacted Plan failed to follow the traditional districting principle of geographic compactness and instead created an extreme level of pro-Democratic partisan bias, I therefore conclude that the partisan bias of the Enacted Plan did not naturally arise by chance from a districting process adhering to traditional districting principles. Instead, I conclude that partisan goals predominated in the drawing of the Enacted Plan. By subordinating the geographic compactness of House districts, the General Assembly's Enacted Plan was able to achieve an extreme partisan outcome that would not have normally occurred under a partisan-neutral districting process following traditional districting principles.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

This 28th day of January, 2025.

A handwritten signature in black ink, appearing to read "Jowei Chen", is written over a horizontal line.

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Dr. Jowei Chen

**Jowei Chen**  
**Curriculum Vitae**

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**Academic Positions:**

Associate Professor (2015-present), Assistant Professor (2009-2015), Department of Political Science, University of Michigan.

Research Associate Professor (2016-present), Faculty Associate (2009-2015), Center for Political Studies, University of Michigan.

W. Glenn Campbell and Rita Ricardo-Campbell National Fellow, Hoover Institution, Stanford University, 2013.

Principal Investigator and Senior Research Fellow, Center for Governance and Public Policy Research, Willamette University, 2013 – Present.

**Education:**

Ph.D., Political Science, Stanford University (June 2009)

M.S., Statistics, Stanford University (January 2007)

B.A., Ethics, Politics, and Economics, Yale University (May 2004)

**Publications:**

Chen, Jowei and Neil Malhotra. 2007. "The Law of k/n: The Effect of Chamber Size on Government Spending in Bicameral Legislatures."

[American Political Science Review. 101\(4\): 657-676.](#)

Chen, Jowei, 2010. "The Effect of Electoral Geography on Pork Barreling in Bicameral Legislatures."

[American Journal of Political Science. 54\(2\): 301-322.](#)

Chen, Jowei, 2013. "Voter Partisanship and the Effect of Distributive Spending on Political Participation."

[American Journal of Political Science. 57\(1\): 200-217.](#)

Chen, Jowei and Jonathan Rodden, 2013. "Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures"

[Quarterly Journal of Political Science, 8\(3\): 239-269.](#)

Bradley, Katharine and Jowei Chen, 2014. "Participation Without Representation? Senior Opinion, Legislative Behavior, and Federal Health Reform."

[Journal of Health Politics, Policy and Law. 39\(2\), 263-293.](#)

Chen, Jowei and Tim Johnson, 2015. "Federal Employee Unionization and Presidential Control of the Bureaucracy: Estimating and Explaining Ideological Change in Executive Agencies."

[Journal of Theoretical Politics, Volume 27, No. 1: 151-174.](#)

Bonica, Adam, Jowei Chen, and Tim Johnson, 2015. "Senate Gate-Keeping, Presidential Staffing of 'Inferior Offices' and the Ideological Composition of Appointments to the Public Bureaucracy."

[Quarterly Journal of Political Science. Volume 10, No. 1: 5-40.](#)

Chen, Jowei and Jonathan Rodden, 2015. "Cutting Through the Thicket: Redistricting Simulations and the Detection of Partisan Gerrymanders."

[Election Law Journal. Volume 14, Number 4: 331-345.](#)

Chen, Jowei and David Cottrell, 2016. "Evaluating Partisan Gains from Congressional Gerrymandering: Using Computer Simulations to Estimate the Effect of Gerrymandering in the U.S. House."

[Electoral Studies. Volume 44 \(December 2016\): 329-340.](#)

Chen, Jowei, 2017. "Analysis of Computer-Simulated Districting Maps for the Wisconsin State Assembly."

[Election Law Journal. Volume 16, Number 4 \(December 2017\): 417-442.](#)

Chen, Jowei and Nicholas Stephanopoulos, 2020. "The Race-Blind Future of Voting Rights."

[Yale Law Journal, Forthcoming. Volume 130, Number 4: 778-1049.](#)

Kim, Yunsieg and Jowei Chen, 2021. "Gerrymandered by Definition: The Distortion of 'Traditional' Districting Principles and a Proposal for an Empirical Redefinition."

[Wisconsin Law Review, Forthcoming, Volume 2021, Number 1.](#)

Chen, Jowei and Nicholas Stephanopoulos, 2021. "Democracy's Denominator."

[California Law Review, Accepted for Publication, Volume 109.](#)

### **Non-Peer-Reviewed Publication:**

Chen, Jowei and Nicholas Stephanopoulos. February 24, 2021. Washington Post Op-Ed.

<https://www.washingtonpost.com/outlook/2021/02/24/gerrymandering-count-people-adults/>

Chen, Jowei. October 4, 2017. [Time Magazine Op-Ed.](#)

<http://time.com/4965673/wisconsin-supreme-court-gerrymandering-research/>

Chen, Jowei and Jonathan Rodden. January 2014. [New York Times Op-Ed.](https://www.nytimes.com/2014/01/26/opinion/sunday/its-the-geography-stupid.html)  
<https://www.nytimes.com/2014/01/26/opinion/sunday/its-the-geography-stupid.html>  
 Media Coverage: [The Atlantic](#)

*Alexander et al. v. South Carolina State Conference of the NAACP, et al.*, No. 22-807  
[Amicus Brief, August 18, 2023](#)

*Merrill et al. v. Milligan et al.*, Nos. 21-1086, 21-1087.  
[Amicus Brief, July 18, 2022](#)

*Gill et al. v. Whitford et al.*, No. 16-1161.  
[Amicus Brief, September 5, 2017](#)

Chen, Jowei and Tim Johnson. 2017. "Political Ideology in the Bureaucracy."  
[Global Encyclopedia of Public Administration, Public Policy, and Governance.](#)

### **Research Grants:**

"How Citizenship-Based Redistricting Systemically Disadvantages Voters of Color". 2020 (\$18,225). Combating and Confronting Racism Grant. University of Michigan Center for Social Solutions and Poverty Solutions.

Principal Investigator. [National Science Foundation Grant SES-1459459](#), September 2015 – August 2018 (\$165,008). "The Political Control of U.S. Federal Agencies and Bureaucratic Political Behavior."

"Economic Disparity and Federal Investments in Detroit," (with Brian Min) 2011. Graham Institute, University of Michigan (\$30,000).

"The Partisan Effect of OSHA Enforcement on Workplace Injuries," (with Connor Raso) 2009. John M. Olin Law and Economics Research Grant (\$4,410).

**Invited Talks:**

September, 2011. University of Virginia, American Politics Workshop.  
 October 2011. Massachusetts Institute of Technology, American Politics Conference.  
 January 2012. University of Chicago, Political Economy/American Politics Seminar.  
 February 2012. Harvard University, Positive Political Economy Seminar.  
 September 2012. Emory University, Political Institutions and Methodology Colloquium.  
 November 2012. University of Wisconsin, Madison, American Politics Workshop.  
 September 2013. Stanford University, Graduate School of Business, Political Economy Workshop.  
 February 2014. Princeton University, Center for the Study of Democratic Politics Workshop.  
 November 2014. Yale University, American Politics and Public Policy Workshop.  
 December 2014. American Constitution Society for Law & Policy Conference: Building the Evidence to Win Voting Rights Cases.  
 February 2015. University of Rochester, American Politics Working Group.  
 March 2015. Harvard University, Voting Rights Act Workshop.  
 May 2015. Harvard University, Conference on Political Geography.  
 October 2015. George Washington University School of Law, Conference on Redistricting Reform.  
 September 2016. Harvard University Center for Governmental and International Studies, Voting Rights Institute Conference.  
 March 2017. Duke University, Sanford School of Public Policy, Redistricting Reform Conference.  
 October 2017. Willamette University, Center for Governance and Public Policy Research  
 October 2017, University of Wisconsin, Madison. Geometry of Redistricting Conference.  
 February 2018: University of Georgia Law School  
 September 2018. Willamette University.  
 November 2018. Yale University, Redistricting Workshop.  
 November 2018. University of Washington, Severyns Ravenholt Seminar in Comparative Politics.  
 January 2019. Duke University, Reason, Reform & Redistricting Conference.  
 February 2019. Ohio State University, Department of Political Science. Departmental speaker series.  
 March 2019. Wayne State University Law School, Gerrymandering Symposium.  
 November 2019. Big Data Ignite Conference.  
 November 2019. Calvin College, Department of Mathematics and Statistics.  
 September 2020 (Virtual). Yale University, Yale Law Journal Scholarship Workshop  
 September 2021, Duke University, Redistricting and American Democracy Conference  
 July 2022, ICPSR Blalock Lecture, University of Michigan

**Conference Service:**

Section Chair, 2017 APSA (San Francisco, CA), Political Methodology Section  
 Discussant, 2014 Political Methodology Conference (University of Georgia)  
 Section Chair, 2012 MPSA (Chicago, IL), Political Geography Section.  
 Discussant, 2011 MPSA (Chicago, IL) "Presidential-Congressional Interaction."

Discussant, 2008 APSA (Boston, MA) “Congressional Appropriations.”  
 Chair and Discussant, 2008 MPSA (Chicago, IL) “Distributive Politics: Parties and Pork.”

### **Conference Presentations:**

“Ideological Representation of Geographic Constituencies in the U.S. Bureaucracy,” (with Tim Johnson). 2017 APSA.

“Incentives for Political versus Technical Expertise in the Public Bureaucracy,” (with Tim Johnson). 2016 APSA.

“Black Electoral Geography and Congressional Districting: The Effect of Racial Redistricting on Partisan Gerrymandering”. 2016 Annual Meeting of the Society for Political Methodology (Rice University)

“Racial Gerrymandering and Electoral Geography.” Working Paper, 2016.

“Does Deserved Spending Win More Votes? Evidence from Individual-Level Disaster Assistance,” (with Andrew Healy). 2014 APSA.

“The Geographic Link Between Votes and Seats: How the Geographic Distribution of Partisans Determines the Electoral Responsiveness and Bias of Legislative Elections,” (with David Cottrell). 2014 APSA.

“Gerrymandering for Money: Drawing districts with respect to donors rather than voters.” 2014 MPSA.

“Constituent Age and Legislator Responsiveness: The Effect of Constituent Opinion on the Vote for Federal Health Reform.” (with Katharine Bradley) 2012 MPSA.

“Voter Partisanship and the Mobilizing Effect of Presidential Advertising.” (with Kyle Dropp) 2012 MPSA.

“Recency Bias in Retrospective Voting: The Effect of Distributive Benefits on Voting Behavior.” (with Andrew Feher) 2012 MPSA.

“Estimating the Political Ideologies of Appointed Public Bureaucrats,” (with Adam Bonica and Tim Johnson) 2012 Annual Meeting of the Society for Political Methodology (University of North Carolina)

“Tobler’s Law, Urbanization, and Electoral Bias in Florida.” (with Jonathan Rodden) 2010 Annual Meeting of the Society for Political Methodology (University of Iowa)

“Unionization and Presidential Control of the Bureaucracy” (with Tim Johnson) 2011 MPSA.

“Estimating Bureaucratic Ideal Points with Federal Campaign Contributions” 2010 APSA. (Washington, DC).

“The Effect of Electoral Geography on Pork Spending in Bicameral Legislatures,” Vanderbilt University Conference on Bicameralism, 2009.

“When Do Government Benefits Influence Voters’ Behavior? The Effect of FEMA Disaster Awards on US Presidential Votes,” 2009 APSA (Toronto, Canada).

“Are Poor Voters Easier to Buy Off?” 2009 APSA (Toronto, Canada).

“Credit Sharing Among Legislators: Electoral Geography’s Effect on Pork Barreling in Legislatures,” 2008 APSA (Boston, MA).

“Buying Votes with Public Funds in the US Presidential Election,” Poster Presentation at the 2008 Annual Meeting of the Society for Political Methodology (University of Michigan).

“The Effect of Electoral Geography on Pork Spending in Bicameral Legislatures,” 2008 MPSA.

“Legislative Free-Riding and Spending on Pure Public Goods,” 2007 MPSA (Chicago, IL).

“Free Riding in Multi-Member Legislatures,” (with Neil Malhotra) 2007 MPSA (Chicago, IL).

“The Effect of Legislature Size, Bicameralism, and Geography on Government Spending: Evidence from the American States,” (with Neil Malhotra) 2006 APSA (Philadelphia, PA).

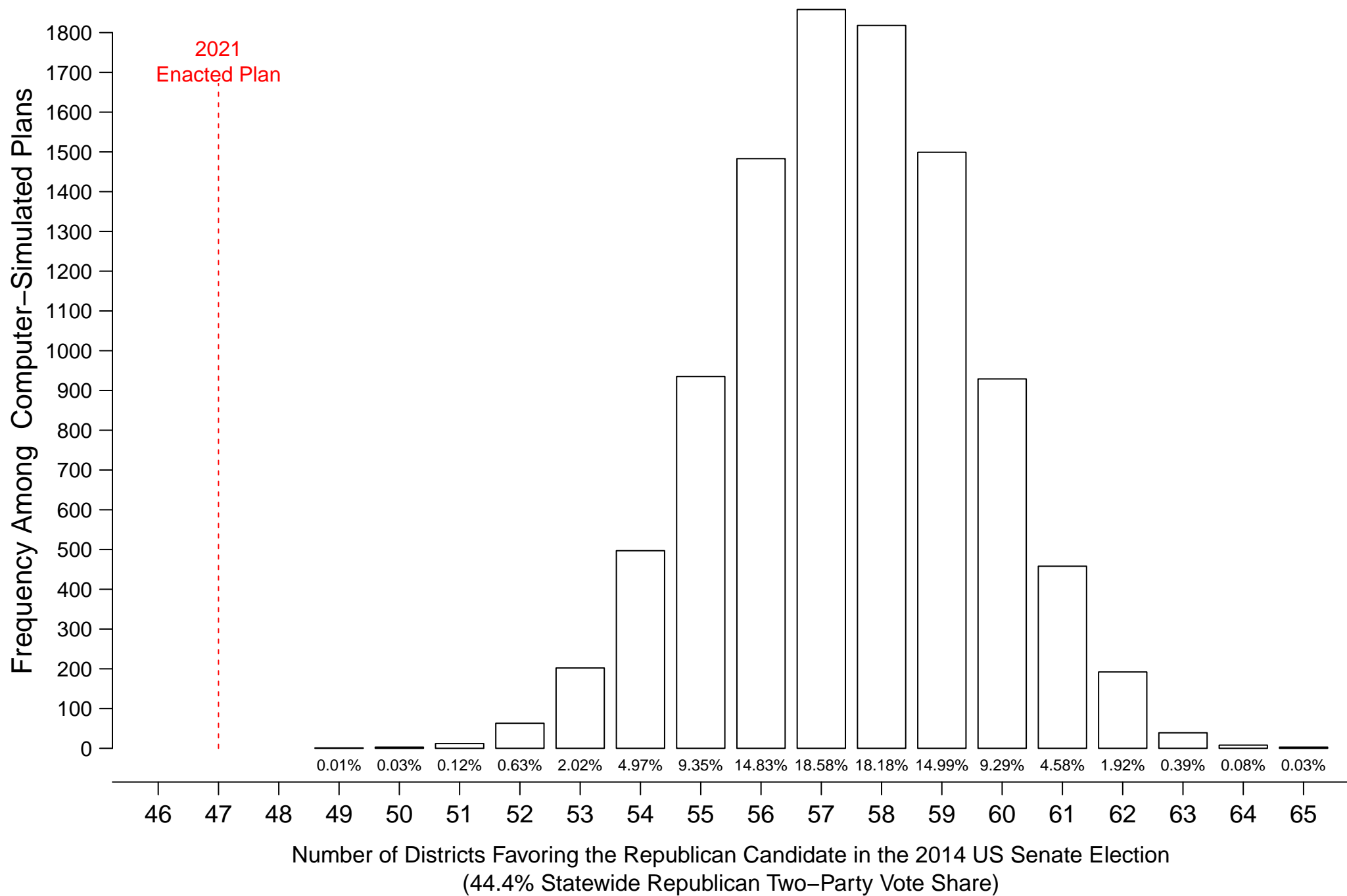


**Reviewer Service:**

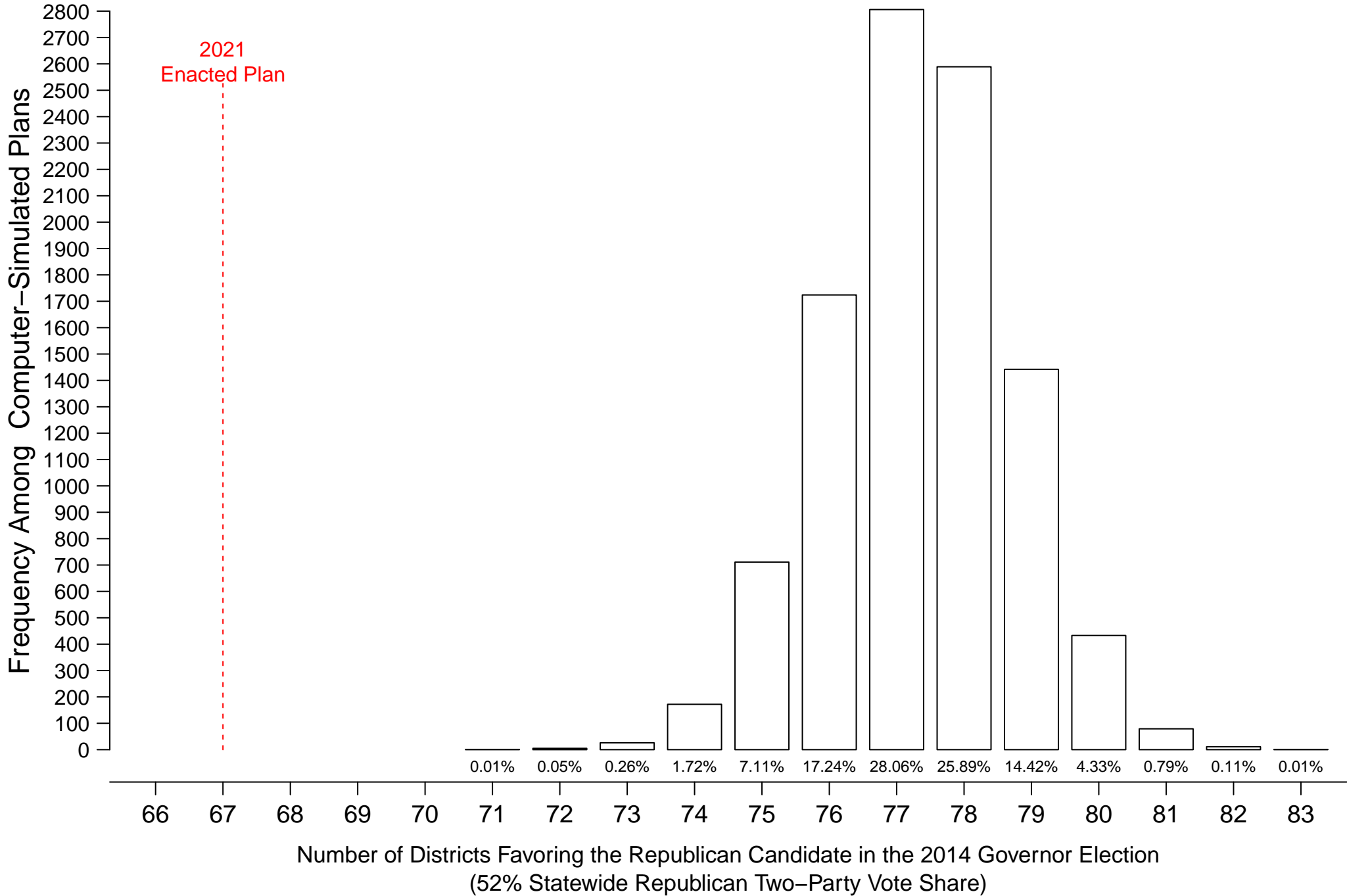
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American Political Science Review  
Journal of Politics  
Quarterly Journal of Political Science  
American Politics Research  
Legislative Studies Quarterly  
State Politics and Policy Quarterly  
Journal of Public Policy  
Journal of Empirical Legal Studies  
Political Behavior  
Political Research Quarterly  
Political Analysis  
Public Choice  
Applied Geography

## **Appendix A:**

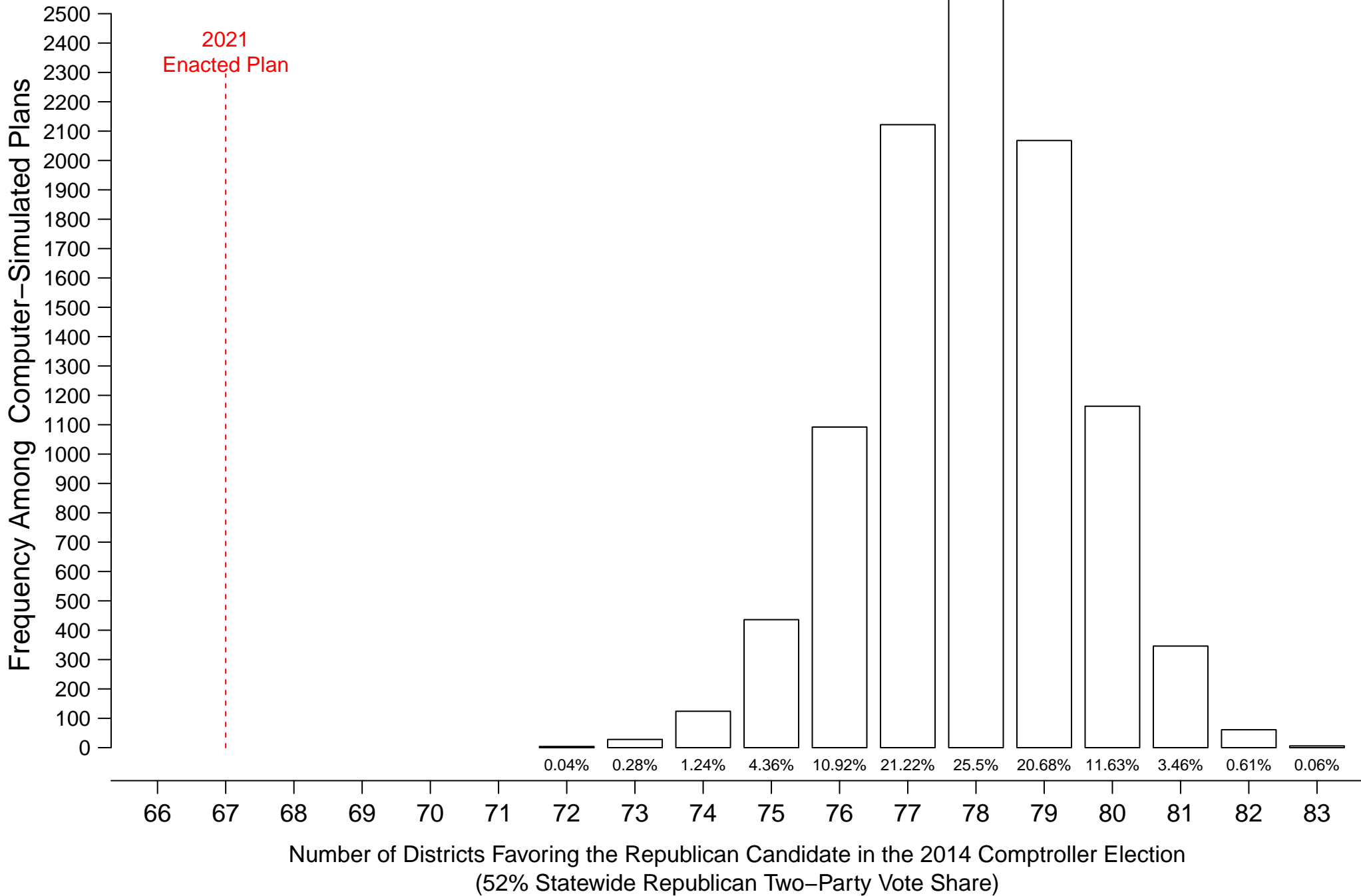
**Figure A1: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2014 US Senate Election  
(44.4% Statewide Republican Two-Party Vote Share)**



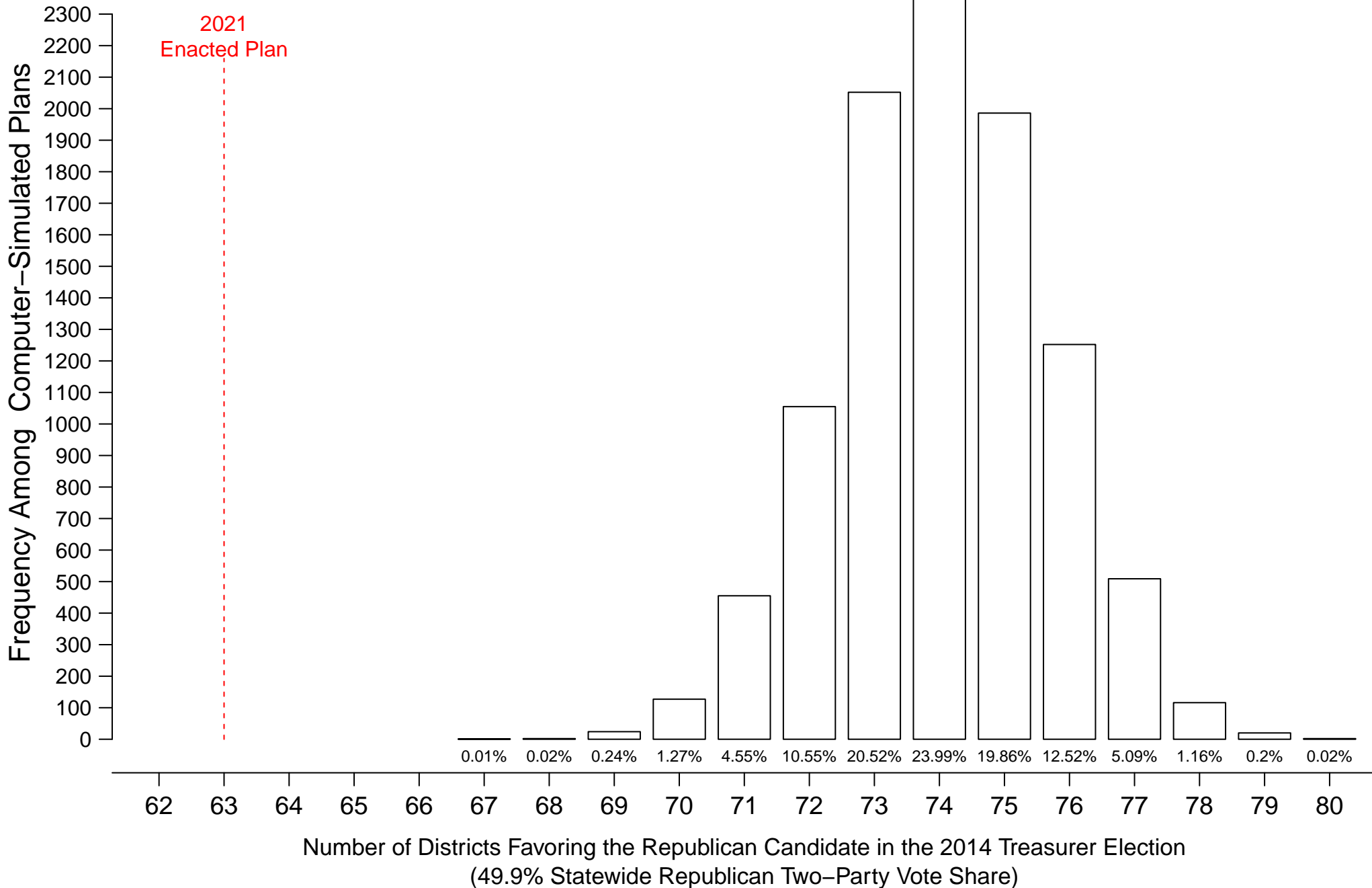
**Figure A2: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2014 Governor Election  
(52% Statewide Republican Two-Party Vote Share)**



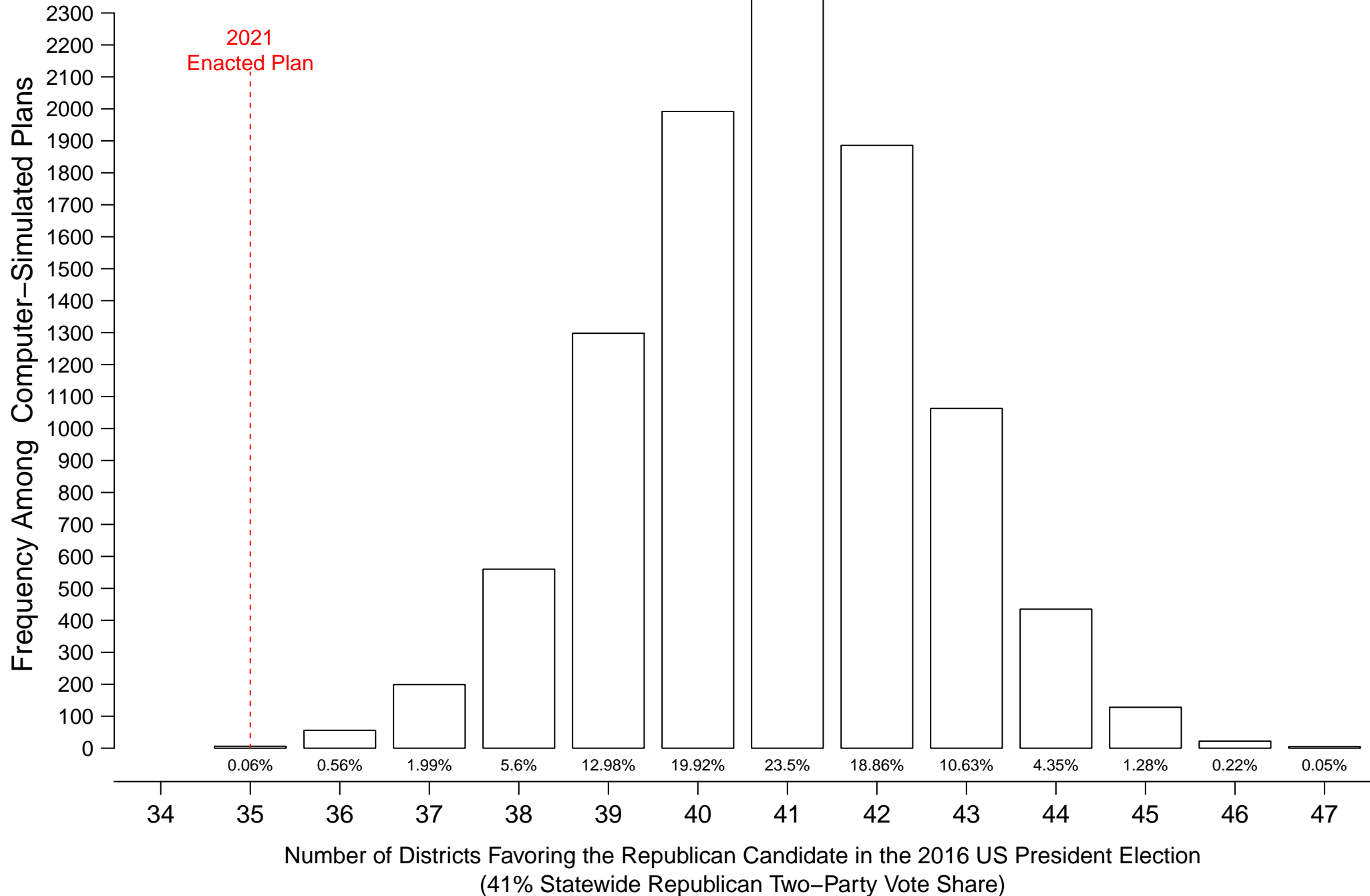
**Figure A3: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2014 Comptroller Election  
(52% Statewide Republican Two-Party Vote Share)**



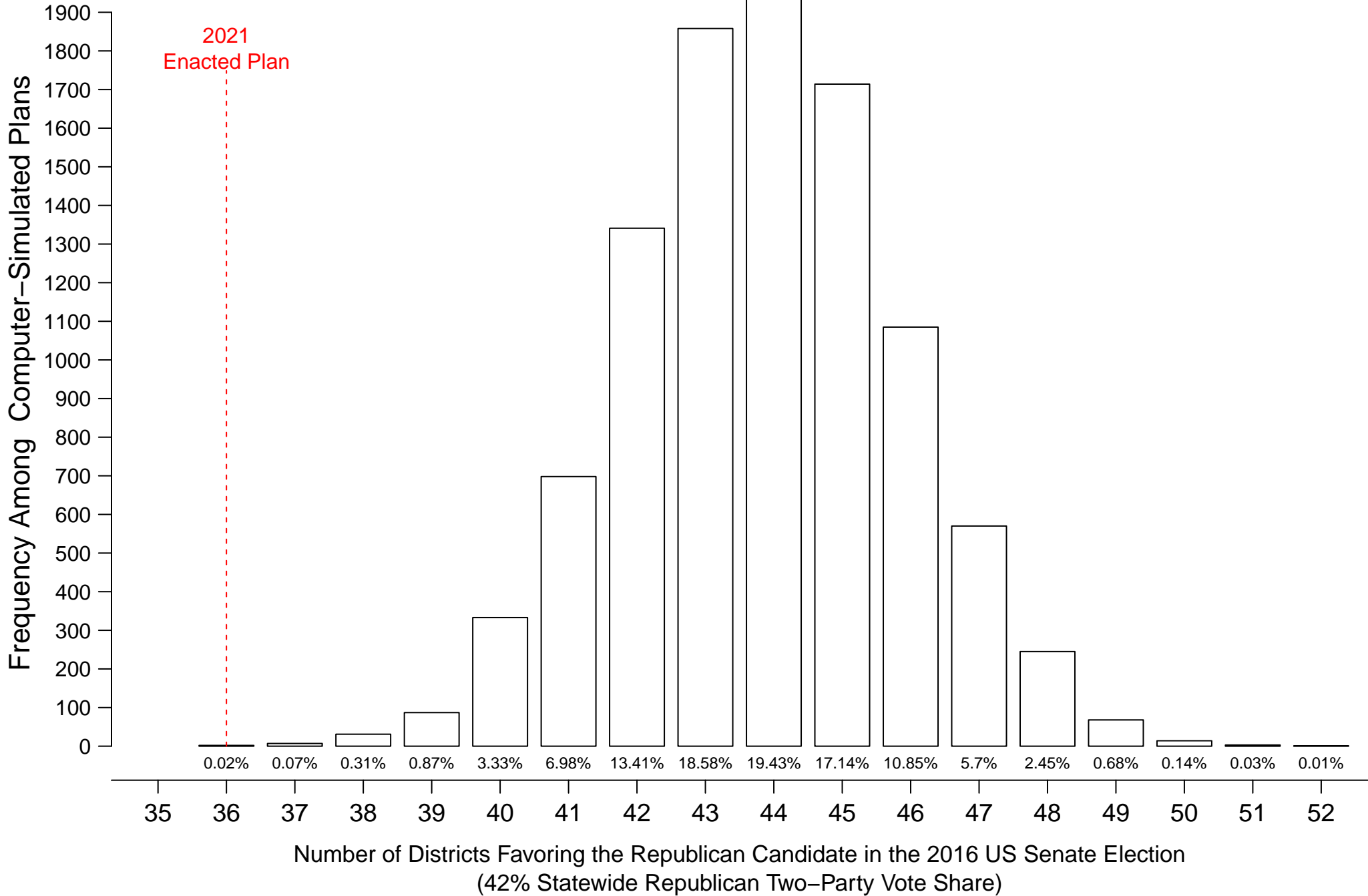
**Figure A4: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2014 Treasurer Election  
(49.9% Statewide Republican Two-Party Vote Share)**



**Figure A5: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2016 US President Election  
(41% Statewide Republican Two-Party Vote Share)**

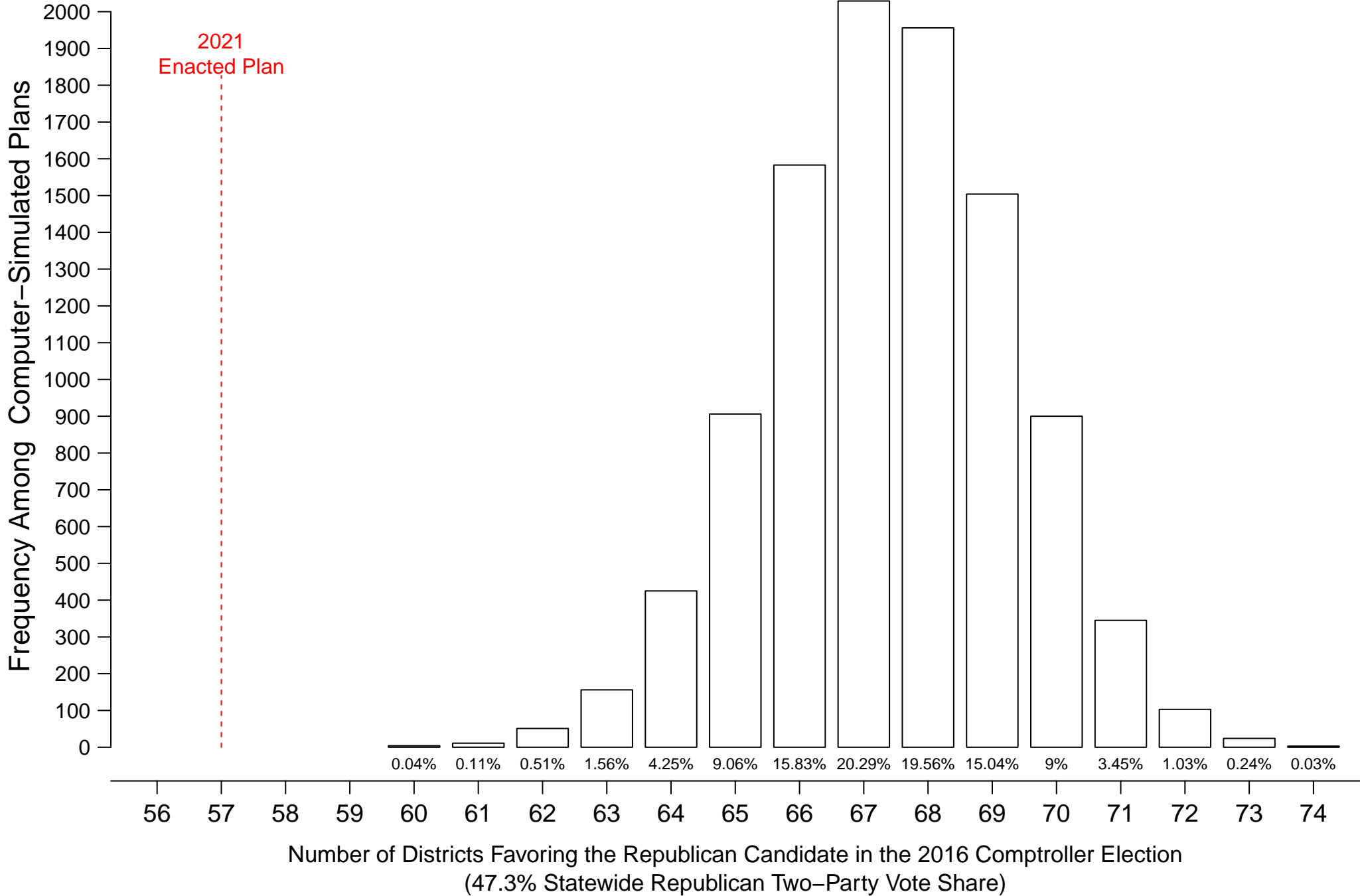


**Figure A6: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2016 US Senate Election  
(42% Statewide Republican Two-Party Vote Share)**

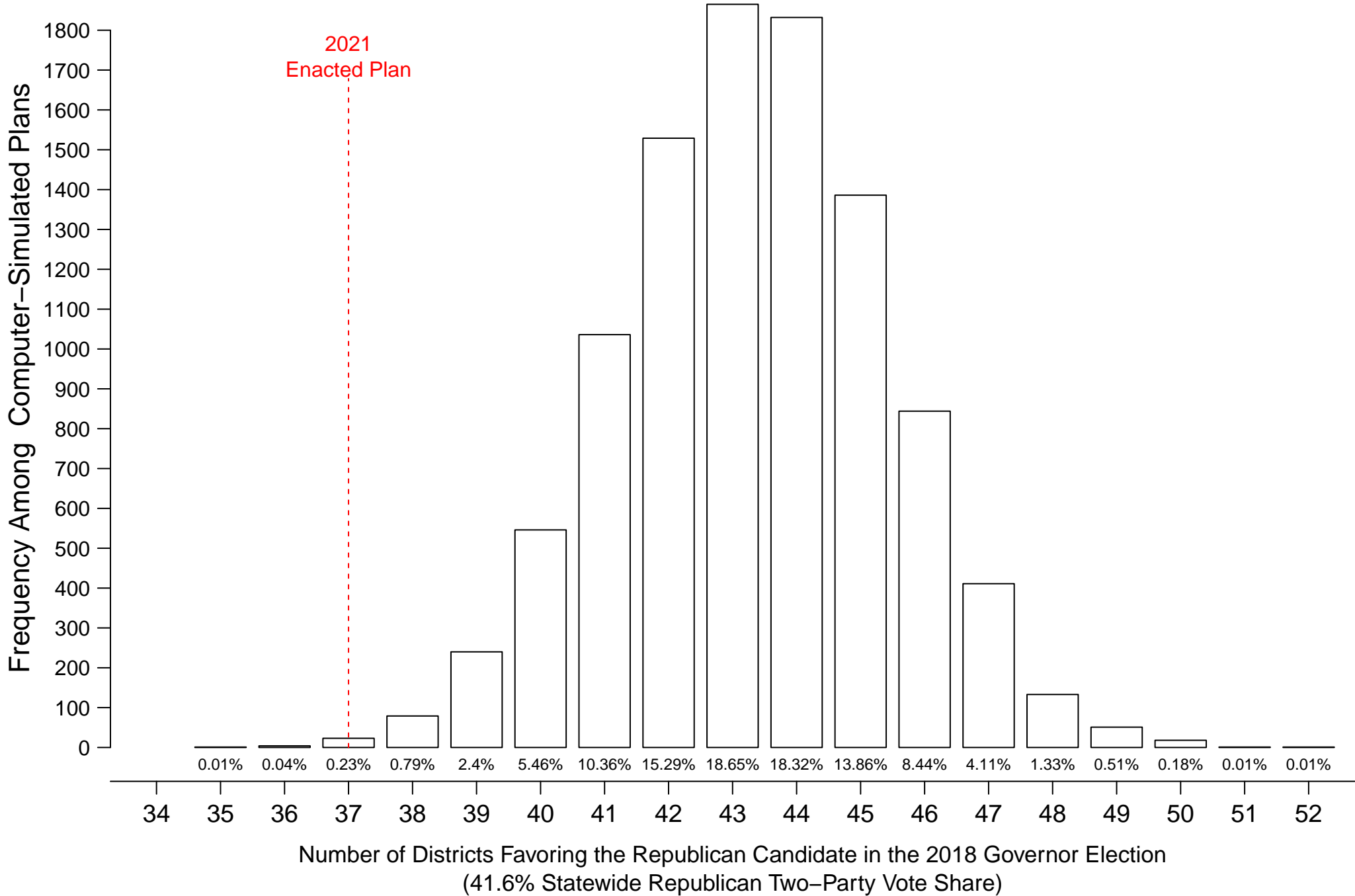




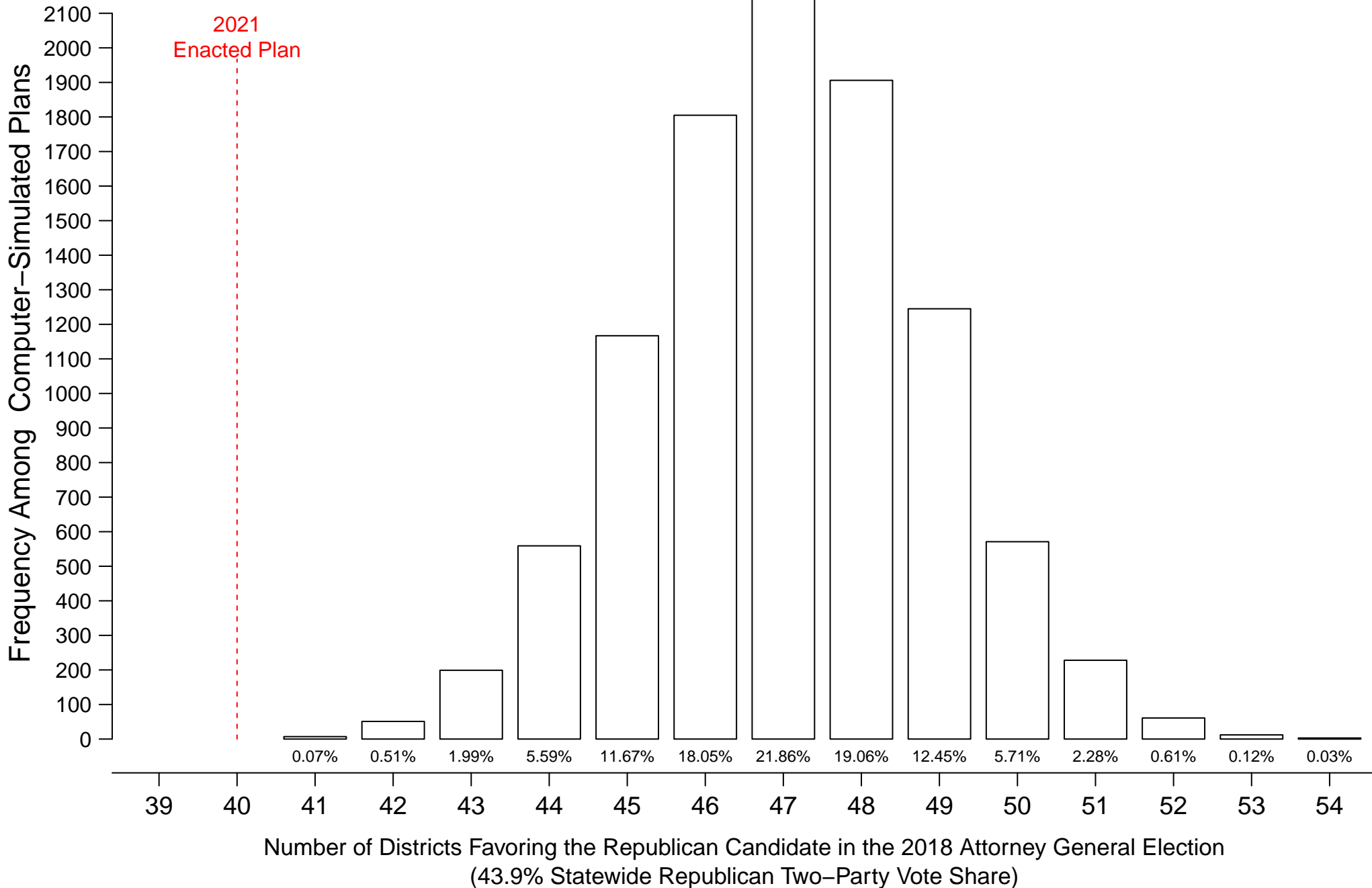
**Figure A7: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2016 Comptroller Election  
(47.3% Statewide Republican Two-Party Vote Share)**



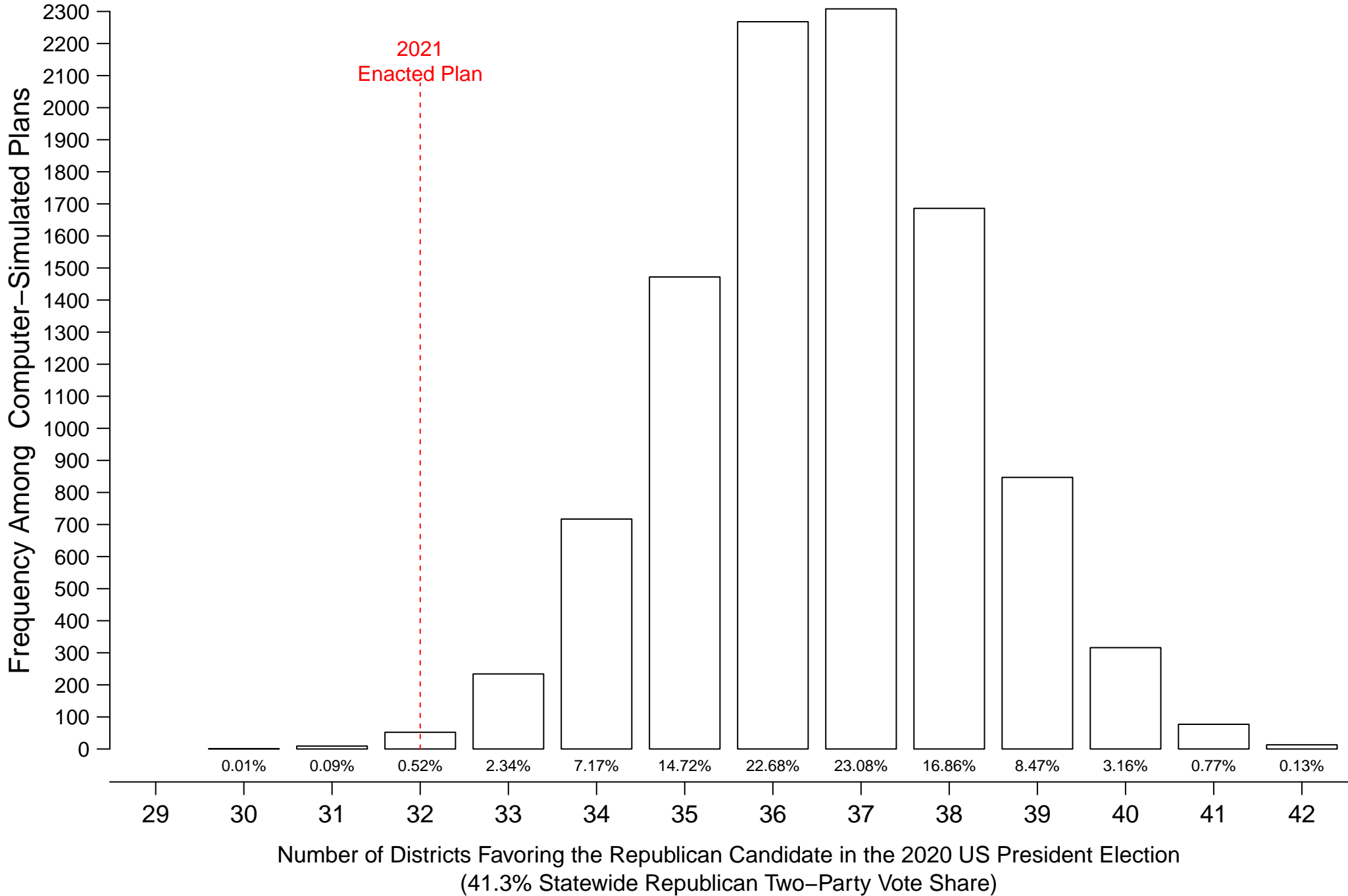
**Figure A8: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2018 Governor Election  
(41.6% Statewide Republican Two-Party Vote Share)**



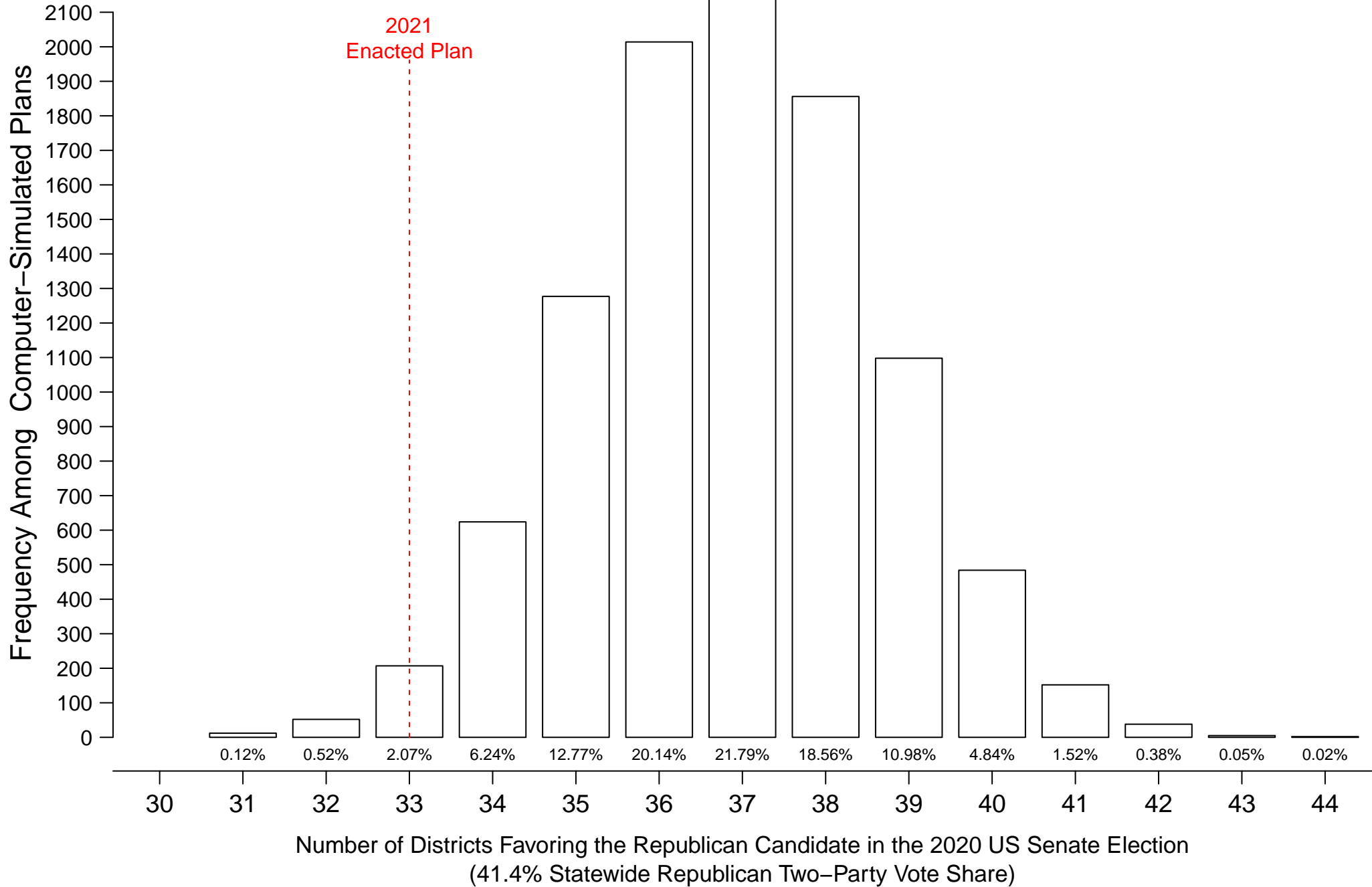
**Figure A9: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2018 Attorney General Election  
(43.9% Statewide Republican Two-Party Vote Share)**



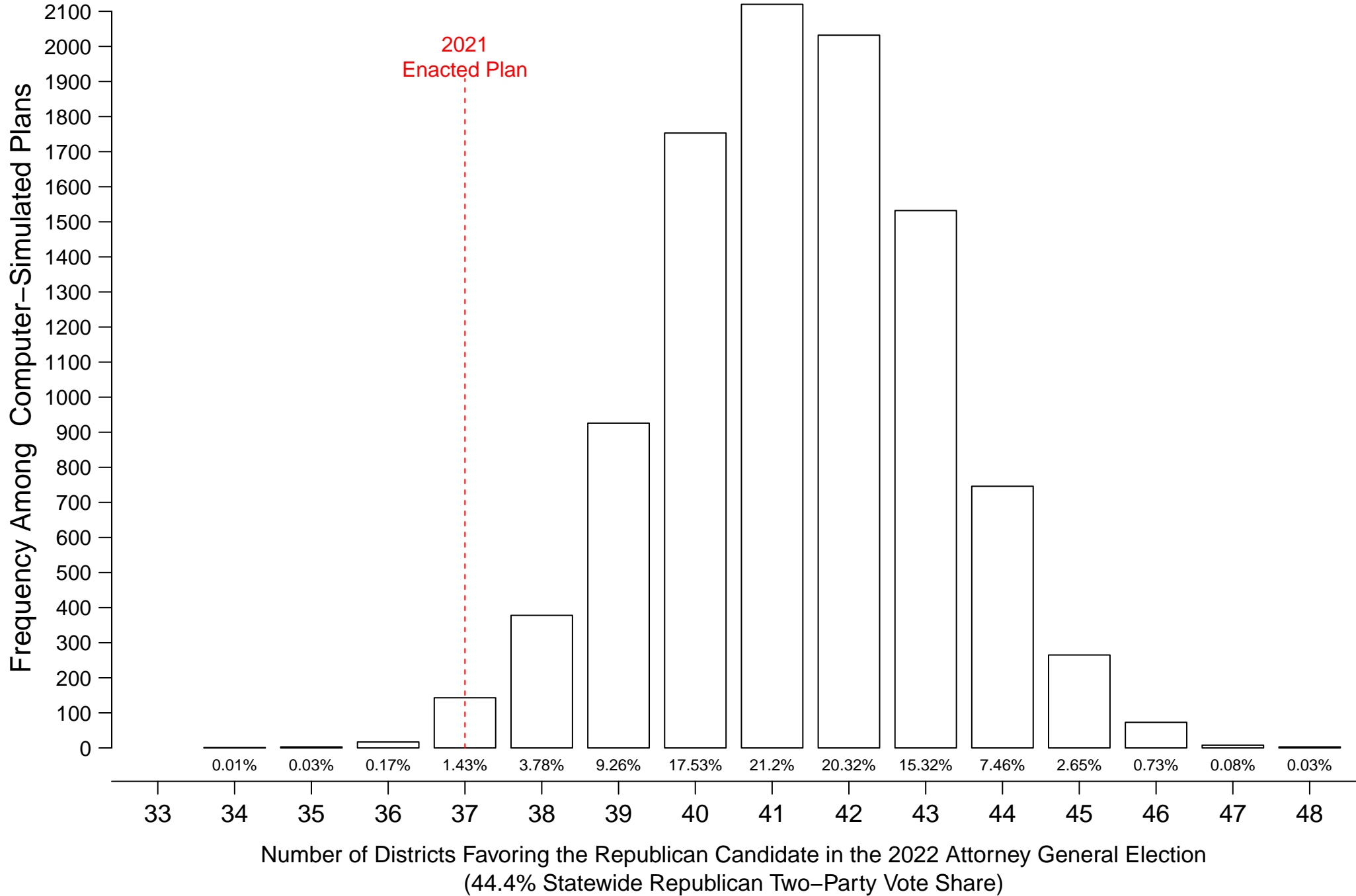
**Figure A10: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2020 US President Election  
(41.3% Statewide Republican Two-Party Vote Share)**



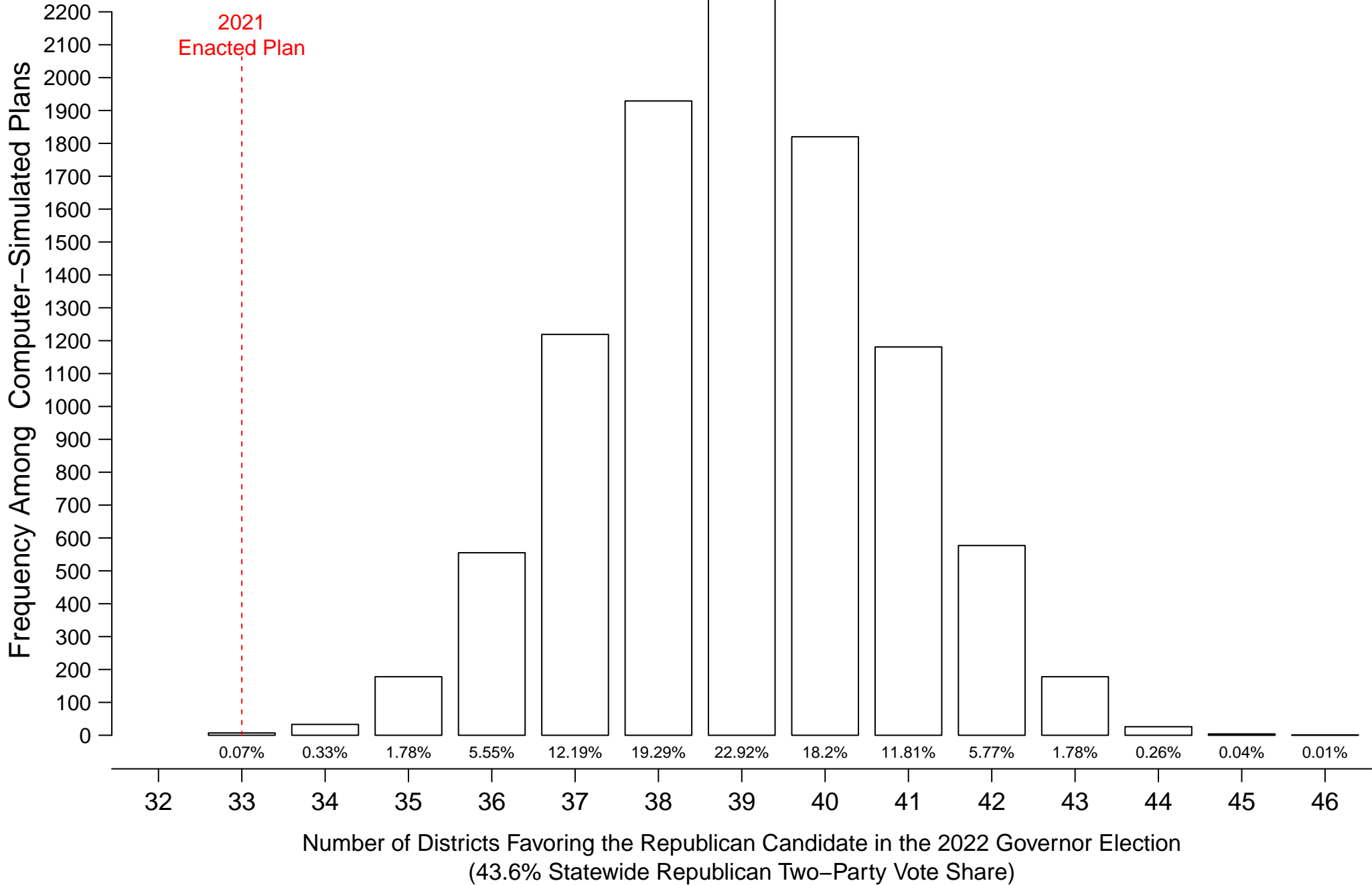
**Figure A11: Comparison of Enacted Plan to Computer-Simulated Plans:  
 Number of Districts Favoring the Republican Candidate in the 2020 US Senate Election  
 (41.4% Statewide Republican Two-Party Vote Share)**



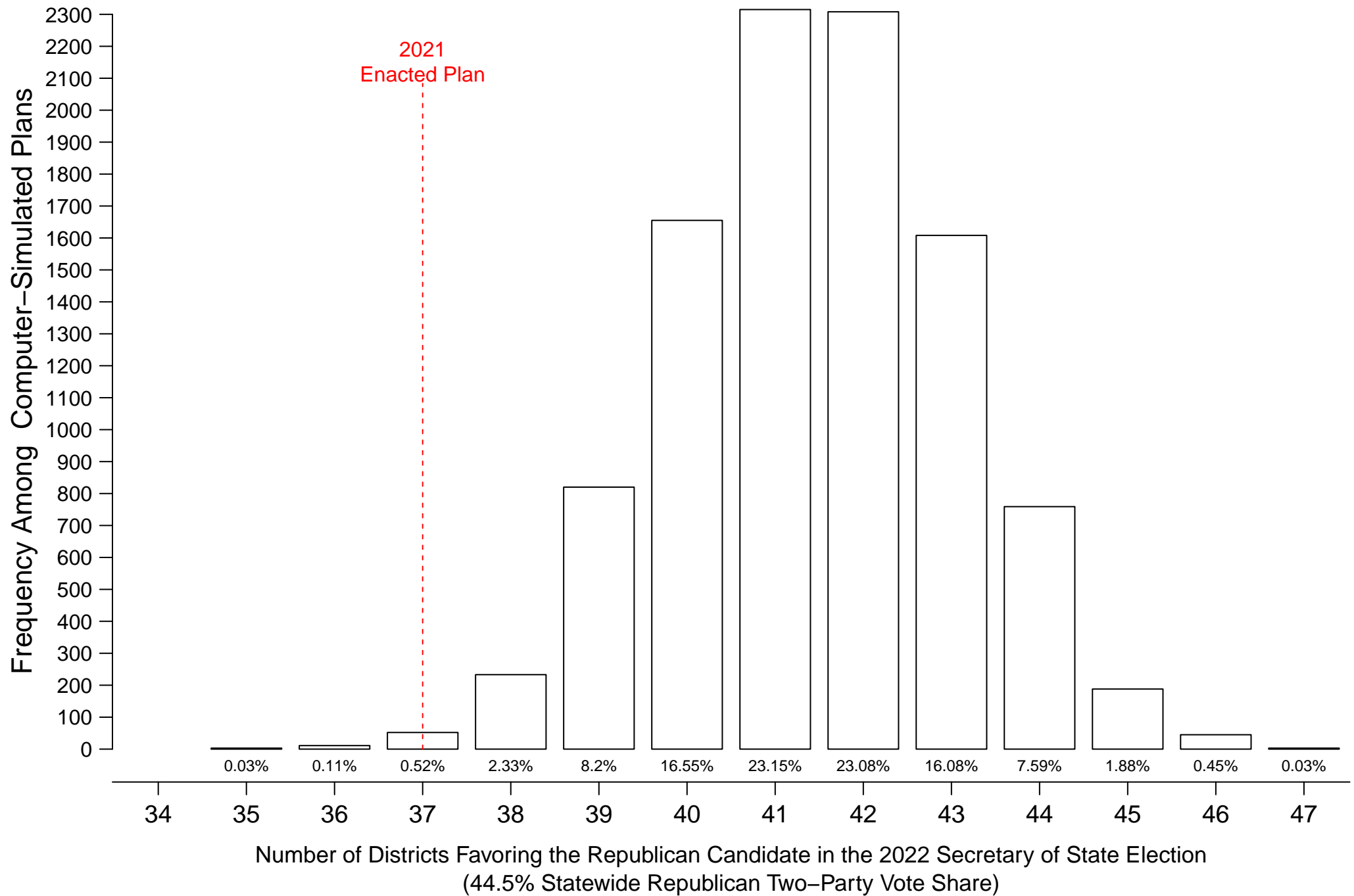
**Figure A12: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2022 Attorney General Election  
(44.4% Statewide Republican Two-Party Vote Share)**



**Figure A13: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2022 Governor Election  
(43.6% Statewide Republican Two-Party Vote Share)**

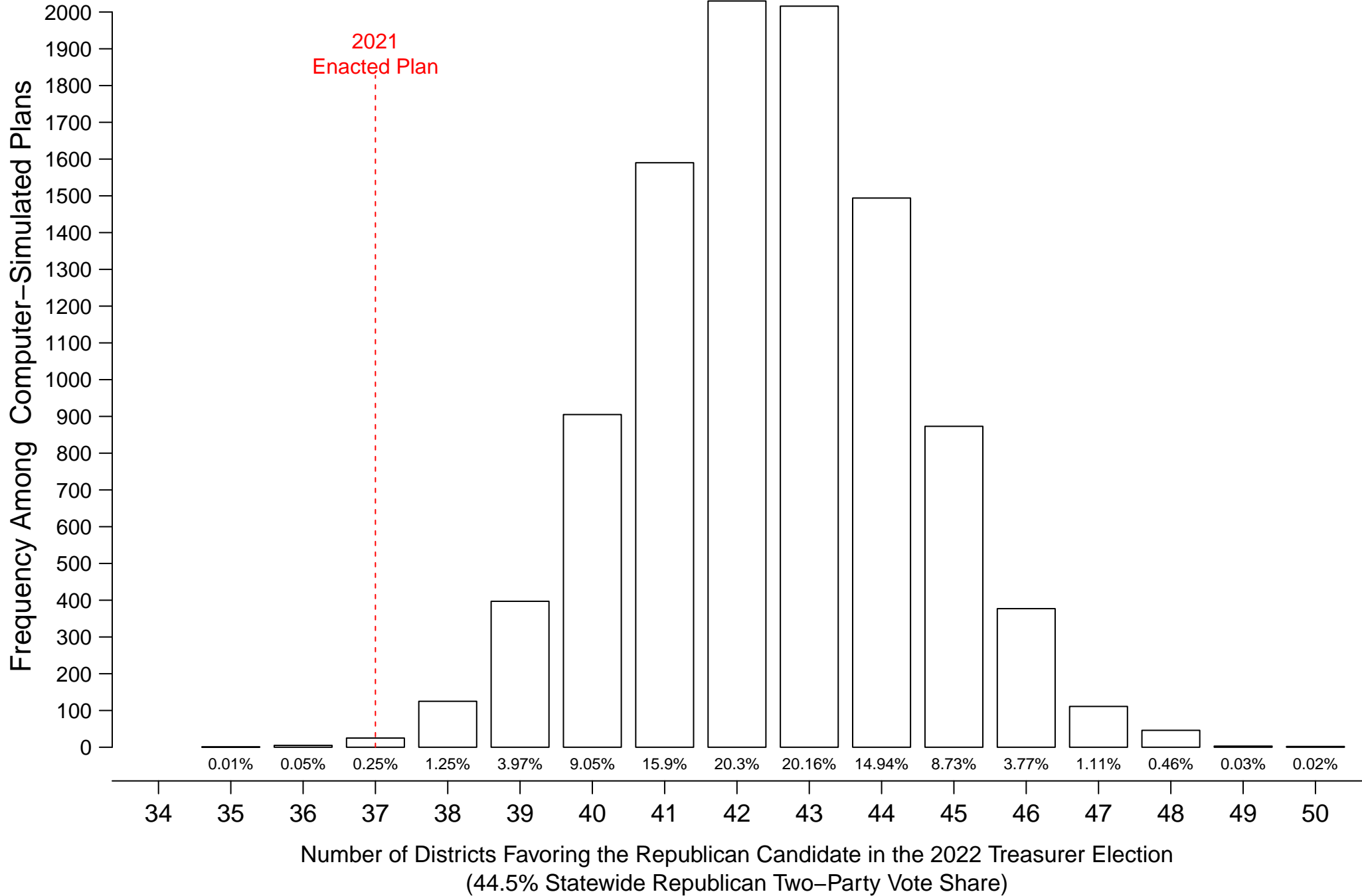


**Figure A14: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2022 Secretary of State Election  
(44.5% Statewide Republican Two-Party Vote Share)**

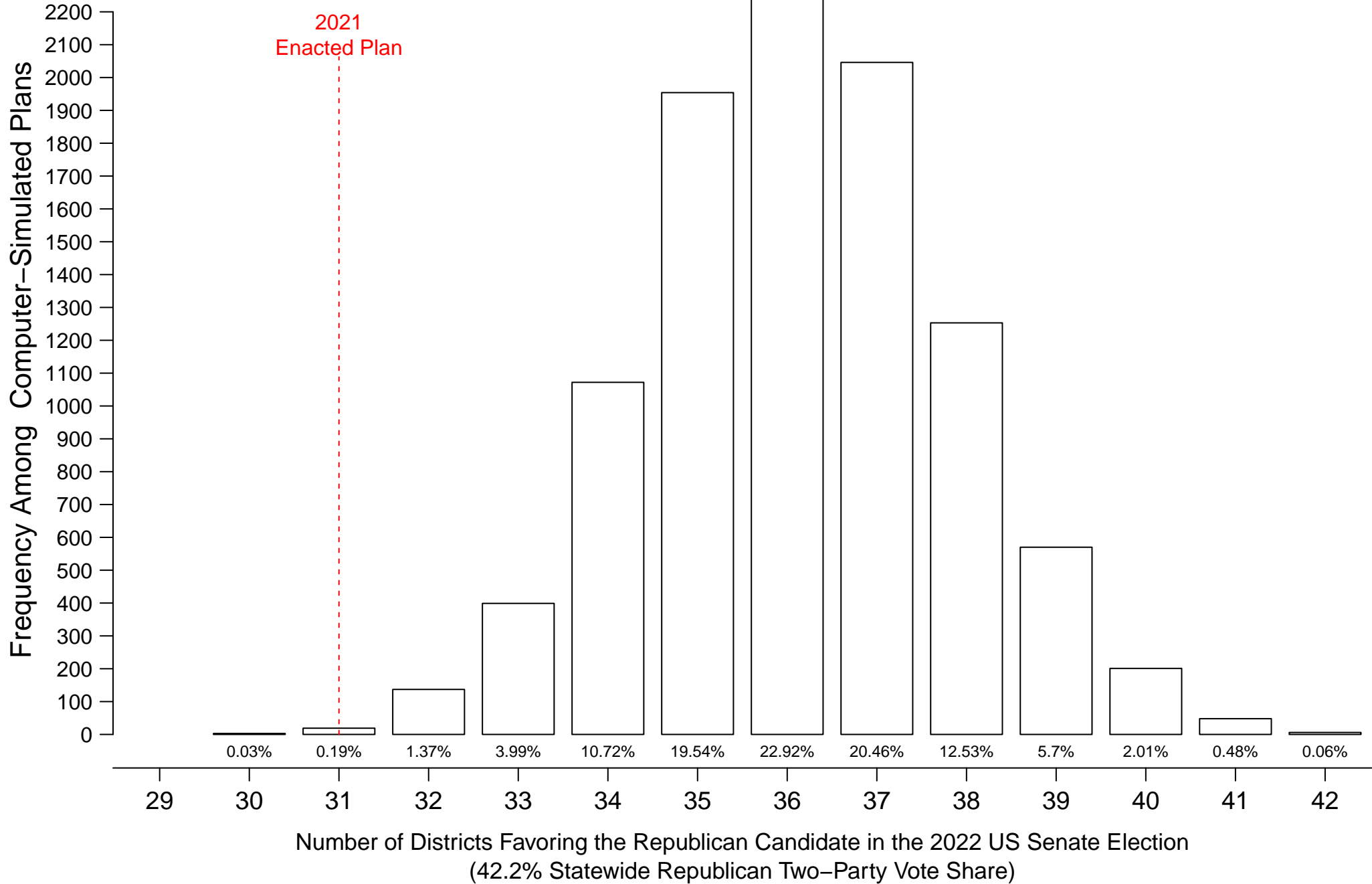




**Figure A15: Comparison of Enacted Plan to Computer-Simulated Plans:  
Number of Districts Favoring the Republican Candidate in the 2022 Treasurer Election  
(44.5% Statewide Republican Two-Party Vote Share)**



**Figure A16: Comparison of Enacted Plan to Computer-Simulated Plans:  
 Number of Districts Favoring the Republican Candidate in the 2022 US Senate Election  
 (42.2% Statewide Republican Two-Party Vote Share)**



## **Appendix B:**

**Figure B1:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 US Senate Election Results**

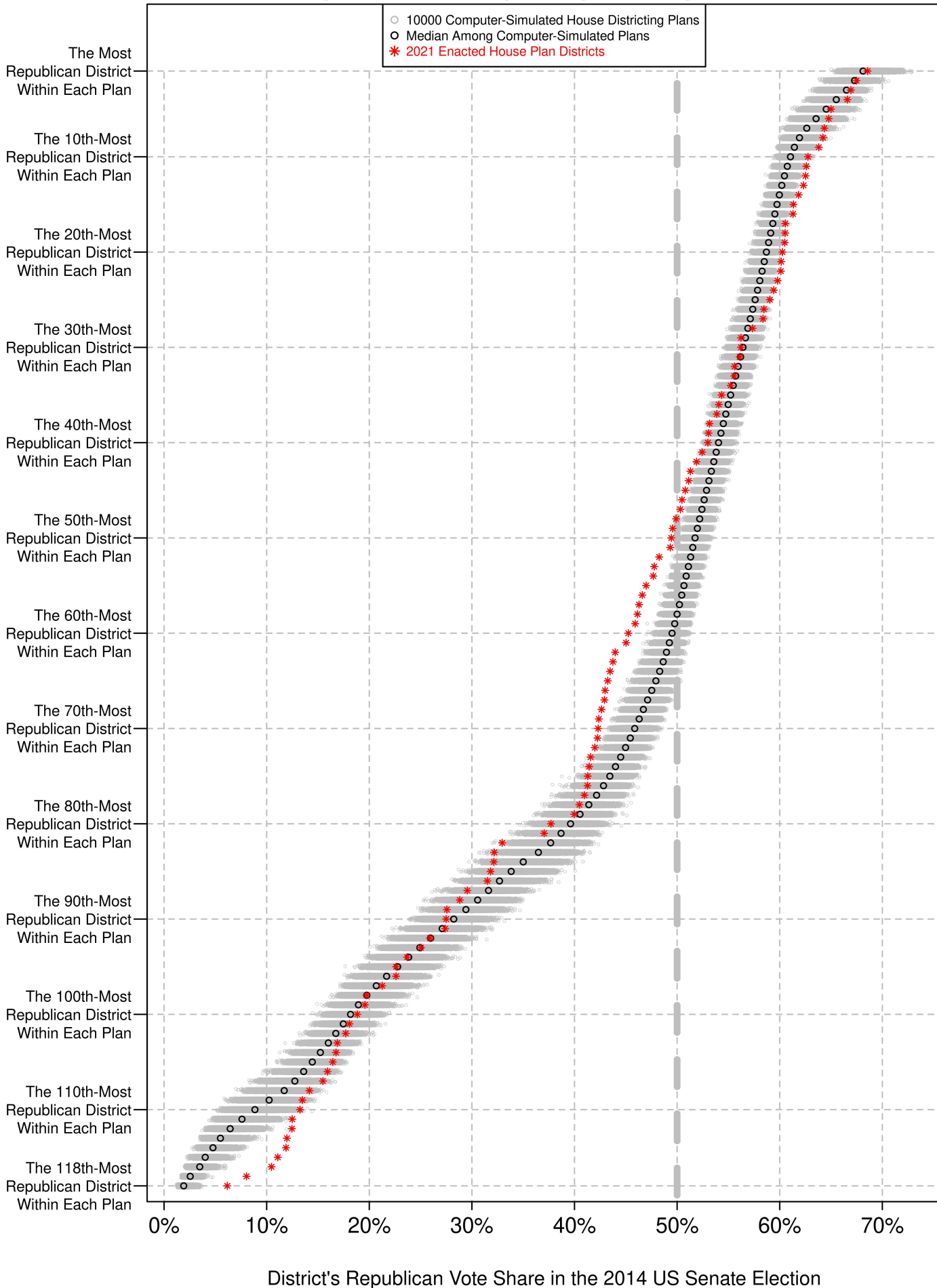
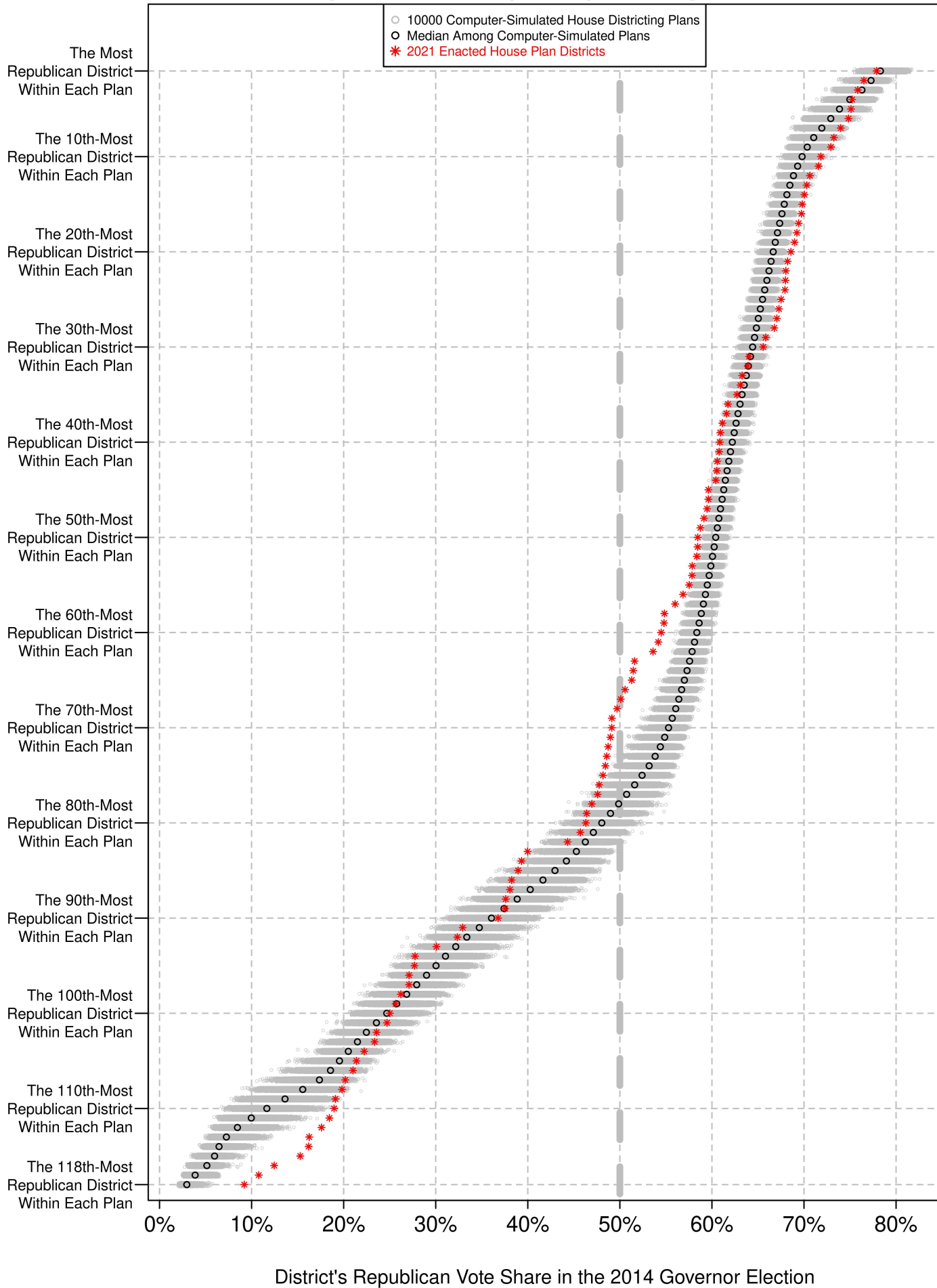


Figure B2:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Governor Election Results



District's Republican Vote Share in the 2014 Governor Election

Figure B3:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Comptroller Election Results

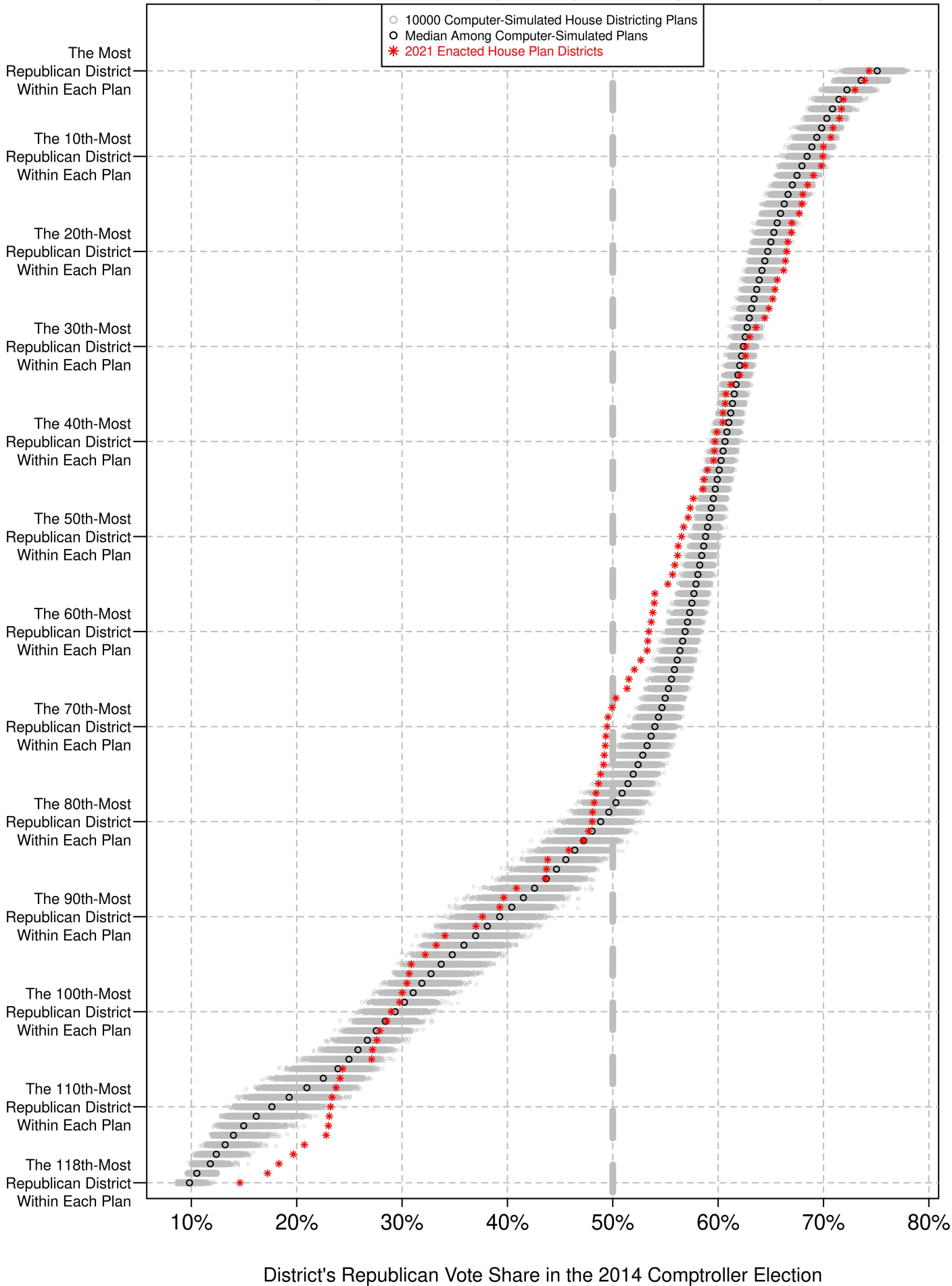
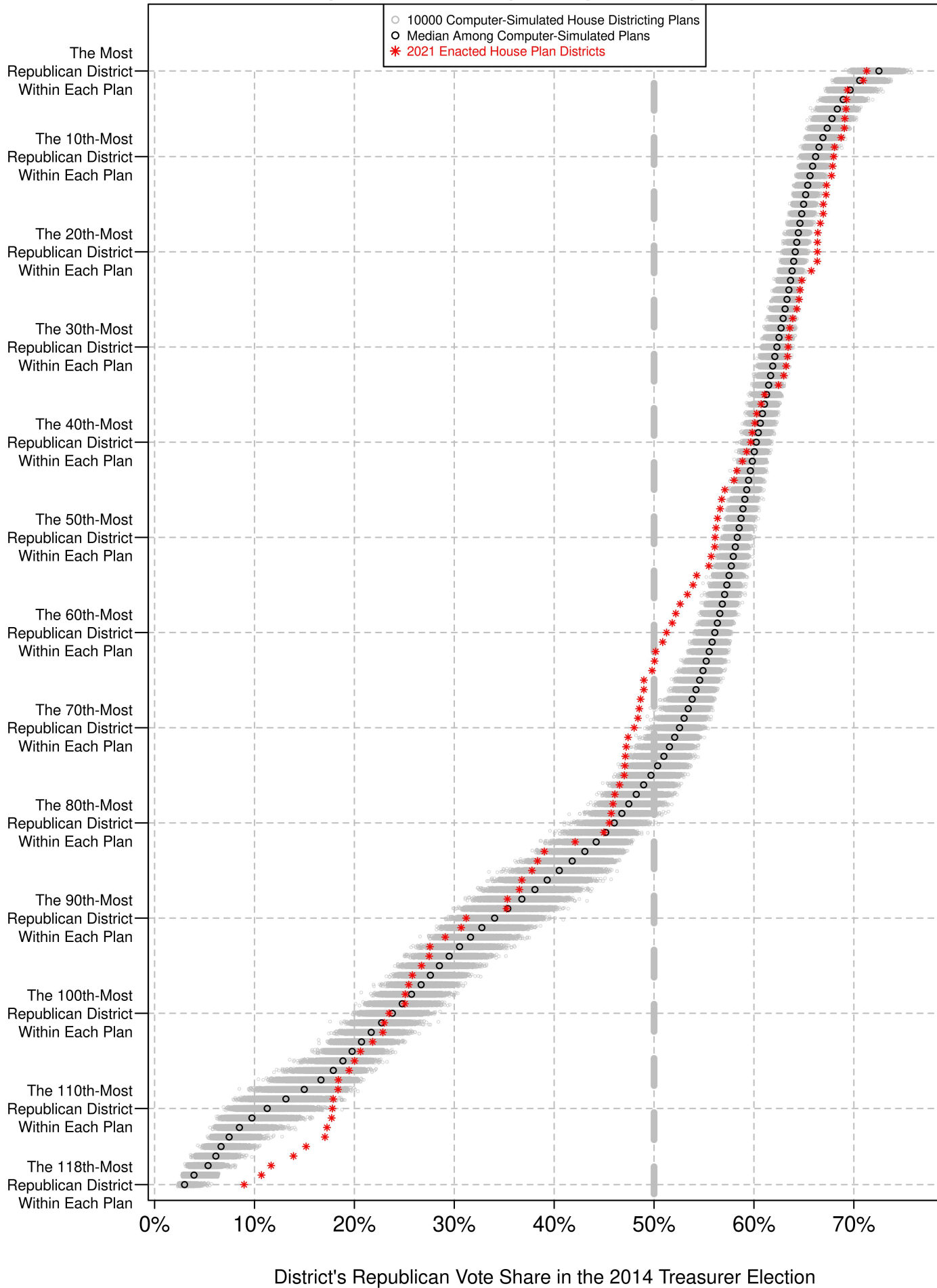
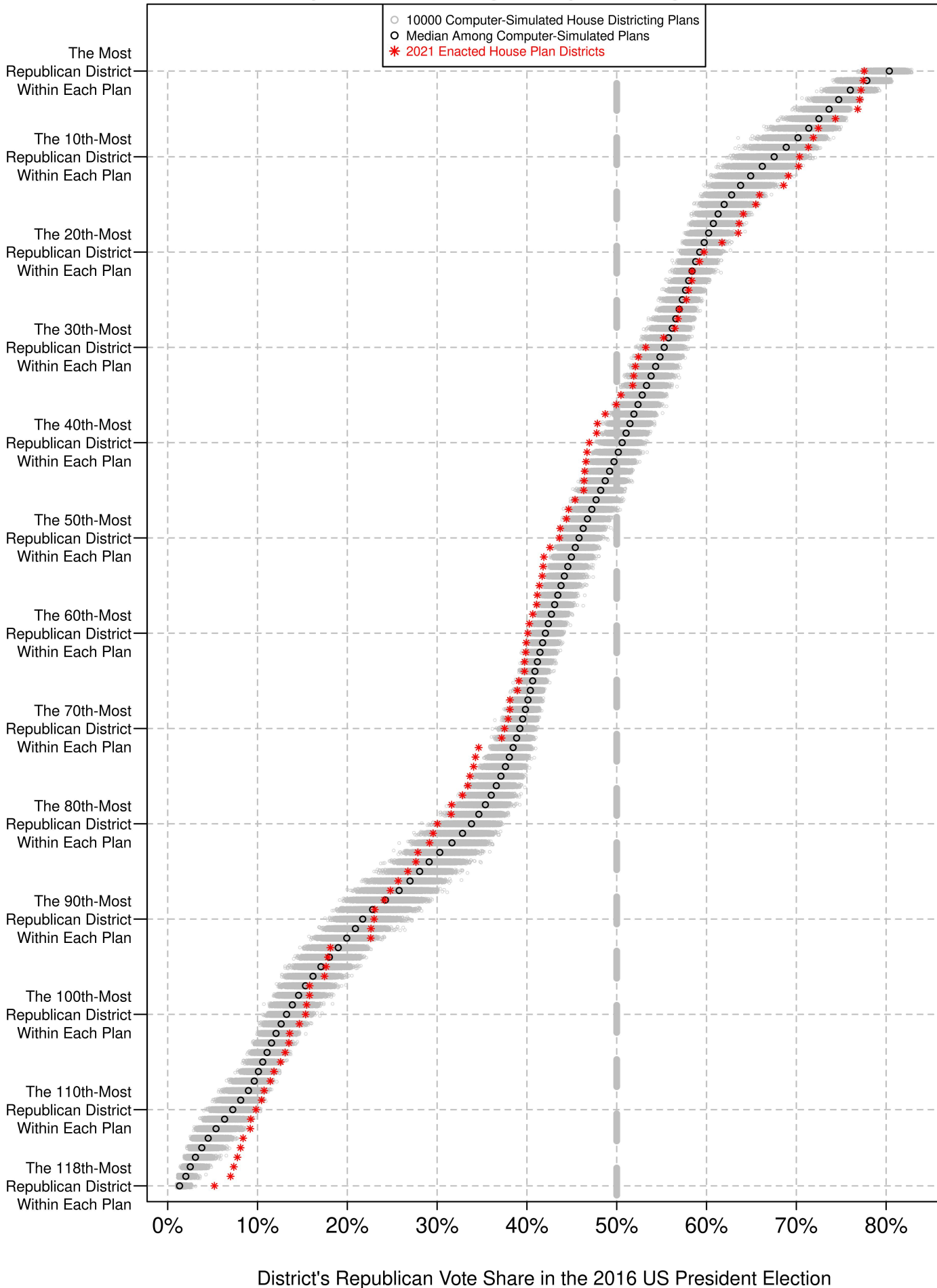


Figure B4:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Treasurer Election Results



### Figure B5: 2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 US President Election Results





**Figure B6:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 US Senate Election Results**

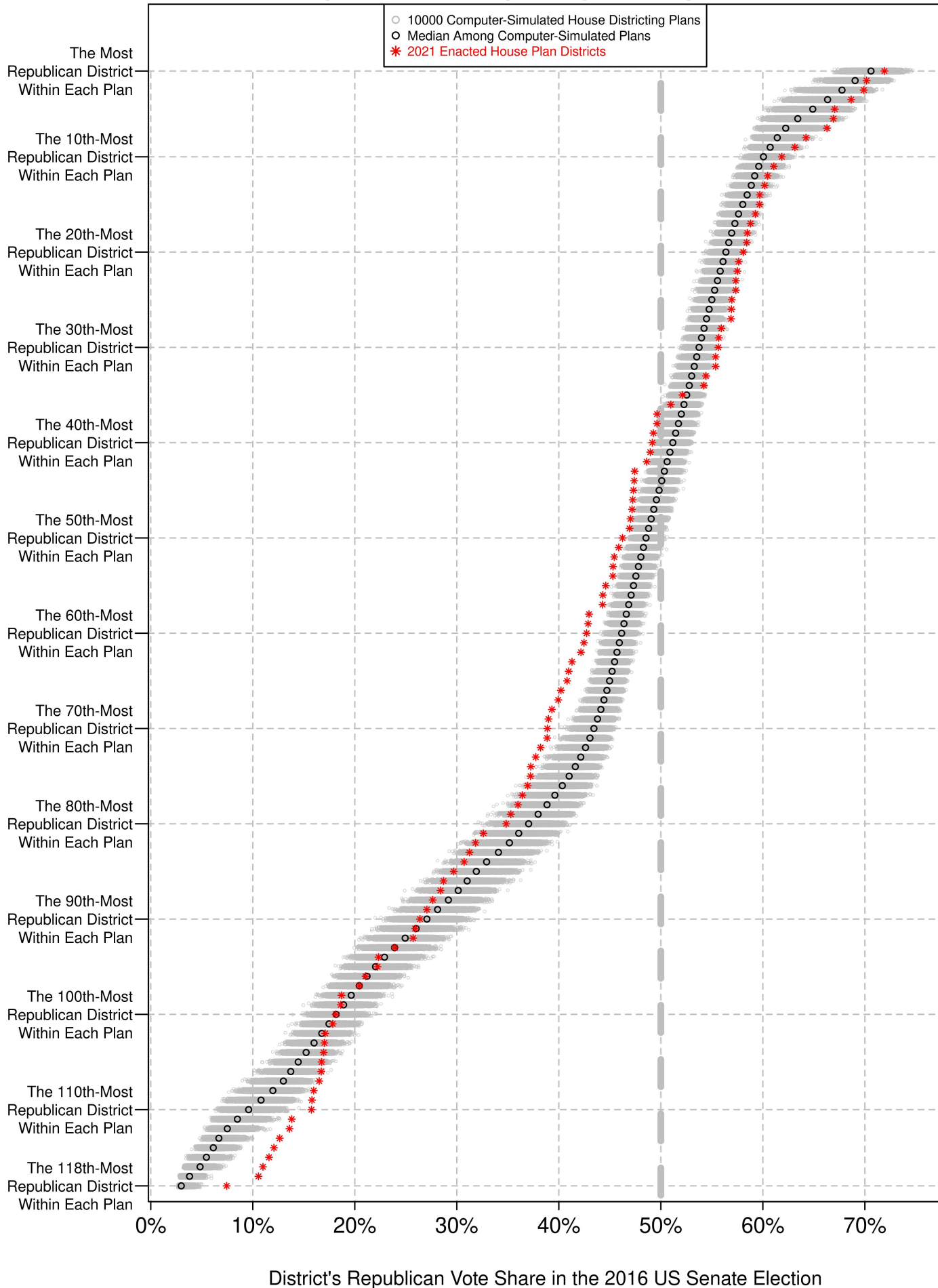
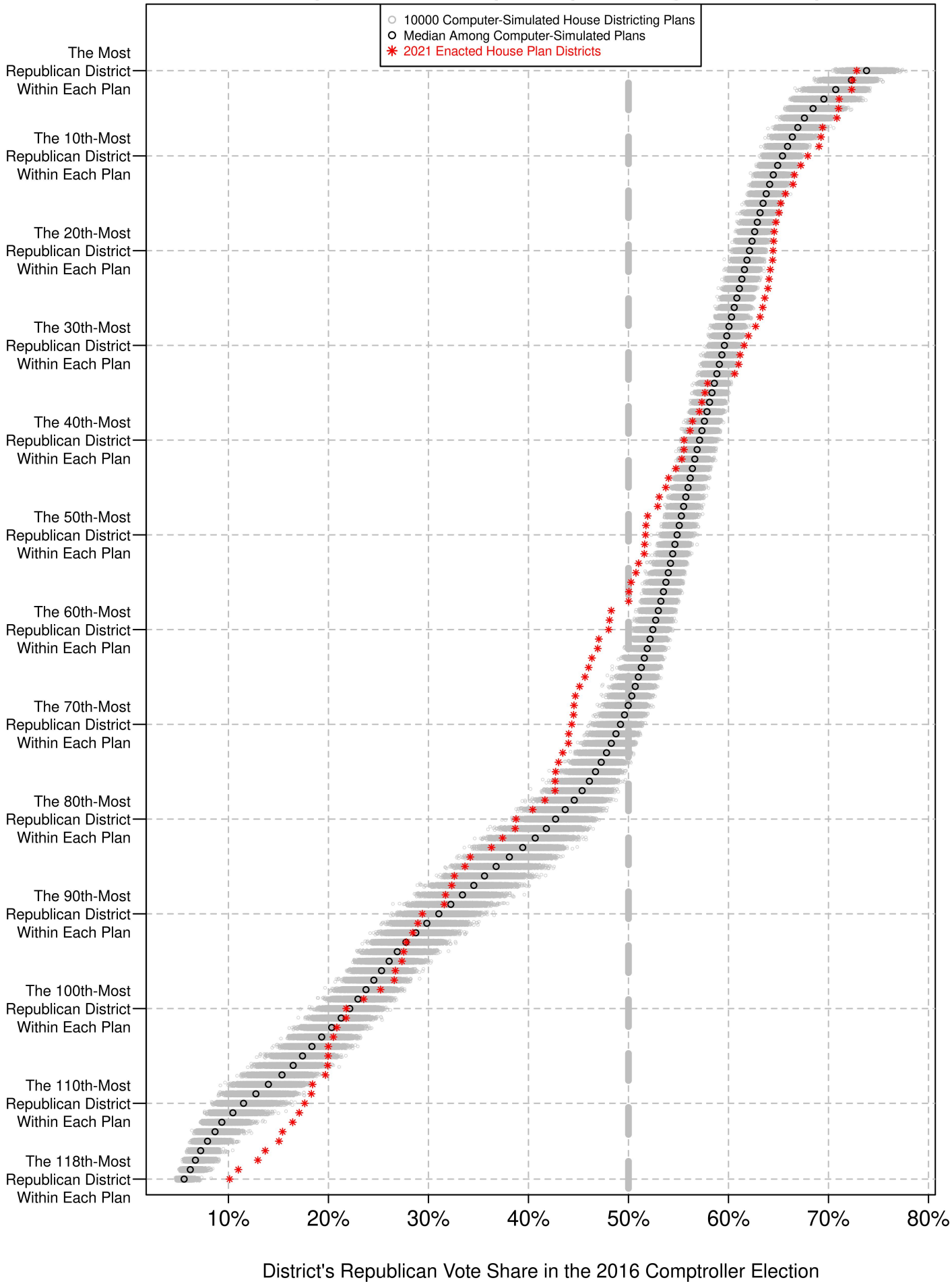


Figure B7:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 Comptroller Election Results



**Figure B8:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2018 Governor Election Results**

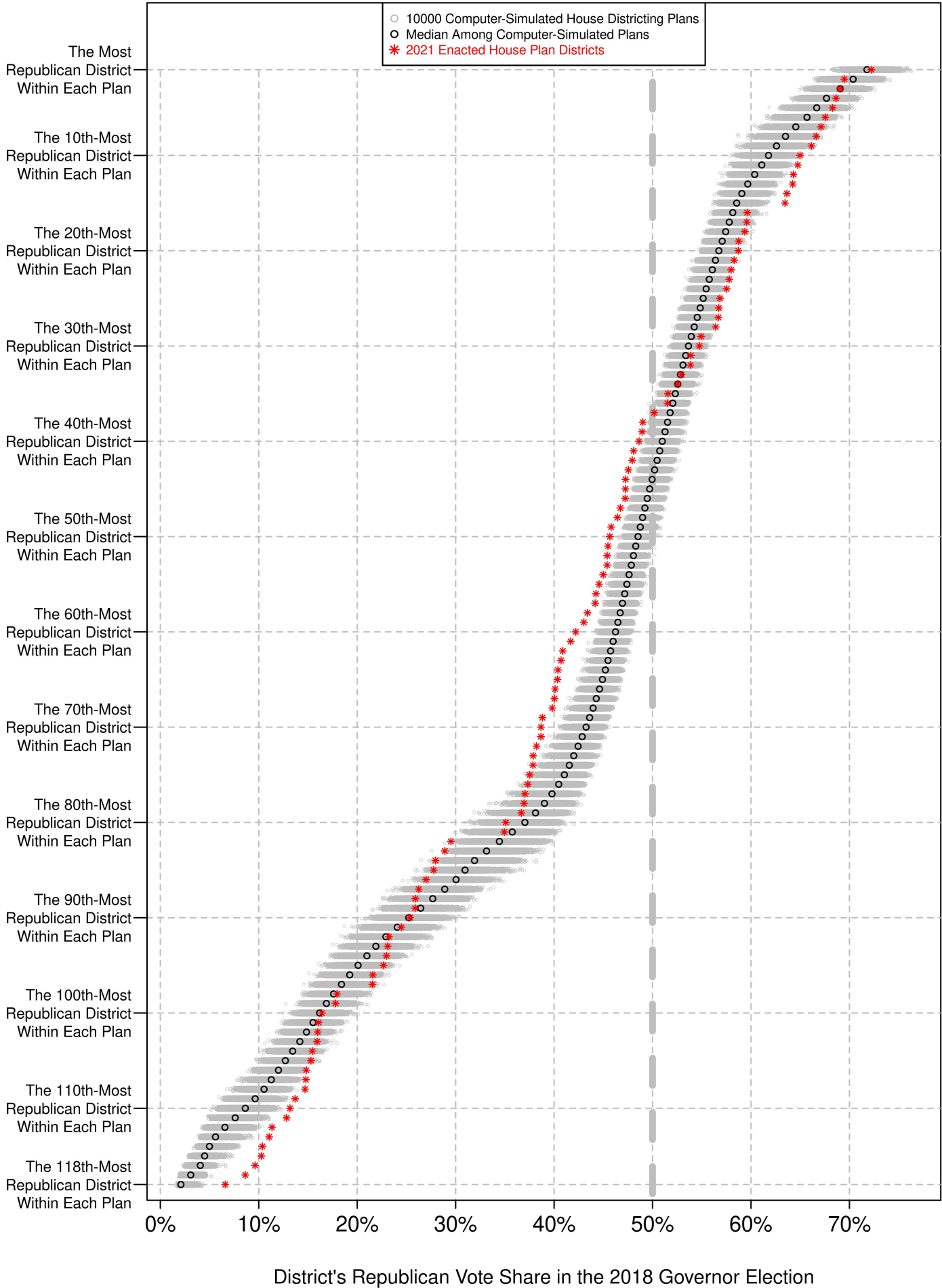
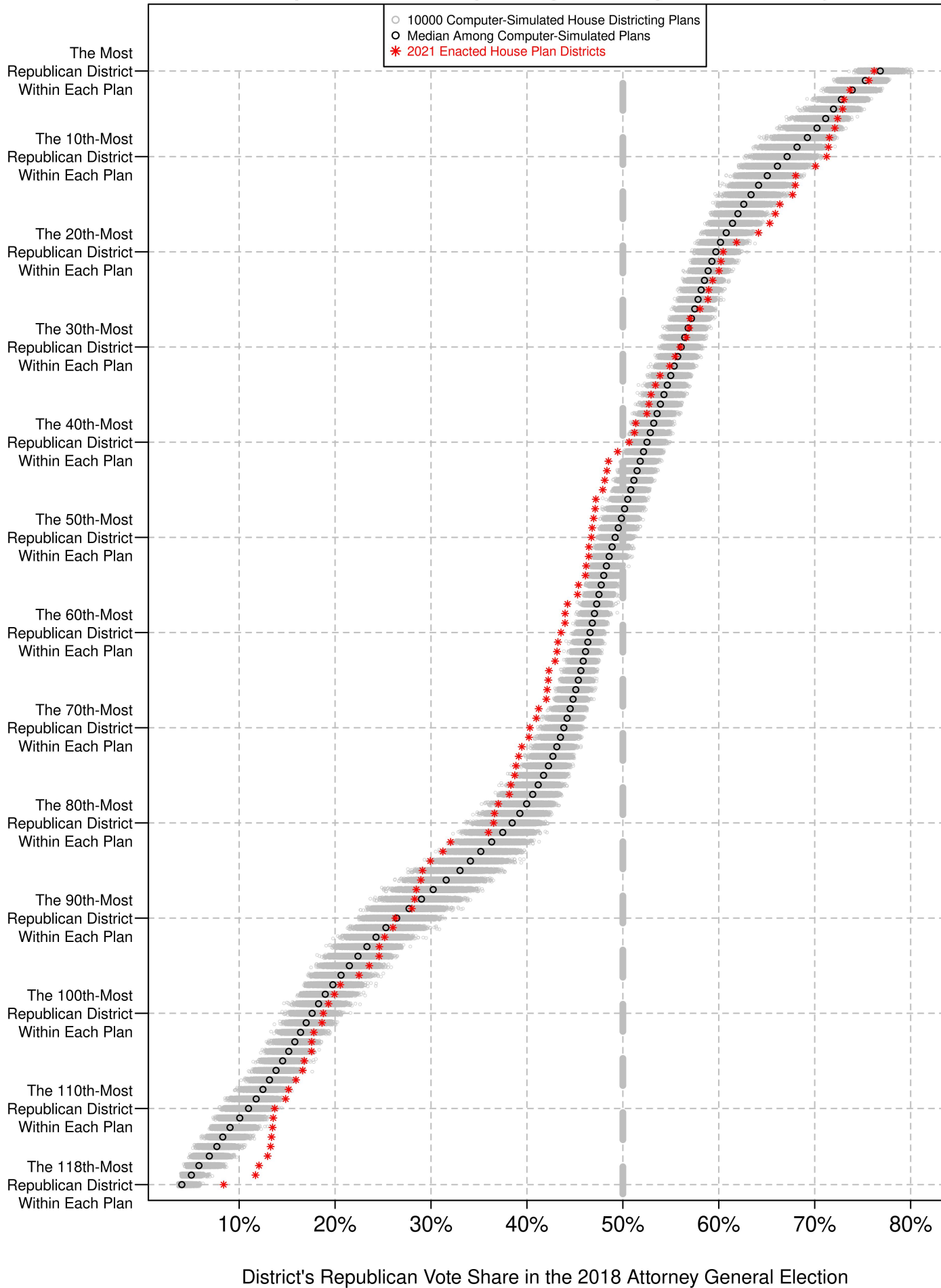
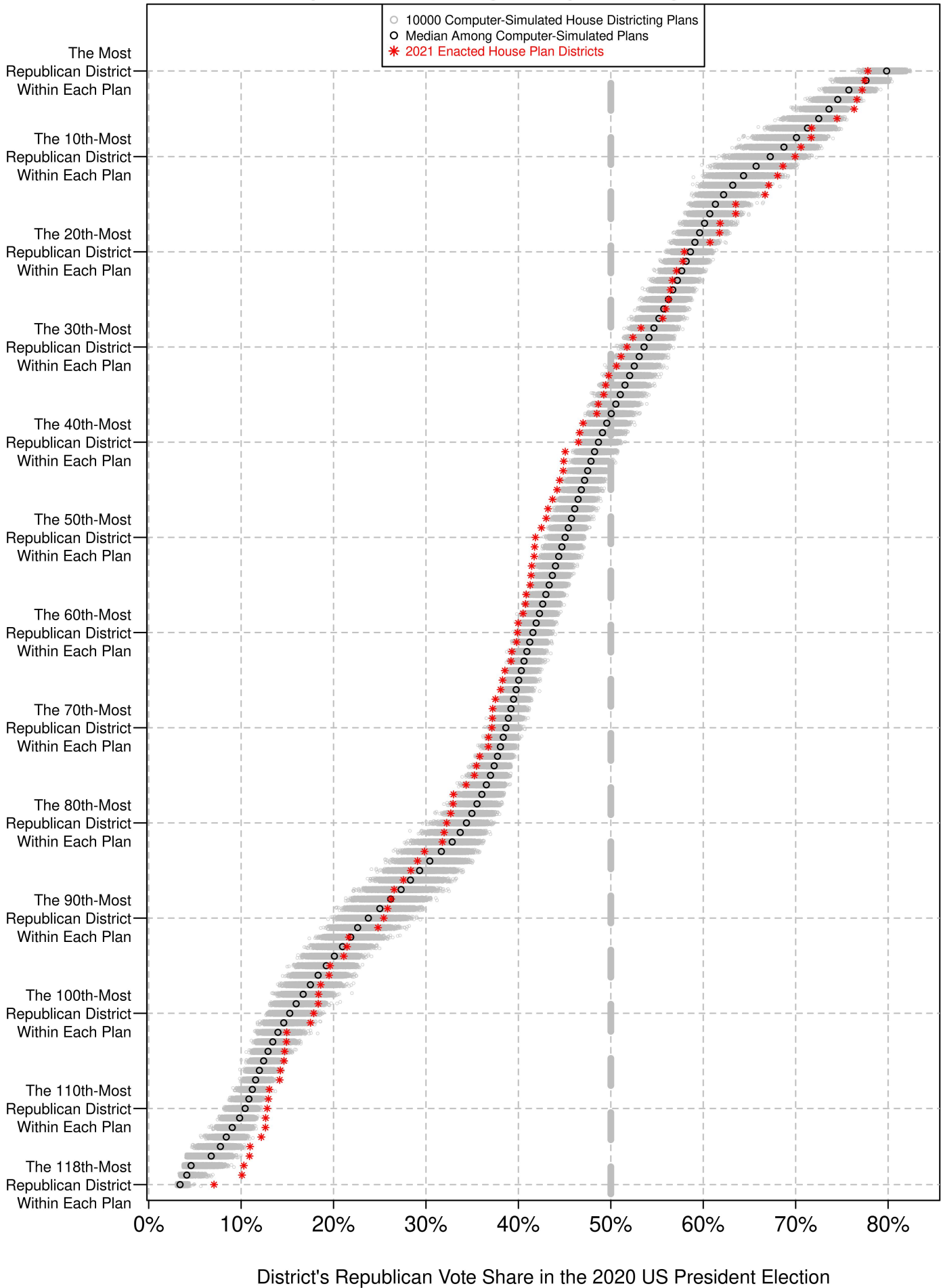


Figure B9:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2018 Attorney General Election Results



**Figure B10:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2020 US President Election Results**



**Figure B11:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2020 US Senate Election Results**

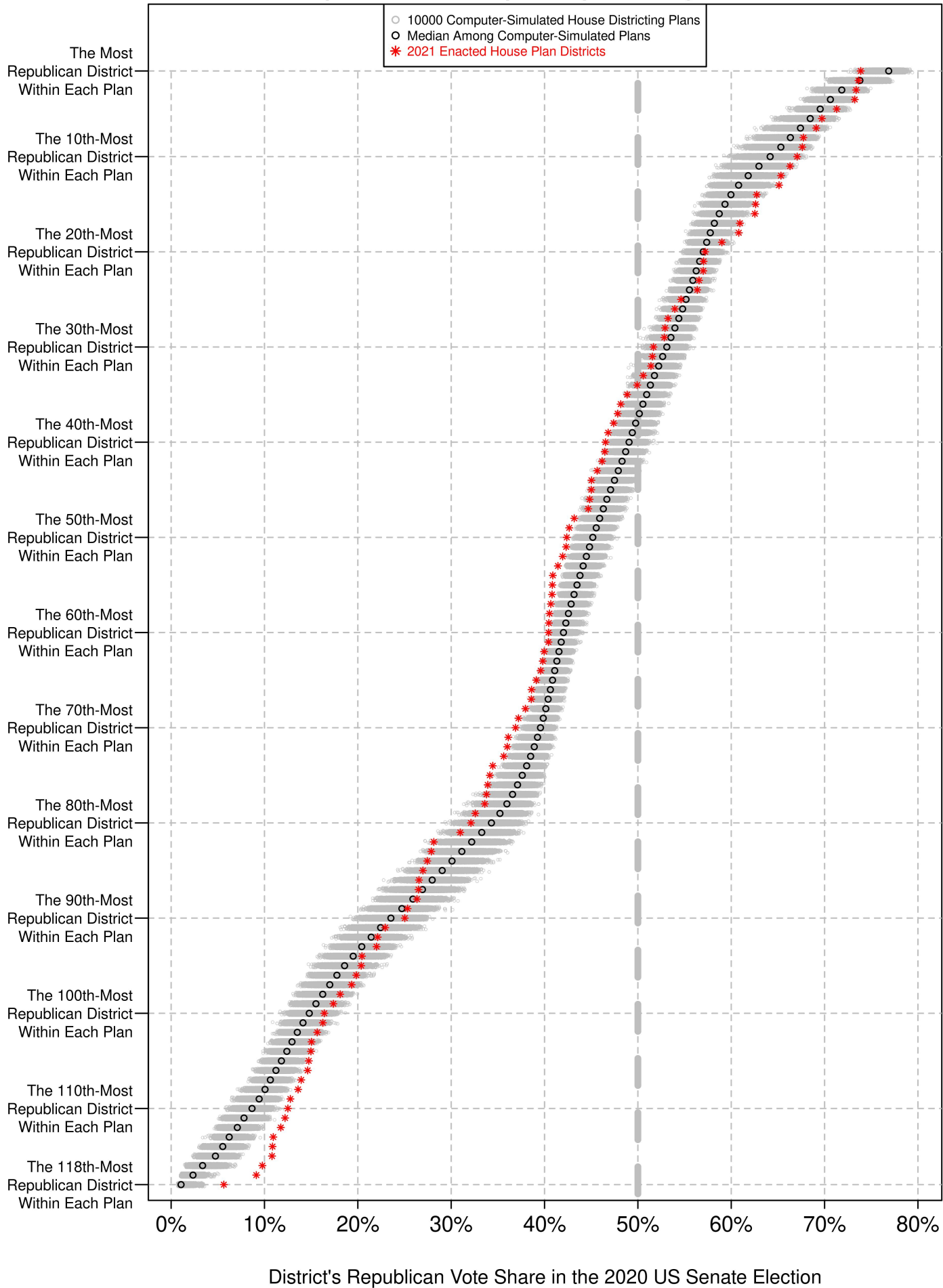
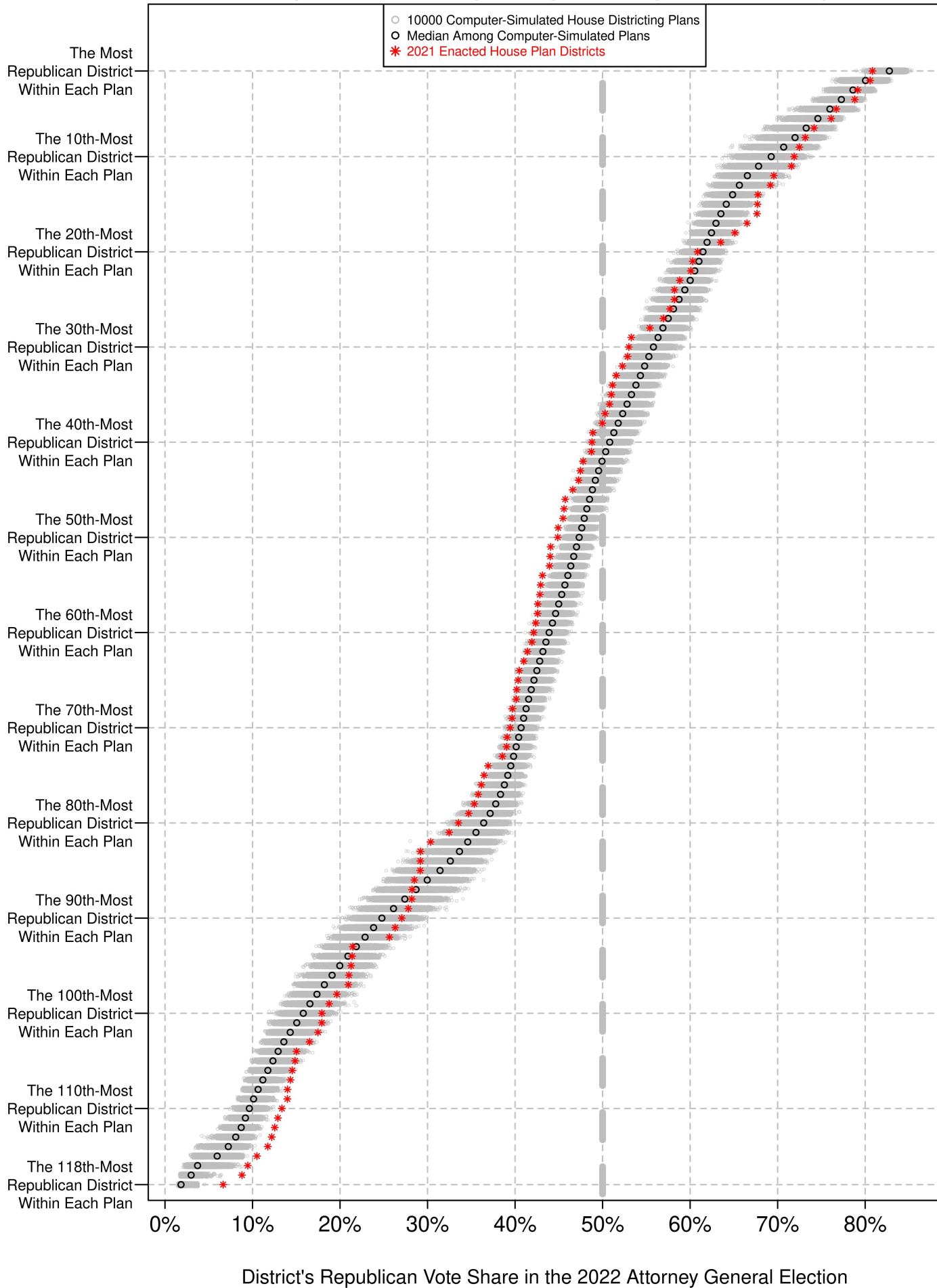




Figure B12:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Attorney General Election Results



**Figure B13:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Governor Election Results**

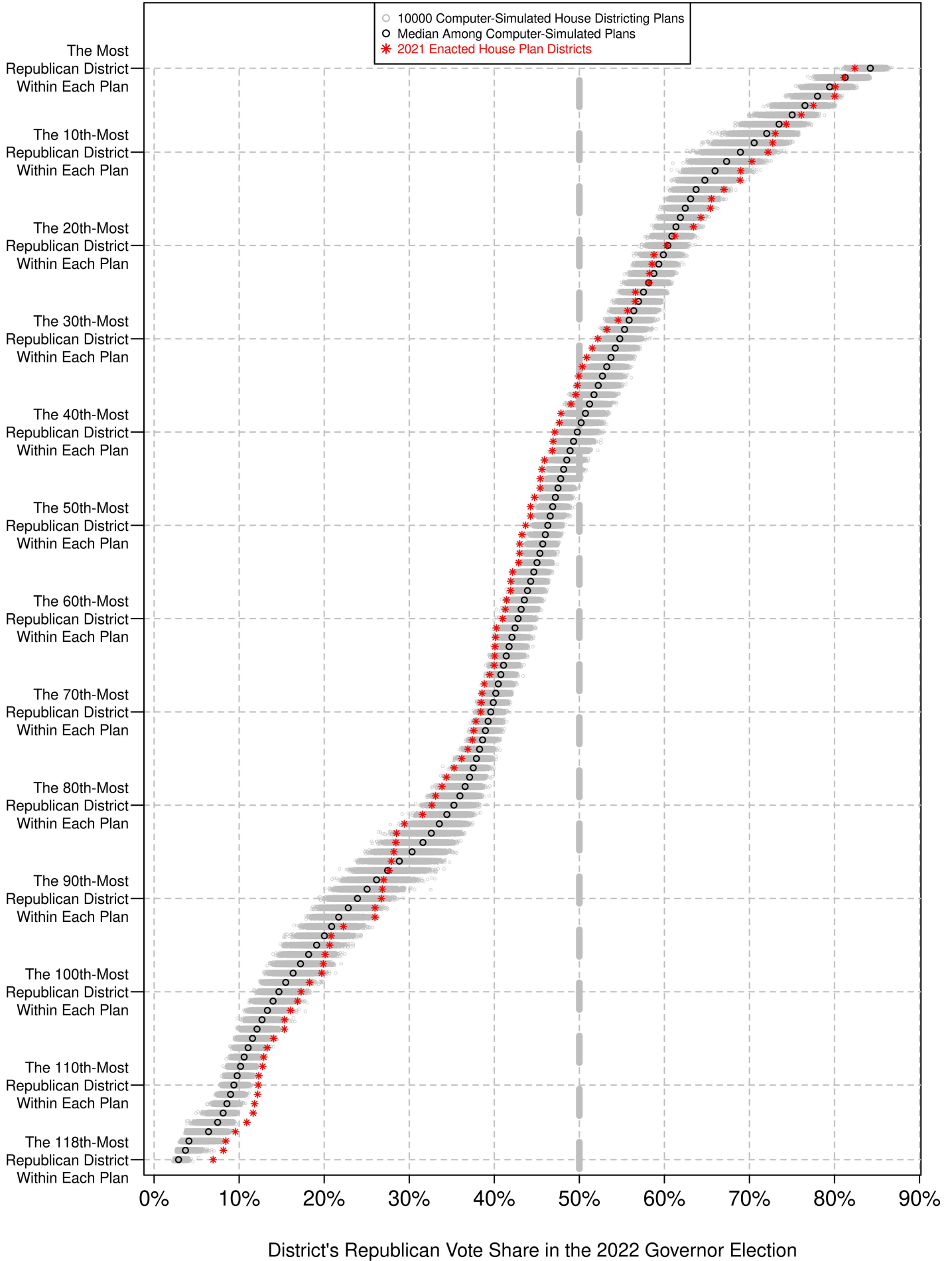
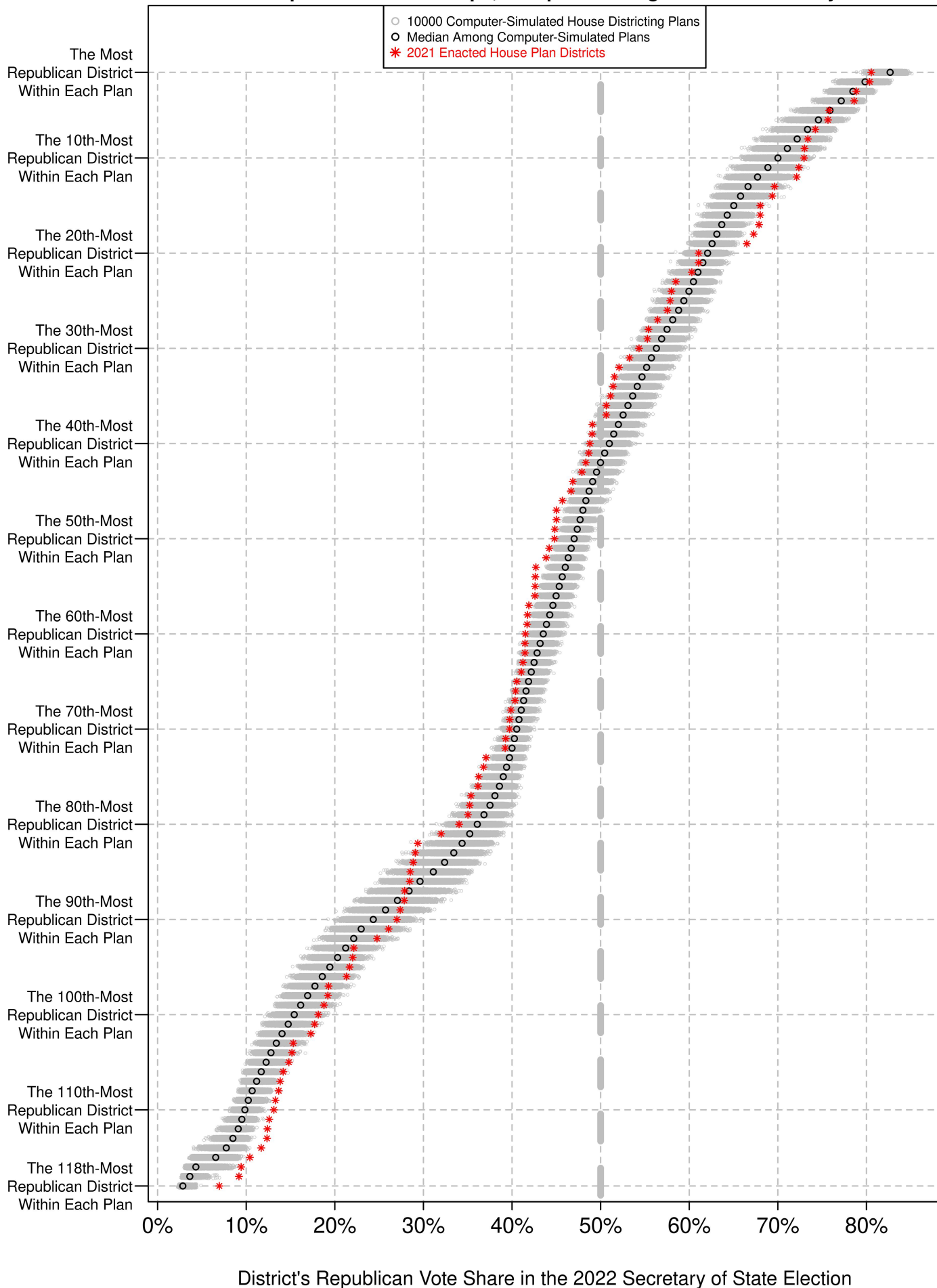




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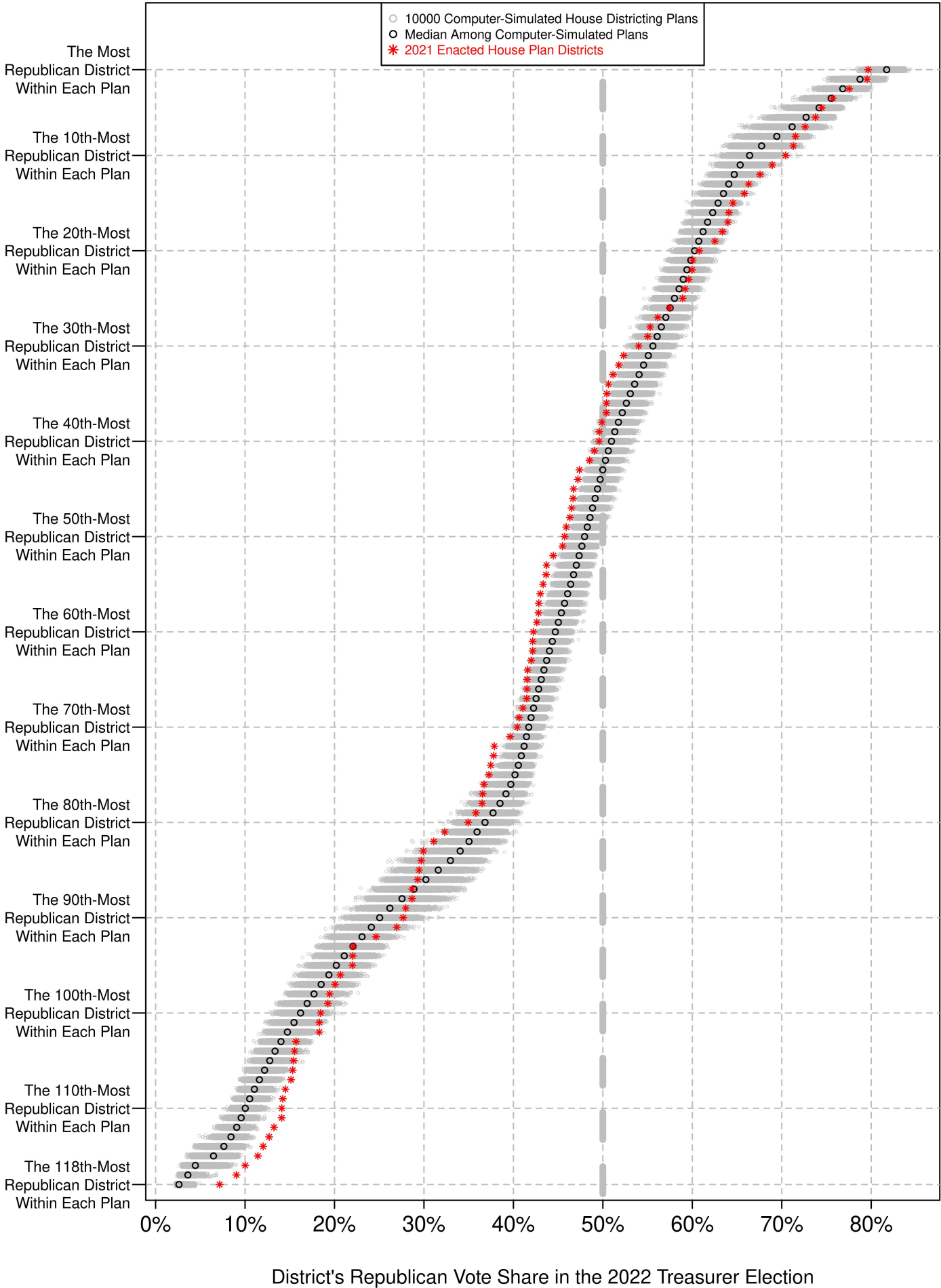
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Secretary of State Election Results



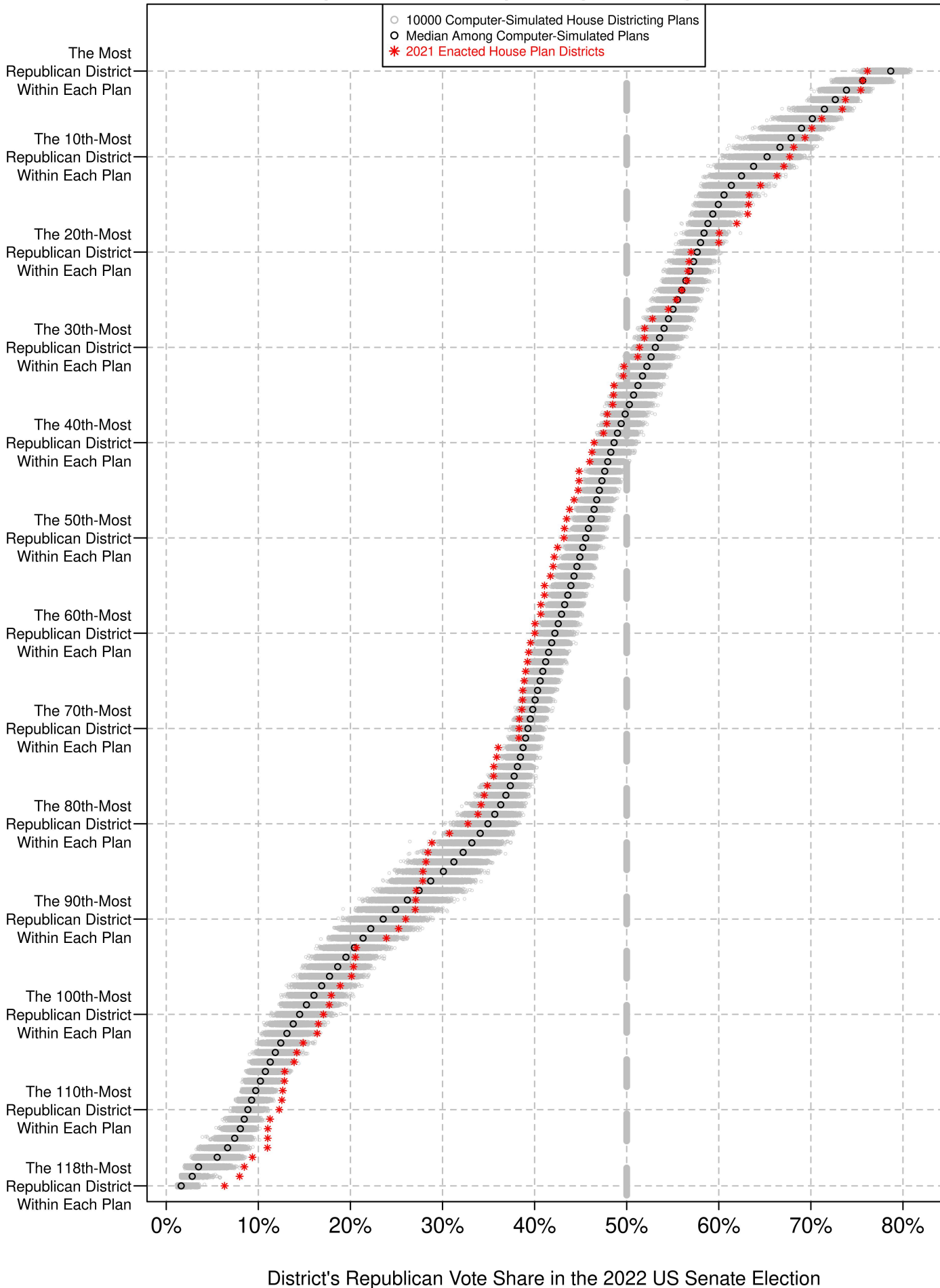
District's Republican Vote Share in the 2022 Secretary of State Election

Figure B15:

2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Treasurer Election Results

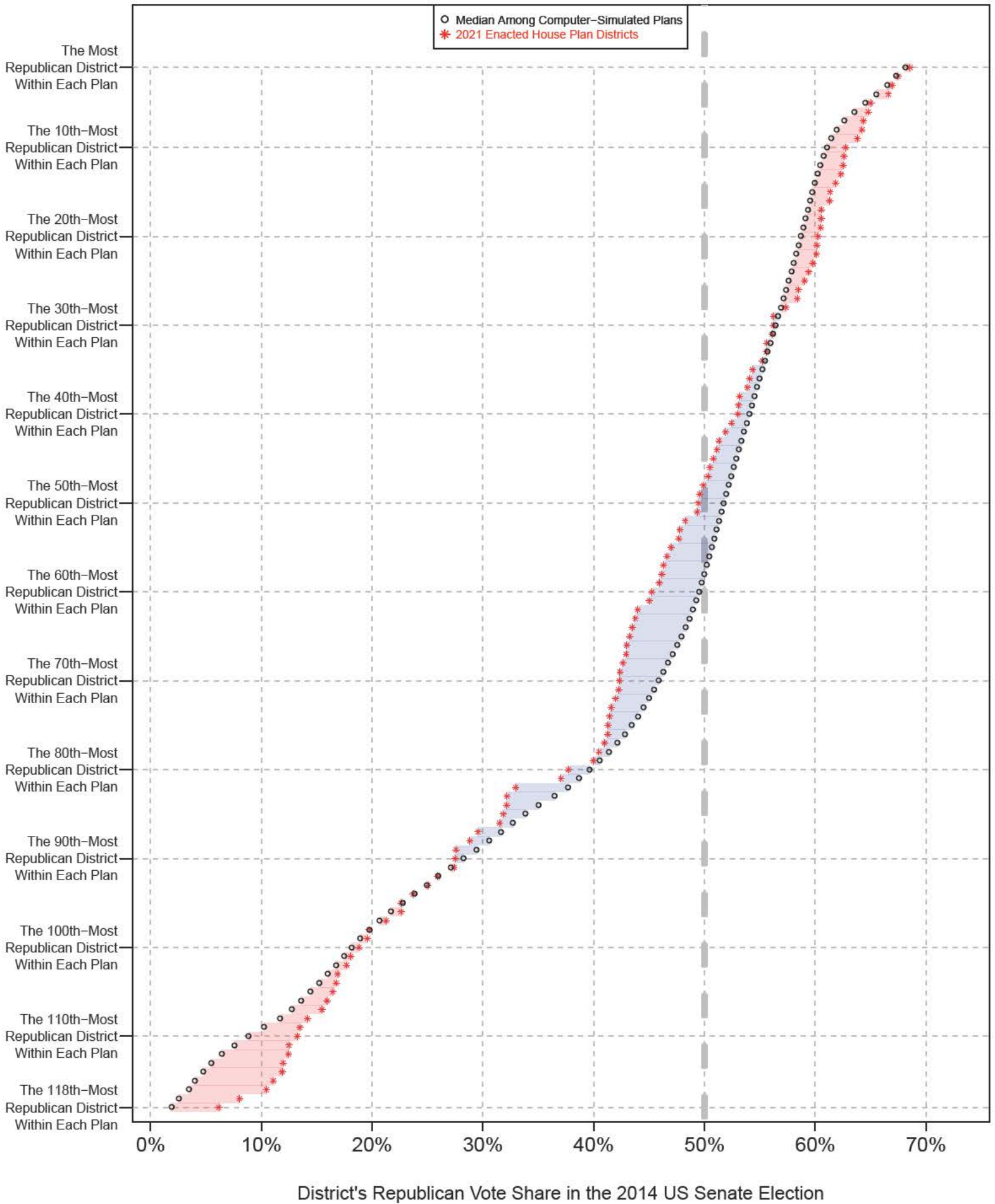


**Figure B16:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 US Senate Election Results**



## **Appendix C:**

**Figure C1:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 US Senate Election Results**



**Figure C2:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Governor Election Results**

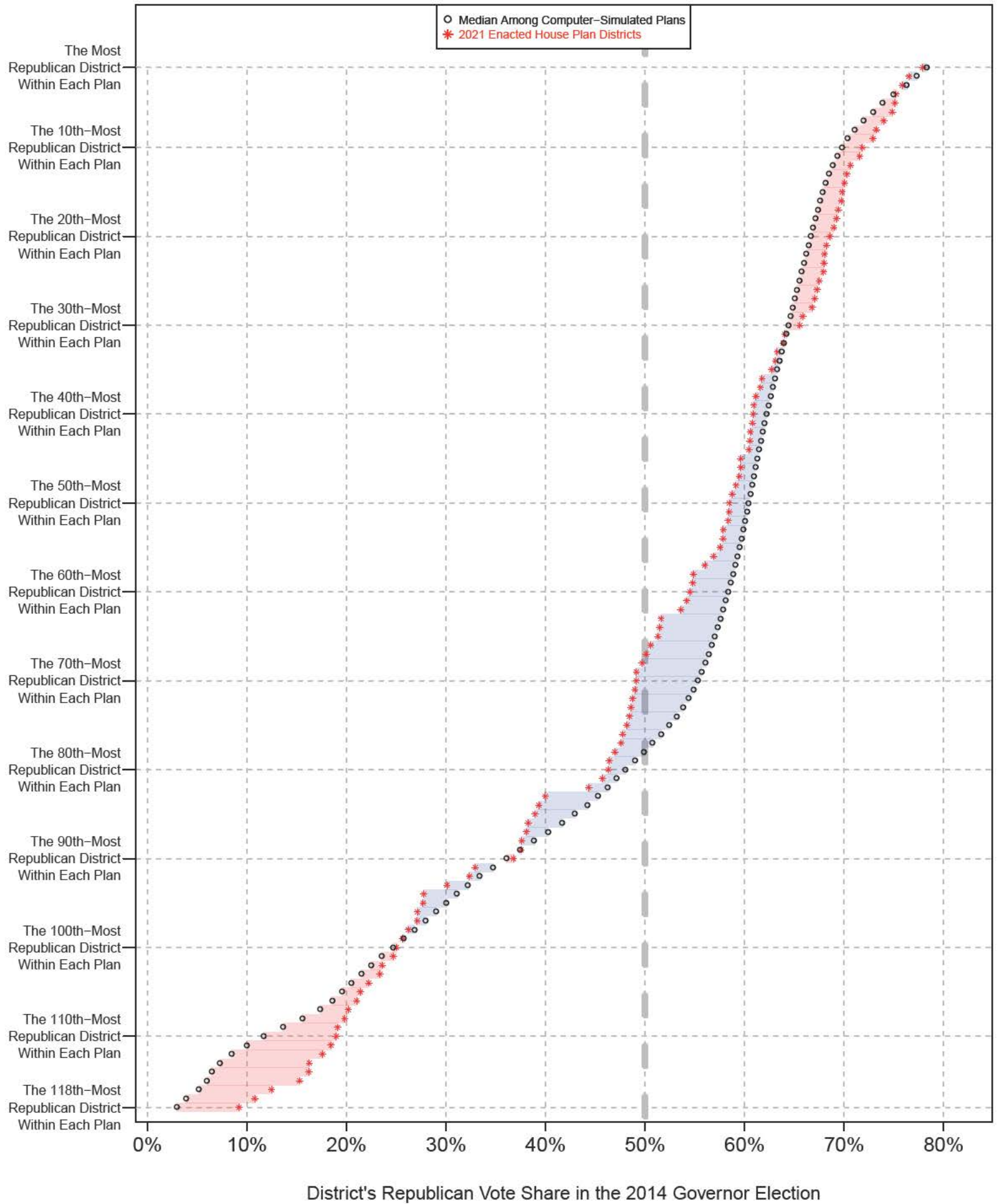
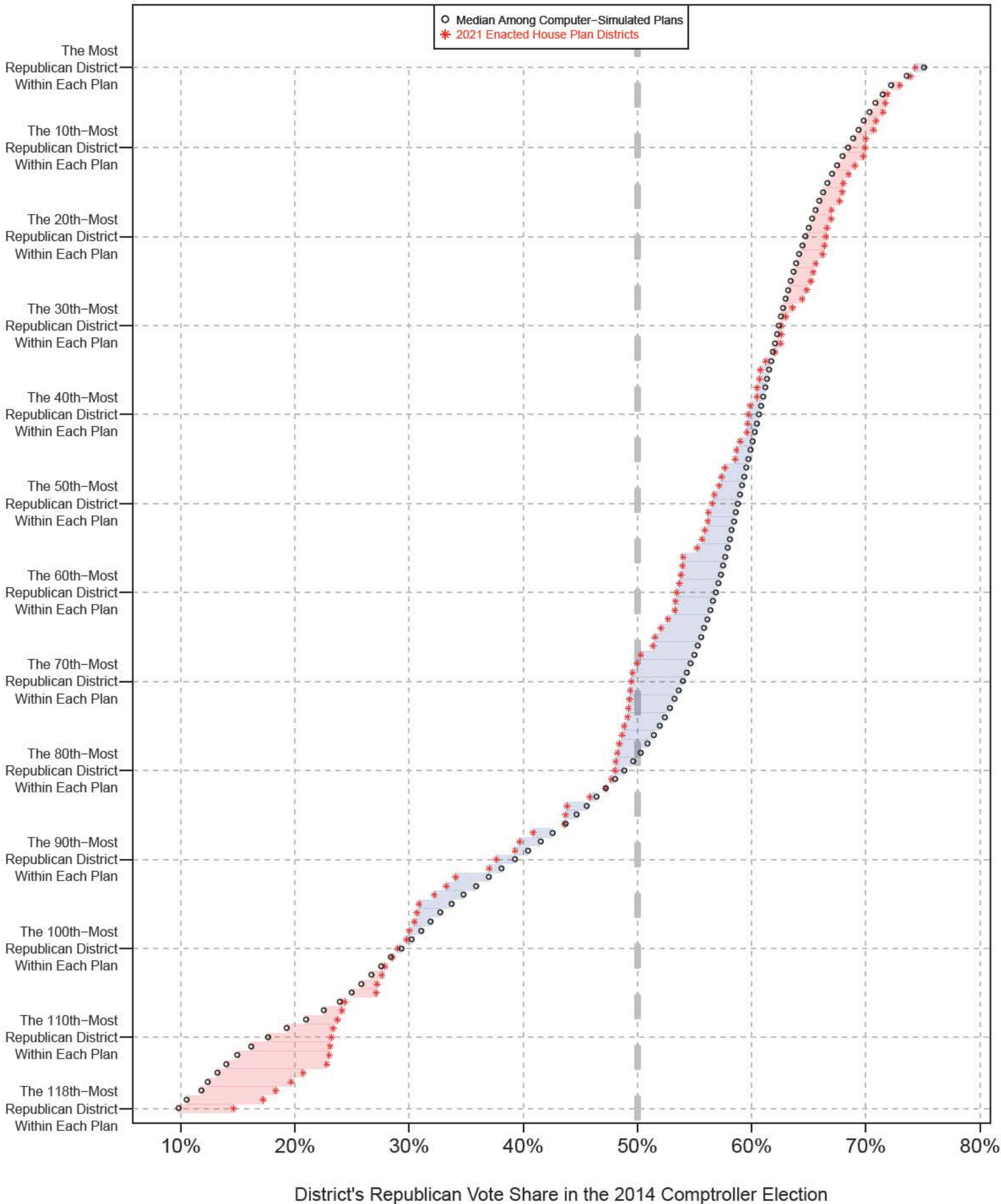




Figure C3:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Comptroller Election Results



**Figure C4:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2014 Treasurer Election Results**

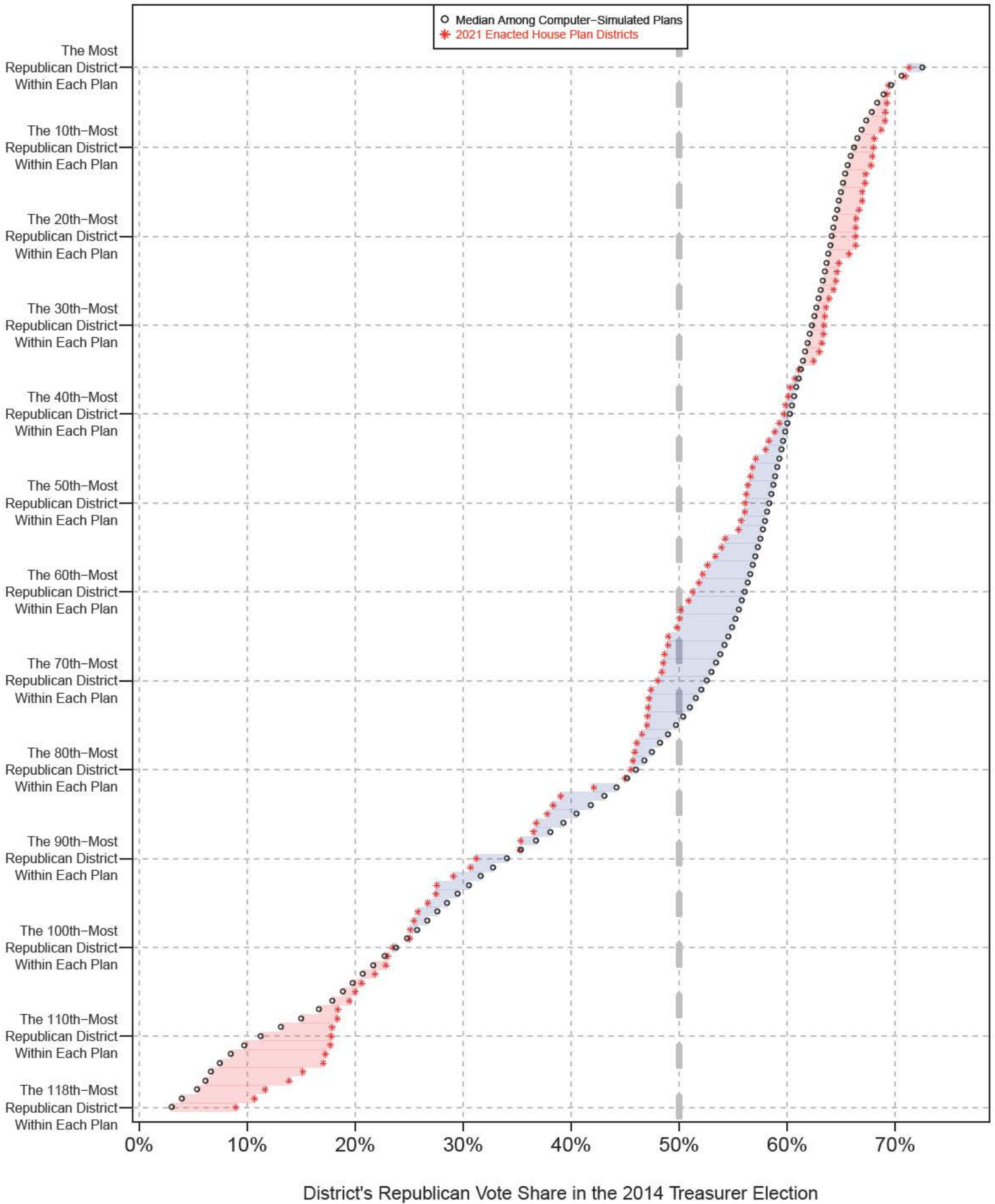
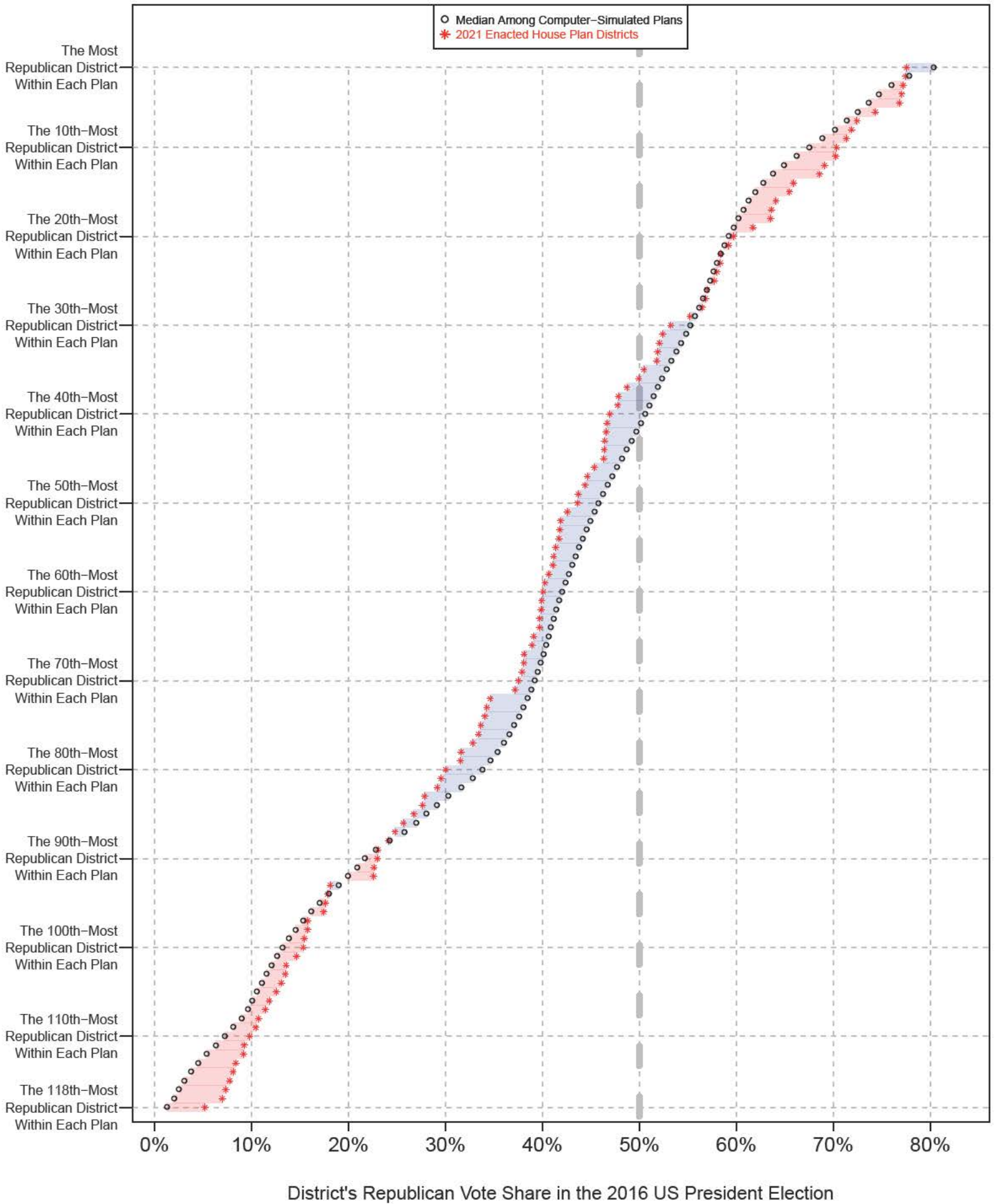




Figure C5: 2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 US President Election Results



**Figure C6:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 US Senate Election Results**

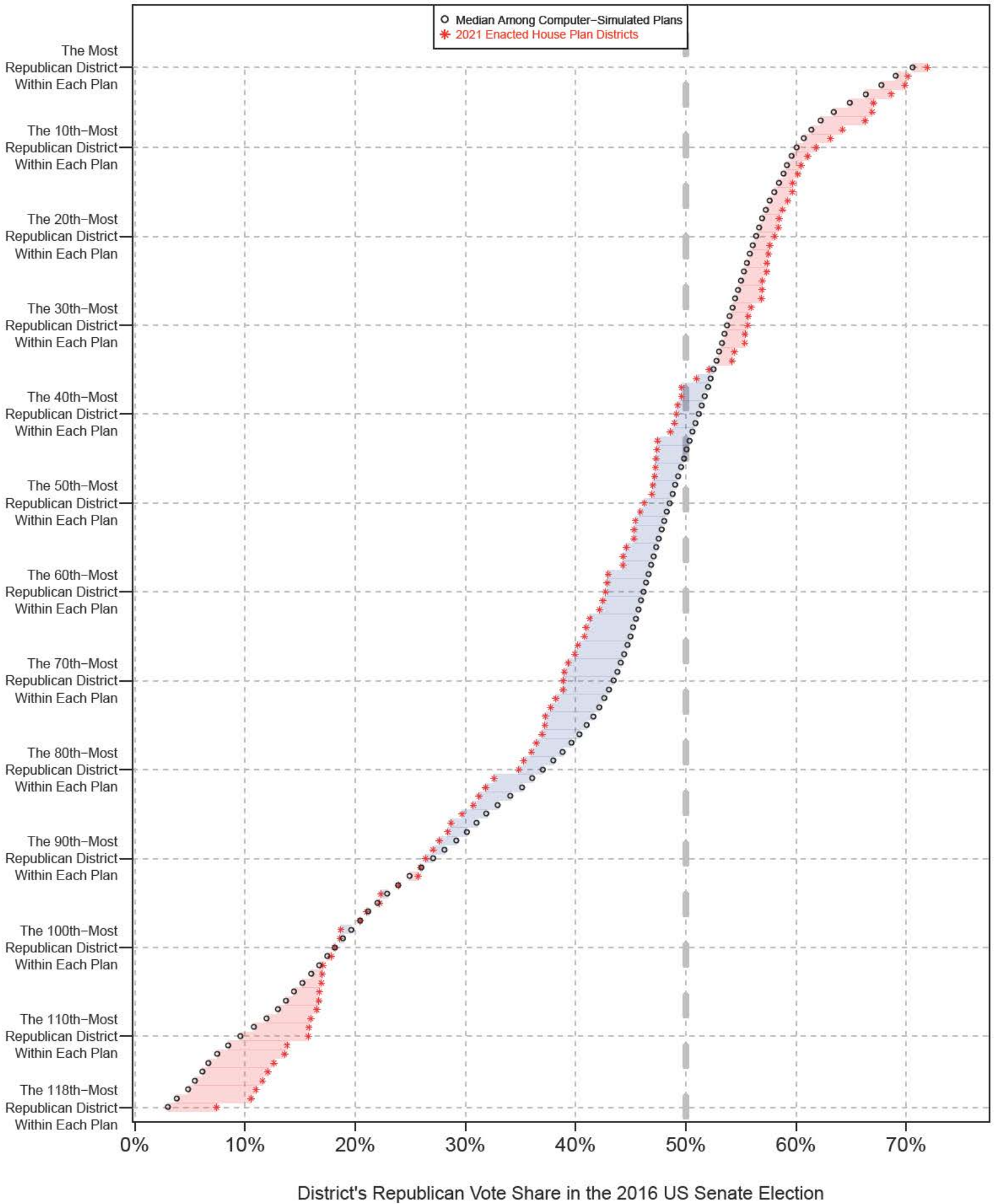
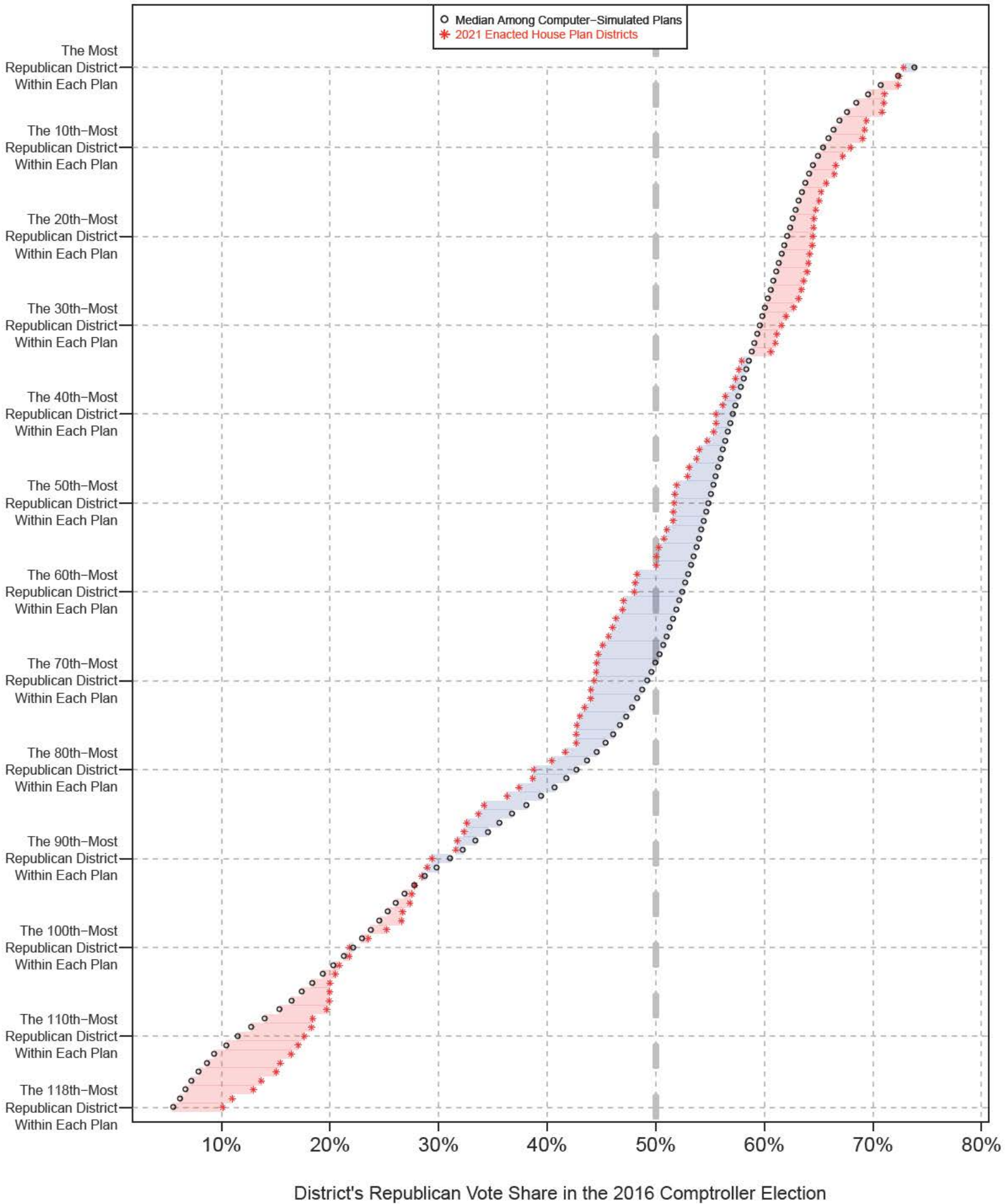


Figure C7:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2016 Comptroller Election Results



**Figure C8:**  
**2021 House Plan versus Computer-Simulated Maps, Compared Using the 2018 Governor Election Results**

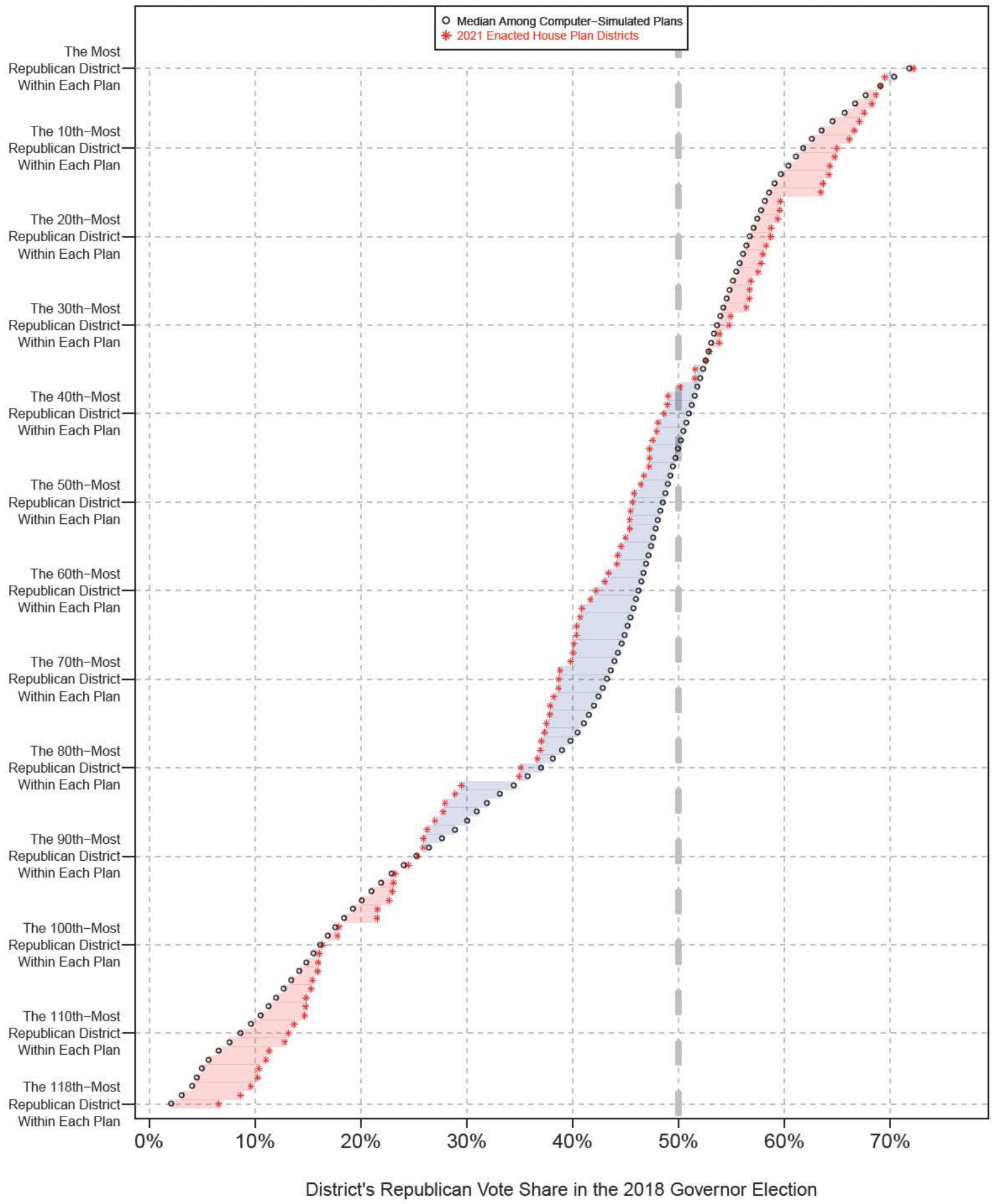




Figure C9:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2018 Attorney General Election Results

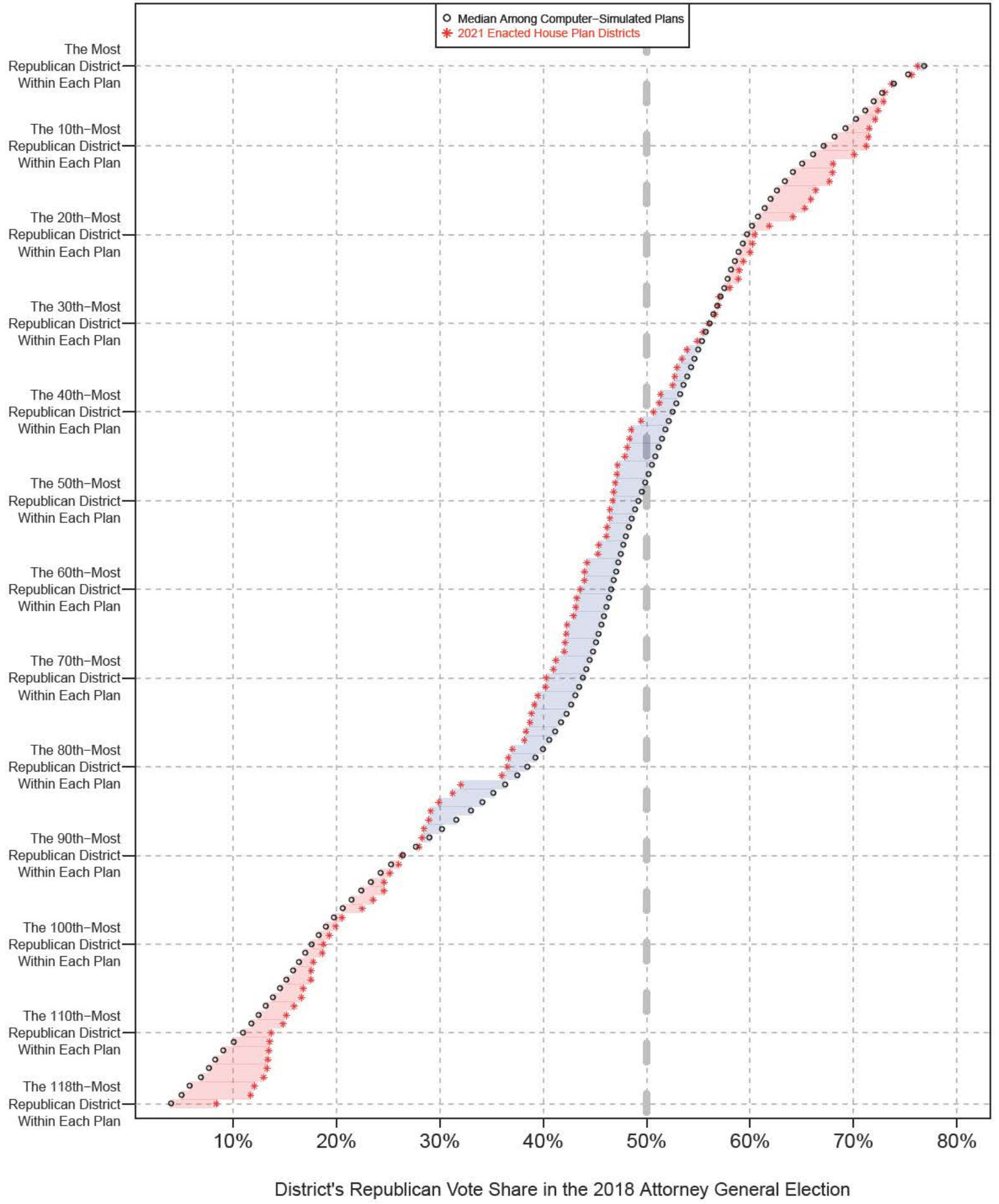


Figure C10:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2020 US President Election Results

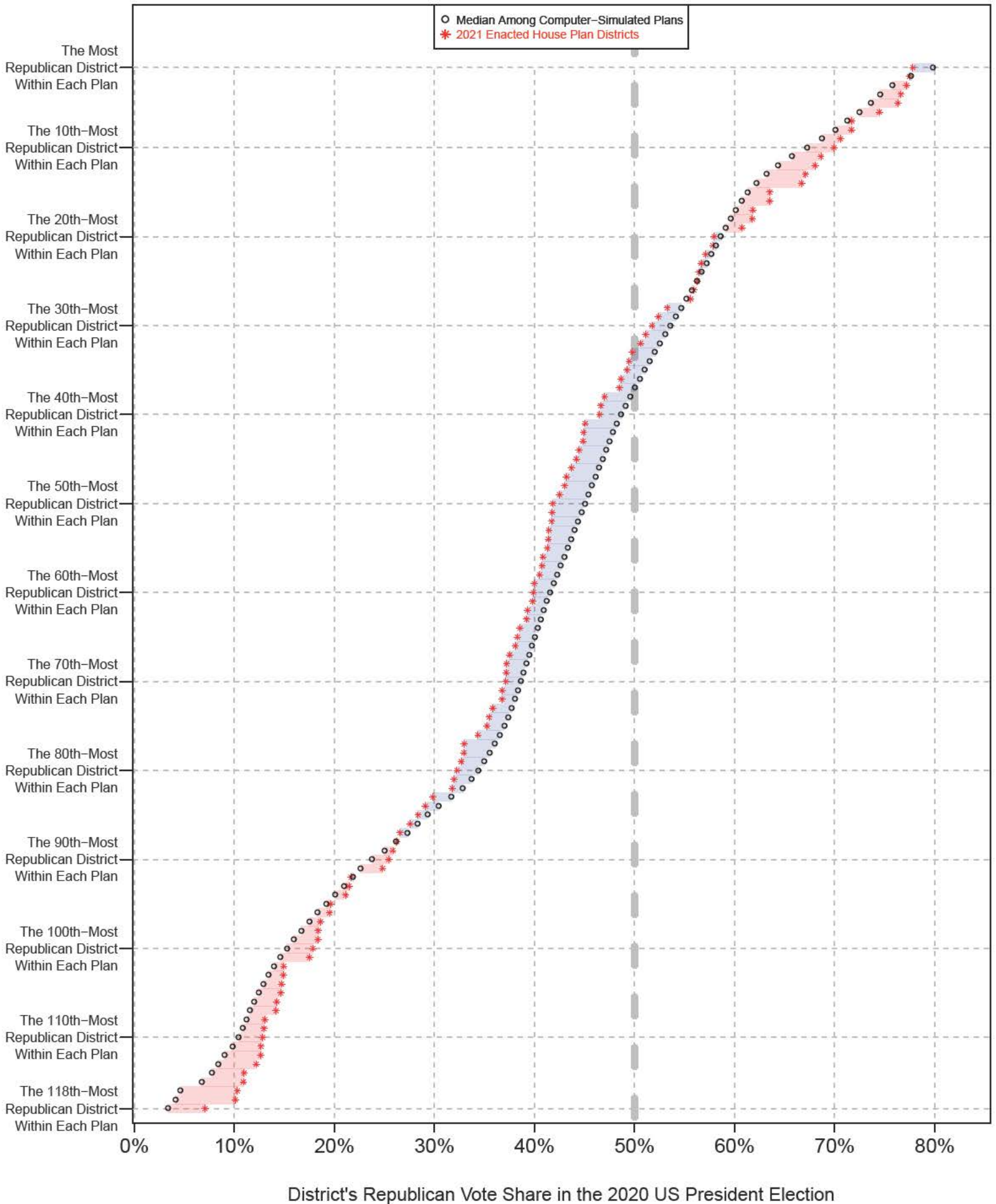


Figure C11:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2020 US Senate Election Results

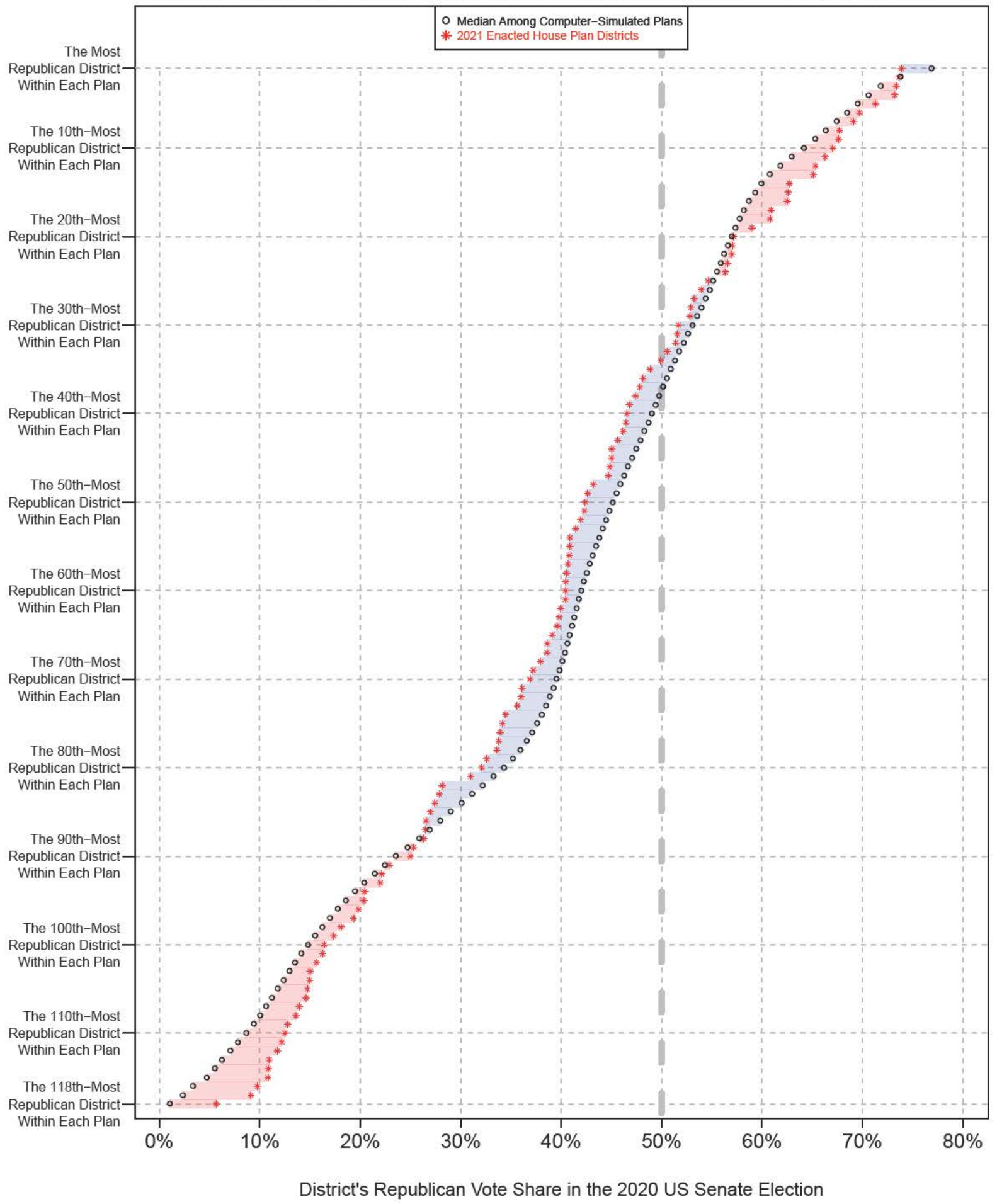


Figure C12:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Attorney General Election Results

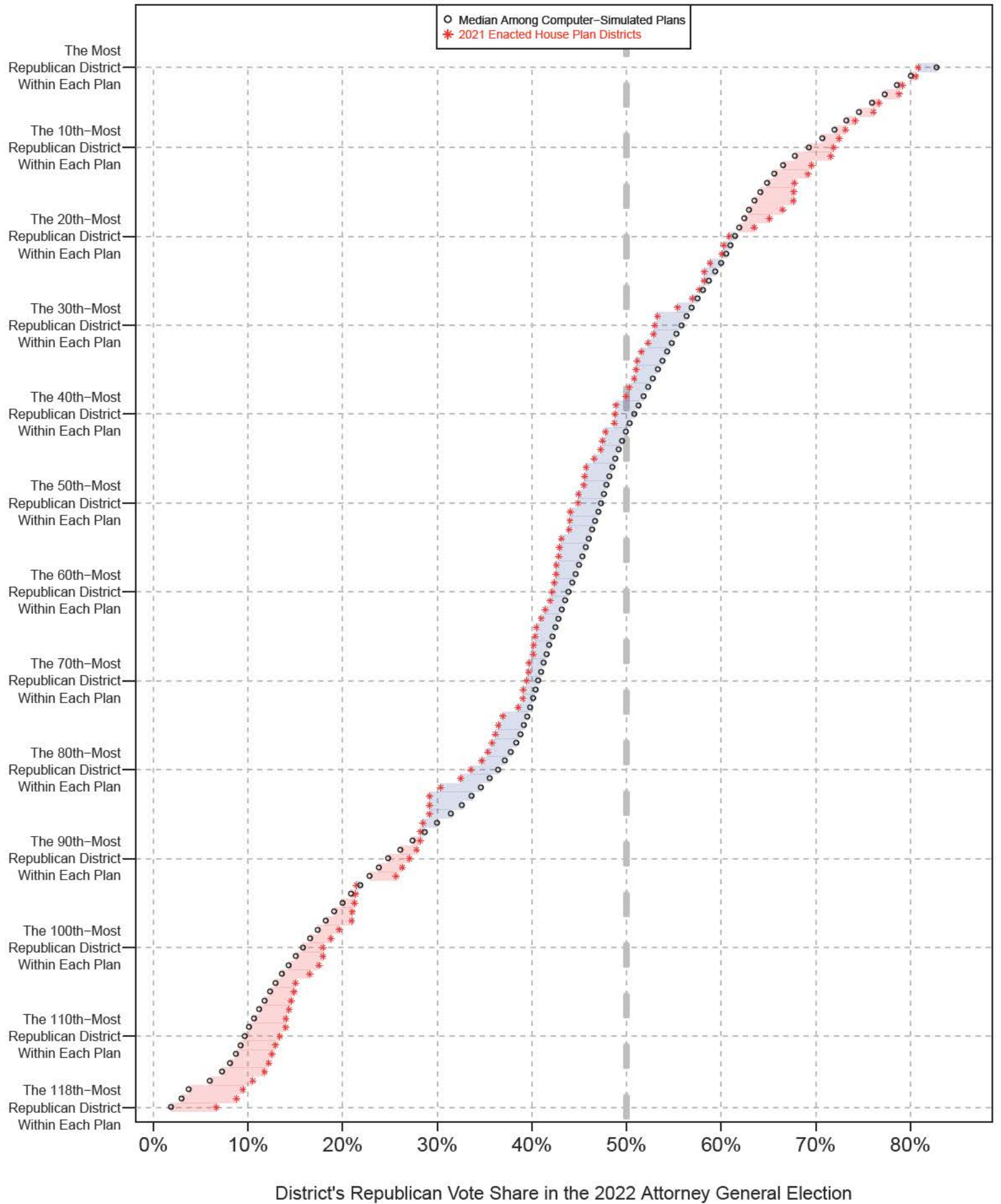




Figure C13:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Governor Election Results

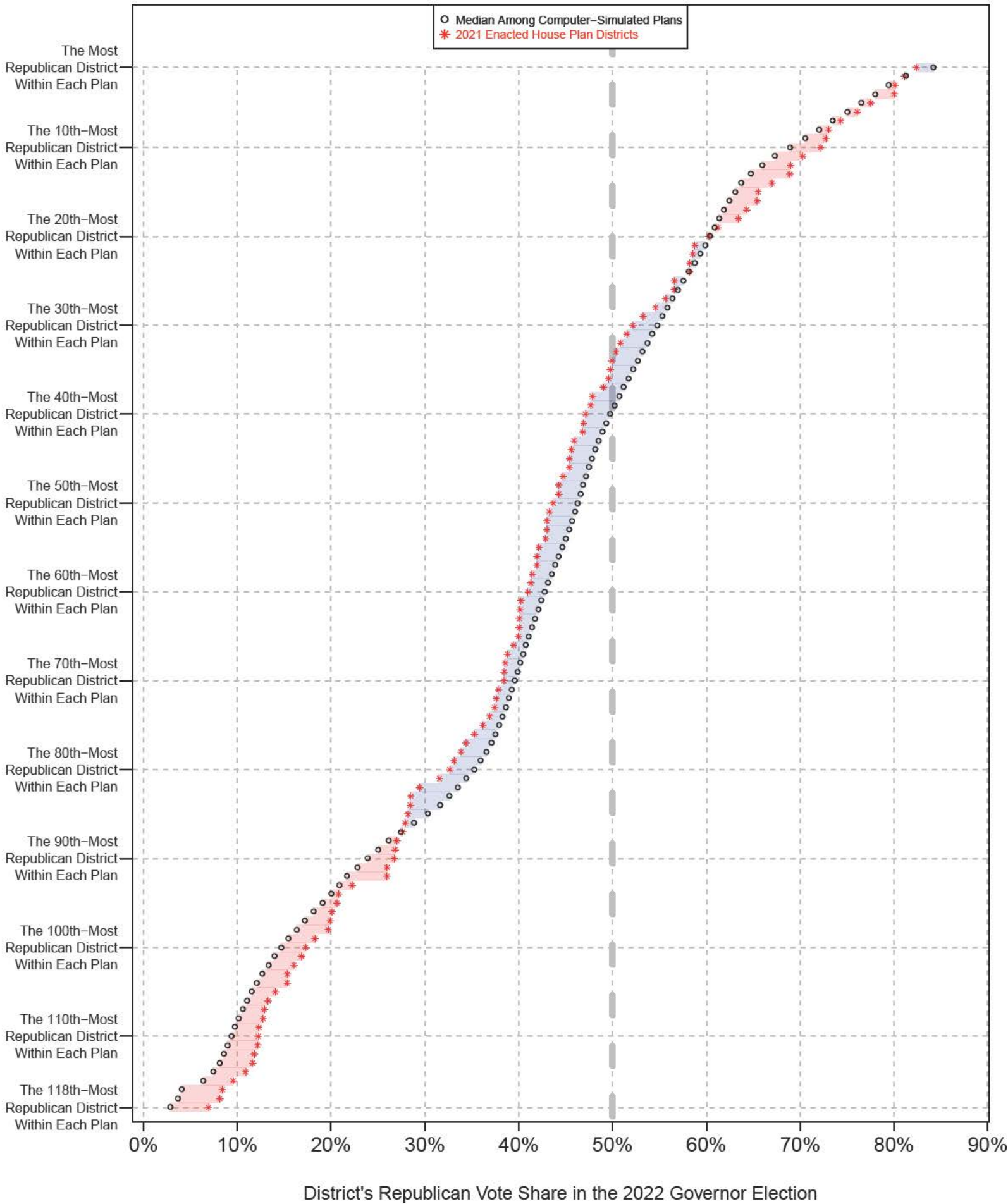


Figure C14:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Secretary of State Election Results

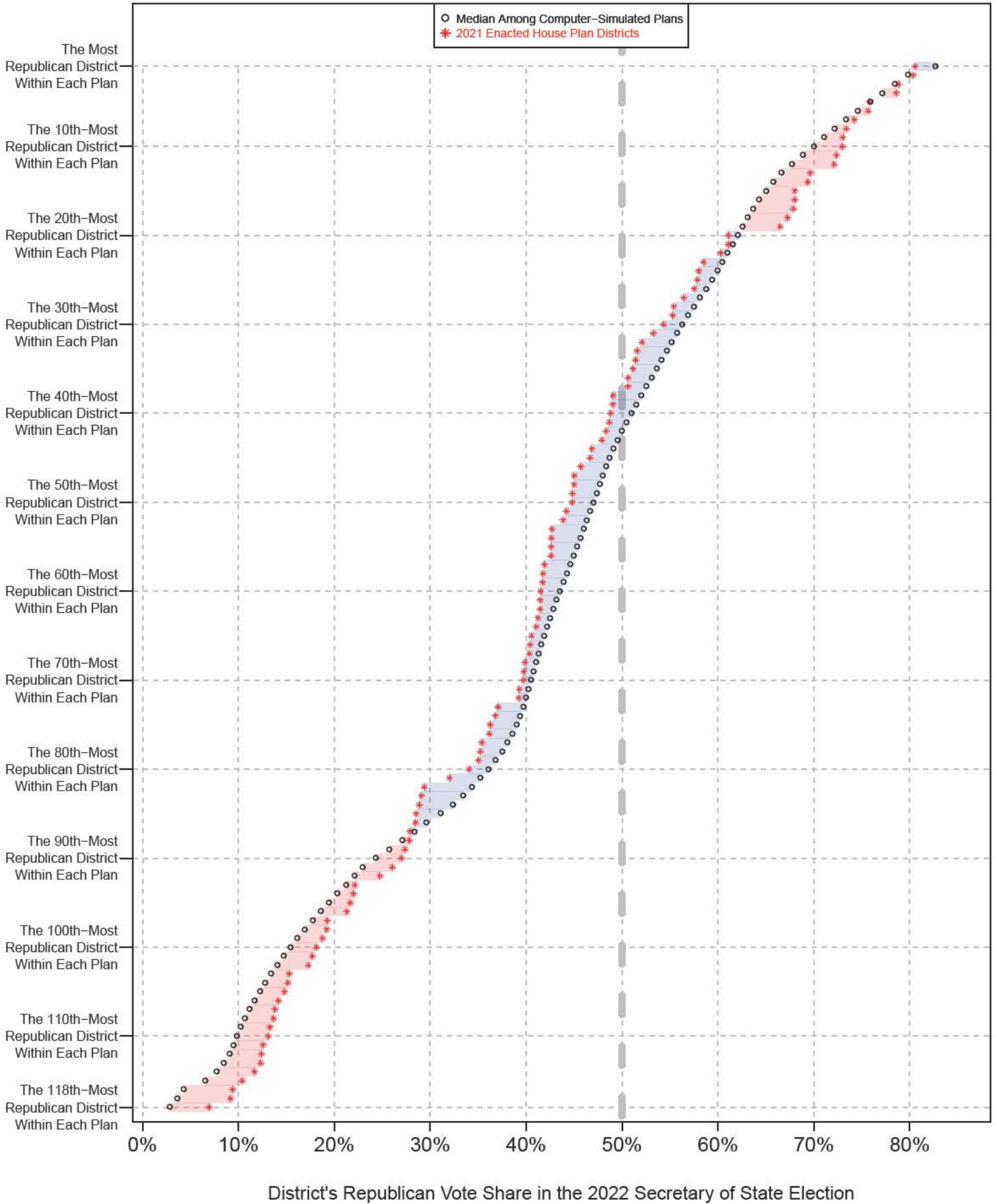


Figure C15:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 Treasurer Election Results

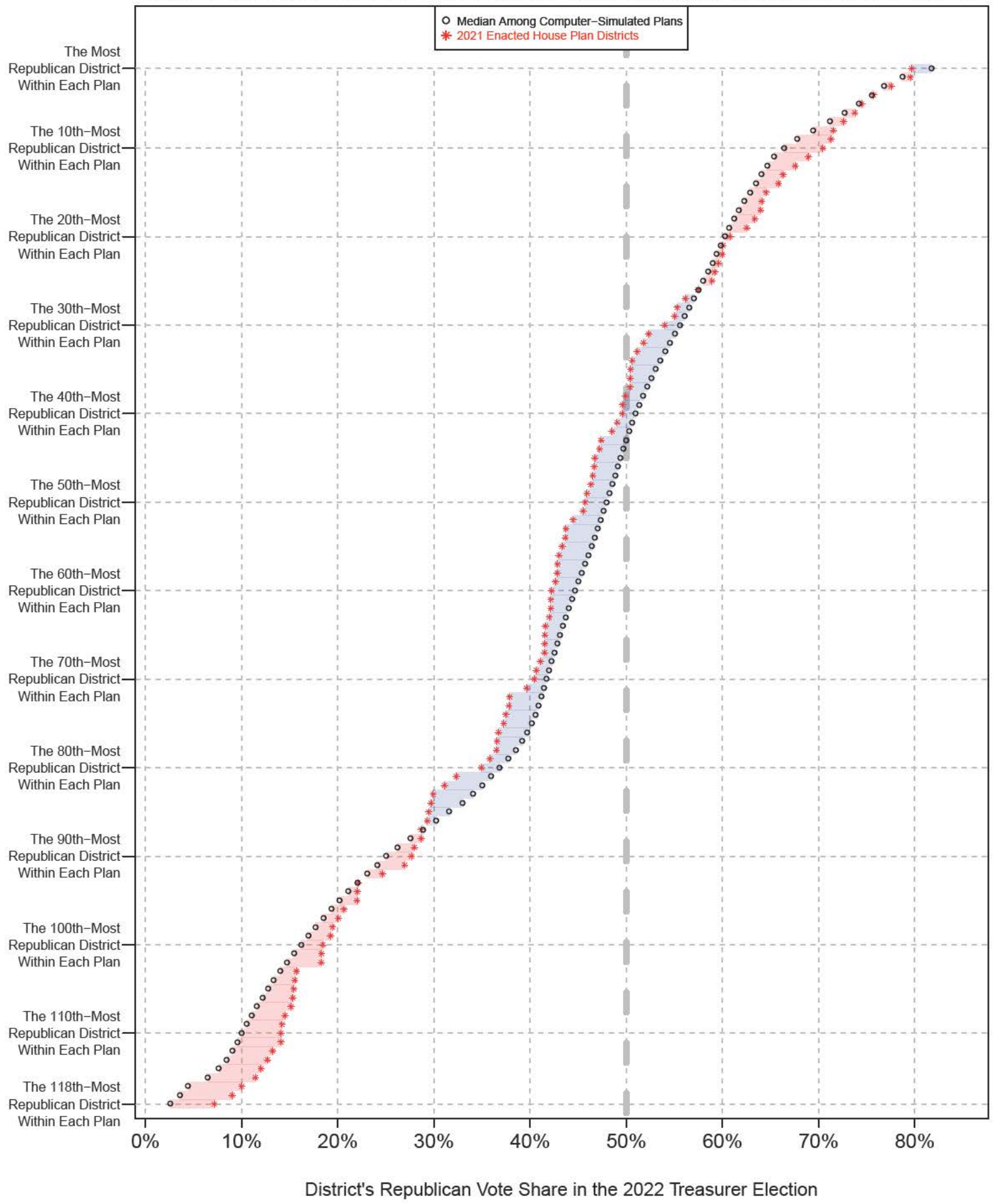


Figure C16:  
2021 House Plan versus Computer-Simulated Maps, Compared Using the 2022 US Senate Election Results

