UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF FLORIDA
TALLAHASSEE DIVISION

COMMON CAUSE FLORIDA, et al.,

Plaintiffs, and

MICHAEL ARTEAGA, LENI FERNANDEZ, ANDREA HERSHORIN, JEAN ROBERT LOUIS, MELVA BENTLEY ROSS, DENNY TRONCOSO, BRANDON NELSON, GERALDINE WARE, and NINA WOLFSON,

Intervenor-Plaintiffs,

v.

LAUREL M. LEE, in her official capacity as Florida Secretary of State,

Defendant.

Case No. 4:22-cv-00109-AW-MAF

DECLARATION OF JOHN DEVANEY IN SUPPORT OF ARTEAGA INTERVENOR-PLAINTIFFS' SUBMISSION

Pursuant to 20 U.S.C. § 1746, I, John Devaney, declare as follows:

1. My name is John Devaney. I am an attorney with the law firm of Perkins Coie LLP, and I am counsel for Arteaga Intervenor-Plaintiffs in the above-captioned matter. I make this declaration pursuant to this Court's April 11, 2022 Order setting a schedule for these proceedings, instructing Plaintiffs and Intervenor-

Plaintiffs to submit expert reports, affidavits, declarations, and other evidence supporting their proposed maps by April 18, 2022.

2. Attached as **Exhibit 1** is the expert report of Dr. Stephen Ansolabehere. Exhibit 1 sets forth the Arteaga Intervenor-Plaintiffs' proposed remedial congressional plan. The Appendix to Exhibit 1 includes Dr. Ansolabehere's curriculum vitae, supporting data tables, and images of the Proposed Plan.

3. Attached as **Exhibit 2** is a compilation of images of the Benchmark Congressional Plan. These images were produced by the professional staff of the Florida Senate Committee on Reapportionment and are publicly available at: https://www.flsenate.gov/Session/Redistricting/MapsAndStats.

4. Attached as **Exhibit 3** is the October 18, 2021 Letter from Senator Rodrigues, Chair of the Senate Committee on Reapportionment, to Senate redistricting staff.

5. Attached as **Exhibit 4** is a meeting packet from January 13, 2022 from the Florida Senate Committee on Reapportionment.[1]

6. Attached as **Exhibit 5** is a compilation of statistical reports on Senate Congressional Plan 8060. These reports were generated by the Florida Legislature's

[1] Because the original document was over 600 pages, Intervenor-Plaintiffs have included only the pages relevant to congressional redistricting and excluded pages relevant to the Senate's legislative redistricting. Intervenor-Plaintiffs have not altered this document in any other way.

Redistricting Website and are publicly available at: https://www.floridaredistricting.gov/pages/submitted-plans.

I declare under penalty of perjury that the foregoing is true and correct.

DATED: April 18, 2022

By: 

John Devaney

Respectfully submitted,

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**Admitted Pro hac vice*

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on April 18, 2022, I electronically filed the foregoing with the Clerk of the Court by using the CM/ECF system, which will send a notice of electronic filing to all counsel of record.

/s/ *Frederick S. Wermuth*
Frederick S. Wermuth
Florida Bar No. 0184111

Exhibit 1

UNITED STATES DISTRICT COURT
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Defendant.

Case No. 4:22-cv-00109

EXPERT REPORT OF DR. STEPHEN ANSOLABEHERE

EXECUTIVE SUMMARY

1. I have been asked by counsel for the Arteaga Intervenor-Plaintiffs in this matter to draw a U.S. Congressional District ("CD") map for the State of Florida with single member districts composed of contiguous territory that minimize changes from the currently enacted plan the Florida Supreme Court adopted in its decision issued on December 2, 2015 (the "Benchmark Map"). In addition to minimizing changes from the Benchmark Map, I have drawn the map I am proposing ("Proposed Map") to ensure compliance with the districting requirements imposed by Florida's Constitution.

2. The Benchmark Map is based on 2010 data from the U.S. Census Bureau. Because there has been significant growth in Florida's population since 2010, all of Florida's CDs are now malapportioned. In addition, the population growth has resulted in Florida receiving an additional CD in the reapportionment process. For these reasons, each of Florida's 28 CDs requires some degree of change in its boundaries. In the Proposed Map, I have adjusted these boundaries according to the following principles.

3. ***"Least change" and core retention***. Core retention is a traditional redistricting criterion. It refers to the extent to which the old district populations are carried over into new districts and the extent to which old district boundaries are respected. The Proposed Map places districts where they are located geographically in the Benchmark Map. While the increase in population and the addition of a new district inevitably requires moving some

people to new districts, the Proposed Map minimizes the number of people who are moved to new districts. This ultimately results in a high level of core retention, which is the primary criterion that courts and map drawers use to evaluate whether a map is "least change" from a prior version. As discussed below, I did not sacrifice high core retention for compliance with the Florida Constitution; the Proposed Map achieves both.

4. Based upon widely accepted academic research and judicial decisions on redistricting principles and practices, I measure the core retention of each district as the percent of the population of each district from the Benchmark Map that remains in the analogous district in the Proposed Map.

5. Consistent with the least change approach, the Proposed Map keeps nearly 90% of Florida's population in the districts they are in under the Benchmark Map. Core population retention of 90 percent far exceeds the core retention of maps proposed by the Florida legislature. The map that the Florida Senate passed (i.e., S035C8060) has population core retention of 85 percent and the map the Florida House passed (i.e., H000C8017) has population core retention of 78 percent. Governor DeSantis's proposed plan ((P000C0109) had a population core retention score of just 73%.

6. Similarly, over 90% of the land mass in the Benchmark districts remains in the same districts. This is a very high level of core retention, especially considering that the state received a new district, and the location of that district is bound to significantly disrupt at least one current district.

7. ***Population equality***. According to the 2020 Census, Florida's resident population is 21,538,187, which entitles the State to 28 CDs. The ideal population is 769,221 for each new district. The Proposed Map has exactly 769,221 people in each of the CDs, except for CD-22, which has 769,220 people. That is the smallest population deviation mathematically possible.

8. ***Respect for Political Boundaries.*** The Proposed Map significantly improves upon respect for political boundaries over the Benchmark Map. The Proposed Map splits 16 counties, two fewer than the Benchmark Map, which splits 18 counties. The Proposed Map splits 70 municipalities, compared to the 82 municipalities split in the Benchmark Map. The Proposed Map splits 182 precincts, compared to 253 in the Benchmark Map.

9. ***Compactness.*** I adjusted district lines to maintain or, where feasible, to increase the compactness of the CDs as compared to the Benchmark Map. I provide three measures of compactness: Area Dispersion, Perimeter Regularity, and Shape Concavity. Area dispersion is measured using the "Reock score," which calculates the area of the district relative to the area of the smallest circle one could draw that inscribes the district. A circle is the most compact geometric shape. Reock thus penalizes elongated districts which would increase the size of the smallest inscribing circle. Perimeter dispersion is measured using the Polsby-Popper score, which calculates the area of the district relative to the area of a circle that has the same perimeter as the

district. Polsby-Popper thus penalizes jagged lines in district boundaries that would increase the value of the perimeter. Shape Concavity is measured using the Convex Hull score, which computes the area of the district not covered by the most convex shape than encompasses the district. Convex Hull measures indentations in the district, given its general shape.

10. Overall, the compactness of the Proposed Map and the Benchmark Map are virtually the same. When considering compactness, scores range from 0 to 1, and a score closer to 1 is more compact. In the Proposed Map, the average Reock is .43; the average Polsby-Popper is .34; and the average Convex-Hull is .77. In the Benchmark Map, the average Reock is .44; the average Polsby-Popper is .36, and the average Convex Hull is .77.

11. ***Respect for Minority Representation.*** The Proposed Map complies with the Florida Constitution's prohibition against diminishing the voting rights of minority voters. At the time the Benchmark Map was drawn in 2015, there were nine majority-minority Citizen Voting Age Population ("CVAP") CDs in the map. By the time of the 2020 Census, there were eight majority-minority CVAP districts in the Benchmark Map, as one district (CD-24) had slipped slightly below 50 percent Black CVAP. The Proposed Map maintains the nine majority-minority CVAP districts that were in the Benchmark Map in 2015, including restoring CD-24 as a majority Black CVAP district.

12. ***Neither Favoring Nor Disfavoring Any Political Party.*** I did not intend to favor or disfavor any political party in drawing the Proposed Map. After completing the Proposed Map, I calculated vote shares of districts and also used widely accepted measures of partisan bias to determine whether the Proposed Map favored either party compared to the Benchmark Map or in absolute terms. The Proposed Map is close to partisan neutral but with a slight bias in favor of the Republican Party. This same small level of bias exists in the Benchmark Map. The bias in both maps is of a very small magnitude and does not itself indicate that one party is intentionally favored over another.

13. ***Not Favoring Any Incumbent.*** I did not use any information about the locations of incumbents' homes or offices in drafting the Proposed Map. As such, the map was not drawn to favor or disfavor any incumbent.

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14. By applying the principles, I produced the Proposed Map to keep changes from the Benchmark Map to a minimum while complying with the requirements of the Florida Constitution. Images and tables describing the Proposed Map are attached to this report.

QUALIFICATIONS AND EXPERTISE

15. I am the Frank G. Thompson Professor of Government in the Department of Government at Harvard University in Cambridge, Massachusetts. Formerly, I was an Assistant Professor at the University of California, Los Angeles, and I was Professor of Political Science at the

Massachusetts Institute of Technology, where I held the Elting R. Morison Chair and served as Associate Head of the Department of Political Science. I am the Principal Investigator of the Cooperative Congressional Election Study ("CCES"), a survey research consortium of over 250 faculty and student researchers at more than 50 universities. I also directed the Caltech/MIT Voting Technology Project from its inception in 2000 through 2004 and served on the Board of Overseers of the American National Election Study from 1999 to 2013. I am an election analyst for, and consultant to, CBS News' Election Night Decision Desk. I am a member of the American Academy of Arts and Sciences (inducted in 2007). My curriculum vitae is attached to this report.

16. I have extensive experience serving as an expert in election and redistricting cases. I worked as a consultant to the Brennan Center in the case of *McConnell v. FEC*, 540 U.S. 93 (2003). I have testified before the U.S. Senate Committee on Rules, the U.S. Senate Committee on Commerce, the U.S. House Committee on Science, Space, and Technology, the U.S. House Committee on House Administration, and the Congressional Black Caucus on matters of election administration in the United States. I filed an amicus brief with Professors Nathaniel Persily and Charles Stewart on behalf of neither party to the U.S. Supreme Court in the case of *Northwest Austin Municipal Utility District Number One v. Holder*, 557 U.S. 193 (2009), and an amicus brief with Professor Nathaniel Persily and others in the case of *Evenwel v. Abbott*, 138 S.Ct. 1120 (2015). I have served as a testifying expert for the Gonzales

intervenors in *State of Texas v. United States* before the U.S. District Court for the District of Columbia (No. 1:11-cv-01303); the Rodriguez plaintiffs in *Perez v. Perry*, before the U.S. District Court for the Western District of Texas (No. 5:11-cv-00360); for the San Antonio Water District intervenor in *LULAC v. Edwards Aquifer Authority in the U.S. District Court for the Western District of Texas* (No. 5:12cv620-OLG); for the Department of Justice in *State of Texas v. Holder*, before the U.S. District Court for the District of Columbia (No. 1:12-cv-00128); for the Guy plaintiffs in *Guy v. Miller* in the First Judicial District Court in Carson City, Nevada (No. 11-OC-00042-1B); for the Florida Democratic Party in *In re Senate Joint Resolution of Legislative Apportionment* in the Florida Supreme Court (Nos. 2012-CA-412, 2012-CA-490); for the Romo plaintiffs in *Romo v. Detzner* in the Circuit Court of the Second Judicial Circuit in Florida (No. 2012 CA 412); for the Department of Justice in *Veasey v. Perry*, before the U.S. District Court for the Southern District of Texas, Corpus Christi Division (No. 2:13cv00193); for the Harris plaintiffs in *Harris v. McCrory* in the U.S. District Court for the Middle District of North Carolina (No. 1:2013cv00949); for the Bethune-Hill plaintiffs in *Bethune-Hill v. Virginia State Board of Elections* in the U.S. District Court for the Eastern District of Virginia (No. 3: 2014cv00852); for the Fish plaintiffs in *Fish v. Kobach* in the U.S. District Court for the District of Kansas (No. 2:16-cv-02105-JAR); for intervenors in *Voto Latino, et al. v. Hobbs*, in the U.S. District Court for the District of Arizona (No. 2:19-cv-05685-DWL); for the Hunter intervenors in

Billie Johnson, et al., v. Wisconsin Elections Commission, et al., Supreme Court of Wisconsin (No. 2021AP1450-OA); and for the Senate Majority leader in *Harkenrider v. Hochul*, New York Supreme Court (No. E2022-0116CV). I also served as an expert witness and filed an Affidavit in the North Carolina State Board of Elections hearings regarding absentee ballot fraud in the 2018 election for Congressional District 9 in North Carolina. I have been accepted as an expert in every matter in which I have been proffered as an expert witness.

17. My areas of expertise include American government, with particular expertise in electoral politics, election administration, representation, redistricting, political geography, and public opinion, as well as statistical methods in social sciences and survey research methods. I have authored numerous scholarly works on voting behavior and elections, the application of statistical methods in social sciences, legislative politics and representation, and distributive politics. This scholarship includes articles in such academic journals as the Journal of the Royal Statistical Society, American Political Science Review, American Economic Review, American Journal of Political Science, Legislative Studies Quarterly, Quarterly Journal of Political Science, Electoral Studies, and Political Analysis. I have published articles on issues of election law in the Harvard Law Review, Texas Law Review, Columbia Law Review, New York University Annual Survey of Law, and Election Law Journal, for which I am a member of the editorial board. I

have served as associate editor of the Harvard Data Science Review and as associate editor of the Public Opinion Quarterly. I have coauthored three scholarly books on electoral politics in the United States, The End of Inequality: Baker v. Carr and the Transformation of American Politics, Going Negative: How Political Advertising Shrinks and Polarizes the Electorate, and The Media Game: American Politics in the Media Age. I am coauthor with Benjamin Ginsberg, Hahrie Han, and Ken Shepsle of American Government: Power and Purpose.

18. I am compensated at a rate of $600 an hour. My compensation is in no way contingent upon the conclusions or results of my analysis.

METHODOLOGY

19. The Proposed Map uses widely accepted, reliable sources of data as the foundation for drawing the CD boundaries. Census, voting, and district boundary data are from the US Census Bureau Application Programming Interface. Maps are from the redistricting website of the Florida State government: https://www.floridaredistricting.gov/pages/submitted-plans. Citizen voting age population data is sourced from the Census Special Tabulation: https://www.census.gov/programs-surveys/decennial-census/about/voting-rights/cvap.html. CVAP data is estimated to Census blocks proportionally from Census block groups by race group. Precinct level data comes from the Voting and Election Science Team: https://dataverse.harvard.edu/dataverse/electionscience. Precinct data is cross

walked to census block data following the process of the ALARM Census data: https://github.com/alarm-redist/census-2020. The Proposed Map was drawn using Dave's Redistricting App, www.davesredistricting.org.

PROPOSED CONGRESSIONAL MAP

20. Over the past decade, the population of Florida increased from 18,801,310 people in 2010 to 21,538,187 people in 2020. As a result of this population growth, Florida received a 28th Congressional District in the reapportionment process. Addressing population inequalities among existing districts and accommodating the new district requires changes to the Congressional District Map to comply with the U.S. Constitution and the Florida Constitution.

21. Florida's population growth did not happen evenly throughout the state. Twenty-one of the CDs in the Benchmark Map have more population than is required for equal population, and six CDs (CD-2, CD-3, CD-5, CD-13, CD-24, and CD-27) have too little population. See Table 1. As a result, every CD must be altered to conform to population equality.

22. The distribution of population determines what must happen to specific districts and the neighboring districts to equalize the populations. For example, the two least populous districts under the Benchmark Map are CD-2 (in the Florida Panhandle) and CD-13 (in Pinellas County). Both CDs have population deficits of over 40,000 people, and both must expand their geographic footprint to capture sufficient population to contain exactly 769,221

people. The two most over-populated districts are CD-9 (Orlando) and CD-16 (Manatee). CD-9 has 186,381 more than is required for population equality, and CD-16 has 114,826 people too many. CD-9 and CD-16 must contract geographically to decrease their populations by 186,381 and 114,826 people, respectively. These changes necessarily affect the boundaries and composition of neighboring districts.

23. In addition to needing to realign district boundaries to equalize populations, it was necessary to establish a location for the new CD – the 28th CD – in the Proposed Map. To determine where to locate this district in a way that minimizes disruption to the Benchmark Map, I divided the state into three regions and calculated the population in each. Central Florida emerged as the obvious place to locate the state's new CD, as that region grew substantially over the past decade and has enough new population to account for almost 75% of an additional district. See Table 2.

24. North Florida consists of CD-1 through CD-6. Under the Benchmark Map, these seven CDs have a total of 4,718,918 people, or 103,592 people more than is required for six equal population districts. Almost all of this population surplus is in CD-4, in the northeastern corner of the state. Under the Benchmark Map, CD-4 had 102,663 more people than required.

25. Central Florida consists of CD-7 through CD-17. Under the Benchmark Map, these 11 CDs, combined, have 9,028,416 people, which amounts to a population surplus of 566,985 people. Central Florida is the clear

locus for the 28th CD given that the region has sufficient population to comprise almost 75% of an additional district.

26. South Florida consists of CD-18 through CD-27. Under the Benchmark Map, these 10 CDs contain 7,790,853 people, which is a surplus of 98,643 people. The surplus population in South Florida is concentrated in CD-19, which is anchored in Lee County on the west coast of the State. Under the Benchmark Map, CD-19 has a population surplus of 65,791.

27. Combined, the surplus populations of CD-4, CD-19, and the CDs in Central Florida amount to 735,439 people, which is almost the entire population needed for the 28th CD. In order to have minimal impact on other districts, the Proposed Map creates a new congressional district by shifting the boundaries of districts lying along the axis between CD-4 and CD-19. The largest displacement of populations is in the CDs in Central Florida, especially CD-9, CD-15, and CD-17.

28. Even after locating a district in Central Florida, though, additional shifting of boundaries within these regions is required to equalize district populations within each of the regions, as I explain below.

A. The New CD (CD-28)

29. The Proposed Map locates the new CD-28 in Polk County, which lies between Hillsborough and Orange Counties.

30. Polk County itself has a population of 725,046 people – 95 percent of the population of an ideal district.

31. Under the Benchmark Map, Polk County was divided between CD-9, CD-15, and CD-17. Combined, these three districts have a surplus of almost 250,000 people; hence, locating a district here can help equalize populations of these districts while having the smallest ripple effects throughout the map.

32. All but 14,332 people in Polk County are in Proposed CD-28. Those 14,332 people are in CD-15 under the Benchmark Map, and they remain in CD-15 under the Proposed Map. That split of Polk County is necessary for population equalization.

33. The remaining population of Proposed CD-28 consists of population from Lake County that was in Benchmark CD-15.

34. The district in the Benchmark Map that would be most substantially affected by the placement of Proposed CD-28 is Benchmark CD-15. Approximately 45% of the population that was in CD-15 under the Benchmark Map is placed in CD-28 under the Proposed Map. CD-15 moves almost entirely into Hillsborough County. As a result, Proposed CD-15 has the lowest core retention of all the districts in the Proposed Map. Even with this shift of the district into Hillsborough County, 55% of the population in Benchmark CD-15 remains in CD-15 under the Proposed Map.

35. Under the Proposed Map, the western boundary of CD-15 is moved further westward into Hillsborough County to make up the population

the district loses from the creation of Proposed CD-28. The shift of CD-15 to the west pushes CD-14 to the west and CD-12 to the north.

36. To realign district populations from CD-4 to new CD-28, the Proposed Map moves the boundaries of CD-3 and CD-6 to incorporate the surplus population of CD-4. Then, CD-11 expands into the areas covered by the southern boundary of CD-3 and the western boundary of CD-6. CD-11, then, contributes population to CD-12 by moving the entirety of Hernando County from CD-11 to CD-12. This move keeps Hernando County whole.

37. This sequence of boundary changes from CD-4 through CD-12 realigns the districts to eliminate the 102,663 person surplus in CD-4 and to make up the loss of population in CD-15 created by Proposed CD-28.

38. The remaining population required for CD-28 comes from South Florida. CD-19 is moved southward and takes the entirety of Lee County. That eliminates a split of Lee County that is in the Benchmark Map. The boundary of CD-17 is also expanded to incorporate areas that include the 65,000-person surplus from Benchmark CD-19. In addition, the northern portion of CD-17, which was in Polk County in the Benchmark Map, becomes part of Proposed CD-28.

B. North Florida

39. In the Benchmark Map, CD-1, CD-2, CD-5 and CD-4 extend along the northern border of Florida. CD-3 lies to the east of CD-2 and immediately south of CD-4 and CD-5. According to the 2020 Census, CD-1 is over-populated

by 38,660 people; CD-2 is under-populated by 41,365 people; CD-3 is under-populated by 3,088 people; CD-4 is over-populated by 102,663 people; and CD-5 is underpopulated by 20,311 people.

40. CD-5 is a historically Black district and a Black opportunity district under the Benchmark Map. Under the Benchmark Map, CD-5 elected a Black representative to Congress in every election. It remains a Black opportunity district in the Proposed Map.

41. In evaluating the northern region of Florida, it is appropriate to first consider CD-1, at the far western end of the Florida Panhandle. It is bordered only by CD-2. The boundary between the two districts must shift westward to reduce the population of CD-1. This boundary change makes up for some, but not all, of the population deficit in Benchmark CD-2.

42. It is necessary to then consider the design of CD-5. The Proposed Map accounts for the population deficit in CD-5 by including the entirety of Columbia County in the district. Doing so improves compliance with the requirements of Florida's Constitution because it eliminates the division of Columbia County in the Benchmark Map and also eliminates the divisions of Lake City and Watertown in the Benchmark Map. Including the entirety of Columbia County in Proposed CD-5 creates a population surplus. To make the district's population exactly 769,221, the Proposed Map makes small changes in CD-5 in Leon County. In doing so, the Proposed Map also eliminates the division of Bradfordville and Woodville that is in the Benchmark Map.

43. Third, as discussed above, it is necessary to reduce the population of CD-4 by 102,663 people. That CD is bounded by CD-5, CD-3, and CD-6. The Proposed Map addresses the excess population in CD-4 by removing precincts located in St. Johns County from that CD and adding them to CD-3 and CD-6.

44. Under the Benchmark Map, CD-6 contained the entirety of Volusia and Flagler Counties, as well as parts of St. Johns and Lake Counties. Under the Proposed Map, CD-6 remains anchored in Flagler and Volusia Counties, but it extends further north to capture some of CD-4's population in St. Johns County. This boundary change forces the border between CD-6 and CD-11 in Lake County to move eastward. That change gives Proposed CD-6 a population of 769,221.

45. Under the Benchmark Map, CD-3 includes the entirety of Alachua, Bradford, Clay, and Union Counties and part of Marion. The Proposed Map extends the eastern boundary of CD-3 into St. Johns County to take surplus population from Benchmark CD-4. St. Johns County is split under the Benchmark Map and is split under the Proposed Map. That change gives CD-4 a population of exactly 769,221.

46. Finally, I adjusted the boundaries of CD-2, CD-3, and CD-11 in Marion County to make the populations of CD-2 and CD-3 exactly 769,221 each.

C. Central Florida

47. Central Florida—CD-7 through CD-17—is substantially over-populated. All but one of the districts in this region have more population than would be required for legal districts. The exception is Benchmark CD-13, which has 41,756 fewer people than required for a legal district.

48. Under the Benchmark Map, CD-13 lies entirely within Pinellas County and takes up the majority of Pinellas County. To make up the 41,756-person deficit in the district, the boundary of CD-13 must move north. That shift creates a small population deficit in CD-12 of roughly 4,000 people.

49. Under the Benchmark Map, CD-12 includes the entirety of Pasco County and the entirety of Hernando County, as well as the northern third of Pinellas County and parts of Hillsborough County. To account for the population deficit, that district could move either further east into Hillsborough County, but that would conflict with the population deficit in CD-15 in Hillsborough created by Proposed CD-28. Alternatively, CD-12 could be expanded to the north, which would create a county split. The Proposed Map solves this problem by placing Hernando County entirely in Proposed CD-12. Proposed CD-12 removes Hillsborough County entirely and keeps a few precincts in Pinellas, which is necessary to attain a population of exactly 769,221 people.

50. This configuration solves two problems at the same time. First, it gives CD-11 almost exactly the ideal population. Second, it allows CD-14 and

CD-15 to move westward in order to pick up the population necessary to achieve population equality without dividing additional counties.

51. In the Benchmark Map, the location of CD-28 in Polk County creates a large population deficit in CD-15. The Proposed Map cures this deficit without creating additional county crossings. CD-15 could move north into Pasco County, but that would split that county and further displace CD-12. The Proposed Map moves the western border of CD-15 to the west into Hillsborough County to make up the population deficit in CD-15 that resulted from the location of CD-28.

52. CD-14, then, moves farther to the west, into the northern portion of Pinellas County (without crossing the Bay), giving it exactly 769,221 people.

53. CD-11 is the northernmost district in the Central Florida region. In the Benchmark Map, CD-11 consists of Citrus, Sumter, and Hernando Counties, as well as parts of Lake and Marion Counties. In the western end of the district, CD-11 borders CD-12 and CD-15. CD-11 must take up a small number of remaining precincts from Benchmark CD-15 in Lake County that are not in Proposed CD-28. On the eastern end of the district, CD-11 borders CD-6. CD-11 must move to the east to take up the part of Lake County vacated by Proposed CD-6, which, as described above, is necessary to take up the population surplus in Benchmark CD-4. As a result of these changes, CD-11 has a population surplus, and that surplus is made up in the Proposed Map by removing Hernando County from CD-11 and adding it to CD-12.

54. To the east of Hillsborough County lies Polk County, the location of Proposed CD-28. East of Polk County is Osceola County, with a population of 388,656—slightly more than half the ideal population. Under the Benchmark Map and under the Proposed Map, CD-9 contains Osceola County entirely. Benchmark CD-9 also took population from Polk County and from Orange County. Because CD-28 takes nearly the entire population of Polk County under the Proposed Map, the Proposed Map expands CD-9 further into Orange County to gain the requisite population.

55. Under the Benchmark Map, CD-7 contains the entirety of Seminole County, which has a total population of 470,856. Benchmark CD-7 has a population surplus of 19,297 people. The Proposed Map leaves CD-7 in its present location, with minor changes on its border with CD-9 and CD-10 that allow Proposed CD-7 to have exactly 769,221 people.

56. CD-8 lies to the east of CD-7, in Volusia County. Under the Proposed Map and under the Benchmark Map, CD-8 includes all of Volusia County and all of Indian River County. Combined, these counties have 766,400 people and only need an additional 2,821 people to meet the equal population requirement. In the Proposed Map, that population deficit is addressed by retaining a handful of precincts from Seminole County that were in Benchmark CD-8.

57. CD-9 and CD-10 are located in Orlando and surrounding communities. Both CDs are substantially overpopulated in the Benchmark

Map. They are reconfigured in the Proposed Map to reduce their populations. CD-9 loses a substantial amount of population in Polk County with the placement of Proposed CD-28. To make up for that loss, CD-9 moves further into the area occupied by Benchmark CD-10, and also takes some precincts that Benchmark CD-15 had in the southeastern corner of Orange County. Both CD-9 and CD-10 are majority-minority CVAP districts under the Benchmark Map and remain so in the Proposed Map, as discussed below.

58. CD-17 is the southern-most CD in Central Florida. It is one of three CDs that split Polk County in the Benchmark Map. The Proposed Map moves CD-17 southward to make room for Proposed CD-28. Proposed CD-17 now includes the entirety of Charlotte County, DeSoto County, Glades County, Hardee County, Highlands County and Okeechobee County, and part of Sarasota County, as it did in the Benchmark Map. Proposed CD-17 lost population in Polk County, because of CD-28, and in Lee County, due to the reconfiguration of Proposed CD-19. To accommodate those changes, Proposed CD-17 incorporates all of Hendry Country and some population in Collier County.

D. South Florida

59. South Florida consists of CD-18 through CD-27. Combined, these districts have a surplus of 98,643 people under the Benchmark Map. Changes in South Florida in the Proposed Map consist primarily of shifting boundaries

to rebalance the populations of the districts within the region, rather than across regions.

60. First, consider the two CDs located on the western part of this region. Benchmark CD-19 in Lee County is on the West Coast, and Benchmark CD-25 extends across the state from the Western border in Collier County into Miami-Dade County.

61. As described above, the Proposed Map redraws CD-19 to reduce its population by 65,791 people, and to make up most of the population deficit in CD-17 created by Proposed CD-28.

62. Lee County alone has 760,822 people and needs only 8,399 more people to have 769,221 persons. The Proposed Map draws CD-19 to take the entirety of Lee County and a handful of precincts in Collier County that were in Benchmark CD-19 to make up the remaining population deficit. This approach eliminates the division of Lee County, consistent with the Florida Constitution's principle of minimizing political boundary crossings.

63. Benchmark CD-25 spans Collier and Miami-Dade Counties. It has a population surplus of 2,213 people. Its boundaries must shift to accommodate changes in CD-17 in Collier County and changes in CD-24 in Miami-Dade County. It is a majority-minority CVAP district under both the Proposed Map and the Benchmark Map.

64. The districts on the east coast of South Florida are, from north to south, CD-18, CD-20, CD-21, CD-22, CD-23, CD-24, CD-27, and CD-26.

65. Combined, the four northernmost districts (CD-18, CD-20, CD-21, and CD-22) have a surplus population of 44,933 people. The four southernmost districts have a population deficit of 37,247. Hence, the boundaries of these districts must move northward to reduce the populations of the four northern districts and increase the populations of the four southern districts.

66. Proposed CD-18 remains largely in the same location, incorporating all of St. Lucie and Martin Counties, as well as the northern portion of Palm Beach County.

67. CD-20, CD-21, and CD-22 remain largely unchanged, with marginal changes made to accommodate the northward migration of district boundaries along the southeastern border of the state. CD-20 is a majority-minority CVAP district under both the Proposed Map and the Benchmark Map.

68. Benchmark CD-23 has almost exactly the ideal population, but it is sandwiched among other districts that have either population deficits or surpluses. Proposed CD-23 shifts slightly the boundaries of Benchmark CD-23 to accommodate the boundary changes of surrounding districts. CD-23 is a majority-minority CVAP district under both the Proposed Map and the Benchmark Map.

69. Benchmark CD-24 is under-populated by 26,679 people, and neighboring CD-27 is under-populated by 29,396 people. Proposed CD-24

takes some of the population of Miramar, making it more compact, and some population from CD-23, to have exactly 769,233 people.

70. Benchmark CD-26, to the south of CD-27, is over-populated, but only by 18,693 people. Proposed CD-27 absorbs the population surplus of Benchmark CD-26, but that still leaves a population deficit. The Proposed Map shifts Benchmark CD-27's northern boundary to gain enough population to become a legal district. CD-24, CD-26, and CD-27 are majority-minority CVAP districts under both the Proposed Map and the Benchmark Map.

CHARACTERISTICS OF THE PROPOSED CONGRESSIONAL MAP

A. Core Retention

71. As described above, core retention is a traditional redistricting criterion. It refers to the extent to which the old district populations are carried over into new districts and the extent to which old district boundaries are respected. Past district boundaries often reflect communities of interest and other considerations that were approved and accepted in prior versions of a state's districting map. Drawing completely new lines can affect citizens adversely, such as creating voter confusion, reducing voter information, and lowering turnout.[1]

72. Core retention is measured as the percent of people who remain in the analogous district from one decennial districting map to the next

[1] Daniel Hayes and Seth C. McKee, "The Participatory Effects of Redistricting," American Journal of Political Science 53 (2009): 1006-1023.

decennial districting map. A district in the Proposed Map is considered to be the analogous district to that in the Benchmark Map if a majority of the population in the Benchmark district is included in the Proposed District. For all CDs in the Proposed Map, the number of the Proposed District aligns with the number of the analogous districts from the Benchmark Map. That is, Proposed CD-1 is analogous to old CD-1; Proposed CD-2 is analogous to old CD-2, and so forth.

73. Population core retention for the entire Proposed Map is 89.1%. That is, under the Proposed Map, 89.1% of people would remain in the district that they were in under the Proposed Map. See Table 4.

74. This is a very high rate of core retention, especially considering that the map creates an entirely new CD. By comparison, the population core retention of the map passed by the Florida Senate but not the House (S035C8060) is 85%; the core retention of the map passed by the Florida House but not Senate (H000C8017) is 78%; and the core retention of the map endorsed by Governor DeSantis (P000C0109) is just 73%. See Table 5.

75. A second measure of core retention is geography. The Proposed Map keeps 91% of the land area of districts within the boundaries in the Benchmark Map. See Table 4.

76. The Proposed Map has a very high level of area retention for a state that must redraw its map to accommodate a new CD, as well as account for population shifts. By comparison, the geographic core retention of the map

passed by the Florida Senate but not the House (S035C8060) is 93%; the geographic core retention of the map passed by the Florida House but not Senate (H000C8017) is 81%; and the geographic core retention of the map endorsed by Governor DeSantis (P000C0109) is just 70%. See Table 5.

B. Respect for Political Subdivision Boundaries

77. Respect for political boundaries is a requirement of the Florida Constitution and also a traditional redistricting principle. The Florida Constitution calls for splitting a minimum number of counties, cities, and precincts (or Voting Tabulation Districts, VTDs).

78. Under the Benchmark Map, 18 counties are divided; 82 municipalities are divided; and 253 Voting Tabulation Districts (precincts) are divided. See Table 6.

79. The Proposed Map reduces divisions of political geographies. Only 16 counties are divided; 70 municipalities are divided; and 182 VTDs are divided.

80. Overall, the Proposed Map improves on the Benchmark Map by reducing the number of political units that are divided at all levels: counties, cities, and precincts. And it does so without diminishing minority representation or favoring any party or incumbent, as discussed below.

C. Compactness

81. Compactness is a redistricting principle in the Florida Constitution. It is also a traditional redistricting principle.

82. As described above, compactness is measured three ways: area dispersion, perimeter irregularity, and shape concavity. The most commonly used measure of area dispersion is the Reock score. This measure begins with the insight that a circle is the most compact geometric shape. Reock computes the area of the district divided by the area of the smallest inscribing circle of the district, *i.e.*, a circle whose diameter is the same as the overall length of the district. The highest value of Reock is 1, which is attained if the district is a perfect circle. The lowest value of Reock is 0. A square district has a Reock of .64. Additionally, the irregularity of the boundary of a district is measured using the Polsby-Popper score. Polsby-Popper also takes the circle as the standard for the most compact shape. This measure calculates the area of the district and divides that area by the area of a circle with the same perimeter (circumference) as the district. Polsby-Popper ranges from a high of 1 to a low of 0, and higher values correspond to greater compactness. A third, Convex Hull, captures concavity in the shape of a district. This measure computes the area of the district relative to the area of the smallest convex shape that could include the district. Indentations in the district will lower the compactness of districts. Convex Hull picks up such irregularities.

83. Average compactness is nearly identical between the Benchmark Map and the Proposed Map. Reock is .44 in the Benchmark Map and .43 in the Proposed Map. Polsby-Popper is .36 in the Benchmark Map and .34 in the

Proposed Map. The Convex Hull is .77 in both the Benchmark Map and the Proposed Map. See Table 7.

D. Minority Representation

84. The Florida Constitution prohibits drawing a plan or district that discriminates against minorities or diminishes minority representation.

85. The Proposed Map does not diminish minority representation. In evaluating the racial composition of districts, I relied on the 2020 5-year average of the American Community Survey (i.e., the 2016-2020 ACS), conducted by the US Census Bureau. This is the standard source for measuring the adult citizen population in the United States, and it is designed to be used to measure the CVAP at the precinct and district level.

86. The 2016-2020 ACS shows that there are nine CDs in which minorities are the majority of the CVAP in the Benchmark Map. See Table 8. Likewise, in the Proposed Map, there are nine CDs in which minorities are the majority of the CVAP. See Table 9.

87. There are three majority Hispanic CDs in both the Benchmark Map and the Proposed Map. They are CD-25, CD-26, and CD-27.

88. According to the 2016-2020 ACS, a majority of adult citizens in CD-20 are Black. When the Benchmark Map was adopted, CD-24 was also majority Black CVAP. Shifts in population have reduced the Black population in Benchmark CD-24 to 48.6 percent of the CVAP.

89. The Proposed Map maintains CD-20 as a majority Black CVAP district and restores CD-24 to be a majority Black CVAP district.

90. Additionally, Blacks plus Hispanics are the majority of the CVAP in CD-5, CD-9, CD-10, and CD-23 under the Benchmark Map and under the Proposed Map. See Table 8 and Table 9.

91. In sum, the Proposed Map does not reduce minority representation overall; nor does it reduce minority representation in any district. And it restores CD-24 to a majority Black CVAP district as it was under the Benchmark Map.

E. Partisan Neutrality

92. The Florida Constitution forbids the drawing of any plan or district with the intent to favor or disfavor any party in the drawing of any plan or district. In drawing the Proposed Map, I did not intend to favor or disfavor any political party.

93. After I drew the Proposed Map, I assessed its partisan effects. To assess the partisan effects of the Benchmark Map and the Proposed Map, I compiled the precinct-level election results for eight recent statewide elections in the State of Florida. I then computed the election results at the district level under both the Benchmark Map and the Proposed Map and computed the average vote across the eight elections at the district level for both maps. See Table 10.

94. The average election returns are remarkably similar, district-by-district, between the Benchmark Map and the Proposed Map. The only notable difference is CD-15, where 45% of the population was moved into Proposed CD-28. The election results for Proposed CD-28 are quite similar to those of produced by Benchmark CD-15. See Table 10.

95. I computed the standard metrics used by political scientists to gauge how fairly a districting plan translates votes into legislative seats. These are Partisan bias and responsiveness, the mean minus median, and the efficiency gap.

96. Partisan bias has a very long lineage in the analysis of elections and electoral systems and is the most widely used and well-established measure of the extent to which votes are fairly translated into seats.[2] It measures the expected share of the seats in which a party would win a majority of votes if votes were divided equally between the two parties statewide. For example, if a party is expected to win 55% of the seats in an election that is divided 50-50, then, there is a 5% bias in favor of that party. With 28 seats, a one seat advantage for one party over another would translate into a bias of 3.6%. Partisan bias is particularly suitable for the analysis of elections in Florida, as elections are very competitive in the state. I relied on this measure in assessing redistricting maps in my expert testimony in *Romo v. Detzner*.

[2] James G. March, "Party legislative representation as a function of election results," *Public Opinion Quarterly* 21 (1957): 521-542; Edward Tufte, "The Relationship between Seats and Votes in Two Party Systems" *American Political Science Review* 62 (1973): 540-554.

97. The partisan bias in the Proposed Map is very similar to the partisan bias in the 2016 Map. The partisan bias in the 2016 Map was slightly under 3% and favored the Republican Party. The partisan bias in the Proposed Map is approximately 1% and favors the Republican Party. See Table 11. Neither map has an appreciable bias, and the difference between the two maps in terms of partisan bias is minimal.

98. Responsiveness is calculated along with partisan bias. It measures how much one percentage point change in the statewide vote share of the parties translates into a change in the percent of seats the parties are expected to win. Higher values are more responsive. Nationally, elections to the U.S. House of Representatives have historically had a responsiveness of around 2.

99. The Proposed Map is somewhat more responsive than the Benchmark Map. The responsiveness of the Benchmark Map is 0.93, and the responsiveness of the Proposed Map is 1.79. See Table 11.

100. "Mean minus median" is similar to partisan bias, as it measures the degree to which the vote in the 50th percentile district deviates from the statewide election results. Again, the Benchmark Map and the Proposed Map are very close to each other on this metric. Under the Benchmark Map, the mean vote share is 3 points more Democratic than then the median district's vote share. This means that in the median district in the state, Republicans performed three points better than their statewide vote share under the

Benchmark Map. The difference between the mean and the median is 1 point in the Proposed Map. The value of this measure is very similar under both maps.

101. Lastly, the efficiency gap measures the degree to which the districts waste the votes of one party more than the other party, by packing large numbers of the other party's voters in a small number of districts.[3] The Benchmark Map and Proposed Map have almost identical values of approximately 4% for the efficiency gap. In both the Benchmark and Proposed Maps, the efficiency gap favors Republicans, but the magnitude is quite small. See Table 11. According to Stephanopoulos and McGhee (2015), who first proposed this measure, a gap of 8% or more is of serious concern.

102. Overall, then, the Proposed Map closely resembles the Benchmark Map in its treatment of the political parties. There is a slight structural advantage for Republicans in the translation of votes to seats under both maps, but these measures indicate that the degree to which the map favors Republicans is minimal under both maps.

CONCLUSIONS

103. The Proposed Map pursues a least change approach to constructing a new Congressional District Map for the State of Florida. It is

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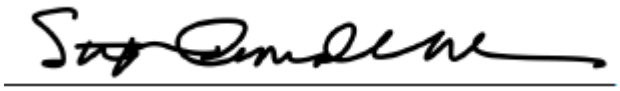
[3] Nicholas Stephanopoulos and Eric McGhee, "Partisan Gerrymandering and the Efficiency Gap," The University of Chicago Law Review 82 (2015): Issue 2, Article 4. https://chicagounbound.uchicago.edu/uclrev/vol82/iss2/4

developed in compliance with the United States Constitution and the Constitution of the State of Florida.

104. In its overall configuration, then, the Proposed Map offers a least change solution to crafting new congressional districts for the State of Florida. It does so while improving or maintaining the geographic integrity of the map and maintaining the Benchmark Map's representation of minority voters, without favoring one party over another.

105. I make the foregoing statements with knowledge that they will be used as evidence in court and do declare under penalty of perjury under the laws of the State of Florida that they are true and correct to the best of my knowledge and belief.

Executed this 18th day of April 2022.



Stephen Ansolabehere

Table 1. Deviations of Congressional District Populations From Equality Under the 2016 Map

CD Number	2020 Population Under 2016 Map	Deviation from Equality
1	807,881	+38,660
2	727,856	-41,365
3	766,133	-3,088
4	871,884	+102,663
5	748,910	-20,311
6	796,254	+27,033
7	788,518	+19,297
8	783,753	+14,532
9	955,602	+186,381
10	873,804	+104,583
11	820,835	+51,614
12	807,137	+37,916
13	727,465	-41,756
14	787,447	+18,226
15	819,853	+50,632
16	884,047	+114,826
17	779,955	+10,734
18	794,724	+25,503
19	835,012	+65,791
20	776,283	+7,062
21	788,007	+18,786
22	785,756	+16,535
23	769,356	+135
24	742,542	-26,679

25	771,434	+2,213
26	787,914	+18,693
27	739,825	-29,396

Table 2. Population Surplus From Equality Under the 2016 Map by Region

Region	2020 Population Under 2016 Map	Deviation from Equality
North Florida	4,718,918	+103,592
Central Florida	9,028,416	+566,985
South Florida	7,790,853	+98,643

Table 3. Congressional District Populations Under the Proposed Map

CD Number	2020 Population Under Proposed Map	Deviation from Equality
1	769,221	0
2	769,221	0
3	769,221	0
4	769,221	0
5	769,221	0
6	769,221	0
7	769,221	0
8	769,221	0
9	769,221	0
10	769,221	0
11	769,221	0
12	769,221	0
13	769,221	0
14	769,221	0
15	769,221	0
16	769,221	0
17	769,221	0
18	769,221	0
19	769,221	0
20	769,221	0
21	769,221	0
22	769,220	-1
23	769,221	0

24	769,221	0
25	769,221	0
26	769,221	0
27	769,221	0
28	769,221	0

Table 4. Continuity of Population and Geography of the Proposed Map with the 2016 Florida Congressional Map

CD Number	% Population Remaining From 2016 Map	% Overlap of Landmass From 2016 Map
1	100%	100%
2	86.4%	92.2%
3	88%	91.9%
4	100%	100%
5	90.4%	89.5%
6	100%	100%
7	92.8%	84.8%
8	100%	100%
9	79.3%	87.8%
10	96.5%	88.9%
11	79.6%	93.1%
12	74.7%	60.5%
13	94.1%	89.7%
14	75.2%	68.9%
15	55%	67.3%
16	97.1%	87.3%
17	74.9%	74.4%
18	99.8%	99.9%
19	87.8%	88.2%
20	89.8%	99.2%
21	98.3%	98.2%
22	95.1%	97.4%
23	88.3%	93.8%
24	85.8%	84.9%

25	79.8%	74.2%
26	100%	100%
27	96%	98.9%
28	*	*
OVERALL	89.1%	90.5%

*

Table 5. Overall Continuity of Population and Geography of the Proposed Map, the Senate Map (S0350C8060), the House Map (H000C8019), and the Governor's Map (P000C0109)

Plan	% Population Remaining From 2016 Map	% Overlap of Landmass From 2016 Map
Proposed	89.1%	90.5%
Senate	85.5%	93.2%
House	78.4%	80.9%
Governor	72.6%	69.9%

Table 6. Improvement in Political Boundary Crossings of the Proposed Map Compared with the 2016 Map
Number of Times that an Area is Split, by Type of Area

Areas	2016 Map	Proposed Map
Counties That Are Split	18	16
Places	82	70
Precincts (VTDs)	253	182

Table 7. Compactness of the Proposed Congressional District Map over the 2016 Map

	2016 Map			Proposed Map		
CD Number	Area Compactness (Reock)	Perimeter Compactness (Polsby-Popper)	Convex Hull Compactness	Area Compactness (Reock)	Perimeter Compactness (Polsby-Popper)	Convex Hull Compactness
1	0.41	0.40	0.82	0.50	0.43	0.86
2	0.31	0.21	0.68	0.28	0.21	0.68
3	0.72	0.53	0.89	0.73	0.39	0.87
4	0.37	0.17	0.72	0.31	0.14	0.69
5	0.12	0.10	0.70	0.13	0.10	0.56
6	0.44	0.34	0.77	0.43	0.34	0.77
7	0.57	0.37	0.81	0.36	0.26	0.70
8	0.34	0.41	0.76	0.32	0.42	0.77
9	0.63	0.46	0.87	0.43	0.28	0.82
10	0.50	0.49	0.89	0.51	0.25	0.83
11	0.42	0.29	0.74	0.35	0.22	0.68
12	0.38	0.46	0.82	0.54	0.53	0.87
13	0.67	0.68	0.93	0.61	0.66	0.92
14	0.49	0.45	0.82	0.40	0.32	0.70
15	0.34	0.26	0.76	0.57	0.35	0.83
16	0.58	0.53	0.90	0.53	0.41	0.80
17	0.51	0.44	0.77	0.56	0.41	0.79
18	0.51	0.46	0.82	0.50	0.50	0.83
19	0.35	0.40	0.79	0.52	0.66	0.94
20	0.48	0.20	0.75	0.49	0.24	0.76
21	0.37	0.29	0.64	0.36	0.25	0.62
22	0.46	0.22	0.73	0.46	0.24	0.71
23	0.35	0.25	0.65	0.35	0.26	0.63
24	0.48	0.30	0.77	0.43	0.31	0.80
25	0.42	0.36	0.68	0.18	0.28	0.74
26	0.22	0.24	0.55	0.22	0.24	0.55
27	0.51	0.48	0.88	0.51	0.47	0.87
28	--	--		0.44	0.32	0.85
AVERAGE	0.44	0.36	0.77	0.43	0.34	0.77

Table 8. Racial Composition of Congressional Districts in the 2016 Map						
CD Number	Percent of VAP* That Are Minorities	Percent of VAP That are Hispanic	Percent of VAP That are Black	Percent of CVAP* That Are Minorities	Percent of CVAP That are Hispanic	Percent of CVAP That are Black
1	27.3%	6.6%	11.9%	23.5%	5.2%	13.3%
2	24.1%	6.7%	11.4%	20.6%	4.9%	12.8%
3	33.1%	10.3%	14.6%	28.6%	8.4%	16.2%
4	27.3%	8.8%	8.9%	22.0%	7.2%	9.7%
5	59.8%	9.1%	43.8%	56.2%	6.2%	46.5%
6	26.5%	12.1%	8.7%	23.1%	10.9%	9.8%
7	43.9%	24.7%	9.5%	38.1%	22.8%	10.3%
8	25.4%	10.3%	8.2%	21.1%	8.9%	9.0%
9	59.6%	41.5%	10.8%	53.5%	37.8%	12.0%
10	64.0%	28.9%	23.6%	58.3%	25.1%	26.8%
11	21.2%	10.1%	6.1%	17.6%	8.8%	6.6%
12	23.8%	12.5%	4.5%	19.1%	10.9%	5.0%
13	28.2%	9.8%	10.5%	23.8%	7.9%	11.8%
14	54.8%	30.2%	15.0%	48.8%	26.5%	17.4%
15	43.3%	22.7%	13.1%	36.7%	18.9%	14.1%
16	29.8%	15.9%	7.9%	22.7%	11.4%	8.6%
17	23.8%	13.3%	6.2%	19.9%	10.9%	6.8%
18	32.9%	15.6%	11.4%	26.2%	12.3%	11.3%
19	28.4%	18.1%	5.7%	21.6%	12.9%	6.4%
20	82.0%	26.8%	48.8%	77.2%	20.5%	52.7%
21	42.6%	22.6%	13.3%	34.4%	17.4%	13.5%
22	43.9%	21.4%	13.1%	35.1%	17.9%	13.7%
23	60.9%	39.7%	12.5%	55.5%	36.4%	14.1%

24	88.3%	44.9%	39.1%	87.1%	36.4%	48.9%
25	80.1%	74.4%	3.1%	74.4%	69.3%	3.7%
26	84.8%	72.4%	8.9%	79.7%	66.3%	11.2%
27	78.6%	70.4%	3.6%	75.8%	68.3%	5.1%

Table 9. Racial Composition of Congressional Districts in the Proposed Map						
CD Number	Percent of VAP* That Are Minorities	Percent of VAP That are Hispanic	Percent of VAP That are Black	Percent of CVAP* That Are Minorities	Percent of CVAP That are Hispanic	Percent of CVAP That are Black
1	27.9%	6.6%	12.3%	24.1%	5.2%	13.8%
2	25.1%	6.7%	12.3%	21.4%	4.9%	13.4%
3	31.9%	9.7%	13.7%	27.4%	8.1%	15.3%
4	27.4%	8.8%	9.1%	22.0%	7.0%	9.8%
5	57.6%	9.2%	41.6%	54.2%	6.2%	44.5%
6	26.5%	12.1%	8.7%	23.2%	11.0%	9.8%
7	41.7%	22.4%	9.7%	35.6%	20.3%	10.4%
8	25.1%	10.0%	8.2%	20.8%	8.7%	9.0%
9	67.8%	50.1%	9.0%	62.4%	47.3%	10.3%
10	63.5%	26.6%	25.3%	58.4%	23.5%	28.4%
11	23.8%	10.6%	7.9%	19.6%	8.7%	8.4%
12	25.6%	14.0%	5.0%	20.8%	12.6%	5.3%
13	27.4%	9.6%	10.0%	23.0%	7.7%	11.3%
14	44.2%	26.4%	9.8%	38.3%	22.7%	11.5%
15	51.2%	24.2%	17.2%	44.4%	20.9%	18.9%
16	26.1%	14.3%	6.3%	19.4%	9.8%	7.3%
17	26.4%	16.5%	5.7%	21.6%	13.1%	6.3%
18	32.3%	15.2%	11.2%	25.7%	12.0%	11.2%
19	30.5%	19.3%	6.3%	23.6%	14.2%	7.2%
20	79.9%	26.5%	46.8%	75.0%	20.6%	50.5%
21	41.7%	22.3%	13.3%	33.9%	17.0%	13.5%
22	43.5%	20.9%	12.7%	34.7%	17.6%	13.5%

23	61.8%	40.5%	12.6%	56.6%	37.4%	14.0%
24	86.8%	41.1%	41.2%	84.7%	32.4%	50.3%
25	76.2%	71.2%	2.6%	69.1%	64.7%	3.1%
26	84.6%	71.9%	9.2%	79.5%	65.8%	11.4%
27	79.3%	71.1%	3.6%	76.2%	68.9%	5.0%
28	41.7%	23.2%	12.8%	35.2%	18.7%	13.8%

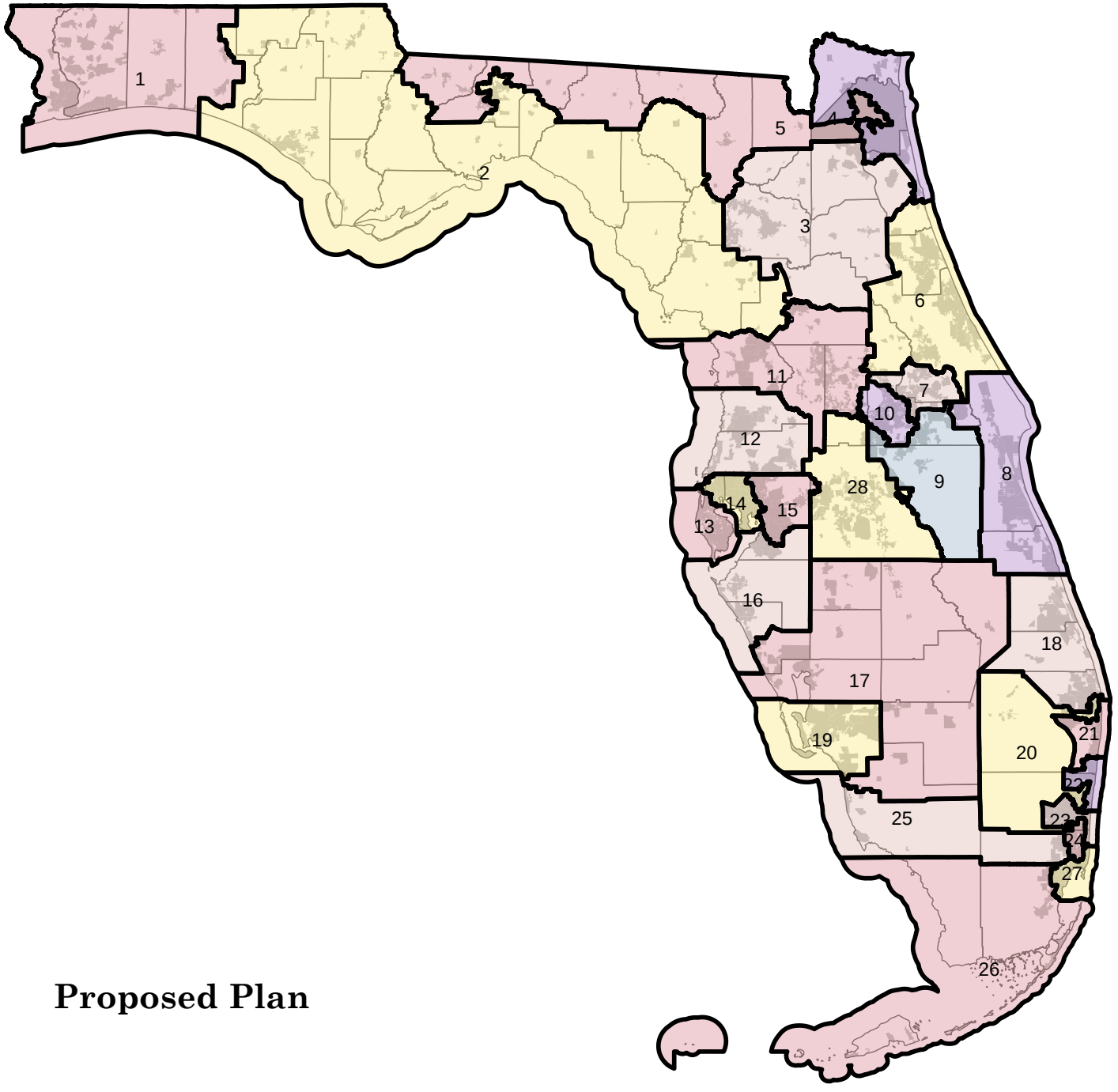
Table 10. Election Results in the 2016 Map and in the Proposed Congressional District Map		
	Democrats' Average Share of Democrat + Republican Vote in Eight Elections	
CD Number	2016 Map	Proposed Map
1	29.6%	30.1%
2	31.2%	34.0%
3	42.1%	41.1%
4	35.6%	35.9%
5	63.4%	59.7%
6	41.2%	41.4%
7	53.4%	51.9%
8	39.7%	39.7%
9	54.4%	60.6%
10	62.4%	62.8%
11	33.1%	33.6%
12	41.3%	38.9%
13	52.4%	52.2%
14	57.9%	52.1%
15	44.9%	51.8%
16	44.6%	43.7%
17	35.4%	35.1%
18	46.1%	45.8%
19	36.7%	37.7%

20	81.8%	80.6%
21	60.0%	59.7%
22	58.6%	58.4%
23	62.3%	62.4%
24	83.2%	83.6%
25	41.4%	40.9%
26	52.8%	53.3%
27	54.9%	54.5%
28	--	42.7%

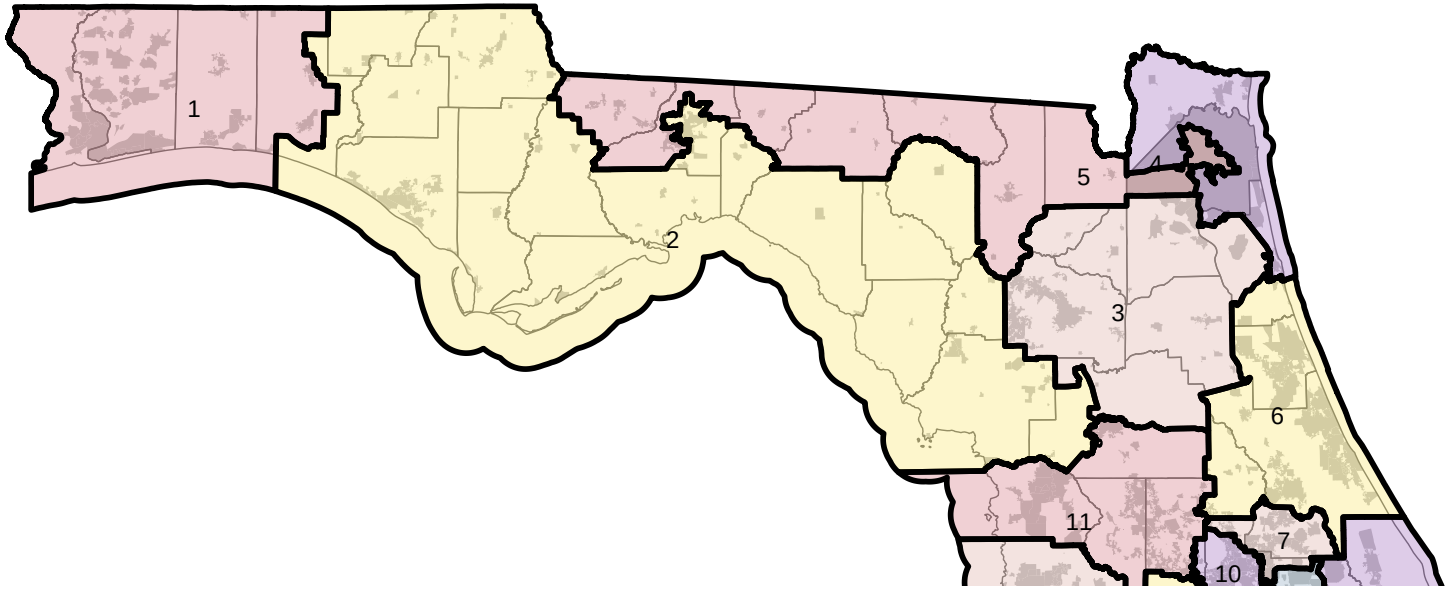
Table 11. Consistency of Partisan Bias Measures of the Congressional District

Measure*	2016 Map	Proposed Map	Senate Map	Governor Map	House Map
Partisan Bias	2.8%	0.9%	0.9%	14.3%	4.9%
Mean-Median Difference	3.1%	1.1%	0.8%	4.0%	2.2%
Efficiency Gap	4.1%	3.7%	3.3%	14.7%	6.3%
Responsiveness	0.93	1.79	0.89	0.89	3.57

***** Measures are averaged over the following races: 2016 Presidential, 2016 Senate, 2018 Senate, 2018 Governor, 2018 Attorney General, 2018 Chief Financial Officer, 2018 Agricultural Commissioner, and 2020 Presidential.



Proposed Plan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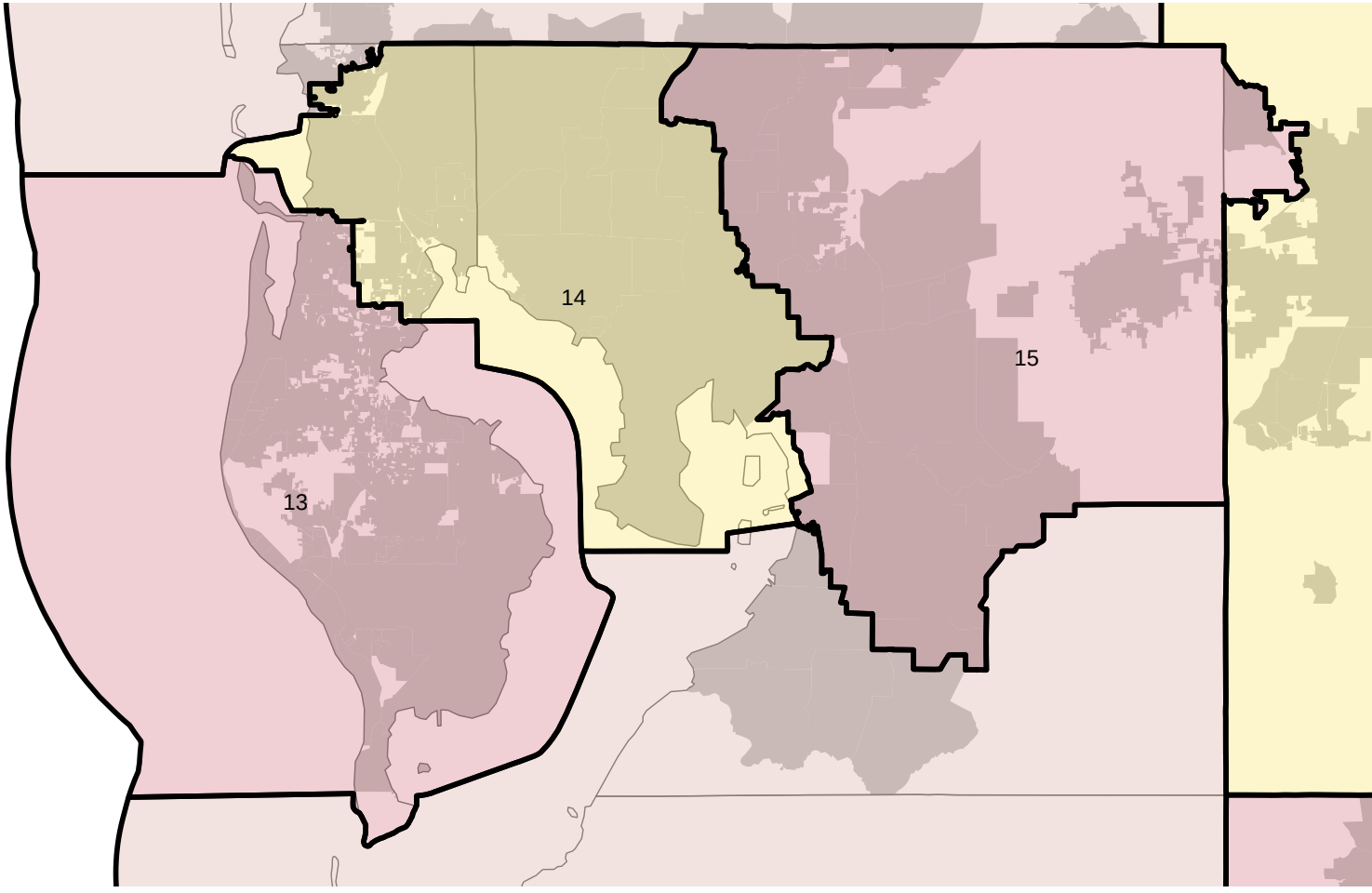
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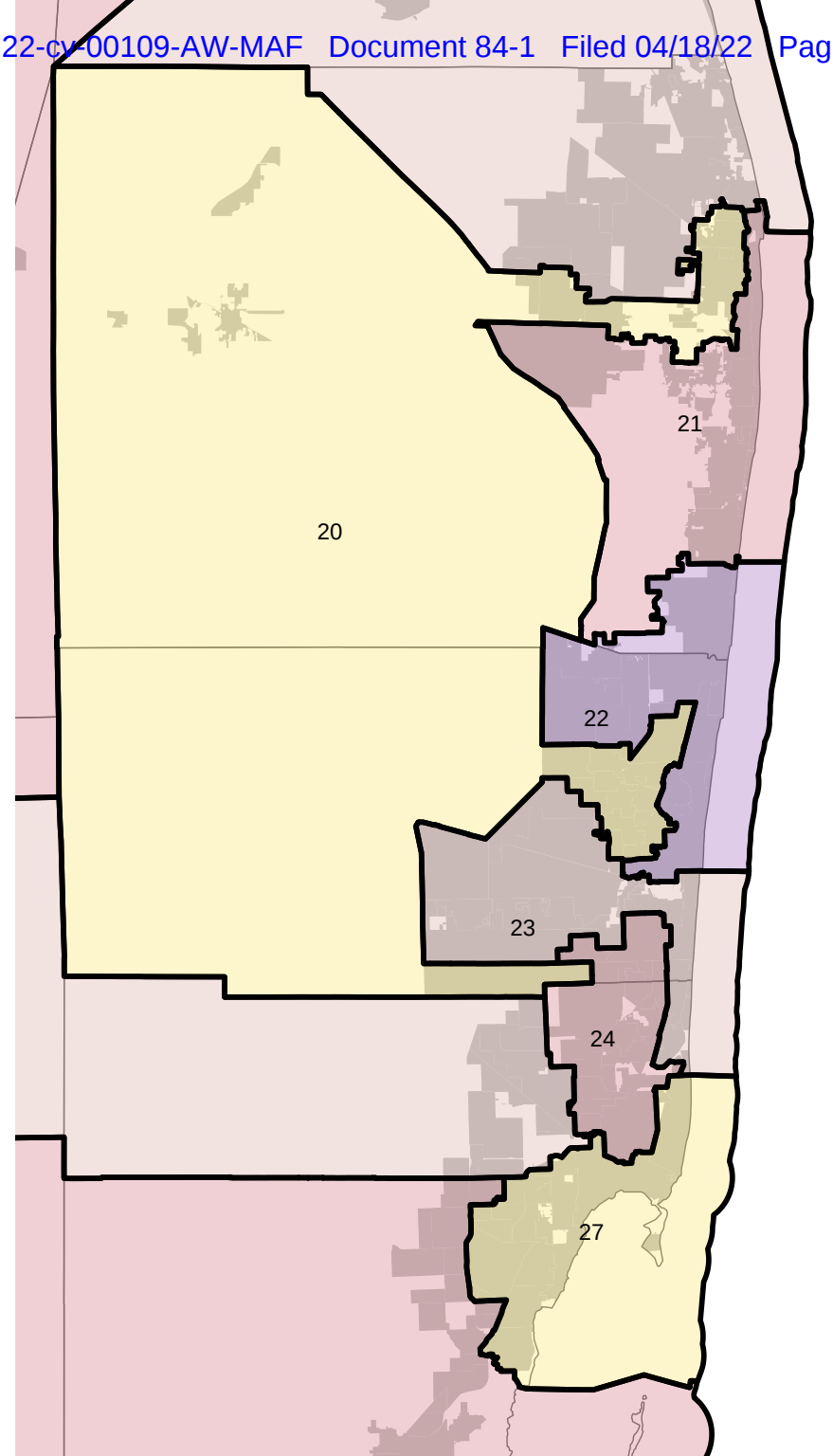
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EDUCATION

Harvard University	Ph.D., Political Science	1989
University of Minnesota	B.A., Political Science B.S., Economics	1984

PROFESSIONAL EXPERIENCE

ACADEMIC POSITIONS

2016-present	Frank G. Thompson Professor of Government, Harvard University
2008-present	Professor, Department of Government, Harvard University
2015-present	Director, Center for American Politics, Harvard University
1998-2009	Elting Morison Professor, Department of Political Science, MIT (Associate Head, 2001-2005)
1995-1998	Associate Professor, Department of Political Science, MIT
1993-1994	National Fellow, The Hoover Institution
1989-1993	Assistant Professor, Department of Political Science, University of California, Los Angeles

FELLOWSHIPS AND HONORS

American Academy of Arts and Sciences	2007
Carnegie Scholar	2000-02
National Fellow, The Hoover Institution	1993-94
Harry S. Truman Fellowship	1982-86

PUBLICATIONS

Books

2022 *American Government*, 17th edition. With Ted Lowi, Benjamin Ginsberg and Kenneth Shepsle. W.W. Norton.

2014 *Cheap and Clean: How Americans Think About Energy in the Age of Global Warming*. With David Konisky. MIT Press. Recipient of the Donald K. Price book award.

2008 *The End of Inequality: One Person, One Vote and the Transformation of American Politics*. With James M. Snyder, Jr., W. W. Norton.

1996 *Going Negative: How Political Advertising Divides and Shrinks the American Electorate*. With Shanto Iyengar. The Free Press. Recipient of the Goldsmith book award.

1993 *Media Game: American Politics in the Television Age*. With Roy Behr and Shanto Iyengar. Macmillan.

Journal Articles

Forthcoming "Constitutions, Federalism, and National Integration," *European Economic Review*. (with Maria Socorro Puy).

2022 "Franchise Expansion and Legislative Representation in the Early United States" *Journal of Political Economy and Political Institutions* (with Jaclyn Kaslovsky and Michael Olson)

2021 "The CPS Voting and Registration Supplement Overstates Turnout" *Journal of Politics* 83 (2021) (with Bernard Fraga and Brian Schaffner) https://doi.org/10.1086/717260

2021 "Congressional Representation: Accountability from the Constituent's Perspective," *American Journal of Political Science* f65 (2021) (with Shiro Kuriwaki) https://doi.org/10.1111/ajps.12607

2020 "Proximity, NIMBYism, and Public Support for Energy Infrastructure" *Public Opinion Quarterly* (with David Konisky and Sanya Carley)

https://doi.org/10.1093/poq/nfaa025

2020 "Understanding Exponential Growth Amid a Pandemic: An Internal Perspective," *Harvard Data Science Review* 2 (October) (with Ray Duch, Kevin DeLuca, Alexander Podkul, Liberty Vittert)

2020 "Unilateral Action and Presidential Accountability," *Presidential Studies Quarterly* 50 (March): 129-145. (with Jon Rogowski)

2019 "Backyard Voices: How Sense of Place Shapes Views of Large-Scale Energy Transmission Infrastructure" *Energy Research & Social Science* forthcoming(with Parrish Bergquist, Carley Sanya, and David Konisky)

2019 "Are All Electrons the Same? Evaluating support for local transmission lines through an experiment" *PLOS ONE* 14 (7): e0219066 (with Carley Sanya and David Konisky) https://doi.org/10.1371/journal.pone.0219066

2018 "Learning from Recounts" Election Law Journal 17: 100-116 (with Barry C. Burden, Kenneth R. Mayer, and Charles Stewart III) https://doi.org/10.1089/elj.2017.0440

2018 "Policy, Politics, and Public Attitudes Toward the Supreme Court" *American Politics Research* (with Ariel White and Nathaniel Persily). https://doi.org/10.1177/1532673X18765189

2018 "Measuring Issue-Salience in Voters' Preferences" *Electoral Studies* (with Maria Socorro Puy) 51 (February): 103-114.

2018 "Divided Government and Significant Legislation: A History of Congress," *Social Science History* (with Maxwell Palmer and Benjamin Schneer).42 (1).

2017 "ADGN: An Algorithm for Record Linkage Using Address, Date of Birth Gender and Name," *Statistics and Public Policy* (with Eitan Hersh)

2017 "Identity Politics" (with Socorro Puy) *Public Choice*. 168: 1-19. DOI 10.1007/s11127-016-0371-2

2016 "A 200-Year Statistical History of the Gerrymander" (with Maxwell Palmer) *The Ohio State University Law Journal*

2016 "Do Americans Prefer Co-Ethnic Representation? The Impact of Race on House Incumbent Evaluations" (with Bernard Fraga) *Stanford University Law Review* 68: 1553-1594

2016 Revisiting Public Opinion on Voter Identification and Voter Fraud in an Era of

Increasing Partisan Polarization*"* (with Nathaniel Persily) *Stanford Law Review* 68: 1455-1489

2015 "The Perils of Cherry Picking Low Frequency Events in Large Sample Surveys" (with Brian Schaffner and Samantha Luks) *Electoral Studies* 40 (December): 409-410.

2015 "Testing *Shaw v. Reno*: Do Majority-Minority Districts Cause Expressive Harms?" (with Nathaniel Persily) *New York University Law Review* 90

2015 "A Brief Yet Practical Guide to Reforming U.S. Voter Registration, *Election Law Journa*l, (with Daron Shaw and Charles Stewart) 14: 26-31.

2015 "Waiting to Vote," *Election Law Journa*l, (with Charles Stewart) 14: 47-53.

2014 "Mecro-economic Voting: Local Information and Micro-Perceptions of the Macro-Economy" (With Marc Meredith and Erik Snowberg), *Economics and Politics* 26 (November): 380-410.

2014 "Does Survey Mode Still Matter?" *Political Analysis* (with Brian Schaffner) 22: 285-303

2013 "Race, Gender, Age, and Voting" *Politics and Governance*, vol. 1, issue 2. (with Eitan Hersh)
http://www.librelloph.com/politicsandgovernance/article/view/PaG-1.2.132

2013 "Regional Differences in Racially Polarized Voting: Implications for the Constitutionality of Section 5 of the Voting Rights Act" (with Nathaniel Persily and Charles Stewart) 126 *Harvard Law Review* F 205 (2013)
http://www.harvardlawreview.org/issues/126/april13/forum_1005.php

2013 "Cooperative Survey Research" *Annual Review of Political Science* (with Douglas Rivers)

2013 "Social Sciences and the Alternative Energy Future" *Daedalus* (with Bob Fri)

2013 "The Effects of Redistricting on Incumbents," *Election Law Journal* (with James Snyder)

2012 "Asking About Numbers: How and Why" *Political Analysis* (with Erik Snowberg and Marc Meredith). doi:10.1093/pan/mps031

2012 "Movers, Stayers, and Registration" *Quarterly Journal of Political Science* (with Eitan Hersh and Ken Shepsle)

2012 "Validation: What Big Data Reveals About Survey Misreporting and the Real

Electorate" *Political Analysis* (with Eitan Hersh)

2012 "Arizona Free Enterprise v. Bennett and the Problem of Campaign Finance" *Supreme Court Review* 2011(1):39-79

2012 "The American Public's Energy Choice" *Daedalus* (with David Konisky)

2012 "Challenges for Technology Change" *Daedalus* (with Robert Fri)

2011 "When Parties Are Not Teams: Party positions in single-member district and proportional representation systems" *Economic Theory* 49 (March) DOI: 10.1007/s00199-011-0610-1 (with James M. Snyder Jr. and William Leblanc)

2011 "Profiling Originalism" *Columbia Law Review* (with Jamal Greene and Nathaniel Persily).

2010 "Partisanship, Public Opinion, and Redistricting" *Election Law Journal* (with Joshua Fougere and Nathaniel Persily).

2010 "Primary Elections and Party Polarization" *Quarterly Journal of Political Science* (with Shigeo Hirano, James Snyder, and Mark Hansen)

2010 "Constituents' Responses to Congressional Roll Call Voting," *American Journal of Political Science* (with Phil Jones)

2010 "Race, Region, and Vote Choice in the 2008 Election: Implications for the Future of the Voting Rights Act" *Harvard Law Review* April, 2010. (with Nathaniel Persily, and Charles H. Stewart III)

2010 "Residential Mobility and the Cell Only Population," *Public Opinion Quarterly* (with Brian Schaffner)

2009 "Explaining Attitudes Toward Power Plant Location," *Public Opinion Quarterly* (with David Konisky)

2009 "Public risk perspectives on the geologic storage of carbon dioxide," *International Journal of Greenhouse Gas Control* (with Gregory Singleton and Howard Herzog) 3(1): 100-107.

2008 "A Spatial Model of the Relationship Between Seats and Votes" (with William Leblanc) *Mathematical and Computer Modeling* (November).

2008 "The Strength of Issues: Using Multiple Measures to Gauge Preference Stability, Ideological Constraint, and Issue Voting" (with Jonathan Rodden and James M. Snyder, Jr.) *American Political Science Review* (May).

2008 "Access versus Integrity in Voter Identification Requirements." *New York University Annual Survey of American Law,* vol 63.

2008 "Voter Fraud in the Eye of the Beholder" (with Nathaniel Persily) *Harvard Law Review* (May)

2007 "Incumbency Advantages in U. S. Primary Elections," (with John Mark Hansen, Shigeo Hirano, and James M. Snyder, Jr.) *Electoral Studies* (September)

2007 "Television and the Incumbency Advantage" (with Erik C. Snowberg and James M. Snyder, Jr). *Legislative Studies Quarterly*.

2006 "The Political Orientation of Newspaper Endorsements" (with Rebecca Lessem and James M. Snyder, Jr.). *Quarterly Journal of Political Science* vol. 1, issue 3.

2006 "Voting Cues and the Incumbency Advantage: A Critical Test" (with Shigeo Hirano, James M. Snyder, Jr., and Michiko Ueda) *Quarterly Journal of Political Science* vol. 1, issue 2.

2006 "American Exceptionalism? Similarities and Differences in National Attitudes Toward Energy Policies and Global Warming" (with David Reiner, Howard Herzog, K. Itaoka, M. Odenberger, and Fillip Johanssen) *Environmental Science and Technology* (February 22, 2006), http://pubs3.acs.org/acs/journals/doilookup?in_doi=10.1021/es052010b

2006 "Purple America" (with Jonathan Rodden and James M. Snyder, Jr.) *Journal of Economic Perspectives* (Winter).

2005 "Did the Introduction of Voter Registration Decrease Turnout?" (with David Konisky). *Political Analysis*.

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2005 "Studying Elections" *Policy Studies Journal* (with Charles H. Stewart III and R. Michael Alvarez).

2005 "Legislative Bargaining under Weighted Voting" *American Economic Review* (with James M. Snyder, Jr., and Michael Ting)

2005 "Voting Weights and Formateur Advantages in Coalition Formation: Evidence from Parliamentary Coalitions, 1946 to 2002" (with James M. Snyder, Jr., Aaron B. Strauss, and Michael M. Ting) *American Journal of Political Science*.

2005 "Reapportionment and Party Realignment in the American States" *Pennsylvania Law Review* (with James M. Snyder, Jr.)

2004 "Residual Votes Attributable to Voting Technologies" (with Charles Stewart) *Journal of Politics*

2004 "Using Term Limits to Estimate Incumbency Advantages When Office Holders Retire Strategically" (with James M. Snyder, Jr.). *Legislative Studies Quarterly* vol. 29, November 2004, pages 487-516.

2004 "Did Firms Profit From Soft Money?" (with James M. Snyder, Jr., and Michiko Ueda) *Election Law Journal* vol. 3, April 2004.

2003 "Bargaining in Bicameral Legislatures" (with James M. Snyder, Jr. and Mike Ting) *American Political Science Review,* August, 2003.

2003 "Why Is There So Little Money in U.S. Politics?" (with James M. Snyder, Jr.) *Journal of Economic Perspectives*, Winter, 2003.

2002 "Equal Votes, Equal Money: Court-Ordered Redistricting and the Public Spending in the American States" (with Alan Gerber and James M. Snyder, Jr.) *American Political Science Review*, December, 2002.
Paper awarded the Heinz Eulau award for the best paper in the American Political Science Review.

2002 "Are PAC Contributions and Lobbying Linked?" (with James M. Snyder, Jr. and Micky Tripathi) *Business and Politics* 4, no. 2.

2002 "The Incumbency Advantage in U.S. Elections: An Analysis of State and Federal Offices, 1942-2000" (with James Snyder) *Election Law Journal,* 1, no. 3.

2001 "Voting Machines, Race, and Equal Protection." *Election Law Journal*, vol. 1, no. 1

2001 "Models, assumptions, and model checking in ecological regressions" (with Andrew Gelman, David Park, Phillip Price, and Larraine Minnite) *Journal of the Royal Statistical Society,* series A, 164: 101-118.

2001 "The Effects of Party and Preferences on Congressional Roll Call Voting." (with James Snyder and Charles Stewart) *Legislative Studies Quarterly* (forthcoming).
Paper awarded the *Jewell-Lowenberg Award* for the best paper published on legislative politics in 2001. Paper awarded the *Jack Walker Award* for the best paper published on party politics in 2001.

2001 "Candidate Positions in Congressional Elections," (with James Snyder and

Charles Stewart). *American Journal of Political Science* 45 (November).

2000 "Old Voters, New Voters, and the Personal Vote," (with James Snyder and Charles Stewart) *American Journal of Political Science* 44 (February).

2000 "Soft Money, Hard Money, Strong Parties," (with James Snyder) *Columbia Law Review* 100 (April):598 - 619.

2000 "Campaign War Chests and Congressional Elections," (with James Snyder) *Business and Politics*. 2 (April): 9-34.

1999 "Replicating Experiments Using Surveys and Aggregate Data: The Case of Negative Advertising." (with Shanto Iyengar and Adam Simon) *American Political Science Review* 93 (December).

1999 "Valence Politics and Equilibrium in Spatial Models," (with James Snyder), *Public Choice.*

1999 "Money and Institutional Power," (with James Snyder), *Texas Law Review* 77 (June, 1999): 1673-1704.

1997 "Incumbency Advantage and the Persistence of Legislative Majorities," (with Alan Gerber), *Legislative Studies Quarterly* 22 (May 1997).

1996 "The Effects of Ballot Access Rules on U.S. House Elections," (with Alan Gerber), *Legislative Studies Quarterly* 21 (May 1996).

1994 "Riding the Wave and Issue Ownership: The Importance of Issues in Political Advertising and News," (with Shanto Iyengar) *Public Opinion Quarterly* 58: 335-357.

1994 "Horseshoes and Horseraces: Experimental Evidence of the Effects of Polls on Campaigns," (with Shanto Iyengar) *Political Communications* 11/4 (October-December): 413-429.

1994 "Does Attack Advertising Demobilize the Electorate?" (with Shanto Iyengar), *American Political Science Review* 89 (December).

1994 "The Mismeasure of Campaign Spending: Evidence from the 1990 U.S. House Elections," (with Alan Gerber) *Journal of Politics* 56 (September).

1993 "Poll Faulting," (with Thomas R. Belin) *Chance* 6 (Winter): 22-28.

1991 "The Vanishing Marginals and Electoral Responsiveness," (with David Brady and Morris Fiorina) *British Journal of Political Science* 22 (November): 21-38.

1991 "Mass Media and Elections: An Overview," (with Roy Behr and Shanto Iyengar) *American Politics Quarterly* 19/1 (January): 109-139.

1990 "The Limits of Unraveling in Interest Groups," *Rationality and Society* 2: 394-400.

1990 "Measuring the Consequences of Delegate Selection Rules in Presidential Nominations," (with Gary King) *Journal of Politics* 52: 609-621.

1989 "The Nature of Utility Functions in Mass Publics," (with Henry Brady) *American Political Science Review* 83: 143-164.

Special Reports and Policy Studies

2010 *The Future of Nuclear Power*, Revised.

2006 *The Future of Coal.* MIT Press. Continued reliance on coal as a primary power source will lead to very high concentrations of carbon dioxide in the atmosphere, resulting in global warming. This cross-disciplinary study – drawing on faculty from Physics, Economics, Chemistry, Nuclear Engineering, and Political Science – develop a road map for technology research and development policy in order to address the challenges of carbon emissions from expanding use of coal for electricity and heating throughout the world.

2003 *The Future of Nuclear Power*. MIT Press. This cross-disciplinary study – drawing on faculty from Physics, Economics, Chemistry, Nuclear Engineering, and Political Science – examines the what contribution nuclear power can make to meet growing electricity demand, especially in a world with increasing carbon dioxide emissions from fossil fuel power plants.

2002 "Election Day Registration." A report prepared for DEMOS. This report analyzes the possible effects of Proposition 52 in California based on the experiences of 6 states with election day registration.

2001 *Voting: What Is, What Could Be.* A report of the Caltech/MIT Voting Technology Project. This report examines the voting system, especially technologies for casting and counting votes, registration systems, and polling place operations, in the United States. It was widely used by state and national governments in formulating election reforms following the 2000 election.

2001 "An Assessment of the Reliability of Voting Technologies." A report of the Caltech/MIT Voting Technology Project. This report provided the first nationwide assessment of voting equipment performance in the United States. It was prepared for the Governor's Select Task Force on Election Reform in Florida.

Chapters in Edited Volumes

2016 "Taking the Study of Public Opinion Online" (with Brian Schaffner) *Oxford Handbook of Public Opinion*, R. Michael Alvarez, ed. Oxford University Press: New York, NY.

2014 "Voter Registration: The Process and Quality of Lists*" The Measure of American Elections*, Barry Burden, ed..

2012 "Using Recounts to Measure the Accuracy of Vote Tabulations: Evidence from New Hampshire Elections, 1946-2002" in Confirming Elections, R. Michael Alvarez, Lonna Atkeson, and Thad Hall, eds. New York: Palgrave, Macmillan.

2010 "Dyadic Representation" in Oxford Handbook on Congress, Eric Schickler, ed., Oxford University Press.

2008 "Voting Technology and Election Law" in *America Votes!,* Benjamin Griffith, editor, Washington, DC: American Bar Association.

2007 "What Did the Direct Primary Do to Party Loyalty in Congress" (with Shigeo Hirano and James M. Snyder Jr.) in *Process, Party and Policy Making: Further New Perspectives on the History of Congress*, David Brady and Matthew D. McCubbins (eds.), Stanford University Press, 2007.

2007 "Election Administration and Voting Rights" in *Renewal of the Voting Rights Act*, David Epstein and Sharyn O'Hallaran, eds. Russell Sage Foundation.

2006 "The Decline of Competition in Primary Elections," (with John Mark Hansen, Shigeo Hirano, and James M. Snyder, Jr.) *The Marketplace of Democracy*, Michael P. McDonald and John Samples, eds. Washington, DC: Brookings.

2005 "Voters, Candidates and Parties" in *Handbook of Political Economy*, Barry Weingast and Donald Wittman, eds. New York: Oxford University Press.

2003 "Baker v. Carr in Context, 1946 – 1964" (with Samuel Isaacharoff) in *Constitutional Cases in Contex*t, Michael Dorf, editor. New York: Foundation Press.

2002 "Corruption and the Growth of Campaign Spending"(with Alan Gerber and James Snyder). *A User's Guide to Campaign Finance*, Jerry Lubenow, editor. Rowman and Littlefield.

2001 "The Paradox of Minimal Effects," in Henry Brady and Richard Johnston, eds., *Do Campaigns Matter*? University of Michigan Press.

2001 "Campaigns as Experiments," in Henry Brady and Richard Johnson, eds., Do *Campaigns Matter*? University of Michigan Press.

2000 "Money and Office," (with James Snyder) in David Brady and John Cogan, eds., *Congressional Elections: Continuity and Change*. Stanford University Press.

1996 "The Science of Political Advertising," (with Shanto Iyengar) in *Political Persuasion and Attitude Change*, Richard Brody, Diana Mutz, and Paul Sniderman, eds. Ann Arbor, MI: University of Michigan Press.

1995 "Evolving Perspectives on the Effects of Campaign Communication," in Philo Warburn, ed., *Research in Political Sociology*, vol. 7, JAI.

1995 "The Effectiveness of Campaign Advertising: It's All in the Context," (with Shanto Iyengar) in *Campaigns and Elections American Style*, Candice Nelson and James A. Thurber, eds. Westview Press.

1993 "Information and Electoral Attitudes: A Case of Judgment Under Uncertainty," (with Shanto Iyengar), in *Explorations in Political Psychology*, Shanto Iyengar and William McGuire, eds. Durham: Duke University Press.

Working Papers

2009 "Sociotropic Voting and the Media" (with Marc Meredith and Erik Snowberg), American National Election Study Pilot Study Reports, John Aldrich editor.

2007 "Public Attitudes Toward America's Energy Options: Report of the 2007 MIT Energy Survey" CEEPR Working Paper 07-002 and CANES working paper.

2006 "Constituents' Policy Perceptions and Approval of Members' of Congress" CCES Working Paper 06-01 (with Phil Jones).

2004 "Using Recounts to Measure the Accuracy of Vote Tabulations: Evidence from New Hampshire Elections, 1946 to 2002" (with Andrew Reeves).

2002 "Evidence of Virtual Representation: Reapportionment in California," (with Ruimin He and James M. Snyder).

1999 "Why did a majority of Californians vote to lower their own power?" (with James Snyder and Jonathan Woon). Paper presented at the annual meeting of the American Political Science Association, Atlanta, GA, September, 1999. Paper received the award for the best paper on Representation at the 1999 Annual Meeting of the APSA.

1999 "Has Television Increased the Cost of Campaigns?" (with Alan Gerber and James Snyder).

1996 "Money, Elections, and Candidate Quality," (with James Snyder).

1996 "Party Platform Choice - Single- Member District and Party-List Systems,"(with James Snyder).

1995 "Messages Forgotten" (with Shanto Iyengar).

1994 "Consumer Contributors and the Returns to Fundraising: A Microeconomic Analysis," (with Alan Gerber), presented at the Annual Meeting of the American Political Science Association, September.

1992 "Biases in Ecological Regression," (with R. Douglas Rivers) August, (revised February 1994). Presented at the Midwest Political Science Association Meetings, April 1994, Chicago, IL.

1992 "Using Aggregate Data to Correct Nonresponse and Misreporting in Surveys" (with R. Douglas Rivers). Presented at the annual meeting of the Political Methodology Group, Cambridge, Massachusetts, July.

1991 "The Electoral Effects of Issues and Attacks in Campaign Advertising" (with Shanto Iyengar). Presented at the Annual Meeting of the American Political Science Association, Washington, DC.

1991 "Television Advertising as Campaign Strategy: Some Experimental Evidence" (with Shanto Iyengar). Presented at the Annual Meeting of the American Association for Public Opinion Research, Phoenix.

1991 "Why Candidates Attack: Effects of Televised Advertising in the 1990 California Gubernatorial Campaign," (with Shanto Iyengar). Presented at the Annual Meeting of the Western Political Science Association, Seattle, March.

1990 "Winning is Easy, But It Sure Ain't Cheap." Working Paper #90-4, Center for the American Politics and Public Policy, UCLA. Presented at the Political Science Departments at Rochester University and the University of Chicago.

Research Grants

1989-1990 Markle Foundation. "A Study of the Effects of Advertising in the 1990 California Gubernatorial Campaign." Amount: $50,000

1991-1993 Markle Foundation. "An Experimental Study of the Effects of Campaign Advertising." Amount: $150,000

1991-1993	NSF. "An Experimental Study of the Effects of Advertising in the 1992 California Senate Electoral." Amount: $100,000
1994-1995	MIT Provost Fund. "Money in Elections: A Study of the Effects of Money on Electoral Competition." Amount: $40,000
1996-1997	National Science Foundation. "Campaign Finance and Political Representation." Amount: $50,000
1997	National Science Foundation. "Party Platforms: A Theoretical Investigation of Party Competition Through Platform Choice." Amount: $40,000
1997-1998	National Science Foundation. "The Legislative Connection in Congressional Campaign Finance. Amount: $150,000
1999-2000	MIT Provost Fund. "Districting and Representation." Amount: $20,000.
1999-2002	Sloan Foundation. "Congressional Staff Seminar." Amount: $156,000.
2000-2001	Carnegie Corporation. "The Caltech/MIT Voting Technology Project." Amount: $253,000.
2001-2002	Carnegie Corporation. "Dissemination of Voting Technology Information." Amount: $200,000.
2003-2005	National Science Foundation. "State Elections Data Project." Amount: $256,000.
2003-2004	Carnegie Corporation. "Internet Voting." Amount: $279,000.
2003-2005	Knight Foundation. "Accessibility and Security of Voting Systems." Amount: $450,000.
2006-2008	National Science Foundation, "Primary Election Data Project," $186,000
2008-2009	Pew/JEHT. "Measuring Voting Problems in Primary Elections, A National Survey." Amount: $300,000
2008-2009	Pew/JEHT. "Comprehensive Assessment of the Quality of Voter Registration Lists in the United States: A pilot study proposal" (with Alan Gerber). Amount: $100,000.
2010-2011	National Science Foundation, "Cooperative Congressional Election Study," $360,000

2010-2012 Sloan Foundation, "Precinct-Level U. S. Election Data," $240,000.

2012-2014 National Science Foundation, "Cooperative Congressional Election Study, 2010-2012 Panel Study" $425,000

2012-2014 National Science Foundation, "2012 Cooperative Congressional Election Study," $475,000

2014-2016 National Science Foundation, "Cooperative Congressional Election Study, 2010-2014 Panel Study" $510,000

2014-2016 National Science Foundation, "2014 Cooperative Congressional Election Study," $400,000

2016-2018 National Science Foundation, "2016 Cooperative Congressional Election Study," $485,000

2018-2020 National Science Foundation, "2018 Cooperative Congressional Election Study," $844,784.

2019-2022 National Science Foundation, RIDIR: "Collaborative Research: Analytic Tool for Poststratification and small-area estimation for survey data." $942,607

Professional Boards

Editor, Cambridge University Press Book Series, Political Economy of Institutions and Decisions, 2006-2016

Member, Board of the Reuters International School of Journalism, Oxford University, 2007 to present.

Member, Academic Advisory Board, Electoral Integrity Project, 2012 to present.

Contributing Editor, *Boston Review*, The State of the Nation.

Member, Board of Overseers, American National Election Studies, 1999 - 2013.

Associate Editor, Public Opinion Quarterly, 2012 to 2013.

Editorial Board of Harvard Data Science Review, 2018 to present.
Editorial Board of American Journal of Political Science, 2005 to 2009.
Editorial Board of Legislative Studies Quarterly, 2005 to 2010.
Editorial Board of Public Opinion Quarterly, 2006 to present.
Editorial Board of the Election Law Journal, 2002 to present.

Editorial Board of the Harvard International Journal of Press/Politics, 1996 to 2008.
Editorial Board of Business and Politics, 2002 to 2008.
Scientific Advisory Board, Polimetrix, 2004 to 2006.

Special Projects and Task Forces

Principal Investigator, Cooperative Congressional Election Study, 2005 – present.

CBS News Election Decision Desk, 2006-present

Co-Director, Caltech/MIT Voting Technology Project, 2000-2004.

Co-Organizer, MIT Seminar for Senior Congressional and Executive Staff, 1996-2007.

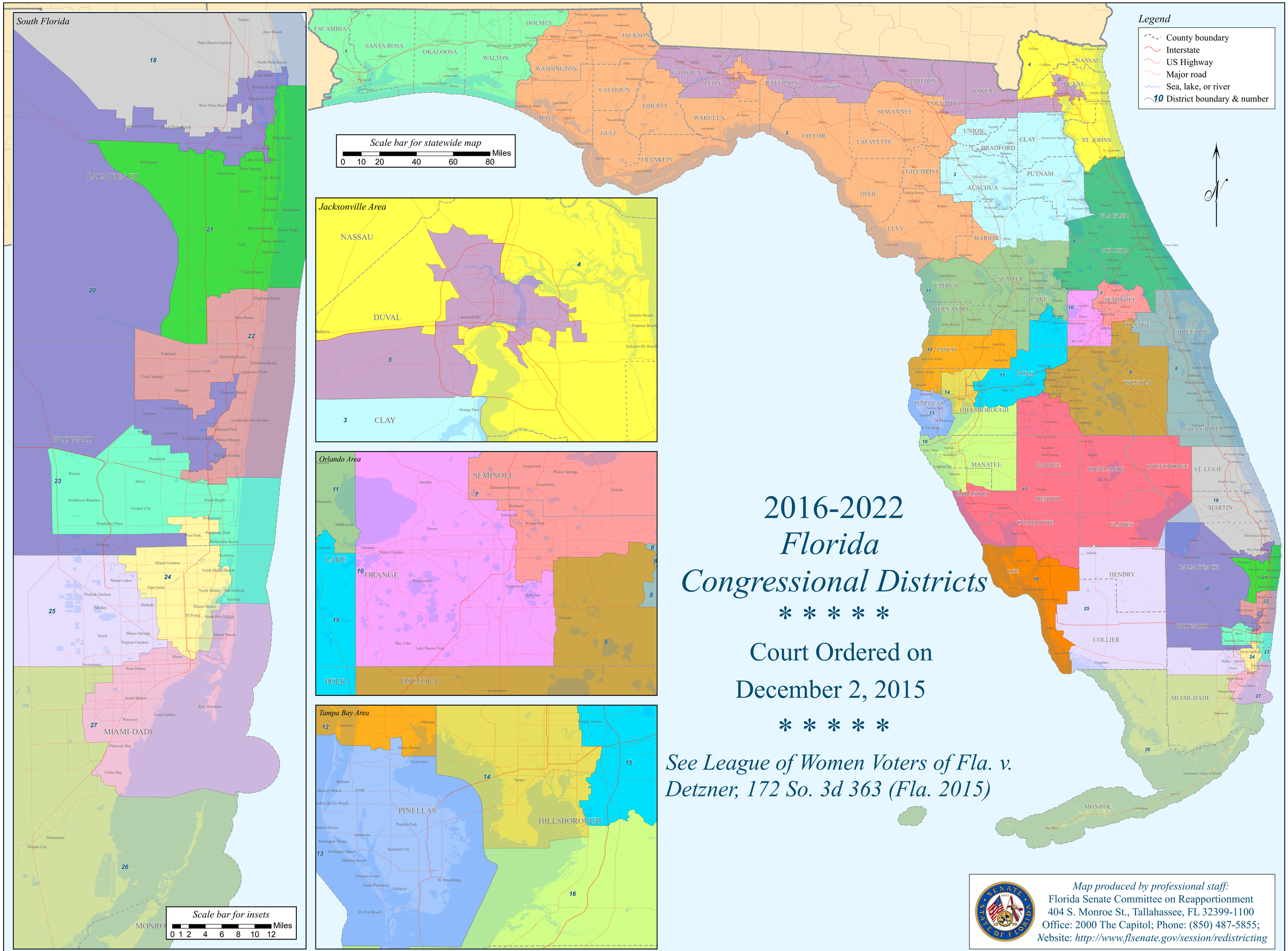
MIT Energy Innovation Study, 2009-2010.
MIT Energy Initiative, Steering Council, 2007-2008
MIT Coal Study, 2004-2006.
MIT Energy Research Council, 2005-2006.
MIT Nuclear Study, 2002-2004.
Harvard University Center on the Environment, Council, 2009-present

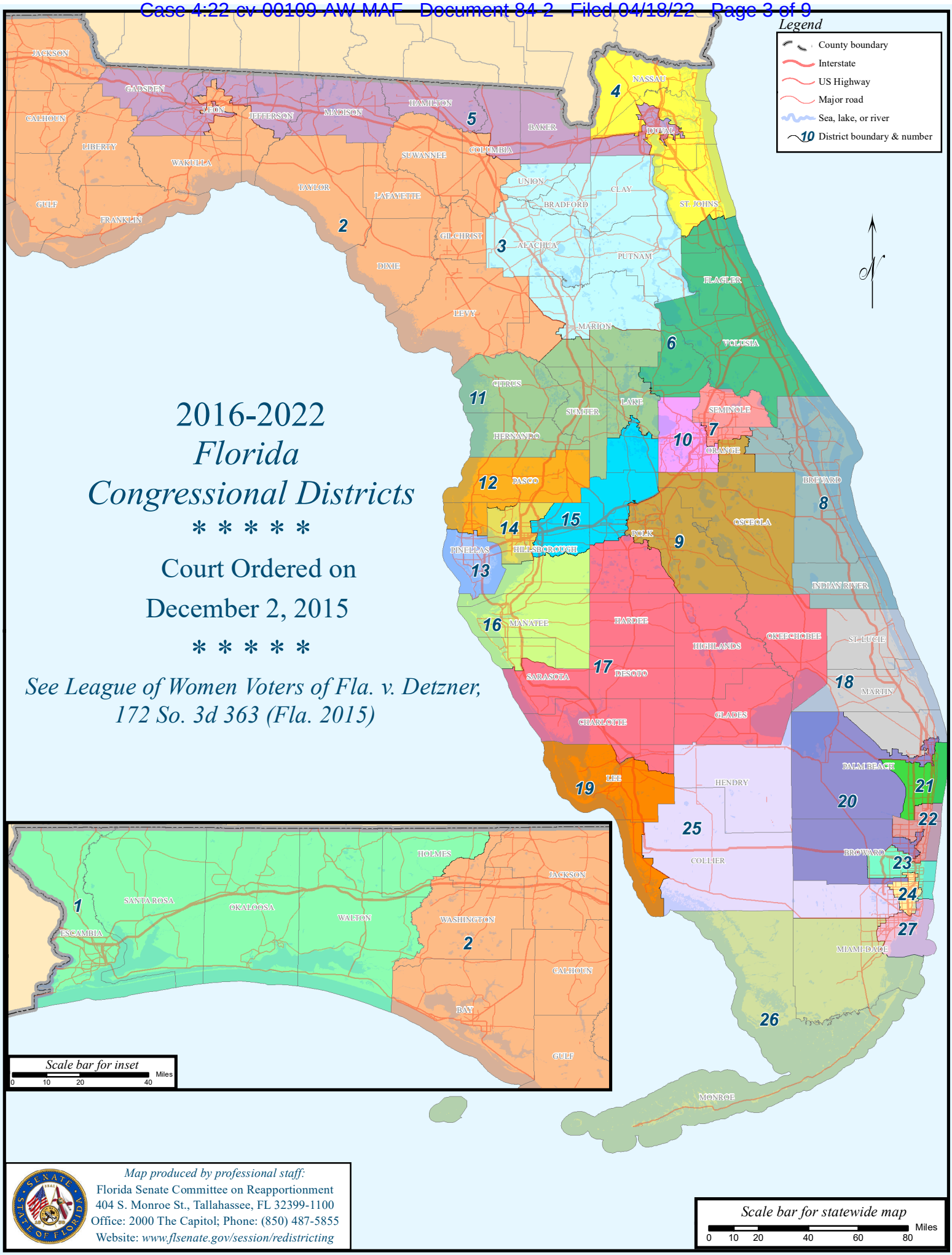
Expert Witness, Consultation, and Testimony

2001	Testimony on Election Administration, U. S. Senate Committee on Commerce.
2001	Testimony on Voting Equipment, U.S. House Committee on Science, Space, and Technology
2001	Testimony on Voting Equipment, U.S. House Committee on House Administration
2001	Testimony on Voting Equipment, Congressional Black Caucus
2002-2003	*McConnell v. FEC*, 540 U.S. 93 (2003), consultant to the Brennan Center.
2009	Amicus curiae brief with Professors Nathaniel Persily and Charles Stewart on behalf of neither party to the U.S. Supreme Court in the case of *Northwest Austin Municipal Utility District Number One v. Holder*, 557 U.S. 193 (2009).
2009	Testimony on Voter Registration, U. S. Senate Committee on Rules.
2011-2015	*Perez v. Perry*, U. S. District Court in the Western District of Texas (No. 5:11-cv-00360). Exert witness on behalf of Rodriguez intervenors.
2011-2013	*State of Texas v. United States,* the U.S. District Court in the District of Columbia (No. 1:11-cv-01303), expert witness on behalf of the Gonzales intervenors.
2012-2013	*State of Texas v. Holder*, U.S. District Court in the District of Columbia (No. 1:12-cv-00128), expert witness on behalf of the United States.
2011-2012	*Guy v. Miller* in U.S. District Court for Nevada (No. 11-OC-00042-1B), expert witness on behalf of the Guy plaintiffs.
2012	*In re Senate Joint Resolution of Legislative Apportionment*, Florida Supreme

	Court (Nos. 2012-CA-412, 2012-CA-490), consultant for the Florida Democratic Party.
2012-2014	*Romo v. Detzner*, Circuit Court of the Second Judicial Circuit in Florida (No. 2012 CA 412), expert witness on behalf of Romo plaintiffs.
2013-2014	*LULAC v. Edwards Aquifer Authority*, U.S. District Court for the Western District of Texas, San Antonio Division (No. 5:12cv620-OLG,), consultant and expert witness on behalf of the City of San Antonio and San Antonio Water District
2013-2014	*Veasey v. Perry*, U. S. District Court for the Southern District of Texas, Corpus Christi Division (No. 2:13-cv-00193), consultant and expert witness on behalf of the United States Department of Justice.
2013-2015	*Harris v. McCrory,* U. S. District Court for the Middle District of North Carolina (No. 1:2013cv00949), consultant and expert witness on behalf of the Harris plaintiffs. (later named *Cooper v. Harris*)
2014	Amicus curiae brief, on behalf of neither party, Supreme Court of the United States, *Alabama Democratic Conference v. State of Alabama*.
2014- 2016	*Bethune-Hill v. Virginia State Board of Elections*, U. S. District Court for the Eastern District of Virginia (No. 3:2014cv00852), consultant and expert on behalf of the Bethune-Hill plaintiffs.
2015	Amicus curiae brief in support of Appellees, Supreme Court of the United States, *Evenwell v. Abbott*
2016-2017	*Perez v. Abbott*, U. S. District Court in the Western District of Texas (No. 5:11-cv-00360). Exert witness on behalf of Rodriguez intervenors.
2017-2018	*Fish v. Kobach*, U. S. District Court in the District of Kansas (No. 2:16-cv-02105-JAR). Expert witness of behalf of the Fish plaintiffs.
2020	*Voto Latino, et al. v. Hobbs*, in the U.S. District Court for the District of Arizona (No. 2:19-cv-05685-DWL).
2020	*Wood v. Raffensperger*, in Fulton County, Georgia, Superior Court, (No. 2020CV342959)

Exhibit 2


South Florida
Jacksonville Area
Orlando Area
Tampa Bay Area
Legend
County boundary
Interstate
US Highway
Major road
Sea, lake, or river
10 District boundary & number
Scale bar for statewide map
0 10 20 40 60 80 Miles
Scale bar for insets
0 1 2 4 6 8 10 12 Miles
2016-2022
Florida
Congressional Districts
* * * * *
Court Ordered on
December 2, 2015
* * * * *
See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855;
Website: http://www.flsenate.gov/session/redistricting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County boundary
Interstate
US Highway
Major road
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2016-2022
Florida
Congressional Districts
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Court Ordered on
December 2, 2015
* * * * *
See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)
JACKSON
GADSDEN
CALHOUN
LIBERTY
WAKULLA
LEON
JEFFERSON
MADISON
HAMILTON
SUWANNEE
COLUMBIA
BAKER
NASSAU
DUVAL
GULF
FRANKLIN
TAYLOR
LAFAYETTE
UNION
BRADFORD
CLAY
ST. JOHNS
GILCHRIST
ALACHUA
PUTNAM
FLAGLER
DIXIE
LEVY
MARION
VOLUSIA
CITRUS
LAKE
SUMTER
SEMINOLE
HERNANDO
ORANGE
PASCO
BREVARD
OSCEOLA
POLK
PINELLAS
HILLSBOROUGH
INDIAN RIVER
MANATEE
HARDEE
HIGHLANDS
OKEECHOBEE
ST. LUCIE
SARASOTA
DESOTO
MARTIN
CHARLOTTE
GLADES
PALM BEACH
LEE
HENDRY
COLLIER
BROWARD
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WALTON
WASHINGTON
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ESCAMBIA
CALHOUN
BAY
GULF
Scale bar for inset
0 10 20 40 Miles
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855
Website: www.flsenate.gov/session/redistricting
Scale bar for statewide map
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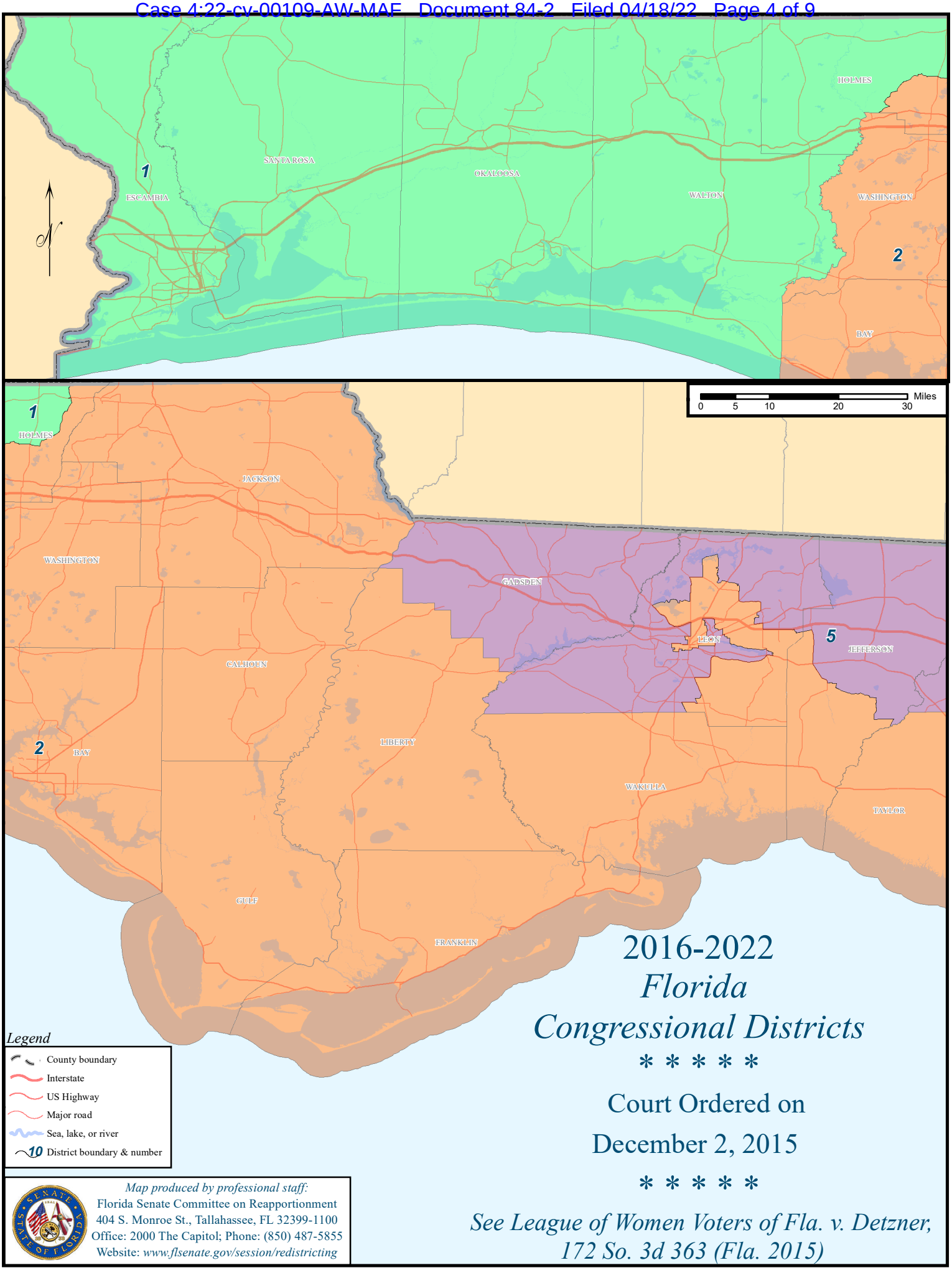

2016-2022
Florida
Congressional Districts

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Court Ordered on

December 2, 2015

* * * * *

See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)

Legend

- County boundary
- Interstate
- US Highway
- Major road
- Sea, lake, or river
- 10 District boundary & number

Map produced by professional staff:
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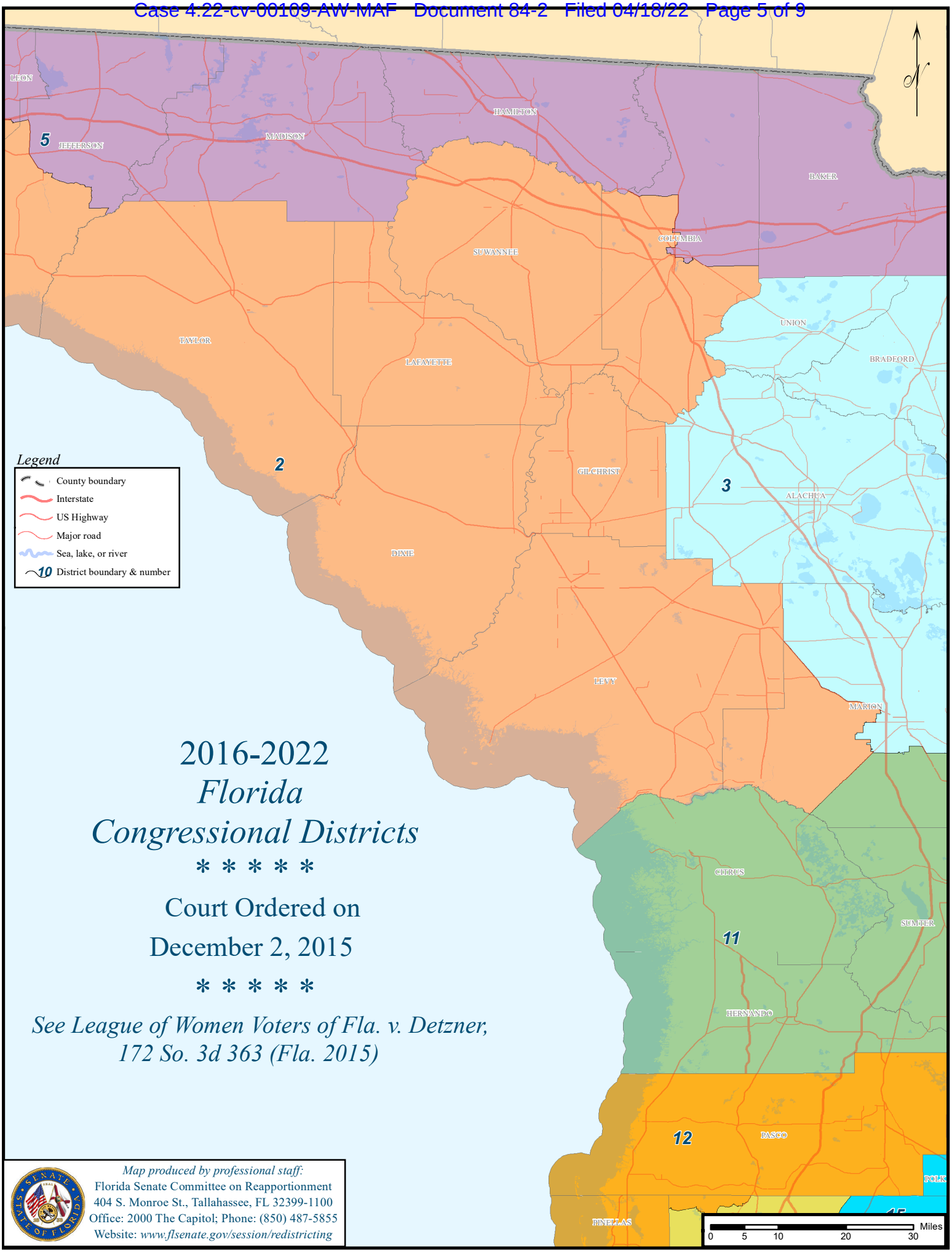

2016-2022
Florida
Congressional Districts

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Court Ordered on
December 2, 2015

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See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)

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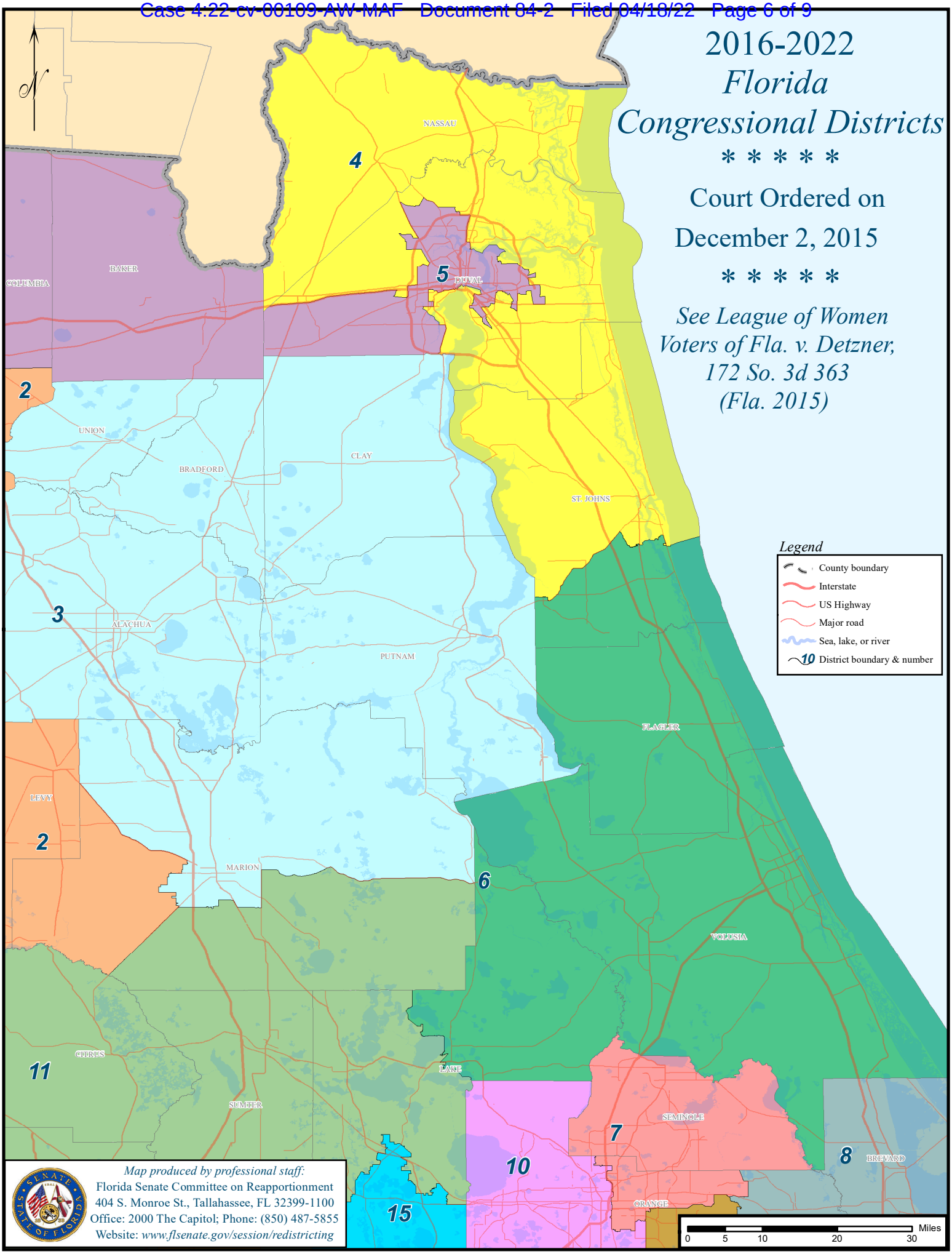
2016-2022
Florida
Congressional Districts
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Court Ordered on
December 2, 2015
* * * * *
See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)
Legend
County boundary
Interstate
US Highway
Major road
Sea, lake, or river
10 District boundary & number
NASSAU
BAKER
COLUMBIA
DUVAL
UNION
BRADFORD
CLAY
ST. JOHNS
ALACHUA
PUTNAM
FLAGLER
LEVY
MARION
VOLUSIA
CITRUS
LAKE
SUMTER
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Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855
Website: www.flsenate.gov/session/redistricting
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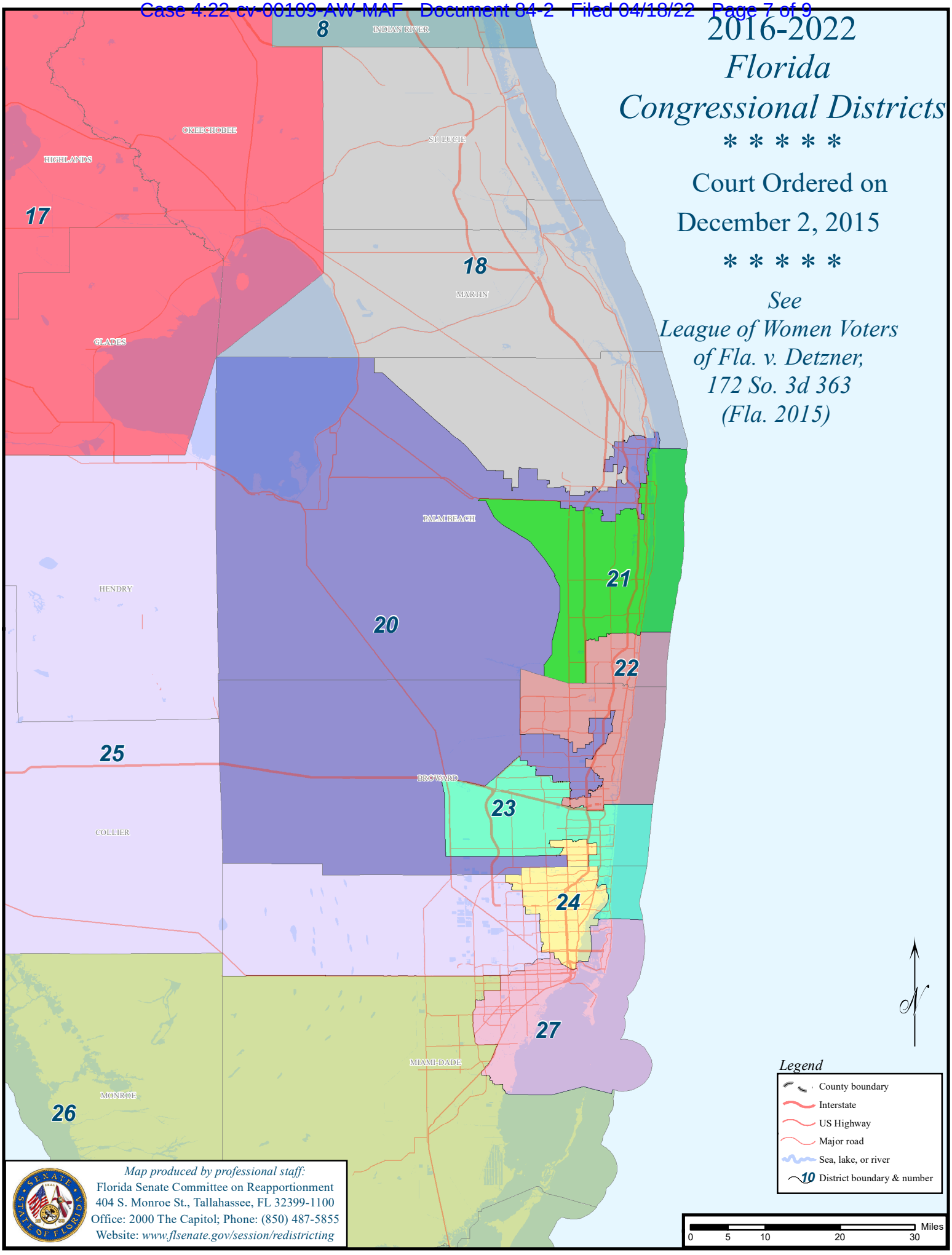
2016-2022
Florida
Congressional Districts
* * * * *
Court Ordered on
December 2, 2015
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See
League of Women Voters
of Fla. v. Detzner,
172 So. 3d 363
(Fla. 2015)
8
INDIAN RIVER
OKEECHOBEE
HIGHLANDS
ST. LUCIE
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GLADES
PALM BEACH
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US Highway
Major road
Sea, lake, or river
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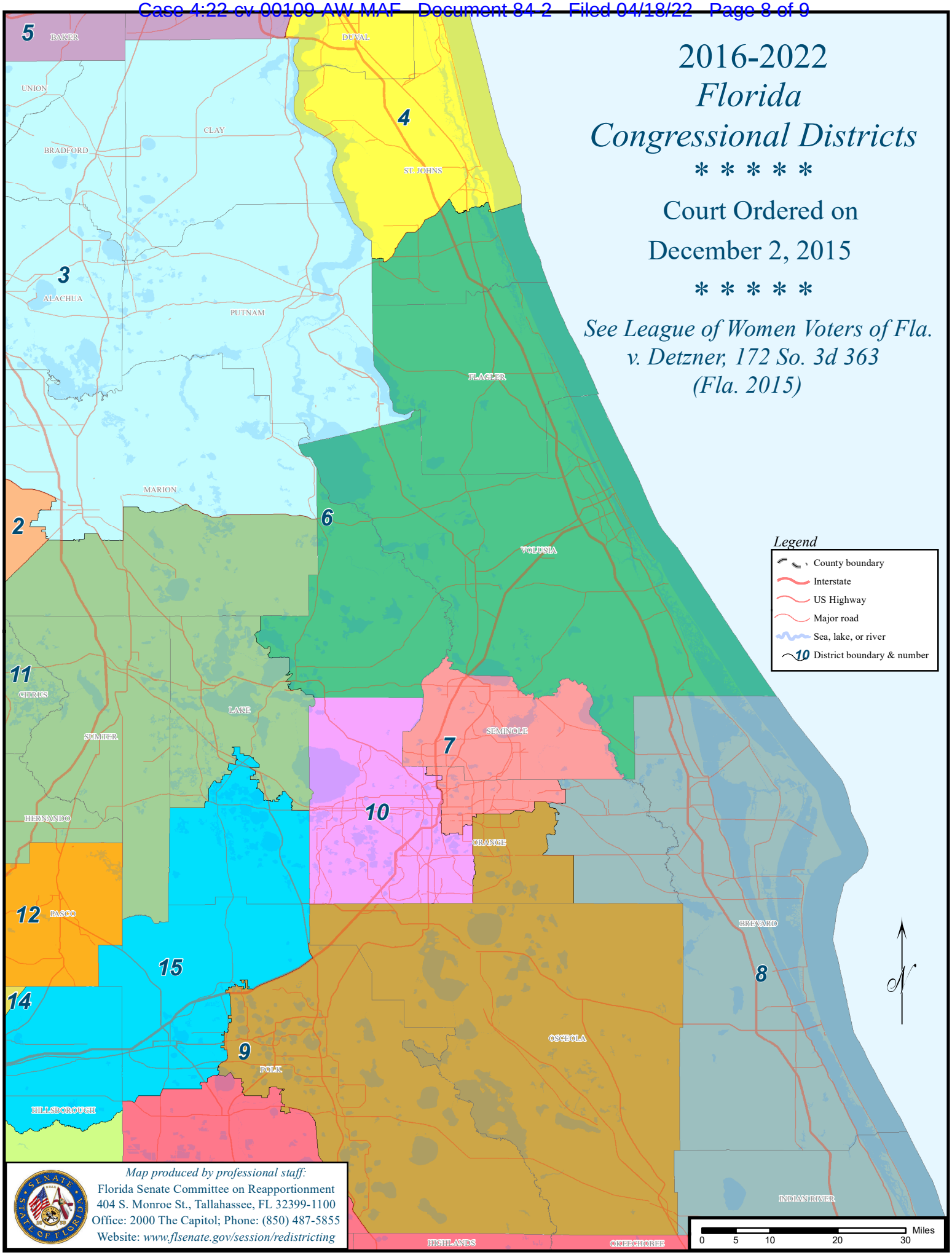
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855
Website: www.flsenate.gov/session/redistricting


2016-2022
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Congressional Districts
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Court Ordered on
December 2, 2015
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See League of Women Voters of Fla. v. Detzner, 172 So. 3d 363 (Fla. 2015)
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County boundary
Interstate
US Highway
Major road
Sea, lake, or river
10 District boundary & number
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DUVAL
UNION
CLAY
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BRADFORD
ST. JOHNS
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ALACHUA
PUTNAM
FLAGLER
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CITRUS
LAKE
SEMINOLE
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HERNANDO
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OSCEOLA
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POLK
HILLSBOROUGH
INDIAN RIVER
HIGHLANDS
OKEECHOBEE
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Miles
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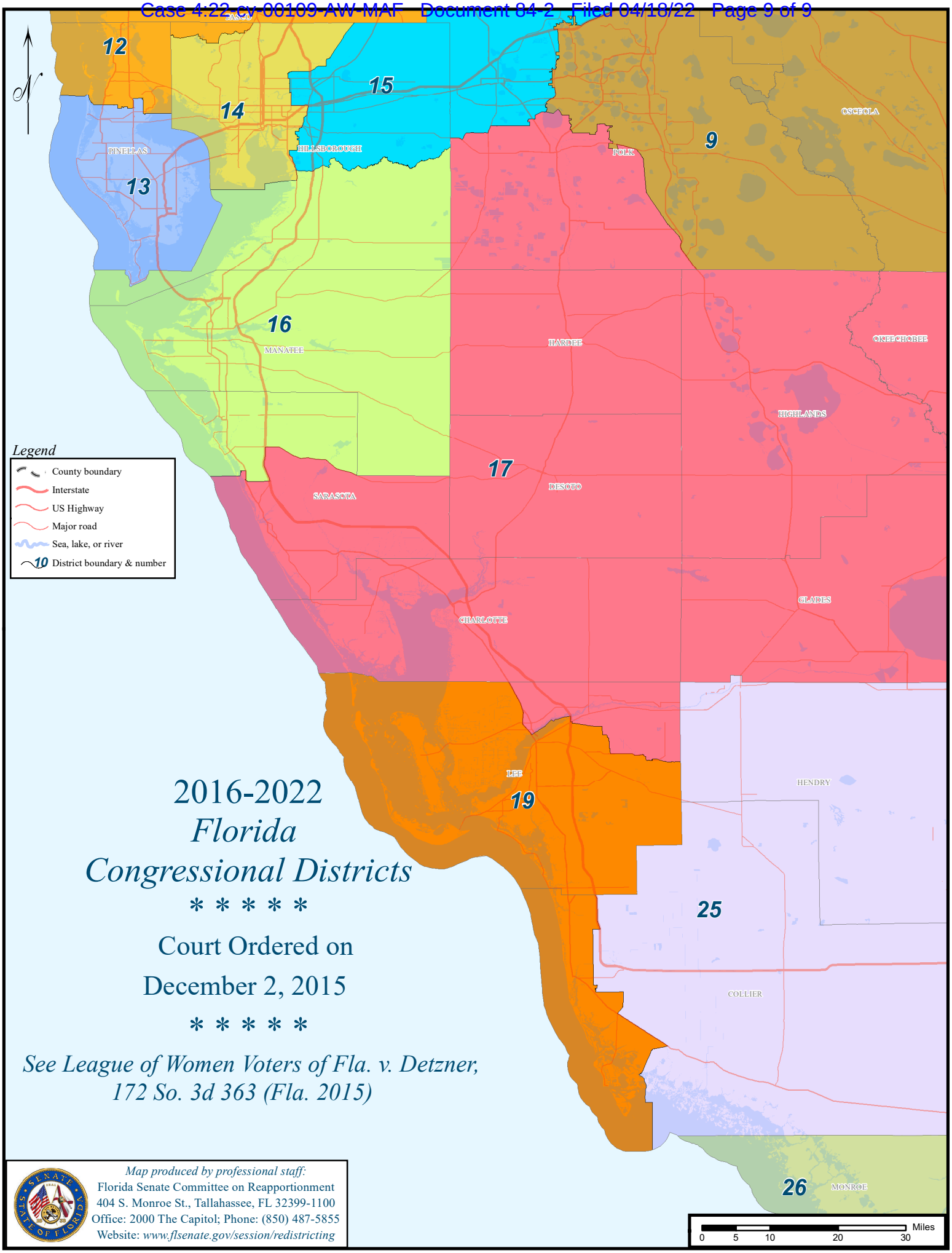
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855
Website: www.flsenate.gov/session/redistricting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PINELLAS
HILLSBOROUGH
POLK
OSCEOLA
MANATEE
HARDEE
OKEECHOBEE
HIGHLANDS
SARASOTA
DESOTO
GLADES
CHARLOTTE
LEE
HENDRY
COLLIER
MONROE
Legend
County boundary
Interstate
US Highway
Major road
Sea, lake, or river
10 District boundary & number
2016-2022
Florida
Congressional Districts
* * * * *
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See League of Women Voters of Fla. v. Detzner,
172 So. 3d 363 (Fla. 2015)
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855
Website: www.flsenate.gov/session/redistricting
Miles
0 5 10 20 30

Exhibit 3

THE FLORIDA SENATE

COMMITTEE ON REAPPORTIONMENT

Location
2000 The Capitol

Mailing Address
404 South Monroe Street
Tallahassee, Florida 32399-1100
(850) 487-5855

Senator Ray Wesley Rodrigues, *Chair*
Senator Doug Broxson, *Vice Chair*

Professional Staff: Jay Ferrin, *Staff Director*

Senate's Website: *www.flsenate.gov*

MEMORANDUM

To: Mr. Jay Ferrin, Staff Director
From: Senator Ray Rodrigues, Chair
Subject: Committee Directives to Staff on Map-Drawing
Date: October 18, 2021

Senators of the Committee on Reapportionment have reviewed the census data, the features of the map-drawing application, and the relevant criteria, history, and legal standards. I believe that we have the proper foundation upon which to direct you and your staff to produce a series of maps for our consideration.

First and foremost, you are directed to the plain language of the constitution, federal law, and the judicial precedent that exists today in regards to that language. The Constitution sets forth two tiers of redistricting standards, and provides that the Tier-Two standards apply unless complying with them would conflict with the Tier-One standards or with federal law. The Tier-One standards control in the event of a conflict with Tier-Two standards, but in all other circumstances the Tier-Two standards must control the drawing of district lines. Therefore staff is directed to comply with the objective criteria outlined in Tier Two of Article III Sections 20 and 21 of the Florida Constitution, balancing them in a manner that does not establish any priority of one standard over another, unless complying with the Tier-Two standards would conflict with Tier-One standards or federal law.

In accordance with the Tier Two standard of the constitutional requirements related to equal population, you are directed to prepare Senate plans with district population deviations not to exceed 1% of the ideal population of 538,455 people, and to prepare Congressional plans with population deviations of plus or minus one person of the ideal population of 769,221 people.

To comply with the Tier Two standard related to compactness, you are directed to draw districts that are visually compact in relation to their shape and geography, and to use mathematical compactness scores where appropriate.

To comply with the Tier Two standard related to utilizing existing political boundaries, you are directed to examine the use of county boundaries where feasible. Furthermore, you are directed to explore concepts that, where feasible, result in districts consisting of whole counties in less populated areas, and to explore concepts that, where feasible, keep districts wholly within a county in the more densely populated areas.

With respect to municipal boundaries, you are directed to explore concepts that, where feasible, keep cities whole while also considering the impermanent and changing nature of municipal boundaries.

You are further directed to examine the use of existing geographic boundaries where feasible. Specifically railways, interstates, federal and state highways, and large water bodies such as those that were deemed to be easily recognizable and readily ascertainable by Florida's Supreme Court. We recognize that these geographic features afford us an opportunity to create districts with static boundaries, and would ask that Staff present the boundary analysis report with each plan so that we can determine coincidence of districts' boundaries with these features.

Further, you are directed, when drawing compact districts consistent with the population equality requirements, and that utilize political and geographic boundaries where feasible, to confirm that the districts comply with the Tier-One constitutional standards and with federal law, specifically, that that districts are not drawn with the result of denying or abridging the equal opportunity of racial or language minorities to participate in the political process or diminish their ability to elect representatives of their choice. You are directed to conduct a functional analysis on relevant districts to confirm that any map presented for consideration by this Committee or its Select Subcommittees complies with these Tier-One requirements of the Florida Constitution and with the federal Voting Rights Act.

Regarding compliance with the Tier One standard related to the intent to favor or disfavor a political party, you are directed to draw districts without reviewing political data other than where a review of political data is required to perform an appropriate functional analysis to evaluate whether a minority group has the ability to elect representatives of choice.

To comply with the Tier One standard related to intent to favor or disfavor an incumbent, you are directly to draw districts without the use of any residence information of any sitting member of the Florida Legislature or Congress and to draw districts without regard to the preservation of existing district boundaries.

We believe that by limiting the considerations to those adopted by the citizens of Florida, this process will produce constitutionally compliant maps. While the standards that are to be considered require a balancing act it, is important to remember that the standards themselves are

not optional. Choices made by staff and approved by this committee should be made based on compliance with the objective constitutional criteria.

You are directed to produce a series of plans for each of our Select Subcommittees to workshop. All plans you bring forward must comply with the complex layering of federal and state standards. You will be asked to explain the various trade-offs within the co-equal Tier Two standards presented in each plan. It is within the balancing of these tradeoffs that Senators on the committee must exercise our legislative discretion and produce a constitutionally compliant map.

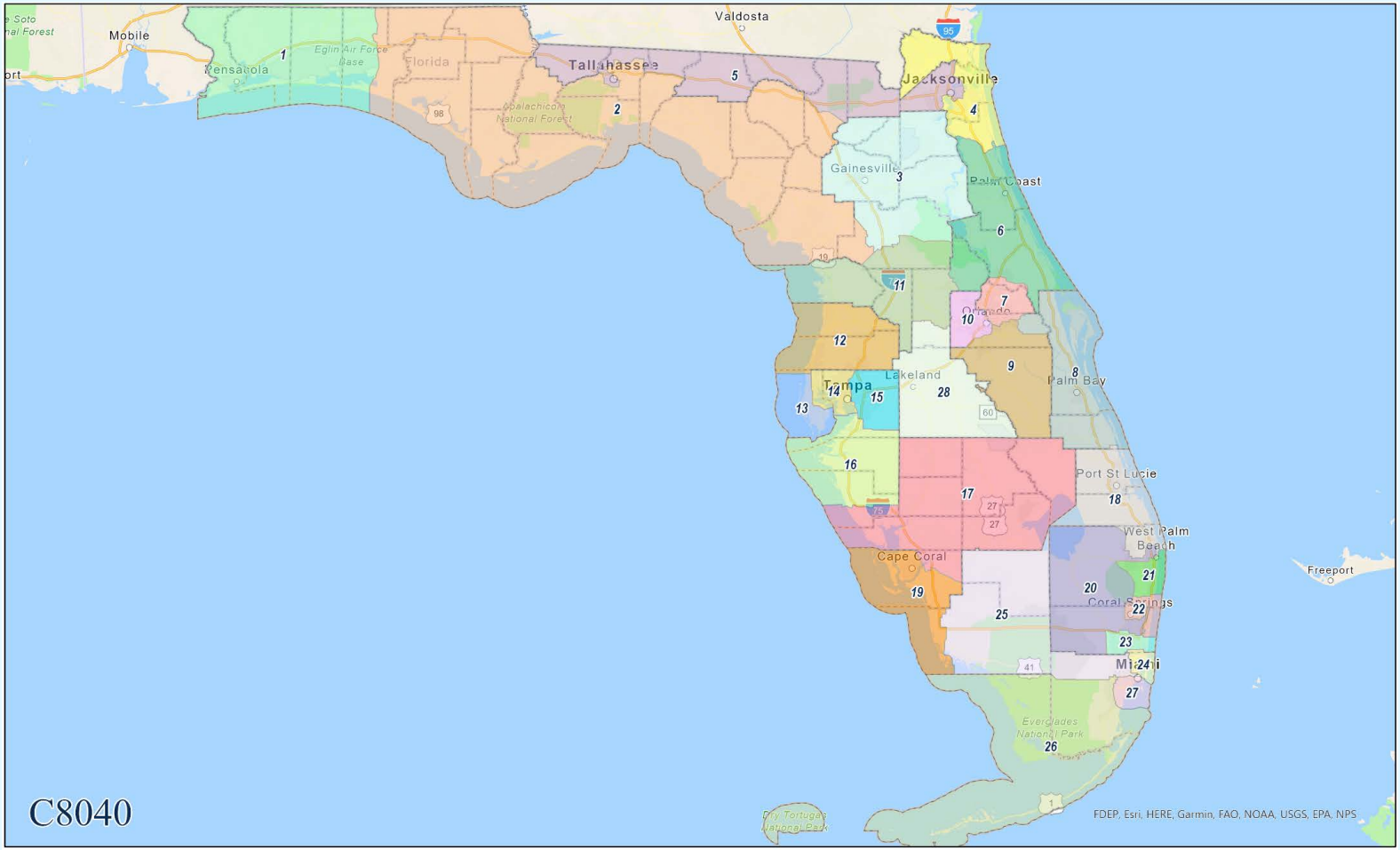
If staff receives any suggestion that a plan be drafted or changed with the intent to favor or disfavor any incumbent or political party, staff is directed to disregard the suggestion entirely, document the conversation in writing, and report the conversation directly to the Senate President.

Thank you for your attention to these directives. Please notify me, as well as Chairs Bradley and Burgess when you have completed work pertinent to their respective select subcommittees so that workshops can be noticed. Again, thank you and we look forward to reviewing your work.

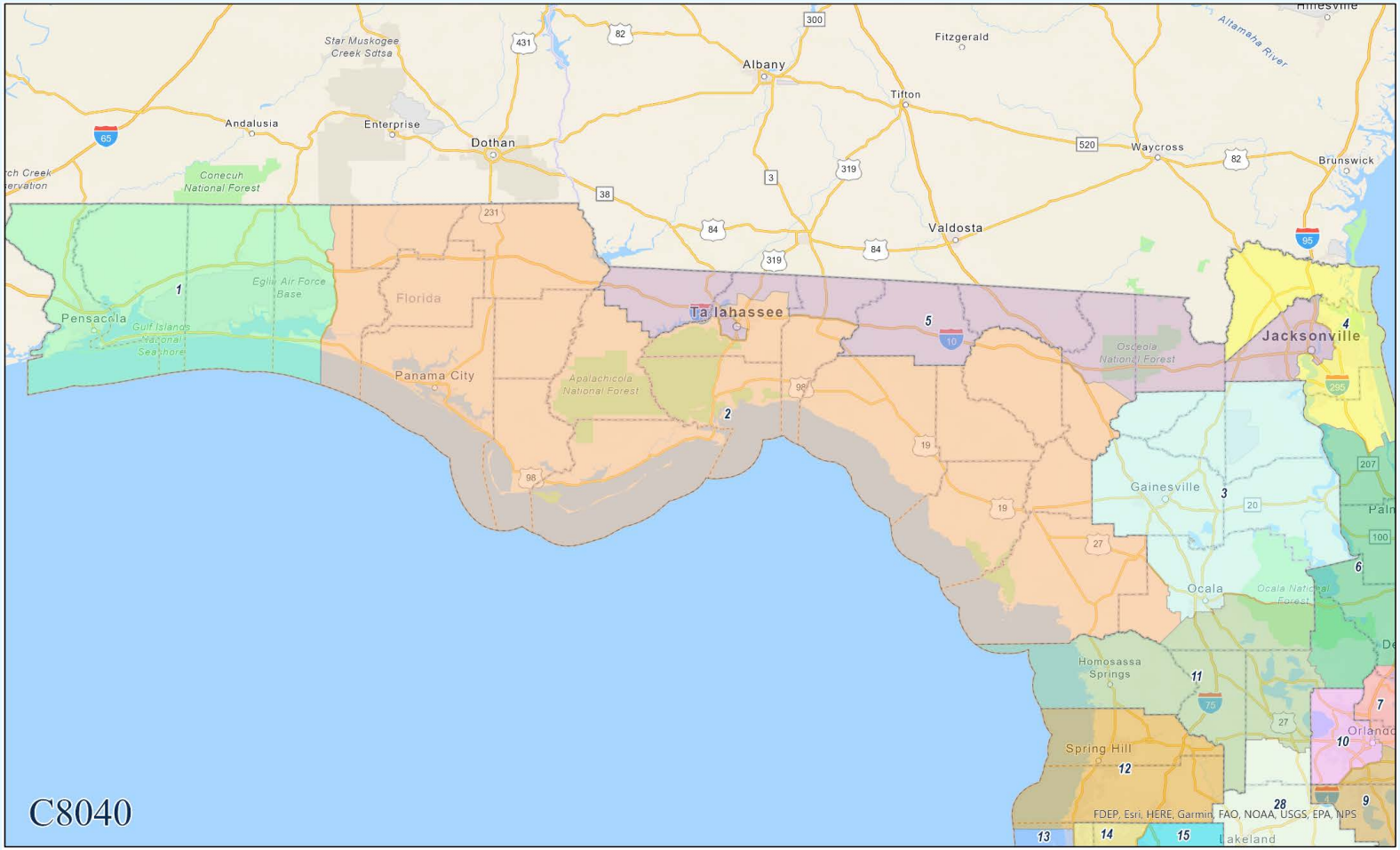
Exhibit 4


SENATE
COMMITTEE ON
REAPPORTIONMENT
JANUARY 13TH, 2022

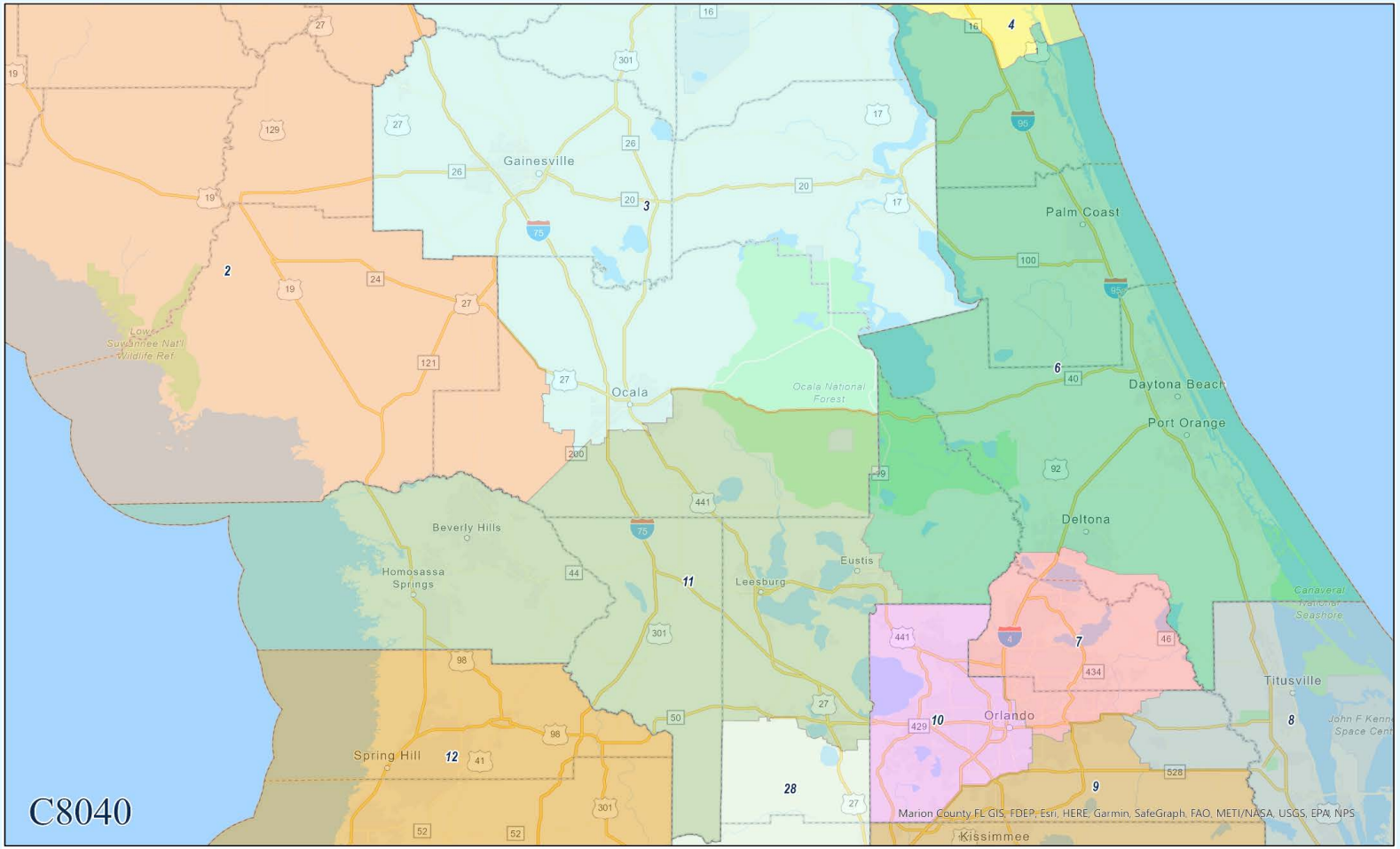
Statewide S000C8040



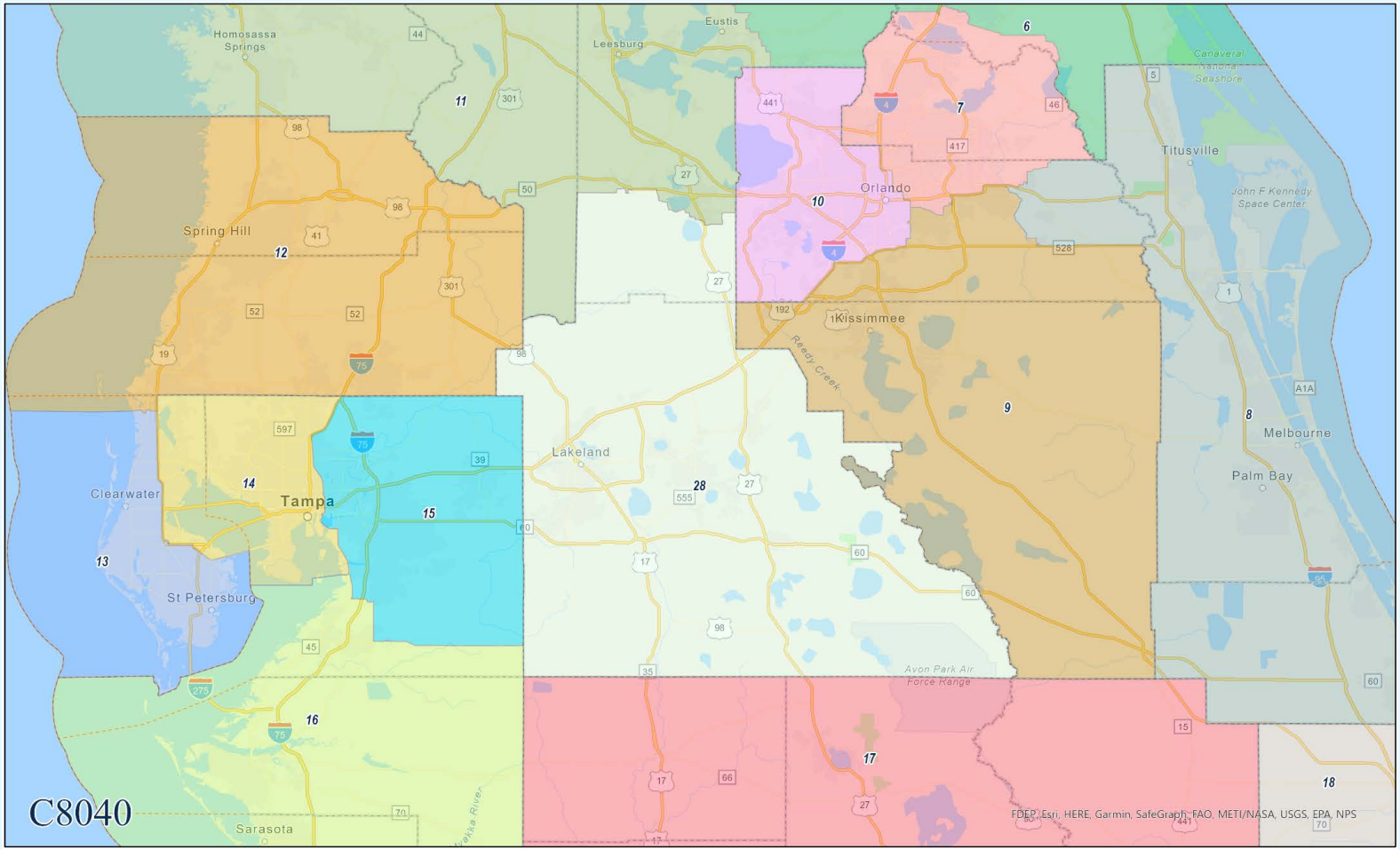
Panhandle & Northeast Florida



Central Florida



I-4 Corridor


Homosassa Springs
Leesburg
Eustis
Canaveral National Seashore
Titusville
Orlando
John F Kennedy Space Center
Spring Hill
Kissimmee
Reedy Creek
Lakeland
Melbourne
Palm Bay
Clearwater
Tampa
St Petersburg
Avon Park Air Force Range
Sarasota
Peace River
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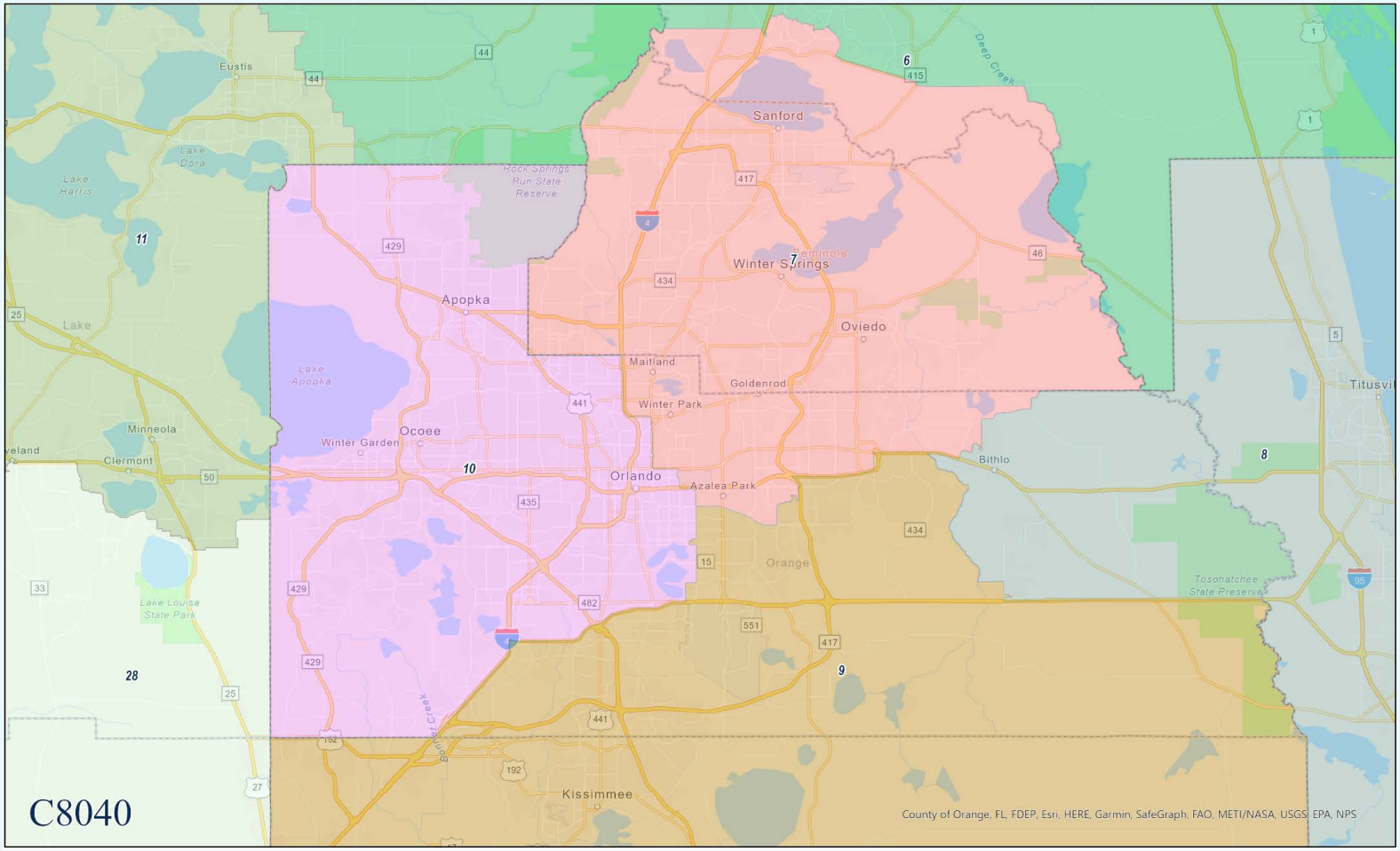
C8040
FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Orlando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Lake Dora
Lake Harris
Rock Springs Run State Reserve
Deep Creek
Sanford
Seminole
Winter Springs
Apopka
Oviedo
Lake
Lake Apopka
Maitland
Goldenrod
Winter Park
Titusvi
Minneola
Clermont
Winter Garden
Ocoee
Orlando
Azalea Park
Bithlo
Orange
Tosohatchee State Preserve
Lake Louisa State Park
Boggy Creek
Kissimmee
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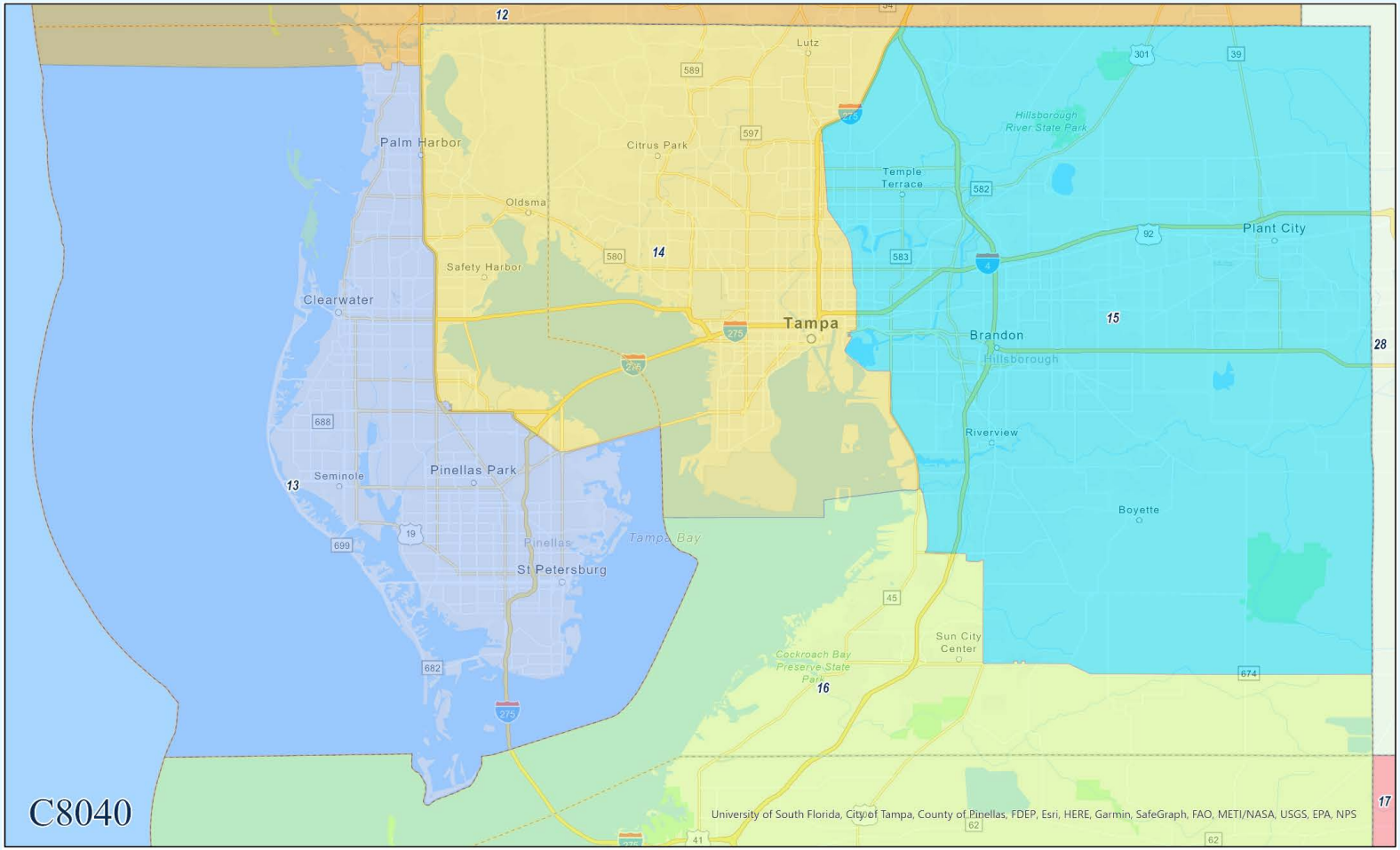
C8040
County of Orange, FL, FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

Tampa Bay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Lutz
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Palm Harbor
Citrus Park
597
Hillsborough River State Park
Temple Terrace
582
Oldsmar
Plant City
92
14
580
583
Safety Harbor
Clearwater
Tampa
15
28
Brandon
Hillsborough
688
Riverview
Seminole
Pinellas Park
13
19
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Pinellas
Tampa Bay
St Petersburg
Boyette
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Sun City Center
Cockroach Bay Preserve State Park
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University of South Florida, City of Tampa, County of Pinellas, FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS
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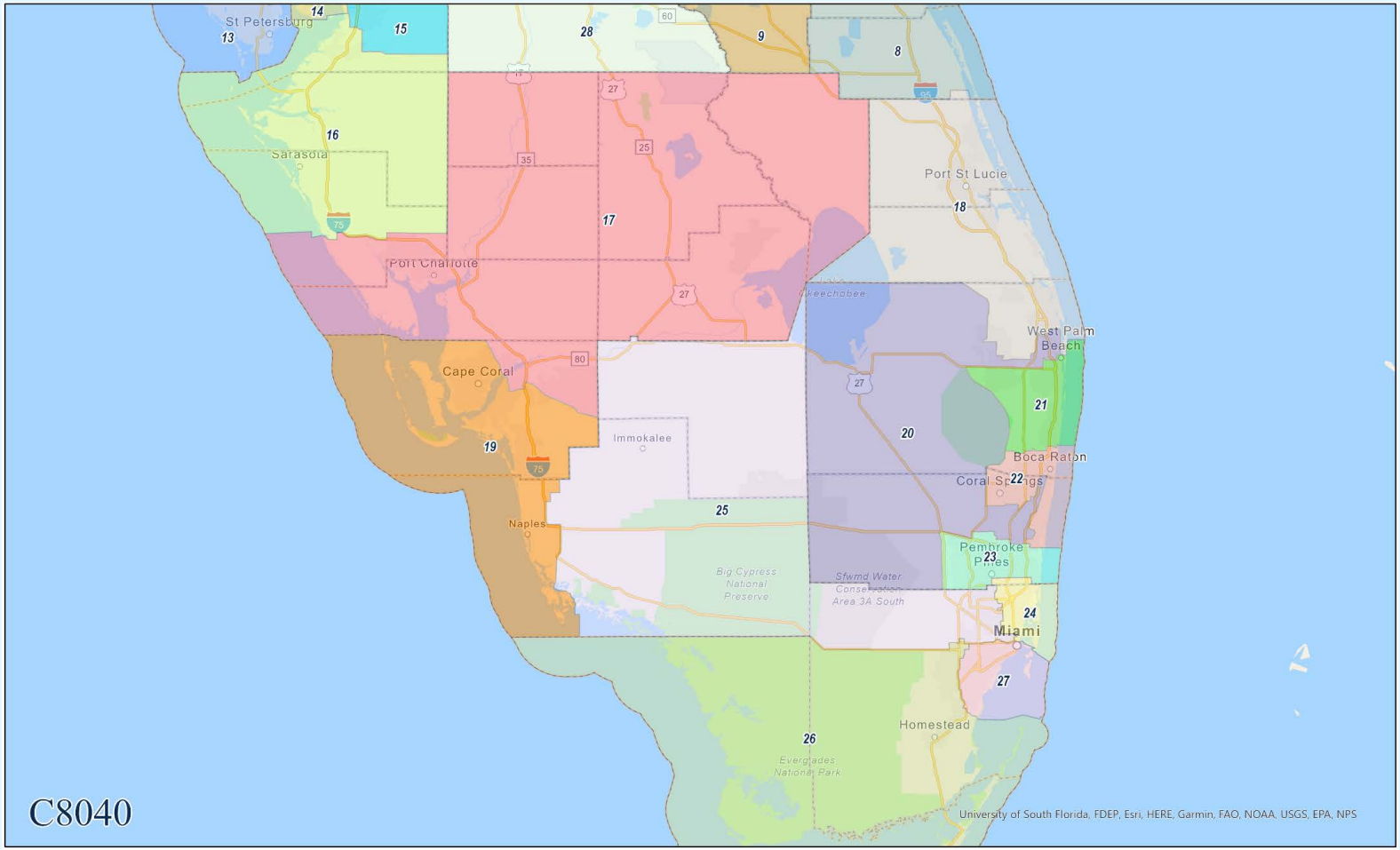
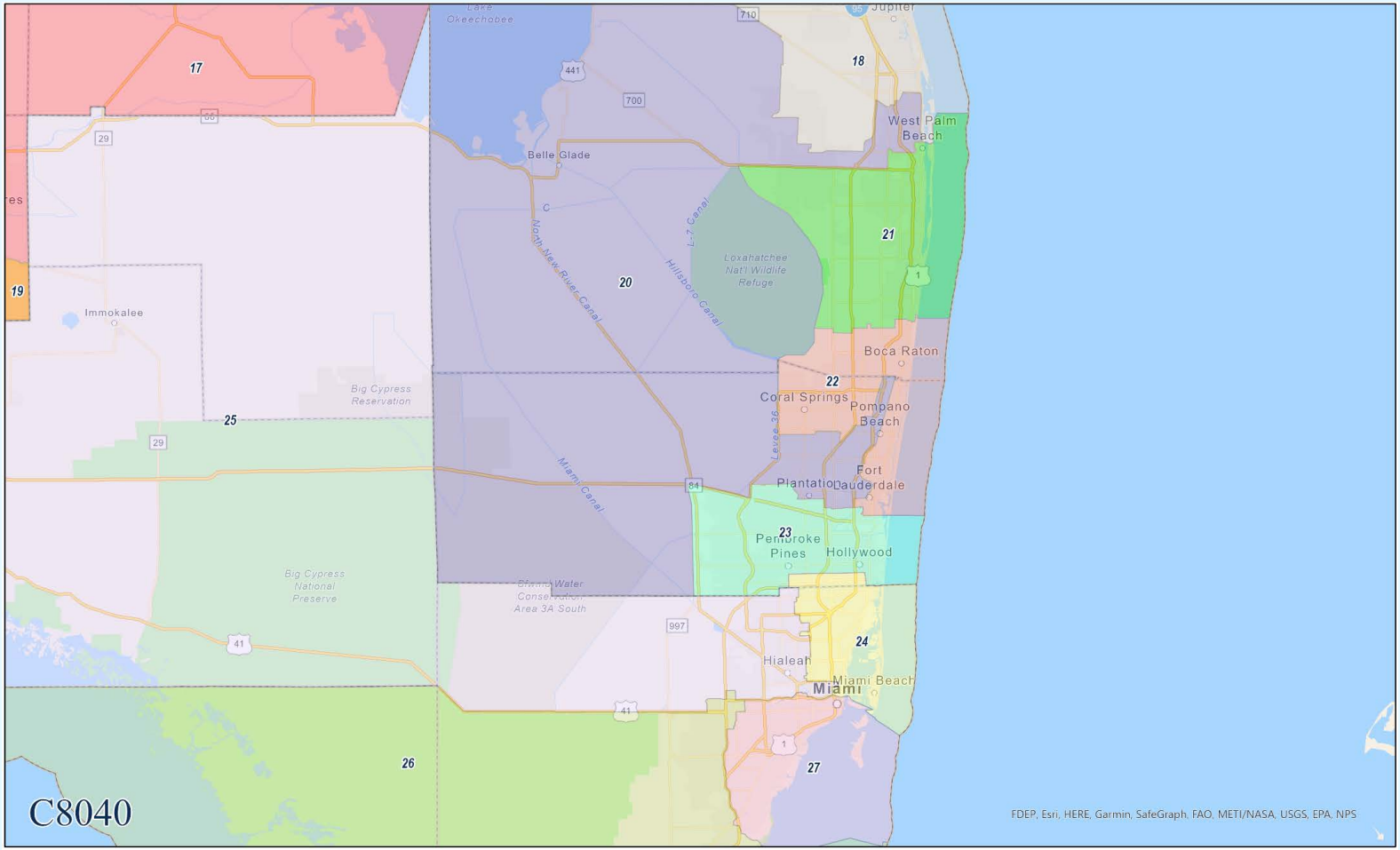
South Florida



South Florida



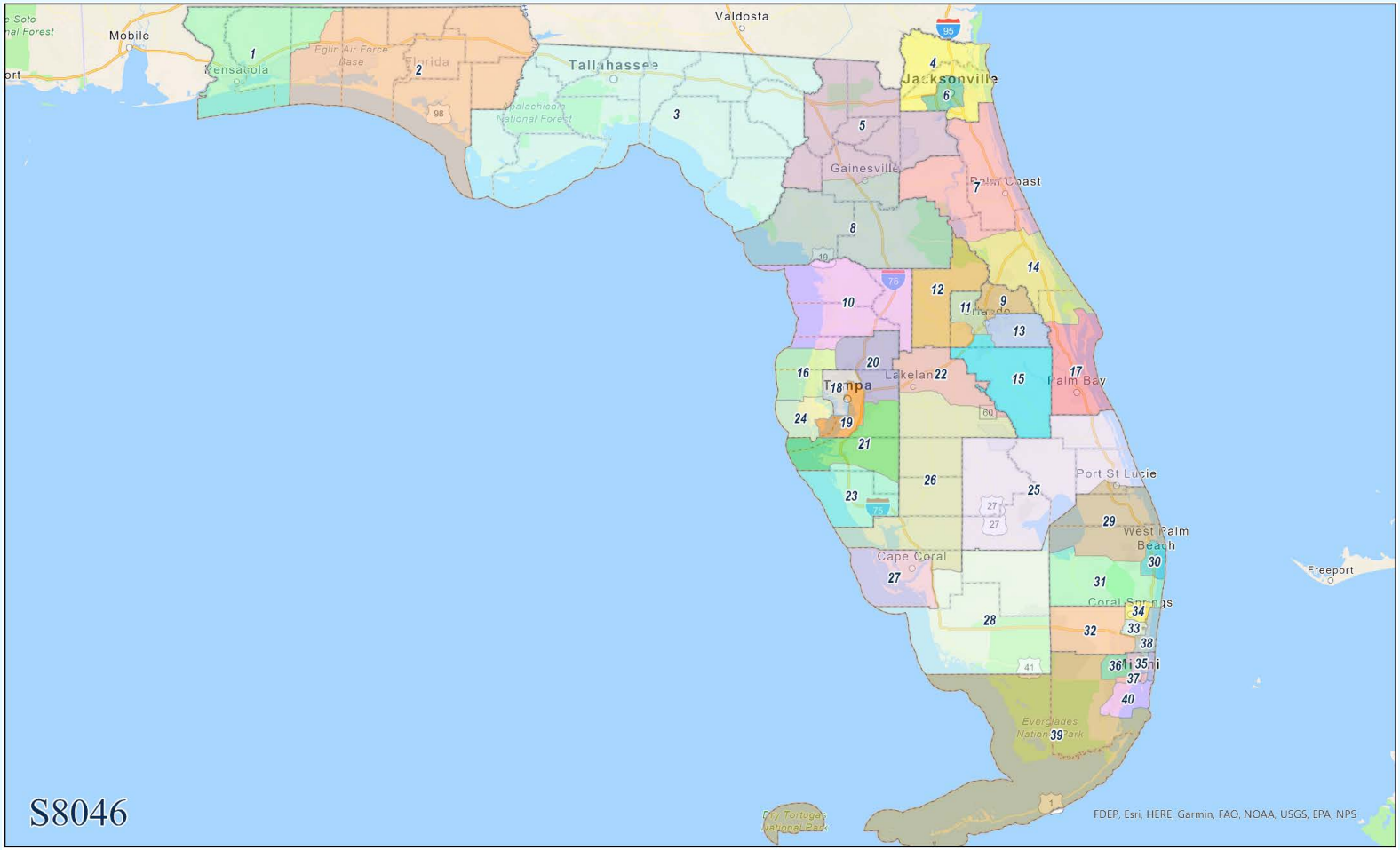
Plan S000C8040

Plan S000C8040

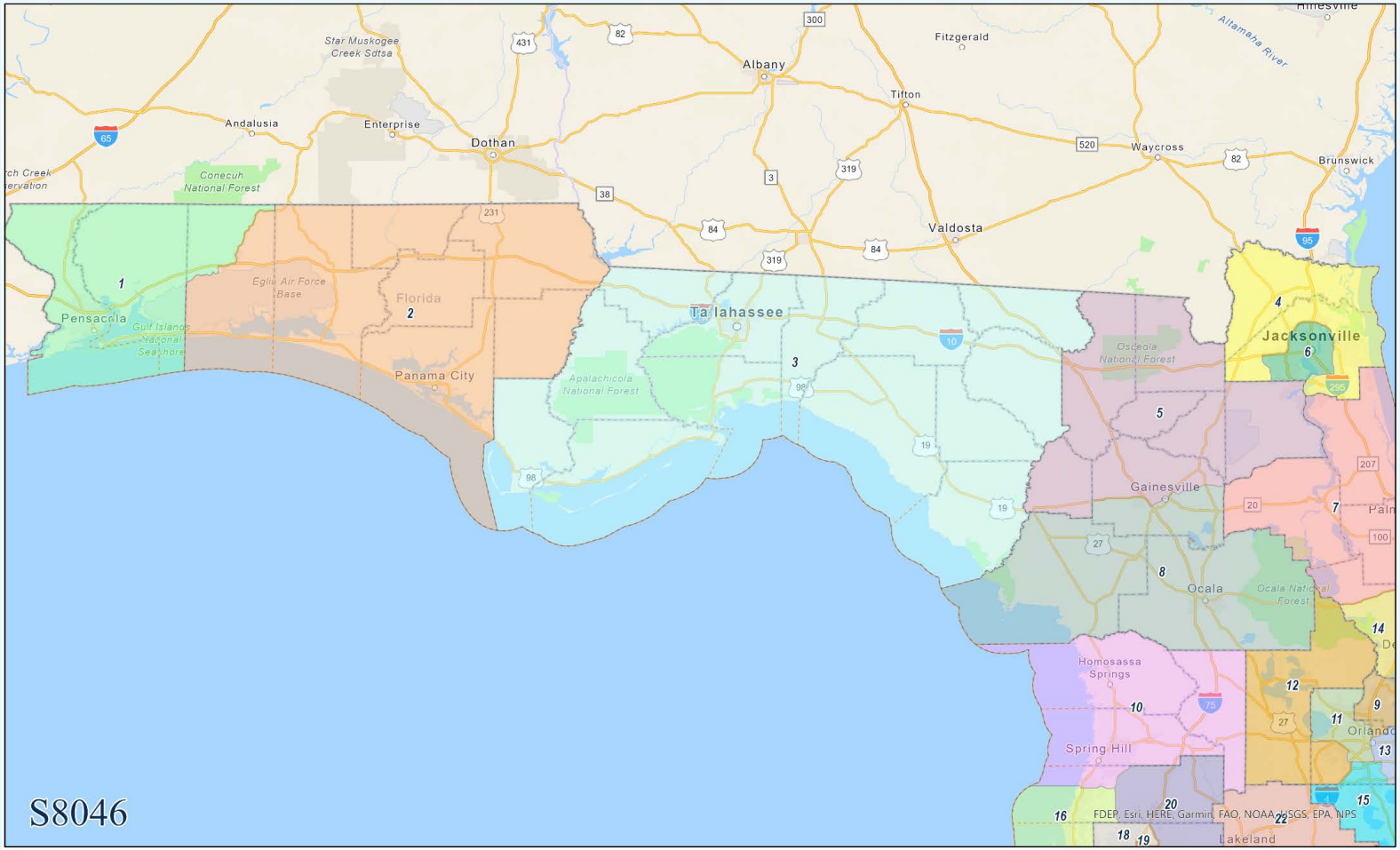
Overall (Range)		Average										
Deviation		Area	Perim.	Convex	Polsby-	Reock	Political and Geographic Boundaries:					
Total	%	(sq.mi.)	(mi.)	Hull	Popper	Ratio	City	County	Road	Water	Rail	Non-Pol/Geo
1	0.00%	2,550.1	265.8	0.80	0.43	0.46	13%	61%	19%	39%	2%	8%

District Lines and City and County Boundaries	
Number of Counties	67
Counties with only one district	48
Districts with only one county	6
Counties split into more than one district	19
Counties with all population in a single district	48
Aggregate number of county splits	50
Aggregate number of splits with population	50
Number of Cities	412
Cities with only one district	367
Cities split into more than one district	45
Cities with all population in only one district	372
Aggregate number of city splits	96
Aggregate number of splits with population	91

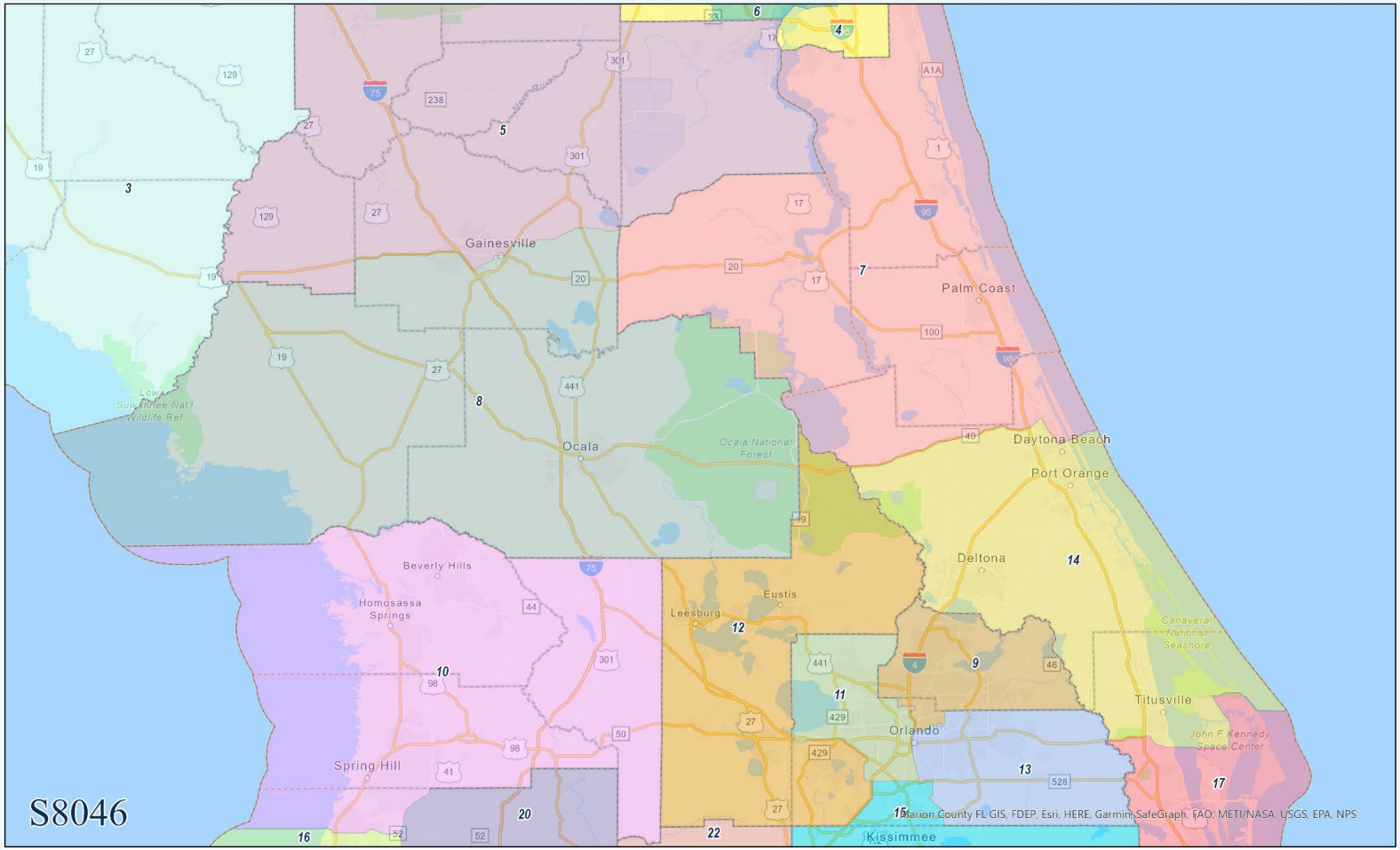
Statewide S000S8046



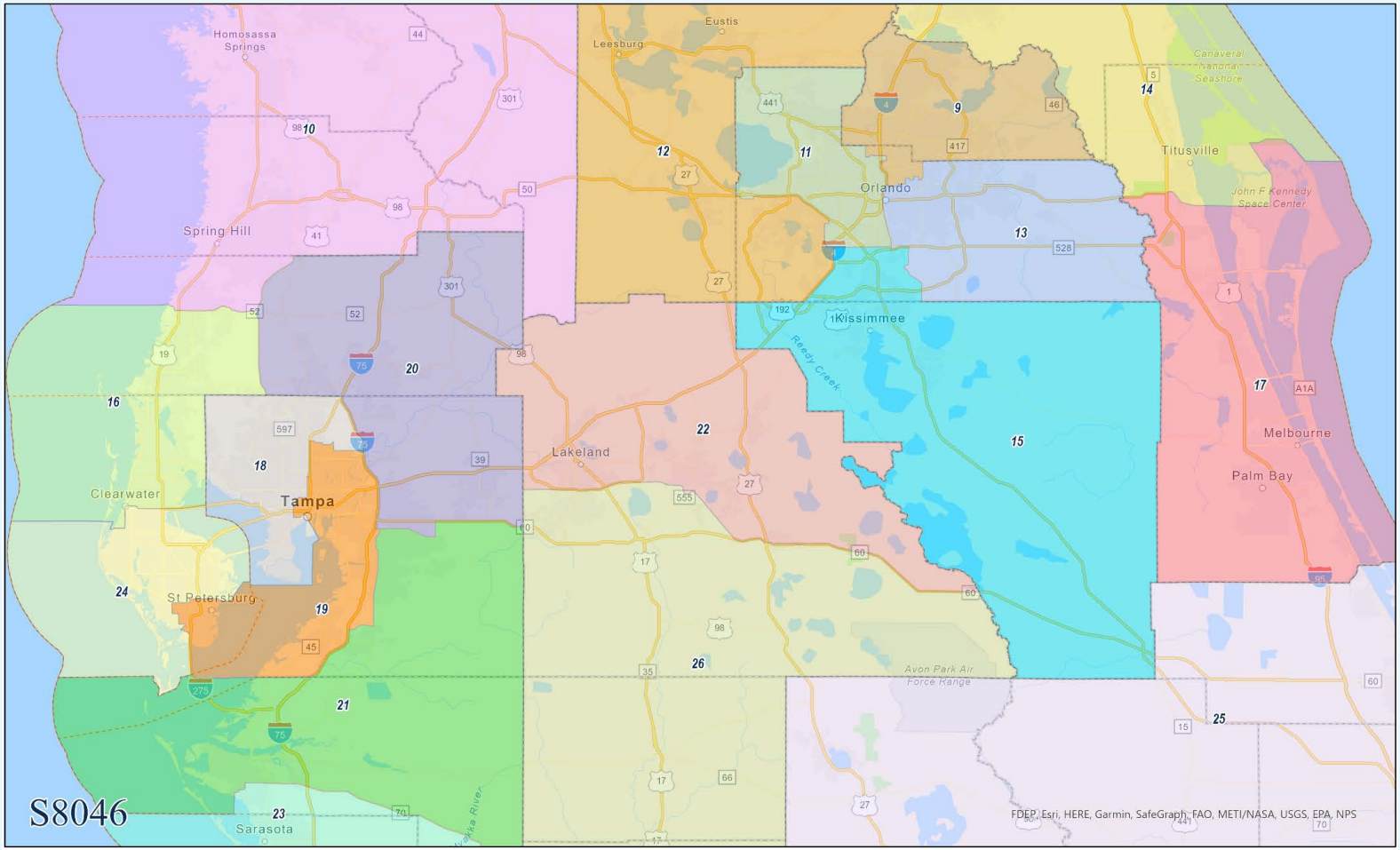
Panhandle & Northeast Florida



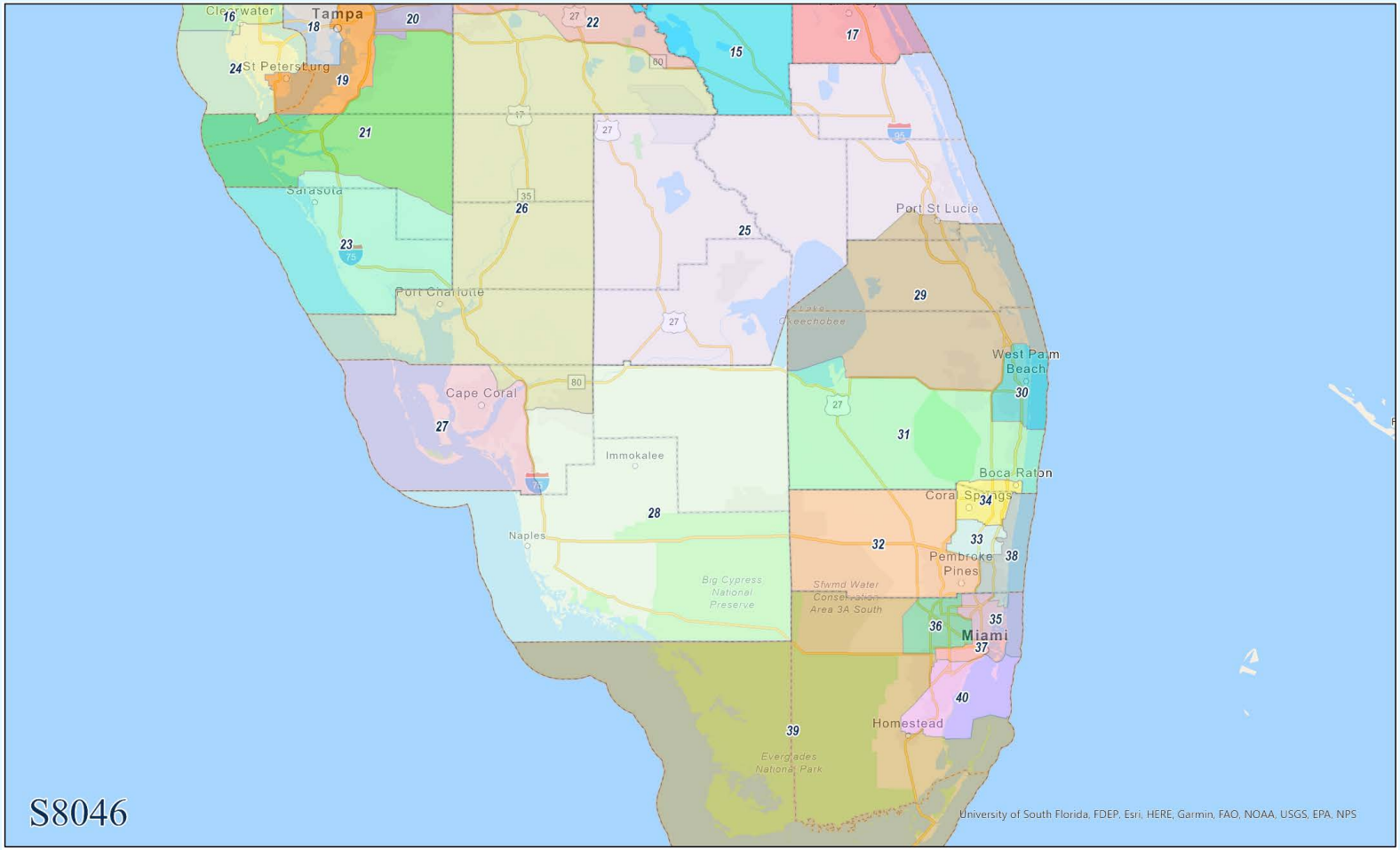
Central Florida



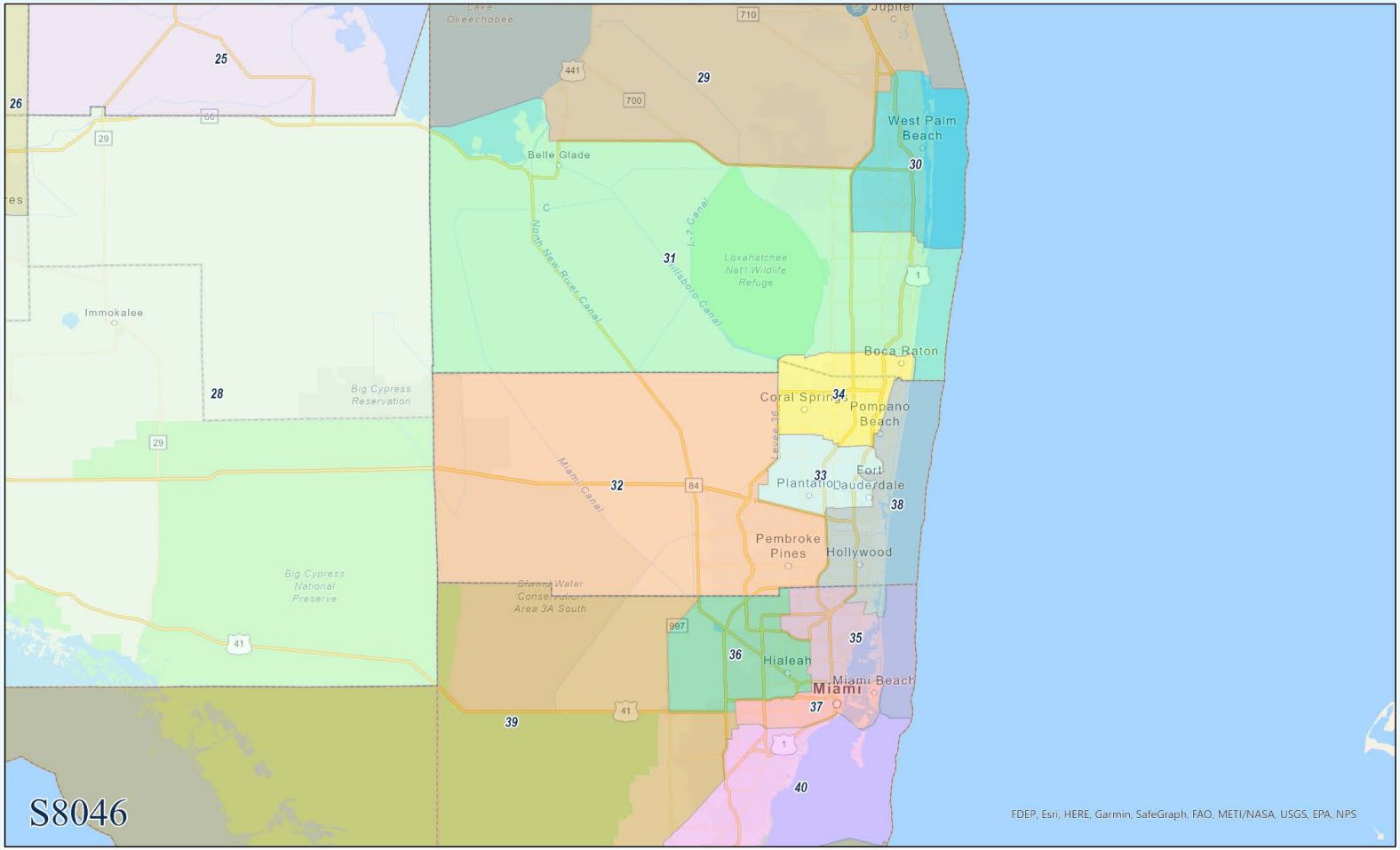
I-4 Corridor


Homosassa Springs
Leesburg
Eustis
Canaveral National Seashore
Titusville
Orlando
John F Kennedy Space Center
Spring Hill
Kissimmee
Reedy Creek
Lakeland
Clearwater
Tampa
St Petersburg
Melbourne
Palm Bay
Avon Park Air Force Range
Sarasota
S8046
FDEP, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS

South Florida



South Florida

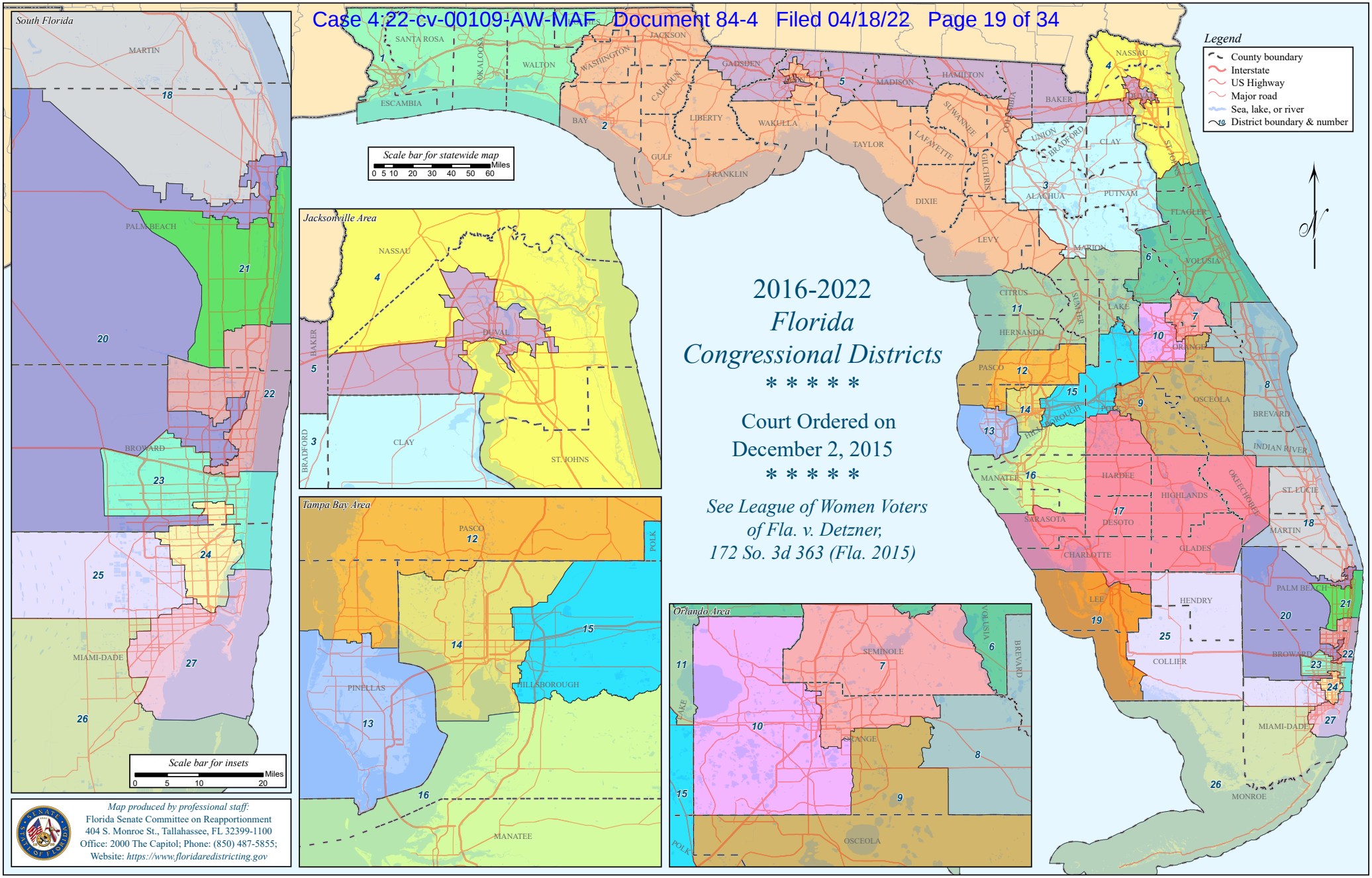


Plan S000S8046

Plan S000S8046

Overall (Range)		Average										
Deviation		Area	Perim.	Convex	Polsby-	Reock	Political and Geographic Boundaries:					
Total	%	(sq.mi.)	(mi.)	Hull	Popper	Ratio	City	County	Road	Water	Rail	Non-Pol/Geo
10,362	1.92%	1,785.1	197.5	0.82	0.47	0.46	15%	60%	24%	38%	2%	4%

District Lines and City and County Boundaries	
Number of Counties	67
Counties with only one district	51
Districts with only one county	16
Counties split into more than one district	16
Counties with all population in a single district	51
Aggregate number of county splits	48
Aggregate number of splits with population	48
Number of Cities	412
Cities with only one district	360
Cities split into more than one district	52
Cities with all population in only one district	368
Aggregate number of city splits	111
Aggregate number of splits with population	103


South Florida
Jacksonville Area
Tampa Bay Area
Orlando Area
Scale bar for statewide map
0 5 10 20 30 40 50 60 Miles
Scale bar for insets
0 5 10 20 Miles
Legend
County boundary
Interstate
US Highway
Major road
Sea, lake, or river
District boundary & number
2016-2022
Florida
Congressional Districts
* * * * *
Court Ordered on
December 2, 2015
* * * * *
See League of Women Voters
of Fla. v. Detzner,
172 So. 3d 363 (Fla. 2015)
Map produced by professional staff:
Florida Senate Committee on Reapportionment
404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855;
Website: https://www.floridaredistricting.gov

Census and Boundary Statistics

Plan FLCD2016

Dist.	Deviation		Voting Age Population:		Area	Perim.	Convex	Polsby-	Reock	Counties:		Cities:		Political and Geographic Boundaries:					
	Total	%	Black	Hisp.	(sq.mi.)	(mi.)	Hull	Popper	Ratio	Whole	Parts	Whole	Parts	City	County	Road	Water	Rail	Non-Pol/Geo
	228,137	29.66%	15.54%	24.99%	2,644.6	289.8	0.77	0.36	0.44	49	50	373	84	19%	58%	11%	40%	1%	15%
1	38,660	5.03%	13.23%	6.60%	5,393	412	0.82	0.40	0.40	4	1	21	0	3%	94%	0%	60%	0%	6%
2	-41,365	-5.38%	12.42%	6.68%	14,594	942	0.68	0.21	0.31	14	5	51	3	7%	75%	11%	48%	1%	10%
3	-3,088	-0.40%	16.10%	10.29%	3,844	303	0.89	0.53	0.71	5	1	27	1	19%	75%	14%	25%	0%	7%
4	102,663	13.35%	10.36%	8.84%	1,963	379	0.72	0.17	0.37	1	2	9	1	9%	58%	18%	51%	1%	15%
5	-20,311	-2.64%	46.20%	9.14%	3,910	711	0.71	0.10	0.12	4	4	15	3	7%	59%	17%	10%	2%	16%
6	27,033	3.51%	10.12%	12.07%	2,682	316	0.77	0.34	0.44	2	2	22	3	8%	82%	4%	62%	0%	4%
7	19,297	2.51%	12.19%	24.65%	436	122	0.81	0.37	0.57	1	1	7	4	16%	65%	10%	51%	0%	19%
8	14,532	1.89%	9.68%	10.35%	2,412	271	0.76	0.41	0.34	2	1	21	0	0%	89%	2%	41%	0%	10%
9	186,381	24.23%	14.26%	41.53%	2,620	268	0.87	0.46	0.63	1	2	12	4	17%	49%	14%	5%	6%	17%
10	104,583	13.60%	26.70%	28.95%	516	115	0.89	0.49	0.49	0	1	9	4	19%	70%	15%	21%	0%	11%
11	51,614	6.71%	7.22%	10.12%	3,202	375	0.74	0.29	0.42	3	2	16	8	14%	66%	14%	40%	0%	12%
12	37,916	4.93%	5.83%	12.50%	1,288	187	0.82	0.46	0.38	1	2	8	3	11%	77%	11%	36%	0%	9%
13	-41,756	-5.43%	11.88%	9.81%	610	106	0.93	0.68	0.66	0	1	19	3	38%	74%	2%	89%	0%	4%
14	18,226	2.37%	17.89%	30.15%	366	101	0.82	0.45	0.48	0	1	0	2	43%	38%	10%	32%	1%	28%
15	50,632	6.58%	15.39%	22.74%	1,170	240	0.76	0.26	0.33	0	3	2	8	25%	28%	13%	17%	0%	24%
16	114,826	14.93%	9.33%	15.94%	1,910	213	0.90	0.53	0.58	1	2	7	0	12%	61%	10%	56%	0%	6%
17	10,734	1.40%	7.15%	13.26%	6,546	433	0.77	0.44	0.51	6	3	15	1	4%	69%	9%	28%	3%	9%
18	25,503	3.32%	12.95%	15.60%	1,889	228	0.82	0.45	0.50	2	1	14	4	10%	65%	3%	45%	0%	20%
19	65,791	8.55%	6.78%	18.08%	1,972	249	0.79	0.40	0.34	0	2	8	0	4%	66%	9%	60%	0%	15%
20	7,062	0.92%	52.37%	26.75%	2,406	387	0.75	0.20	0.48	0	2	14	12	30%	35%	10%	11%	1%	33%
21	18,786	2.44%	14.97%	22.58%	353	123	0.64	0.29	0.37	0	1	16	5	29%	24%	12%	30%	1%	37%
22	16,535	2.15%	15.22%	21.37%	253	119	0.73	0.22	0.46	0	2	12	5	25%	28%	12%	32%	2%	32%
23	135	0.02%	15.21%	39.74%	252	112	0.65	0.25	0.35	0	2	12	6	58%	15%	13%	29%	3%	17%
24	-26,679	-3.47%	43.62%	44.87%	115	69	0.77	0.30	0.47	0	2	9	2	64%	13%	15%	29%	7%	19%
25	2,213	0.29%	4.86%	74.37%	3,674	357	0.68	0.36	0.41	1	2	11	1	8%	70%	12%	22%	0%	7%
26	18,693	2.43%	11.34%	72.44%	6,710	594	0.55	0.24	0.22	1	1	7	0	1%	88%	6%	87%	0%	1%
27	-29,396	-3.82%	5.95%	70.35%	317	91	0.88	0.48	0.50	0	1	9	1	21%	26%	25%	61%	0%	8%
0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Overall numbers of county and city splits:

District lines and City and County Boundaries	In Plan FLCD2016
Number of Counties	67
Counties with only one district	49
Districts with only one county	5
Counties split into more than one district	18
Counties with all population in a single district	49
Aggregate number of county splits	50
Aggregate number of splits with population	50
Number of Cities	412
Cities with only one district	373
Cities split into more than one district	39
Cities with all population in only one district	373
Aggregate number of city splits	84
Aggregate number of splits with population	67

Split Counties and Cities

Plan FLCD2016

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Split Counties and Cities

Plan FLCD2016

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Functional Analysis - Summary

Plan FLCD2016

Dist.	2020 Census		2020 General Election Registered Voters																	
	VAP who are:		RV who are:			RV who are:		Black Voters who are:			Hisp. Voters who are:			DEM who are:		REP who are:		NPAOth who are:	
	Black	Hisp	DEM	REP	OTH	Black	Hisp	DEM	REP	NPAOth	DEM	REP	NPAOth	Black	Hisp.	Black	Hisp.	Black	Hisp.
5	46.20%	9.14%	56.62%	24.04%	19.34%	46.07%	4.78%	84.27%	2.69%	13.03%	44.76%	19.87%	34.91%	68.56%	3.78%	5.15%	3.95%	31.03%	8.62%
9	14.26%	41.53%	39.35%	27.53%	33.12%	10.82%	36.46%	74.89%	3.67%	21.41%	45.38%	13.86%	40.75%	20.60%	42.06%	1.44%	18.35%	6.99%	44.86%
10	26.70%	28.95%	45.12%	24.69%	30.19%	23.22%	21.39%	77.55%	3.27%	19.17%	46.15%	15.09%	38.74%	39.90%	21.88%	3.07%	13.07%	14.74%	27.45%
20	52.37%	26.75%	62.04%	12.78%	25.18%	49.67%	18.33%	81.53%	2.49%	15.95%	43.62%	19.47%	36.81%	65.28%	12.89%	9.69%	27.93%	31.47%	26.80%
24	43.62%	44.87%	61.55%	12.12%	26.34%	46.16%	31.90%	82.85%	2.45%	14.68%	42.06%	21.48%	36.45%	62.14%	21.80%	9.35%	56.56%	25.72%	44.13%
25	4.86%	74.37%	27.57%	40.22%	32.21%	3.13%	62.61%	73.13%	5.88%	20.88%	27.47%	37.80%	34.73%	8.29%	62.39%	0.46%	58.84%	2.03%	67.50%
26	11.34%	72.44%	34.64%	32.40%	32.96%	10.02%	62.59%	78.51%	3.29%	18.16%	28.59%	35.99%	35.41%	22.71%	51.67%	1.02%	69.53%	5.52%	67.25%
27	5.95%	70.35%	35.31%	32.02%	32.67%	4.60%	58.79%	75.92%	4.30%	19.74%	29.35%	37.54%	33.10%	9.89%	48.88%	0.62%	68.94%	2.78%	59.56%

Functional Analysis - Summary

Plan FLCD2016

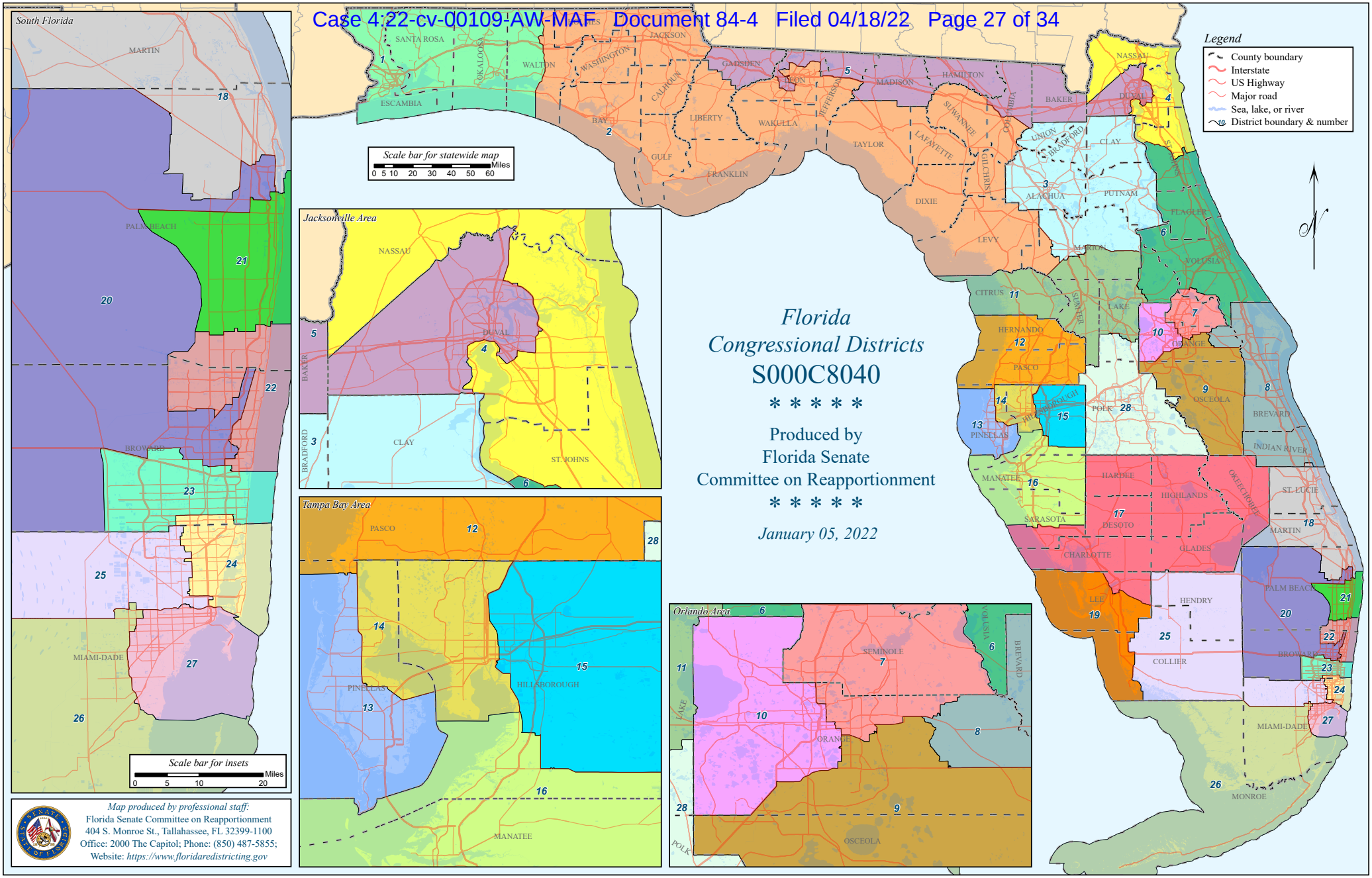
Dist.	2020 Census		Average Primary Election Turnout				Average General Election Turnout															General Election Performance in Statewide Elections 2012-2020						
	VAP who are:		DEM who are:		REP who are:		Voters who are:			DEM who are:		REP who are:		NPAOth who are:		Black Voters who are:			Hisp. Voters who are:			Avg. Perf.		Wins		Margins		
	Black	Hisp	Black	Hisp.	Black	Hisp.	DEM	REP	NPAOth	Black	Hisp.	Black	Hisp.	Black	Hisp.	DEM	REP	NPAOth	DEM	REP	NPAOth	DEM	REP	DEM	REP	MAX	MIN	AVG
5	46.20%	9.14%	66.89%	1.10%	3.18%	1.60%	60.90%	26.03%	13.05%	67.14%	2.42%	3.77%	2.87%	27.66%	6.62%	89.83%	2.15%	7.94%	46.26%	24.61%	27.94%	60.9%	37.6%	14	0	D +37%	D +11.8%	D +23.7%
9	14.26%	41.53%	21.78%	25.89%	0.79%	8.48%	41.14%	33.73%	25.13%	21.65%	33.88%	1.08%	12.62%	6.39%	34.24%	81.78%	3.31%	14.78%	52.01%	15.84%	32.10%	51.2%	47.0%	11	3	D +24.6%	D +1.7%	D +4.5%
10	26.70%	28.95%	49.28%	11.19%	2.05%	6.42%	46.21%	30.41%	23.38%	43.09%	17.79%	2.27%	9.37%	13.12%	22.22%	84.01%	2.91%	13.03%	50.49%	17.46%	31.98%	58.6%	39.8%	14	0	D +32.1%	D +1%	D +19.3%
20	52.37%	26.75%	71.18%	4.86%	7.69%	16.30%	67.65%	13.26%	19.08%	66.96%	10.00%	8.22%	23.91%	30.92%	23.72%	86.57%	2.08%	11.27%	46.24%	22.14%	31.26%	80.3%	18.9%	14	0	D +68.4%	D +55.2%	D +61.6%
24	43.62%	44.87%	72.58%	10.82%	8.04%	53.14%	68.80%	11.56%	19.63%	66.18%	17.39%	8.49%	52.65%	27.10%	41.06%	87.88%	1.89%	10.21%	45.45%	23.64%	30.88%	82.2%	16.9%	14	0	D +72.4%	D +51.4%	D +65.4%
25	4.86%	74.37%	9.41%	48.39%	0.28%	56.85%	27.94%	45.66%	26.40%	9.02%	56.83%	0.35%	56.62%	1.74%	63.79%	80.09%	5.11%	14.74%	27.06%	44.21%	28.72%	39.7%	59.0%	0	14	R +32.8%	R +2.2%	R +19.1%
26	11.34%	72.44%	27.03%	33.42%	0.62%	65.65%	36.69%	36.43%	26.88%	24.64%	44.68%	0.85%	66.14%	5.39%	63.18%	83.69%	2.86%	13.40%	28.38%	42.08%	29.53%	51.4%	47.4%	9	5	D +16.2%	R +1.2%	D +4.3%
27	5.95%	70.35%	12.14%	36.09%	0.35%	72.64%	36.60%	36.49%	26.92%	10.67%	43.66%	0.48%	68.13%	2.60%	58.06%	81.50%	3.71%	14.68%	28.21%	44.12%	27.66%	51.9%	47.0%	11	3	D +19.5%	D +0.6%	D +5.5%

Functional Analysis - Returns

			5	9	10	20	24	25	26	27
Plan FLCD2016		BVAP	46.20%	14.26%	26.70%	52.37%	43.62%	4.86%	11.34%	5.95%
Primary Elections		HVAP	9.14%	41.53%	28.95%	26.75%	44.87%	74.37%	72.44%	70.35%
2018	Governor (REP)	R_Baldauf	0.67%	0.60%	0.73%	1.46%	2.49%	1.72%	1.79%	1.49%
		R_DeSantis	50.91%	43.76%	53.04%	60.72%	63.42%	66.96%	67.81%	67.52%
		R_Devine	1.16%	1.26%	1.61%	2.07%	3.63%	2.79%	3.35%	3.02%
		R_Langford	1.21%	1.03%	1.61%	1.66%	2.18%	1.40%	1.69%	1.59%
		R_Mercadante	0.47%	0.75%	0.86%	1.54%	2.92%	1.78%	1.98%	2.15%
		R_Nathan	0.75%	0.66%	0.86%	1.49%	2.13%	1.02%	1.36%	1.55%
		R_Putnam	42.67%	49.98%	38.99%	25.91%	17.92%	21.75%	18.18%	19.02%
		R_White	1.63%	1.83%	2.10%	2.92%	4.65%	2.52%	3.59%	3.42%
	Governor (DEM)	D_Gillum	58.61%	30.20%	45.10%	57.43%	53.26%	22.99%	34.50%	25.61%
		D_Graham	22.66%	31.00%	27.10%	11.98%	10.90%	23.62%	20.26%	23.07%
		D_Greene	5.55%	13.26%	9.56%	9.05%	10.02%	11.00%	10.07%	7.50%
		D_King	1.33%	3.87%	3.50%	0.79%	0.88%	2.82%	1.97%	1.52%
		D_Levine	10.24%	18.68%	13.36%	19.91%	23.97%	36.52%	31.17%	40.79%
		D_Lundmark	0.45%	1.15%	0.47%	0.27%	0.46%	1.50%	0.89%	0.71%
		D_Wetherbee	0.79%	1.60%	0.82%	0.32%	0.40%	1.43%	0.95%	0.62%
	Attorney General (REP)	R_Moody	58.32%	57.66%	55.16%	55.28%	51.96%	51.91%	54.79%	54.98%
		R_White	41.59%	42.32%	44.85%	44.03%	47.82%	48.07%	45.11%	45.03%
	Attorney General (DEM)	D_Shaw	79.03%	62.16%	72.79%	82.42%	82.19%	62.60%	71.18%	73.79%
		D_Torrens	20.91%	37.82%	27.22%	17.55%	17.80%	37.41%	28.82%	26.23%
	Agriculture Commissioner (REP)	R_Caldwell	36.46%	28.61%	35.26%	42.40%	40.96%	42.29%	42.31%	39.76%
		R_Grimsley	22.86%	27.50%	31.60%	26.92%	30.65%	28.78%	31.19%	32.65%
		R_McCalister	9.16%	11.88%	15.39%	20.21%	17.38%	12.73%	16.58%	17.11%
		R_Troutman	30.93%	31.82%	17.64%	8.43%	10.37%	16.18%	9.67%	10.38%
	Agriculture Commissioner (DEM)	D_Fried	60.02%	53.62%	55.07%	62.94%	57.49%	50.87%	53.09%	61.30%
		D_Porter	19.67%	18.77%	18.25%	16.26%	18.80%	19.65%	20.63%	13.91%
		D_Walker	20.19%	27.55%	26.67%	20.75%	23.70%	29.42%	26.23%	24.76%
	US Senate (REP)	R_De La Fuente	11.04%	9.15%	11.06%	14.74%	17.08%	9.41%	12.22%	13.20%
		R_Scott	88.77%	90.79%	88.92%	84.33%	82.85%	90.58%	87.73%	86.78%
2016	US Senate (REP)	R_Beruff	21.35%	19.39%	17.64%	13.07%	8.02%	9.59%	6.37%	6.02%
		R_Rivera	3.83%	3.05%	2.52%	4.45%	3.64%	2.20%	2.81%	1.99%
		R_Rubio	68.10%	70.54%	74.37%	72.02%	79.92%	84.44%	86.01%	88.05%
		R_Young	6.23%	6.82%	5.36%	8.29%	7.97%	3.74%	4.77%	3.79%
	US Senate (DEM)	D_De La Fuente	4.17%	12.55%	4.89%	3.29%	6.37%	20.68%	12.73%	11.64%
		D_Grayson	18.26%	39.05%	42.68%	9.52%	10.12%	12.29%	11.19%	11.78%
		D_Keith	14.98%	10.52%	12.27%	14.91%	13.73%	14.57%	15.83%	17.86%
		D_Luster	11.29%	1.42%	2.23%	2.35%	2.89%	1.72%	1.85%	1.30%
		D_Murphy	50.92%	36.18%	37.83%	69.44%	66.77%	50.65%	58.14%	57.19%
2014	Governor (REP)	R_Adeshina	1.50%	1.58%	1.64%	2.45%	3.30%	1.26%	1.82%	1.88%
		R_Cuevas-Neunder	8.71%	10.78%	9.92%	15.26%	15.62%	10.21%	14.79%	13.77%
		R_Scott	89.43%	87.50%	88.32%	80.79%	80.75%	88.46%	83.24%	84.26%
	Governor (DEM)	D_Crist	75.18%	74.85%	80.06%	84.62%	84.92%	74.04%	78.65%	73.25%
		D_Rich	24.65%	24.92%	19.90%	15.25%	15.09%	25.79%	21.27%	26.63%
	Attorney General (DEM)	D_Sheldon	61.06%	59.89%	50.11%	37.37%	44.20%	67.24%	58.97%	69.29%
		D_Thurston	38.89%	39.98%	49.91%	62.53%	55.81%	32.69%	40.88%	30.61%
2012	US Senate (REP)	R_Mack	56.41%	47.68%	57.84%	65.27%	71.55%	73.61%	73.54%	76.92%
		R_McCalister	18.56%	12.36%	11.36%	12.26%	7.28%	8.49%	7.35%	5.34%
		R_Stuart	6.21%	6.68%	5.24%	7.54%	13.33%	11.71%	13.34%	12.65%
		R_Weldon	17.97%	32.91%	25.43%	12.50%	7.17%	6.17%	5.61%	4.86%
	US Senate (DEM)	D_Burkett	21.27%	22.72%	13.74%	13.71%	14.80%	22.81%	18.27%	14.18%
		D_Nelson	78.59%	77.05%	86.18%	86.04%	85.18%	77.05%	81.63%	85.74%

Functional Analysis - Returns

			5	9	10	20	24	25	26	27
Plan FLCD2016		BVAP	46.20%	14.26%	26.70%	52.37%	43.62%	4.86%	11.34%	5.95%
General Elections		HVAP	9.14%	41.53%	28.95%	26.75%	44.87%	74.37%	72.44%	70.35%
2020	President	D_Biden	62.59%	52.99%	62.01%	77.32%	75.42%	37.85%	46.86%	51.18%
		R_Trump	36.27%	46.05%	37.02%	22.12%	24.00%	61.61%	52.56%	48.27%
2018	Governor	D_Gillum	64.88%	54.67%	63.26%	82.18%	83.57%	41.38%	53.02%	54.60%
		R_DeSantis	34.20%	43.91%	35.72%	17.25%	15.65%	57.27%	45.81%	44.34%
	Attorney General	D_Shaw	61.58%	51.49%	59.61%	80.60%	81.90%	39.54%	51.46%	53.50%
		R_Moody	36.88%	46.64%	38.78%	18.20%	16.58%	58.45%	46.41%	44.58%
	Chief Financial Officer	D_Ring	62.80%	54.02%	61.48%	81.86%	83.36%	40.97%	52.49%	54.18%
		R_Patronis	37.19%	45.98%	38.52%	18.14%	16.63%	59.03%	47.51%	45.82%
	Agriculture Commissioner	D_Fried	63.83%	55.52%	63.22%	82.12%	83.61%	42.21%	53.96%	56.28%
		R_Caldwell	36.16%	44.48%	36.78%	17.86%	16.38%	57.78%	46.04%	43.73%
	US Senate	D_Nelson	64.78%	53.96%	62.76%	81.94%	83.27%	41.92%	54.00%	55.96%
		R_Scott	35.22%	46.05%	37.24%	18.07%	16.73%	58.08%	46.00%	44.03%
2016	President	D_Clinton	60.92%	54.79%	61.76%	80.18%	82.88%	47.70%	56.76%	58.46%
		R_Trump	36.19%	41.90%	34.88%	18.09%	15.39%	49.90%	40.56%	38.98%
	US Senate	D_Murphy	55.43%	49.67%	55.92%	77.24%	77.67%	37.44%	48.20%	49.24%
		R_Rubio	41.30%	46.03%	40.32%	20.99%	20.18%	60.34%	49.43%	48.63%
2014	Governor	D_Crist	59.33%	47.91%	55.49%	81.52%	84.02%	37.15%	52.07%	51.41%
		R_Scott	37.10%	46.26%	40.09%	16.60%	14.28%	60.11%	45.06%	46.13%
	Attorney General	D_Sheldon	55.70%	43.06%	52.45%	78.03%	81.43%	32.54%	46.83%	47.62%
		R_Bondi	41.85%	54.00%	44.81%	20.66%	17.08%	65.13%	50.81%	50.30%
	Chief Financial Officer	D_Rankin	55.92%	43.89%	50.63%	77.67%	81.51%	33.79%	46.85%	44.48%
		R_Atwater	44.08%	56.11%	49.36%	22.32%	18.49%	66.20%	53.13%	55.52%
	Agriculture Commissioner	D_Hamilton	57.80%	40.71%	50.50%	79.21%	81.92%	33.60%	47.07%	45.47%
		R_Putnam	42.18%	59.29%	49.50%	20.77%	18.07%	66.39%	52.92%	54.53%
2012	President	D_Obama	63.57%	55.67%	60.78%	82.50%	85.78%	44.91%	55.48%	53.07%
		R_Romney	35.62%	43.46%	38.48%	17.12%	13.88%	54.57%	43.97%	46.40%
	US Senate	D_Nelson	67.35%	60.89%	65.14%	83.62%	85.64%	47.11%	57.03%	55.41%
		R_Mack	30.31%	36.34%	33.01%	15.26%	13.24%	50.65%	41.37%	43.23%



Map produced by professional staff:
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404 S. Monroe St., Tallahassee, FL 32399-1100
Office: 2000 The Capitol; Phone: (850) 487-5855;
Website: *https://www.floridaredistricting.gov*

Census and Boundary Statistics

Plan S000C8040

Dist.	Deviation		Voting Age Population:		Area	Perim.	Convex	Polsby-	Reock	Counties:		Cities:		Political and Geographic Boundaries:					
	Total	%	Black	Hisp.	(sq.mi.)	(mi.)	Hull	Popper	Ratio	Whole	Parts	Whole	Parts	City	County	Road	Water	Rail	Non-Pol/Geo
	1	0.00%	15.54%	24.99%	2,550.1	265.8	0.80	0.43	0.46	48	50	367	96	13%	61%	19%	39%	2%	8%
1	0	0.00%	13.55%	6.69%	4,416	329	0.87	0.51	0.54	3	1	15	2	2%	81%	14%	55%	0%	2%
2	0	0.00%	13.32%	6.21%	15,879	884	0.71	0.26	0.28	15	5	55	4	4%	76%	19%	47%	0%	4%
3	0	0.00%	16.08%	10.45%	3,864	308	0.88	0.51	0.70	5	1	28	0	17%	74%	15%	24%	1%	8%
4	0	0.00%	10.79%	9.27%	1,553	332	0.66	0.18	0.34	1	2	6	2	24%	73%	17%	54%	2%	3%
5	0	0.00%	43.73%	9.04%	3,753	635	0.65	0.12	0.12	4	4	16	3	12%	74%	22%	13%	0%	2%
6	0	0.00%	9.70%	11.04%	2,770	332	0.73	0.31	0.33	1	3	20	4	6%	74%	7%	54%	2%	10%
7	0	0.00%	12.32%	25.39%	490	113	0.88	0.49	0.66	1	2	7	6	6%	43%	19%	32%	0%	34%
8	0	0.00%	9.58%	10.30%	2,301	272	0.75	0.39	0.32	1	2	21	0	0%	85%	6%	46%	0%	9%
9	0	0.00%	12.81%	50.24%	1,840	253	0.86	0.36	0.49	1	1	2	2	2%	76%	17%	31%	0%	8%
10	0	0.00%	28.33%	23.38%	453	103	0.89	0.54	0.51	0	1	8	5	14%	68%	31%	23%	0%	2%
11	0	0.00%	8.61%	10.59%	2,643	349	0.68	0.27	0.34	2	2	19	3	12%	70%	19%	38%	1%	7%
12	0	0.00%	6.55%	14.04%	1,764	194	0.90	0.59	0.55	2	1	8	1	3%	90%	10%	44%	0%	2%
13	0	0.00%	10.72%	9.05%	705	123	0.85	0.59	0.53	0	1	17	5	20%	62%	20%	74%	0%	6%
14	-1	0.00%	11.13%	26.93%	422	96	0.86	0.58	0.53	0	2	2	6	16%	27%	44%	20%	10%	6%
15	0	0.00%	21.98%	24.65%	677	109	0.97	0.71	0.59	0	1	2	1	9%	48%	35%	1%	12%	5%
16	0	0.00%	7.23%	13.73%	1,969	202	0.89	0.61	0.60	1	2	7	1	20%	58%	16%	53%	2%	5%
17	0	0.00%	9.02%	16.71%	5,797	382	0.82	0.50	0.47	6	2	11	2	4%	79%	10%	28%	1%	2%
18	0	0.00%	12.22%	14.87%	1,730	225	0.76	0.43	0.45	2	2	13	7	7%	70%	11%	48%	0%	10%
19	0	0.00%	4.37%	15.06%	1,894	236	0.79	0.43	0.33	0	2	7	1	3%	66%	18%	61%	1%	8%
20	0	0.00%	50.04%	22.15%	2,556	315	0.81	0.32	0.54	0	2	11	13	22%	42%	23%	11%	4%	15%
21	0	0.00%	16.53%	25.39%	345	98	0.77	0.45	0.48	0	1	18	3	34%	25%	23%	39%	0%	20%
22	0	0.00%	12.74%	20.40%	259	106	0.78	0.29	0.50	0	2	11	5	32%	25%	18%	36%	12%	15%
23	0	0.00%	16.90%	42.18%	239	80	0.85	0.47	0.43	0	1	6	6	53%	30%	28%	21%	0%	10%
24	0	0.00%	42.02%	37.76%	176	68	0.90	0.47	0.46	0	2	16	6	26%	36%	29%	46%	1%	18%
25	0	0.00%	7.96%	76.83%	3,680	364	0.67	0.35	0.40	1	2	10	3	7%	68%	16%	20%	0%	8%
26	0	0.00%	10.32%	73.35%	6,710	591	0.55	0.24	0.22	1	1	8	1	1%	88%	7%	86%	0%	1%
27	0	0.00%	7.07%	74.18%	280	70	0.95	0.73	0.71	0	1	6	2	9%	18%	35%	59%	0%	6%
28	0	0.00%	14.78%	23.18%	2,240	276	0.85	0.37	0.44	1	1	17	2	5%	90%	3%	26%	0%	5%

Overall numbers of county and city splits:

District lines and City and County Boundaries	In Plan S000C8040
Number of Counties	67
Counties with only one district	48
Districts with only one county	6
Counties split into more than one district	19
Counties with all population in a single district	48
Aggregate number of county splits	50
Aggregate number of splits with population	50
Number of Cities	412
Cities with only one district	367
Cities split into more than one district	45
Cities with all population in only one district	372
Aggregate number of city splits	96
Aggregate number of splits with population	91

Split Counties and Cities

Plan S000C8040

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%
Broward	20	535,675	27.6%	888.0	67.9%
Broward	22	547,029	28.1%	168.8	12.9%
Broward	23	769,221	39.6%	238.9	18.3%
Broward	24	92,450	4.8%	12.6	1.0%
Collier	19	215,578	57.4%	639.5	24.6%
Collier	25	160,174	42.6%	1,965.6	75.5%
Columbia	2	51,337	73.7%	350.3	43.7%
Columbia	5	18,361	26.3%	451.0	56.3%
Duval	4	505,744	50.8%	454.9	49.5%
Duval	5	489,823	49.2%	463.6	50.5%
Hillsborough	14	592,149	40.6%	299.1	22.5%
Hillsborough	15	769,221	52.7%	676.6	50.8%
Hillsborough	16	98,392	6.7%	356.2	26.7%
Indian River	8	145,456	91.0%	609.1	98.7%
Indian River	18	14,332	9.0%	7.8	1.3%
Jefferson	2	4,410	30.4%	400.1	59.5%
Jefferson	5	10,100	69.6%	272.5	40.5%
Lake	6	35,396	9.2%	379.1	32.8%
Lake	11	304,385	79.3%	547.9	47.4%
Lake	28	44,175	11.5%	229.8	19.9%
Lee	17	207,179	27.2%	260.0	17.2%
Lee	19	553,643	72.8%	1,254.9	82.8%
Leon	2	145,318	49.7%	488.5	69.6%
Leon	5	146,880	50.3%	213.3	30.4%
Marion	2	39,930	10.6%	233.6	14.1%
Marion	3	154,737	41.2%	874.2	52.6%
Marion	11	181,241	48.2%	554.9	33.4%
Miami-Dade	24	676,771	25.1%	163.3	6.8%
Miami-Dade	25	569,428	21.1%	525.2	22.0%
Miami-Dade	26	686,347	25.4%	1,420.5	59.5%
Miami-Dade	27	769,221	28.5%	280.3	11.7%
Orange	7	262,969	18.4%	81.8	8.2%
Orange	8	17,153	1.2%	134.4	13.4%
Orange	9	380,565	26.6%	334.2	33.3%
Orange	10	769,221	53.8%	453.0	45.1%
Palm Beach	18	267,232	17.9%	281.3	11.8%
Palm Beach	20	233,546	15.7%	1,667.6	70.0%
Palm Beach	21	769,221	51.6%	344.5	14.5%
Palm Beach	22	222,192	14.9%	89.9	3.8%
Pinellas	12	12,815	1.3%	33.9	3.9%
Pinellas	13	769,221	80.2%	705.3	81.8%
Pinellas	14	177,071	18.5%	123.3	14.3%
Sarasota	16	271,119	62.5%	649.2	66.5%
Sarasota	17	162,887	37.5%	326.4	33.5%
St. Johns	4	173,125	63.3%	371.9	45.3%
St. Johns	6	100,300	36.7%	449.6	54.7%
Volusia	6	518,147	93.6%	1,370.0	95.6%
Volusia	7	35,396	6.4%	62.4	4.4%
Walton	1	47,648	63.3%	821.5	58.3%
Walton	2	27,657	36.7%	588.0	41.7%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Counties included in more than one district					
County	Dist.	Total Pop	Pop%	Total Area	Area%

Split Counties and Cities

Plan S000C8040

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%
Belle Isle	9	216	3.1%	0.2	3.7%
Belle Isle	10	6,816	96.9%	5.0	96.3%
Clearwater	13	82,282	70.2%	25.4	70.8%
Clearwater	14	35,010	29.9%	10.5	29.2%
Clermont	11	43,021	100.0%	17.4	91.1%
Clermont	28	0	0.0%	1.7	8.9%
Cutler Bay	26	0	0.0%	0.0	0.2%
Cutler Bay	27	45,425	100.0%	10.3	99.8%
DeBary	6	9,468	42.5%	8.0	36.7%
DeBary	7	12,792	57.5%	13.8	63.4%
Deerfield Beach	20	29,350	33.8%	4.8	29.5%
Deerfield Beach	22	57,509	66.2%	11.4	70.6%
DeFuniak Springs	1	860	14.5%	3.7	25.9%
DeFuniak Springs	2	5,059	85.5%	10.6	74.1%
Deltona	6	76,307	81.4%	33.7	82.4%
Deltona	7	17,385	18.6%	7.2	17.6%
Eatonville	7	1,202	51.2%	0.5	41.7%
Eatonville	10	1,147	48.8%	0.7	58.3%
Fort Lauderdale	20	58,993	32.3%	13.0	35.7%
Fort Lauderdale	22	102,735	56.2%	18.3	50.4%
Fort Lauderdale	23	21,032	11.5%	5.0	13.9%
Fort Myers	17	32,184	37.3%	19.8	40.4%
Fort Myers	19	54,211	62.8%	29.2	59.6%
Freeport	1	5,587	95.3%	15.3	80.4%
Freeport	2	274	4.7%	3.7	19.6%
Groveland	11	16,026	86.6%	24.3	93.0%
Groveland	28	2,479	13.4%	1.8	7.1%
Hallandale Beach	23	28,737	69.7%	3.0	65.9%
Hallandale Beach	24	12,480	30.3%	1.6	34.1%
Jacksonville	4	461,184	48.6%	412.9	47.2%
Jacksonville	5	488,427	51.4%	461.6	52.8%
Lake City	2	6,672	54.1%	6.1	49.9%
Lake City	5	5,657	45.9%	6.1	50.1%
Lake Park	18	1,245	13.8%	0.4	17.1%
Lake Park	20	7,802	86.2%	2.0	82.9%
Largo	13	75,101	91.1%	17.1	87.5%
Largo	14	7,384	9.0%	2.4	12.5%
Maitland	7	13,664	69.9%	4.8	73.6%
Maitland	10	5,879	30.1%	1.7	26.4%
Margate	20	17,409	29.7%	2.5	27.6%
Margate	22	41,303	70.4%	6.6	72.4%
Miami	24	98,349	22.2%	15.0	26.7%
Miami	25	54,725	12.4%	4.8	8.5%
Miami	27	289,167	65.4%	36.3	64.8%
Miami Gardens	24	90,649	81.2%	15.2	79.8%
Miami Gardens	25	20,991	18.8%	3.8	20.2%
Miramar	23	76,594	56.9%	24.0	77.2%
Miramar	24	58,127	43.2%	7.1	22.8%
North Palm Beach	18	13,162	100.0%	5.3	99.5%
North Palm Beach	20	0	0.0%	0.0	0.6%
Oakland Park	20	15,037	34.0%	3.7	44.6%
Oakland Park	22	29,192	66.0%	4.5	55.4%
Opa-locka	24	9,537	57.9%	1.5	34.0%
Opa-locka	25	6,926	42.1%	3.0	66.0%
Orlando	7	35,474	11.5%	9.0	7.6%
Orlando	9	86,183	28.0%	63.9	53.7%
Orlando	10	185,916	60.5%	46.0	38.7%
Palm Beach	18	2,634	28.5%	2.7	34.4%
Palm Beach	21	6,611	71.5%	5.1	65.6%
Palm Beach Gardens	18	59,182	100.0%	59.3	99.9%
Palm Beach Gardens	20	0	0.0%	0.1	0.1%
Pembroke Pines	23	170,725	99.7%	34.7	99.9%
Pembroke Pines	24	453	0.3%	0.0	0.1%
Pinellas Park	13	53,093	100.0%	16.8	100.0%
Pinellas Park	14	0	0.0%	0.0	0.0%
Plantation	20	41,374	45.1%	9.0	40.9%
Plantation	23	50,376	54.9%	13.0	59.1%
Pompano Beach	20	53,918	48.1%	11.3	45.8%
Pompano Beach	22	58,128	51.9%	13.4	54.2%
Riviera Beach	18	9,951	26.5%	3.1	32.5%
Riviera Beach	20	27,653	73.5%	6.5	67.5%
Royal Palm Beach	18	16,407	42.1%	5.0	42.9%
Royal Palm Beach	20	17,861	45.9%	5.6	48.1%
Royal Palm Beach	21	4,664	12.0%	1.1	8.9%
St. Augustine	4	2,447	17.1%	1.6	12.1%
St. Augustine	6	11,882	82.9%	11.3	87.9%
St. Petersburg	13	241,005	93.3%	124.6	94.9%
St. Petersburg	14	17,303	6.7%	6.7	5.1%
Sunrise	20	85,270	87.6%	14.1	77.8%
Sunrise	23	12,065	12.4%	4.0	22.2%
Tallahassee	2	82,107	41.9%	69.0	66.5%
Tallahassee	5	114,062	58.1%	34.8	33.5%
Tampa	14	263,534	68.5%	126.1	71.7%
Tampa	15	121,425	31.5%	49.8	28.3%
Tarpon Springs	12	11,582	46.1%	10.2	57.5%
Tarpon Springs	13	10,748	42.8%	5.8	32.7%
Tarpon Springs	14	2,787	11.1%	1.7	9.8%
Umatilla	6	1,415	38.4%	1.9	45.5%
Umatilla	11	2,270	61.6%	2.3	54.5%
Venice	16	12,178	47.8%	10.9	61.9%
Venice	17	13,285	52.2%	6.7	38.1%
West Palm Beach	18	18,256	15.6%	33.2	57.2%
West Palm Beach	20	63,092	53.7%	16.2	27.9%
West Palm Beach	21	36,067	30.7%	8.6	14.9%
Winter Park	7	28,902	97.0%	10.0	96.6%
Winter Park	10	893	3.0%	0.4	3.4%

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Cities included in more than one district					
City	Dist.	Total Pop	Pop%	Total Area	Area%

Functional Analysis - Summary

Plan S000C8040

Dist.	2020 Census		2020 General Election Registered Voters																	
	VAP who are:		RV who are:			RV who are:		Black Voters who are:			Hisp. Voters who are:			DEM who are:		REP who are:		NPAOth who are:	
	Black	Hisp	DEM	REP	OTH	Black	Hisp	DEM	REP	NPAOth	DEM	REP	NPAOth	Black	Hisp.	Black	Hisp.	Black	Hisp.
5	43.73%	9.04%	54.34%	26.24%	19.43%	43.53%	4.83%	84.10%	2.75%	13.14%	44.56%	21.04%	34.20%	67.38%	3.96%	4.57%	3.87%	29.43%	8.50%
9	12.81%	50.24%	41.80%	23.16%	35.03%	9.28%	44.52%	71.84%	4.02%	24.11%	46.58%	13.81%	39.60%	15.95%	49.60%	1.61%	26.55%	6.39%	50.32%
10	28.33%	23.38%	45.07%	26.06%	28.86%	24.37%	16.10%	77.81%	3.25%	18.92%	45.58%	15.94%	38.45%	42.08%	16.28%	3.04%	9.85%	15.98%	21.45%
20	50.04%	22.15%	61.23%	13.99%	24.78%	46.67%	14.84%	81.44%	2.55%	16.00%	46.41%	17.36%	36.20%	62.07%	11.25%	8.50%	18.42%	30.12%	21.67%
24	42.02%	37.76%	60.07%	12.45%	27.48%	43.75%	26.79%	82.51%	2.43%	15.05%	42.80%	20.02%	37.16%	60.09%	19.09%	8.53%	43.09%	23.96%	36.22%
25	7.96%	76.83%	31.43%	36.54%	32.03%	6.97%	64.09%	79.64%	3.94%	16.25%	29.23%	35.98%	34.77%	17.66%	59.60%	0.75%	63.10%	3.54%	69.57%
26	10.32%	73.35%	33.92%	32.58%	33.51%	8.67%	63.92%	77.59%	3.48%	18.90%	28.78%	35.47%	35.74%	19.84%	54.23%	0.93%	69.60%	4.89%	68.18%
27	7.07%	74.18%	34.57%	33.39%	32.04%	6.14%	62.79%	78.61%	3.67%	17.61%	28.03%	38.96%	33.00%	13.97%	50.91%	0.67%	73.27%	3.38%	64.68%

Functional Analysis - Summary

Plan S000C8040

Dist.	2020 Census		Average Primary Election Turnout				Average General Election Turnout															General Election Performance in Statewide Elections 2012-2020						
	VAP who are:		DEM who are:		REP who are:		Voters who are:			DEM who are:		REP who are:		NPAOth who are:		Black Voters who are:			Hisp. Voters who are:			Avg. Perf.		Wins		Margins		
	Black	Hisp	Black	Hisp.	Black	Hisp.	DEM	REP	NPAOth	Black	Hisp.	Black	Hisp.	Black	Hisp.	DEM	REP	NPAOth	DEM	REP	NPAOth	DEM	REP	DEM	REP	MAX	MIN	AVG
5	43.73%	9.04%	66.22%	1.13%	2.81%	1.51%	58.13%	28.64%	13.23%	65.88%	2.59%	3.31%	2.83%	25.94%	6.77%	89.70%	2.22%	8.05%	45.52%	25.69%	28.14%	58.5%	40.1%	14	0	D +32.4%	D +7.1%	D +18.8%
9	12.81%	50.24%	18.82%	35.24%	1.05%	14.10%	43.37%	29.02%	27.61%	17.51%	43.60%	1.32%	19.42%	6.11%	41.61%	78.50%	3.95%	17.46%	52.57%	15.53%	31.90%	57.3%	40.9%	12	2	D +34.4%	D +0.9%	D +16.7%
10	28.33%	23.38%	48.65%	7.79%	1.94%	4.80%	45.72%	32.02%	22.26%	44.50%	12.76%	2.18%	7.05%	13.88%	16.65%	84.23%	2.88%	12.87%	49.38%	19.11%	31.43%	57.5%	40.9%	12	2	D +29.1%	R +1.5%	D +17.2%
20	50.04%	22.15%	64.04%	4.47%	6.25%	9.69%	66.46%	14.61%	18.92%	62.17%	8.59%	6.94%	14.36%	28.30%	18.16%	86.61%	2.12%	11.23%	50.45%	18.81%	30.57%	78.1%	21.0%	14	0	D +65.1%	D +50.7%	D +57.3%
24	42.02%	37.76%	67.48%	10.63%	7.00%	47.13%	66.57%	12.13%	21.30%	62.81%	15.65%	7.51%	42.22%	23.92%	34.11%	87.45%	1.90%	10.62%	45.30%	22.77%	31.86%	80.3%	18.8%	14	0	D +68%	D +49.4%	D +61.6%
25	7.96%	76.83%	26.60%	42.55%	0.43%	61.13%	32.92%	41.38%	25.70%	20.79%	53.26%	0.57%	61.19%	3.39%	66.94%	85.82%	2.98%	11.07%	29.10%	42.27%	28.61%	45.0%	53.8%	3	11	R +20.4%	D +2.6%	R +8.6%
26	10.32%	73.35%	22.58%	36.25%	0.57%	65.42%	35.69%	36.75%	27.56%	21.18%	47.57%	0.77%	66.17%	4.67%	64.29%	82.77%	3.10%	14.10%	28.65%	41.33%	30.00%	50.7%	48.0%	9	5	D +15.7%	R +2.2%	D +3%
27	7.07%	74.18%	17.87%	36.73%	0.39%	75.66%	35.72%	38.10%	26.18%	15.24%	45.38%	0.52%	72.02%	3.19%	63.12%	83.83%	3.09%	12.93%	26.85%	45.71%	27.44%	50.6%	48.3%	9	5	D +17.4%	R +0.6%	D +2.7%

Functional Analysis - Returns

			5	9	10	20	24	25	26	27
Plan S000C8040		BVAP	43.73%	12.81%	28.33%	50.04%	42.02%	7.96%	10.32%	7.07%
Primary Elections		HVAP	9.04%	50.24%	23.38%	22.15%	37.76%	76.83%	73.35%	74.18%
2018	Governor (REP)	R_Baldauf	0.70%	0.84%	0.71%	1.36%	1.92%	1.93%	1.83%	1.50%
		R_DeSantis	52.44%	52.75%	52.09%	62.76%	66.52%	65.93%	67.74%	67.69%
		R_Devine	1.13%	1.98%	1.43%	2.20%	3.24%	2.92%	3.34%	3.09%
		R_Langford	1.13%	1.44%	1.65%	1.86%	1.97%	1.41%	1.72%	1.53%
		R_Mercadante	0.42%	1.28%	0.76%	1.51%	2.13%	1.93%	2.06%	2.14%
		R_Nathan	0.71%	1.00%	0.82%	1.54%	2.72%	1.13%	1.42%	1.39%
		R_Putnam	41.63%	37.93%	40.26%	25.36%	17.05%	21.84%	18.17%	18.84%
		R_White	1.62%	2.61%	2.11%	2.89%	3.92%	2.63%	3.54%	3.46%
	Governor (DEM)	D_Gillum	58.39%	29.99%	45.49%	52.96%	50.35%	32.88%	31.83%	28.95%
		D_Graham	22.26%	29.75%	28.40%	13.34%	11.17%	19.31%	21.15%	22.65%
		D_Greene	5.72%	13.96%	8.69%	10.39%	9.34%	9.66%	10.62%	7.94%
		D_King	1.43%	4.29%	3.76%	0.94%	0.75%	2.33%	2.11%	1.54%
		D_Levine	10.71%	19.18%	12.46%	21.58%	27.53%	32.70%	32.23%	37.17%
		D_Lundmark	0.49%	1.12%	0.44%	0.30%	0.38%	1.37%	0.91%	0.78%
		D_Wetherbee	0.83%	1.64%	0.66%	0.38%	0.32%	1.27%	0.97%	0.68%
	Attorney General (REP)	R_Moody	57.78%	54.44%	55.46%	55.57%	53.16%	52.08%	54.82%	54.79%
		R_White	42.22%	45.50%	44.57%	44.27%	46.64%	47.88%	45.11%	45.20%
	Attorney General (DEM)	D_Shaw	78.66%	61.11%	74.44%	81.44%	82.10%	67.77%	69.58%	74.09%
		D_Torrens	21.31%	38.88%	25.57%	18.56%	17.89%	32.10%	30.43%	25.91%
	Agriculture Commissioner (REP)	R_Caldwell	35.67%	36.42%	34.83%	43.50%	39.73%	42.29%	42.07%	40.18%
		R_Grimsley	21.36%	31.97%	31.49%	25.91%	31.44%	29.71%	31.57%	32.70%
		R_McCalister	8.68%	16.25%	15.43%	21.17%	17.11%	12.78%	16.62%	16.76%
		R_Troutman	34.12%	15.22%	18.23%	9.04%	11.06%	15.05%	9.61%	10.37%
	Agriculture Commissioner (DEM)	D_Fried	60.09%	55.10%	55.25%	63.92%	59.04%	52.18%	53.25%	59.89%
		D_Porter	20.04%	18.57%	17.46%	16.10%	17.36%	20.02%	20.45%	15.13%
		D_Walker	19.86%	26.32%	27.30%	19.96%	23.60%	27.59%	26.21%	24.88%
	US Senate (REP)	R_De La Fuente	10.20%	10.06%	11.29%	14.88%	15.74%	9.81%	12.28%	12.63%
		R_Scott	89.71%	89.89%	88.72%	84.91%	84.06%	90.09%	87.66%	87.32%
2016	US Senate (REP)	R_Beruff	22.31%	17.11%	17.64%	14.64%	8.73%	8.85%	6.43%	5.58%
		R_Rivera	3.70%	3.21%	2.45%	5.03%	3.26%	2.20%	2.94%	1.88%
		R_Rubio	68.00%	71.92%	74.53%	70.56%	80.12%	85.24%	85.70%	88.87%
		R_Young	5.81%	7.56%	5.31%	9.37%	7.44%	3.59%	4.86%	3.46%
	US Senate (DEM)	D_De La Fuente	4.12%	14.95%	3.93%	3.17%	5.51%	19.30%	13.76%	12.16%
		D_Grayson	17.53%	45.27%	40.72%	9.95%	10.82%	11.17%	11.16%	11.19%
		D_Keith	15.18%	9.79%	12.71%	14.56%	13.82%	13.73%	15.63%	17.86%
		D_Luster	12.08%	1.26%	2.28%	2.23%	2.68%	2.02%	1.68%	1.54%
		D_Murphy	50.94%	28.53%	40.28%	69.89%	66.91%	53.19%	57.51%	56.90%
2014	Governor (REP)	R_Adeshina	1.29%	1.69%	1.67%	2.66%	2.97%	1.46%	1.77%	1.80%
		R_Cuevas-Neunder	8.09%	12.04%	9.60%	14.56%	16.32%	10.61%	15.19%	13.26%
		R_Scott	90.47%	86.09%	88.64%	82.42%	80.36%	87.73%	82.95%	84.83%
	Governor (DEM)	D_Crist	74.34%	76.41%	78.84%	82.85%	84.35%	76.74%	78.42%	73.98%
		D_Rich	25.58%	23.44%	21.17%	17.09%	15.61%	22.84%	21.48%	25.89%
	Attorney General (DEM)	D_Sheldon	60.86%	60.66%	49.68%	39.26%	46.77%	58.73%	61.40%	65.55%
		D_Thurston	39.17%	39.26%	50.37%	60.66%	53.21%	40.91%	38.48%	34.37%
2012	US Senate (REP)	R_Mack	57.58%	49.35%	58.32%	65.26%	71.78%	73.46%	73.64%	77.15%
		R_McCalister	18.65%	11.93%	10.93%	13.11%	6.85%	8.01%	7.36%	5.18%
		R_Stuart	5.92%	6.58%	4.88%	7.25%	13.13%	12.37%	13.26%	12.99%
		R_Weldon	17.45%	31.96%	25.74%	13.85%	8.00%	5.92%	5.67%	4.46%
	US Senate (DEM)	D_Burkett	22.03%	19.38%	13.66%	14.24%	14.02%	21.21%	18.40%	14.76%
		D_Nelson	77.91%	80.61%	86.30%	85.70%	85.93%	78.58%	81.49%	85.11%

Functional Analysis - Returns

			5	9	10	20	24	25	26	27
Plan S000C8040		BVAP	43.73%	12.81%	28.33%	50.04%	42.02%	7.96%	10.32%	7.07%
General Elections		HVAP	9.04%	50.24%	23.38%	22.15%	37.76%	76.83%	73.35%	74.18%
2020	President	D_Biden	60.23%	58.79%	61.66%	75.53%	74.41%	40.98%	46.43%	49.44%
		R_Trump	38.62%	40.22%	37.34%	23.88%	25.06%	58.48%	52.99%	50.01%
2018	Governor	D_Gillum	62.51%	61.81%	62.29%	79.65%	81.56%	46.17%	52.49%	53.18%
		R_DeSantis	36.60%	36.87%	36.70%	19.73%	17.74%	52.44%	46.31%	45.75%
	Attorney General	D_Shaw	59.25%	58.41%	58.50%	78.13%	80.14%	44.45%	50.86%	51.99%
		R_Moody	39.21%	39.61%	39.86%	20.54%	18.30%	53.53%	46.94%	46.10%
	Chief Financial Officer	D_Ring	60.38%	60.81%	60.33%	79.52%	81.61%	45.82%	51.93%	52.59%
		R_Patronis	39.62%	39.19%	39.67%	20.46%	18.38%	54.17%	48.07%	47.41%
	Agriculture Commissioner	D_Fried	61.38%	62.27%	62.23%	79.77%	82.11%	46.93%	53.44%	54.63%
		R_Caldwell	38.63%	37.73%	37.77%	20.22%	17.88%	53.06%	46.56%	45.38%
	US Senate	D_Nelson	62.25%	60.52%	62.11%	79.66%	81.49%	46.47%	53.46%	54.47%
		R_Scott	37.75%	39.48%	37.89%	20.33%	18.51%	53.52%	46.54%	45.52%
2016	President	D_Clinton	58.51%	61.95%	60.09%	77.52%	81.10%	52.56%	56.46%	57.42%
		R_Trump	38.61%	34.53%	36.37%	20.71%	17.23%	45.16%	40.81%	40.05%
	US Senate	D_Murphy	52.82%	54.92%	54.84%	75.52%	76.02%	42.42%	47.69%	47.78%
		R_Rubio	43.90%	41.03%	41.35%	22.53%	21.88%	55.35%	49.92%	50.17%
2014	Governor	D_Crist	56.54%	52.80%	54.65%	79.64%	82.25%	43.00%	51.20%	50.00%
		R_Scott	39.85%	42.13%	40.77%	18.20%	16.17%	54.28%	45.89%	47.55%
	Attorney General	D_Sheldon	53.20%	49.01%	51.79%	75.88%	79.86%	38.72%	45.82%	46.03%
		R_Bondi	44.31%	48.13%	45.30%	22.66%	18.70%	58.94%	51.75%	51.96%
	Chief Financial Officer	D_Rankin	53.57%	48.88%	49.22%	75.36%	79.06%	40.24%	45.88%	43.49%
		R_Atwater	46.43%	51.12%	50.78%	24.62%	20.94%	59.75%	54.12%	56.53%
	Agriculture Commissioner	D_Hamilton	55.57%	47.75%	49.27%	76.85%	79.82%	39.79%	46.04%	44.31%
		R_Putnam	44.41%	52.25%	50.73%	23.15%	20.18%	60.19%	53.95%	55.69%
2012	President	D_Obama	61.03%	61.43%	58.97%	80.43%	82.82%	51.07%	54.83%	52.22%
		R_Romney	38.14%	37.76%	40.24%	19.14%	16.82%	48.44%	44.61%	47.27%
	US Senate	D_Nelson	65.00%	65.98%	63.62%	81.94%	83.49%	52.79%	56.33%	54.47%
		R_Mack	32.61%	31.57%	34.51%	16.83%	15.47%	45.07%	42.03%	44.15%

Exhibit 5

User: planprocessor
Plan: S035C8060

Date: Tue Jan 18 2022 14:18:14 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

Assigned District Splits

FIPS	Total Population	Total Voting Age Population
1		
Escambia County	321,905	258,145
Okaloosa County	211,668	164,455
Santa Rosa County	188,000	145,194
* Walton County	47,648	37,765
1 Total	769,221	605,559
	100%	78.72%
2		
Bay County	175,216	139,659
Calhoun County	13,648	10,923
* Columbia County	51,337	40,092
Dixie County	16,759	13,730
Franklin County	12,451	10,555
Gilchrist County	17,864	14,174
Gulf County	14,192	11,821
Holmes County	19,653	15,598
Jackson County	47,319	38,271
* Jefferson County	4,410	3,587
Lafayette County	8,226	6,819
* Leon County	145,318	116,173
Levy County	42,915	34,293
Liberty County	7,974	6,507
* Marion County	39,930	35,551
Suwannee County	43,474	34,279

FIPS	Total Population	Total Voting Age Population
Taylor County	21,796	17,482
Wakulla County	33,764	26,854
* Walton County	27,657	22,190
Washington County	25,318	20,174
2 Total	769,221	618,732
	100%	80.44%
3		
Alachua County	278,468	227,905
Bradford County	28,303	22,992
Clay County	218,245	166,139
* Marion County	154,737	124,433
Putnam County	73,321	58,184
Union County	16,147	13,093
3 Total	769,221	612,746
	100%	79.66%
4		
* Duval County	505,744	407,859
Nassau County	90,352	72,186
* St Johns County	173,125	128,840
4 Total	769,221	608,885
	100%	79.16%
5		

FIPS	Total Population	Total Voting Age Population
Baker County	28,259	21,638
* Columbia County	18,361	14,721
* Duval County	489,823	373,744
Gadsden County	43,826	34,617
Hamilton County	14,004	11,329
* Jefferson County	10,100	8,468
* Leon County	146,880	120,418
Madison County	17,968	14,388
5 Total	769,221	599,323
	100%	77.91%
6		
Flagler County	115,378	96,386
* Lake County	35,396	28,077
* St Johns County	100,300	81,761
* Volusia County	518,147	429,922
6 Total	769,221	636,146
	100%	82.7%
7		
* Orange County	262,969	217,267
Seminole County	470,856	370,782
* Volusia County	35,396	28,201
7 Total	769,221	616,250
	100%	80.11%

FIPS	Total Population	Total Voting Age Population
8		
Brevard County	606,612	497,095
* Indian River County	145,456	123,116
* Orange County	17,153	13,477
8 Total	769,221	633,688
	100%	82.38%
9		
* Orange County	380,565	292,968
Osceola County	388,656	297,816
9 Total	769,221	590,784
	100%	76.8%
10		
* Orange County	769,221	592,086
10 Total	769,221	592,086
	100%	76.97%
11		
Citrus County	153,843	131,487
* Lake County	304,385	249,650
* Marion County	181,241	148,373
Sumter County	129,752	120,696

FIPS	Total Population	Total Voting Age Population
11 Total	769,221	650,206
	100%	84.53%
12		
Hernando County	194,515	158,664
Pasco County	561,891	448,026
* Pinellas County	12,815	10,589
12 Total	769,221	617,279
	100%	80.25%
13		
* Pinellas County	769,221	650,583
13 Total	769,221	650,583
	100%	84.58%
14		
* Hillsborough County	592,149	474,452
* Pinellas County	177,071	148,949
14 Total	769,220	623,401
	100%	81.04%
15		
* Hillsborough County	769,221	585,717
15 Total	769,221	585,717

FIPS	Total Population	Total Voting Age Population
	100%	76.14%
16		
* Hillsborough County	98,392	78,862
Manatee County	399,710	326,633
* Sarasota County	271,119	233,648
16 Total	769,221	639,143
	100%	83.09%
17		
Charlotte County	186,847	164,240
De Soto County	33,976	27,008
Glades County	12,126	10,088
Hardee County	25,327	18,840
Highlands County	101,235	83,524
* Lee County	207,179	157,931
Okeechobee County	39,644	30,932
* Sarasota County	162,887	140,816
17 Total	769,221	633,379
	100%	82.34%
18		
* Indian River County	14,332	11,270
Martin County	158,431	132,255
* Palm Beach County	267,232	221,452
St Lucie County	329,226	263,741

FIPS	Total Population	Total Voting Age Population
18 Total	769,221	628,718
	100%	81.73%
19		
* Collier County	215,578	188,515
* Lee County	553,643	470,394
19 Total	769,221	658,909
	100%	85.66%
20		
* Broward County	535,675	419,102
* Palm Beach County	233,546	180,271
20 Total	769,221	599,373
	100%	77.92%
21		
* Palm Beach County	769,221	623,193
21 Total	769,221	623,193
	100%	81.02%
22		
* Broward County	547,029	448,974
* Palm Beach County	222,192	183,708

FIPS	Total Population	Total Voting Age Population
22 Total	769,221	632,682
	100%	82.25%
23		
* Broward County	769,221	607,373
23 Total	769,221	607,373
	100%	78.96%
24		
* Broward County	92,450	70,589
* Miami-Dade County	676,771	542,908
24 Total	769,221	613,497
	100%	79.76%
25		
* Collier County	160,174	124,654
Hendry County	39,619	29,444
* Miami-Dade County	569,428	461,196
25 Total	769,221	615,294
	100%	79.99%
26		
* Miami-Dade County	686,347	538,512
Monroe County	82,874	70,617

FIPS	Total Population	Total Voting Age Population
26 Total	769,221	609,129
	100%	79.19%
27		
* Miami-Dade County	769,221	636,004
27 Total	769,221	636,004
	100%	82.68%
28		
* Lake County	44,175	34,717
Polk County	725,046	566,436
28 Total	769,221	601,153
	100%	78.15%

User: planprocessor
Plan: S035C8060

Date: Tue Jan 18 2022 14:17:11 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

Boundary Analysis Report

District	City Boundaries(%)	County Boundaries(%)	Road Boundaries(%)	Water Boundaries(%)	Rail Boundaries(%)	Non Geo/Pol Boundaries(%)
1	2	81	14	55	0	2
2	4	76	19	47	0	4
3	17	74	15	24	1	8
4	24	73	17	54	2	3
5	12	74	22	13	0	2
6	6	74	7	54	2	10
7	6	43	19	32	0	34
8	0	85	6	46	0	9
9	2	76	17	31	0	8
10	14	68	31	23	0	2
11	12	70	19	38	1	7
12	3	90	10	44	0	2
13	20	62	20	74	0	6
14	16	27	44	20	10	6
15	9	48	35	1	12	5
16	20	58	16	53	2	5
17	4	79	10	28	1	2
18	7	70	11	48	0	10
19	3	66	18	61	1	8
20	22	42	23	11	4	15
21	34	25	23	39	0	20
22	32	25	18	36	12	15
23	53	30	28	21	0	10
24	37	36	35	49	0	9
25	9	68	17	21	0	6
26	1	88	7	86	0	1

District	City Boundaries(%)	County Boundaries(%)	Road Boundaries(%)	Water Boundaries(%)	Rail Boundaries(%)	Non Geo/Pol Boundaries(%)
27	9	18	35	59	0	6
28	5	90	3	26	0	5

User: planprocessor
Plan: S035C8060
wkid: 3086

Date: Tue Jan 18 2022 14:17:11 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

District Compactness Report

District	Polygon Area (sq. mi)	Perimeter (mi)	Reock	Area/Convex Hull	Polsby Popper	Holes
1	4416.02	328.8	0.54	0.87	0.51	0
2	15878.89	883.97	0.28	0.71	0.26	0
3	3863.67	307.97	0.7	0.88	0.51	0
4	1552.7	332.02	0.34	0.66	0.18	0
5	3752.63	635.25	0.12	0.65	0.12	0
6	2769.55	332.49	0.33	0.73	0.31	0
7	489.61	112.53	0.66	0.88	0.49	0
8	2300.5	272.31	0.32	0.75	0.39	0
9	1840.21	252.8	0.49	0.86	0.36	0
10	452.98	102.6	0.51	0.89	0.54	0
11	2643.29	348.58	0.34	0.68	0.27	0
12	1764.09	193.77	0.55	0.9	0.59	0
13	705.31	123.03	0.53	0.85	0.59	0
14	422.39	95.95	0.53	0.86	0.58	0
15	676.61	109.29	0.59	0.97	0.71	0
16	1969.41	201.5	0.6	0.89	0.61	0
17	5796.69	381.99	0.47	0.82	0.5	0
18	1730.06	225.01	0.45	0.76	0.43	0
19	1894.37	236.42	0.33	0.79	0.43	0
20	2555.57	314.51	0.54	0.81	0.32	0
21	344.5	97.62	0.48	0.77	0.45	0
22	258.66	105.74	0.5	0.78	0.29	0
23	238.88	79.97	0.43	0.85	0.47	0
24	176.99	65.96	0.46	0.89	0.51	0
25	3679.11	361.5	0.4	0.67	0.35	0
26	6710.06	591.42	0.22	0.55	0.24	0

District	Polygon Area (sq. mi)	Perimeter (mi)	Reock	Area/Convex Hull	Polsby Popper	Holes
27	280.3	69.57	0.71	0.95	0.73	0
28	2240.17	276.42	0.44	0.85	0.37	0

User: planprocessor
Plan: S035C8060

Date: Tue Jan 18 2022 14:17:11 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

District Statistical Report

No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total Population	Total Voting Age Population
1	769,221	769,221	0	0.00	769,221	605,559
					3.57%	78.72%
2	769,221	769,221	0	0.00	769,221	618,732
					3.57%	80.44%
3	769,221	769,221	0	0.00	769,221	612,746
					3.57%	79.66%
4	769,221	769,221	0	0.00	769,221	608,885
					3.57%	79.16%
5	769,221	769,221	0	0.00	769,221	599,323
					3.57%	77.91%
6	769,221	769,221	0	0.00	769,221	636,146
					3.57%	82.70%
7	769,221	769,221	0	0.00	769,221	616,250
					3.57%	80.11%
8	769,221	769,221	0	0.00	769,221	633,688
					3.57%	82.38%
9	769,221	769,221	0	0.00	769,221	590,784
					3.57%	76.80%
10	769,221	769,221	0	0.00	769,221	592,086

No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total Population	Total Voting Age Population
					3.57%	76.97%
11	769,221	769,221	0	0.00	769,221	650,206
					3.57%	84.53%
12	769,221	769,221	0	0.00	769,221	617,279
					3.57%	80.25%
13	769,221	769,221	0	0.00	769,221	650,583
					3.57%	84.58%
14	769,220	769,221	-1	-0.00	769,220	623,401
					3.57%	81.04%
15	769,221	769,221	0	0.00	769,221	585,717
					3.57%	76.14%
16	769,221	769,221	0	0.00	769,221	639,143
					3.57%	83.09%
17	769,221	769,221	0	0.00	769,221	633,379
					3.57%	82.34%
18	769,221	769,221	0	0.00	769,221	628,718
					3.57%	81.73%
19	769,221	769,221	0	0.00	769,221	658,909
					3.57%	85.66%

No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total Population	Total Voting Age Population
20	769,221	769,221	0	0.00	769,221	599,373
					3.57%	77.92%
21	769,221	769,221	0	0.00	769,221	623,193
					3.57%	81.02%
22	769,221	769,221	0	0.00	769,221	632,682
					3.57%	82.25%
23	769,221	769,221	0	0.00	769,221	607,373
					3.57%	78.96%
24	769,221	769,221	0	0.00	769,221	613,497
					3.57%	79.76%
25	769,221	769,221	0	0.00	769,221	615,294
					3.57%	79.99%
26	769,221	769,221	0	0.00	769,221	609,129
					3.57%	79.19%
27	769,221	769,221	0	0.00	769,221	636,004
					3.57%	82.68%
28	769,221	769,221	0	0.00	769,221	601,153
					3.57%	78.15%

User: planprocessor
Plan: S035C8060

Date: Tue Jan 18 2022 14:17:11 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

Population Summary Report

No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total Population	Total Voting Age Population
1	769,221	769,221	0	0.00	769,221	605,559
2	769,221	769,221	0	0.00	769,221	618,732
3	769,221	769,221	0	0.00	769,221	612,746
4	769,221	769,221	0	0.00	769,221	608,885
5	769,221	769,221	0	0.00	769,221	599,323
6	769,221	769,221	0	0.00	769,221	636,146
7	769,221	769,221	0	0.00	769,221	616,250
8	769,221	769,221	0	0.00	769,221	633,688
9	769,221	769,221	0	0.00	769,221	590,784
10	769,221	769,221	0	0.00	769,221	592,086
11	769,221	769,221	0	0.00	769,221	650,206
12	769,221	769,221	0	0.00	769,221	617,279
13	769,221	769,221	0	0.00	769,221	650,583
14	769,220	769,221	-1	-0.00	769,220	623,401
15	769,221	769,221	0	0.00	769,221	585,717
16	769,221	769,221	0	0.00	769,221	639,143
17	769,221	769,221	0	0.00	769,221	633,379
18	769,221	769,221	0	0.00	769,221	628,718
19	769,221	769,221	0	0.00	769,221	658,909
20	769,221	769,221	0	0.00	769,221	599,373
21	769,221	769,221	0	0.00	769,221	623,193
22	769,221	769,221	0	0.00	769,221	632,682
23	769,221	769,221	0	0.00	769,221	607,373
24	769,221	769,221	0	0.00	769,221	613,497
25	769,221	769,221	0	0.00	769,221	615,294
26	769,221	769,221	0	0.00	769,221	609,129
27	769,221	769,221	0	0.00	769,221	636,004

No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total Population	Total Voting Age Population
28	769,221	769,221	0	0.00	769,221	601,153

TOTAL Population:	21,538,187
Mean Target Population:	769,221
Mean Deviation:	0
Mean Percent Deviation:	0.00
Largest Positive Deviation:	0
Largest Negative Deviation:	-1
Overall Range in Deviation:	1
Overall Range in Deviation Percentage:	0.00

User: planprocessor
Plan: S035C8060

Date: Tue Jan 18 2022 14:17:12 GMT-0500 (Eastern Standard Time)
Plan No.: c7fe859f38fe4f66864af3a9094b8ac0

VAP Summary Report

No.	Total Population	Total Voting Age Population	Single-Race Non-Hispanic White Voting Age Population	Non-Hispanic Black Voting Age Population	Hispanic Black Voting Age Population	Hispanic not Black Voting Age Population	Other Voting Age Population	All Hispanic Voting Age Population of any race	All Black Voting Age Population
1	769,221	605,559	436,913	79,689	2,343	38,176	48,438	40,519	82,032
	3.57%	78.72%	72.15%	13.16%	0.39%	6.30%	8.00%	6.69%	13.55%
2	769,221	618,732	466,927	80,480	1,928	36,515	32,882	38,443	82,408
	3.57%	80.44%	75.47%	13.01%	0.31%	5.90%	5.31%	6.21%	13.32%
3	769,221	612,746	409,098	94,668	3,853	60,168	44,959	64,021	98,521
	3.57%	79.66%	66.76%	15.45%	0.63%	9.82%	7.34%	10.45%	16.08%
4	769,221	608,885	434,243	61,983	3,746	52,685	56,228	56,431	65,729
	3.57%	79.16%	71.32%	10.18%	0.62%	8.65%	9.23%	9.27%	10.79%
5	769,221	599,323	256,851	256,501	5,555	48,628	31,788	54,183	262,056
	3.57%	77.91%	42.86%	42.80%	0.93%	8.11%	5.30%	9.04%	43.73%
6	769,221	636,146	476,195	57,797	3,889	66,325	31,940	70,214	61,686
	3.57%	82.70%	74.86%	9.09%	0.61%	10.43%	5.02%	11.04%	9.70%
7	769,221	616,250	341,670	65,982	9,911	146,545	52,142	156,456	75,893
	3.57%	80.11%	55.44%	10.71%	1.61%	23.78%	8.46%	25.39%	12.32%
8	769,221	633,688	473,439	57,021	3,714	61,550	37,964	65,264	60,735
	3.57%	82.38%	74.71%	9.00%	0.59%	9.71%	5.99%	10.30%	9.58%
9	769,221	590,784	187,065	58,303	17,368	279,426	48,622	296,794	75,671
	3.57%	76.80%	31.66%	9.87%	2.94%	47.30%	8.23%	50.24%	12.81%
10	769,221	592,086	237,508	158,410	9,343	129,094	57,731	138,437	167,753
	3.57%	76.97%	40.11%	26.75%	1.58%	21.80%	9.75%	23.38%	28.33%
11	769,221	650,206	498,193	52,269	3,688	65,201	30,855	68,889	55,957
	3.57%	84.53%	76.62%	8.04%	0.57%	10.03%	4.75%	10.59%	8.61%
12	769,221	617,279	458,893	35,765	4,689	81,979	35,953	86,668	40,454
	3.57%	80.25%	74.34%	5.79%	0.76%	13.28%	5.82%	14.04%	6.55%

No.	Total Population	Total Voting Age Population	Single-Race Non-Hispanic White Voting Age Population	Non-Hispanic Black Voting Age Population	Hispanic Black Voting Age Population	Hispanic not Black Voting Age Population	Other Voting Age Population	All Hispanic Voting Age Population of any race	All Black Voting Age Population
13	769,221	650,583	482,009	66,585	3,152	55,750	43,087	58,902	69,737
	3.57%	84.58%	74.09%	10.23%	0.48%	8.57%	6.62%	9.05%	10.72%
14	769,220	623,401	348,475	60,637	8,749	159,111	46,429	167,860	69,386
	3.57%	81.04%	55.90%	9.73%	1.40%	25.52%	7.45%	26.93%	11.13%
15	769,221	585,717	273,583	118,626	10,089	134,312	49,107	144,401	128,715
	3.57%	76.14%	46.71%	20.25%	1.72%	22.93%	8.38%	24.65%	21.98%
16	769,221	639,143	477,292	43,422	2,774	84,994	30,661	87,768	46,196
	3.57%	83.09%	74.68%	6.79%	0.43%	13.30%	4.80%	13.73%	7.23%
17	769,221	633,379	450,091	53,544	3,558	102,283	23,903	105,841	57,102
	3.57%	82.34%	71.06%	8.45%	0.56%	16.15%	3.77%	16.71%	9.02%
18	769,221	628,718	431,248	73,206	3,622	89,864	30,778	93,486	76,828
	3.57%	81.73%	68.59%	11.64%	0.58%	14.29%	4.90%	14.87%	12.22%
19	769,221	658,909	506,924	25,766	2,997	96,220	27,002	99,217	28,763
	3.57%	85.66%	76.93%	3.91%	0.45%	14.60%	4.10%	15.06%	4.37%
20	769,221	599,373	146,685	290,962	8,945	123,794	28,987	132,739	299,907
	3.57%	77.92%	24.47%	48.54%	1.49%	20.65%	4.84%	22.15%	50.04%
21	769,221	623,193	336,792	97,149	5,860	152,384	31,008	158,244	103,009
	3.57%	81.02%	54.04%	15.59%	0.94%	24.45%	4.98%	25.39%	16.53%
22	769,221	632,682	372,366	75,260	5,358	123,687	56,011	129,045	80,618
	3.57%	82.25%	58.86%	11.90%	0.85%	19.55%	8.85%	20.40%	12.74%
23	769,221	607,373	212,390	92,337	10,323	245,869	46,454	256,192	102,660
	3.57%	78.96%	34.97%	15.20%	1.70%	40.48%	7.65%	42.18%	16.90%
24	769,221	613,497	115,712	238,484	15,960	219,062	24,279	235,022	254,444
	3.57%	79.76%	18.86%	38.87%	2.60%	35.71%	3.96%	38.31%	41.47%
25	769,221	615,294	94,383	38,521	13,461	456,267	12,662	469,728	51,982
	3.57%	79.99%	15.34%	6.26%	2.19%	74.15%	2.06%	76.34%	8.45%

No.	Total Population	Total Voting Age Population	Single-Race Non-Hispanic White Voting Age Population	Non-Hispanic Black Voting Age Population	Hispanic Black Voting Age Population	Hispanic not Black Voting Age Population	Other Voting Age Population	All Hispanic Voting Age Population of any race	All Black Voting Age Population
26	769,221	609,129	92,771	52,025	10,830	435,992	17,511	446,822	62,855
	3.57%	79.19%	15.23%	8.54%	1.78%	71.58%	2.87%	73.35%	10.32%
27	769,221	636,004	107,346	33,364	11,579	460,190	23,525	471,769	44,943
	3.57%	82.68%	16.88%	5.25%	1.82%	72.36%	3.70%	74.18%	7.07%
28	769,221	601,153	351,638	81,651	7,216	132,114	28,534	139,330	88,867
	3.57%	78.15%	58.49%	13.58%	1.20%	21.98%	4.75%	23.18%	14.78%
TOTALS	21,538,187	17,339,232	9,476,700	2,500,407	194,500	4,138,185	1,029,440	4,332,685	2,694,907