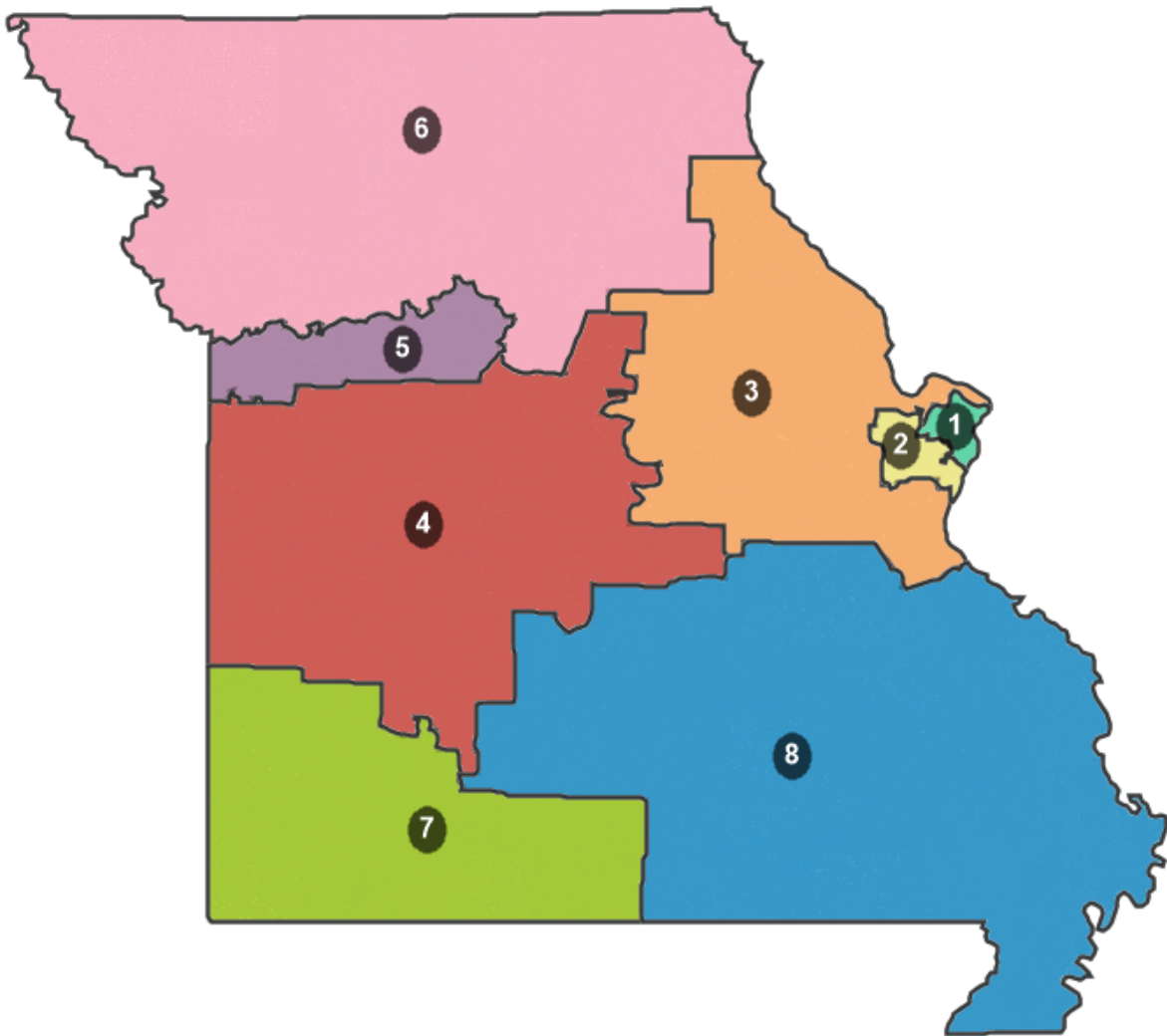


Proposed Missouri Congressional Map

Principle of Focus: Good Government

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I. Introduction

To promote compactness of districts and respect for political subdivision lines, this proposed congressional district map for the state of Missouri prioritizes good government as its core guiding principle. The state is home to 114 counties and one independent city (St. Louis City), justifying the need for a map that recognizes the prevalent county, city, and voting district subdivisions, and adjusts its lines accordingly. In addition to complying with federal and state law, this map was formulated with the goals of including entire counties within a district as much as possible, reducing county and voting district splits, and maintaining compactness and contiguity. As a result, the proposed map only splits a total of *five* counties and *six* voting districts—a notable improvement from the existing plan’s splitting of *eight* counties and *sixty-three* voting districts. These districts allow for elected congressional representatives to better calibrate federal support based on the needs of entire counties and cities within their districts. The more counties and cities that are split in a given congressional map, the more disjointed the response of federal leaders to the priorities and concerns of a given jurisdiction. Additionally, unnecessary splitting of voting districts places a burden on election officials to navigate ballot creation and execution at the precinct level—contributing to additional stressors for an already-stressed set of administrators. These problems stem from multiple ballot styles and associated costs, reduction in voter confidence due to differing ballots in some neighborhoods, and a lack of voters secrecy in some precincts with so few ballots of the same type.¹ Missouri, with its large number of counties, is the ideal environment to ensure geographically proximate counties remain whole and together.

In terms of population increases, Missouri saw relatively little growth from 2010 to 2020. The state Missouri saw a small increase (2.8%) in its population, with a total growth of 165,986 residents. The demographic breakdown of the state has also remained mostly unchanged—white and Black Missourians compose an overwhelming majority of the state, constituting 83% and 12% of the population, respectively.² Missouri’s 1st District, encompassing the city of St. Louis, is ranked among the top ten districts nationally for its declining population in the 2020 Census.

¹ *After Redistricting is Done: Election Processes and Implementation*, National Conference of State Legislatures (Jan. 28, 2022), <https://www.ncsl.org/research/elections-and-campaigns/after-redistricting-is-done-election-processes-and-implementation.aspx>.

² American Counts Staff, *Missouri Surpassed 6 Million Population Mark Last Decade*, United States Census Bureau (Aug. 25, 2021), <https://www.census.gov/library/stories/state-by-state/missouri-population-change-between-census-decade.html>.

The population declined from 748,616 in 2010 to 714,746.³ This underscores the movement of residents from the St. Louis to suburbs in other parts of the states.

Given the minimal levels of population change, Missouri's current congressional apportionment of eight districts remained the same after the 2020 Census. This proposed plan makes minor adjustments to reflect the population change in the state and better incorporate political subdivisions in the line-drawing process.

II. State of Congressional Redistricting in Missouri

The task of drawing Missouri's congressional districts falls on the state legislature. As of this report's publishing date, the Missouri state legislature has yet to approve a congressional map for the state. Until a map is enacted, the state will continue to utilize the previously maps enacted after the 2010 census. However, this may run into issues with the equal population requirement for congressional districts, and is currently being litigated in Missouri state court.⁴ The primary source of debate and discourse surrounding the state's congressional redistricting process has centered on the partisan leanings of proposed districts.⁵ As the existing map currently stands, there are six Republican-leaning districts, and two Democratic-leaning districts. A subset of Republicans in the state legislature have sought to transform one of the Democratic-leaning districts (Missouri's 5th District) into a more reliably Republican seat, while rendering some of the current Republican-held seats less safe for the party. Despite holding majorities in both houses of the legislature, Republicans have been unable to reach a consensus on the congressional map.

The Missouri House proposed a similar plan to the one currently enacted, but this proposal was stalled in the Senate due to the previously mentioned desire to dismantle the second Democratic-leaning district in the state. However, some leaders in the legislature are concerned that pursuing such a strategy would undermine the other Republican seats and potentially lead to unintended Democratic victories. On March 24, 2022, the Missouri Senate passed a compromise

³ *Missouri's 1st, 2nd Districts Could Be Redistricting Targets*, Associated Press (Aug. 13, 2021), <https://www.usnews.com/news/best-states/missouri/articles/2021-08-13/missouris-1st-2nd-districts-could-be-redistricting-targets>.

⁴ David A. Lieb, *Uncertainty mounts as Missouri stalls on new US House seats*, Associated Press (Mar. 29, 2022), <https://apnews.com/article/missouri-redistricting-jefferson-city-congress-701b663dca291425090dff5b6e4ca3fe>.

⁵ Ally Mutnick & Gary Fineout, *Why redistricting has stalled in 4 unfinished states*, Politico (Mar. 28, 2022), <https://www.politico.com/news/2022/03/28/redistricting-stalled-fl-la-mo-nh-00020723>.

map that maintains the 6-2 Republican control of the congressional delegation and shores up GOP support in the state's 2nd District. This immediately ran into issues with House members who found issues with the lack of respect for community of interests in the Senate-approved plan.⁶

III. Legal Compliance of Proposed Plan

A. United States Constitution

The Supreme Court has consistently held that the U.S. Constitution, and primarily the Fourteenth Amendment, requires the “one person, one-vote” principle when establishing congressional and state legislative districts. Section 2 of the Fourteenth Amendment Representatives requires that “representatives shall be apportioned among the several states according to their respective numbers.” Additionally, the Fourteenth Amendment Equal Protection Clause ensures that “[n]o State shall make or enforce any law which shall . . . deny to any person within its jurisdiction the equal protection of the laws.”⁷ Derived from these clauses, one person, one vote ensures that no district is disproportionately populated as compared to another, which may lead to the dilution of voting power by voters. In districts with fewer residents, each vote is worth more—however, in districts that have substantially more residents, each resident's vote is worth less than its neighboring lower-populated district.

In *Wesberry v. Sanders*,⁸ the Supreme Court found that Georgia's system of unequally distributing population across congressional districts was unconstitutional—and held that congressional districts must have roughly equal populations. In subsequent decades, the Court indicated its desire to achieve near-perfect population equality among districts. In *Karcher v. Daggett*,⁹ the Supreme Court clarified this requirement and stated that “absolute” population equality was the objective for congressional districts. The only way to overcome this requirement would be to demonstrate that a “legitimate state objective” required the unequal population distribution. As such, the Court rejected a less than one percent deviation in population between

⁶ David A. Lieb, *Uncertainty mounts as Missouri stalls on new US House seats*, Associated Press (Mar. 29, 2022), <https://apnews.com/article/missouri-redistricting-jefferson-city-congress-701b663dca291425090dff5b6e4ca3fe>.

⁷ U.S. Const. amend. XIV, § 1, cl. 4.

⁸ 376 U.S. 1 (1964).

⁹ 462 U.S. 725 (1983).

the largest and smallest district, arguing it violated the well-established equal population principle.

Every district in this proposed Missouri congressional plan abides by the one person, one vote requirement. Missouri's total population, as determined by the 2020 Census, totals 6,154,913. Distributed across eight congressional districts, the ideal population for each district is 769,364. Each district in my plan is within one person of this ideal value, and thus satisfies the one person, one vote principle as required by the Constitution. Achieving this population equality required the splitting of a few more voting districts than originally desired, but such compromise was necessary to comply with constitutional requirements.

In addition to the one person, one vote rule, the United States Constitution, also under the Fourteenth Amendment, establishes a prohibition on racial gerrymandering. The Supreme Court has found this prohibition to prevent line-drawers from pursuing race as a primary principle behind their districting choices and map-making. In *Shaw v. Reno*, the Court first recognized this claim under the Equal Protection Clause of the Constitution, writing that a districting plan violates the Equal Protection Clause when “though race neutral on its face, rationally cannot be understood as anything other than an effort to separate voters into different districts on the basis of race, and that the separation lacks sufficient justification.”¹⁰ In future jurisprudence, the Court found that such evidence of race as a predominant factor in a redistricting plan would trigger strict scrutiny, and a plan devised in such a way would only be valid if it was designed to meet a compelling governmental interest. This can be proven by the plaintiff with evidence of a disregard for traditional redistricting principles such as contiguity, compactness, respect for political subdivisions, and conformity with geographic features. However, if the government can prove that they this racial focus was a product of a compelling interest and adherence to traditional principles in some way, this may be enough to overcome the burden of proof placed upon them with respect to these claims.¹¹ These claims often arise from the creation of majority-minority districts in states, but the Court has found that challengers of these maps have the burden of proving the “dominant and controlling” nature of these racial considerations. In *Easley*

¹⁰ 509 U.S. 630 (1993).

¹¹ *Bush v. Vera*, 517 U.S. 952, 958-65 (1996) (holding that departing from sound principles of redistricting defeats the claim that districts are narrowly tailored to address the effects of racial discrimination).

v. Cromartie,¹² the Court held that political behavior and other considerations were meaningful justifications by North Carolina to establish the district they deemed necessary.

Compliance with the Voting Rights Act can sometimes serve as a compelling government interest, allowing for redistricting based on race in certain districts. In 2017, the Supreme Court issued a decision in *Cooper v. Harris*,¹³ which found that North Carolina unconstitutionally gerrymandered two districts based on race to allegedly comply with the Voting Rights Act. Justice Kagan, the author of the majority opinion, found that there was not sufficient evidence to support that the Voting Rights Act required the racial gerrymandering perpetuated. The government needed to prove that unless they utilized race as a predominant factor, they would violate the Act. In this case, the majority believed they did not.

The recent case law on the issue of racial gerrymandering and *Shaw* claims sheds light on the interplay of racial gerrymandering and Voting Rights Act which fuel litigation to determine what is ‘appropriate’ redistricting based on race. Nevertheless, I believe this Missouri congressional plan does not unconstitutionally gerrymander based on race. The only *Shaw* claim that could arise would be related to the majority-minority district established in Missouri’s 1st District. This district was maintained and slightly modified due to population changes to comply with the Voting Rights Act and allow Black Missourians in that district to have an opportunity to elect a candidate of their choice. Additionally, this district prioritizes other redistricting principles such as compactness, contiguity, and the preservation of communities of interest that demonstrate other considerations that took precedence over race. The district is compact, contiguous, and lacks any odd shape that would signal a potential racial gerrymander. The ‘compelling government interest’ showing required by the Supreme Court is also satisfied given the need to comply with Section 2 of the Voting Rights Act in preserving the political power of Black Missourians.

B. Section 2 of the Voting Rights Act

Section 2 of the Voting Rights Act remains a primary vehicle for disputing the redistricting plans of a given state. Under Section 2, the establishment of a majority-minority district may be required if it is necessary to prevent vote dilution of a specific minority group. In these districts, a minority group composes the majority of the voting population in the district

¹² 532 U.S. 234 (2001).

¹³ 137 S. Ct. 1455 (2017).

and receives the opportunity to elect the candidate they prefer over the one preferred by a more cohesive majority. In *Thornburg v. Gingles*,¹⁴ the Supreme Court established the criteria to evaluate a plaintiff's vote dilution claim under Section 2 of the Voting Rights Act. This three-pronged test includes the following requirements of proof by the plaintiff: (1) the minority group must be able to demonstrate that it is sufficiently large and geographically compact to constitute a majority in a single-member district; (2) the minority group must be able to show that it is politically cohesive; and (3) the minority must be able to demonstrate that the majority votes sufficiently as a bloc to enable the majority to defeat the minority group's preferred candidate absent special circumstances, such as the minority candidate running unopposed.¹⁵ One of the most persuasive pieces of evidence to support these vote dilutions claim is proof that under the proposed redistricting map, the plaintiff does not have an equal opportunity to elect candidates of their choice within the political process. The Senate Report that accompanied the passage of the Voting Rights Act is utilized by the Court to determine the relevant circumstances to be considered when determining this "equal opportunity" to elect a preferred candidate.¹⁶ Courts utilize these Senate Report factors to gain a better understanding of the political landscape within a state and generate a depiction of historic disillusionment of minority voters in a given district or jurisdiction.

In *Bartlett v. Strickland*,¹⁷ a plurality of the Supreme Court found that a minority group needed to constitute more than 50% of the voting population in a district to satisfy the first prong of the *Gingles* analysis. This is often a difficult criteria to meet in many potential majority-minority districts given the geographic distribution of minority populations and the distorted districts that may result if line-drawers attempt to incorporate them into one district. However,

¹⁴ 478 U.S. 30 (1986).

¹⁵ L. Paige Whitaker, *Congressional Redistricting Law: Background and Recent Court Rulings*, Congressional Research Service (Mar. 23 2017), <https://sgp.fas.org/crs/misc/R44798.pdf>.

¹⁶ The relevant Senate Report factors include: the extent of any history of official discrimination in the state or political subdivision that touched the right of the members of the minority group to register, to vote, or otherwise to participate in the democratic process; the extent to which voting in the elections of the state or political subdivisions is racially polarized; the extent to which the state or political subdivision has used unusually large election districts, majority vote requirements, anti-single shot provisions, or other voting practices or procedures that may enhance the opportunity for discrimination against the minority group; if there is a candidate slating process, whether the members of the minority group have been denied access to that process; the extent to which members of the minority group in the state or political subdivision bear the effects of discrimination in such areas as education, employment and health, which hinder their ability to participate effectively in the political process; whether political campaigns have been characterized by overt or subtle racial appeals; [and] the extent to which members of the minority group have been elected to public office in the jurisdiction.

¹⁷ 556 U.S. 1, 25-26 (2009).

the establishment of a coalition district with multiple minority groups that satisfy the other *Gingles* factors have often been utilized to justify the creation of a majority-minority district. For example, if Black and Hispanic voters compose a majority of the voting population in a specific district and are politically cohesive enough to elect the same candidate of choice, they will satisfy the *Gingles* analysis.

The establishment of these majority-minority districts enable compliance with the Voting Rights Act, and heavily influence the decision-making behind redistricting in nearly every state, including Missouri. This proposed Missouri plan complies with Section 2 of the Voting Rights Act as it maintains the majority-minority District 1 that was also included in the map enacted after the 2010 Census. Under this plan, the 1st District's population is 49% Black, 5% Hispanic, and 40% Non-Hispanic white—entitling minority voters to a well-established voting majority in the district and allowing them to elect the candidate of their choice. The only issue with this district is the fact that the Black voting population is slightly under the majority benchmark required by the Supreme Court in *Bartlett*. However, I argue the coalition of Black and Hispanic voters in this St. Louis district is enough to overcome this concern and satisfy the other two *Gingles* prongs. This district satisfies the test established in *Gingles* as the minority groups in the district is sufficiently large and compact enough to compose a majority in the district, is politically cohesive, and operates as a bloc to defeat the minority group's preferred candidate. This district is heavily centered in the city of St. Louis and the communities it includes are not only racially homogenous, but also homogenous in terms of their interests given their shared geographic ties and positioning. In terms of compactness, the Reock score for District 1 is 0.54, the highest score among the eight districts in the proposed plan. This indicates it is closest out of all the proposed districts on the scale of ideal compactness, and should result in an acceptable level of compactness for the Court. A compact district like District 1 that preserves communities of interest and safeguards against the vote dilution of Black Missourians is essential.

Furthermore, as Black Missourians comprise nearly 12% of the population in the state, disabling them from electing at least one member of the congressional delegation in Missouri appears to run afoul of the purpose of Section 2 of the Voting Rights Act. Political representation for minority groups runs right through majority-minority districts like that of Missouri's 1st, and the preservation of this district under this new map is integral to Voting Rights Act compliance. It is also impossible to draw another majority-minority district anywhere else in the state due to

the geographic distribution of Black voters. The only other district with a sizable minority population is District 5 of this proposed plan, but its 25% Black population is not even close to being sufficient to establish a VRA district. Given that no other districts in Missouri would be conducive to the creation of a majority-minority district, Missouri's 1st is that much more important.

Below is further data on the demographic distribution in District 1, the majority-minority district in the proposed plan.

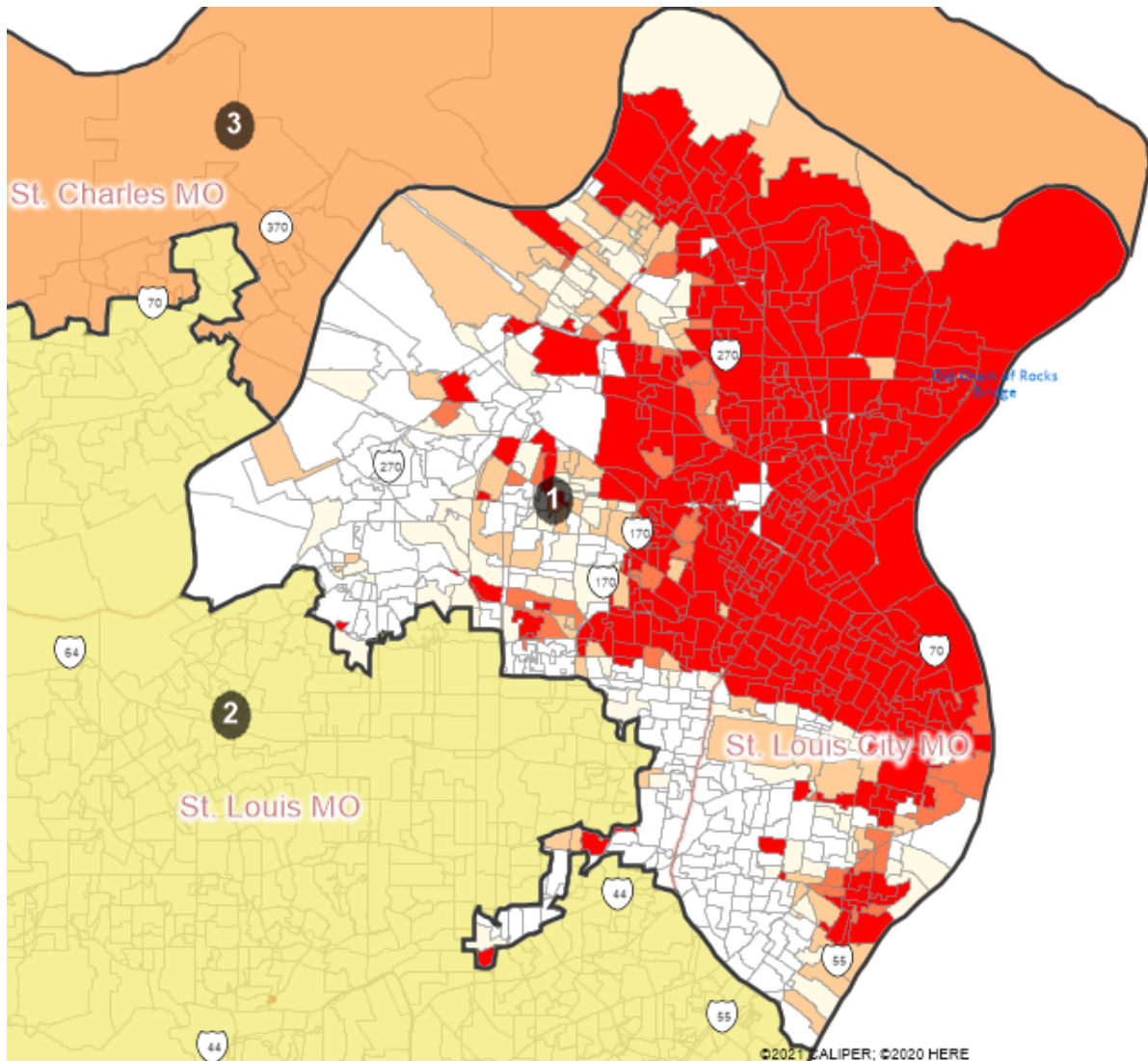


Figure 1: Population Density of Black Population in District 1

District 1 (VRA District) Demographics	
Black or African American	49.35%
Hispanic Origin	4.56%
Non-Hispanic White	39.87%

C. Missouri State Law

With respect to congressional redistricting, Missouri does not require much else outside of adherence to traditional redistricting principles. The state also requires its congressional maps to abide by the previously-discussed requirements related to one person, one vote, racial gerrymandering, and Section 2 of the Voting Rights Act. The Missouri Constitution requires congressional districts to be contiguous and compact to the extent allowed by political subdivisions and boundaries.¹⁸ There are no additional statutory limitations for congressional districts in the state.

As a result, this proposed map satisfies the requirements laid out by Missouri state law as it adheres to constitutional redistricting requirements and traditional redistricting principles of compactness and contiguity.

IV. Guiding Principles and Considerations of This Plan

A. Respect for Political Subdivision Lines

In creating this congressional map, the main priority was to minimize the number of county and voting district splits across the state. As the existing plan splits eight counties and sixty-three voting districts, the purpose of this plan was to create districts that kept as many counties and voting districts together as possible. Given the population distribution across the state, it was inevitable that some number of counties would be split to achieve ideal population values for each district. The counties of St. Louis, St. Charles, Boone, Jackson, and Greene were split to achieve this goal. Jackson and Greene were both split across three districts to maximize respect for political subdivision lines. The split of Jackson County is depicted in Figure 2, and the split of Greene County is depicted in Figure 3. In both cases, special care was taken to ensure

¹⁸ Mo. Const. art. III, §§ 3(b)(3),7(c), 45.

these splits were not unnecessarily arbitrary or unreflective of the communities of interest most affected.

These three-way splits are sometimes frowned upon in the realm of redistricting, as they unnecessarily segment the communities in these counties in order to keep other counties whole. However, when making these split determinations, I focused on maintaining the entirety of cities in any given district to ensure the preservation of this political subdivision. For example, the Greene County portion of District 4 includes the communities of Walnut Grove, Fair Grove, and Strafford. The Greene County portion of District 8 includes the community of Rogersville. IN Jackson County, the District 4 portion includes the Greenwood community, and a few voting districts within Kansas City. District 6 includes the River Bend community, parts of Sugar Creek, and two voting districts in Kansas City. Special caution was taken to ensure minority communities of interest in the Kansas City were not unnecessarily split across districts.

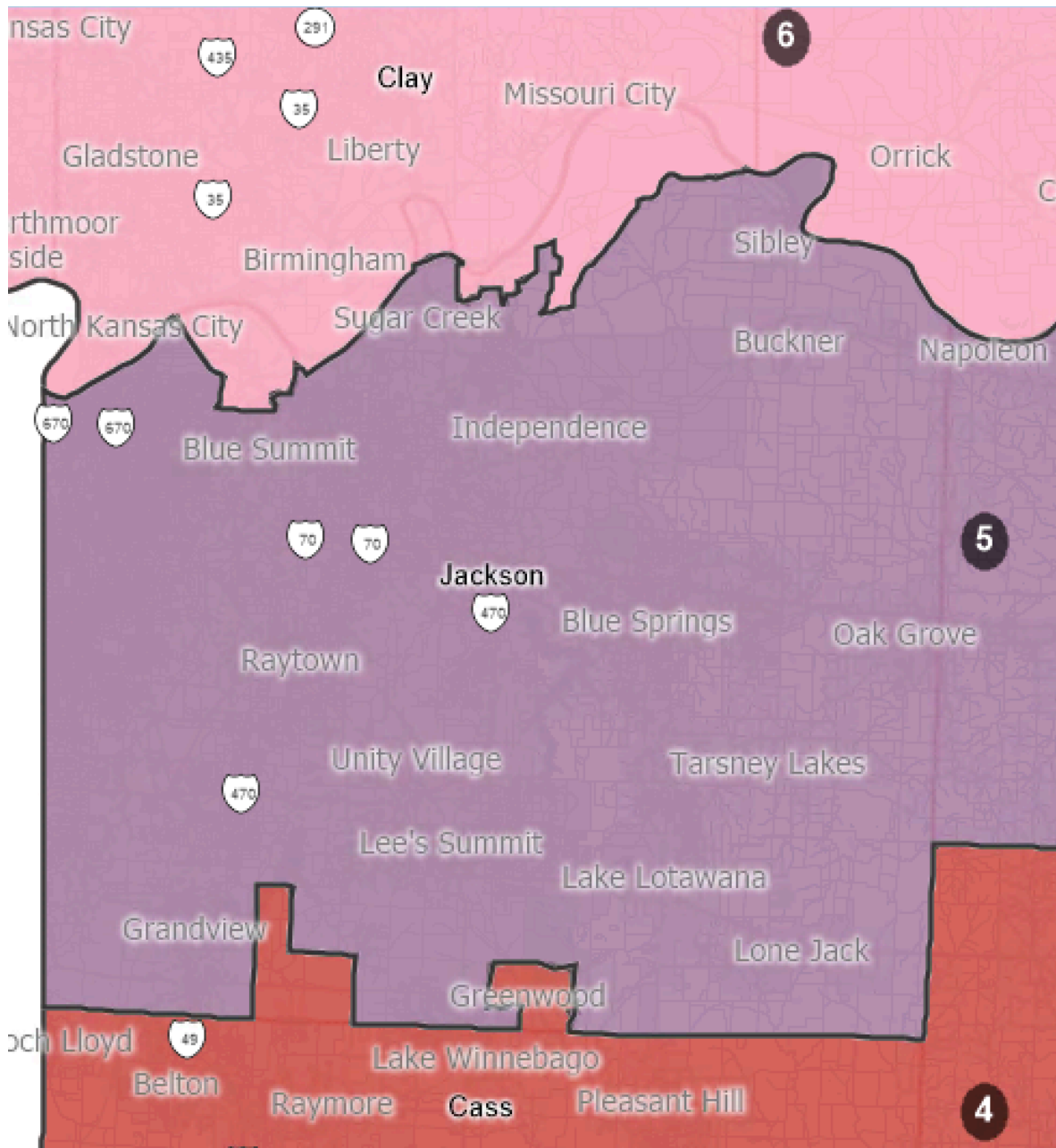


Figure 2: District Splits in Jackson County

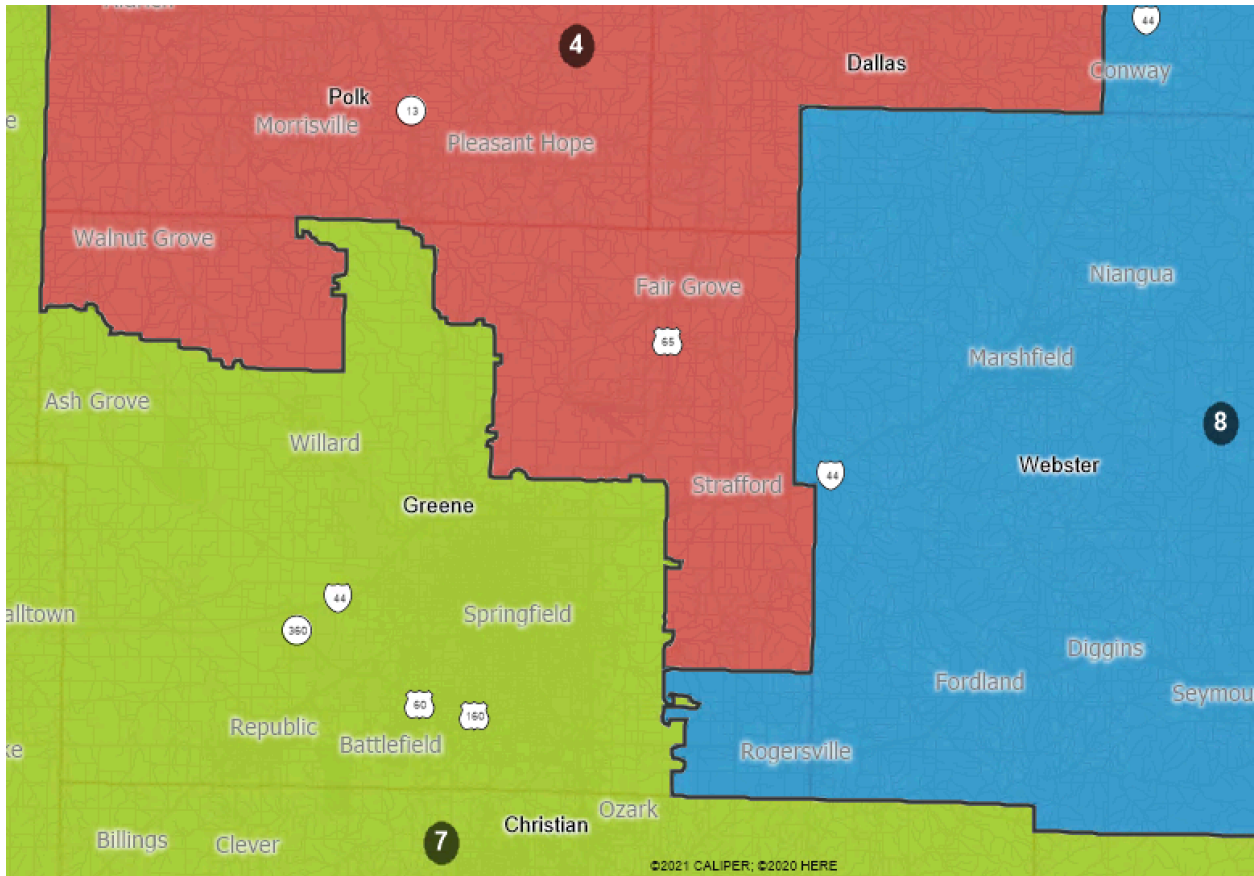


Figure 3: District Splits in Greene County

Despite these counties’ three-way splits, the principle of good government guided the line-drawing to respect smaller political subdivision units and protect relevant communities of interest. A breakdown of the whole counties included in each district and their respective county splits are included in the figure below.

District	Included Counties/Independent Cities	County Splits
District 1	St. Louis City	St. Louis
District 2	St. Charles, St. Louis	St. Charles, St. Louis
District 3	Jefferson, Franklin, St. Charles, Gasconade, Osage, Warren, Lincoln, Montgomery, Callaway, Audrain, Pike, Ralls, Marion, Boone	Boone, St. Charles
District 4	Boone, Cole, Cooper, Moniteau, Morgan, Miller, Maries, Camden, Dallas, Polk, Hickory, Benton, Morgan, Cooper, Pettis, Benton, Cedar, St. Clair, Henry, Johnson, Cass, Bates, Vernon, Jackson, Greene	Boone, Jackson, Greene
District 5	Jackson, Lafayette, Saline	Jackson

District 6	Jackson, Platte, Clay, Ray, Carroll, Chariton, Howard, Randolph, Monroe, Shelby, Macon, Linn, Livingston, Caldwell, Clinton, Buchanan, Andrew, DeKalb, Daviess, Grundy, Sullivan, Adair, Knoxx, Lewis, Clark, Scotland, Schuyler, Putnam, Mercer, Harrison, Gentry, Worth, Nodaway, Holt, Atchison	Jackson
District 7	Barton, Dade, Greene, Jasper, Lawrence, Cristian, Stone, Barry, Newton, McDonald, Taney, Ozark, Douglas	Greene
District 8	Dunklin, Pemiscot, New Madrid, Scott, Stoddard, Mississippi, Butler, Bollinger, Cape Girardeau, Wayne, Ripley, Carter, Wayne, Madison, Iron, Reynolds, Oregon, Shannon, St. Francois, Ste. Genevieve, Washington, Crawford, Dent, Phelps, Pulaski, Texas, Laclede, Webster, Wright, Greene, Howell	Greene

B. Compactness

Compactness motivated a series of decisions in this redistricting plan. As such, I prioritized the creation of districts with counties geographically proximate to each other. To compensate for population decreases in certain parts of the state, some existing districts were expanded to include additional counties surrounding their borders. These choices took precedent over drawing districts that sprawled northward or southward across the state—a choice that doesn’t necessarily align with the maps currently proposed in the state legislature. In most instances, I also focused on minimal deviation from the existing plan to preserve some sort of continuity across redistricting cycles. This resulted in continuity of the east-to-west positioning of District 5, which includes the counties of Jackson, Lafayette, and Saline. Because of this least change-motivated decision, this is the only district in the plan that doesn’t immediately appear as compact as the rest of its counterparts and scores lowest on metrics of compactness.

Every district in the proposed plan, with the exception of District 5, scored at least 0.4 on the Reock scale of compactness. This measurement ranges from 0 to 1, with 1 indicating the district is optimally compact. The value is calculated by “taking the ratio of the area of the district to the area of... the smallest circle that entirely encapsulates the district.”¹⁹ The Polsby Popper score is another measurement of compactness, also ranging from 0 to 1, and is calculated

¹⁹ *Geographic Scores*, Princeton Gerrymandering Project, (Dec. 16, 2021), <https://gerrymander.princeton.edu/redistricting-report-card-methodology>

by “taking the ratio of the area of the district to the area of the circle whose circumference matches the perimeter of the district.”²⁰ These two compactness scores are listed below for each district in the proposed plan. The scores indicate notable levels of compactness in most of the eight districts—a reality of the good government principle.

District	Polsby Popper Score	Reock Score
District 1	0.28	0.54
District 2	0.19	0.42
District 3	0.21	0.44
District 4	0.28	0.52
District 5	0.25	0.26
District 6	0.34	0.42
District 7	0.46	0.4
District 8	0.32	0.5

C. Partisan Fairness and Proportional Representation

As I drafted this plan, I also prioritized proportional representation as much as allowed within the confines of respect for political subdivisions. In the past two presidential elections, the Democratic presidential candidate received around 40% of the statewide vote.²¹ A proportional representation plan in a state with eight congressional districts would yield anywhere from two to three seats with Democratic representation. As a result, I protected the existing plan’s two Democratic-leaning districts and competitive seat in District 2. District 2 witnessed a 49% vote share for Joe Biden in 2020, indicating its competitiveness and ability to elect a Democratic candidate. This plan will allow for Democrats, in a cycle with high Democratic turnout, to potentially net a total of three seats in Missouri’s congressional delegation. The proposed map would likely yield five Republican seats, two Democratic seats, and one competitive seat.

²⁰ *Id.*

²¹ *Missouri 2020 Presidential Results*, CNN, <https://www.cnn.com/election/2020/results/state/missouri> (last visited Mar. 30, 2022); CNN, *Missouri 2016 Presidential Results*, CNN, <https://www.cnn.com/election/2016/results/states/missouri> (last visited Mar. 30, 2022).

However, if the cycles includes a Republican incumbent in the competitive District 2 seat, Democrats may be left with only the two safe seats in the plan. This is ultimately the reality of the distribution of Democrats across the state and their concentration in the urban areas of Kansas City and St. Louis. To better visualize the partisan lean of each district, the Democratic and Republican vote shares in the 2020 presidential race are included by district in the table below. The partisan leanings of each district are also analyzed via PlanScore, a tool that projects data about the partisan consequences of redistricting plans, and attached in the Appendix section. The PlanScore analysis affirms this analysis of the partisan lean of each district and expected distribution of seats across parties. The efficiency gap for the proposed plan is near the ideal, with a gap of 5.2% in favor of Republicans. This measure is calculated by taking “one party’s total inefficient votes in an election, subtracting the other party’s total inefficient votes, and dividing by the total number of votes cast. It captures in a single number the extent to which district lines crack and pack one party’s voters more than the other party’s voters.”²² The difficulty of lowering this efficiency gap stems from the distribution of Democratic voters across the state. Creating compact districts while creating partisan fairness across the state is no easy task. Nevertheless, it is worth noting the possibility of maintaining this proportional representation scheme while also maintaining the integrity of county and other political subdivision lines.

District	2020 Democratic Presidential Vote Share	2020 Republican Presidential Vote Share
District 1	80%	20%
District 2	48.9%	51.1%
District 3	30.8%	69.2%
District 4	33.1%	66.9%
District 5	59%	41%
District 6	36.7%	63.3%
District 7	28.5%	71.5%
District 8	21.1%	78.9%

²² PlanScore, *Efficiency Gap*, <https://planscore.campaignlegal.org/metrics/efficiencygap/> (last visited Mar. 30, 2022).



Figure 4: Partisan Lean of Proposed Districts – PlanScore Analysis²³

D. Points of Interest

Preserving the metropolitan areas within the state, primarily within the Kansas City and St. Louis regions, were main considerations when creating this plan. The largest cities of Kansas City, St. Louis, Springfield, and Columbia are primarily contained within their own districts to ensure their representatives are most responsive to the needs of their sizable jurisdiction. I also followed the water boundary established by the Missouri River as much as possible while devising the districts that border it.

V. Proposed Plan v. Plan Enacted Following 2010 Census

In addition to adhering to the core principle of respect for political subdivisions, I made efforts to follow the lines of the congressional map enacted following the 2010 Census. The proposed plan splits only five of the counties and eight of the voting districts in Missouri, where

²³ PlanScore, *Districts 2022-03-30 - Planscore Upload*, <https://planscore.campaignlegal.org/plan.html?20220331T053007.088447452Z> (last visited Mar. 30, 2022).

the existing plan splits eight counties and sixty-three voting districts. The proposed plan only splits the counties of Boone, Greene, Jackson, St. Charles, and St. Louis, whereas the existing plan splits the counties of Audrian, Camden, Clay, Jackson, Jefferson, St. Charles, St. Louis, and Webster. Figure 5 below demonstrates the respect for county lines in the proposed plan as compared to the existing plan. From the northern-most part of the state, District 6 stretches farther south to incorporate the counties of Ray, Randolph, and Howard. District 5 now only includes the counties of Saline, Lafayette, and the entirety of Jackson—which is split in the existing plan. District 3 stretches north instead of west, and includes the counties of Marion, Ralls, Pike, and Audrain, which was also split in the existing plan. District 4 stretches east to incorporate some of the counties in the existing District 3 and travels north to include Polk County and parts of Greene County. District 8 now includes the counties of Pulaske, Laclede, and the entirety of Webster. District 7, stretches further north and east with its addition of Barton, Dade, Ozark, and Douglas counties. District 2 remains fairly unchanged from the last redistricting cycle, and its lines were only altered to address population changes in the 2020 Census.

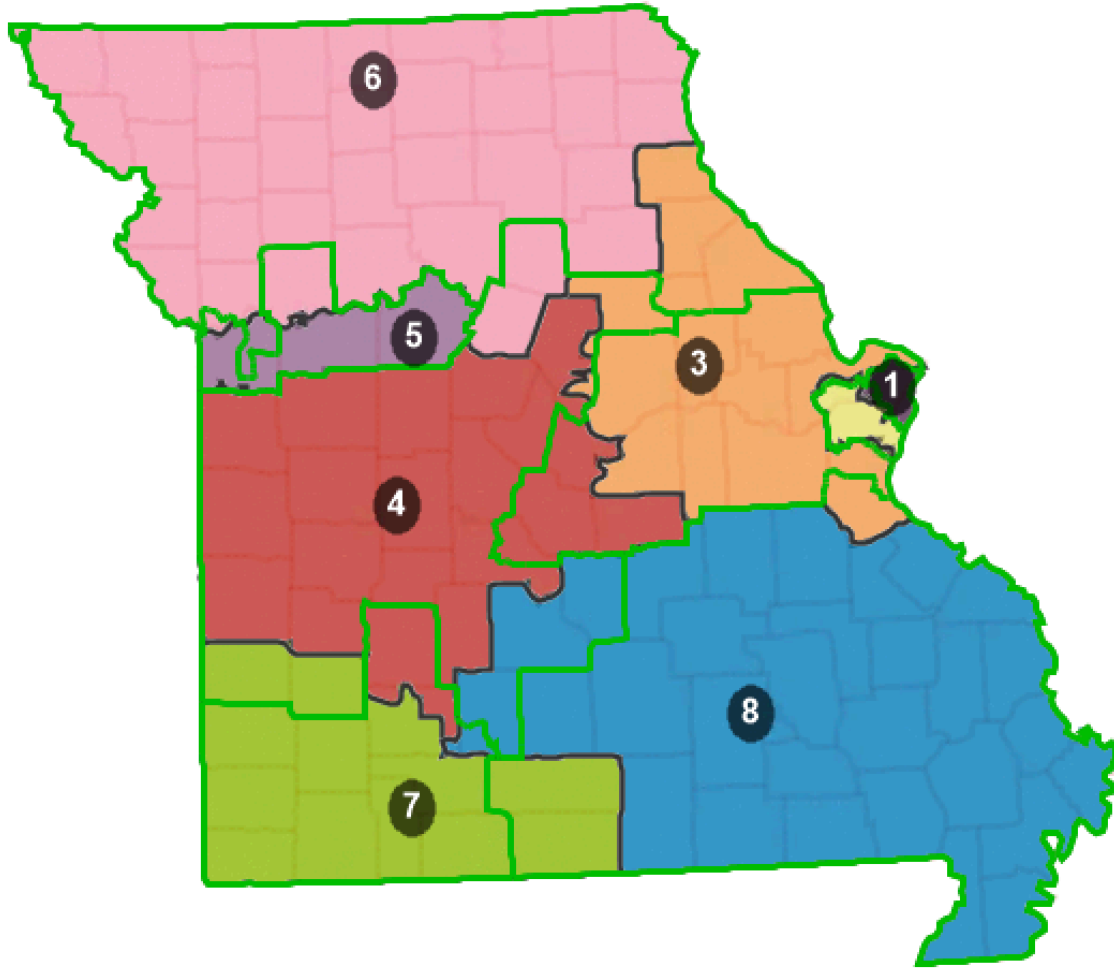


Figure 5: Statewide Overlay of Existing Districts on Proposed Districts

Due to the population loss in District 1 since the 2010 Census, the district lines needed to move further out to achieve population equality. This resulted in the proposed district encompassing more of St. Louis County as compared to the currently enacted plan. The expansion of this district was guided by a desire to preserve communities of interest and better solidify its majority-minority district status. This motivation resulted in the district stretching into additional parts of the County with higher densities of Black and Hispanic voters. To further respect communities of interest, the district also includes the entirety of the Maryland Heights, Bridgeton, and Champ suburbs that were originally segmented in the 2010 plan.

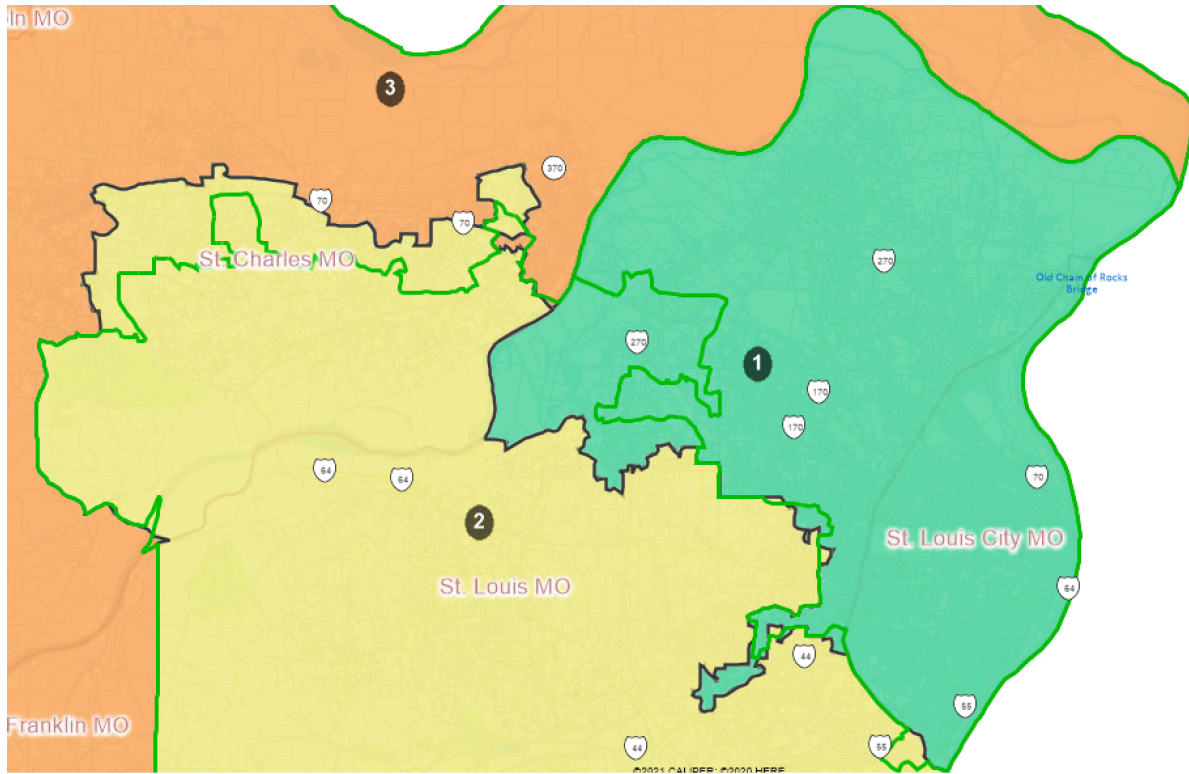


Figure 6: St. Louis Region Overlay of Existing Districts on Proposed Districts

VI. Proposed Plan v. State Senate and House Plans

There are currently two congressional plans proposed by each chamber of the Missouri state legislature. The House and Senate have yet to reach an agreement on a plan, as each house has voiced opposition to the other house’s proposal. Upon first glance, the House version is most similar to my own plan as it seeks to make minimal changes to the current lines and appears to make minimal changes for population reasons. This plan is experiencing sizable opposition from the more conservative members of the State Senate as it maintains the second Democratic seat based in Kansas City.²⁴ Both proposals include a District that encompasses almost the entire northern part of the state—a major difference from my proposal. Under my proposal, District 3 stretches further north to incorporate the counties of Pike and Lincoln.

²⁴ Tessa Weinberg, *Missouri Senate breaks deadlock on congressional redistricting*, Missouri Independent (Jan. 19, 2022), <https://missouriindependent.com/2022/01/19/missouri-house-sends-congressional-map-to-senate-without-an-emergency-clause/>.

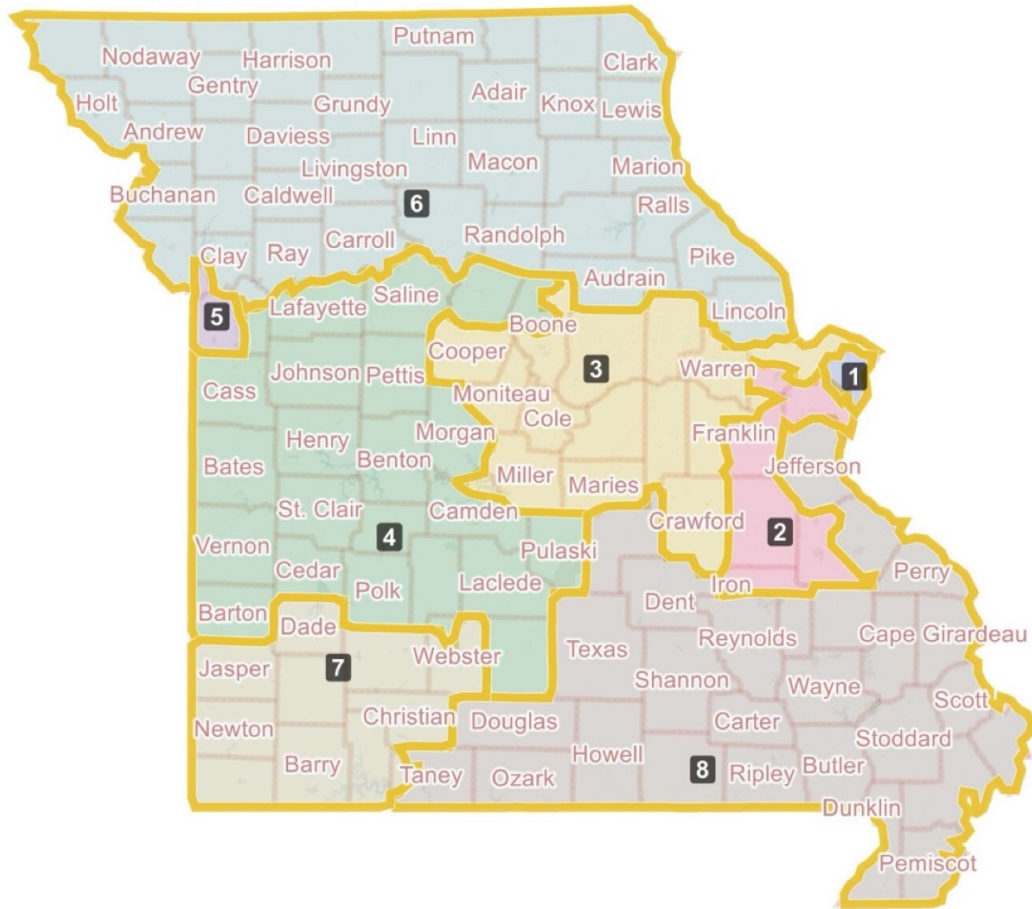


Figure 7: Missouri State Senate Proposed Map (March 2022)²⁵

Despite pushback from some Senators in the Republican caucus, the Senate-passed proposal does little to eliminate the second Democratic-leaning seat in the state. In the end, these members “had to accept that they had only achieved minor goals – keeping the state’s military bases in the same district and adding a few reliable GOP votes to the 2nd District – but had otherwise failed.”²⁶ The starkest difference between the Senate-proposed plan in Figure 7 and my own rests in the configuration of the 2nd District. Rather than adhering to the current lines and simply altering them for population reasons, the State Senate’s plan created a District 2 that extends from St. Louis County down the state to Irons County, a noticeable arm-type district.

²⁵ Sarah Kellogg, *Missouri Senate passes new 6-2 Republican majority congressional map*, St. Louis Public Radio (Mar. 24, 2022), <https://news.stpublicradio.org/government-politics-issues/2022-03-24/missouri-senate-passes-new-6-2-republican-majority-congressional-map>.

²⁶ Rudi Keller, *Missouri Senate breaks deadlock on congressional redistricting*, Missouri Independent (Mar. 24, 2022), <https://missouriindependent.com/2022/03/24/missouri-senate-breaks-deadlock-on-congressional-redistricting/>.

District 8 also differs than my proposed plan as it extends further south to include Jefferson County and embrace the 2nd District on its eastern side. This is presumably to shore up the 2nd District to make it a less competitive seat that will be more reliable for Republican victories. Despite District 5 in my plan including more neighboring counties, the seat remains a reliably Democratic seat.

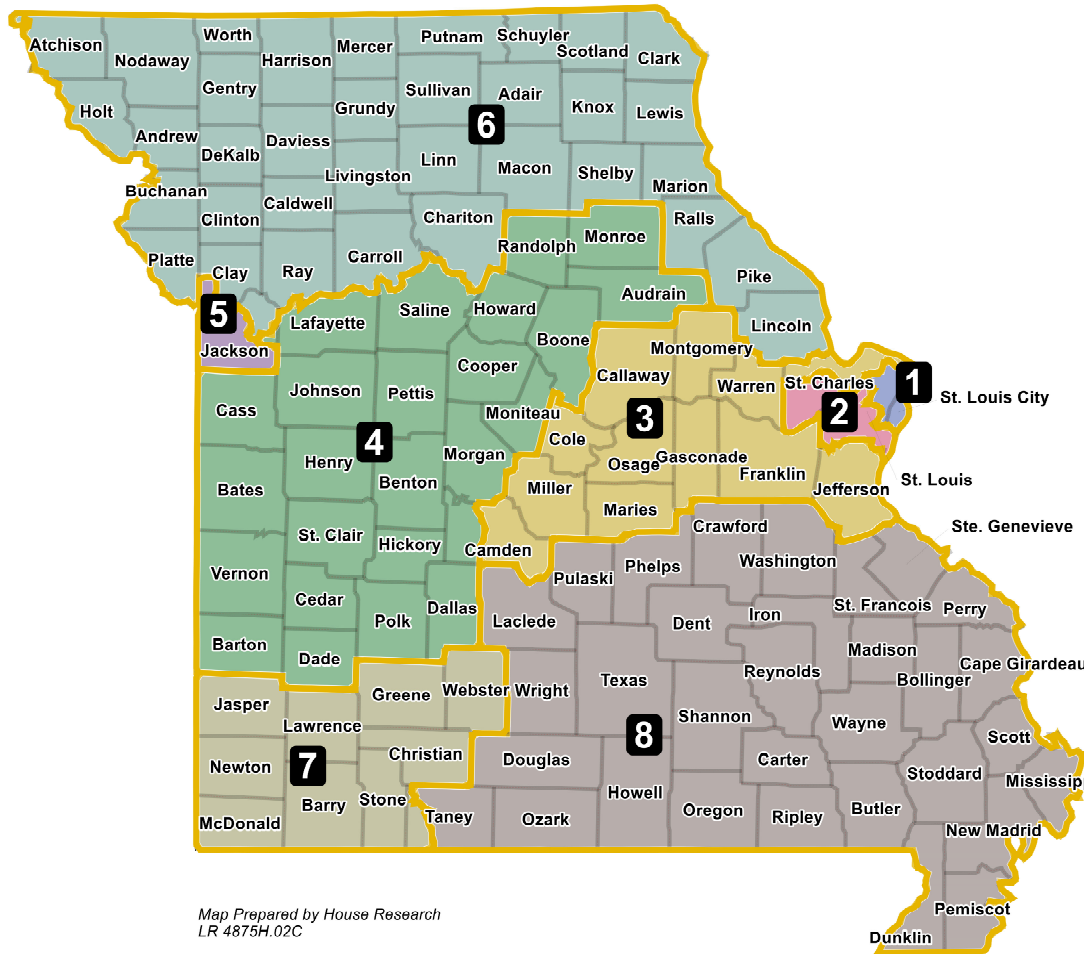


Figure 8: Missouri House Proposed Map (March 2022)²⁷

Under the House-passed Map, District 5 includes fewer counties, similar to the Senate version discussed previously. My plan’s District 5 includes the counties of Saline and Lafayette in this district, but under the House plan, these counties would be absorbed into District 4. The 2nd District moves further into St. Charles County, but does not include the arm-like extension

²⁷ *Proposed 2022 Missouri Congressional Districts*, Missouri House, <https://house.mo.gov/billtracking/bills221/maps/Map.4875H.02P.pdf> (last visited Mar. 30, 2022).

included in the Senate-approved plan. Some Republicans in the House were eager to have this district incorporate the entirety of St. Charles County, but this proposal did not come to fruition.²⁸ The House plan's District 8 is very similar to that included in my plan, but incorporates the counties of Douglas, Ozark, and Taney over Webster County. The House's District 7 is also noticeably similar to its counterpart in my proposal. However, Jasper and Webster counties, as well as all of Greene, are included in this district in the House plan. My plan splits Greene and instead encompasses Barton, Taney, Douglas, and Ozark counties.

VII. Conclusion

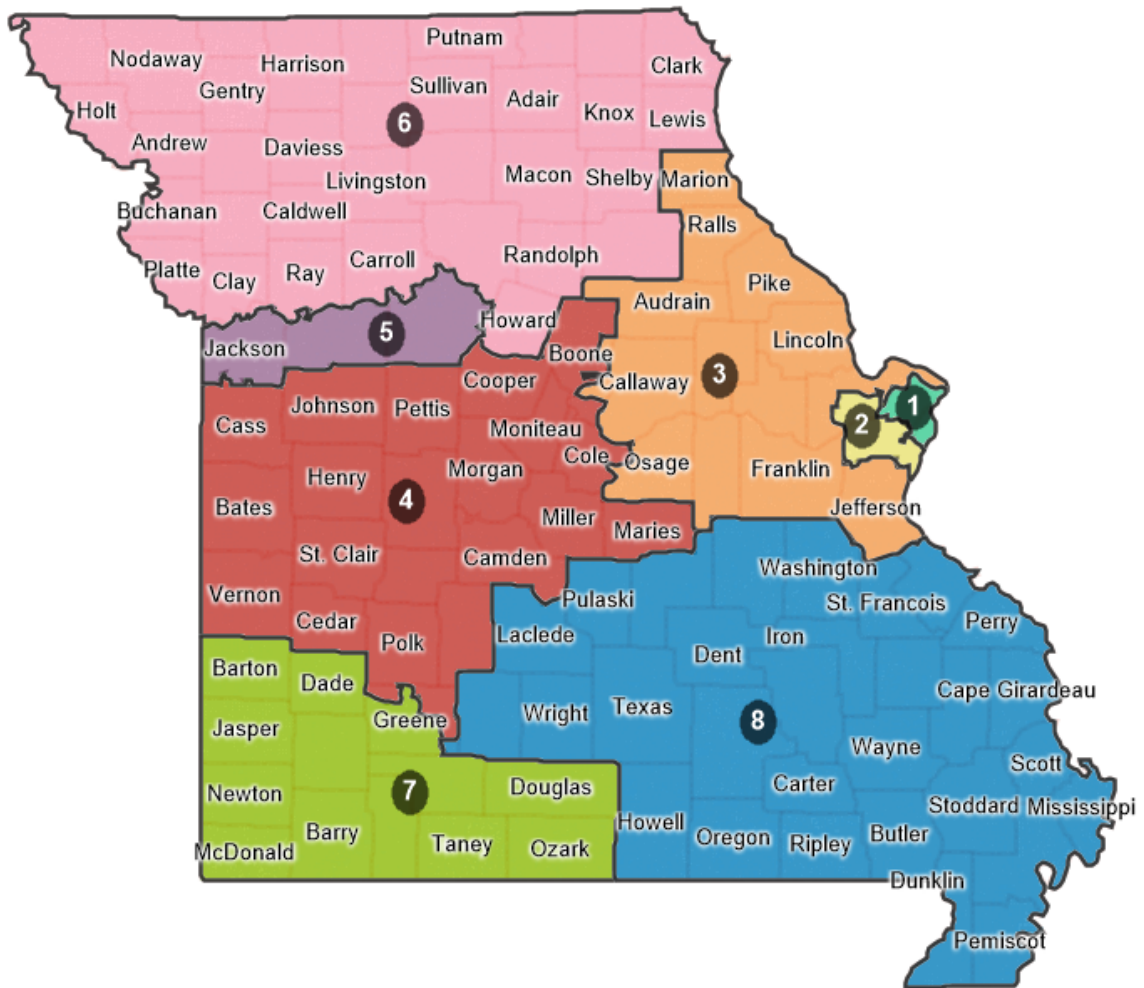
Missouri's congressional plan has seen relatively little change over recent decades. Its urban centers in Kansas City and St. Louis require two of its districts to be centered on these metropolitan areas. The majority-minority district required by Section 2 of the Voting Rights Act requires special care when crafting the district around the St. Louis region. The remainder of the six districts sprawl across the state to compensate for the distribution of the population. These realities of the state limit the potential opportunities for district configuration, and mainly confine it to permutations of county groupings across the state. Such an exercise leaves map-drawers with the important task of determining which counties of the state's 114 should be grouped together to formulate cohesive districts. In this redistricting cycle, some members of the state legislature have attempted to eliminate the second Democratic-leaning seat in the state to reduce Democratic representation in the congressional delegation. However, this change does come with an expense—a reduction in the Republican lean of neighboring districts. This is a risk that many Republicans in the state do not view as worth taking, and has led to significant debate that has stalled the plan approval process.

The plan discussed throughout this report is a common-sense option for Missourians who seek to maintain respect for political subdivision lines, promote a map that is more conducive to partisan fairness, and limit deviations from the current map enacted in 2010. The considerations utilized in creating this map render a product that recognizes the state's metropolitan areas, communities of interest, and value of political subdivisions. Elections administrators will also

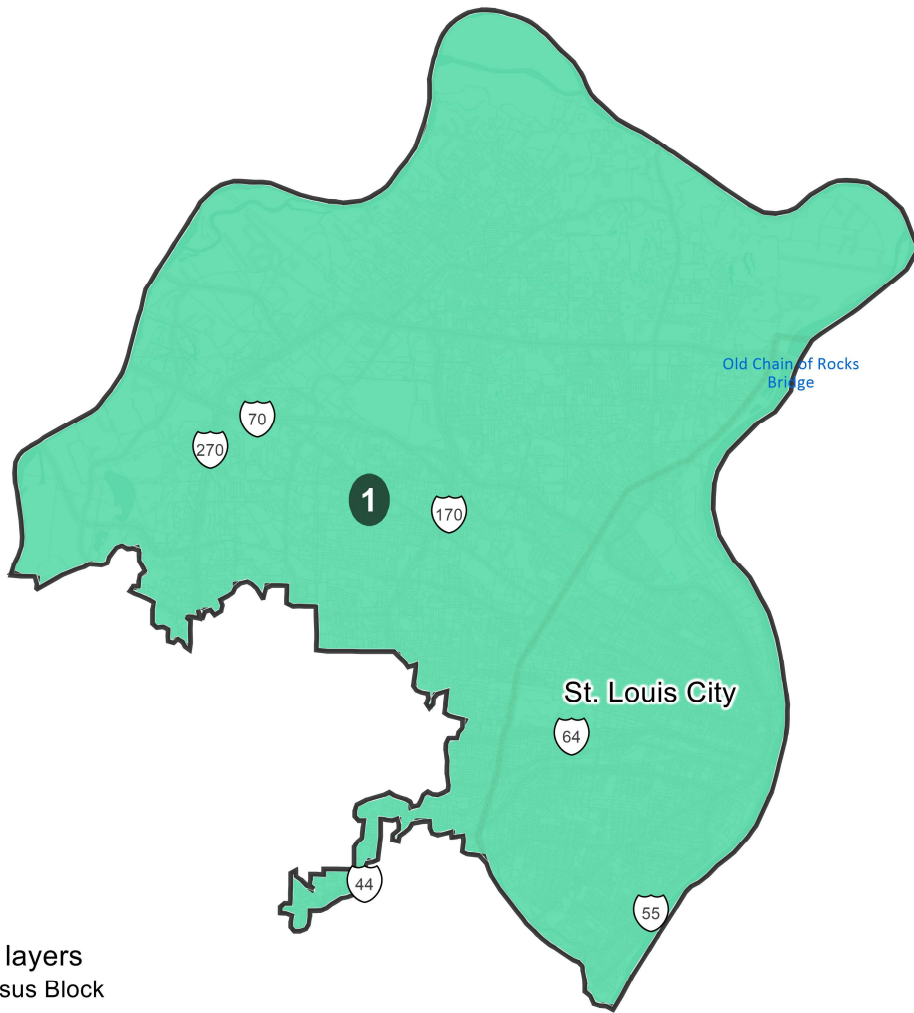
²⁸ Tessa Weinberg, *Missouri Senate breaks deadlock on congressional redistricting*, Missouri Independent (Jan. 19, 2022), <https://missouriindependent.com/2022/01/19/missouri-house-sends-congressional-map-to-senate-without-an-emergency-clause/>.

appreciate the ease in which they can execute the intricacies of upcoming elections with limited splits of voting districts. These implications of the proposed plan position it as a feasible and positive alternative to some of the proposals currently in front of the state legislature.

Overview of Missouri Congressional Plan



District: 1



Field	Value
District	1
Population	769364
Deviation	0
% Deviation	0%
Alternate Schwartzberg	1.88
Polsby Popper	0.28
Perimeter	109.2
Reock	0.54
NH_Wht	306745
% NH_Wht	39.87%
AP_BlK	379693
% AP_BlK	49.35%
Hispanic Origin	35089
% Hispanic Origin	4.56%
18+_Pop	610248
NH18+_Wht	267157
% NH18+_Wht	43.78%
18+_AP_BlK	279263
% 18+_AP_BlK	45.76%
H18+_Pop	24417
% H18+_Pop	4%
D 20_Pres	277520.67
% D 20_Pres	80.03%
R 20_Pres	69263.09
% R 20_Pres	19.97%
20_Pres	346783.75
Total CVAP 19	585130.38
NH CVAP 19	572636.42
% NH CVAP 19	97.86%
NH White CVAP 19	282409.62
% NH White CVAP 19	48.26%
NH Black CVAP 19	270518.16
% NH Black CVAP 19	46.23%
H CVAP 19	17459.19
% H CVAP 19	2.13%



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District: 2



Map layers

- Census Block
- County
- Districts

ID

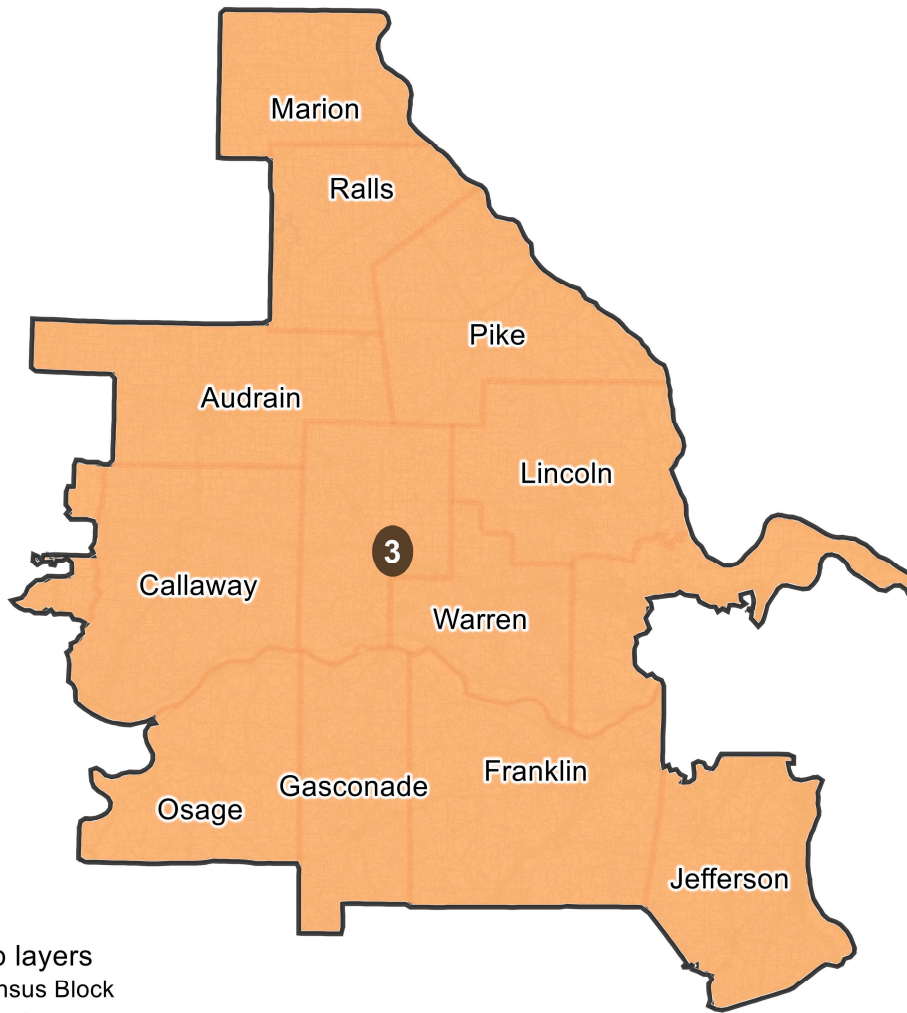
- 1 and below (1)
- 2 (1)
- 3 (1)
- 4 (1)
- 5 (1)
- 6 (1)
- 7 (1)
- 8 and above (1)

0 3 6
Miles

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Field	Value
District	2
Population	769363
Deviation	-1
% Deviation	-0%
Alternate Schwartzberg	2.31
Polsby Popper	0.19
Perimeter	173.5
Reock	0.42
NH_Wht	638819
% NH_Wht	83.03%
AP_BlK	36510
% AP_BlK	4.75%
Hispanic Origin	26715
% Hispanic Origin	3.47%
18+_Pop	601522
NH18+_Wht	511798
% NH18+_Wht	85.08%
18+_AP_BlK	24339
% 18+_AP_BlK	4.05%
H18+_Pop	17571
% H18+_Pop	2.92%
D 20_Pres	215018.48
% D 20_Pres	48.86%
R 20_Pres	225064.11
% R 20_Pres	51.14%
20_Pres	440082.59
Total CVAP 19	572369.15
NH CVAP 19	562335.20
% NH CVAP 19	98.25%
NH White CVAP 19	519111.97
% NH White CVAP 19	90.7%
NH Black CVAP 19	22105.72
% NH Black CVAP 19	3.86%
H CVAP 19	9984.33
% H CVAP 19	1.74%

District: 3

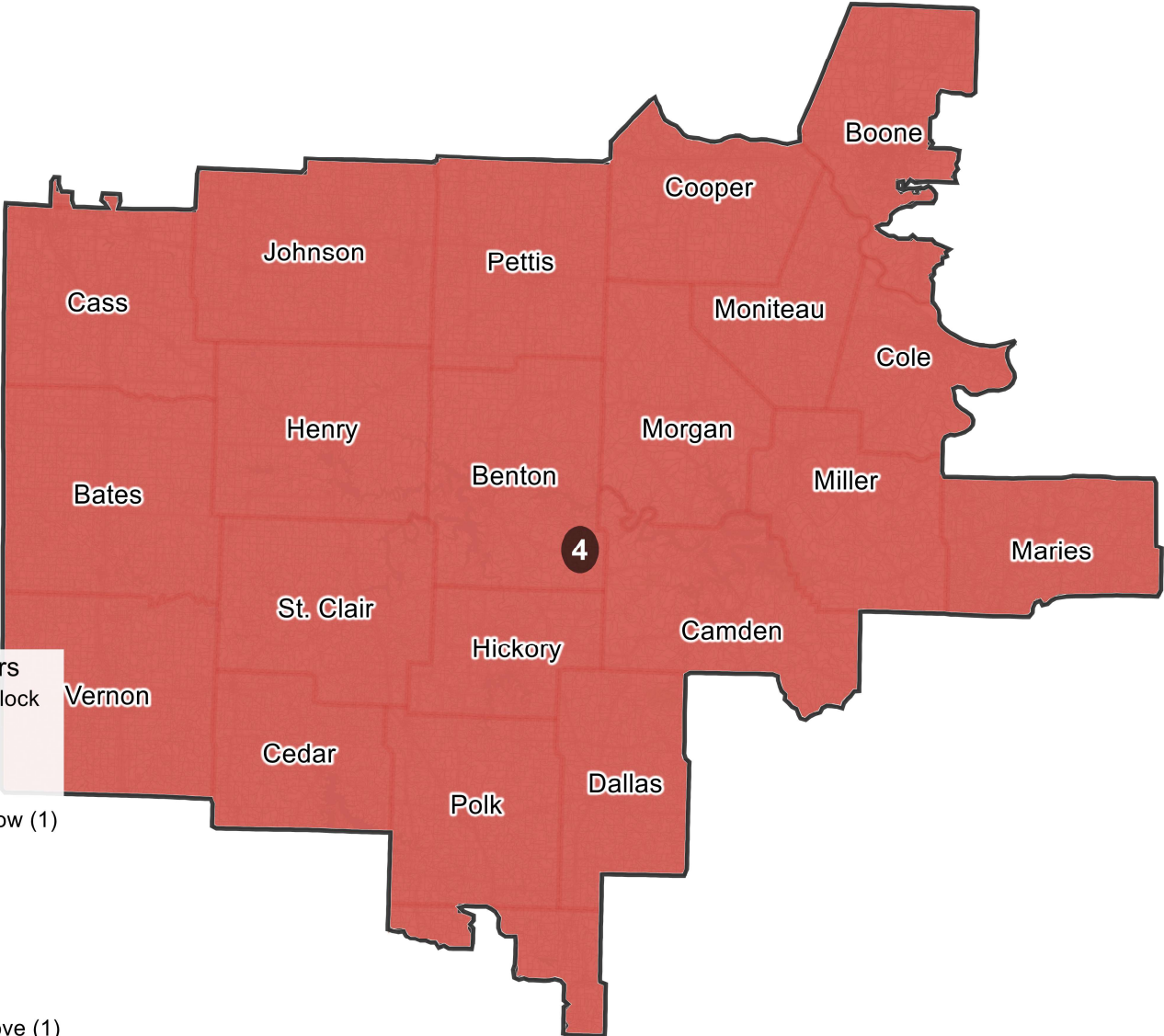


Field	Value
District	3
Population	769364
Deviation	0
% Deviation	0%
Alternate Schwartzberg	2.19
Polsby Popper	0.21
Perimeter	695.92
Reock	0.44
NH_Wht	678944
% NH_Wht	88.25%
AP_BlK	29085
% AP_BlK	3.78%
Hispanic Origin	20916
% Hispanic Origin	2.72%
18+_Pop	590096
NH18+_Wht	529233
% NH18+_Wht	89.69%
18+_AP_BlK	18230
% 18+_AP_BlK	3.09%
H18+_Pop	13134
% H18+_Pop	2.23%
D 20_Pres	118843.62
% D 20_Pres	30.75%
R 20_Pres	267610.08
% R 20_Pres	69.25%
20_Pres	386453.70
Total CVAP 19	571111.99
NH CVAP 19	562176.77
% NH CVAP 19	98.44%
NH White CVAP 19	536737.98
% NH White CVAP 19	93.98%
NH Black CVAP 19	15537.70
% NH Black CVAP 19	2.72%
H CVAP 19	8987.62
% H CVAP 19	1.57%



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District: 4



Field	Value
District	4
Population	769365
Deviation	1
% Deviation	0%
Alternate Schwartzberg	1.89
Polsby Popper	0.28
Perimeter	757.95
Reock	0.52
NH_Wht	644230
% NH_Wht	83.74%
AP_BlK	48899
% AP_BlK	6.36%
Hispanic Origin	30293
% Hispanic Origin	3.94%
18+_Pop	597530
NH18+_Wht	511592
% NH18+_Wht	85.62%
18+_AP_BlK	32020
% 18+_AP_BlK	5.36%
H18+_Pop	19394
% H18+_Pop	3.25%
D 20_Pres	125202.99
% D 20_Pres	33.06%
R 20_Pres	253475.25
% R 20_Pres	66.94%
20_Pres	378678.24
Total CVAP 19	580959.44
NH CVAP 19	568207.52
% NH CVAP 19	97.81%
NH White CVAP 19	525023.62
% NH White CVAP 19	90.37%
NH Black CVAP 19	28055.16
% NH Black CVAP 19	4.83%
H CVAP 19	12744.41
% H CVAP 19	2.19%

Map layers

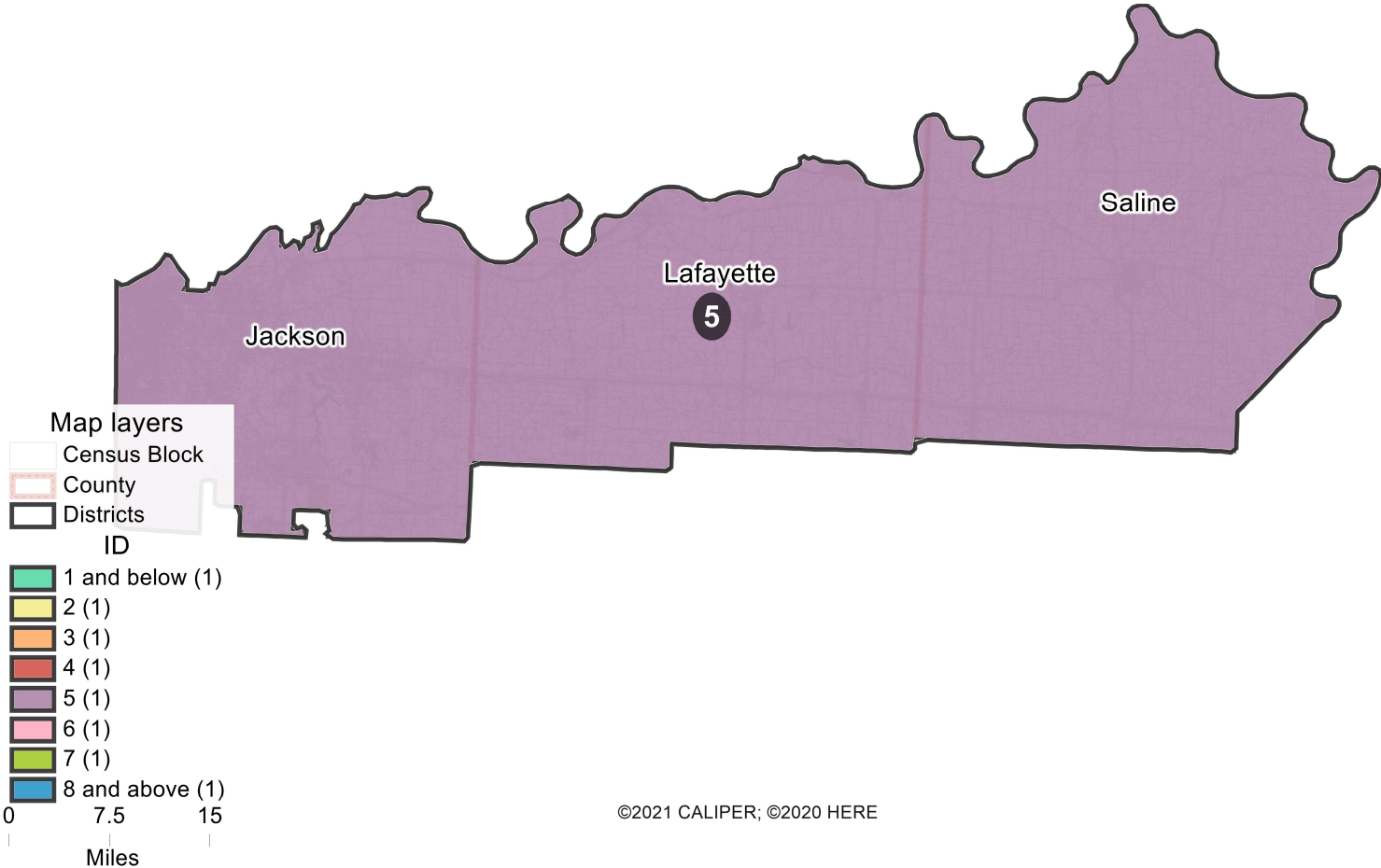
- Census Block
- County
- Districts

ID

- 1 and below (1)
- 2 (1)
- 3 (1)
- 4 (1)
- 5 (1)
- 6 (1)
- 7 (1)
- 8 and above (1)

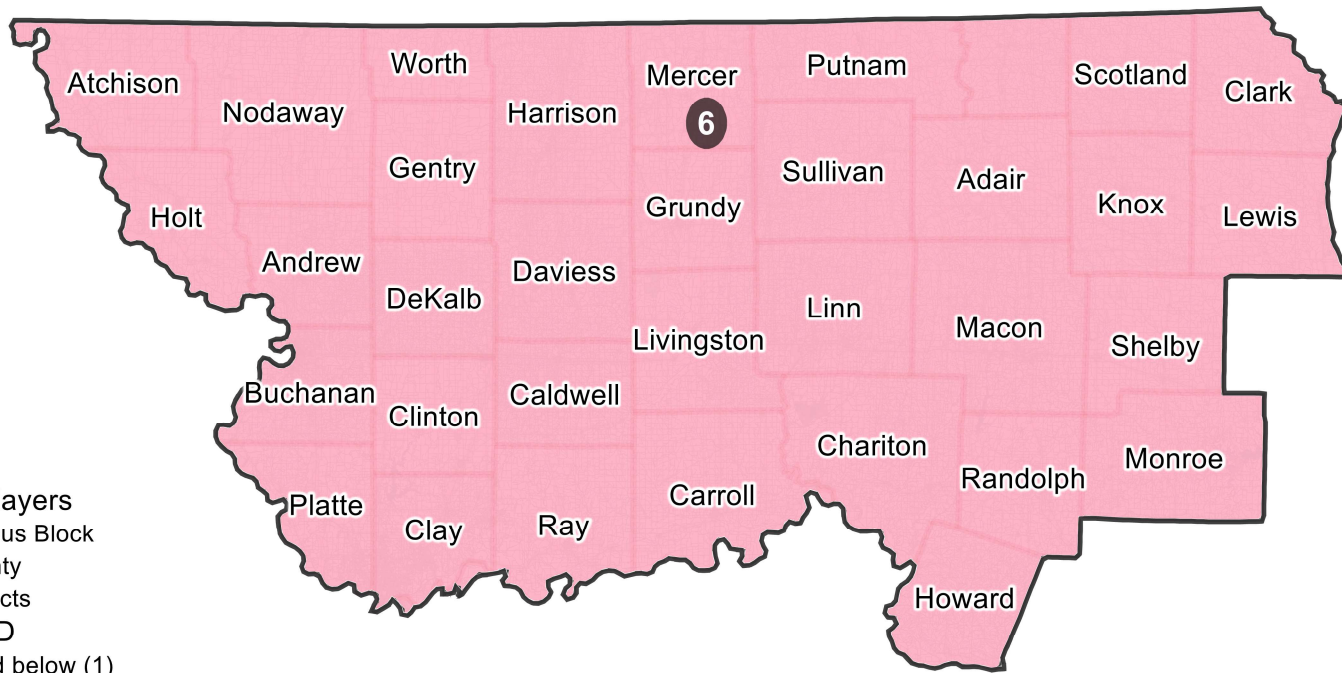
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Miles

District: 5

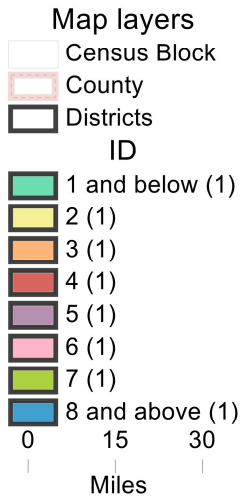


Field	Value
District	5
Population	769365
Deviation	1
% Deviation	0%
Alternate Schwartzberg	2.01
Polsby Popper	0.25
Perimeter	316.75
Reock	0.26
NH_Wht	463168
% NH_Wht	60.2%
AP_BlK	180688
% AP_BlK	23.49%
Hispanic Origin	81032
% Hispanic Origin	10.53%
18+_Pop	594629
NH18+_Wht	379448
% NH18+_Wht	63.81%
18+_AP_BlK	127671
% 18+_AP_BlK	21.47%
H18+_Pop	52983
% H18+_Pop	8.91%
D 20_Pres	205930.43
% D 20_Pres	58.96%
R 20_Pres	143342.38
% R 20_Pres	41.04%
20_Pres	349272.81
Total CVAP 19	548731.04
NH CVAP 19	521116.22
% NH CVAP 19	94.97%
NH White CVAP 19	384534.96
% NH White CVAP 19	70.08%
NH Black CVAP 19	119935.97
% NH Black CVAP 19	21.86%
H CVAP 19	27608.14
% H CVAP 19	5.03%

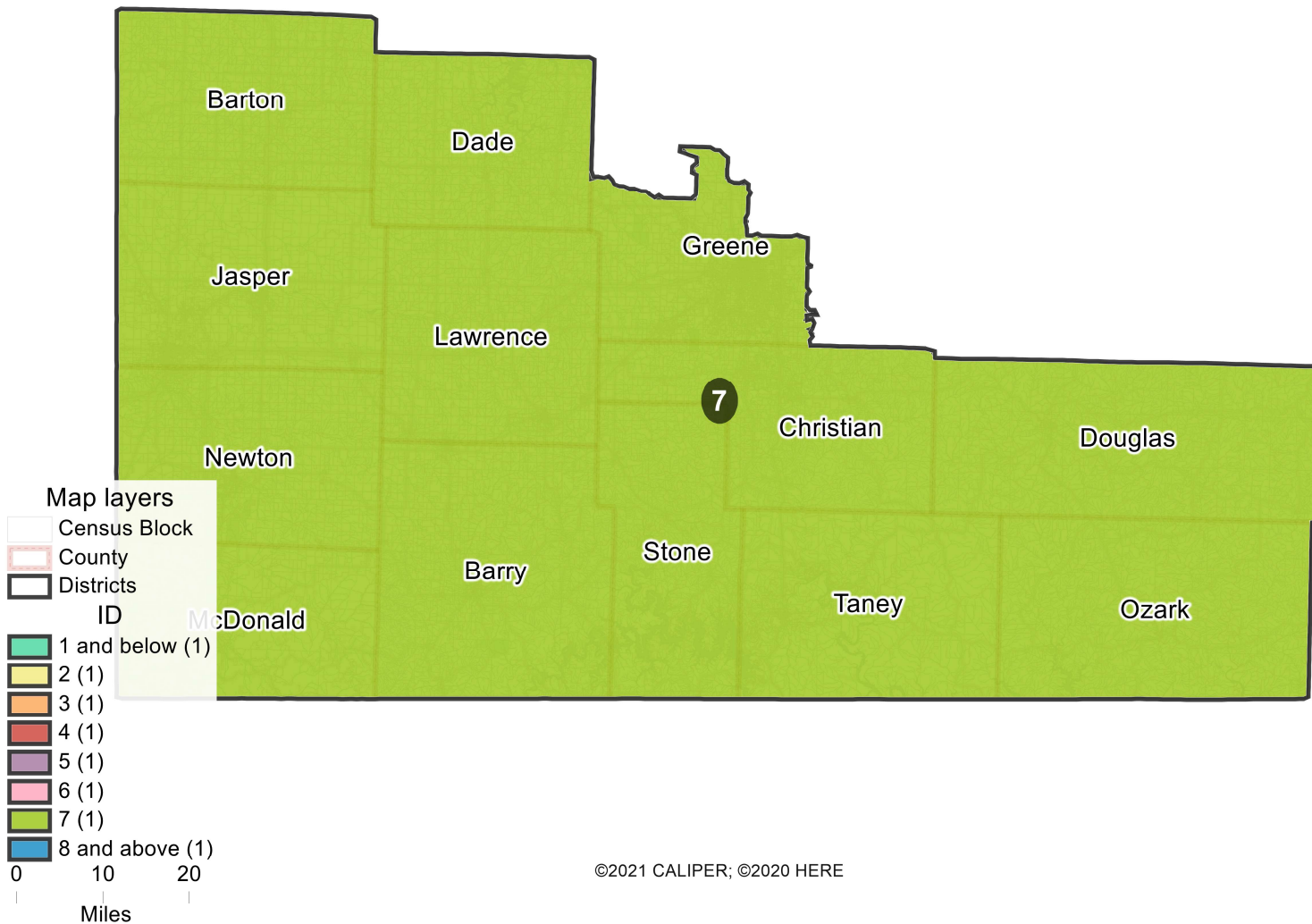
District: 6



Field	Value
District	6
Population	769364
Deviation	0
% Deviation	0%
Alternate Schwartzberg	1.71
Polsby Popper	0.34
Perimeter	812.94
Reock	0.42
NH_Whit	637162
% NH_Whit	82.82%
AP_Black	49430
% AP_Black	6.42%
Hispanic Origin	39526
% Hispanic Origin	5.14%
18+_Pop	590270
NH18+_Whit	500688
% NH18+_Whit	84.82%
18+_AP_Black	32054
% 18+_AP_Black	5.43%
H18+_Pop	25517
% H18+_Pop	4.32%
D 20_Pres	136565.25
% D 20_Pres	36.74%
R 20_Pres	235138.07
% R 20_Pres	63.26%
20_Pres	371703.32
Total CVAP 19	574267.16
NH CVAP 19	554854.15
% NH CVAP 19	96.62%
NH White CVAP 19	513240.31
% NH White CVAP 19	89.37%
NH Black CVAP 19	27109.11
% NH Black CVAP 19	4.72%
H CVAP 19	19352.02
% H CVAP 19	3.37%

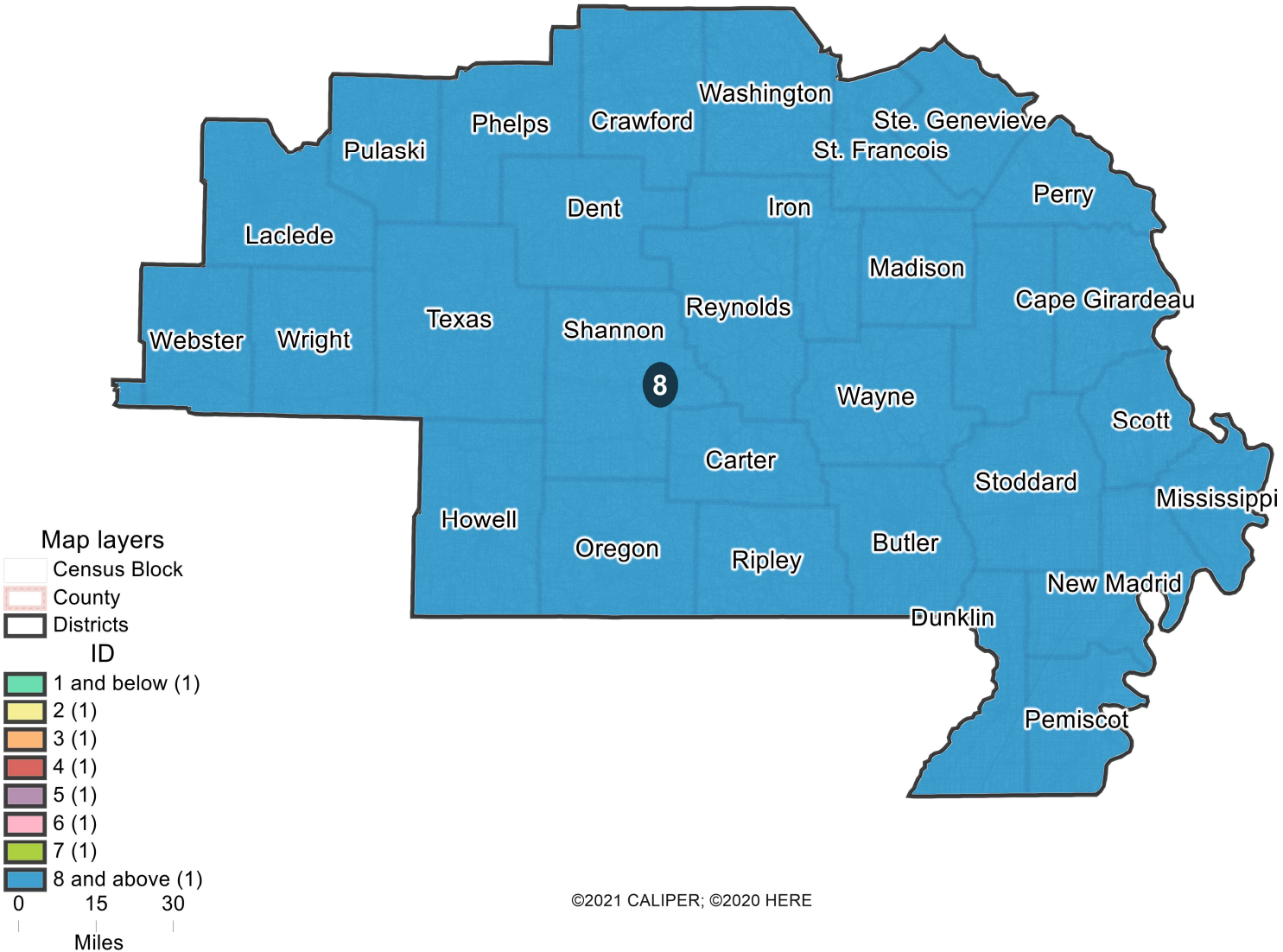


District: 7



Field	Value
District	7
Population	769365
Deviation	1
% Deviation	0%
Alternate Schwartzberg	1.47
Polsby Popper	0.46
Perimeter	467.53
Reock	0.4
NH_Wht	637007
% NH_Wht	82.8%
AP_Blkc	25493
% AP_Blkc	3.31%
Hispanic Origin	46856
% Hispanic Origin	6.09%
18+_Pop	596633
NH18+_Wht	507376
% NH18+_Wht	85.04%
18+_AP_Blkc	15621
% 18+_AP_Blkc	2.62%
H18+_Pop	29460
% H18+_Pop	4.94%
D 20_Pres	102102.02
% D 20_Pres	28.52%
R 20_Pres	255903.94
% R 20_Pres	71.48%
20_Pres	358005.95
Total CVAP 19	572558.77
NH CVAP 19	557187.05
% NH CVAP 19	97.32%
NH White CVAP 19	525214.75
% NH White CVAP 19	91.73%
NH Black CVAP 19	11792.95
% NH Black CVAP 19	2.06%
H CVAP 19	15470.90
% H CVAP 19	2.7%

District: 8



Field	Value
District	8
Population	769363
Deviation	-1
% Deviation	-0%
Alternate Schwartzberg	1.76
Polsby Popper	0.32
Perimeter	883.14
Reock	0.5
NH_Whit	657832
% NH_Whit	85.5%
AP_Black	48825
% AP_Black	6.35%
Hispanic Origin	22641
% Hispanic Origin	2.94%
18+_Pop	594684
NH18+_Whit	516350
% NH18+_Whit	86.83%
18+_AP_Black	33009
% 18+_AP_Black	5.55%
H18+_Pop	14697
% H18+_Pop	2.47%
D 20_Pres	71830.56
% D 20_Pres	21.08%
R 20_Pres	268939.08
% R 20_Pres	78.92%
20_Pres	340769.64
Total CVAP 19	598544.20
NH CVAP 19	586539.22
% NH CVAP 19	97.99%
NH White CVAP 19	542399.32
% NH White CVAP 19	90.62%
NH Black CVAP 19	30688.11
% NH Black CVAP 19	5.13%
H CVAP 19	11999.98
% H CVAP 19	2%

District	Population	Deviation	Perimeter	Reock	% NH_Wht	% AP_Blck	% Hispanic Origin
1	769364	0	109.19786	0.542685	0.398699	0.493515	0.045608
2	769363	-1	173.503055	0.417128	0.830322	0.047455	0.034724
3	769364	0	695.915562	0.437852	0.882474	0.037804	0.027186
4	769365	1	757.949194	0.524455	0.837353	0.063558	0.039374
5	769365	1	316.754881	0.262384	0.602013	0.234853	0.105323
6	769364	0	812.941942	0.417513	0.828167	0.064248	0.051375
7	769365	1	467.526868	0.402659	0.827965	0.033135	0.060902
8	769363	-1	883.142812	0.50182	0.855035	0.063462	0.029428

% NH18+_Wht	% 18+_AP_Bl	% H18+_Pop	% D 20_Pres	% R 20_Pres	% NH CVAP 19
0.437784	0.457622	0.040012	0.80027	0.19973	0.978648
0.850838	0.040462	0.029211	0.488587	0.511413	0.982469
0.896859	0.030893	0.022257	0.307524	0.692476	0.984355
0.856178	0.053587	0.032457	0.330632	0.669368	0.97805
0.638126	0.214707	0.089103	0.589598	0.410402	0.949675
0.848236	0.054304	0.043229	0.367404	0.632596	0.966195
0.850399	0.026182	0.049377	0.285196	0.714804	0.973153
0.868276	0.055507	0.024714	0.210789	0.789211	0.979943

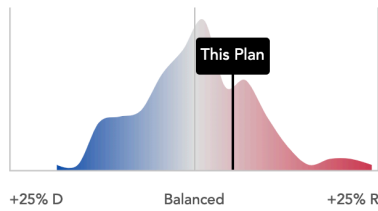
% NH Black CVAP 19	% H CVAP 19
0.462321	0.021293
0.038621	0.017444
0.027206	0.015737
0.048291	0.021937
0.21857	0.050313
0.047206	0.033699
0.020597	0.027021
0.051271	0.020049

PlanScore Analysis of Plan's Partisanship

District Map



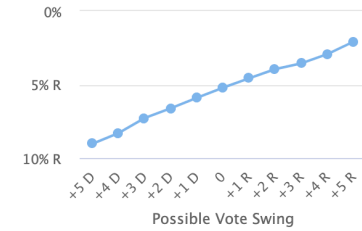
Efficiency Gap: 5.2% R



Votes for Republican candidates are expected to be inefficient at a rate 5.2% R lower than votes for Democratic candidates, favoring Republicans in 75% of predicted scenarios.*

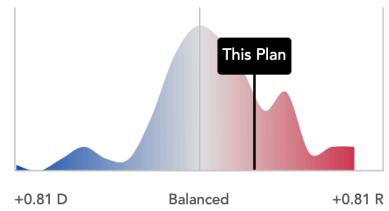
[Learn more >](#)

Sensitivity Testing



Sensitivity testing shows us a plan's expected efficiency gap given a range of possible vote swings. It lets us evaluate the durability of a plan's skew.

Declination: 0.24 R



The difference between mean Democratic vote share in Democratic districts and mean Republican vote share in Republican districts along with the relative fraction of seats won by each party leads to a declination that favors Republicans in 87% of predicted scenarios.*

[Learn more >](#)

District Data

District	Candidate Scenario	Pop. 2020	Hispanic CVAP 2019	Non-Hisp. Black CVAP 2019	Non-Hisp. Asian CVAP 2019	Non-Hisp. Native CVAP 2019	Chance of 1+ Flips [†]	Chance of Democratic Win	Predicted Vote Shares	Biden (D) 2020	Trump (R) 2020
1	Open Seat	769,364	2.1%	46.2%	2.3%	0.5%	No	>99%	76% D / 24% R	277,500	69,249
2	Open Seat	769,363	1.7%	3.9%	3.1%	0.4%	Yes	34%	48% D / 52% R	214,994	225,013
3	Open Seat	769,364	1.6%	2.7%	0.8%	0.8%	No	<1%	32% D / 68% R	118,467	266,967
4	Open Seat	769,365	2.2%	4.8%	1.1%	1.2%	No	<1%	34% D / 66% R	125,630	254,226
5	Open Seat	769,365	5.0%	21.9%	1.4%	1.0%	No	94%	57% D / 43% R	206,436	144,020
6	Open Seat	769,364	3.4%	4.7%	1.2%	1.0%	No	<1%	37% D / 63% R	136,065	234,465
7	Open Seat	769,365	2.7%	2.1%	1.2%	2.1%	No	<1%	29% D / 71% R	102,085	255,840
8	Open Seat	769,363	2.0%	5.1%	0.7%	1.4%	No	<1%	23% D / 77% R	71,829	268,939



Predicted 29% D / 71% R seat share across scenarios* vs. 42% D / 58% R vote share.

[Download raw data as tab-delimited text.](#)

Metric	Value	Favors Democrats in this % of Scenarios*	More Skewed than this % of Historical Plans [‡]	More Pro-Democratic than this % of Historical Plans [‡]
Efficiency Gap	5.2% Pro-Republican	25%	54%	21%
Declination	0.24 Pro-Republican	13%	69%	21%
Partisan Bias	N/A	N/A	N/A	N/A
Mean-Median Difference	N/A	N/A	N/A	N/A

User:

Plan Name: **UPDATED Good Government Plan 2**

Plan Type: **Congress**

Political Subdivision Splits Between Districts

Wednesday, March 30, 2022

10:44 PM

Number of subdivisions not split:

County 110

Number of subdivisions split into more than one district:

County 5

Number of splits involving no population:

County 0

Split Counts

County

Cases where an area is split among 2 Districts: 3

Cases where an area is split among 3 Districts: 2

Voting District

Cases where an area is split among 2 Districts: 6

County	District	Population
<i>Split Counties:</i>		
Boone MO	3	5,497
Boone MO	4	178,113
Greene MO	4	19,118
Greene MO	7	276,797
Greene MO	8	3,000
Jackson MO	4	3,127
Jackson MO	5	713,048
Jackson MO	6	1,029
St. Charles MO	2	233,024
St. Charles MO	3	172,238
St. Louis MO	1	467,786
St. Louis MO	2	536,339
<i>Split VTDs:</i>		
Boone MO	3	934
Boone MO	4	335
Greene MO	4	3,340
Greene MO	7	52
Greene MO	7	262
Greene MO	8	3,000
St. Charles MO	2	2,122
St. Charles MO	3	114
St. Charles MO	2	4,352
St. Charles MO	3	0
St. Louis MO	1	54

County	District	Population
St. Louis MO	2	53

User:

Plan Name: **UPDATED Good Government Plan 2**

Plan Type: **Congress**

Measures of Compactness Report

Monday, April 4, 2022

2:37 AM

Number of cut edges: 3,411

	Reock	Schwartzberg	Alternate Schwartzberg	Polsby-Popper	Population Polygon	Area/Convex Hull	Population Circle	Ehrenburg	Perimeter	Length-Width
Sum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,216.93	N/A
Min	0.26	1.45	1.47	0.19	0.31	0.70	0.29	0.24	N/A	0.12
Max	0.54	2.20	2.31	0.46	0.98	0.89	0.75	0.54	N/A	118.21
Mean	0.44	1.80	1.90	0.29	0.78	0.77	0.52	0.42	N/A	42.33
Std. Dev.	0.09	0.26	0.27	0.08	0.22	0.07	0.17	0.10	N/A	41.31

District	Reock	Schwartzberg	Alternate Schwartzberg	Polsby-Popper	Population Polygon	Area/Convex Hull	Population Circle	Ehrenburg	Perimeter	Length-Width
1	0.54	1.80	1.88	0.28	0.83	0.72	0.75	0.43	109.20	2.11
2	0.42	2.20	2.31	0.19	0.74	0.71	0.48	0.32	173.50	0.12
3	0.44	2.09	2.19	0.21	0.31	0.70	0.29	0.50	695.92	12.79
4	0.52	1.83	1.89	0.28	0.67	0.75	0.37	0.54	757.95	18.63
5	0.26	1.87	2.01	0.25	0.98	0.76	0.60	0.24	316.75	54.62
6	0.42	1.58	1.71	0.34	0.84	0.85	0.39	0.39	812.94	118.21
7	0.40	1.45	1.47	0.46	0.93	0.89	0.74	0.46	467.53	60.05
8	0.50	1.61	1.76	0.32	0.93	0.81	0.55	0.48	883.14	72.14

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Alternate Schwartzberg	This measure is always greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Population Polygon	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Population Circle	The measure is always between 0 and 1, with 1 being the most compact.
Ehrenburg	The measure is always between 0 and 1, with 1 being the most compact.
Perimeter	The Perimeter test computes one number for the whole plan. If you are comparing several plans, the plan with the smallest total perimeter is the most compact.
Length-Width	A lower number indicates better length-width compactness.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

User:

Plan Name: **UPDATED Good Government Plan 2**

Plan Type: **Congress**

Core Constituencies

Wednesday, March 30, 2022

10:57 PM

From Plan: **Enacted Congress B-V-C**

**Plan: UPDATED Good Government Plan 2,
District 1 --**

769,364 Total Population

Population

Dist. 1	708,251 (92.06%)
Dist. 2	61,113 (7.94%)

Total and % Population

**Plan: UPDATED Good Government Plan 2,
District 2 --**

769,363 Total Population

Population

Dist. 1	6,495 (0.84%)
Dist. 2	669,388 (87.01%)
Dist. 3	93,480 (12.15%)

Total and % Population

**Plan: UPDATED Good Government Plan 2,
District 3 --**

769,364 Total Population

Population

Dist. 2	47,192 (6.13%)
Dist. 3	573,618 (74.56%)
Dist. 4	24,605 (3.20%)
Dist. 6	62,321 (8.10%)
Dist. 8	61,628 (8.01%)

Total and % Population

**Plan: UPDATED Good Government Plan 2,
District 4 --**

769,365 Total Population

Population

Dist. 3	137,387 (17.86%)
Dist. 4	578,214 (75.15%)
Dist. 5	3,127 (0.41%)
Dist. 7	50,637 (6.58%)

Total and % Population

**Plan: UPDATED Good Government Plan 2,
District 5 --**

769,365 Total Population

Population

Dist. 5	682,158 (88.67%)
Dist. 6	87,207 (11.33%)

From Plan: **Enacted Congress B-V-C**

Plan: UPDATED Good Government Plan 2, District 5 -- **769,365 Total Population**

Population

Total and % Population

Plan: UPDATED Good Government Plan 2, District 6 -- **769,364 Total Population**

Population

Dist. 4	34,867 (4.53%)
Dist. 5	103,020 (13.39%)
Dist. 6	631,477 (82.08%)

Total and % Population

Plan: UPDATED Good Government Plan 2, District 7 -- **769,365 Total Population**

Population

Dist. 4	19,206 (2.50%)
Dist. 7	730,028 (94.89%)
Dist. 8	20,131 (2.62%)

Total and % Population

Plan: UPDATED Good Government Plan 2, District 8 -- **769,363 Total Population**

Population

Dist. 4	120,325 (15.64%)
Dist. 7	11,754 (1.53%)
Dist. 8	637,284 (82.83%)

Total and % Population