

Grant, Annie Lois, et al.v. Raffensperger, Brad, E

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1 UNITED STATES DISTRICT COURT  
2 FOR THE NORTHERN DISTRICT OF GEORGIA  
3 ATLANTA DIVISION

4 ANNIE LOIS-GRANT et al., )  
5 )  
6 Plaintiffs, )  
7 )  
8 vs. ) CIVIL ACTION FILE  
9 ) NO. 1:22-CV-00122-SCJ  
10 BRAD RAFFENSPERGER, in his )  
11 official capacity as the )  
12 Georgia Secretary of State, )  
13 et al., )  
14 )  
15 Defendants. )  
16 \_\_\_\_\_ )

17 Deposition of Blakeman Esselstyn  
18 (Signature is reserved.)  
19 February 16, 2023  
20 9:00 a.m.

21 Remote via Zoom technology

22 Reported by: Carla J. Hopson, RPR, CCR-1816  
23  
24  
25

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MR. TYSON: Good morning, Mr. Esselstyn. I'm going to do a couple of kind of introductory pieces as we get started here this morning.

This is going to be the deposition of Blakeman Esselstyn taken by the defendants in the Grant vs. Raffensperger case for the purpose of discovery and all purposes allowed under the Federal Rules of Civil Procedure and Federal Rules of Evidence.

And Jonathan, are you reserving objections until trial or first use except as to form and responsiveness and privilege?

MR. HAWLEY: Yes.

MR. TYSON: Okay. And Mr. Esselstyn, do you know -- are you going to read and sign today, or do you want to waive signature?

THE WITNESS: I don't know.

MR. TYSON: Okay. We can talk about that later.

MR. HAWLEY: Yeah. We'll go ahead and read and sign.

MR. TYSON: Okay. That works.

THEREUPON,

1 BLAKEMAN ESSELSTYN,  
2 having been first duly sworn, was examined and  
3 testified upon his oath as follows:

4 EXAMINATION

5 Q (By Mr. Tyson) All right. Well, Mr.  
6 Esselstyn, it's good to see you again. I know you  
7 remember from the preliminary injunction hearing.  
8 My name is Bryan Tyson. I represent the defendants  
9 in the case. And our goal today in the deposition  
10 is just to work through the various reports and  
11 opinions you've offered in this case.

12 Have you been deposed before?

13 A Yes.

14 Q Okay. So I'll just kind of recap  
15 briefly the ground rules then. Since we're on zoom,  
16 it's going to easiest for the court reporter and for  
17 the transcript if we don't talk over each other. I  
18 know in conversations sometimes to tend to kind of  
19 know where somebody's going and fill in an answer.

20 It's best for our court reporter and for  
21 the transcript if we wait between end of question  
22 and beginning of answer.

23 My goal today is not to ask you  
24 confusing questions. If I ask a question that  
25 doesn't make sense, just let me know that and I'll

1 be happy to rephrase it and we can try to figure it  
2 out.

3 If you answer a question, I'm going to  
4 assume that you understand what I mean, though. Is  
5 that fair?

6 A Yes.

7 Q We are on zoom, but we can take breaks  
8 as needed. So if there is a point where you're  
9 ready to have a break, just let me that. My only  
10 request is that there not be a question pending,  
11 that you answer the question first and then we can  
12 take a break after the answer.

13 So does that work for you?

14 A Yes. Yes.

15 Q Okay. So kind of my plan, just kind of  
16 what we're going to work through today is start with  
17 your some background information about you, your  
18 education, history, that kind of thing. And we'll  
19 get into your CV.

20 After we work through that background  
21 piece, then we'll talk some more about the reports  
22 themselves and kind of dig into those. And my plan  
23 is just to kind of walk through the reports that you  
24 file in the case and go from there.

25 So with that, if you could give me your

1 full name for the record, please?

2 A It's Blakeman Bingham Esselstyn.

3 Q And I'm sorry. I said Mr. Esselstyn.

4 But it's Esselstyn; is that right?

5 A That's right.

6 Q Okay. I apologize. I'll get that right  
7 moving forward.

8 Mr. Esselstyn, where -- where is your  
9 main place of work in terms of city and state? I  
10 don't need an address beyond that.

11 A Currently I am based in Maastricht in  
12 the Netherlands. It's in the province of Lindburg.  
13 But prior to moving here I was based in Asheville,  
14 North Carolina, for almost 20 years.

15 Q And are you in the Netherlands today?

16 A I am.

17 Q Okay. So just out curiosity, what time  
18 is it where you are?

19 A We are six hours ahead of Atlanta. So  
20 it's a little after 3:00 p.m.

21 Q Got it. Now, I have to ask this  
22 question of everybody. But are you on any  
23 medication or do you have any medical condition that  
24 would keep you from fully and truthfully testifying  
25 today?

1 A No.

2 Q Okay. Have you ever been convicted of a  
3 crime involving moral turpitude? And that would  
4 basically be a felony, I'm sorry, just to clarify.

5 A No.

6 Q Let's talk a little bit about what you  
7 did to get ready for your deposition today. Did you  
8 look at any documents to prepare for your  
9 deposition?

10 A Yes.

11 Q And what documents did you look at?

12 A I looked at all of the reports that I  
13 prepared including attachments. I looked at the  
14 reports prepared by Mr. Morgan, definitely his  
15 report from this past December and his rebuttal  
16 report or his response report to my report.

17 I think I also did look at his report  
18 from PI, his response from the PI proceedings. I'm  
19 trying to think if there are any other documents  
20 that I looked at.

21 I don't think so.

22 Q Okay. That's helpful. Thank you. And  
23 just so the record's clear, I know you and I both  
24 use the term PI, but we're referring to when we use  
25 that term for the preliminary injunction proceedings

1 in January and February of 2022; is that right?

2 A Exactly right, yes. Thank you.

3 Q So in terms of getting ready for you  
4 your deposition, did you talk with anybody about  
5 getting ready for your deposition today? And I'm  
6 just asking did you, not what you talked about.

7 A Yes.

8 Q And who did you talk to about getting  
9 ready for your deposition today?

10 A With counsel.

11 Q Okay. Have you spoken about this case  
12 or your deposition with anybody except for counsel?

13 A My wife only inasmuch as she -- I'm --  
14 my office is in our house and wanted to help make  
15 sure she understood what -- sort of the conditions  
16 that I would be in and how I would be unavailable,  
17 that kind of thing. But other than that, no.

18 Q Okay. So fair to say, nothing about the  
19 merit -- the merits of the claims with anybody  
20 besides your wife?

21 A Yeah, I didn't talk about merits with my  
22 wife, just about the fact that there was a  
23 deposition. And I probably have mentioned it to my  
24 daughter as well.

25 But no, as far as anything technical or



1 related to the merits, it's just been with counsel.

2 Q Great. Well, I want to walk through  
3 your background and experience. And probably the  
4 easiest way to do this is to go to your report. So  
5 in Exhibit Share I've marked as Exhibit 1 the report  
6 from December 5th.

7 If you could just open that up or have  
8 that in front of you. Is Exhibit 1 the report that  
9 you submitted in this case on December 5, 2022?

10 A It appears to be. Let me just go to  
11 Page 35.

12 Do you know, by the way, is there a --  
13 it doesn't look like there's a way to just type in a  
14 page number.

15 Q I believe -- no, actually, I think  
16 you're right. I thought there was a way to type it  
17 on the bottom, but --

18 A Yes, this -- you know, without looking  
19 at all 199 pages to make sure it's the same, it does  
20 appear to be the report that I submitted in  
21 December.

22 Q So let's begin just on the first page.  
23 You talk about your educational background. You  
24 said you earned a bachelor's degree in geology and  
25 geophysics and international studies from Yale

1 University.

2 When did you -- were you awarded that  
3 bachelor's degree?

4 A 1996.

5 Q Okay. And after you were awarded your  
6 bachelor's degree in 1996, did you immediately begin  
7 your studies to your master's program at the  
8 University at Pennsylvania?

9 A No.

10 Q What did you do to in between?

11 A I worked -- so I received my -- I  
12 finished after the fall semester in 1996. So I  
13 stayed in New Haven for a semester. I worked at  
14 Yale. And then the summer --

15 And if this is more detail than you  
16 want -- anyway, I worked for a summer at a GIS  
17 consulting company in Seattle, the summer of 1997.  
18 And then I worked as a teacher in Panama at an  
19 international school for the 1997-988 academic year.

20 The following academic year I was a  
21 teacher at an American School in Guatemala City,  
22 Guatemala. In January of 1999 I learned that there  
23 was a family member who was terminally ill. And so  
24 most of 1999 I was in Florida to be with family  
25 during that time.

1 In 2000 I worked at a GIS consulting  
2 company in Boston and then in the fall of that  
3 year moved to Seattle, had an internship with  
4 another GIS consulting organization in Seattle.

5 Early 2001 moved back east, spent some  
6 time in Florida and helped my dad get the house  
7 ready to be put on the market. And then later in  
8 2001 I worked at a GIS consulting company in Boston.  
9 And honestly, I've forgotten if I mentioned it. It  
10 the same -- the same company I worked with. So I  
11 worked for this company in Boston in 2000 and then  
12 again in 2001. And then that fall was when I  
13 started graduate school.

14 Q So you started then at the University of  
15 Pennsylvania in the fall of 2001?

16 A Correct.

17 Q Okay. And when did you -- were you  
18 awarded your master's degree in computer and  
19 information technology from the University of  
20 Pennsylvania?

21 A May of 2003.

22 Q And aside from the bachelor's from Yale  
23 and the master's from the University of  
24 Pennsylvania, do you have any other degrees?

25 A No.

1 Q And you mentioned that you have  
2 professional certifications in -- as a geographic  
3 information systems professional. When did you  
4 receive that certification?

5 A I'm going to double check. It's in my  
6 CV. 2009.

7 Q 2009. Okay. And just for the record  
8 we're --

9 A When I'm referring to my CV, this is --  
10 yeah, Attachment A to my report includes my CV. So  
11 that's -- I was looking at the first page of  
12 Attachment A.

13 Q Right. And that's actually where you  
14 were going to go next. I guess I really should have  
15 started here because it has some of these relevant  
16 dates on it for your education.

17 And then you received your certification  
18 from the American Institute of Certified planners in  
19 2013, right?

20 A Correct. Yes.

21 Q So looking at the employment positions  
22 that you have, I know you covered a lot of these  
23 already. When you worked for the GIS consulting  
24 companies that you've referenced at various points,  
25 did any of that work prior to 2003 involve

1     redistricting of districts or was it other GIS  
2     related tasks?

3             A       So there was one employment that I --  
4     just to clarify, because your question got -- is  
5     talking about the time up to the end of 2003. In  
6     the summer between my two years of graduate  
7     school -- this is there as well. In 2002 you can  
8     see one of my employment positions was as a GIS  
9     programmer at Xavier in Philadelphia. And that's  
10    another GIS consultancy.

11            And that was one of my first exposures  
12    to redistricting. Xavier as a company is still  
13    involved in doing redistricting work and making  
14    redistricting software and that kind of thing.

15            My specific work at that company was not  
16    related to redistricting but I had exposure through  
17    work to districting in 2002. It was, you know,  
18    shortly after the census data had come out.

19            So that was hopefully an answer to your  
20    question. Prior to that work or that workplace,  
21    none of my work had been related to redistricting,  
22    political redistricting.

23            Q       Go ahead. I'm sorry.

24            A       Some of the other work is related to  
25    administrative districts. Government, you know,

1 districts wanted a consulting company in Boston. I  
2 worked a lot with local governments that were  
3 converting paper-based maps to digitized maps. And  
4 so we might have been helping them, for example, you  
5 know, digitize their districts.

6 So it's a -- it is a type of  
7 districting, but not drawing of electoral districts.

8 Q That's really helpful. Thank you.

9 And that was actually going to be my  
10 next question, without -- without kind of going  
11 position by position, was there a general  
12 description of your work as a GIS consultant or was  
13 it -- it is too specific for each employment to kind  
14 of explain generally what you did?

15 A That's a good question. They were  
16 pretty varied. At -- I guess to answer your  
17 question, I think it would be hard to come up with a  
18 capsule description. The positions in Seattle and  
19 Boston and Philadelphia all were quite different.  
20 And in New Haven and at Yale where technically I  
21 think I did have a consultant in one of my position  
22 titles at -- in my work at Yale.

23 Q Well, let's then just -- just for  
24 efficiency's sake, you said you were first  
25 introduced to political redistricting, kind of the

1 process of drawing district maps for use in  
2 elections in your 2002 time with Azavea, right?

3 A Yes.

4 Q Okay. So can you just looking at your  
5 CV tell me from that 2002 period forward which of  
6 your positions -- in which of your positions did you  
7 undertake any sort of political redistricting or  
8 electoral districting from that 2002 period through  
9 the positions on your CV in your employment?

10 A Just the one at the top.

11 Q Okay. So just your time as a  
12 redistricting consultant doing business as Mapfigure  
13 Consulting?

14 A That's right.

15 Q Okay. And I see you had some employment  
16 with the city planning department in the City of  
17 Asheville, North Carolina, from 2008 to 2015 in a  
18 couple of different positions?

19 A From 2004 to 2015.

20 Q I'm sorry. Yes, I misread that number.  
21 Did you leave on your own terms to begin your  
22 FrontWater LLC, consulting company?

23 A Yes.

24 Q Have you ever been terminated from a job  
25 or resigned in lieu of termination?

1           A       No. I'm just trying to think if  
2           anything was like academic -- you know, for example,  
3           if we go back to 1990, my very first employment  
4           thing I've listed, the lab monitor job. That was  
5           essentially tied to a specific course. So at the  
6           end of that course the position was no longer  
7           needed. I think technically that may meet the --  
8           I've forgotten exactly how you asked it. But that  
9           kind of thing.

10          Q       Thank you for the precision on that.  
11          That's -- that's more than fine. Yeah, that's not  
12          what I was looking for.

13                 Let's look next -- on the next page  
14          about your teaching employment. So you have a  
15          variety of things here. I see you listed your  
16          teaching on Panama and Guatemala that we discussed  
17          earlier.

18                 Are any of your teaching positions  
19          listed your CV related to or did you teach anything  
20          related to political redistricting, electoral  
21          districts for use in elections?

22          A       If so, it would have been a small  
23          component of the coursework for the 2017 and 2019  
24          positions, maybe a portion of one class, you know, a  
25          portion of one lecture. Those -- those courses were



1 much more geared towards the general uses of  
2 geographic information systems.

3 Q And can you just describe kind of what  
4 the -- what kind of topics you would cover in a full  
5 semester graduate level GIS course?

6 A Sure. So GIS, people -- there's not one  
7 agreed upon description. Basically it is software  
8 for creating maps and looking at geographic data,  
9 doing analysis of geographic data, editing  
10 geographic data.

11 It also -- some people will say that  
12 it's not just the software but also it's the  
13 software taken together with the data as well as the  
14 people involved.

15 So the first -- the 2017 class was for  
16 students in master's of public affairs class -- or,  
17 sorry -- a degree program, kind of like an MPA  
18 typically. I think it stands for master's of public  
19 administration.

20 So we were focused -- when I say we were  
21 focused, a lot of the examples of how to use the  
22 software, the basics of bringing in data and what  
23 are the capabilities of the software, we're looking  
24 at a government context, a public sector context,  
25 what are things that somebody local government or

1 state government might be considering and wanting  
2 to -- how could this -- how could GIS help them.

3 And so there -- everything from, you  
4 know, basics of the different types of data to how  
5 they -- kind of the fundamentals of database design,  
6 fundamentals of projections and coordinate systems  
7 that are used in mapping.

8 And then there is techniques for  
9 analysis and display and that kind of thing. The  
10 methods were similar for the 2019 course but you'll  
11 see it was at a different institution. And this --  
12 these were master's students in a sustainability  
13 studies degree program.

14 So some of the examples there were more  
15 related to kind of environmental relationships,  
16 natural science, that kind of thing.

17 Q Okay. Is it a -- and this is my  
18 ignorance. So is it a reasonable description of a  
19 GIS system being a way to visually represent  
20 information contained in a database?

21 A That is a piece of it. It's not just  
22 about creating maps, though. A lot of it is about  
23 the analysis and asking questions of the data that  
24 are questions related to geographic relationships,  
25 you know, how -- how many homes are n within a

1 certain distances of this fire station.

2 That's the kind of question you can ask.  
3 You didn't even need to have a visual of that. But  
4 you can ask the GIS system a question like that and  
5 it will, you know, compute the distance. And  
6 assuming you have a layer that has all the homes, it  
7 can provide that kind of -- that's a very simple  
8 type of query that you might give to a GIS.

9 So visualization is part of it but the  
10 analysis is also part of it. And then also using it  
11 to edit -- if you wanted to 20 create a layer  
12 showing all the fire stations, the software would  
13 allow you to actually, you know, place those on the  
14 map.

15 Q Thank you. That's really helpful.

16 So let move to the next section of your  
17 CV in terms of your litigation experience. And you  
18 list out a series of cases where you've either been  
19 a consulting expert or a testifying expert. Is it  
20 correct to say that these are all the cases where  
21 you served as a consulting or testifying expert in  
22 GIS and/or redistricting but not in other contexts?

23 A I -- can you repeat the question.

24 Q And what I'm asking specifically is, in  
25 the title of section you say litigation experience

1 as GIS and/or redistricting expert. So I guess what  
2 I'm really asking is: Have you been an expert  
3 witness in cases that are unrelated to GIS or  
4 redistricting?

5 A Got you. No, I have not.

6 Q And looking at the list here, were any  
7 of the cases besides the Grant v. Raffensperger case  
8 cases involving Section 2 of the Voting Rights Act?

9 A I believe the second case is related to  
10 Section 2, the League of United Latin American  
11 Citizens case, or at least a piece of it.

12 Q Okay. Do you recall if any of the other  
13 cases besides Grant and the Abbott case there at the  
14 second entry related to Section 2 of the Voting  
15 Rights Act?

16 A I don't think so.

17 Q So is it fair to say that this case is  
18 the first case you've been a testifying expert in a  
19 Section 2 case?

20 A Yes.

21 Q In our past cases that involved  
22 testimony, which appear to be just the last three  
23 cases, do you recall the subject matter of those  
24 cases which are Arnold, Hall and Jensen?

25 A Yes. Those are were related to

1 municipal annexation in North Carolina.

2 Q And aside from those municipal  
3 annexation cases and this case, you've never  
4 testified as an expert witness in any other case,  
5 right?

6 A Correct. I have been an expert witness  
7 in quasi judicial matters. I don't think those are  
8 included in my CV.

9 Q Okay. And what kind of quasi judicial  
10 matters have you served as an expert?

11 A Mostly hearings related to urban  
12 planning and development issues. As I -- as you  
13 noted, I have a certification as a member of the  
14 American Institute of Certified Planners and worked  
15 in a planning department.

16 So, yes, related to conditional use  
17 permits, board of adjustment hearings, that sort of  
18 thing.

19 Q But none of your quasi judicial matters  
20 involved anything related to political districting  
21 or the Voting Rights act, right?

22 A Correct.

23 Q And looking at your list here as well,  
24 this is also -- this case, the Grant case, is also  
25 the first case where you testified in a federal

1 court for any matter as an expert, right?

2 A That's right.

3 Q And given that -- I guess this is sole  
4 Section 2 case where you've testified then, it's  
5 correct that at least up to this point you haven't  
6 testified in favor of a jurisdiction in a Section 2  
7 case, only for the plaintiffs in this case, right?

8 A Correct.

9 Q So next you have a list of various  
10 redistricting plans that you've adopted for a  
11 variety of entities in North Carolina in your CV.  
12 Do you see that?

13 A I do.

14 Q And it's correct that -- I believe at  
15 the beginning you said that 16 of these  
16 redistricting plans that you've drafted have been in  
17 used for elections by jurisdictions at various  
18 levels of government, right?

19 A 16 of them have been adopted. Okay. So  
20 the final --

21 Well, to answer your question  
22 specifically, 16 -- let me just count here. One,  
23 two, three, four, five, six, seven, eight, nine, 10,  
24 11, 12, 13, 14, 15, 16. Those 16 plans were  
25 adopted.

1                   If you -- I can -- let me look back at  
2                   the beginning of my report where I mention these.

3                   Q       I believe Paragraph 4 references --

4                   A       Yes.

5                   Q       -- enacted for use in elections.

6                   A       Yes, so the -- that statement is  
7                   correct. However, the last one in that list in  
8                   Attachment A, the town of Cary had hoped to use the  
9                   districts that were drawn in advance of the census  
10                  data delivery, and their -- their town  
11                  administration was hoping that the election schedule  
12                  would happen such that those districts would be  
13                  used.

14                  But then something happened to change  
15                  the election schedule. So they had to then use  
16                  districts that were drawn after they deliver of  
17                  census data.

18                  So does that distinction make sense?

19                  Q       It does. So maybe not every single one  
20                  of these 16 was used in an election at least at this  
21                  point but they were all adopted by a jurisdiction  
22                  with a plan to use it for an election, is that  
23                  right?

24                  A       You got it. Right. Yes.

25                  Q       Okay. All right. Have any local

1 districts or any of these districts listed in your  
2 CV that you've drawn for use in an election been  
3 challenged under the Voting Rights Act or any other  
4 provision of law?

5 A Not that I'm aware of, no.

6 Q And have you ever had a map that you  
7 drew for any jurisdiction found unlawful for any  
8 reason?

9 A No.

10 Q In North Carolina for local governments  
11 like the 16 that you've listed here, are those  
12 redistricting plans adopted by the local government,  
13 or does the state legislature have an involvement in  
14 that process?

15 A Just to be clear, there are 15 local  
16 governments, 16 plans.

17 Q Understood. Thank you.

18 A Yeah. Those -- all of those -- those 15  
19 government or those 16 plans were adopted by the  
20 local government. There may be instances in North  
21 Carolina where the legislature does get involved,  
22 but that was not the case with any of these.

23 Q So in terms of your experience drawing  
24 maps for jurisdictions or redistricting plans for  
25 jurisdictions, you have not drawn a statewide plan



1 that was adopted for use in an election, right?

2 A Correct.

3 Q And you have not drawn a statewide plan  
4 in consultation with the state legislature of any  
5 state, right?

6 A That's correct.

7 Q So as a map drawer for these local  
8 government plans that we're discussing, do you have  
9 a process that you follow to ensure you're complying  
10 with Section 2 of the Voting Rights Act when you  
11 draw local district maps?

12 A I don't know that I would call it a  
13 process, so --

14 Q Maybe I can ask --

15 A Okay.

16 Q Yeah. How -- when you're drawing local  
17 redistricting maps like the plans outlined in your  
18 CV, how do you go about ensuring compliance with  
19 Section 2 of the Voting Rights Act for those plans?

20 A Essentially I rely on the counsel that  
21 I'm working with. I think the word counsel is  
22 appropriate in that case. So during our  
23 conversation, during the PI process I mention that  
24 this work with the local governments was not just  
25 me, I was not the only person that the local

1 governments hired to do this work. It was a team or  
2 attorneys as well as myself and another demographer.

3 So the attorneys that I worked with --  
4 and there were multiple attorneys -- were all  
5 experienced with voting rights and the Voting Rights  
6 Act and Section 2. So essentially it was their --  
7 their review, their analysis having seen the  
8 materials that I would produce. I relied on them to  
9 make or raise any concerns. And -- yeah.

10 Q And so is it fair to say then that you  
11 wouldn't make the call as the map drawer whether a  
12 map complied with Section 2. You would rely on  
13 counsel for making that judgment based on what  
14 you've drawn?

15 A That is correct.

16 Q I know we talked about this at the  
17 preliminary injunction hearing, but I wanted to ask  
18 you about Wake County Board of Education. So I am  
19 marking Exhibit 2 which now should be in the folder.

20 A I see it.

21 Q Okay. And is Exhibit 2 -- I see your  
22 name there on the cover page -- a presentation that  
23 you made for the Wake County School Board involving  
24 its school board districts?

25 A It appears to be, yes. I'm scrolling

1 through it now, and the slides that I've seen all  
2 look consistent with that, yes.

3 Q Okay. And what I want to ask about  
4 specifically, if you can go down to district -- I'm  
5 sorry -- to Page Number 27. There's the first of a  
6 few population summary reports.

7 A Yeah.

8 Q And I apologize for not having an easier  
9 way to get to Page 27 but scrolling.

10 A That's quite all right. I'm looking at  
11 it now. Let me play with the zoom here. I did  
12 fit -- there's fit to height and fit to width to --  
13 Let me just zoom out a little bit so I  
14 can see the whole --

15 There we go. Yes, I'm looking at 20 --  
16 the one that -- yes, the first table. I should  
17 say -- I guess the previous slides have colorful  
18 tables on them, but this is the existing  
19 districts table.

20 Q And that's titled Population Summary  
21 Report. Is that the same slide?

22 A So at the bottom and the middle, the one  
23 I -- I could look at either -- I think 27 is Option  
24 A and 26 is -- the way that the pages are labeled  
25 here is not -- so the first such population summary

1 report says Existing Districts at the bottom in big  
2 letters. The --

3 Q That's the one I'm looking for.

4 A Okay. Existing districts, yes.s.

5 Q So on the existing districts it appears  
6 that this is a table where the 2020 census data was  
7 applied to the prior district for the Wake County  
8 Board of Education, is that right?

9 A Yes.

10 Q And District 4 on this plan is listed as  
11 46.95 percent non-Hispanic Black. Do you see that?

12 A Yes.

13 Q And there's some other districts in the  
14 mid 20s on the non-Hispanic Black number, right?

15 A Correct.

16 Q So moving from that report to the other  
17 reports, Option A, Option B, Option C, I don't see  
18 any of those options where District 4 is put over 50  
19 percent on the non-Hispanic Black number. Do I have  
20 that right?

21 A Just -- I'm just looking to confirm.  
22 And that is correct.

23 Q And without getting into communications  
24 you had with counsel, were there any public  
25 communications or non-privileged communications to

1 you asking about whether you could draw a majority  
2 Black district for District 4 in Wake County, North  
3 Carolina?

4 A No.

5 Q When you would undertake generally  
6 drawing districts such as the school board districts  
7 here, would it be part of your standard practice to  
8 explore whether majority Black districts could be  
9 drawn in a jurisdiction, or would you rely on  
10 counsel to give you instruction on that?

11 A I would rely on counsel to give me  
12 instruction.

13 Q And so on your own you would not explore  
14 whether you could draw an over 50 percent Black  
15 district went drawing draft districts for a local  
16 jurisdiction?

17 A That's true; correct.

18 Q Let me ask are next about another  
19 document. You have spoken on and conducted training  
20 on redistricting for county officials in North  
21 Carolina, right?

22 A Yes.

23 Q So what I would like to do is refresh  
24 the marked exhibits folder for what I've marked as  
25 Exhibit 3, which is a one-page pdf titled The

1 very Basics on County Redistricting.

2 A Yes.

3 Q And I see your name there. Is this a  
4 document that you helped produce?

5 A I would say it was mostly -- let me just  
6 refresh my memory here. I think I may have played a  
7 role in this. Yes, my name to the top I'm certain  
8 is because Deborah and I were copresenting at this  
9 event. My recollection is that most of the written  
10 pieces here were -- were written by the attorneys on  
11 the team.

12 Q Okay. Well, and that may answer my  
13 question. But going down to Number 10 on this list,  
14 there's a statement, "Generally race may not be  
15 considered in drawing election districts."

16 "If districts were originally drawn  
17 subject to a federal court order or consent decree  
18 in voting rights case however, the board may have to  
19 consider whether new districts still provide  
20 sufficient opportunity for African American voters  
21 to elect candidates."

22 Did I read that correctly?

23 A I think so.

24 Q And do you recall presenting on the  
25 topic that's referenced in Paragraph 10 of this

1 document?

2 A I do not.

3 Q Do you agree with the statement that  
4 generally race may not be considered in drawing  
5 election districts?

6 MR. HAWLEY: Objection. Calls for a  
7 legal conclusion.

8 Q And you can answer to the extent you  
9 know?

10 MR. HAWLEY: Yeah, you can answer,  
11 Blake.

12 A So your question was whether I agree  
13 with that sentence, the first sentence in Paragraph  
14 10?

15 Q Yes.

16 A I'm not sure. And keeping in mind, this  
17 was for a county commissioner's audience.

18 Yeah, I would -- I would defer to the  
19 attorneys about whether -- yeah.

20 Q Okay. In the drafting of the 16 plans  
21 for local jurisdictions in North Carolina that we  
22 discussed, do you generally consider race in  
23 drafting any of those 16 plans?

24 A No.

25 Q Let me ask about a conference that you

1 spoke to. I'm looking back at your CV on the bottom  
2 of Page 5. There is a reference to "The Latest  
3 Mapping Technology" at the Reason, Reform and  
4 Redistricting Conference at Duke University in  
5 Durham, North Carolina. Do you see that?

6 A You're -- I'm sorry. I don't have  
7 the -- you're back on my CV now.

8 Q I'm sorry. I'm back on your CV. Yeah,  
9 this is the main place we'll be bouncing a little  
10 bit back and forth, but hopefully not too much more.

11 A That's quite all right. So that's 30 --  
12 Page 30? Here we go.

13 What page of the CV you said?

14 Q At the bottom of Page 5.

15 A Yes.

16 Q And you reference that this was a  
17 conference held at Duke University, is that right?

18 A Yep.

19 Q Did you know that this was a conference  
20 that was a collaboration between the organization  
21 Common Cause and Duke University?

22 A I think that's right, yes.

23 Q Okay. I've marked in the exhibit  
24 folder, it's Exhibit Number 4. Let me know when you  
25 have that in front of you.



1 A I can see it, yes.

2 Q Okay. So is -- does that Reason, Reform  
3 and Redistricting conference schedule look familiar  
4 to you as part of the conference you're referencing  
5 in your CV?

6 A It does, yes.

7 Q So at the very top there's a reference  
8 to Common Cause collaborated with Duke University's  
9 Center for Political Leadership, Innovation and  
10 Service to organize two days of engagement.

11 Do you see that language?

12 A I do.

13 Q And the purpose of the conference there  
14 at the end of this sentence was "engagement with  
15 leaders and policymakers working towards ending  
16 partisan gerrymandering." Do you see that?

17 A Yes.

18 Q Do you personally support ending  
19 partisan gerrymandering?

20 A Think -- do I personally support it?  
21 I -- I think the answer is yes.

22 Q How do you define partisan  
23 gerrymandering when you say you think your answer is  
24 yes to eliminating it?

25 A Your question is how do I define

1 partisan gerrymandering?

2 Q Yes.

3 A Manipulation of maps in such a way as to  
4 deliberately advantage or disadvantage one political  
5 group or another.

6 Q At this conference there was  
7 participation from Common Cause, I see. Scrolling  
8 down a little bit, some of the speakers on the -- on  
9 the fifth page right before your panel, there was  
10 one titled Racial Equity and Redistricting where one  
11 of the participants was, the moderator, was from the  
12 League of Women Voters. Do you see that?

13 A Yes.

14 Q And are you aware that Common Cause and  
15 the League of Women Voters are both currently  
16 plaintiffs in lawsuits against Georgia's  
17 redistricting plans?

18 A I don't think that I was aware of that.

19 Q Okay.

20 A Maybe I -- maybe the organization's name  
21 came up during the PI process and I would have heard  
22 it, but I -- genuinely I'm not sure if I -- I may  
23 have been aware of that at some point, but I'm -- if  
24 you had asked me today the name parties that were  
25 part of this, I don't think I would have named them

1 at being in my memory as having been involved.

2 Q Okay. And just to avoid any confusion,  
3 they're not part of this particular litigation.  
4 There are other lawsuits where they're plaintiffs.  
5 That's what I was asking about, so --

6 A Right.

7 Q Now, do you or did you at one point  
8 operate a blog titled Districks, t-r-i-c-k-s?

9 A Yes.

10 Q Was that your personal blog or was there  
11 some other individual that helped you with it?

12 A It was my own work. I don't -- I think  
13 at one point I haven't having kind of guest posts,  
14 and I certainly might have, you know, had  
15 conversations with other folks. But it was -- it's  
16 essentially my work.

17 Q Okay. I've introduced as Exhibit  
18 Number 5 the "about" page from Districks.

19 A Yes.

20 Q Can you let me know when you see that?

21 A I see it.

22 Q Okay.

23 A I guess -- yes.

24 Q On the second paragraph of that "about"  
25 page says, "The founder, Blake Esselstyn," an

1 unaffiliated voter and redistricting consultant  
2 based on North Carolina, longtime hotbed of  
3 gerrymandering shenanigans.

4 What are you referring to as the  
5 gerrymandering shenanigans on that page?

6 A I think that would be a reference to the  
7 instances where North Carolina's plans have been --  
8 redistricting plans have been over turned as either  
9 racial gerrymandering or partisan gerrymandering.

10 Although, at the time I wrote this I  
11 don't know that any would have been overturned as  
12 partisan gerrymandering, but there was certainly, I  
13 think, a lot of what folks would characterize as  
14 partisan gerrymandering in North Carolina.

15 And also North Carolina along with Texas  
16 usually in any given decade has the most litigation  
17 about the fairness of districts.

18 Q And so the reference to the shenanigans  
19 refers to the court cases, not to particular  
20 practices on district maps. Do you have that right?

21 A No, I would you say that it's both. But  
22 no, I mean --

23 Q I'm sorry. Go ahead.

24 A If I -- if I suggested that the  
25 shenanigans were litigation, then I -- I was not

1 clearly expressing what I meant to say. I think  
2 it's more the ways that districts and redistricting  
3 plans have been drawn to -- as I reference in my  
4 previous definition of gerrymandering with a -- to  
5 favor one group or one party.

6 Q And that would include both partisan  
7 gerrymandering and racial gerrymandering; is that  
8 right?

9 A Yes.

10 Q The paragraph below your picture there  
11 on Exhibit 5 says, "However, while recognizing the  
12 need for reform, districks seeks to steer clear of  
13 specific advocacy."

14 Do you see that language?

15 A Yes.

16 Q And what do you mean bow recognizing the  
17 need for reform?

18 A In my opinion the -- the process and the  
19 typical -- when I say typical, the process in most  
20 states where the elected officials are tasked or are  
21 essentially guiding the process tends to lead to  
22 results that are biased toward the group that is in  
23 the majority.

24 And I think reforms that -- or let my  
25 answer your question more directly. The fact that

1 as many redistricting plans have been overturned as  
2 being unconstitutional or in violation of the Voting  
3 Rights Act, I think is an indication that the  
4 process could be improved.

5 Q Let me look at a couple of other posts  
6 from districks. I'm going to mark -- I've marked as  
7 Exhibit 6 a post titled 44 Years of Redistricting  
8 Consequences in 14 Seconds."

9 A I see it.

10 Q And it appears, if I'm reading it  
11 correctly, that you wrote this post in November of  
12 2017; is that right?

13 A I believe that's right.

14 Q Okay. And what I wanted to ask about --  
15 obviously I can see you're using a different method  
16 in the print-out as a due justice to do moving graph  
17 that is here. But you use a phrase at the end of  
18 the first paragraph "to shed light on the topic,  
19 particularly the supercharged packing and cracking  
20 in certain purple states after 2010."

21 Do you see that?

22 A Yes.

23 Q So what do you mean by the terms  
24 supercharged packing and cracking?

25 A So packing and cracking are fairly

1 commonly used terms in discussing the -- kind of the  
2 methods used in gerrymandering or in creating unfair  
3 maps. And --

4 Is that a sufficient explanation or  
5 would you --

6 Q Well, I -- actually, I'd like to dig  
7 into that a little more.

8 A Okay.

9 Q You were defining the term if it's used  
10 frequently "packing." How would you define what  
11 packing is in the redistricting context?

12 A I would say that packing is  
13 concentrating if not as many as possible a  
14 substantial amount of the individuals from a group  
15 that you're trying to disfavor into an artificially  
16 small number of districts or a -- packing many  
17 individuals from the group that the map drawer is  
18 trying to disfavor into a small number of districts.

19 Q Do you believe there is an intent  
20 element to packing? You said they were trying to  
21 disfavor.

22 A An intent. I think there's something  
23 that has been called accidental packing where if  
24 someone were to draw a district in a certain county  
25 that could have a very high concentration of either

1 a racial group or certain voters that tend to vote  
2 with a certain party, and it can be done  
3 accidentally.

4 So I have heard people talk about  
5 accidental packing and mathematicians may, you know,  
6 identify a map as showing signs --

7 I'm trying to remember. Your original  
8 question was out about whether it -- it has an  
9 intent element to. I would say typically but not  
10 always.

11 Q And are there particular thresholds of  
12 the number of percentage of the groups you're trying  
13 to disfavor, as you put it, where you would say that  
14 district is a packed district?

15 A No.

16 Q Okay. So you don't have a percentage  
17 where if something is 80 percent of a single racial  
18 group or something like that, you wouldn't  
19 automatically say that it's a packed district?

20 A Correct.

21 Q Okay. How would you then determine if  
22 the district is packed?

23 A It involves the -- I'm looking at the  
24 exhibit here. And it's -- it involves the  
25 distribution of -- I mean, there are different ways



1 of looking at it. But some -- it involves looking  
2 at the plan as a whole. In some cases it could  
3 involve looking at the plan in relation to other  
4 districts that -- other districting plans that were  
5 drawn without taking into consideration either  
6 political or race data.

7 But if you look at the Exhibit 6 --  
8 should I call this Exhibit 6? Toward the bottom of  
9 Page 1, the pattern in 2016 -- so we're looking at  
10 2016 here. For example, in North Carolina in  
11 purple, where you have a few districts that are --  
12 look like they're -- they're substantially above 50  
13 percent and a lot of districts that are below 50 on  
14 the x axis, that's sometimes been called one -- one  
15 signature of a packing and cracking.

16 You don't have competitive districts.  
17 There are, I'm pretty sure, in 2016 no districts  
18 there were between 45 percent and 55 percent.

19 So this would be one way of -- it's not  
20 just that there's some threshold, but the -- the  
21 lines -- sorry -- the organization, the distribution  
22 of where the districts perform is one way of  
23 identifying packing and cracking.

24 And, you know, there are other measures  
25 that mathematicians and political scientists and

1 other folks have come up, the efficiency gap and  
2 mean-median difference, and declination is another  
3 one that are ways of quantifying because it's --  
4 it's not necessary binary yes/no but where on the  
5 scale do these -- these kind of rank.

6 Q Is it fair to say then that to determine  
7 if a district is packed you really do have to know  
8 some more context? You can't tell just from looking  
9 at that one district alone?

10 A That's a good question. I think there  
11 some cases like North Carolina's Congressional  
12 District 12 where -- I should talk -- I should  
13 explain.

14 Going back to like the previous decades.  
15 This was the -- the district that was sort of  
16 infamous -- you're nodding your head -- stretching  
17 from Charlotte up, originally all the way to Durham  
18 but through Winston-Salem.

19 And that's a district that if you -- if  
20 you were to look at that district with race shown on  
21 the map, that alone, I think, would be a pretty  
22 clear example of packing.

23 And I believe that was found by courts  
24 to have been illegal. But in other cases I think  
25 you're right, that it -- it's important to be able

1 to look at other districts and not just one.

2 So I think there are -- some cases we're  
3 looking at a single district you might be able to  
4 make a justifiable characterization. In other cases  
5 you might need to look at more context.

6 Q And even in the example of North  
7 Carolina 12, which I think was referred to as the  
8 I-85 District at various points, even that you still  
9 couldn't look at just the data alone to know if it  
10 was packed. You'd have to look at the data plus the  
11 shape; right?

12 A Yes, or if you were somebody who you're  
13 familiar with the general demographic patterns in  
14 the state, you might not need to. You could just  
15 see the shape and kind of deduce.

16 But, I would -- I would -- looking at  
17 the shape and data is -- it's certainly going to  
18 give you a fuller picture.

19 Q And then I'm assuming that cracking is  
20 kind of the inverse of packing, a dividing of  
21 communities instead of concentrating a particular  
22 group?

23 A Yes, I think that's a fair way of  
24 putting it. And, yes, typically the group that is  
25 being disadvantaged by the plan.

1 Q And similar to packing, would you need  
2 to have context beyond just, for example, racial  
3 percentages of each district to determine if  
4 cracking was taking place?

5 A I'm sorry. Could you repeat the  
6 question.

7 Q Sure. Similar to what we discussed with  
8 packing, would you need information beyond just the  
9 racial composition of districts to be able to  
10 determine if cracking was taking place in a  
11 particular plan?

12 A Are you -- when you say beyond just the  
13 racial percentages or racial composition of  
14 districts, meaning not looking at the shape either  
15 or --

16 Q Correct. What I'm asking is --

17 A Okay.

18 Q -- if you just had a population summary  
19 that told you a district and a racial composition,  
20 it's correct you couldn't tell if that was -- those  
21 districts were involved in cracking or not without  
22 getting more information beyond just that population  
23 summary, right?

24 A Well, again, I think Exhibit 6, if you  
25 had a distribution like this -- and this is talking

1 about votes for one political party in this case.  
2 But if you had a state or a region that had a -- you  
3 know, a spectrum of different percentages of racial  
4 composition in different countries and precincts but  
5 you ended up with a distribution of districts that  
6 looked like what we see in Exhibit 6, for example,  
7 for North Carolina where there's -- you know,  
8 there's nothing in the middle, that -- that pattern  
9 is kind of an indicator or a signature of packing  
10 and cracking that you have one situation where  
11 districts have people concentrated and then a lot of  
12 other districts where they've been divided up.

13 So I think this would be an example  
14 of an instance where one could look at the  
15 distribution of racial percentages in the districts  
16 and make a justifiable characterization.

17 Q Thank you.

18 I have one more post I want to ask you  
19 about from districks, which I've marked as  
20 Exhibit 7.

21 A Okay.

22 Q And this one is entitled Race and County  
23 Clusters in North Carolina.

24 A Yes.

25 Q And let me know when you have that in

1 front of you.

2 A I see it.

3 Q Okay. And is this a post that you wrote  
4 on the website on August the 12th, 2021?

5 A It is.

6 Q Okay. What I want to go down to is  
7 Page 3 is a section that begins "Considerations of  
8 race could dictate a departure from the so-called  
9 optimal county grouping."

10 Do you see that?

11 A Yes. I do just want to point out here  
12 that I have a -- both in -- at the top of Page 2 and  
13 at the very end of the post, I believe, I emphasize  
14 that I'm not an attorney. And so just that I'm --

15 I will say that and leave that. I don't  
16 need to say more on that.

17 Q Certainly. And again, I'm not asking  
18 for your legal conclusions on these questions. I'm  
19 just trying to understand for you as a map drawer --

20 A Yes.

21 Q -- your discussion of these topics.

22 A Yes.

23 Q So in the beginning of the section on  
24 Page 3 you say, "Determining whether districts or  
25 county grouping that affect districts comply with

1 Section 2 of the Voting Rights Act is very hard, if  
2 not impossible, to do with an automated algorithm."

3 Do you see that?

4 A Yes.

5 Q And then you say, "It's not as simple as  
6 creating majority minority districts." Is that  
7 right?

8 A Yes.

9 Q And so, again, I'm not asking for your  
10 legal opinion. But as a map drawer when you're  
11 approaching compliance with Section 2 of the Voting  
12 Rights Act it's more than just drawing majority  
13 minority districts as you said here in this post,  
14 right?

15 A I'm sorry. Could you repeat the first  
16 of the question again?

17 Q Sure. So for as a map drawer, when  
18 you're working to comply with Section 2 of the  
19 Voting Rights Act there's more to compliance than  
20 simply drawing majority minority districts like you  
21 said in this post, right?

22 A Yes.

23 MR. HAWLEY: Objection to the extent it  
24 calls for a legal conclusion. But you can  
25 answer, Mr. Esselstyn.

1           Q       (By Mr. Tyson) And just for the record,  
2       for this line of questioning on this exhibit, Mr.  
3       Esselstyn, I'm not asking for your legal opinion.  
4       It's just your understanding of what these various  
5       pieces are.

6                       And so would you agree that complying  
7       with Section 2 of the Voting Rights Act as a map  
8       drawer is a complicated thing for someone drawing  
9       redistricting maps?

10           A       I can be. I mean, in --

11           Q       I'm sorry.

12           A       In answer -- well, yeah, I'll just say  
13       it can be.

14           Q       So would it make sense to say that in  
15       jurisdictions where there is a significant  
16       concentration of minority voters, racial minorities,  
17       that compliance with the Voting Rights Act can be a  
18       difficult proposition for a map drawer?

19           A       It can be.

20           Q       All right. Going back to your CV again.  
21       And I'm sorry for making your jump around on these  
22       tabs.

23           A       No worries.

24           Q       I wanted to go towards the end of your  
25       CV for your redistricting and GIS software



1 experience.

2 A Okay. What page in the --

3 Q Page 9 of the CV.

4 A Okay. Yes, got it.

5 Q Okay. So you have a list -- a variety  
6 of different mapping software over, and over on Page  
7 110 I see Maptitude for Redistricting first used in  
8 2016. Is 2016 when you first used Maptitude for  
9 redistricting the first time you used software to  
10 draw electoral districts of any kind?

11 A Yes.

12 Q So prior to 2016 you had -- although you  
13 had experience using GIS software, you did not have  
14 experience in drawing maps for use in elections,  
15 right?

16 A Yes. Correct.

17 Q And you indicate that you've used Esri  
18 Redistricting as well?

19 A Yes.

20 Q What is the primary software that you  
21 use for creating redistricting maps?

22 A To be honest, I mean -- I'm being honest  
23 with every answer. But I'm just -- I don't think  
24 there's a clear -- it really depends on the  
25 situation.

1 Q Okay.

2 A I can say that I use Maptitude for  
3 redistricting a substantial amount. I use the  
4 Statto software redistrictor, which is a plug-in for  
5 another GIS program.

6 Yeah, in 20 I would say in recent -- I  
7 may be giving this more thought.

8 Q Let me ask this.

9 A It really varies. It's like, you know,  
10 40 -- I don't know that there's one -- primary one.  
11 But Maptitude for Redistricting is certainly one of  
12 the ones I use most.

13 Q So maybe I can put a finer point on  
14 this. For preparing your work in this case, did you  
15 use a particular redistricting software to create  
16 your illustrative plans? And when I say create, I  
17 don't mean the display. We'll talk about that. But  
18 just the drawing of the plans. Did you use a  
19 particular software?

20 A Yes, Maptitude for Redistricting.

21 Q If you had to estimate a rough  
22 percentage of your current work in the GIS space, do  
23 you have an estimate of how much is related to  
24 redistricting plans versus other tasks in the GIS  
25 space?

1 A Current 90 plus percent.

2 Q 90 plus percent is related to  
3 redistricting plans?

4 A Yes.

5 Q A couple of more questions on your CV  
6 and we'll be finished with this. You've listed some  
7 selective awards that you've received. And none of  
8 these awards related to redistricting or electoral  
9 districts, is that right?

10 A That's correct.

11 Q And I can't pass by your poll worker  
12 without thanking you for serving as a poll worker.  
13 I know we always need people doing that, so thank  
14 you. I don't have a question about that, but I just  
15 wanted to acknowledge that.

16 A Okay. You're welcome.

17 Q And the last question: Are any of the  
18 memberships that are listed at the end of your CV  
19 related to the creation of redistricting maps?

20 A No.

21 Q Mr. Esselstyn, we're probably at a good  
22 break point. Do you want to break. We've been  
23 going about an hour and 20 minutes. Do you want to  
24 take five, ten minutes?

25 A Yeah. That sounds good.

1 (Recess.)

2 Q (By Mr. Tyson) All right.

3 A I remember one question that I had meant  
4 to ask at the beginning. I'm just curious. It his  
5 being recorded other than the -- by the court  
6 reporter.

7 (Off-record discussion.)

8 Q (By Mr. Tyson) All right, Mr. Esselstyn,  
9 let's turn from your background into your work on  
10 this case. So I wanted to ask you first, how first  
11 hear about the Grant case?

12 A I don't -- I'm not sure honestly. I'm  
13 not -- I'm not sure.

14 Q Do you recall who first reached out to  
15 you about participating in this case?

16 A Counsel.

17 Q Mr. Hawley or somebody else?

18 A I think the first contact may have been  
19 from somebody else.

20 Q Okay. And do you recall who that was?

21 A Olivia, I believe, is her first name.

22 Q And do you recall --

23 A I should -- I should remember her last  
24 name. But I'm sorry. I -- I'm blanking on the last  
25 name. Sedgwick. Sedgwick? Something like that. I

1 think Olivia Sedgwick.

2 Q Do you recall approximately when Ms.  
3 Sedgwick reached out to you?

4 A The fall of 2021, I think.

5 Q Do you know if it was before or after  
6 the General Assembly had completed drawing its  
7 redistricting plans for the State House and State  
8 Senate?

9 A I believe it was before.

10 Q And do you recall when you were  
11 officially retained to serve as an expert in this  
12 case?

13 A I think also in the fall of 2021.

14 Q Was it shortly after Ms. Sedgwick  
15 reached out to you?

16 A I'm -- so I'm not -- I'm not sure. I --  
17 I think -- I don't know if this is -- I had had  
18 conversations with Ms. Sedgwick about other cases,  
19 and so I think the time between our talking about  
20 this case and my having been retained may be --

21 When you say -- your question was  
22 relatively short time?

23 Q Yes.

24 A Yeah. Less than a month.

25 Q If you were just to put into your own

1 words -- I'm not asking for a legal conclusion on  
2 this. But in your own words what do you see is the  
3 role of an expert witness in Federal Court?

4 A To use one's expertise, for the expert  
5 to use his or her expertise to shed light on the  
6 matters that are being considered, offer expert  
7 opinions and analysis.

8 I think there are also some pieces about  
9 providing facts -- that might be getting into a  
10 legal --

11 But, yeah, providing data, analysis of  
12 that data, and n offering expert opinions related to  
13 the aforementioned data and analysis.

14 Q Do you believe an expert in a case like  
15 this one should be objective?

16 A Yes.

17 Q And do you believe an expert should  
18 present all the facts related to the opinions that  
19 they're offering in a case?

20 A The only reason I'm hesitating is  
21 that all the facts related -- one could argue that,  
22 you know, all the facts related to redistricting in  
23 Georgia should include, you know, all the plans  
24 going back decades and then those related to the  
25 matter at hand.

1                   So depending on one's definition of the  
2     word "all," I know that, for example, I did not  
3     provide statistics for all the Georgia General  
4     Assembly redistricting plans going back decades.  
5     One could argue that if one were to provide all the  
6     data, it would include that.

7                   So I mostly agree with your statement,  
8     but there is -- I feel some need to bring up that  
9     people may differ -- opinions may differ on exactly  
10    what all of the data refer -- you know, how that  
11    should be defined or how that should be established.

12           Q       And you are being paid for your work at  
13    on hourly rate of \$325 an hour, right?

14           A       Yes.

15           Q       Is that rate the same for both  
16    testifying and non-testifying work?

17           A       In this case?

18           Q       In this case, yes.

19           A       In this case I have just the one rate.

20           Q       Okay. Do you recall approximately how  
21    much you have been paid so far for your work in this  
22    case?

23           A       I don't recall. I don't -- it's not  
24    something that I've ever sort of tried to memorize a  
25    cumulative total. It's somewhere in the six

1 figures.

2 Q And do you send your bills to  
3 Mr. Hawley's law firm?

4 A Yes.

5 Q Is 325 an hour the ordinary hourly rate  
6 for any litigation work that you do?

7 A If there is the potential for  
8 testifying, yes, I have done recent work related to  
9 litigation where I'm purely serving as a consulting  
10 expert and I have a different rate for that.

11 Q And you're not -- well, are you offering  
12 the plaintiff a discount off of a rate that you  
13 charge for anyone else for your work in this case?

14 A No.

15 Q So in terms of what you relied on for  
16 your report, you've listed the facts that you relied  
17 on for your report in your report; is that correct?

18 A I would say to the extent that such  
19 things can be listed in a report. I mean, there are  
20 facts that I relied on, for example, the location of  
21 Georgia College. I don't think that there's  
22 anything in my report that shows the location of  
23 Georgia College.

24 So, again, it's this -- when you talk  
25 about "all," I want to be accurate. And there are



1 things like that, the -- like I was looking at -- my  
2 report does not include, for example, the incumbent  
3 locations, but I understand that you were provided  
4 that by counsel.

5 Q I think if we -- I'm sorry to interrupt  
6 you. But if we could just look at Attachment B to  
7 your report, Exhibit 1, I think we can make this a  
8 little simpler.

9 A Okay.

10 Q Attachment B is titled Data Sources,  
11 Software and Methodology. Do you see that?

12 A I'm getting there. Yes.

13 Q Okay. So did plaintiffs' counsel  
14 provide you with any facts or data that is not  
15 listed in Attachment B that you relied on when you  
16 formed your opinions in this case?

17 A Repeat the question, please?

18 Q Did plaintiffs' counsel provide you with  
19 any facts or data that is not listed in Attachment B  
20 that you relied on when forming your opinions in  
21 this case?

22 A No.

23 Q And did Plaintiffs' counsel tell you to  
24 assume anything that you relied on in forming your  
25 opinions in this case?

1 A Not that I recall.

2 Q Has anyone talked to you about the  
3 plaintiff depositions or the legislative depositions  
4 in this case?

5 A Legislative depositions? What -- is  
6 that depositions of legislators?

7 Q Yes, depositions of legislators and  
8 their staff.

9 A I think there was one remark about  
10 a plaintiff deposition.

11 Q Okay. Have you reviewed any of the  
12 transcripts of the plaintiff depositions?

13 A No.

14 Q And so the -- you said there was a  
15 remark about a plaintiff deposition. Was that about  
16 something a plaintiff said in a deposition?

17 MR. HAWLEY: I'd just object to the  
18 extent that that implicates protected  
19 conversations of counsel. So, Mr. Esselstyn,  
20 you can answer to the extent it doesn't  
21 divulge privileged communications with  
22 counsel.

23 A Could you repeat the question?

24 Q Yes. My question was just -- you  
25 referenced a comment, I believe, you said about a

1 plaintiff deposition. And my question only was to  
2 the extent that was not in a conversation with your  
3 counsel. Was the comment about a plaintiff  
4 deposition a comment that a plaintiff said in their  
5 deposition, or was it about the deposition more  
6 generally?

7 A It was the deposition more generally.

8 Q Okay. That's all I need to know on  
9 that. Thank you.

10 Have you reviewed any of the transcripts  
11 of the legislative depositions, which include  
12 legislators and staff in this case?

13 A No.

14 Q Have you attended any meetings about  
15 this case where counsel was not present?

16 A No.

17 Q Have you ever spoken to any of the  
18 individual plaintiffs in this case?

19 A I'm sorry. I was thinking back to your  
20 previous question, and I believe I answered it  
21 accurately. I'm sorry to ask you again. But could  
22 you repeat your most recent question?

23 Q Sure. Have you ever talked to any of  
24 the individual plaintiffs in this case?

25 A No.

1 Q And side from the maps you've drawn in  
2 this case, have you drawn any other maps for the  
3 Georgia State House or State Senate following the  
4 2020 census?

5 A No.

6 Q So in terms of the process you use for  
7 drawing maps, do you -- did you draw the entirety of  
8 your illustrative plans yourself or did you have  
9 somebody helping you with that process? And I'm  
10 referring to the actual drawing not offering input.

11 A I do not work with anyone else at --  
12 just want to be -- make sure that I'm being  
13 accurate, you know, in both illustrative plans, the  
14 majority of the districts were drawn by someone  
15 else, meaning that they're unchanged from the plans  
16 that were adopted by the legislature.

17 So you understand that distinction.  
18 That's not to say I -- I didn't have a collaborator,  
19 but there are districts in those plans that were  
20 drawn by someone other than me, and I left those  
21 unchanged.

22 Q Certainly. And my question was merely  
23 collaborative for your work on this. But I  
24 definitely understand that each of the plans only  
25 changes a subset of the entirety of the -- of the

1 enacted plans.

2 A Yes.

3 Q Now, the -- just also to kind of cabin  
4 where we are, as I count you've drawn two  
5 illustrative State House plans and two illustrative  
6 State Senate plans. One House and Senate plan each  
7 were included with your PI report, and then one each  
8 of the illustrative plans for House and Senate were  
9 included with your December 5th report, is that  
10 right?

11 A Yes.

12 Q In terms of the maps that you've drawn  
13 for this case, is it fair to say that your goal for  
14 all of the plans you draw was to increase the name  
15 of majority Black districts over the number drawn by  
16 the General Assembly in Georgia?

17 A I would say I would not characterize it  
18 that way.

19 Q Okay. What would you characterize as  
20 your goal then in drawing the illustrative plans in  
21 this case?

22 A I would say it was to ascertain  
23 whether additional majority Black districts could be  
24 drawn while also keeping -- complying with the  
25 traditional redistricting guidelines, principles,

1 criterial.

2 Q Were the three additional State Senate  
3 districts that are majority Black on the  
4 illustrative plan the most additional majority Black  
5 districts you drew for Georgia State Senate plans?

6 MR. HAWLEY: Objection to the extent  
7 that this implicates protected draft maps and  
8 draft reports. Mr. Esselstyn, you can respond  
9 to the extent that it doesn't implicate any  
10 draft reports or maps you prepared in this  
11 litigation.

12 A The answer is no.

13 Q And you have not submitted any plans in  
14 this case that draws more than three additional  
15 majority Black districts for the State Senate in  
16 Georgia, right?

17 A Correct.

18 Q And so the same caveat Mr. Hawley  
19 mentioned for State House. Have you drawn any plans  
20 for the State House in Georgia that have more than  
21 five additional majority Black districts over that  
22 enacted by the General Assembly?

23 A No.

24 Q And in this case you have not submitted  
25 any plans that draw more majority Black districts on

1 the State House than five, correct?

2 A Correct.

3 Q Prior to your work in this case, had you  
4 ever drawn statewide legislative plans for any  
5 state?

6 A Probably not.

7 Q You don't recall today?

8 A Not that I recall. No, I don't think  
9 so.

10 Q So just a few more things before we get  
11 into some maps, which I know is the main reason why  
12 we're here today. I just wanted to get some  
13 additional terminology down. You've used the term  
14 majority Black district in your work in  
15 redistricting, right?

16 A (Nodding.)

17 Q Is that a yes?

18 A I'm sorry. Yes. Yes.

19 Q And what is the definition that you use  
20 of a majority Black district?

21 A I'm going to reference my report because  
22 I believe it's spelled out in either the text of the  
23 body of the report or in footnotes. There are kind  
24 of two pieces of it, and one is -- I'm looking at  
25 Page 8.

1                   This is Exhibit 1, Page 8 of my report.  
2                   So I'm just going to read the footnote that, "Per  
3                   convention in Section 2 cases, majority-Black is  
4                   taken to indicate that the district's voting age  
5                   population that identifies as Black (alone or in  
6                   combination) constitutes more than 50 percent of the  
7                   district's voting age population."

8                   And that Black alone or in combination  
9                   measure is also sometimes called anti-part Black.

10                  Q           That can also be called -- that same  
11                  population measure can be called AP Black as well?

12                  A           Yes.

13                  Q           And so I know you've read us the  
14                  definition in Footnote 6 on Page 8. Is that the  
15                  definition that you use when you use the term  
16                  majority Black in your work outside of this case or  
17                  outside of Section 2?

18                  A           Not necessarily.

19                  Q           Okay. What are some other definitions  
20                  of majority Black that you've used outside of the  
21                  context of this case?

22                  A           In some cases, for example -- well, just  
23                  generally I think the measure that I think a  
24                  layperson would be more likely to understand that  
25                  term to mean would be the total population, the



1 fraction of the total population, not the voting age  
2 population.

3 So that's -- that's probably the most  
4 significant one. And there are -- there's one that  
5 I've done where the percentages, the demographic  
6 figures provided are just based on total population,  
7 not voting age population.

8 And I think there have also been times  
9 when -- like, for example, the Wake County exhibit  
10 we were looking at before where it said non Hispanic  
11 Black, I might have used the term majority Black in  
12 reference to a column like that which does not  
13 include Hispanic people is who identify as black.

14 Q So as I understand it then, you may use  
15 a variety of different population subgroups, whether  
16 that be voting age population, total population,  
17 non-Hispanic black, any part black, but in all of  
18 those there is a category of black individuals that  
19 is over 50 percent for whatever denominator, I  
20 guess, that you're using in that scenario if you're  
21 going to use the term majority black?

22 A I'm not sure I understand the question.  
23 I'm sorry.

24 Q Okay. So you referenced a variety of  
25 different types of information that you would refer

1 to for majority black. So majority Black on total  
2 population, majority Black on voting age population,  
3 majority black on non-Hispanic black population or  
4 any part black population. Do you recall that?

5 A Yes.

6 Q But in all of those cases the black  
7 population being referenced, whichever particular  
8 field it is, is over 50 percent, right?

9 A If I were referring to a majority black  
10 instance.

11 Q What about the term -- I'm sorry.

12 A I -- I would say yes in -- if there were  
13 a majority black instance, I agree.

14 Q And so next I want to ask you about the  
15 term majority minority district. Is that a term  
16 that you use in your redistricting work?

17 A I imagine that I have. I -- I, you  
18 know, earlier today it was in one of the blog posts  
19 that we looked at.

20 Q So is my majority minority district the  
21 same definition in your mind as a majority black  
22 district?

23 A No.

24 Q And what is the -- what is a majority  
25 minority district in your usage then?

1           A           Typically I would say it is taking count  
2           of the population that does not identify as single  
3           race, non-Hispanic white and classifying those  
4           persons as minority.

5                       And so a majority minority district  
6           or administrative region, census region,  
7           whatever collection of people that I might be  
8           characterizing as majority minority would be over 50  
9           percent coming from that group I described earlier.

10           Q           So it would be fair to say that a  
11           majority minority district in your reference would  
12           be a district where the single race non-Hispanic  
13           white number is 50 percent, is that right?

14           A           Yes. And now that we've talked about  
15           this a little more, I know there -- because of the  
16           different ways that the Census Bureau classifies  
17           folks and the way that some software works or just  
18           the way that some clients, some audiences think more  
19           about race than ethnicity, and historically  
20           ethnicity wasn't consider as much of this picture,  
21           there are some times when is it just considering  
22           race and not ethnicity.

23                       So that would be a slightly  
24           different take on a similar situation.

25           Q           And I understand what you mean by that,

1 but just to the record is clear, ethnicity refers to  
2 Latino or not Latino versus are which does not  
3 generally include Latino voters, is that right?

4 A That's correct.

5 Q Have you used the term minority  
6 opportunity district in any of your training or work  
7 around redistricting?

8 A Possibly. I can't -- yep.

9 Q Do you have a definition of the term  
10 minority opportunity district?

11 A Not a ready one that I can cite. When  
12 you say --

13 Q And my -- I'm sorry.

14 A When you say, do I have a definition,  
15 I -- if you would like me to extemporaneously come  
16 up with one -- I'm not sure if that's what you're  
17 asking for, or if I just sort of have a standard  
18 definition.

19 Q Well -- and my real question is if you  
20 have a standard definition of minority opportunity  
21 district that you use. And if the answer is no,  
22 that's fine.

23 A Okay. The answer is no.

24 Q What about the definition of a coalition  
25 district? What would that be in your mind?

1           A       In my mind that is a situation where you  
2       might have two groups that would vote together and  
3       be likely to support the same candidate.

4           Q       Have you used or heard the term ability  
5       to elect district before?

6           A       I think I've seen that.

7           Q       Do you know what that term means?

8           A       I believe -- I have understood it to be  
9       similar to an opportunity district. I think there  
10      are probably nuances that why one would use  
11      definition -- or one description rather than the  
12      other. But I don't have a solid way of explaining  
13      that difference right now.

14          Q       So I know in your report you talked  
15      about how as you drew the illustrative plans you  
16      were balancing a number of different considerations  
17      in that process. Do you recall that? And I can  
18      point you to the report if you need me to.

19          A       I do recall that.

20          Q       So unlike the situation that you've  
21      described, do you -- would you agree that race  
22      predominates in the drawing of a district plan if  
23      the sole goal of the map drawer is to maximize the  
24      number of majority Black districts?

25          A       I don't think I understand enough about

1 the scenario to say one way or the other.

2 Q Okay. So maybe just -- I'll lay it out  
3 a bit more clearly as a hypothetical then.

4 A Okay.

5 Q Assume for purposes of the hypothetical  
6 that there is a jurisdiction that wants to draw  
7 redistricting maps. And let's say there's been no  
8 previous district maps for this jurisdiction. It's  
9 been all at-large elections.

10 A Okay.

11 Q And the map drawer is charged with the  
12 following charge. We want you to draw the most  
13 majority Black districts that is humanly possible,  
14 nothing else matters, go about drawing that plan.

15 Would you agree in that hypothetical  
16 that the map drawer's goal or his -- that race  
17 predominates in the drawing of that district plans?

18 A Would they have to have population  
19 equality, the districts?

20 Q Yes.

21 A Truly nothing else matters?

22 Q Population equality has to happen. But  
23 beyond that, no other traditional principles would  
24 apply.

25 A Again, there's this question of

1 predominates. The population equality thing is a  
2 hard and fast principle that can't be ignored. So I  
3 would say that in this hypothetical scenario that  
4 the consideration of race would predominate over all  
5 other traditional redistricting principles other  
6 than population equality if the person had been  
7 told, as you said, nothing else matters.

8 Q If the map drawer is not instructed  
9 to -- that nothing else matters in our  
10 hypothetical -- I'm going to change it slightly.

11 A Okay.

12 Q The individual is told to go draw  
13 population equal districts, and then in the drawing  
14 process the map drawer decides they're going to draw  
15 the maximum number of majority Black districts. In  
16 that scenario would race predominate in the drawing  
17 of that districting plan?

18 A Again, I can imagine a scenario.  
19 I'm thinking about this very literally. And take a  
20 state like North Dakota, the maximum number of  
21 majority black districts might be zero. And one  
22 could confidently draw a plan where the maximum  
23 number was reached without having to give race much  
24 consideration.

25 Similarly, I can imagine a jurisdiction

1 that was all majority black pretty much and, you  
2 know, the -- the map drawer could try a few plans  
3 and, you know, if there are five districts in the  
4 jurisdiction and you end up with five majority black  
5 districts, that's the maximum.

6 And, you know -- so I'm uncomfortable  
7 making a blanket generalization. And then there's  
8 also --

9 Yeah, I'll stop there.

10 Q So one of the things that you do is  
11 train people about how to draw redistricting maps,  
12 is that right?

13 A I've done sort of introductory training,  
14 sort of a workshop, yes.

15 Q And so in those workshops do you talk  
16 about the role of race in redistricting plans, in  
17 the design of redistricting plans?

18 A Yes, I think I have.

19 Q And what generally do you tell people in  
20 those workshops about the role of race and  
21 redistricting?

22 A So the workshops -- actually one of them  
23 was at the Duke event that you mentioned before.  
24 It's more about how the software enables you to see  
25 certain characteristics of districts and of the



1 components that -- whether it's precincts or  
2 counties or whatever.

3 And so I would say that I talk about it  
4 in the context of being able to see where the  
5 race -- racial makeup or ethnic makeup of the  
6 population differs and that the software can display  
7 those numbers, too.

8 Q Do you ever talk about the way that  
9 individuals would use racial data in drawing  
10 districts beyond how it's displayed in the software?

11 A I can think of an example where I would  
12 have talked about essentially accidental cracking.  
13 So if you have a county with a city in the middle of  
14 it and that city has a substantial minority  
15 population, and if somebody were to divide that up  
16 kind of like a pie or a pizza the minority  
17 population is in the middle of the area as I  
18 described, that essentially even though you could  
19 have -- there's sufficient population, sufficient  
20 population numbers and population density to have  
21 districts that might be majority minority, for  
22 example, that dividing it up a certain means that  
23 none of the districts is majority minority.

24 Q And so a map drawer has to be aware of  
25 race to avoid issues like accidental cracking when

1 drawing a plan, right?

2 A I would say at some level, yes.

3 Q When you're drawing redistricting plans  
4 for jurisdictions like the 16 North Carolina  
5 earlier, do you use the features of the software  
6 that you referenced to display racial information  
7 while you're drawing those maps.

8 A I'm literally thinking back to my  
9 process. Not certainly. Not always. I can think  
10 of some where I did not or at least -- yeah, at  
11 least one where I didn't. The -- and there's sort  
12 of a distinction that -- in the software I was  
13 using.

14 The columns you specify at the beginning  
15 of the process are going to be the columns that get  
16 exported when you provide a table -- a summary table  
17 of the demographics.

18 So -- but I -- I am quite certain that  
19 there are multiple cases where I was not looking at  
20 race when I was drawing the redistricting plans.

21 Q And when you were drawing the  
22 illustrative plans in this case, at any point did  
23 you display racial information of the underlying  
24 geography on your screen?

25 A Yes.

1 Q And what kind of racial information  
2 would you display while you were drawing the  
3 illustrative plans?

4 A For the underlying geography, I would --  
5 it would be the black percentage of the population  
6 meaning the -- any part black voting age percent.

7 Q And did you use a theme or a shading of  
8 precincts or counties to look at that any part black  
9 population while you were drawing?

10 A I think so. I think that I -- I think  
11 that I may have. I'm not a hundred percent sure,  
12 but I think that I may have, yes.

13 Q And did you utilize that display of  
14 racial information about the underlying geography  
15 while you were drawing the illustrative plans for  
16 House and Senate?

17 A The shading?

18 Q Yes.

19 A I'm not totally sure.

20 Q Did you utilize any of the racial  
21 information that you displayed on the screen while  
22 you were drawing the illustrative plans to inform  
23 the decisions you made about which parts of  
24 districts went in and out of a particular districts?

25 A Yes.

1 Q So do you recall when you started  
2 preparing your December 5th report?

3 A Oh, I'm sorry. I thought there was a --  
4 did I recall when I started -- there was going to be  
5 another question.

6 Q When, yes.

7 A After the election?

8 Q And that would be after the November of  
9 2022 election?

10 A Yes. Sorry. Yes, after the general  
11 location of 2022.

12 Q And do you recall approximately how long  
13 it took you to prepare your report?

14 A The report, including the written  
15 portion?

16 Q Yes.

17 A Dozens of hours.

18 Q Did you complete the report on December  
19 5th or earlier than that?

20 A I think on December 5th there was a  
21 minor edit. So I believe it was completed on  
22 December 5th.

23 Q When you were creating the illustrative  
24 plans that are included in your report, did you  
25 maker -- keep notes as you did that?

1 A Keep notes? Yes.

2 Q And did those notes specify -- I'm not  
3 asking for the contents, but just topically did they  
4 reference any decisions you made about how to draw  
5 the illustrative plans?

6 MR. HAWLEY: I'll object just -- yeah,  
7 that's -- Mr. Tyson sort of highlighted there.  
8 To the extent, Mr. Esselstyn, that your answer  
9 would reveal the contents of protected work  
10 product, I would instruct you not to answer.  
11 But just as Mr. Tyson alluded.

12 Q I'm just asking about topics only, yeah,  
13 not what they actually contained.

14 A I mean, for the December 5th report as  
15 we've mention, I think, today, I  
16 received information about incumbent addresses. So  
17 that was a topic that I had some -- some notes on.

18 Q Any other topics that you recall -- and  
19 again, I'm not asking for the specifics -- that are  
20 included in your notes?

21 MR. HAWLEY: The same objection and  
22 instruction, Mr. Esselstyn.

23 A I will say no.

24 Q Okay. Mr. Esselstyn, I know you've  
25 submitted a number of different reports in this

1 case, and we're going to talk through all of those.  
2 But I just want to confirm that for purposes of your  
3 expert opinions in this case, are you -- barring any  
4 new data that may -- you may interpret or analyze,  
5 are you planning to offer any expert opinions in  
6 this case that are not contained in the reports that  
7 you filed in this case?

8 A No, but there may be something that  
9 comes up in testimony that -- a question about, an  
10 opinion that -- so other than something that I'm  
11 not -- that someone asks me in testimony, I would  
12 say no.

13 Q So let's turn back to Exhibit 1, your  
14 report and talk through what you were asked to do in  
15 this case, so Page 2, Paragraph 9. You say,  
16 "Plaintiffs' counsel has asked me to determine that  
17 there are areas in the state of Georgia where the  
18 Black population is sufficiently larger and  
19 geographically compact to create -- to enable the  
20 creation of additional majority Black legislative  
21 districts relative to the number of such districts  
22 provided in the enacted State Senate and State House  
23 of Representatives plans from 2021."

24 Do you see that?

25 A I do.

1 Q And that could generally be referred to  
2 as Gingles Prong 1, would you agree?

3 MR. HAWLEY: Objection. Calls for a  
4 legal conclusion. But you can answer,  
5 Mr. Esselstyn.

6 A Could you repeat the question?

7 Q Sure.

8 A The final sentence.

9 Q Sure.

10 A Not everything --

11 Q I will read the paragraph. But  
12 Paragraph 9, in your mind -- again, I'm not asking  
13 for a legal conclusion. If you mind does the topic  
14 you were asked to examine in Paragraph 9, can that  
15 be referred to as Gingles Prong 1?

16 MR. HAWLEY: The same objection. But  
17 you can answer.

18 A That is my understanding.

19 Q And you have a footnote there  
20 referencing the case Thornburg versus Gingles,  
21 right?

22 A I do.

23 Q Have you read that case?

24 A No.

25 Q So what is reason for you footnoting

1 it here on your report?

2 A Because there's text in quotes, and to  
3 indicate that that -- what I'm quoting from is that  
4 document.

5 Q And you determined that the answer to  
6 what ask you were asked to look at was, yes, you can  
7 create additional majority black legislative  
8 district in the State Senate and State House, right?

9 A Yes.

10 Q So looking down to Paragraph 13, this is  
11 titled Summary of Conclusions. Do you see that?

12 A Yes.

13 Q And the conclusion you reached is,  
14 first, that you could create three additional  
15 majority black districts in the State Senate plan in  
16 accordance with traditional redistricting  
17 principles, right?

18 A Yes.

19 Q And you also conclude that you can  
20 create five additional majority black districts in  
21 the State House plan in accordance with traditional  
22 redistricting principles, right?

23 A Yes.

24 Q And when we say additional, we're  
25 referring to districts beyond those drawn by the



1 General Assembly in the 2021 enacted plans for House  
2 and Senate, right?

3 A Yes.

4 Q Okay. So generally -- and then we're  
5 going to get into some specifics here. Can you  
6 generally describe the methodology that you used to  
7 determine that you could create these additional  
8 majority Black State Senate and State House  
9 districts?

10 A Yes.

11 Q How did you do that?

12 A It's a multi-step kind of iterative,  
13 multi-layered process with trial and error. I can't  
14 sort of say step one, step two, step three. But  
15 it's taking into account a variety of  
16 considerations.

17 I start moving district boundaries  
18 around to see how does this change affect the  
19 various metrics or how does this -- and sometimes  
20 I'm not looking at metrics specifically but visual  
21 things that I can see, like whether a county is  
22 being splint or the compactness of the district.

23 So just kind of moving pieces in the  
24 puzzle and assessing whether it is getting closer to  
25 the goal of creating additional majority Black

1 districts.

2 Q All right. Do you focus on any  
3 particular regions before you begin your trial and  
4 error process you have described?

5 A Before --

6 Q May I can ask it this way. How do you  
7 choose where to part start with your trial and error  
8 process?

9 A I don't know. It's like I'm looking out  
10 the window. If I were to start a painting, you  
11 know, what would I start painting? I -- I don't  
12 have a sort of defined process, and I can't  
13 recall where I started.

14 And just to be explicit, I'm thinking  
15 more about the process in late 2021. The changes  
16 made for this December 2022 report were limited to  
17 just a few counties. And I think -- I mean, I could  
18 narrow down where I started in these cases because  
19 the changes that I made in December of 2022 were --  
20 November, December of 2022 were limited to those  
21 areas of the map where there were changes.

22 Q So in thinking about the process you  
23 used when you began drawing this, which was in 2021,  
24 is that right?

25 A Yes.

1 Q Did you turn on racial shading or  
2 features to determine where black voters were  
3 located as part of your initial process of deciding  
4 where to begin?

5 A I don't recall. Maybe.

6 Q I'm assuming you focused on areas where  
7 were higher concentrations of black voters in terms  
8 of looking for where new districts could be drawn,  
9 right?

10 A Yes.

11 Q So at the end of Paragraph 13 you have  
12 this phrase, in accordance with traditional  
13 redistricting principles. What does that phrase  
14 mean in the context of Paragraph 13?

15 A That phrase is mostly referencing the  
16 other guidelines that were adopted by the two  
17 chambers in the General Assembly. And I would say  
18 that the guidelines that the chambers adopted are  
19 fairly typical of the types of guidelines that are  
20 used traditionally in other jurisdictions.

21 Q So when you're using the phrase  
22 traditional redistricting principles there, you're  
23 referring to the principles outlined in the Georgia  
24 General Assembly's guidelines involving  
25 redistricting?

1           A       Yes, mostly. The one that they did not  
2       identify that I did consider was minimizing changes  
3       to the adopted map. I could have drawn a plan that  
4       was not based on the adopted map, but I opted to use  
5       one that was using what might be called a principle  
6       of continuity or core preservation trying to keep  
7       elements of the previous plan, the -- the  
8       predecessor plan, if you will, to keep  
9       modifications, too -- well, I was going to say to a  
10      minimum, but of course, with all the other  
11      considerations it's -- it's one of the things that's  
12      being considered.

13           Q       And was the decision to try to minimize  
14      changes a decision you made or a parameter you were  
15      given in terms of how to draw the plans?

16           A       I had -- I think -- I'm hesitating that  
17      because -- your options you gave me were -- was it a  
18      decision or an instruction? I would say it was the  
19      result of communication with counsel.

20           Q       So when you're using the phrase "in  
21      accordance with traditional redistricting  
22      principles," how do you determine if the additional  
23      majority black districts you drew are in accordance  
24      with the principles outlined by the General Assembly  
25      plus minimizing changes?

1           A           And your question was how do I  
2           determine?

3           Q           Uh-hmm.

4           A           That's a -- I determine it because I'm  
5           doing it. I'm -- I am weighing those principles. I  
6           am taking them into consideration. I'm using them  
7           as decision factors. And in most cases there's --  
8                       Yeah, I'll -- I mean, I -- I determined  
9           that it's -- that's the way I've done it by doing  
10          it. Realize that's a -- it's part of my process  
11          because I know that's what I was doing and looking  
12          at and considering. And as a statement in the  
13          report, I think there are metrics to support that  
14          statement.

15          Q           So one of the factors in the General  
16          Assembly was population equality. Is that correct?

17          A           Yes.

18          Q           And so how did you determine or how do  
19          you determine if a plan is drawn in accordance with  
20          the traditional principles of population equality?

21          A           Whether -- how do I determine if a  
22          plan -- if one is taking population equality into  
23          consideration.

24          Q           Okay.

25          A           If I'm understanding -- I think that's a

1 yes. Again, I know the process that I used and the  
2 things that I was considering when making decisions  
3 and population equality was one of those.

4 Q Okay. So when you're using the phrase  
5 in accordance with traditional redistricting  
6 principles in Paragraph 13, are you really saying I  
7 can create these additional districts while  
8 considering traditional redistricting principles?

9 A That's part of it. But as I said in  
10 response to maybe two questions ago, there also are  
11 metrics to support that these principles were  
12 being adhered to or considered -- complied with.

13 Q Complied with? Well, and I guess that's  
14 what I'm trying to understand. If it's complied  
15 with I want to understand the methodology you're  
16 using to determine if the principles were complied  
17 with.

18 So, for example, for population equality  
19 you stated that you considered -- it was a  
20 consideration and that there are metrics. So then  
21 what -- what tells you if the traditional principle  
22 of population equality was complied with in the  
23 creation of the illustrative plans?

24 A I can reference my report which talks --  
25 under Comparative Characteristics there is a section

1 for the illustrative House -- sorry -- Senate plan.  
2 Paragraph 34 on Page 15.

3 Q Okay.

4 A And I would say starting with the second  
5 sentence. This is an example of the type of  
6 information that I would provide related to your  
7 question that adherence of other principles can be  
8 intentional with population equality.

9 Both are noting that adherence to other  
10 principles can be intentional with population  
11 equality. Both the enacted plan and the  
12 illustrative plan get substantially closer to  
13 population equality than the permissible threshold  
14 of plus or minus 5 percent. In both plans most  
15 district populations are within plus or minus 1 of  
16 the ideal and a small minority are between plus or  
17 minus 2 percent.

18 None has a deviation of more than 2  
19 percent for the enacted plan the relative average  
20 deviation is .53 percent and for the illustrative  
21 plan the relative average deviation is .67 percent.

22 Q And I appreciate that. And so I guess  
23 my real question is, do you determine that you've  
24 complied with the principle of population equality  
25 because the plan is within the permissible threshold

1 of plus or minus 5 percent --

2 A No.

3 Q -- or is there more?

4 Okay. So what -- what else goes into  
5 the determination that you've complied with  
6 population equality beyond being within the  
7 permissible threshold of plus or minus 5 percent as  
8 you said?

9 A I would go to the next sentence. So  
10 what I was using as kind of a benchmark here was, as  
11 I mentioned earlier, the -- the General Assembly's  
12 adopted guidelines.

13 And in the plans that they adopted, most  
14 of the districts had a population equality or a  
15 deviation that was plus -- within plus or minus 1  
16 percent. That was -- the vast majority of their  
17 districts had deviations like that.

18 And then a minority had deviations  
19 between plus or minus 1 percent and plus or minus 2  
20 percent. And I in creating my plans had similar  
21 population deviations. So I -- it's my opinion that  
22 that guideline or principle was adhered to.

23 Q So if it fair to say that you've  
24 essentially assumed the General Assembly followed  
25 its own guidelines and you're comparing your plan to



1 their guidelines to determine compliance?

2 A I think so. Well, since we've got a  
3 pause maybe I'll just clarify that if their relative  
4 average deviation was 0.53 percent, that is not a  
5 bright line indication of compliance.

6 So in answer to your question before, is  
7 that a threshold? I would say no. Is it a kind  
8 of landmark to consider? And I would say yes. But  
9 it's not a bright line number.

10 Q Okay. So I just want to make sure I  
11 understand. So it's not a bright line number. Are  
12 you determining compliance with population equality  
13 because the relative average deviation of the  
14 illustrative plan is only 1 -- 0.14 percentage  
15 points different than the relative average deviation  
16 of the enacted plan?

17 A I would not characterize the number of  
18 hundredths of a percent there as being a threshold  
19 measurement either or a litmus test. But --

20 Q So I guess I'm struggling to understand.  
21 How would you know if plans did not comply with the  
22 traditional principles of population equality under  
23 the metrics that you're using here in your report?

24 A I mean, certainly being outside of plus  
25 or minus 5 percent would not be in compliance.

1 That's -- that's, I think, a pretty clear bright  
2 line threshold. That -- that plus or minus 5  
3 percent -- I don't want to get out of my lane and  
4 talk about legal interpretations, but that -- that  
5 is a -- being outside that would certainly be out of  
6 compliance.

7 But in this instance there's -- there's  
8 not a kind of black and white -- when I use those  
9 terms I'm meaning binary clear mark, you know,  
10 within which one is in compliance and outside of  
11 which one is not in compliance.

12 It's -- other than the 5 percent, plus  
13 or minus 5 percent. But the -- the similarity of  
14 the deviations in the illustrative plan to the  
15 enacted plan is an indication of my having complied  
16 with considering population equality. So --

17 Q I'm sorry.

18 A Nothing.

19 Q So just so I understand, then so when  
20 you're saying in Paragraph 13 that the districts  
21 are -- or the plans are in accordance with  
22 traditional redistricting principles, were being in  
23 accordance with the traditional principle of  
24 population equality, I think what I've heard is that  
25 it was a factor you considered, it's within the 5

1 percent permissible deviation range you identify,  
2 and in your mind it's not that different than the  
3 percentage or average percentages for the General  
4 Assembly. Do I have that right?

5 A You didn't mention the plus or minus 1  
6 percent and the plus or minus 2 percent. The -- the  
7 striving to have the vast majority of the district's  
8 deviation be between plus or minus 1 percent and the  
9 remainder that are not within plus or minus 1  
10 percent would be no more than plus or minus 2  
11 percent deviation from the ideal.

12 I think that's a significant part of it.

13 Q So then the factor that I listed plus  
14 the explanation that you just gave for the 1 and 2  
15 percent, that's what I means to draw the plans in  
16 according with the traditional principle of  
17 population equality in your report?

18 A In this context, yes.

19 Q And for the other traditional  
20 redistricting principles is in accordance with both  
21 the consideration of that principle and then the  
22 factors you outlined for each plan in the  
23 comparative characteristics section of the report?

24 A I'm sorry. Could you repeat the  
25 question?

1 Q Yes. So we've talked about what in  
2 accordance with the traditional principle of  
3 population equality means.

4 A Yes.

5 Q And my question is: For in accordance  
6 with the other traditional redistricting principles  
7 that you're including in Paragraph 13, is the answer  
8 of how you determine the plans were drawn in  
9 accordance with those other principles beyond  
10 population equality is that you considered those  
11 principles in drawing and you listed the factors  
12 related to those principles in the comparative  
13 characteristics sections of each plan discussion?

14 A I would need to review to -- do you mind  
15 if I take some time to review?

16 Q That's fine. Or, actually maybe -- what  
17 if we do it this way. What if we just walk through  
18 each one. Would that be an easier way to navigate  
19 it, do you think?

20 A I don't know what you have in mind  
21 for --

22 Q Okay.

23 A So I can't say which is easier. But  
24 if -- to answer the question you just asked, I would  
25 want to look at the comparative characteristics

1 sections as well as perhaps the attachments showing  
2 the criteria identified by the -- or adopted by the  
3 chambers.

4 Q Okay. Well, let's -- let me just see if  
5 we can work through this way. One of the  
6 traditional redistricting principles that you say  
7 your plans were drawn in accordance with is  
8 compactness, right?

9 A Yes.

10 Q So how did you determine that the  
11 illustrative plans are in accordance with the  
12 traditional redistricting principle of compactness?

13 A So, again, my first answer is going to  
14 be that I look at compactness constantly, not  
15 necessarily at compactness metrics but in just  
16 looking at the shapes of the districts I'm drawing.  
17 That is -- that's constantly a -- an evaluation, a  
18 visual evaluation that's part of what my brain is  
19 looking is the shape of the district and taking into  
20 account my understanding of how the metrics  
21 typically score compactness.

22 So part of it is just knowing that that  
23 was part of my process. And then -- I'm just  
24 looking at the text on Page 15 about compactness.

25 And it goes on to Page 18. So, yes,

1 part of it is just knowing that it is -- it's part  
2 of my considering, my weighing of the different  
3 factors as I'm doing it. Part of it is looking at  
4 the scores. I might do that multiple times during  
5 the process.

6 And then, you know, when the plan is at  
7 a complete point, looking at summary statistics.  
8 And, yes, seeing if it is comparable to the -- the  
9 metrics for that -- for, in this case, compactness  
10 that the General Assembly's adopted plans yielded.

11 Q And when you refer to the General  
12 Assembly -- what the General Assembly's plans  
13 yielded, are you saying part of the way you  
14 determined that the illustrative plans were in  
15 accordance with the traditional principle of  
16 compactness is, there was a similarity to the range  
17 of scores to the General Assembly enacted plans?

18 A I'm hesitating. You used the word  
19 "range." Do you mean that in the pure mathematical  
20 sense of like comparing the maximum and the minimum?

21 Q I do.

22 A I don't recall if I looked specifically  
23 at the range for all the compactness scores.

24 Q So did you rely on the average  
25 compactness scores, then, as compared to the enacted

1 plans?

2 A So there's one metric here, the cut  
3 edges, doesn't have an average. That's just a  
4 total. That's -- that's a different one because it  
5 doesn't calculate scores for individual districts.

6 I -- you know, obviously what's reported  
7 in the text of the report is just averages. The  
8 report -- the report is a term not to use as when  
9 you generate a summary of this certain type.

10 The -- that compactness score report has  
11 other metrics in it, so I did include those as part  
12 of what I provided. I honestly don't recall whether  
13 I looked at range for compactness scores in sort of  
14 making the assessment that it was in accordance with  
15 the compactness principle.

16 Q In the written portion of your report  
17 you only reference averages for a measurement like  
18 cut edges that does have an average, just what the  
19 result was, right?

20 A Right. There is -- there's some more  
21 reporting in -- some more descriptive stuff in the  
22 text about the specific districts which talks about  
23 a median. If you're looking -- I'm looking at Table  
24 3, for example. So that is a different metric and  
25 looking at the least compact score.

1                   So that -- there is this section. But  
2                   that's not really comparing plans per se. So, yes.  
3                   But it has -- the attachment does have other metric.

4                   I may be about to sneeze. Excuse me.

5                   Okay. Sorry about that.

6                   Q       That's fine.

7                   A       That sneeze may show up. I got a little  
8                   tickle, but --

9                   Q       So, Mr. Esselstyn, as relates to  
10                  compactness, in your experience is there a  
11                  particular score that would render a district  
12                  objectively not compact?

13                  A       I think getting a -- sort of a maximal  
14                  score, if any -- so, for example, getting a Reock  
15                  score of zero, one could safely argue that that is  
16                  not a compact district. But, again, I'm sort  
17                  thinking about this like a math teacher. So one  
18                  could imagine a score like that.

19                  But I think -- I think most experts  
20                  would agree that a Reock score of zero would be a  
21                  non-compact district. But once you start getting  
22                  into the spectrum between zero and one, for example,  
23                  for Reock, they're -- I'm not aware of a threshold  
24                  kind of a litmus.

25                  Q       This next question may be a little



1 easier because it's more binary. How do you  
2 determine if your plans are -- that your plans are  
3 in accordance with the traditional redistricting  
4 principle of contiguity?

5 A There is a check that the software  
6 provides. I mean, primarily it's visual. You're  
7 making sure that your districts aren't composed of  
8 multiple parts that don't touch. But the software  
9 also has a utility that let you verify that.

10 Q And I'm assuming you did that for your  
11 illustrative plans, right?

12 A I did.

13 Q You're also aware that General Assembly,  
14 one of its principle was the consideration of  
15 communities of interest, right?

16 A Yes.

17 Q How did you determine that your  
18 illustrative plans for State House and State Senate  
19 were in accordance with the traditional  
20 redistricting principles of communities -- respect  
21 for communities of interest?

22 A Again, a major part of it is just that  
23 that's one of the things that I was looking at, one  
24 of the -- of the layers I had turned on, multiple  
25 layers showed things that can be considered

1 communities of interest.

2 So things like municipal boundaries,  
3 countries and precincts can also in some cases be  
4 considered political subdivisions that are -- some  
5 would argue are communities of interest, too, that  
6 shouldn't be divided. But those are specifically  
7 mentioned elsewhere.

8 So the software was displaying things  
9 like municipalities and college campuses military  
10 bases and other landmarks and things like that that  
11 have an area with a boundary.

12 So I know that I was taking those into  
13 account as I was drawing the districts and also, you  
14 know, making decisions, saying, oh, I could move  
15 this line in order to no divide this community.

16 So -- one can run a report on something  
17 like that number of cities that are divided. I did  
18 not provide that. I think sometimes -- well, there  
19 are measures of things like division of  
20 municipalities. I did not provide that. I don't --  
21 I think there are up sides and down sides to that  
22 particular kind of report.

23 I did not include it. And I'm just --  
24 let me make -- I'm sorry. I want to just check it.  
25 We talked about counties and VTDs. I also was

1 considering things I learned from public comment  
2 about particular communities that folks thought were  
3 best kept intact or together.

4 So that's -- I think I'll stop there.

5 Q Okay. So to be clear then, for the  
6 community -- for the communities of interest,  
7 there's not a report that you relied on for reaching  
8 your conclusion about the plans being in accordance  
9 with those communities of interest. It was a  
10 process that happened while you were drawing the  
11 plans? Is that fair to say?

12 A Yes.

13 Q In looking at -- well, let me ask this.  
14 Is maintaining the cores of existing districts a  
15 traditional redistricting principle in your mind?

16 A It can be.

17 Q It wasn't -- I'm sorry.

18 A It is certainly one that jurisdiction  
19 use fairly regularly.

20 Q Do you know if Georgia used the  
21 principle of maintaining cores of existing districts  
22 in the creation of its 2021 plans?

23 A It was not one of the adopted  
24 guidelines, but it's pretty clear to me -- I would  
25 feel confident saying that it was something they

1 considered. They didn't start with a blank slate.

2 They're -- if you look at the adopted  
3 plan and the preceding plan, it's -- the  
4 similarities could not have happened by accident.

5 Q All right. So I'm ready to move into  
6 the section of your report about census results. Do  
7 you want to take a break at this point? It's about  
8 noon my time. I don't know what -- six hours ahead.  
9 I guess about 6:00 p.m. for you. We can keep going.  
10 Whatever -- whatever your pleasure is.

11 A I could go for a break, yeah. Thanks.  
12 (Recess.)

13 Q (By Mr. Tyson) All right, Mr. Esselstyn,  
14 we wanted to move next into the census portion of  
15 your report, which begin on Paragraph 14. Are you  
16 with me?

17 A I'm with you. I'm moving to Paragraph  
18 14. I have a little tickle in my throat again.  
19 Excuse me.

20 Q So I believe we've already kind of  
21 covered this point, but when you're talking about  
22 the Black population in Georgia in this section of  
23 your report, you're using the any part black voting  
24 age population number to report on that, right?

25 A So I just want to make sure. For

1 example, in Paragraph 15 -- yes. Yes. I think the  
2 answer to your question is yes.

3 Q Okay. And in Footnote 4 of the last  
4 part of that you say that you -- it is your  
5 understanding that the alone or in combination  
6 designation is the appropriate measure for most  
7 Voting Rights Act Section 2 consideration. Do you  
8 see that?

9 A Yes.

10 Q What is the basis for that understanding  
11 that you have?

12 A Conversations with attorneys over the  
13 years and probably sessions at conferences and  
14 things like that and stuff I read just -- things  
15 I've learned, as I said, either from conversations,  
16 presentations, reading. I can't point to  
17 one specific source.

18 Q Great. And in Paragraph 17 you note  
19 that the any part black voting age population in  
20 Georgia went up by 2 percentage points from 2010 to  
21 2020, right?

22 A Could you repeat the question, please?

23 Q Yes. In Paragraph 17 --

24 A Yep.

25 Q -- you note that the black voting age

1 population in Georgia increased by 2 points between  
2 2010 and 2020, right?

3 A The percentage, yes. The proportion of  
4 the population, yes.

5 Q So moving to the next section. You talk  
6 about the geographic distribution of the black  
7 population in Georgia. And the way I -- the way I  
8 read this, and I want to make sure I have this right  
9 is, it sounds like you're saying that are generally  
10 two primary location for black individuals in  
11 Georgia. One is metro Atlanta and the other is the,  
12 as you call it, the so-called Black Belt, right?

13 A Correct.

14 Q So why do you have so-called in front of  
15 Black Belt in Paragraph 19?

16 A That's a good question. I'm  
17 just re-reading the sentence with those two words or  
18 that hyphenated expression removed.

19 I guess I just used that modifier to  
20 indicate that this is a term that people use. It  
21 may not be familiar to every reader of the document  
22 and sort of to say that this is a -- I think it has  
23 been given a name that is sort of fairly common in  
24 people talking about geography or demography of the  
25 state.

1 Q And then you cite to an article from  
2 Southeastern Geographer in Footnote Number 5, right?

3 A I do, yes.

4 Q And did you review that article as part  
5 of the preparation of your report?

6 A Yes.

7 Q Okay. So I'm going to mark as Exhibit  
8 8, which should be in there now.

9 A Got it.

10 Q Okay. And is this article  
11 quantitatively delineating the Black Belt geographic  
12 region, the articles that you're referring to in  
13 Footnote Number 5?

14 A I don't know if I saw them in quite this  
15 format, this downloaded format. But let me -- I  
16 just want to verify. (Reading.)

17 This would be easier if I had included  
18 the title in the footnote.

19 Q And if you want to, the item number for  
20 the jstor/stable --

21 A Yeah, I see it.

22 Q -- address, it's the same in that last  
23 indicator.

24 A Yep.

25 Q Okay.

1           A       It appears to be. Again, I -- yes, I  
2       think this is the same.

3           Q       Okay. And did you rely on this article  
4       as part of your effort to determine which counties  
5       were in the Black Belt in Georgia?

6           A       No.

7           Q       Okay.

8           A       And with your permission, I'm just going  
9       to look back at the paragraph that references it.

10                  Yes, I -- I stand behind previous  
11       answer.

12           Q       Okay. And I just want to ask you a  
13       couple of questions about this article. You did  
14       read this article in preparing your report, right?

15           A       I reviewed it. I don't think I read the  
16       entire thing.

17           Q       Okay. If you could go to the tenth page  
18       of the pdf. It's Page Number 11 at the top, which  
19       is a little confusing. But it has two maps of  
20       Georgia at the top of the page.

21           A       I see it.

22           Q       Okay. The second full paragraph begins  
23       with "notably" --

24           A       Uh-huh.

25           Q       -- and it says, "Notably, the Georgia



1 swath of counties is not as continuous as that  
2 identified in Alabama with counties falling into all  
3 three intervals in the generalized geographic  
4 belts." Do you see that?

5 A Yes.

6 Q Okay. And then at the end of that  
7 section -- I'm sorry.

8 A Go ahead. Go ahead.

9 Q And the end of that section just before  
10 the Alabama and Georgia joint analysis, the sentence  
11 says, "Thus, it seems clear that the uniformity of  
12 the Georgia Black Belt is far less than that found  
13 for the region in Alabama."

14 Do you see that?

15 A Yes.

16 Q Were you aware of the study's findings  
17 about the lack of continuity in these counties when  
18 you were referencing the Black Belt in Georgia in  
19 your report?

20 A No. So in looking at this again, my  
21 reference to this article was -- and you see the  
22 sentence that the footnote -- the footnote follows.  
23 It was as corroboration of the fact that some people  
24 argue that it was related to -- that the term had to  
25 do with the quality of the soil as opposed to the

1 demographics.

2 So I was not meaning to indicate that  
3 this was a -- it was a source from which  
4 I determined or confirmed that some -- some sources  
5 or some -- some historic references to the Black  
6 Belt had been based on soil, not just demographics.

7 As far as the other findings of this  
8 report, they were not significant in my analysis.

9 Q Okay. So it's fair to say you didn't  
10 rely on this report for determining what counties  
11 would be in or out of the Black Belt in Georgia?

12 A Correct.

13 Q Okay. I can put that away.

14 Let's turn back to your report, Figure 1  
15 on Page 6. You can let me know when you're there.

16 A I'm there.

17 Q Okay. So in looking at Figure 1 I see  
18 you have a reference to Black Belt running from kind  
19 of southwest Georgia through just to the north of  
20 Augusta. In this map are you able to identify which  
21 counties are part of the Black Belt and which ones  
22 are not?

23 A No.

24 Q How would you go about determining  
25 whether county was part of the Black Belt or not?

1           A       I would -- I don't know how I would. I  
2 would have to think about that. I -- I imagine  
3 that -- well, as we were just looking at, other --  
4 other scholars have looked into that. I guess he  
5 would probably look to other people's work and see  
6 if there was agreement.

7                   And if there was not agreement, if --  
8 again, I feel that I'm sort of speculating here.  
9 I -- I would see whether there was a universally  
10 agreed-upon determination, and if not -- I don't  
11 know that I would try to definitively classify  
12 counties as being in or out.

13           Q       If you can -- not to get too far ahead  
14 of ourselves, but if you could turn to page 12 of  
15 your report, paragraph 29. You reference the  
16 creation of Senate Districts 23 as an additional  
17 majority black State Senate district in the eastern  
18 Black Belt area.

19                   So when you make the statement that this  
20 district is in the eastern Black Belt area, are you  
21 saying all the counties in Senate 23 as you've drawn  
22 it at part of Black Belt?

23           A       That was in the my intent.

24           Q       Okay. Well, what do you mean by the  
25 term eastern Black Belt area if you're not certain

1 which counties are in and out of the Black Belt?

2 A The band that we were looking from -- I  
3 think it was figure 1 -- now I'm questioning that's  
4 the right figure.

5 Yes, figure 1. And the sort of stripe  
6 that is labeled there with the letters I think is a  
7 general -- gives a general idea of that band that,  
8 as you -- you've kind of described, a linear --  
9 linear but with a feature running from kind of the  
10 southwest to a bit north of the Augusta area. And I  
11 think the illustrative Senate District 23 falls  
12 on -- and, you know, intersects with a large part of  
13 it, overlaps with that area.

14 Q But it's correct that you -- I guess  
15 what -- I guess what I hear you saying is that the  
16 Black Belt is kind of a general swath of Georgia but  
17 you can't identify specifically whether particular  
18 counties are in or out of the Black Belt region. Is  
19 that fair to say?

20 A Yes, that's correct.

21 Q Do you know if counties in the Black  
22 Belt share anything in common besides the racial  
23 makeup of their populations?

24 A I think it depends on who you ask. As  
25 we mentioned, some -- it depends on how it's

1 defined. So I -- I don't have an answer -- a  
2 blanket answer to your question.

3 Q Okay. Did you rely on counties being in  
4 the Black Belt as part of the drawing process of the  
5 illustrative State House or State Senate plans in  
6 your report?

7 A I don't think so.

8 Q If it's not an area that you relied on  
9 as part of your drawing process, why did you include  
10 it a description of the Black Belt and a map of it  
11 in your report?

12 A I think, as you mentioned before, there  
13 are essentially two primary areas, I think, was the  
14 term you used of the state where significant  
15 portions of the black population live. One can be  
16 general classified as metro Atlanta and one can be  
17 generally classified a the back bell. And that's  
18 sort of visible in Figure 1.

19 And because my illustrative plans  
20 contained additional districts that were either  
21 generally in the metro Atlanta area or either  
22 generally in the Black Belt region or intersecting  
23 with the Black Belt region, it just -- it seemed  
24 like a convenient way of distinguishing kind of  
25 where in the state they were.

1 Q Okay. So more general background  
2 information, not a reason to configure districts in  
3 a particular way because they're in or out of the  
4 Black Belt, is that correct?

5 A Yes.

6 Q Let's move to the illustrative State  
7 Senate plan. And going to Page 8, Paragraph 22,  
8 you've identified that there are 14 districts that  
9 are majority black out of the 56 in the enacted  
10 Senate plan, right?

11 A Correct.

12 Q And you identify that four of those are  
13 in the Black Belt and I'm assuming that would be  
14 District 22, District 26, District 15 and District  
15 12, is that right?

16 A Yes.

17 Q And when you're saying they're in the  
18 Black Belt you're not saying every county contained  
19 in those districts is in the Black Belt, you're  
20 saying these districts are located generally in the  
21 Black Belt region. Is that fair?

22 A Yeah.

23 Q Okay. It would also be correct just to  
24 say those four districts are in south Georgia,  
25 right?

1           A       22? Arguably central. I think people  
2     have talked about Bibb County as central Georgia.  
3     So again, maybe it would depend on who you ask, and  
4     as far as whether -- as far as whether, you know,  
5     Richmond County is south Georgia.

6           Q       I once heard a definition of south  
7     Georgia as anything south of I-20, so it's the bulk  
8     of the state.

9                   All right. So let's talk a little bit  
10    about your illustrative plan. And first of all, you  
11    do note that this plan is modified from the version  
12    that you provided as part of the PI proceedings,  
13    right?

14          A       Yes.

15          Q       I want to ask. We talked about this a  
16    little bit. But you say in paragraph 25 that during  
17    both the earlier process of creating the PI  
18    illustrative plans and the process of revising those  
19    plans to create the plans described in this report,  
20    I was constantly balancing a number of  
21    considerations and there was no one dominant factor  
22    or metric.

23                   Did I read that right?

24          A       I think so, yes.

25          Q       And so when you balanced an area's

1 considerations, how did you decide in your drawing  
2 which factor would control or which consideration  
3 would control if two were in conflict with each  
4 other?

5 A I guess it comes down to kind of a  
6 question of art. There's not a -- there's not a  
7 science to it. Each situation is different. Maybe  
8 I feel that I -- you know, going one way gives a  
9 little bit more -- you know, let's say it's between  
10 compactness and keeping precincts intact and  
11 choosing between option A and option B. I feel that  
12 Option B kind of achieves a greater net result  
13 just --

14 And some of that's kind of just visual.  
15 Does it -- which one looks better or do I think --  
16 and in this case, you know, it's hard to justify  
17 splitting a precinct in the name of compactness, and  
18 that's just kind of a subjective judgment call.

19 So some of it is -- it's sort of the  
20 just a -- I don't know. It's hard for me to give a  
21 specific, you know, decision tree kind of thing.

22 Q And you've obviously drawn a lot of  
23 different maps over time. Is that what you just  
24 described in terms of the more art than science true  
25 of drawing maps in other jurisdictions as well?



1           A           Generally, yes. And I should clarify.  
2           I mean, when it comes to deciding between multiple  
3           factors that may be in tension with each other, yes.

4           Q           Okay. In Paragraph 26 you talk about  
5           trying to minimize changes to the enacted plan while  
6           adhering to other neutral criteria. Do you see  
7           that?

8           A           Yes.

9           Q           And does this map that's submitted with  
10          your 12/5 report modify the fewest existing plan  
11          districts of any plan that you've submitted in this  
12          case?

13                   MR. HAWLEY: Objection to the extent  
14          that that question touches on protected draft  
15          maps. But Mr. Esselstyn you can proceed if  
16          talking only about submitted maps, not just  
17          protected draft reports or maps.

18          A           Okay. And your -- could you repeat the  
19          question, please, Mr. Tyson.

20          Q           Well -- and maybe I can ask it this way  
21          to make a cleaner break of it. This -- the plan in  
22          your 12/5 report changes fewer existing districts  
23          than the plan in your PI report. Wait a minute.  
24          I'm sorry. This is for the State House.

25                   For State Senate, the plan submitted in

1 your PI report look at the same number -- let me try  
2 one more time.

3 For the illustrative State Senate plan  
4 in your 12/5 report it changes the same number of  
5 existing districts as the plan submitted with your  
6 PI report, right?

7 A Correct.

8 Q Okay. And you are not opining in this  
9 case that it is possible to change fewer districts  
10 while creating the three additional majority black  
11 districts, right?

12 A I am not opining in this case that it is  
13 possible -- I have not said anything like that in my  
14 report.

15 Q Okay. And you agree that you change  
16 about 22 districts out of the 56; correct?

17 A Yes. Precisely 122.

18 Q Precisely 22. I'm sorry. I said  
19 approximately.

20 And that's about roughly 40 percent  
21 roughly of the State Senate districts in Georgia to  
22 draw three additional majority Black districts?

23 A Yes.

24 Q In Paragraph 26 you talk about in the  
25 second sentence modifying one district necessarily

1 requires changes to districts adjacent to the  
2 original modification and harmonizing those changes  
3 with traditional redistricting criteria, such as  
4 population equality and intactness of counties often  
5 inescapably results in cascading changes to other  
6 surrounding districts.

7 Do you see that language?

8 A Yes.

9 Q What does harmonizing those changes with  
10 traditional redistricting criteria mean and -- I  
11 guess what I'm really asking is, is it -- is that  
12 saying anything different than the plans were drawn  
13 in accordance with traditional redistricting  
14 principles that we talked about from Paragraph 14?

15 A My English teacher might argue that it's  
16 saying something different because harmonize --  
17 well, I think it's a nuance thing, but it's -- it's  
18 not just a matter of saying, okay, we're taking out  
19 population from this county, so we need to add some,  
20 we'll grab it from the next county and just doing it  
21 in a very basic way that those decisions are made  
22 while finding a combination of the other  
23 redistricting criteria that can also be kept the  
24 same or improved upon.

25 Yeah, it's a -- it's a subtle semantic

1 thing, but I think it's essentially saying what you  
2 said.

3 Q Okay. So the harmonizing piece relates  
4 to just balancing all the various different criteria  
5 in kind of artful way you discussed about Paragraph  
6 25?

7 A Yes.

8 Q So let's turn to Page 10, Paragraph 27.  
9 So you have Figure 4, the three additional districts  
10 that you've drawn as Senate 23, 25 and 28; correct?

11 A Yes.

12 Q And in drawing those districts you also  
13 made changes to the surrounding districts, as you  
14 indicated, I guess 19 other districts also had to  
15 change, right?

16 A Yes, but not necessarily every -- when  
17 you say surrounding, neighboring, yes, but often  
18 that does not mean that every adjacent district had  
19 to be changed.

20 Q And I was looking in this report, and I  
21 didn't find anywhere where you produced a statewide  
22 view of your illustrative plan for the State Senate.  
23 Everything was in kind of zooms like Figure 4.

24 Did you produce a statewide view of the  
25 illustrative plan in this report anywhere?

1           A       I did not.

2           Q       And in looking at -- just in Figure 4,  
3       it appears that Senate 17 as you've drawn it runs  
4       from Oglethorpe County down to Twiggs County near  
5       Macon, and then up into metro Atlanta counties  
6       around Walton County.

7                   Is that your recollection of where that  
8       district runs?

9           A       I'm taking your word for it on the names  
10       of the counties. I know Twiggs and I could confirm  
11       the others. But if I were to look at other figures,  
12       I could probably confirm those county names.

13          Q       Okay.

14          A       Let me check one moment.

15          Q       Actually, if you turn to Figure 5, do  
16       you see District 17's boundaries? I'm sorry.

17          A       Yep.

18          Q       I said Twiggs. Oglethorpe is the  
19       northern part, Wilkinson southern, and then part of  
20       Walton County.

21          A       Yes.

22          Q       And can you describe for me what the  
23       connection is between Walton County and metro  
24       Atlanta and the other counties here, Oglethorpe,  
25       Baldwin, Wilkinson County and District 17.

1           A       I don't know that there's a connection  
2       that I can articulate.

3           Q       Okay. So why then is District 17 drawn  
4       the way it's drawn on your illustrative plan?

5           A       It was drawn to meet the various  
6       standards, including population equality and the  
7       other ones we have described we've alluded to  
8       before. So a number of things were being taken into  
9       consideration.

10                   I believe that -- I believe that part  
11       of Illustrative Senate District 17 was Senate --  
12       Enacted Senate District 25.

13                   Let me go back up to Figure 3. Yeah,  
14       Senate District 25 --

15                   Are you looking at Figure 3?

16           Q       I am.

17           A       So you can see district that  
18       illustrative -- sorry. Enacted Senate District 25  
19       also I believe has part of Henry County and part of  
20       Bibb County. So it is a district that extends from  
21       part of metro Atlanta, also down into the Bibb  
22       County area.

23                   And if you -- you see that Senate  
24       District was to the north of -- to the north of  
25       Senate District 25 on the enacted map. And I

1 generally shifted District 25 to the north and west  
2 into areas including those that had been occupied by  
3 Senate District 17.

4 And so it's kind of swapping areas that  
5 had been in Senate District 25 in the enacted map  
6 into illustrative District 17, and in doing so  
7 making Senate District 25 significantly more  
8 compact.

9 So that was a kind of a long answer to  
10 the question of why. And always -- I'm getting into  
11 the broken record here, but doing this while  
12 considering other traditional redistricting  
13 criteria.

14 Q And in talking about considering other  
15 traditional redistricting criteria, looking at  
16 Senate 17 on the illustrative plan, it looks to me  
17 like it has four split counties in it: Greene,  
18 Baldwin, Newton and Walton Counties.

19 How did you take into account the  
20 traditional principle of avoiding county splits in  
21 the creation of Senate District 17?

22 A I considered it in balance with the  
23 other principles, and weighing the other  
24 considerations and factors that I was trying to  
25 adhere to, I ended up with that number of county

1 splits in that district.

2 I'm just going to see if Figure 3 -- it  
3 looks like previous incarnation of District 17 might  
4 have had three splits. It's a little hard to say  
5 from Figure 3. I'm going to zoom in.

6 Q My count was that Senate 17 on the  
7 enacted had three county splits and Senate 25 on the  
8 enacted had two county splits.

9 A Okay. So that might have been part of  
10 my consideration as well just its predecessor ha  
11 three county splits.

12 Q And so adding a county split you felt  
13 was still complying with the traditional principle  
14 of avoiding jurisdiction splits?

15 A Taken in conjunction with all the other  
16 considerations, yes.

17 Q On Figure 4 -- this is going to be a  
18 little bit harder to see. Because I don't think  
19 it's another map that really shows it. But District  
20 20 on the illustrative plan begins, I believe, in  
21 Jenkins County just south of Senate District 23 and  
22 runs all the way past Macon. And I believe that's  
23 into Dooley County.

24 Can you explain what community of  
25 interest explains the configuration of Senate



1 District 20 on the illustrative plan?

2 A Let me take a moment. To answer your  
3 question, I don't think it's possible to say that  
4 there is a community of interest that explains the  
5 configuration of District 20, not one -- one  
6 community of interest.

7 Q Then can you walk me through then  
8 what -- what does explain the boundaries of Senate  
9 District 20 as you've drawn in on the illustrative  
10 plan?

11 A So, again, I can refer back to Figure 3  
12 showing the enacted plan, and you can sort of  
13 see how District 20 looks in the enacted plan. I  
14 think it's also instructive to look at 26 in the  
15 enacted plan and then compare that in Figure 3 with  
16 Figure 4 and see how much smaller District 26  
17 becomes.

18 So 26 goes from spanning pieces of,  
19 what? Seven counties, I think, to being just in two  
20 counties. So that -- and I know you can't see in  
21 Figure 4, but I'm pretty sure that Senate District  
22 26 is just in Macon-Bibb and Houston Counties.

23 So in making District 26, the  
24 configuration that it has, and removing the splits  
25 from Bibb County, which as I recall was split three

1 ways, there's kind of a void that needs to be filled  
2 and expanding the area of District 20 in that  
3 direction, I guess to the north, was -- that's part  
4 of why it was done the way it was as well as changes  
5 to District 23.

6 I'm just looking back and forth. But,  
7 yeah. So it was kind of a way of trying to  
8 harmonize the shape of District 20 as it was  
9 adjacent to Senate District 26 and Senate District  
10 23.

11 Q Do you recall, did you draw Senate  
12 Districts 23 and 26 first and then fill in around  
13 them with 17 and 20?

14 A That's an interesting question, Mr.  
15 Tyson. You don't really draw the districts one at a  
16 time. Well, you can. But the way that I typically  
17 work in the software is to take census geography and  
18 assign it -- change its assignment from being in one  
19 to being in another.

20 So if I'm changing the southern edge of  
21 Senate District 23, I'm going to either assign --  
22 and depending on whether I'm removing areas or  
23 adding areas, the adjacent district is going to get  
24 those -- the areas that were removed, for example.

25 So in essence when I'm drawing Senate

1 District 23 I'm also drawing the ones that are  
2 adjacent to the boundary that's being changes. does  
3 that make sense?

4 Q It does. And so your process, would it  
5 be then you'd essentially start with Enacted 23, add  
6 geography in places, then remove geography from  
7 Senate 23 and putting in into Senate 20, for  
8 example, and watching how those numbers work as you  
9 drew?

10 A I don't know that I started with 23, but  
11 I think otherwise the description you give is --  
12 it's not just looking at the numbers. It's looking  
13 at the shape. It's looking at, you know, split  
14 administrative areas, political subdivision, that  
15 kind of thing. It's not always numbers. A lot of  
16 it is just kind of is visual inspection.

17 But otherwise, I think the way you  
18 described it is pretty much accurate.

19 Q Okay. And every piece of geography that  
20 you either take into a district or remove from a  
21 district into another district affects the racial  
22 makeup of all the district that you're -- of all the  
23 districts you're working on, right?

24 A Not necessarily. Usually, yes. But if  
25 you had two districts that were both 50 percent some

1 racial group and the population being moved was also  
2 50 percent, it's -- it is possible that make a  
3 change that does not affect those numbers but  
4 usually it does.

5 Q If we could look at Figure 6 on Page 13  
6 which takes us into metro Atlanta.

7 A Got it.

8 Q And Senate District 10 on the  
9 illustrative plan starts in south DeKalb County,  
10 takes pieces of Henry and Rockdale on the way to  
11 Butts County and you've drawn it, right?

12 A Yes.

13 Q And you'd agree that Butts County is a  
14 pretty rural county in Georiga, right?

15 A I would want to look at numbers. I know  
16 that Henry County is adjacent to DeKalb. And I  
17 don't have any opinion on whether Butts is -- is  
18 pretty rural or not.

19 Q So can you walk me through, then why you  
20 connected south DeKalb to Butts County if you don't  
21 have an opinion about kind of the nature of Butts  
22 County?

23 A So, again, if we can refer back to  
24 Figure 3 -- and before do, just look at -- we've got  
25 Districts 10 and 25 here. 25 is highlighted as one

1 of the additional majority Black districts. We  
2 talked about it before. And then look at District  
3 10.

4 So if you look at Figure 3 you can see  
5 that District 10 -- I'm sorry -- District 25 used to  
6 include Butts County in its entirety. And so -- and  
7 this is similar to -- I think we were talking about  
8 17, District 17 before, that when I shifted 25 to  
9 have more of its composition be in Henry County,  
10 other districts had to fill that void as it were.

11 So like District 17 is a -- or District  
12 25 currently includes parts of Henry -- I won't say  
13 currently. The enacted District 25 includes parts  
14 of Henry County as well as more rural counties to  
15 the south and east.

16 In the illustrative plan it's more that  
17 District 10 kind of has that orientation, and  
18 District 25 is much more oriented toward Henry  
19 County and the metro area.

20 Q Okay. Would you agree that -- I'm  
21 sorry. I thought that you were finished. Go ahead.

22 A I'm just trying to zoom in and see.  
23 It's hard to see what I was trying to figure out in  
24 Figure 3.

25 Q In looking at Figure 3, you'd agree that

1 there's no district that connects south DeKalb  
2 County to any county outside of Henry or Rockdale,  
3 right?

4 A True. I think it's hard to -- but I  
5 think you're right.

6 Q So as I understand it, then, the reason  
7 why Butts County is in District 10 on the  
8 illustrative plan is because that was necessary as  
9 you changed -- made changes around District 25, is  
10 that right?

11 A I don't know if I would say it was  
12 necessary, but it was a choice that I made.

13 Q And can you explain why you made the  
14 choice for Butts County to go into a district that  
15 includes south DeKalb or that's just a choice you  
16 made?

17 A Yeah. I honestly don't have a  
18 recollection. We're going to back into late 2021,  
19 and I can't recall my thought process.

20 Q Okay. Let go next to Tab 1 on Page 11.  
21 I just want to ask some questions about the  
22 statistics here on your illustrative plans. The  
23 District 44 as you've configured it has a black  
24 voting age population of 71.52 percent black.

25 Do you see that?

1 A Yes.

2 Q Do you consider that district to be  
3 packed as you've drawn it?

4 A No.

5 Q And why not?

6 A I'm thinking back to our conversation  
7 earlier but how I would define packed, and usually  
8 that -- the definition of that would provide -- or  
9 the explanation for that would involve intent to  
10 disadvantage a group.

11 We've talked about accidental packing as  
12 well. But in this case I said that -- that I think,  
13 as I recall, typically it's done -- when I think of  
14 becoming, the typical situation is that it's done to  
15 disadvantage a group and I was not doing this to  
16 disadvantage any group.

17 Q Okay. Would you consider District 44 to  
18 be an accidental packing situation?

19 A Perhaps.

20 Q Okay.

21 A I think someone could characterize it  
22 that way.

23 Q Okay. But you don't characterize it as  
24 packed at all, either accidentally or otherwise?

25 A Again, I tend to use that term in

1 conjunction with when it has been done for reasons  
2 of trying to disadvantage somebody. So to me the  
3 term packed often has a connotation of some  
4 nefarious intent. Accidental packing -- again, if  
5 someone else were to characterize it that way, I  
6 could understand that and not dispute it.

7 Q In making changes to create your three  
8 majority black districts you also changed District  
9 22 and made its black voting age population now 54.8  
10 percent black according to this table. Right?

11 A Correct.

12 Q So let's get a little more specific.  
13 Figure 5 for Districts 23.

14 A Got it.

15 Q We just talked about the changes to  
16 Senate Districts 22, and you moved District 2 out of  
17 Richmond County into Columbia County, correct?

18 A I moved a part of it. The majority of  
19 District 22 is still in Richmond County. But I  
20 believe that the enacted version of District 22 did  
21 not include any of Columbia County.

22 Q And by moving part of enacted 22 into  
23 Columbia County, that freed up black voters to be  
24 placed into Districts 23 in Richmond County, right?

25 A I just want to clarify that I -- I have



1 no information on voters. I don't look at  
2 registration information. So anytime someone asks  
3 if something I did had some effect on voters, I  
4 don't know. You know, theory there could be zero  
5 people registered there to vote or maybe registered  
6 but they don't actually turn out on election day.

7 So there are portions of Richmond County  
8 that were in Senate District 22 that include black  
9 population that are now -- when I say "were,"  
10 meaning in the enacted plan that are in District 23  
11 in my illustrative plan.

12 Q And so black population that had  
13 previously been located in District 22 on the  
14 enacted plan Richmond County is now in District 23  
15 on the illustrative plan, right?

16 A Correct.

17 Q And do you know if District 22, any of  
18 its boundaries have ever been outside of Richmond  
19 County in the last 20 years of Georgia redistricting  
20 plans?

21 A I don't.

22 Q Is there a community of interest that  
23 led you to connect this part of Columbia County with  
24 the remainder of District 22 in Richmond County?

25 A I believe there are residential

1 neighborhoods that are related to the military base  
2 there. I believe it's Fort Gordon. So I -- it's --  
3 the residential communities there, from what I  
4 understand, are kind of bedroom communities,  
5 commuter neighborhoods, people who -- at least one  
6 member of the family is working or is enlisted and  
7 is stationed at Fort Gordon.

8 And so that -- that could be considered  
9 part of the larger Fort Gordon community.

10 Q Did you use that knowledge when you  
11 created the boundaries of Senate 22 on the  
12 illustrative plan, or did you research that  
13 afterwards?

14 A The -- the knowledge about the -- that  
15 neighborhood being a popular destination for  
16 families in Fort Gordon is something that I learned  
17 after having drawn the district. But visual  
18 inspection of the map, it's -- as I recall, it's  
19 quite clear that these residential areas, as often  
20 happens around counties that have an urban center,  
21 metropolitan area, those are bedroom communities for  
22 the -- the population centers in Richmond County  
23 more than they are places where people who are  
24 likely to live in Columbia County in this case.

25 Q Are you aware whether the precincts from

1 Columbia County that you included in Senate 22 on  
2 the illustrative plan are the precincts in Columbia  
3 with the highest concentrations of black voters in  
4 the entire county?

5 A I'm not.

6 Q Is Columbia County a majority black  
7 county?

8 A I don't know off the top of my head.  
9 I -- if you'd like me to answer that, I think I  
10 could check in my -- one of my appendices.

11 Would you like me to look in the -- the  
12 county population summaries that are early in my  
13 attachments would have that.

14 Q And, yeah, if we could just maybe check  
15 those and see. You said county population  
16 summaries? What would those be specifically? Would  
17 that be Attachment C?

18 A That sounds right. I know it's going to  
19 be after my CV and methodology, one of the first  
20 ones. So there's -- yes. So, yes, Attachment C,  
21 Columbia --

22 Q I read Columbia as 20.8 percent black  
23 alone or in combination, that last -- next to last  
24 column?

25 A Yes.

1 Q So Columbia is not a majority black  
2 county, right?

3 A Correct. Yep.

4 Q So looking a little closer, back to Page  
5 12 in the map fo district 23, looking a little  
6 closer at some of the boundaries. What is the  
7 reason for putting Richmond County together with the  
8 portion of Baldwin County that's included in  
9 District 23 of the illustrative plan?

10 A You ask what is the reason. And I don't  
11 think I can answer that there is a reason. I can --  
12 yeah, I don't feel comfortable saying that -- what  
13 is the reason -- the reason is X.

14 Q Okay. Is there any reason why Richmond  
15 and Baldwin are in the same district aside from the  
16 relative concentration of black voters in both of  
17 those counties?

18 A Yes.

19 Q And what are those reasons?

20 A We've talked about the fall line could  
21 be one thing that runs through Milledgeville and  
22 Augusta and the commonalities that are associated  
23 with the fall line. Those have both been called  
24 fall line cities.

25 And otherwise, I would say, too, that

1 it's -- it is balancing the -- let me just look back  
2 at other -- I'm sorry -- Figure 3 to look at what 23  
3 looked like before.

4 You can see. We've talked about this  
5 how 26 included seven -- parts of seven counties  
6 and -- in the enacted plan. I'm looking at Figure 3  
7 now.

8 And in the illustrative plan when I made  
9 the new configuration of District 26 so that Bibb  
10 County was no longer divided three ways. That meant  
11 that a lot of that area in enacted 26 west of  
12 District 23 needed to go into another district.

13 So we talked about this with Senate  
14 District 20 before that that void kind of needed to  
15 be -- needed to be filled.

16 And so that is part of the explanation  
17 for why District 23 extends west the way it does.

18 Q Is it fair to say that without making  
19 the changes to District 26 you would not be able to  
20 add sufficient black population to District 23 to  
21 make it majority black?

22 A I'm hesitant to say whether something is  
23 possible or impossible if I haven't tried it. And I  
24 don't have numbers in front of me. So I don't know  
25 whether that -- I don't know whether that's fair to

1 say.

2 Q You agree that at the very least  
3 Hancock, Washington and Baldwin -- not Baldwin --  
4 and Washington Counties were not previously in  
5 Senate 23 and have been added to Senate 23 under the  
6 illustrative plan, right?

7 A Yes.

8 Q And adding --

9 A I'm --

10 Q I'm sorry.

11 A -- pretty sure. Pretty sure. Let me  
12 just look. Yes.

13 Q And adding Hancock and Washington  
14 Counties also created a way geographically to add  
15 Baldwin County to Senate 23, right?

16 A It created a way to have Baldwin County.  
17 Okay.

18 Q So you agree with that? Let me ask it  
19 this way. On Illustrative 23, you'd agree that the  
20 only counties contiguous to the remainder of Senate  
21 District 23 and Baldwin County are Hancock and  
22 Washington, right?

23 A When you say "remainder," the pieces  
24 that were part of the enacted Senate District 23?

25 Q Let me say this. The only parts of

1 Baldwin County -- well, what I'm trying to ask is,  
2 the illustrative District 23 only reaches Baldwin  
3 County by including Hancock and Washington as you've  
4 drawn it, right?

5 A Yes.

6 Q Okay. Do you know if there's any  
7 connections between Screven County in the southeast  
8 part of Districts 23 as you've drawn it and Greene  
9 County on the northwest side?

10 A Any connections in -- I mean, I imagine  
11 there are road connections. One can -- you're  
12 talking about commonalties maybe.

13 Q Can you identify any reason why both  
14 Screven County and Greene County are in the same  
15 district on illustrative 23?

16 A I can say that it was -- the  
17 determination or reason would be that after  
18 considering a number of principles that arrangement  
19 seem to be an appropriate configuration.

20 Q And what principles were those that you  
21 considered to reach the conclusion it was an  
22 appropriate arrangement?

23 A Population equality, contiguity,  
24 preserving political subdivisions, compliance with  
25 the Voting Rights Act, the -- I mean, I guess what

1 I'm trying to get as if you're asking for a reason,  
2 and I don't want to say that there is no reason that  
3 they're both in there. But at the same time it  
4 is -- it's based on the totality of the  
5 considerations in drawing that whole area of the  
6 plan, which included really all of the  
7 considerations of traditional principles we've  
8 talked about.

9 So I can't say -- they decision to  
10 include this piece of this county and this county  
11 here was based on, you know, principle 1, 4 and 5.  
12 It's -- it's a totality -- it's this multi-layered  
13 thing. And so the ultimate configuration is based  
14 on a -- all of the considerations that we've talked  
15 about.

16 Q And one of those considerations is  
17 communities of interest, right?

18 A Yes.

19 Q And so can you identify any community of  
20 interest that's shared by Screven County and Greene  
21 County?

22 A No, my approach to communities of  
23 interest is more trying to keep them intact to the  
24 extent possible rather than trying to make any two  
25 areas of a district be something that could be



1 considered part of one community of interest.

2 Q You mentioned compliance with the Voting  
3 Rights Act as a principle you considered in the  
4 drafting of Senate 23. How did you go about  
5 considering compliance with the Voting Rights Act in  
6 the drafting of Senate 23 on the illustrative plan?

7 A As I mentioned that because it's one of  
8 the ones that is in the -- would have been in the  
9 Senate's list of adopted principles. In this  
10 instance what I was asked to do by counsel was see  
11 whether additional majority black districts could be  
12 drawn. And I think there's language in the Voting  
13 Rights Act about not diluting or lessening the  
14 ability of certain --

15 This is not specifically -- yeah, in  
16 terms of general my understanding of compliance with  
17 the Voting Rights Act, there is language about not  
18 diluting a community's voting presence. So in  
19 general as part of what I would have been doing here  
20 would be like not cracking the black community.

21 Q And you refer to not cracking the black  
22 community. Do you consider the black community in  
23 Baldwin County and Richmond County and McDuffie  
24 County, for example, to be the same community or  
25 different communities?

1           A           Good question. I would -- I guess in  
2           this -- I did use the word community. Maybe  
3           population would have been a better choice of words  
4           because some folks would -- would characterize  
5           racial groups as a community of interest. And so I  
6           think some people would say that that is -- that  
7           they, as you described, could be considered one  
8           community.

9                       Often as I'm drawing a map I guess I can  
10          think of them both as a community with a shared  
11          interest or a shared characteristic I should say.  
12          But also they are -- they have their distinctive  
13          elements as well.

14          Q           In the configuration of districts 23,  
15          the counties that you split kind of starting in the  
16          north, then going around are Wilkes, Greene,  
17          Baldwin, Richmond and McDuffie Counties, right?

18          A           Yes.

19          Q           And are you aware that for each of those  
20          county splits you included the highest concentration  
21          of black voters in the county Senate District 23 and  
22          the more white population portion of the county  
23          outside of District 23?

24          A           I am not aware that that's the case.

25          Q           Okay. Let me mark --

1           A       And, yeah, if you can just be able to  
2       refer back to that wording as we -- as we go to  
3       another exhibit because, again, I just wanted to  
4       make sure I understand the just kind of mathematical  
5       relationship you're describing.

6           Q       Certainly. We're going to look at a  
7       chart.

8           A       Okay.

9           Q       I just introduced Exhibit Number 9,  
10       which is Mr. Morgan's report in this case.

11          A       Yep.

12          Q       And I'd like for us to go to Page number  
13       17. Let me know when you're there.

14          A       17, yes.

15          Q       And I believe you said you reviewed Mr.  
16       Morgan's report as part of your preparation for this  
17       deposition.

18          A       Yes.

19          Q       So on page 17 there's a chart for --  
20       that has each of the five-county split with a  
21       portion in District 23 and outside of District 23.  
22       Do you see that?

23          A       Yes.

24          Q       And in each case the portion of the  
25       county in District Senate 23 has a higher AP Black

1 VAP percentage in the portion outside of Senate  
2 District 23 on the illustrative plan, right?

3 A Yes.

4 Q And were you aware that -- I think you  
5 said you weren't -- that every county split you made  
6 in Senate District 23 had this type of racial  
7 differentiation on the population?

8 A Okay. I misunderstood your question. I  
9 thought you were talking about the -- you said  
10 something about the highest concentration, and I  
11 thought you were saying that I had somehow selected  
12 the highest concentration possible in isolating one  
13 section of a county from the other section.

14 You used that superlative term highest,  
15 and I thought you were saying that I had taken --  
16 like if I was taking precincts, that there's no  
17 other combination of precincts that I could have  
18 taken that would have been higher than what I took.

19 So that's what I understood. And that's  
20 why I wanted to maybe refer back to the way you had  
21 asked the question.

22 So, yes, I have looked at this chart.  
23 There is something that I don't agree with in terms  
24 of Mr. Morgan's characterization here. In the  
25 preceding paragraph he says that I took the lion's

1 share or the construction takes the lion's share --  
2 I'm paraphrasing a little bit -- of the black  
3 population of each of those counties into the  
4 district.

5 But in Greene County the black  
6 population outside District 23 is actually more  
7 numerous, and in the case of the AP Black voting age  
8 population, the fourth column of numbers, it's --  
9 well, both, really. Both of the black population  
10 columns of numbers show that there's significantly  
11 more black people outside District 23 than inside.

12 Q And just to be clear, you're looking at  
13 the raw number of individuals, not the percentage of  
14 those individuals as compared to the remaining  
15 population, is that right?

16 A Right. My under -- yes.

17 Q Have you evaluated whether Senate  
18 District 23 would still be majority black if you  
19 removed any of these county splits?

20 MR. HAWLEY: Objection to the extent  
21 that, Mr. Esselstyn, your answer implicates  
22 draft maps or draft reports. But otherwise,  
23 you can answer.

24 A I don't recall doing so.

25 Q Okay. I'll put this one away and go

1 back over to your report. I want to ask you about  
2 the footnote on --

3 A I'm sorry. I hesitate to -- to me the  
4 question of whether it's possible -- you know,  
5 removing one of those portions of the county would  
6 mean adding population elsewhere, and depending on  
7 where that other population comes from it's not as  
8 simple -- yes, I don't recall doing so, but I also  
9 -- I'm not sure -- there are many different ways  
10 that exercise could have looked like, I think.

11 Q But in any case, you haven't conducted  
12 an exercise that you recall splitting -- removing  
13 any of these county splits and replacing that  
14 population with some other population seeing if the  
15 district would stay majority black?

16 A No.

17 Q So let's go to Page 12 of your report,  
18 and I had a question about Footnote 7 and Macon-Bibb  
19 County. Are you with me on that?

20 A Tell me again what page?

21 Q Page 12.

22 A Got it.

23 Q So you reference two witnesses at the  
24 hearing, one of whom spoke about Macon-Bibb as a  
25 community that should be considered as a unit and

1 kept whole. And there's some written comments as  
2 well.

3 Do you recall that, or do you see that?  
4 I'm sorry.

5 A I do.

6 Q Did you know this information about  
7 making Bibb whole before you drew Senate District 26  
8 as configured on the illustrative plan?

9 A The specific information in the  
10 footnote?

11 Q Yes.

12 A No.

13 Q Okay. So is it fair to say that you  
14 drew Senate District 26 as it's configured on the  
15 illustrative plan and then looked through public  
16 comments to find whether anybody had supported that  
17 configuration?

18 A I would say I was aware that there was  
19 sentiment in favor of not splitting Macon-Bibb  
20 County, about repairing those splits in Macon-Bibb  
21 County, when I was preparing the illustrative plan,  
22 the original PI plan.

23 Q What was the basis --

24 A But as far as --

25 Q I'm sorry.

1           A       -- the specific expressions of that  
2       sentiment, I did look up ones to cite after the  
3       fact.

4           Q       And what was the basis for that  
5       sentiment about making Bibb County whole? What's  
6       your understanding of that sentiment? I'm sorry.

7           A       Conversations with counsel.

8           Q       Did you look for any public comment for  
9       individuals asking for Bibb County to remain  
10      configured as it was under the enacted plan?

11          A       Did I look for those?

12          Q       Maybe I can ask it this way. Did you --  
13      did you find any other comments about Macon-Bibb  
14      County and its configuration that you did not report  
15      in your report here?

16          A       Not that I recall. There may have  
17      been -- there were sort of general sentiments of  
18      people, I think, saying -- you know, I'm thinking  
19      about his more in -- at hearings in Atlanta.

20                 A lot of the conversations about  
21      Macon-Bibb County was from the public hearing that  
22      was held in that area. I don't recall people saying  
23      keep Bibb County divided, keep --

24                 So I do remember some hearings at the  
25      state level, very general comments about, you know,



1 don't change things more than you have to kind of.  
2 So -- but as far as specifically statements about  
3 keep Bibb County divided the way it is, I don't  
4 remember reading or seeing any of those.

5 Q Did you review all the public comments  
6 submitted to the online portal at any point before  
7 submitting your report?

8 A I reviewed it. I did not read every  
9 word of every one. There were a lot of them that  
10 were about the process. And so I may have sort of  
11 started reading one comment -- but I reviewed --

12 I think -- it was all on one sort of  
13 page the best I could tell. So I did look at all of  
14 that, yes, I think.

15 Q So you looked it but didn't read every  
16 comment. Is that fair to say?

17 A Yes.

18 Q Okay. And did you watch the videos or  
19 read the transcripts of all the public hearings that  
20 were held before submitting your report?

21 A I did not.

22 Q And I'm assuming given the lack of  
23 references to public comment about the configuration  
24 in District 23 or 17, that you didn't locate any  
25 public comments supporting those parts of your

1 illustrative plan, is that right?

2 A The discussion of the communities in  
3 Columbia County that were largely inhabited by  
4 people with a connection to Fort Gordon is something  
5 I partially learned from the public comment from  
6 the -- I believe it was actually in Columbia County.  
7 That hearing was held in Columbia County, I think.  
8 If not, it was northern Richmond County.

9 That's more to do, I guess you could  
10 say, with the configuration of District 22 than 23.  
11 So I did learn about some of the concerns in that  
12 area, but I did not -- I don't remember hearing a  
13 comment that specifically would have, you know, been  
14 consistent with the choice I made in drawing Senate  
15 District 23.

16 And you -- the other one you said was  
17 17?

18 Q Yes.

19 A Yeah. I don't remember one related to  
20 17 as well. I'm just looking at it on Figure 5 now  
21 to see if jobs my memory.

22 I'm sorry. That was a no, I don't.

23 Q And again, you didn't watch videos of  
24 public comment or read transcripts of it -- of those  
25 comments until you had drawn the illustrative plan,

1 is that right?

2 A So -- after I'd drawn the first  
3 illustrative plan. So the area in Bibb County did  
4 not change from the PI plan to the December '22  
5 plan. Baldwin County did change a little bit. So  
6 my review of the comments and such was in late 2022.

7 Q Thank you. We've been going about an  
8 hour and half and I'm going to move to District 25.  
9 Do you want to take a break at this point, Mr.  
10 Esselstyn?

11 A Sure. Sounds good.

12 MR. TYSON: We can go off the record.

13 (Recess.)

14 Q (By Mr. Tyson) All right, Mr. Esselstyn.  
15 I want to turn next to Senate District 25, which is  
16 on Figure 6, Page 13 of your report. Do you see  
17 that?

18 A Yes.

19 Q And looking at Senate District 25 as  
20 drawn on the illustrative plan, it includes portions  
21 of Clayton County and portions of Henry County,  
22 right?

23 A That's correct.

24 Q So in terms of the decision to connect  
25 this part of Clayton with Henry County, can you tell

1 me what factors went into putting those two counties  
2 together in District 25?

3 A I'm trying to recall. Again, this is  
4 one that I did not -- I altered part of Fayette  
5 County for the December 2022 plan but did not change  
6 the orientation or the alignment of District 25.

7 Let me look back at what it looked like  
8 under the enacted plan.

9 Yeah, I don't recall specific reasons  
10 other than the kind of trial and error, as I  
11 mentioned, that a lot of this is kind of iterative  
12 in. I would have maybe looked at different  
13 possibilities, and this one seemed to be the best  
14 combination.

15 Q Okay. And creating District 25 where  
16 you have -- I know we talked earlier about District  
17 10 that runs down that eastern side of Henry County  
18 to Butts County.

19 A Yes.

20 Q Do you see that? Are you aware of the  
21 racial makeup of the components of Districts 10, the  
22 different counties that you included in District 10?

23 A I'm sorry. Could you ask the -- repeat  
24 the question? And I aware --

25 Q Sure.

1 A Repeat it, please.

2 Q Are you aware of the racial makeup of  
3 the pieces of counties that you've included in  
4 Senate District 10 in the illustrative plan?

5 A Yes and no. I recently looked at Mr.  
6 Morgan's report that had a depiction of that. So  
7 it's not that I'm unaware, but I can't sort of  
8 describe them from memory.

9 Q Okay. Let me introduce Exhibit Number  
10 10, which is going to take a minute. It's is a  
11 larger file. Have you looked at any of the exhibits  
12 to Mr. Morgan's report at all, or just his report  
13 itself?

14 A I looked at the exhibits as well.

15 Q Okay. So I'm making as Exhibit 10 the  
16 exhibits to Mr. Morgan's report. And it will be  
17 coming through momentarily here.

18 A Okay.

19 Q It should show up in Exhibit Share now.

20 A Yes.

21 Q So if you could turn with me to Page 21  
22 of Exhibit 10.

23 A Sorry. 21. Yes, this is the plan  
24 components report.

25 Q Yes, can you just generally describe

1 what the plan components report is for Maptitude?

2 A Yes. So this goes district by district,  
3 and for each district it provides the portions of,  
4 in this case, counties that comprise that district  
5 and some statistics related to that.

6 Q So if we go down to Page 24. That's the  
7 beginning at the bottom of the page there, District  
8 10 onto Page 25. Do you see that?

9 A Yes.

10 Q And looking at the voting age -- the  
11 black voting age population percentage of the  
12 portion of each county included in Districts 10,  
13 you'd agree that on Black voting age population only  
14 DeKalb County is a majority black voting population  
15 for the portion in Districts 10, right?

16 A I'm just -- so this column says AP black  
17 which I presume means any part black. And it's not  
18 clear whether it is the --

19 Oh, I see. You've got -- and then -- my  
20 bad. The voting age population is indicated there.  
21 So I need to look at that part.

22 Yes. So Rockdale -- the total  
23 population is majority any part black but not a  
24 voting age population.

25 Q And so you'd agree that the only county

1 portion on this report with a majority black voting  
2 age population is DeKalb County in District 10,  
3 right?

4 A Yes.

5 Q And from our conversation earlier,  
6 you're not able to identify any communities of  
7 interest between south DeKalb County and Butts  
8 County in Districts 10, right?

9 A Correct.

10 Q Let's move on your report over to  
11 District 28. And that's on Page 14 of your report.  
12 And this is an additional district in southwestern  
13 metro Atlanta that you included as a new majority  
14 black district, correct?

15 A I'm just getting there. Yes. Correct.

16 Q And this district connects parts of  
17 Clayton County with north Fayette, south Fulton and  
18 Coweta County down into Newnan, right?

19 A Yes.

20 Q Would you consider Coweta County to be a  
21 more rural or a more urban county?

22 A More -- it's more rural than the other  
23 three counties that you mentioned.

24 Q And Clayton County is a fairly urban  
25 county, isn't it?

1           A           I believe so.

2           Q           So can you tell me about anything the  
3           geography encompassed on this Senate District 28 has  
4           in common besides the racial makeup of the people in  
5           it?

6           A           So again, when I'm looking at  
7           communities of interest and the communities of  
8           interest principle, I'm not trying to make sure that  
9           every piece of a district has some unifying factor.  
10          So I will say I remember, for example, that the  
11          shape of the part that goes down into Coweta is  
12          trying to keep most of -- it's either Newton or  
13          Newman.

14          Q           Newnan, yes.

15          A           Newnan. Thank you.

16                      -- keep most of that in one district.  
17          So that was an example. That's kind of the -- in  
18          thinking about communities of interest trying not  
19          to, you know, cut that community in half. So that  
20          was a consideration.

21                      But as far as trying to ensure that  
22          every -- every corner has something in common with  
23          every other corner, that was not part of my  
24          calculus.

25          Q           And you'd agree that Newnan was whole on



1 the enacted Senate plan in 28 as well, right,  
2 because Coweta was whole as a county?

3 A I think that's right. Just let me  
4 quickly check Figure 3.

5 Yes. But I think that Douglas County  
6 was divided. I may be getting this confused with  
7 the House plan. But I believe that Douglas County  
8 was divided in the enacted plan but is made whole in  
9 the illustrative plan.

10 Q Which one? Douglas County?

11 A I think so.

12 Q Okay. And in the illustrative plan,  
13 District 35 you know makes Douglas whole but it also  
14 connects portions of Fulton County with parts of  
15 south Paulding County, right?

16 A Right.

17 Q Do you know the racial makeup of that  
18 part of south Paulding County?

19 A No. I mean do I know? I don't know it  
20 off the top of my head. There are -- probably one  
21 of the exhibits we could look at would give me a  
22 clue but -- or a better informed answer.

23 Q Okay. Were you aware of any connections  
24 between Paulding County and Fulton County when you  
25 configured illustrative District 35 this way?

1           A       I believe that some of the definitions  
2       of metro Atlanta include Paulding County. And so in  
3       that sense they would be considered generally part  
4       of metro Atlanta. I think there was one of the  
5       witnesses at the PI stage kind of testified about  
6       how, you know, parts of southwest metro Atlanta or  
7       western metro Atlanta would have shared concerns, be  
8       they about traffic or development or that kind of  
9       thing.

10                   That is reasonable to think of that as  
11       being a community -- the metro Atlanta community  
12       and, you know, some slice of the metro Atlanta  
13       community.

14           Q       Let's move to the comparative  
15       characteristics for the Senate plan. I know we've  
16       talked about some of this already. What I want to  
17       do is go through a little bit more detail on some of  
18       these specifically. So first on the population  
19       equality number.

20           A       Yes.

21           Q       You would agree with me that the  
22       deviation range on the illustrative plan -- or  
23       rather I should say the total deviation on the  
24       illustrative plan is almost double the deviation  
25       range used on the enacted Senate plan, right?

1           A       I would want to look at the numbers. I  
2    don't --

3           Q       Okay.

4           A       Go ahead.

5           Q       I believe if we go back to your  
6    appendices you have the deviation ranges broken out,  
7    is that right?

8           A       Yep. If you get to the page number  
9    before I do, that might speed up.

10          Q       All I have is Attachment H. I'm using  
11   paper, so I don't have the pdf pages numbers.

12          A       Oh, okay. G. Here we go. H.

13          Q       And so the enacted plan total deviation  
14   is 2.01 from minus 1.03 to plus 0.98 and the  
15   illustrative plan deviation, total deviation is 3.57  
16   from minus 1.67 to a plus 1.9. Is that right?

17          A       Yes.

18          Q       And you didn't report that increase in  
19   total deviation in your written report, did you?

20          A       I did not. Getting back to your earlier  
21   question, almost double. I mean, it's -- it's less  
22   than 1.8 times. So almost double? I'm not sure I  
23   agree with that.

24          Q       Okay.

25          A       That's a fuzzy description.

1 Q But you would agree it's 1.56 points  
2 higher on total deviation, right?

3 A Yes.

4 Q And even though it's a higher total  
5 deviation on the illustrative plan versus the  
6 enacted plan, you determined that it still complied  
7 with the traditional principles of population  
8 equality, it being the illustrative plan?

9 A Yes.

10 Q In Paragraph 36, to go back to where  
11 were on Page 15 --

12 A Just for the record, that was Page 77,  
13 if we're going back to look at something like that.

14 Q Okay.

15 A You said now Page 15?

16 Q Right. It's the downside of one of us  
17 using paper and one uses electronic, I suppose.

18 A Okay. I'm on page 15.

19 Q Okay. So this is the discussion of  
20 compactness and the reporting of compactness  
21 metrics, correct?

22 A Yes.

23 Q And you report the average compactness  
24 scores for the enacted and the illustrative plans,  
25 but this includes -- the average score includes all

1 56 districts, not just the ones that were changed,  
2 right?

3 A Right.

4 Q And you didn't run a compactness score  
5 report only for the districts that were changed to  
6 compare those with the enacted plan; correct?

7 A Correct.

8 Q Do you know if the districts that you  
9 changed on the illustrative plan from the enacted  
10 plan are more or less compact as a whole than the  
11 enacted plan?

12 A So compactness depends on which metric  
13 you just. You know, some -- some districts can be  
14 more compact based on one metric and less compact on  
15 another. So, again, repeating the question was  
16 whether I know whether the districts I changed were  
17 on the whole more compact or less compact?

18 Q Yes.

19 A I don't -- I don't know. I can guess,  
20 but I don't think I can say with certainty.

21 Q So let's look at Figure 8. Can you just  
22 explain to me what Figure 8 shows?

23 A Yes. So Figure 8 is a series of sorted  
24 bar charts basically, and for the four measures,  
25 compactness measures, that can be applied to

1 individual districts, the four that I reference in  
2 the previous page, Reock, Schwartzberg,  
3 Polsby-Popper and Area/Convex Hull, what it does is  
4 take the compactness scores for the enacted plan and  
5 put them in order from most compact to least  
6 compact, left to right.

7 And then specifically for the districts  
8 that are additional majority black districts in the  
9 illustrative plan, it places those basically within  
10 this sorted order so that you can see how the  
11 compactness -- the various compactness stores for  
12 those three districts kind of compares to the  
13 distribution of compactness scores for the entirety  
14 of the enacted plan.

15 Q So the only illustrative plan districts  
16 that are included on Figure 8 are the colored lines,  
17 the white or the grayish lines are enacted plan  
18 districts, is that right?

19 A That's write.

20 Q So you didn't score, for example, Senate  
21 Districts 20 or Senate District 17 on the  
22 illustrative plan as part of Figure 8, right?

23 A Right.

24 Q Let's like next at Paragraph 39, county  
25 splits. And you'd agree that the illustrative plan

1 splits more counties than the enacted plan; correct?

2 A Correct.

3 Q And it splits more precincts than the  
4 enacted plan, right?

5 A Correct. Yes.

6 Q And so how did you determine the  
7 illustrative plan complies with the legislative  
8 principle about boundaries of counties and precincts  
9 it splits more counties and VTDs than the enacted  
10 plan?

11 A So the -- so the language of the  
12 guideline adopted in this case by the Senate is not  
13 explicit. It just says that the boundaries of  
14 counties and precincts should be considered. And I  
15 mentioned that in the first sentence of Paragraph  
16 39. The following sentence says that typically  
17 that's taken to mean that counties should be kept  
18 intact to the extent possible.

19 Another consideration that I have seen  
20 and sometimes one of the -- one of the reports that  
21 you can generate in Maptitude shows not only the  
22 county divisions but the number of people in each  
23 portion of the county in a split county.

24 So one thing -- and this came up, I  
25 think, during our conversation in the PI phase was

1 that, you know, this is out of 159 counties total.  
2 So you think about this as a percentage of the total  
3 of counties a difference of five counties is in the  
4 low single digit percent.

5 So in that sense it could be considered  
6 a marginal difference. I think another  
7 consideration -- and we can go back to Exhibit 9.  
8 There's a table in Mr. Morgan's report that shows  
9 this way that I can reference the numbers.

10 So I'm now looking at Exhibit 9, Chart  
11 5. Are you there? It's on Page 18?

12 Q I'm getting there. Hang on. Wait a  
13 minute. I'm sorry. Exhibit 5 of Mr. Morgan's  
14 exhibits, is that right?

15 A Chart -- chart 5 in Exhibit 9. So in  
16 his report, in his actual report there's a chart.

17 Q Just a second. I'm there.

18 A And it begins on Page 18 and extends  
19 onto Page 19, which is important because I'm looking  
20 at the very bottom of Page 18 and the top of Page  
21 19. And you can see here the county splits versus  
22 the -- the counties that were not split in the two  
23 reports. It doesn't show all the counties that  
24 weren't split, but it shows the difference.

25 And in this general -- we'll call it



1 south central Black Belt area of the state, one of  
2 the counties that I did deep intact was Macon-Bibb  
3 or referred here -- referred to here as Bibb, and  
4 that has a population of 157,000 people.

5 So in preserving that county as whole  
6 one can argue that the -- that that is a decision to  
7 preserve a county intact that affects 160,000  
8 people, that that's county where a population, you  
9 know, in the -- around 160,000. It's --

10 Now, if you look at the counties that  
11 are divided that you mentioned that we were looking  
12 at in my report -- I believe that was Baldwin,  
13 Greene, McDuffie and Wilkes.

14 Is that right? The ones that you just  
15 asking me about.

16 Q We -- for Senate District 23 only, yes.

17 A Yes. And, yes. So you look at those  
18 populations and those in total add up to a hundred  
19 thousand people.

20 So while it is a larger number of  
21 counties, these are counties with lower populations.  
22 Another interesting thing about Macon-Bibb County is  
23 that it's got the consolidated municipal and county  
24 government. So in splitting Macon-Bibb one is  
25 splitting not only the county but a sizeable

1 municipality.

2 In splitting some of these smaller  
3 counties one might be putting one municipality in a  
4 different district than another or -- I'm honestly  
5 not certain if I split some smaller municipalities.  
6 I can't recall. But nothing to the extent of  
7 splitting Macon-Bibb consolidated government three  
8 different ways.

9 So that's a very long way of answering  
10 your question about how I would explain how my  
11 decisions about county intactness were in accordance  
12 with that redistricting principle.

13 Q You would agree that the counties you  
14 made whole are Bibb and Douglas. That's, I guess,  
15 right at 300,000 people total in those two counties,  
16 is that right, roughly?

17 A Yes.

18 Q And then the new county splits  
19 introduced Coweta with 126,158 people. Are you  
20 saying the total of the population of the new county  
21 splits is less than the counties that you made whole  
22 in terms of population?

23 A That's not what I'm saying.

24 Q Okay. You're just trying to talk about  
25 the overall impact of the county splits? Is that

1 why you're referencing the population?

2 A Yes, and specifically in response to  
3 your question about the county splits, the  
4 additional number which were -- so it's a difference  
5 -- a net difference of five, and four of those were  
6 -- four of the ones that are not split in the  
7 enacted plan are related to that Black Belt area.  
8 And that's where the Bibb County decision sort of  
9 could be considered a balance or an offset and that  
10 Douglas and Coweta are quite close to having the  
11 same population.

12 And so Newton, one is -- one is split in  
13 one and whole in the other, vice versa.

14 Q So moving to Paragraph 41, you talked  
15 about the consideration of communities of interest.  
16 And I know we talked a lot about communities of  
17 interest. But the only I saw referenced here  
18 related to the two campuses of Georgia College.

19 Are there other communities of interest  
20 you can identify that you kept whole on the  
21 illustrative plan that were divided on the enacted  
22 plan?

23 A So we've just recently been talking  
24 about counties and consolidated municipal county  
25 governments. So Macon-Bibb would be an example,

1 Douglas County. Other than that, I -- I think maybe  
2 Fort Gordon. I'm remembering considering closely at  
3 least parts of Fort Gordon that I felt I was making  
4 improvements relative to the enacted plan and  
5 keeping the actual boundaries, the Fort -- I --

6 My memory is a little hazy on that, but  
7 I think that was another one that -- where at least  
8 portions of it one could consider an improvement.

9 Let me just look back at the figures  
10 here. There may have been census studies -- maybe  
11 places in Henry County. I'm -- honestly, I'm I  
12 can't think of any others that I can say  
13 definitively.

14 Q Okay. You reference in Paragraph 41  
15 communities that you've heard described by Georgians  
16 either in personal conversation or in statements  
17 made be public hearings. What personal  
18 conversations did you rely on when you were putting  
19 together the illustrative plan, if any?

20 A So I'm trying to remember -- I don't  
21 recall. There -- I know when I wrote in there were  
22 things I had in mind, and I -- I don't remember.

23 Q And this is your report from December  
24 5th, 2022?

25 A Yes. Yeah, the language is in that

1 report, yes. I don't know if it was in -- if I used  
2 that same language in the previous report.

3 Q Okay. In Paragraph 42 you talk about  
4 the pairing of incumbents and you used residential  
5 addresses of recently elected State Senators as  
6 provided by counsel. I didn't see that you included  
7 an incumbency report anywhere in your -- in your  
8 documents. Is there a reason why you didn't include  
9 that?

10 A There is. Maptitude gives you kind of  
11 two flavors of incumbency reports, and they both are  
12 designed to focus on -- or not focus on, but to have  
13 as part of their significant information included  
14 political affiliation.

15 And I deliberately did not want to be  
16 looking at the political affiliation. So when I got  
17 those spreadsheets or brought them or geocoded the  
18 spreadsheets so that I had latitude and longitude  
19 for all the addresses and brought those into  
20 Maptitude I no longer had party information.

21 So in generating the report you have to  
22 specify some field for the party information. The  
23 short answer is basically the -- the report was  
24 including party related information that was  
25 meaningless because I didn't have it in there. I

1 had to just specify some column that it should  
2 consider a political party. But because I didn't  
3 have political parties in there, it -- the political  
4 party related information in the reports was -- was,  
5 as I said, meaningless. It was not accurate.

6 So I didn't want to include that report.  
7 I did include a footnote specifying which pairings  
8 happened. So I did identify that. But that's --  
9 that's essentially the explanation. Maptitude did  
10 not give me a way to provide a report that didn't  
11 have that misleading partisan information.

12 Q And you said you did not want to look at  
13 partisan information. So you don't know if you drew  
14 any Republicans into heavily Democratic districts or  
15 Democrats into heavily Republican districts, right?

16 A Except for information that you told me  
17 during the PI or -- conversation in the PI about --  
18 I think you told me about some districts that had, I  
19 think, Republican incumbents in them.

20 Q So you didn't --

21 A I --

22 Q But you haven't looked at whether it's a  
23 winnable district for that particular party  
24 affiliated individual, right?

25 A Correct.

1           Q       So in terms of other traditional  
2       districting principles, you didn't consider for  
3       purposes of this report or the illustrative plan the  
4       cores of existing districts, right?  Aside from -- I  
5       should say --

6                   Of the 22 districts that you changed on  
7       the illustrative plan, we've referenced a variety of  
8       traditional redistricting principles in this  
9       comparative characteristics section of your State  
10      Senate report.

11           A       Yes.

12           Q       Did you consider the traditional  
13      principle of cores of existing districts as to the  
14      configuration of those 22 districts that you  
15      changed?

16           A       I would say yes.

17           Q       Okay.  And what -- did you run any  
18      reports or provide any information about how you  
19      considered that traditional districting principles  
20      for those 22 districts?

21           A       No.

22           Q       How did you go about considering the  
23      cores of existing districts as a principle of  
24      redistricting for the 22 districts you changed?

25           A       So we sort of spoke about this earlier.

1 I'm considering the core preservation as being  
2 connected with continuity and trying to keep changes  
3 to a minimum.

4 So maybe it's easiest explained by  
5 saying what the opposite of considering that would  
6 have looked like, which would have been saying, all  
7 right, it looks like I'm going to need to change  
8 these 22 districts. I'm going to erase them all,  
9 and just start with a blank slate for where those 22  
10 districts used to be.

11 That's not what I did. What I did  
12 was start with the enacted plan as my starting point  
13 and then make changes to that where I felt they were  
14 needed. But if I didn't think a change was  
15 something that needed to happen to balance all the  
16 criteria I was considering, I left it as is.

17 So there are going to be a lot of  
18 those -- well, I didn't run a report. I can't back  
19 this up. But my understanding is that -- my sense  
20 is that if you were to look at a lot of those 22  
21 districts, substantial pieces of them would be the  
22 same as what they are in the enacted plan.

23 Does that --

24 Q Yes.

25 A I'll stop.



1 Q That helps. Thank you. And you would  
2 agree that compliance with the Voting Rights Act is  
3 a traditional principle of redistricting and one  
4 listed on the General Assembly's guidelines for  
5 redistricting plans, right?

6 A Yes.

7 Q And so did you consider Voting Rights  
8 Act compliance as part of drawing your illustrative  
9 plan, or was that limited to just attempting to  
10 create these additional majority black districts?

11 A I did. And we touched on this a little  
12 bit before, I think, in the context of the area  
13 around Illustrative Districts 22 and 23 that not  
14 diluting the voting representation of minority  
15 communities is one of the things that's specified in  
16 the Voting Rights Act.

17 So keeping -- kind of paying attention  
18 to whether I might be diluting the voting  
19 representation of minority communities would have  
20 been a consideration.

21 Q And when you say paying attention to not  
22 diluting minority communities, can you flesh that a  
23 little bit for me? What would you be looking for  
24 specifically as you're drawing to avoid diluting  
25 minority communities?

1           A           So I think of diluting -- to use an  
2           analogy, if you have -- in chemistry, for example,  
3           you have one ingredient and then you had a lot of  
4           another ingredient so that the percentage of the  
5           first ingredient is diminished, that would be  
6           diluting.

7                        So if there were a -- an area -- a  
8           potential district or an enacted district that might  
9           have had a significant population of black people,  
10          for example, making sur that I wasn't dividing that  
11          up in ways that would diminished that community's  
12          ability to potentially elect a representative of  
13          their choosing.

14          Q           All right. Well let's move on to the  
15          State House plan. Are you good to keep going?

16          A           Yeah.

17          Q           Okay.

18          A           Fine by me.

19                        Is our court reporter doing okay?

20          Q           So Mr. Esselstyn, next you looked at the  
21          enacted House plan and you agree that 49 of the 180  
22          districts are majority black, is that right?

23          A           In the enacted plan, yes.

24          Q           And that's an increase of two over the  
25          plan that was in place before the 2021 -- excuse me

1 -- enacted plan, right?

2 A I will take your word for it. I don't

3 -- I don't know.

4 Q Okay. Now, you start by discussing per  
5 your illustrative plan and point out that there is  
6 -- there are some changes that you made between this  
7 plan and the plan in the PI proceeding, right?

8 A Yes.

9 Q And that you were able to change just 25  
10 of the 180 districts instead of 26 as on the PI  
11 plan, right?

12 A Correct.

13 Q And this configuration in this report  
14 for the House illustrative plan changes the fewest  
15 number of enacted House districts necessary to add  
16 five majority minority -- or majority black House  
17 districts of any plan that you've submitted in this  
18 litigation, right?

19 A Yes.

20 Q So when you were drawing your  
21 illustrative House plan did you follow generally the  
22 same process we talked about with the Senate plan  
23 where there was no single dominant factor or metric  
24 in the creation of the plan?

25 A That's correct.

1 Q Okay. Any differences in how you  
2 approached drawing the House plan versus how you  
3 approached drawing the Senate plan just from a  
4 global perspective?

5 A I mean, the House districts are smaller,  
6 they're less populous. So that often means they're  
7 typically -- that typically means they're going to  
8 be spanning fewer counties and they're going to be  
9 -- yeah, the configurations are a little different  
10 because you're working with about 60,000 people are  
11 opposed to closer to 200.

12 Q But you used the same approach to  
13 harmonize the changes with traditional redistricting  
14 criteria in drawing the House plan as you did when  
15 drawing the Senate plan?

16 A Yes.

17 Q And we have a count of five additional  
18 majority black House districts, 64, 74, 117, 145,  
19 and 149, right?

20 A That's right.

21 Q Now, looking at Figure 5 or Table 5 on  
22 Page 25 --

23 A Yes.

24 Q -- District 64 is one of the new  
25 districts is only just barely majority black at

1 50.24 percent, right?

2 A It is 50.24 percent.

3 Q Would you consider that barely majority  
4 black?

5 A Barely is fuzzy. I don't know.

6 Q Not a term you would use generally?

7 A No.

8 Q Okay. And you made changes --

9 A It's --

10 Q I'm sorry?

11 A I might use it for another measure. But  
12 I did feel if it was 50.01 I might use the term  
13 barely. I don't want to say that I wouldn't use the  
14 term, but in this context I'm not sure that I would.

15 Q Okay. And the changes you made around  
16 Macon, you've added Districts 145 and 149 but you  
17 also made changes to District 142 and 143 in Macon,  
18 right?

19 A Correct.

20 Q And so of those four districts that  
21 divide up Macon-Bibb County, the highest is 149 at  
22 51.53 percent black and the lowest is 50.14 percent  
23 black VAP, right?

24 A Yes.

25 Q And in terms of your report, you're not

1 offering any opinions about whether these particular  
2 districts will elect candidates of choice in the  
3 black community. You're just drawing the districts  
4 as majority black districts; right?

5 A Correct.

6 Q And looking at District 77 and District  
7 86 on Table 5, those districts are 76.13 percent and  
8 75.05 percent black VAP respectively. Do you  
9 consider those districts to be packed districts with  
10 Black voters?

11 A Again, you know, I probably spend a  
12 couple of minutes answering the question when you  
13 asked a similar question about one of the Senate  
14 districts in the metro Atlanta area.

15 And again, I'll say that in my -- the  
16 way that I would typically define packed has to do  
17 with trying to disadvantage a group or focusing on  
18 one aspect of the demographics or the political  
19 makeup while ignoring other considerations.

20 That was not my -- how I was operating.  
21 So I hesitate to characterize these as packed. If  
22 someone wanted to say that they were accidentally  
23 configured so as to have high concentrations of the  
24 black voting age population, yeah. They're just --  
25 packed is a loaded term.

1 Q And not to keep beating a dead horse on  
2 this one, but when you say packed is a loaded term,  
3 what do you mean, loaded term? I'm not sure I've  
4 heard you use that up to this point.

5 A It's often used in conjunction with maps  
6 that have been found to be gerrymandering, racial  
7 gerrymandering or partisan gerrymandering.

8 So I hesitate to characterize districts  
9 in a plan that I drew as packed because, as I said,  
10 that often has associations with plans that were  
11 drawn to disadvantage a group or to focus  
12 exclusively or primarily on, you know, one -- one  
13 factor at the expense of others.

14 Q So looking back at Figure 13, the  
15 locations of the new majority black districts you've  
16 drawn --

17 A Yeah.

18 Q -- you didn't draw any new majority  
19 black districts in southwest Georgia, right?

20 A That's right.

21 Q And you didn't draw any new majority  
22 black districts for the House plan over in east  
23 Georgia toward Augusta, right?

24 A That's right.

25 Q So in terms of where these districts are

1 located, there's three in metro Atlanta and two in  
2 -- we'll call it metro Macon. Would that be fair?

3 A Yes.

4 Q So in looking at your report, nothing in  
5 this report shows what 25 districts were changed on  
6 your illustrative plan, right?

7 A I think that's right. You could  
8 probably compare two tables and derive that  
9 information, but I did not include a report showing  
10 that.

11 Q Okay. So when -- the shape of district  
12 133 or 135 there north of Macon, you don't know for  
13 sure if those districts were modified as part of the  
14 map drawing process, is that right? I guess we  
15 could look back at Figure 11.

16 A Yeah. That's a good -- or Figure 12,  
17 right? So 133 definitely did and 135 also did  
18 change.

19 There's also -- there is a figure from  
20 my second supplemental report, which is a map  
21 showing which districts changed in my earlier plan.  
22 If it would be convenient to reference that -- there  
23 is one difference, but I know which district it is  
24 and so --

25 Q Okay.



1           A       Other than that, those maps would still  
2       -- the shapes of the districts would be different in  
3       a few cases but they would still -- the reflection  
4       of which districts got changed would be accurate  
5       except for District 128.

6           Q       Okay. And we'll get to that report in a  
7       little bit. We can refer to that when we get there.  
8       My question was just addressing this report, so --

9           A       Got it. I'm just trying to be as  
10      efficient as possible.

11          Q       Certainly. So let's go to District 64  
12      in Paragraph 49, and this district connects parts of  
13      Fulton County through Douglas County with south  
14      Paulding County, right?

15          A       Yes.

16          Q       And earlier you focused on making  
17      Paulding County whole in the Senate map, and here  
18      Paulding County is divided into several pieces on  
19      the House map, right?

20          A       I don't agree with that. I think you  
21      said I focused on keeping Paulding County whole but  
22      --

23          Q       I'm sorry. I meant to say Douglas  
24      County. So in the Senate plan you referenced  
25      keeping Douglas County whole.

1 A Yeah.

2 Q And in the House plan here Douglas  
3 County is divided to allow District 64 to connect  
4 these pieces of Fulton and south Paulding, right?

5 A Yeah. I mean, if we were to look back  
6 at how it was -- it's hard to see in Figure 12. But  
7 I might say that there is a portion of Douglas  
8 County included in the district which serves as a  
9 connection between Fulton and Paulding Counties, the  
10 portions in Fulton and Paulding Counties.

11 And this is an example of -- the smaller  
12 population size of these districts means that I  
13 don't think I could have kept Douglas County whole  
14 because, as I recall, its population is around  
15 145,000 people and these districts are 60,000, so --

16 Q And aside from being in the Atlanta  
17 metro area, as you identified, for connecting parts  
18 of Fulton and Paulding in the Senate plan, is there  
19 anything else you can identify -- a community that's  
20 kept whole in Senate District -- I mean, House  
21 District 64?

22 A Not that I can recall. There -- not  
23 that I can recall.

24 Q So let's move over to south Metro,  
25 Paragraph 50. And here we have two districts.

1 First District 74 that connects portions of Clayton  
2 with portions of Fayette, is that right?

3 A Yes.

4 Q Do you know if the portion of Fayette in  
5 that district is majority black?

6 A I don't.

7 Q Would it surprise you if it was 16.01 AP  
8 black VAP in Fayette County in District 74?

9 A That's lower than I would expect. But I  
10 -- I don't know that it wouldn't surprise me.

11 Q Do you consider the south part of  
12 Fayette County to be a rural area?

13 A I don't have an opinion on that.

14 Q Okay. And so can you identify any  
15 communities that are kept whole in House District  
16 74?

17 A None that I can recall there. I think  
18 -- is this the one where we talked about Irondale?  
19 I -- I believe there were -- in the area in Clayton  
20 County, I believe it was a census-designated place,  
21 maybe not an incorporated one, but I have a, again,  
22 somewhat hazy recollection that there is a community  
23 that this was drawn to keep mostly intact.

24 Q Okay. Do you recall if that  
25 census-designated place was in Clayton or Fayette

1 County?

2 A Not with certainty.

3 Q Are you aware of any other reason to  
4 connect Clayton and Fayette Counties the way  
5 District 74 does on the illustrative plan?

6 A I'm just seeing if looking at the  
7 enacted arrangement will jog my memory. Yeah, it's  
8 been -- it's been a while since I -- this is not one  
9 of the areas that I changed for the December 2022  
10 plan, so it's far enough back that I don't have a  
11 recollection.

12 Q Okay. And moving over, you also changed  
13 House District 78 on the way to 116 and 117, right?

14 A Are you just saying on the way to 116  
15 and 117 as a -- just sort of a geographic --

16 Q I'm sorry. I'm moving from west to  
17 east. So the next district to the east is District  
18 78, is that right?

19 A Yes, and 78 changed. I just wasn't sure  
20 if you were saying that I changed it on the way, if  
21 it -- if "on the way" was modifying my action of  
22 changing it.

23 Okay. I'm -- yes, I'm pretty certain  
24 that 78 was changed as well.

25 Q Okay. And do you have an opinion about

1 whether the part of 78 that's in Spalding County is  
2 a rural of Georgia?

3 A I would have to look to say with any  
4 kind of confidence. I -- and there's no one  
5 definition of rural, but -- so I'm -- I don't have  
6 an opinion.

7 Q And it appears from the boundaries here  
8 that the city of Griffin is not in District 78. Do  
9 you recall whether you included the city of Griffin  
10 in that district or not?

11 A I don't recall.

12 Q And District 117 -- or actually, I'm  
13 sorry. Let's do District 116, the next district to  
14 the east. And it crosses over the interstate. Do  
15 you recall the conversation we had at the PI hearing  
16 about 116 crossing the interstate?

17 A I do, yes. Not super clearly, but I do  
18 remember that was a topic of conversation.

19 Q And District 116 includes a small  
20 portion of Clayton County in that district, right?

21 A Yes.

22 Q And then one more district to the west,  
23 District 117, the new district and you've identified  
24 as whole in Henry County, right?

25 A That's right.

1           Q       And you don't know because you didn't  
2 look at political data if Districts 117 and 74  
3 currently have Republican incumbents?

4           A       I did not.

5           Q       Is there any community you can identify  
6 in District 117 that is being kept whole in its  
7 configuration on the illustrative plan?

8           A       Not with the information I have in front  
9 of me or based on memory, but there may be some. I  
10 just -- I don't have -- as I said, not based on what  
11 I have in my mind or in front of me.

12          Q       Who would you need to have to determine  
13 that?

14          A       Maps of things like incorporated areas  
15 or census-designated places, other campus-type  
16 things, whether they are educational institutions  
17 or military facilities, that sort of thing, other  
18 parks, those -- those kinds of communities of  
19 interest that have clearly defined boundaries as  
20 opposed to the kind that --

21                   Well, that would be a layer, if they  
22 were also a layer of kind of community -- defined  
23 communities, that would be another thing I could  
24 look at and specify.

25                   Perhaps minority groups, if -- sometimes

1     there might be a smaller pocket of one of the less  
2     populous minority groups, for example, major  
3     employers. There are a lot of things that people  
4     consider communities of interest.

5           Q       But you didn't list any communities that  
6     you considered to keep whole in District 117 in your  
7     report, right?

8           A       That's correct.

9           Q       Let move down to Macon and take a look  
10    at this area.

11          A       Okay.

12          Q       So in Paragraph 51 you reference a  
13    comment from Ms. Wright, the director of the General  
14    Assembly's reapportionment office -- excuse me --  
15    about this area being a community of interest. Do  
16    you see that?

17          A       Yes.

18          Q       And specifically were you referring to  
19    the connection between Macon-Bibb and counties  
20    surrounding it or Macon-Bibb and Twiggs and  
21    Wilkinson particularly?

22          A       The -- Twiggs and Wilkinson Counties are  
23    what she identified as a -- constituting a single  
24    community of interest.

25          Q       And that was in reference to the way

1 that Senate District 26 was configured on the  
2 illustrative plan at the PI hearing, right?

3 A I don't remember the context. I just  
4 made a note of -- it was in a written statement,  
5 right?

6 Q Uh-hmm. Do you recall that -- I'm  
7 sorry.

8 A Okay. I don't recall whether it was in  
9 reference to a Senate plan or a House plan.

10 Q It's your recall that the illustrative  
11 Senate plan takes Senate District 26 out of Twiggs  
12 and Wilkinson County and puts it wholly within Macon  
13 and then a piece of Houston County, right?

14 A That's right.

15 Q So in this configuration of a House,  
16 though, instead of keeping Macon -- well, you've  
17 have connected Macon with Twiggs and Wilkinson on  
18 this configuration of the House plan unlike the  
19 configuration of the Senate -- District Senate in  
20 Macon on the illustrative Senate plan, right?

21 A That's correct.

22 Q You also reference comments at the  
23 public hearing held about keeping Macon whole. Do  
24 you see that in Footnote Number 13?

25 A Yes.



1 Q And was this also a public comment that  
2 you located after you drawn Districts 145 and 149 in  
3 at least the PI plan in 2021?

4 A Yes.

5 Q You say in the language --

6 A Again, I'm sorry -- yes, that particular  
7 comment was identified after -- afterwards, yes.

8 Q In Paragraph 51 you also state the  
9 orientation of Districts 142 and 143 ensures that  
10 the northern portions of Macon-Bibb County stay in a  
11 Macon-Bibb County district with portions of Macon  
12 rather than being put in a district with a more  
13 rural neighboring county like McGriff, right?

14 A Yes.

15 Q And District 149, as you've configured  
16 it, puts portions of south Macon into a district  
17 within more rural neighboring counties like Twiggs  
18 and Wilkinson, right?

19 A Yes.

20 Q What was the basis for choosing to push  
21 south Macon districts into more rural neighboring  
22 counties while -- and not placing northern Macon  
23 districts into more rural neighboring counties?

24 A Can you say the final part of your  
25 question again? What was the decision? What was

1 the --

2 Q What was the reason for why you followed  
3 this public comment that you've cited for Districts  
4 142 and 143 but not for District 149?

5 A So the public, as I recall, was  
6 specifically about northern Macon-Bibb County and  
7 specifically mentioned, I believe, Monroe County.  
8 So that -- in that sense, this person was  
9 specifically talking about that portion of  
10 Macon-Bibb County.

11 And then -- so you could say that it  
12 didn't really apply to south Macon-Bibb County.  
13 That's -- that's not what the commenter was talking  
14 about.

15 And then as far as the reason, I think I  
16 gave a similar answer before and it's -- I don't  
17 feel comfortable specifying a reason for any  
18 decision. There are a multitude of reasons, and  
19 it's a part of this multi-layered puzzle with lots  
20 of considerations and so on.

21 Q And just so I understand, I mean,  
22 these -- you'd agree all these districts centered on  
23 Macon are all very close to 50 percent majority  
24 black, right?

25 A They're all close to 50 percent, yes.

1 Q And so the surrounding counties to the  
2 north of Macon are more heavily white than Twiggs  
3 and Wilkinson Counties are, for example, right?

4 A I would have to check. In the case -- I  
5 honestly don't -- I don't feel confident answering  
6 that certainty without referring back to some kind  
7 of data.

8 Q Okay.

9 A Or map or something.

10 Q Did you look at any public comments that  
11 supported connecting Macon -- downtown Macon with  
12 Warner Robins in Houston County?

13 A There were some comments about, I think,  
14 south Macon-Bib and Warner Robins. There were  
15 some -- I obviously didn't identify any in such a  
16 way as to footnote them.

17 But I believe there were comments  
18 talking about that general area of the -- what  
19 you've referred to as kind of metro Macon and  
20 Warners Robins as being one of the more -- I'm  
21 interpreting a little bit. But they are both some  
22 of the more heavily developed parts of that region.

23 Q But the only public comments you  
24 reported in your report for this part of Macon were  
25 the reference in Footnote 13 from the Macon hearing,

1 right?

2 A In Paragraph 52 I -- which is talking  
3 about District 149, I reference another comment.

4 Q I'm sorry. I missed that one.

5 A Footnote 16.

6 Q Yes. So besides Footnote 16 and  
7 Footnote 13, you don't reference any other public  
8 comments regarding this configuration of the Macon  
9 area, right?

10 A I think that's right.

11 Q So what I want to look at next, District  
12 149 is one of the districts that change from your  
13 preliminary injection report to this report,  
14 correct?

15 A That's right.

16 Q Okay. So I've marked as Exhibit 11 the  
17 preliminary injunction report that you submitted in  
18 this case.

19 A Okay.

20 Q And once you get there I'd like to go to  
21 Page 23 of the pdf, Page 22 at the bottom.

22 A Okay.

23 Q And so looking at Figure 13 from your PI  
24 report to Figure 16 of your 12/5 report, it looks  
25 like the main change, if not the only change, was to

1 adjust the split in Baldwin County, is that right?

2 A I apologize. But if you could repeat  
3 the question.

4 Q Sure. Looking at Figure 13 of your PI  
5 report, which had District 149 --

6 A Yeah.

7 Q -- and comparing that to Figure 16 of  
8 your 12/5 report, it appears to pierce me the only  
9 change in this area was adjusting the split of  
10 Baldwin County in District 149 in the 12/5 plan. I  
11 that correct?

12 A There's actually a tiny change or two  
13 changes really between Districts 145 and 147. So  
14 when you say "in this area," the area shown in  
15 Figure 13 does include a small change between 145  
16 and 147, which was done to prevent the pairing of  
17 incumbents.

18 Q Okay. But you agree that you changed  
19 the split of Baldwin County between the PI plan and  
20 the 12/5 report in District 149, right?

21 A Yes. Yes. Yes. But it's not the  
22 only -- yeah. And just to be clear, there were --  
23 when you say "the split," there are three districts  
24 that were affected. One in a very tiny way. It was  
25 a change of five people, but it actually meant that

1 the -- I think that's District 128 to the northeast  
2 of 149 -- was not changed.

3 So -- well, when I say was not changed,  
4 it was changed from my PI plan to my December 2022  
5 plan in such a way that the district in the December  
6 2022 plan is identical to the way it is in the  
7 enacted plan.

8 I probably could have described that  
9 more succinctly. But -- and that would be very hard  
10 to see in Figure 13 or comparing Figure 13 in the  
11 older document versus the Figure 16.

12 Q And you identify the connection between  
13 Milledgeville and Macon as -- or, actually, I'm  
14 sorry. You identify District 149 as generally  
15 following the orientation of the Georgia fall line  
16 geological feature, is that right? In paragraph 52.

17 A So I'm going back. That sounds right.  
18 I just want to see it before agreeing.

19 Yes.

20 Q You'd agree that Augusta is also part of  
21 the Georgia fall line, right?

22 A Yes.

23 Q And the Columbus is also on the fall  
24 line?

25 A Yes.

1           Q       You reference shared economic  
2 similarities along the fall line. What are the  
3 shared economic histories of Milledgeville and  
4 Macon?

5           A       So my understanding is that the fall  
6 line essentially has an area of steeper terrain  
7 between the Piedmont and the Coastal Plain, and what  
8 that means is that the rivers are steeper and no  
9 longer navigable from the coast.

10                   So from what I remember reading, that  
11 meant that these fall line cities would sort of be  
12 the farthest point that river-based trade could go  
13 inland, and these would be a kind of a trading point  
14 or a transfer point for goods coming up the river  
15 and also goods coming from the Piedmont to then be  
16 shipped downstream and -- to other points.

17                   There's also this kind of being on the  
18 boundary, the scene if you will, between two  
19 different geologic areas that have different soil  
20 types, so different crops that might grow better  
21 in -- on one side than the other. And there's also  
22 the -- that steeper nature of the rivers allows for  
23 hydrologic power of things like mills.

24                   And so they would be places where  
25 historically there might have been locations of the

1 types of industries that would benefit from  
2 hydropower -- old fashioned hydropower to power  
3 those various kinds of -- whether it was  
4 manufacturing or processing, that kind of thing.

5 Q Did you read about the fall line before  
6 or after you drew the connection between Macon and  
7 Milledgeville in your PI plan in 2021?

8 A I think I was familiar with it in a  
9 general sense. I've looked a lot at North Carolina  
10 geography, and that fall line is not unique to  
11 Georgia. In North Carolina -- I think my daughter  
12 learned in kindergarten or something about the major  
13 regions of the state being the mountains and the  
14 Piedmont and the Coastal Plain.

15 So that -- that general kind of  
16 distinction or that characterization of cites that  
17 are along these -- these boundary areas, these edges  
18 is something I was generally familiar with.

19 And also the idea that the Black Belt,  
20 while often talked about that in terms of its  
21 demography as what defines it also has been defined  
22 in terms of its -- essentially it's geology. It's  
23 the soil types that are in that area.

24 So the actual article, I did not read  
25 until later, but I was generally aware of that



1 division, that -- those relationships, if you will.

2 Q Looking at District 145, did you make  
3 any changes aside from the change to -- between 145  
4 and 147 between the PI plan and the December 5th  
5 report?

6 A I did not.

7 Q So let's move to the comparative  
8 characteristics of the House plan. And you'd agree  
9 that the total deviation of the illustrative House  
10 plan is higher than the total deviation on the  
11 enacted House plan, is that right?

12 A So the total deviation I would need to  
13 look at the -- I'm pretty sure it's the case, but I  
14 don't want to reply with certainty.

15 Q Attachment L?

16 A Okay. Thank you.

17 Q I think it's Page 134.

18 A Yes. Okay. Total deviation, yes.

19 Q So you'd agree the illustrative plan  
20 total deviation is higher than the enacted plan?

21 A Yes.

22 Q And it's more than a point higher from  
23 2.74 to 3.85, right?

24 A That's right.

25 Q And you didn't include that total

1 deviation number in your written report, just in the  
2 exhibits, right?

3 A That's right.

4 Q Is the way that you determined that the  
5 illustrative plan complied with the traditional  
6 principle of population equality for the House the  
7 same as the methods you used for making that  
8 determination for the Senate illustrative plan?

9 A I think generally, yes.

10 Q In paragraph 57 you talk about  
11 compactness. And we, again, have the average scores  
12 for four of the five metrics and then a cut edge  
13 score. Would you expect average compaction scores  
14 to be the same if 155 of the 180 districts on a plan  
15 are the same?

16 A No. I mean, it could be. But --

17 Q Okay.

18 A -- that's saying that --

19 Q Okay. So you didn't break out the  
20 compactness scores for the 25 districts that you  
21 changed. You only reported here in Table 6 the  
22 average for all 180 districts for four of those five  
23 measures, and then over on Table 7 the scores for  
24 just the new majority black districts, right?

25 A That's right. In the text of the

1 report. But the -- the attachments include  
2 compactness scores for all the districts in both  
3 enacted and illustrative as well as other summary  
4 and metrics.

5 Q And was your method of determining that  
6 the plan complied with the traditional principle of  
7 compactness generally the same process for the House  
8 illustrative plan as for the Senate Illustrative  
9 plan?

10 A Yes.

11 Q And for Figure 17, like the Senate,  
12 these charts -- the only districts on these four  
13 charts that are from the illustrative plan are the  
14 colored lines. And the gray lines are districts on  
15 the enacted plan, right?

16 A That's right.

17 I'm sorry. If you -- if you wouldn't  
18 mind repeating that question again. I just tuned  
19 out for a moment.

20 Q Sure. In Figure 17, the --

21 A Yes.

22 Q -- in all four charts the only districts  
23 from the illustrative plan on those charts are the  
24 colored lines. The gray lines refer or are  
25 districts on the enacted plan, right?

1 A That's right.

2 Q And in Table 7 when you reported the  
3 various compactness scores for the new majority  
4 black districts, you didn't show the compactness  
5 scores for the enacted plan districts that  
6 correspond to those districts, right?

7 A That's right.

8 Q And in Paragraph 59, Table 8, you'd  
9 agree that the illustrative plan -- I'm sorry.

10 A Just a second. When you say the  
11 districts that correspond, meaning the districts  
12 that have the same number?

13 Q Either the districts that have the same  
14 number or that are in the same general geographic  
15 area. You didn't report either of those compactness  
16 scores, right?

17 A Yes. Right.

18 Q In Paragraph 59, Table 8, you'd agree  
19 that the illustrative plan splits one more county  
20 and one more VTD in the enacted plan, right?

21 A Yes.

22 Q Then in Paragraph 60 we get to  
23 communities of interest, and I see again a reference  
24 to the two campuses of Georgia College and the  
25 central community of Milledgeville. Are there are

1 other communities of interest that you kept whole on  
2 the illustrative plan that were divided on the  
3 enacted plan?

4 A Yes.

5 Q And what are those?

6 A I might need to -- so if we can refer to  
7 Exhibit 9, I think. Mr. Morgan -- we looked at a  
8 similar table for the Senate. So I'm in Exhibit 9.  
9 And the same thing could be derived from information  
10 in my attachments, but his table makes it concise.  
11 This is -- or makes it maybe efficient to identify.

12 Q Page 33?

13 A Page 33, yes, Chart 11. It reminds me  
14 that Jones County is a county that was split in the  
15 enacted plan and whole in the illustrative plan.

16 So that's one example. I'm going to  
17 back and look at maps in my report to see if  
18 anything -- we talked about north Macon-Bibb County  
19 and how, you know, that county is too large to be  
20 kept whole.

21 But in terms of Districts 143 and 142,  
22 northern Macon-Bibb County being kept with other  
23 neighbors in northern Bibb County. That's one of  
24 the things we talked about.

25 Twiggs and Wilkinson we talked about as

1 a -- as an identified community of interest that's  
2 kept whole. And I would have to -- let me see if  
3 those two counties are also whole in the enacted  
4 plan.

5 Okay. They are. So that would not -- I  
6 think your question about was it communities that  
7 are kept whole in the illustrative that are not in  
8 the enacted. I believe I made -- I know that I  
9 looked at, for example, Mercer University and the  
10 Ocmulgee.

11 There's areas that I considered in  
12 Macon-Bibb County, the Ocmulgee Historic Area -- I  
13 don't recall if those were split in the enacted  
14 plan. I'm going to look back at Figure 13 -- sorry.  
15 Figure 12. And it's hard to tell.

16 So let me look at that metro -- we sort  
17 of talked about these as we were going through them,  
18 and I don't have anything to add to that.

19 Q I also noticed -- and this may be a moot  
20 point given the lack of a recollection of personal  
21 conversations, but I didn't see the personal  
22 conversations referenced in this paragraph. And my  
23 question was just was there something different  
24 about how you evaluated communities on House plan  
25 versus the Senate illustrative plan?

1           A       Thank you for that. That may help me  
2       try and search my memory for what those  
3       conversations were because I -- I know I put that in  
4       there because I was recalling conversations about  
5       areas.

6                   And so the fact that it's not here, I  
7       wouldn't say that the general approach was  
8       different, but that may help me as a clue to  
9       remember what in the Senate -- those areas in the  
10      Senate plan that I had in mind when I wrote that.

11                   Does that answer your question?

12           Q       It does. Thank you. 61 we get into  
13      incumbents again. And you would pair a total of  
14      eight incumbents based on the residential addresses  
15      of current or recently elected, I should say,  
16      members of the House, is that right?

17           A       That's right. And this is where those  
18      identifies are included in the footnote.

19           Q       Okay. And is the reason why there's no  
20      incumbent report the same as the reason why there's  
21      not an incumbent report for the Senate?

22           A       Yes.

23           Q       And he did you do anything different in  
24      your consideration of the traditional principle of  
25      district cores for the House plan that was different

1     than how you considered district cores for the  
2     Senate plan?

3             A       I don't think so.

4             Q       And --

5             A       I mean, I did things that were  
6     different, but the principle is the same.

7             Q       Well -- yes, I'm not --

8             A       The individual application, of course,  
9     was different. But, yeah, the same general idea,  
10    yes.

11            Q       And I'm just -- instead of going through  
12    the detail step by step, I was asking was your  
13    approach the same.

14            A       Yeah.

15            Q       Is that also true of how you handled the  
16    Voting Rights Act compliance and dilution of  
17    minority voters? Did you follow the same approach  
18    with the House illustrative plan as you did with the  
19    Senate illustrative plan?

20            A       Yes.

21            Q       In looking to paragraph 63, your  
22    conclusion. You conclude that it is possible to  
23    create three additional majority black districts in  
24    this Georgia State Senate plan and five additional  
25    majority black districts in the House of



1 Representatives plan in accordance with traditional  
2 redistricting principles. Right?

3 A Yes.

4 Q And that is the expert opinion you are  
5 offering for purposes of this December 5th report,  
6 right?

7 A That is part of it, yes.

8 Q Okay. What is the other part of the  
9 opinions you're offering in this December 5th  
10 report?

11 A I just -- I don't meant to suggest that  
12 that sentence is the entirety of my opinions that  
13 I'm providing in the report. The way that the  
14 question was asked made it sound like there were no  
15 other opinions to be -- that one would consider in  
16 the report.

17 That's the -- that's the conclusion, but  
18 I would say that there are other opinions in there.  
19 And maybe this is a distinction that I'm  
20 misunderstanding or drawing a distinction where one  
21 doesn't need to be drawn.

22 But that is -- when I say it's one  
23 opinion, there are other things that I would  
24 describe as being expert opinions in the report in  
25 addition to that.

1 Q So let me ask it this way just to  
2 clarify that point. There's not any other opinions  
3 you're offering in the December 5th report that are  
4 not contained in the December 5th report, right?

5 A Correct.

6 MR. TYSON: If we can go off the record  
7 for just a second.

8 (Recess.)

9 Q (By Mr. Tyson) All right, Mr. Esselstyn.  
10 I have marked as Exhibit 12 a document entitled  
11 Supplemental Expert Report of Blakeman Esselstyn.  
12 Do you see that document?

13 A I do.

14 Q And this is a supplemental report you  
15 submitted on January 20th as part of the PI  
16 proceedings responding to Mr. Morgan, right?

17 A Yes.

18 Q Okay. And I just had a question about a  
19 couple of pieces. Down in Paragraph 4 you discuss  
20 the second sentence, "Notably, the final columns in  
21 Charts 1 and 2 demonstrate the reduction in the  
22 number of, quote, packed districts with BVAP  
23 percentages over 65 percent in the illustrative  
24 plans."

25 Do you see that?

1 A Yes.

2 Q And, again, at the -- so are you saying  
3 that the districts over 65 percent were packed  
4 districts here?

5 A I think this came up in our conversation  
6 at the PI proceeding. I believe this was kind of in  
7 reference to something Mr. Morgan stated in his  
8 report, drawing a distinction between -- I think  
9 maybe he used that number as a threshold to -- I  
10 don't know that he --

11 Yeah, I think that -- I know that in his  
12 report -- so it was his response to my initial PI  
13 report. He had different rows and a table of, you  
14 know, districts that were 50 to 55 percent, 55 to 60  
15 percent, 60 to 65 percent, 65 to 70 percent, et  
16 cetera.

17 And so that -- I think that's -- as I  
18 recall, that's why the 65 percent number is in there  
19 was that it's either a distinction that he drew or  
20 that's where the changes --

21 I don't know. I could look at that.  
22 But that's my understanding.

23 Q Okay. If we move through the rest of  
24 the paragraph it may help add some context. The  
25 next sentence says, "One reason that the enacted

1 plans have fewer majority black districts than the  
2 illustrative plans is that more black voters were  
3 unnecessarily concentrated into certain metro  
4 Atlanta districts in the enacted plans. By  
5 unpacking these districts, the illustrative plans  
6 contained fewer packed districts and consequently  
7 additional majority black districts."

8 Do you see that language?

9 A Yeah.

10 Q So are you rendering an opinion here  
11 that packing has taken place on the enacted plans  
12 for the House and the Senate?

13 A Am I rendering an opinion. I think the  
14 unnecessarily concentrated language there is maybe  
15 what I would focus on as an opinion that this is  
16 not -- one does not have to configure the districts  
17 the way they were configured.

18 So it's -- it was a choice, unnecessary  
19 concentration meaning that that's -- that's not the  
20 way that the districts would be required to be  
21 configured if one is using traditional redistricting  
22 principles.

23 Q So could I ask then, are you -- are you  
24 reaching the conclusion that unnecessarily  
25 concentrated, that -- I'm sorry. Are you reaching

1 the conclusion that the enacted plan's unnecessarily  
2 concentrated black voters in certain metro Atlanta  
3 districts because you were able to draw additional  
4 majority black districts in the same area?

5 A No. The conclusion about those being  
6 unnecessary concentrations is more related to the  
7 fact that I was able to draw a plan that did not  
8 have districts where Black voters were as heavily  
9 concentrated as in the enacted plan.

10 Q When you say "as heavily concentrated,"  
11 do you mean the number of districts, not a  
12 percentage within the districts necessarily?

13 A No, I think it's some of both.

14 Q Okay. Do you believe the legislature  
15 packed black voters into districts on the enacted  
16 House and Senate plans?

17 A I don't have an opinion on that.

18 Q Let's go down to Page 6 and Figure 1.  
19 There's a comparison of the enacted District 149 to  
20 the illustrative 149. Do you see that?

21 A Yes.

22 Q Do you have an opinion about whether all  
23 the counties in the enacted -- excuse me -- 149 are  
24 rural counties, or do you know?

25 A I believe they are.

1 Q Okay. And you'd agree that the  
2 illustrative 149 shows here -- shown here includes  
3 more urban population in Macon along with the rural  
4 Twiggs and Wilkinson Counties, right?

5 A Yes.

6 Q All right. We can put that exhibit  
7 away.

8 Let me mark Exhibit 13, what's titled  
9 the Second Supplemental Expert Report of Blakeman  
10 Esselstyn --

11 A Yes.

12 Q -- completed February 9th, 2022. Do you  
13 see that?

14 A Yep.

15 Q So scrolling down to Page 3, Figure 3  
16 includes the changed and unchanged districts in the  
17 illustrative Senate plan. Do you see that?

18 A Yes.

19 Q Okay. And so this is, as I understand  
20 it, the first time we've seen in your reports a  
21 statewide view of what was altered in drawing the  
22 additional majority black districts. Does that  
23 sound right to you?

24 A So a statewide view of what was altered.  
25 Yes, I think that's fair.

1 Q Okay. And District 24 runs down the  
2 eastern side of the state as you've drawn it on the  
3 illustrative State Senate plan, right?

4 A Yes.

5 Q Are you aware of any counties -- I'm  
6 sorry. Are you aware of any communities that are  
7 kept whole in Senate District 24 that were divided  
8 in the enacted plan?

9 A Not that I can recall.

10 Q Okay. Do you know if it's possible to  
11 drive from the south end of District 24 on the  
12 illustrative plan to the north end of District 24  
13 without leaving the district?

14 A I don't.

15 Q Okay. Going to Figure 4. This is the  
16 change and the unchanged districts on the  
17 illustrative House plan, also the first statewide  
18 view of that, right?

19 A Yes.

20 Q And looking at District 148 on this  
21 plan, there's kind of cut into a county on the  
22 eastern side of the district into 156. Do you know  
23 what feature was or what the reason was for drawing  
24 the district that way?

25 A Again, I -- I'm going to resist ever

1     answering with a reason. And my map does not show  
2     this very well. I wonder if perhaps one of the  
3     other figures would show this including county  
4     boundaries. My -- my guess would be that part of it  
5     is -- but I'm having to guess here.

6             Let me see if there's a representation  
7     of it in Exhibit 1. I'm looking at Exhibit 1 now.  
8     And it may actually -- some of Morgan's exhibits --

9             Let's see. That one doesn't go far  
10    enough south, and that one doesn't show county  
11    lines. This one, 148 -- I'm looking at Figures 12  
12    and 13, and Figure 12 has county lines and district  
13    lines. Let's see. 148.

14            It may not be a county boundary. My  
15    recollection is that there were -- it was population  
16    equality concerns that I had to, I think, split a  
17    county in that area, and I was probably trying to  
18    keep precincts whole and find the combination of  
19    precincts that best would satisfy population  
20    equality.

21            But again, my memory is -- this is all  
22    going back to 2021, and I'm -- as I said, that's --  
23    that's kind of a guess. But, again, there's not  
24    going to be single reason. All of this is part of a  
25    multi-dimensional puzzle and trying to consider a



1 number of factors.

2 But you made me wonder. You got me  
3 curious because there are -- there was a thinking  
4 process that went into it. I just don't remember  
5 what it is right.

6 Q I've marked as Exhibit 14 now a document  
7 entitled Rebuttal Report of Blakeman Esselstyn.

8 A Got it.

9 Q And this is a report you wrote  
10 responding to Mr. Morgan's December 5th report. Do  
11 you recall that?

12 A I do.

13 Q And I guess I want to ask: Do you  
14 disagree with Mr. Morgan that there can be a tension  
15 between the compactness of districts and racial  
16 considerations in drawing districts?

17 A Racial considerations.

18 Q Let me ask it his way. You'd agree that  
19 Mr. Morgan's December 5th plan showed very compact  
20 districts that had very high concentrations of black  
21 voters, right, or black individuals, right?

22 A There were instances of compact  
23 districts that had high concentrations of black  
24 population.

25 Q Okay.

1           A           I think there were also compact  
2           districts that had next to no black population.

3           Q           And on the illustrative plans, you'd  
4           agree that at least in some cases, for example,  
5           House District 74 or Senate Districts 28 when you  
6           extend population out it can have the effect of  
7           lowering the black population in a district but the  
8           district's shape gets less compact in the same  
9           general geographica area than the prior district,  
10          right?

11          A           And I'm sorry. When you're talking  
12          about illustrative plan, you're talking about  
13          Morgan's illustrative plan or --

14          Q           I'm sorry.

15          A           -- my own --

16          Q           I switched back to your illustrative  
17          plan. Yes. I'm sorry.

18          A           Okay. So House District 74 and -- what  
19          was the other one in --

20          Q           Senate Districts 28.

21          A           Senate Districts 28. Okay. Let me just  
22          compare.

23                      So 28 in the enacted plan is actually a  
24          -- kind of a longer district so that 28 -- Senate  
25          District 28 in the illustrative plan is -- I think

1 north to south and east to west is less -- of less  
2 -- a shorter measurment than enacted District 28.

3 So I'm not sure. When you talk about  
4 length of Senate District 28, and I'm pretty --  
5 since 28 was not a majority black district in the  
6 enacted plan --

7 You're just saying that stretch --  
8 elongating Senate District 28 in the -- in my  
9 illustrative Senate plan is making the black  
10 population lower?

11 Q If you look at enacted District 35, it  
12 contains a lot of the area that is included then in  
13 District 28 but you extend it further down into  
14 Coweta County in the illustrative 28. Do you see  
15 that?

16 A Okay. Okay.

17 Q So my question is: You'd agree that  
18 sometimes as a map drawer a way to lower the black  
19 percentage in a district is to extend that district  
20 into whiter adjoining areas, correct?

21 A That is a way, yes.

22 Q In looking at your illustrative Senate  
23 District 10, I believe we talked earlier that  
24 district extends from heavily black south DeKalb  
25 County to pretty heavily white Butts County, right?

1 A Yes.

2 Q And as a result, the black population is  
3 61.1 percent on BVAP in your Table 1, right?

4 A I will say that that BVAP percentage is  
5 right. I mean, I -- my question would be as a  
6 result --

7 I mean, the resulting BVAP is the number  
8 that you mentioned, yes.

9 Q And if you removed the more heavily  
10 white southern end of illustrative District 10 and  
11 instead took more heavily black population north of  
12 Districts 10 in south DeKalb, you'd agree that the  
13 black voting age percentage would go up, right?

14 A I think so, yes.

15 Q So if you could look with me on Exhibit  
16 14, your response to Mr. Morgan. I want to go down  
17 to the statement you quote from Mr. Morgan where you  
18 said, for example, in Paragraph 34 [sic] --

19 A I'm sorry. What page or paragraph are  
20 we in in Exhibit 14?

21 Q I'm so sorry. Page 10, Paragraph 24.  
22 I'll wait for you to get there.

23 A Got it. Yes.

24 Q You said, quoting Mr. Morgan, where Mr.  
25 Morgan said, "Looking at the individual district

1 data in Region 2, the House enacted plan has more  
2 majority black districts and they are less compact  
3 than the districts in the House illustrative plan,"  
4 referring to Mr. Morgan's illustrative plan. Do you  
5 see that?

6 A Yes.

7 Q And you don't disagree with that  
8 statement from Mr. Morgan. What you disagree with  
9 is that he's drawing, as you see it, a causal  
10 connection between the shapes of the districts and  
11 the black populations in those districts, right?

12 A No. This -- this paragraph is more  
13 about demonstrating correlation. So you talk about,  
14 for example, test scores and shoe size for -- let's  
15 say you have Classroom A and Classroom. And you say  
16 that the -- Classroom A performs better on a test  
17 and they also have more students with shoe size over  
18 shoe size 10.

19 That is basically -- you know, you're  
20 kind of saying that -- in comparison between  
21 Classroom A and Classroom B there's sort of a  
22 generally higher set of values in one case and an  
23 average in another. Or in one case it's a -- it's a  
24 threshold. Like over size 10 would be sort of the  
25 analogue to majority black districts.

1 But in correlation -- there's actually a  
2 statistical means of establishing correlation. So  
3 aside from the question of causation, just saying  
4 that, again, you might have an indication that  
5 there's some -- to use the shoe size and test scores  
6 example, bigger shoes and higher test scores in one  
7 classroom than the other.

8 But actually establishing correlation  
9 takes more than a statement like that. And so what  
10 I'm getting at in the second sentence is that  
11 correlation is not as easy to establish as just  
12 pointing out some kind of pairing of values, like a  
13 -- a higher average.

14 And so the -- the compactness -- and I  
15 think another thing that I would say about that  
16 sentence that I quote -- if you look earlier in the  
17 report, there -- I have major, major reservations,  
18 misgivings, criticisms about just how the regions  
19 are compared.

20 And if it makes sense to compare enacted  
21 -- what he calls Enacted Region 2 and Illustrative  
22 Region 2 are quite different. The regions aren't  
23 the same.

24 So to compare average scores when they  
25 -- they're composed of different populations and

1 different geographic areas is an issue as well.

2 So I think at the beginning of your  
3 question you said something about did I agree with  
4 the sentiment expressed in this sentence. And while  
5 the collection of districts that he identifies -- I  
6 don't think Region 2 was the one that had a  
7 different number of districts. But --

8 I'm sorry. I kind of rambled on this,  
9 but I believe -- maybe you could repeat the  
10 question, and I'll see if I answered what I meant  
11 to.

12 Q I appreciate that. I think you've  
13 answered the question I asked, which is whether you  
14 agreed with that statement and of what the issue  
15 was, causation versus correlation. So we've done.

16 The last thing I'll ask about this  
17 report, it's down on page 11 in Paragraph 26.

18 A Yes.

19 Q When you make the statement, "If this  
20 report had been submitted as an assignment in an  
21 introductory statistics course, I believe that it  
22 would get a failing grade." Do you see that?

23 A Yes.

24 Q And do you consider yourself to be an  
25 expert on statistics in this case?

1 A No.

2 Q And Mr. Morgan's report, do you know if  
3 it was designed to be a statistical assessment or  
4 some other analysis?

5 A It certainly does not present itself as  
6 a statistics reports.

7 Q But you analyzed it using statistical  
8 methods. Is that fair to say?

9 A I evaluated it as to whether it used  
10 statistical methods that one would use to arrive at  
11 the conclusions that he purports to arrive at,  
12 particularly about causal relationships.

13 Q Mr. Esselstyn, I appreciate your time  
14 today, especially -- I know I guess it's getting  
15 very late where you are. So I appreciate you  
16 bearing with us through this. That's all the  
17 questions I have. Mr. Hawley may have some, but  
18 that's all the questions I have for you today.

19 MR. HAWLEY: Can we go off the record  
20 for -- I'm sorry, Blake.

21 THE WITNESS: I was just going to say  
22 thank you as well.

23 MR. HAWLEY: I didn't want to interrupt  
24 your valediction.

25 Could we go off the record for just one



1 moment?

2 (Recess.)

3 EXAMINATION

4 Q (By Mr. Hawley) So Mr. Esselstyn, I'm  
5 going to kind of run through a few redirect  
6 questions here in approximate synchronicity to the  
7 order in which Mr. Tyson raised some of these  
8 issues. So we'll start by kind of going back to the  
9 beginning of the deposition and then we'll move  
10 forward.

11 So at the beginning do you recall you  
12 and Mr. Tyson discussed the chronological origins of  
13 your participation in this case?

14 A I do.

15 Q So my question is, just so it's clear in  
16 the record: Did you start preparing your  
17 illustrative Senate and House maps before or after  
18 the Georgia General Assembly passed the maps that  
19 the governor eventually signed into law?

20 A After.

21 Q And we can see that because, as you've  
22 testified throughout the deposition today, your  
23 illustrative maps use those enacted maps as -- as a  
24 baseline on which you then made alterations,  
25 correct?

1 A That's correct.

2 Q Do you recall that Mr. Tyson asked you  
3 about the Maptitude software's ability to shade  
4 racial demographic information while you're  
5 undertaking map drawing?

6 A I do.

7 Q And you mentioned that you have used  
8 that shading, including in the development of your  
9 illustrative plans, correct?

10 A Correct.

11 Q My question is: Do you always have that  
12 shading function on when you're map drawing?

13 A No.

14 Q Did you always have that shading  
15 function toggled on when you were drawing your  
16 illustrative Senate and House maps in this case?

17 A No.

18 Q Does Maptitude provide other means of  
19 assessing racial and other demographic information  
20 other than shading?

21 A Yes.

22 Q Did you use that shading function to  
23 make any outcome determinative line drawing  
24 decisions? Let me phrase that a different way.

25 A Okay.

1           Q       When you -- when you had that shading  
2       function toggled and you could see it, did you use  
3       the information that that shading provided -- did  
4       that information predominate in any given line  
5       drawing decision you made when you were preparing  
6       you illustrative maps?

7           A       No, it did not.

8           Q       I'd like to talk briefly now about some  
9       of the comparative characteristics, particularly  
10      kind of the more general discussion that you had  
11      with Mr. Tyson earlier in the deposition. And  
12      again, just so it's clear in the record, is it fair  
13      to say that some of the traditional redistricting  
14      principles that you drew in accordance with and  
15      analyzed in your report can be understood in  
16      isolation for a single map?

17          A       I'm sorry. Could you repeat the  
18      question?

19          Q       Certainly. Are there certain  
20      redistricting criteria that can be analyzed -- the  
21      compliance with which can be analyzed simply by  
22      looking at a single piece of information from a  
23      given map?

24          A       Oh, yes. Yeah, for like contiguity.  
25      And, again, it's helpful to use the Maptitude

1 utility just to verify that there's not some tiny  
2 census spot floating out in an unconnected way.

3 But, yes, there are some that are --

4 Yes, it's more straightforward like  
5 that. Contiguity, I think, is a good example. No  
6 multi-number districts I think is one that was  
7 specified. We haven't talked about that, but it's  
8 pretty clear that none of the districts are  
9 multi-number districts in either the enacted or the  
10 illustrative plans.

11 Q But for the most part, many of the  
12 criteria that you analyzed in your report require  
13 some kind of comparator in order to make meaningful  
14 conclusions about compliance. Is that fair?

15 A Yes, it's -- yes, it's more of a  
16 comparison. It's not just a yes/no type question.

17 Q And in your expert opinion as a map  
18 drawer looking at the enacted map and other plans,  
19 you are able to assess the degree to which you  
20 complied with some of those criteria that require  
21 comparisons?

22 A Yes.

23 Q Is it correct that you used -- in  
24 addition to that enacted map you used other maps to  
25 assess the compliance with certain criteria?

1           A           In addition to the enacted map I used  
2   other --

3           Q           I can -- I can rephrase that and make it  
4   a little -- a little less abstract. Did you -- did  
5   you look at the previous State Senate map that was  
6   in place before the enacted map when you were  
7   assessing your compliance with traditional  
8   redistricting principles?

9           A           Thank you. That's -- yes, particularly  
10   -- yes, in looking at the divisions of political  
11   subdivisions, I think.

12          Q           And did you recall what your conclusion  
13   was?

14          A           I believe that for certain political  
15   subdivisions my illustrative plan split fewer of  
16   those political subdivisions than the previously  
17   enacted plans.

18          Q           Do you recall that you and Mr. Tyson  
19   discussed packing both of your illustrative Senate  
20   district 44 and then again with regards to certain  
21   of your illustrative House districts?

22          A           Yes.

23          Q           And you talked a lot about packing. So  
24   I have kind of a particular question related to that  
25   concept as you understand it. Is it fair to say

1 that packing -- the intentional packing that you  
2 referred and disadvantaging one group or another,  
3 does that usually involve some sort of sacrifice or  
4 compromise on traditional redistricting principles?

5 A Usually, yes.

6 Q In your Senate District 44 or any of the  
7 districts that you redrew in your illustrative maps,  
8 did you sacrifice any traditional redistricting  
9 principles in your opinion?

10 A No.

11 Q Do you recall in your and Mr. Tyson's  
12 discussion of illustrative Senate District 22 -- and  
13 I may not get the verbiage quite right. But I  
14 believe Mr. Tyson asked if going into Columbia  
15 County on Senate District 22 freed up black voters  
16 to be used in Senate District 23? Do you recall  
17 that conversation?

18 A Yes.

19 Q That terminology, the idea of freeing up  
20 certain voters, is that a fair characterization of  
21 your map drawing process?

22 A No, I -- I don't think about it in those  
23 terms.

24 Q How do you think about it?

25 A That's, well, one piece of it. And I

1 think I did mention this as part of that  
2 conversation is that I don't have information about  
3 voters, about registration or turnout or voting data  
4 at all.

5 So I would -- I would say that I don't  
6 think about population as voters other than the  
7 distinction, you know, between the voting age  
8 population and the total population.

9 But also, just the characterization of  
10 freeing up sort of implies that -- I don't know --  
11 bondager or confinement or treating -- I don't know  
12 -- people as tokens of some sort that are being  
13 pushed around. It's more in moving the lines to  
14 include certain populations than moving population  
15 from one district to another because the population  
16 doesn't move.

17 Does that answer your question?

18 Q Yes. Thank you.

19 Skipping ahead, then. There was a brief  
20 discussion about your watching certain public  
21 hearing videos in preparing your December 2022  
22 report. And you mentioned to Mr. Tyson that you did  
23 not watch all of the public hearings in Georgia,  
24 correct?

25 A That's correct.

1 Q Which -- how did you determine which of  
2 those public hearings to watch?

3 A So there were public hearings held in  
4 Atlanta that were kind of general statewide. I  
5 watched those. And then there were a number of  
6 regional public hearings. I mentioned watching the  
7 one, for example, that was held in the Macon-Bibb  
8 area as well as the one that was held in the  
9 Richmond County area.

10 There were others held in parts of the  
11 state where the illustrative plan did not change,  
12 any significant parts of the districts there. So,  
13 for example, the northern part of the state.

14 There was maybe more than one in the  
15 northern part of the state. But basically the one  
16 -- the hearings that were held in areas that my plan  
17 did not make major changes to, I did not watch those  
18 hearings.

19 Q Just a few minutes ago in talking about  
20 Mr. Morgan's report and your rebuttal report to it,  
21 Mr. Tyson asked you about the tension between  
22 compactness and racial considerations. Do you  
23 remember that?

24 A Yes.

25 Q Is compactness and tension with any



1 other traditional redistricting principles?

2 A It can be, yes. Sure.

3 Q Can you think if some specific examples  
4 from your work in Georgia where compactness and  
5 other principles were in tension?

6 A Oh, absolutely. Baldwin County precinct  
7 shapes. So making a district more compact in the  
8 Milledgeville area. There's some crazy precinct  
9 shapes that there are images of them in a figure on  
10 of my PI reports. And there are lots of places  
11 where the precincts have funny shapes.

12 So one can make a district more compact  
13 by splitting precincts or one can split fewer  
14 precincts and have a less compact district, for  
15 example.

16 Similar thing even with counties and  
17 compactness. Sometimes it's tempting to, you know,  
18 shave off an oddly shaped corner of a county, or not  
19 an oddly shaped corner. Sometimes as one of my --  
20 the Exhibit 1 talks about river shapes and things  
21 like that.

22 So, yes, preservation of political  
23 subdivisions, incumbent -- avoiding pairing of  
24 incumbents, continuity. I think I'm overlooking an  
25 obvious example.

1           Let me just look through. Population  
2   equality even. There might be a -- you know, you've  
3   drawn nicely compacted districts but, you know, in  
4   order to -- the population equality is not -- the  
5   deviation is not as low as it could be. So you  
6   might add some little appendages to improve the  
7   population equality that don't help the compactness  
8   scores.

9           I think -- does that answer your  
10   question.

11          Q       So in short, there are considerations  
12   other than race that might have an impact on any  
13   given district's compactness scores.

14          A       Absolutely.

15          Q       Ultimately, Mr. Esselstyn, is it your  
16   opinion that your illustrative State, Senate and  
17   House maps comply with the traditional redistricting  
18   principles you identify in your report?

19          A       Yes.

20          Q       Were you -- did any one factor  
21   predominate in the drawing of either you State  
22   Senate or House illustrative maps?

23          A       No.

24          Q       Did race predominate in the drawing of  
25   your illustrative State Senate and House maps?

1 A No.

2 Q Were you ever instructed to maximize the  
3 number of majority black districts in either the  
4 State Senate or House map?

5 A I was not.

6 Q And is it your opinion that you  
7 illustrative maps that you have submitted along with  
8 your December 5th report are complete and finalized  
9 enough that they could be adopted and implemented by  
10 the State of Georgia in future elections?

11 A Yes.

12 MR. HAWLEY: All right. Thank you, Mr.  
13 Esselstyn. That's all I have, Mr. Tyson,  
14 unless you have anything.

15 Yes? It looks like a yes.

16 MR. TYSON: Just a few more, Mr.  
17 Esselstyn.

18 FURTHER EXAMINATION

19 Q (By Mr. Tyson) Mr. Hawley was asking you  
20 about shading information on racial data and various  
21 questions on that. Do you recall those questions?

22 A I do.

23 Q And just to confirm, you only had census  
24 data, not any political data available to you when  
25 you were drawing your illustrative plans, right?

1 A That's correct.

2 Q And did you -- I'm sorry?

3 A When I say available, I mean, I could  
4 have downloaded it. It's not like it's unavailable  
5 data. I did not use it. I didn't have it installed  
6 on my computer. I didn't consider it at all.

7 Q Thank you. Did you ever use Maptitude  
8 features or labels that would display racial data  
9 about different levels of geography in Georgia when  
10 you were working on your illustrative plans?

11 A Yes.

12 Q Mr. Hawley asked you about sacrificing  
13 traditional redistricting principles for packing.  
14 Do you recall those questions?

15 A Yes.

16 Q What -- what do you mean by packing  
17 would involve sacrificing traditional redistricting  
18 principles. I'm not sure I followed that  
19 conversation.

20 A Okay. And I think I said something  
21 about typically or generally. A lot of the famous  
22 examples of packed districts or cracked districts --  
23 so we talked about North Carolina 12 before. That  
24 was not a compact district. It split all kinds of  
25 political subdivisions.

1           And often -- there are other districts  
2     in North Carolina I can think of -- for example, in  
3     the northeastern part of the state, that did  
4     something similar.

5           So often it is -- a packed district will  
6     be non-compact or will be drawn in such a way as to  
7     ignore political subdivisions. And I've even seen  
8     packing -- you can -- in cases where the packed  
9     districts are all at the higher end of the deviation  
10    range.

11          So even the population equality seems to  
12    have been exploited in a way that -- you know, you  
13    see the districts that have the high percentages of  
14    a certain group also are at like 4.9 percent. So  
15    they have been -- the cracked districts have lower  
16    deviations that are well below zero.

17          So there are lots of examples of plans  
18    where packing and cracking have been used where  
19    things like population equality, compactness,  
20    political subdivision splits, that kind of thing are  
21    all sacrificed.

22          And then the -- that's part of the  
23    process.

24           Q       And in this case, you're not offering an  
25    opinion that the enacted House or enacted Senate

1 plan has packed districts on it beyond the fact of  
2 pointing out that you can draw additional majority  
3 black districts above those on each of those plans,  
4 right?

5 A I also -- I mean, this is in the  
6 previous -- the PI report. I do point out that that  
7 -- those percentages are unnecessary, that one can  
8 draw a compliant plan that does not have as many  
9 districts with significantly high percentages as in  
10 the enacted plan.

11 Q So from your PI report you are offering  
12 the opinion that Georgia enacted House and enacted  
13 Senate maps contain districts that are packed, is  
14 that right?

15 A I used those words in my report, we had  
16 a conversation. I think you asked a question  
17 earlier about that. I think I would focus my  
18 opinion more on the unnecessarily concentrated  
19 piece. I think the more recent report uses language  
20 of heavily concentrated or something like that.

21 Q And just unnecessarily, the necessary  
22 part of that relates to the fact that you are able  
23 to draw additional districts at not as high of a  
24 black percentage, is that right?

25 A I was able to draw a plan with fewer

1 districts that had such high percentages.

2 Q Thank you. Mr. Hawley also asked you if  
3 you were ever instructed to maximize the number of  
4 majority black districts on the House or Senate  
5 plans. Do you recall that?

6 A I do.

7 Q It's correct that the plans in your 12/5  
8 report for House and Senate contain the most  
9 majority black districts of any plans that you have  
10 submitted in this case, right?

11 A The same -- I mean, it's the most and  
12 the least, right? It's the same number as the PI.  
13 Yes, I think that is an accurate statement.

14 MR. TYSON: That's all the questions I  
15 have.

16 Well, thank you, Mr. Esselstyn, we can  
17 go off the record I suppose.

18 THE WITNESS: Thank you.

19 (Deposition concluded at 4:35 p.m.)  
20  
21  
22  
23  
24  
25

## E R R A T A S H E E T

Pursuant to Rule 30(e) of the Federal Rules of Civil Procedure and/or Official Code of Georgia Annotated 9-11-30(e), any changes in form or substance which you desire to make to your deposition testimony shall be entered upon the deposition with a statement of the reasons given for making them.

To assist you in making any such corrections, please use the form below. If supplemental or additional pages are necessary, please furnish same and attach them to this errata sheet.

- - -

I, the undersigned, BLAKEMAN ESSELSTYN, do hereby certify that I have read the foregoing deposition and that to the best of my knowledge said deposition is true and accurate (with the exception of the following corrections listed below).

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1 Reason for change:\_\_\_\_\_

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17 \_\_\_\_\_

18 BLAKEMAN ESSELSTYN

19

20 Sworn to and subscribed

before me this \_\_\_\_ day

21 of \_\_\_\_\_, 2023.

22

Notary Public:\_\_\_\_\_

23 My Commission Expires:\_\_\_\_\_

24

25

## DISCLOSURE

STATE OF GEORGIA DEPONENT: BLAKEMAN ESSELSTYN  
COUNTY OF FULTON

Pursuant to Article 10.B of the Rules and Regulations of the Board of Court Reporting of the Judicial Council of Georgia, I make the following disclosure.

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CARLA J. HOPSON, CCR# B-1816  
March 7, 2023.

## C E R T I F I C A T E

STATE OF GEORGIA:

COUNTY OF FULTON:

I hereby certify that the foregoing deposition was taken down, as stated in the caption, and the colloquies, questions and answers were reduced to typewriting under my direction; that the foregoing transcript is a true and correct record of the evidence given.

The above certification is expressly withdrawn and denied upon the disassembly or photocopying of the foregoing transcript, unless said disassembly or photocopying is done under the auspices of Veritext Legal Solutions, Certified Court Reporters, and the signature and original seal is attached thereto.

I further certify that I am not a relative or employee or attorney of any party, nor am I financially interested in the outcome of the action.

This, the 7th day of March, 2023.



CARLA J. HOPSON, RPR

Certified Shorthand Reporter

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Georgia Code

Title 9, Chapter 11

Article 5, Section 9-11-30

(e) Review by witness; changes; signing.

If requested by the deponent or a party before completion of the deposition, the deponent shall have 30 days after being notified by the officer that the transcript or recording is available in which to review the transcript or recording and, if there are changes in form or substance, to sign a statement reciting such changes and the reasons given by the deponent for making them. The officer shall indicate in the certificate prescribed by paragraph (1) of subsection (f) of this Code section whether any review was requested and, if so, shall append any changes made by the deponent during the period allowed. If the deposition is not reviewed and signed by the witness within 30 days of its submission to him or her, the officer shall sign it and state on the record that the deposition was not reviewed and signed by the deponent within 30 days. The deposition may then be used as fully as though signed unless, on a motion to suppress under paragraph (4) of subsection (d) of Code



Section 9-11-32, the court holds that the reasons given for the refusal to sign require rejection of the deposition in whole or in part.

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## **Expert Report of Blakeman B. Esselstyn**

### **I. INTRODUCTION**

#### **A. Qualifications**

1. My name is Blakeman B. Esselstyn. I am the founder and principal of a consultancy called Mapfigure Consulting, which provides expert services in the areas of redistricting, demographics, and geographic information systems (GIS). For more specific information about the qualifications and credentials in the paragraphs below, please see my Curriculum Vitae, provided as **Attachment A**.

2. On February 8<sup>th</sup> and 9<sup>th</sup> of 2022, in the preliminary injunction proceedings related to this matter, I served as a testifying expert. I was accepted by the Court as an expert in redistricting, demographics, and census data, and my expert testimony was credited by the Court.

3. I have previously served as a consulting expert in four other redistricting cases, and as a testifying expert in three cases related to other topics.

4. I have developed 16 redistricting plans that have been enacted for use in elections by jurisdictions at various levels of government.

5. I earned a bachelor's degree in Geology & Geophysics and International Studies from Yale University and a master's degree in Computer and Information Technology from the University of Pennsylvania. I have professional certifications both as a Geographic Information Systems Professional (GISP) and as a member of the American Institute of Certified Planners (AICP).

6. I have taught graduate-level semester courses in Geographic Information Systems (GIS) and have presented on redistricting at conferences at Harvard University, Duke University, the University of North Carolina at Chapel Hill, the University of Texas, and several other universities. I have also presented at national events organized by the National Conference of State Legislatures (NCSL), the Urban and Regional Information Systems Association (URISA), and the American Planning Association (APA).

7. In addition to speaking engagements, my work and opinions related to redistricting have often been cited in media outlets, and some of my related writings have been published or cited in national publications. Again, for details, please see **Attachment A**.

8. I am being compensated at a rate of \$325 per hour. No part of my compensation is dependent upon the conclusions that I reach or the opinions that I offer.

## **B. About this report**

9. Plaintiffs' counsel has asked me to determine whether there are areas in the State of Georgia where the Black population is "sufficiently large and geographically compact"<sup>1</sup> to enable the creation of additional majority-Black legislative districts relative to the number of such districts provided in the enacted State Senate and State House of Representatives redistricting plans from 2021.

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<sup>1</sup> *Thornburg v. Gingles*, 478 U.S. 30, 50 (1986).

10. The Georgia General Assembly has two chambers, each with distinct redistricting plans that I will consider individually. Following a demographic overview of the state that will be relevant for both chambers, the report will provide separate sections addressing each chamber's districts: first the State Senate, then the House of Representatives. For each chamber, I will briefly review the enacted plan, present an alternative illustrative plan, and supply some analysis of selected characteristics of the plans.

11. Unless otherwise specified, all map images in the report are ones that I created (though they may be maps showing redistricting plans I did not create).<sup>2</sup>

12. More detailed information about the sources of data, the software, and my methodology can be found in **Attachment B**.

### **C. Summary of conclusions**

13. It is possible to create three additional majority-Black districts in the State Senate plan and five additional majority-Black districts in the State House plan in accordance with traditional redistricting principles.

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<sup>2</sup> Some maps deliberately do not show the State of Georgia in its entirety, as districts in large areas of the northern and southern parts of the state are unchanged in the illustrative plans. Focusing in on affected portions of the State's geography allows for more clarity and higher level of detail in the map figures.

## II. Statewide Demographic Overview

### A. Georgia and the 2020 Census

14. Georgia's population increased by more than one million people between the 2010 and 2020 censuses, from 9,687,653 to 10,711,908—an increase of approximately 10.6%.<sup>3</sup>

15. According to the 2020 census, 33.0% of Georgia's population (essentially one-third) identified as "Black or African American alone or in combination."<sup>4</sup> The 2010–2020 population increase in this group outpaced the growth in the state as a whole, increasing by approximately 15.8%.

16. By contrast, the state's population identifying as White and neither Hispanic nor multi-racial *decreased* by 1.0% between 2010 and 2020. This non-Hispanic White population still constitutes a majority of the state population, but only barely, at 50.1%. In 2010, this group constituted 55.9% of Georgia's population.

17. The *voting age* population identifying as Black increased 21.8% from 2010 to 2020. In 2020 this group (sometimes abbreviated as BVAP for the Black voting age population) made up 31.7% of the voting age population, an increase from 29.7% in

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<sup>3</sup> All demographic analysis is based on statistics obtained from the U.S. Census Bureau website, <https://www.census.gov>. For URLs of specific census resources used, please consult Attachment B.

<sup>4</sup> The Census Bureau classification "Black or African American alone or in combination," sometimes stated as "any part Black," will be the measure of the Black population that I use most frequently in this report. Unless otherwise stated, in the text that follows, "Black" can be taken to indicate "alone or in combination." This measure includes Black residents who also identify as Hispanic. It is my understanding that the "alone or in combination" designation is the appropriate measure for most Voting Rights Act Section 2 considerations.

2010. The non-Hispanic single-race White proportion of the voting age population, however, decreased from 59.0% in 2010 to 52.8% in 2020.

### **B. Geographic distribution of the Black population**

18. Just about half of Georgia's Black population lives in six of the state's 159 counties, all of which are in the Metro Atlanta region. These six counties are, in order of decreasing Black population, Fulton, DeKalb, Gwinnett, Cobb, Clayton, and Henry.

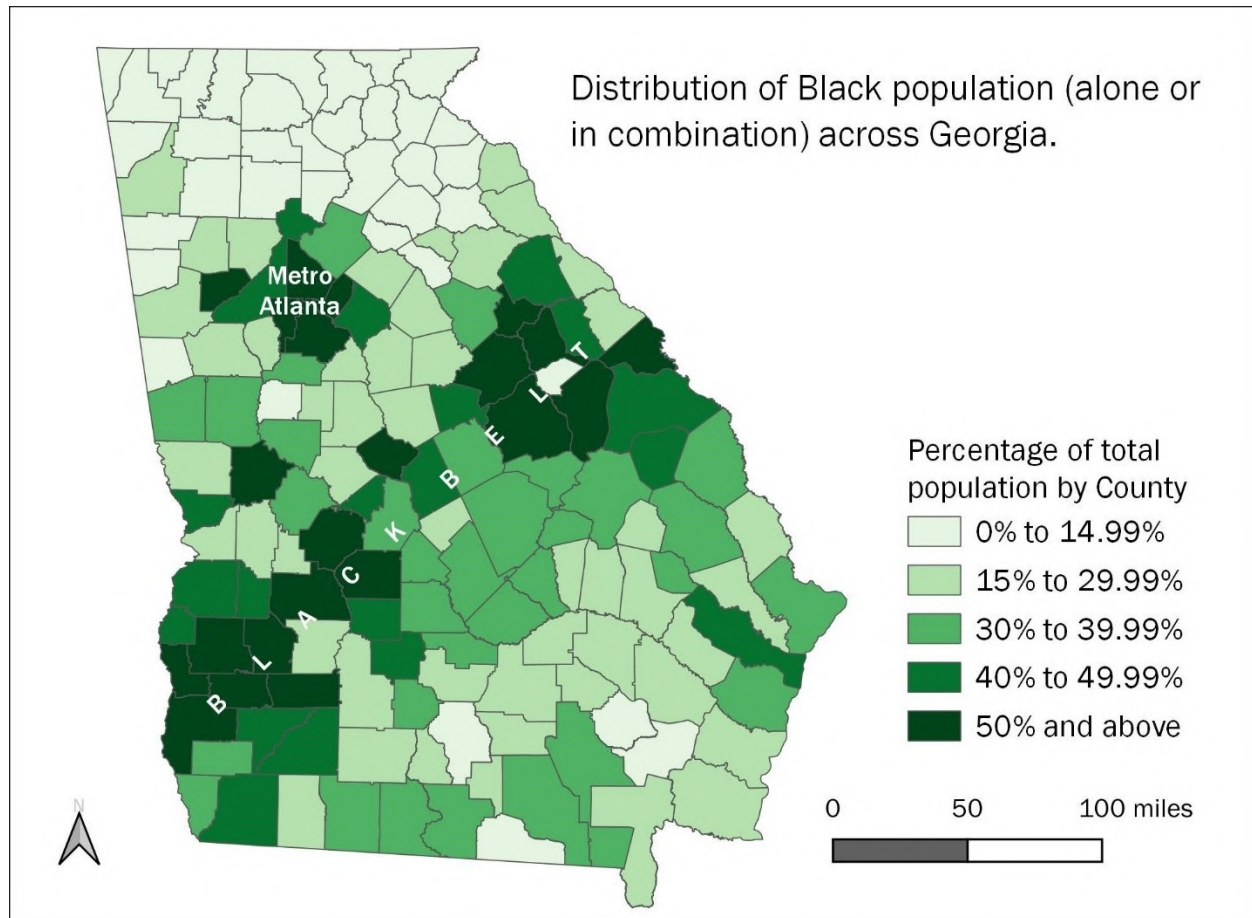
19. The counties in Georgia where the percentage of Black residents generally tends to be highest can be grouped into two main categories: the aforementioned Metro Atlanta region and the so-called "Black Belt" of Georgia. Though some accounts say the origin of the term "Black Belt" in the American South stems from descriptions of the soil, modern classifications of which counties are in this region can hinge on the percentage of the population that is Black.<sup>5</sup> In Georgia, this belt of counties, most of which are rural, constitutes a wide band from the southwest corner of the state to the central part of the South Carolina border near Augusta-Richmond County. See Figure 1.

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<sup>5</sup> See, e.g., *Southeastern Geographer* article at <https://www.jstor.org/stable/26225503>.

**Figure 1: Statewide map showing percentages of Black population across counties.**



20. For a table showing demographic statistics from the 2020 census for Georgia's counties, please see **Attachment C**.

### **III. Georgia State Senate redistricting plan**

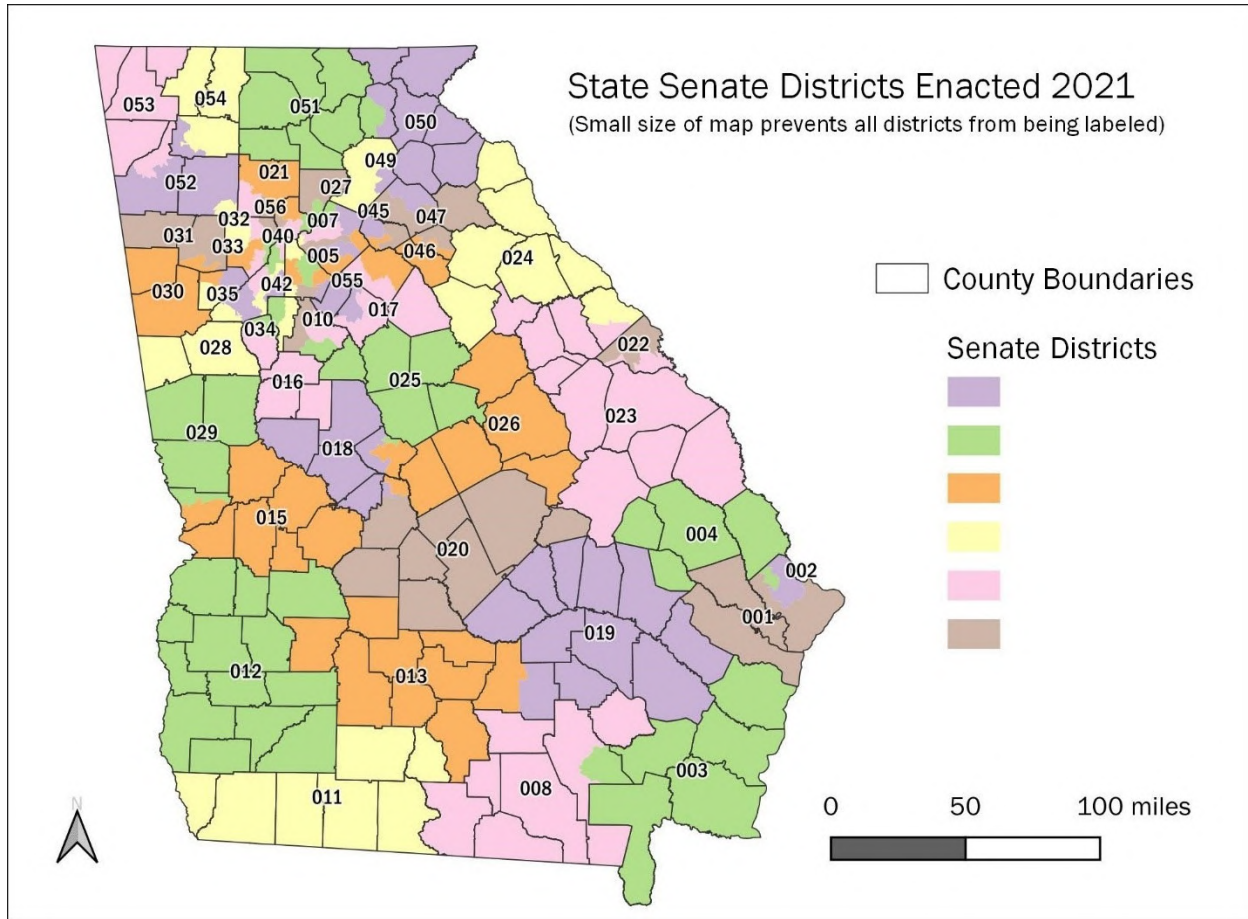
#### **A. Review of enacted State Senate plan**

21. On December 30<sup>th</sup>, 2021, Georgia Governor Brian Kemp signed new State Senate districts into law. With districts for 56 senators in this enacted plan, each district



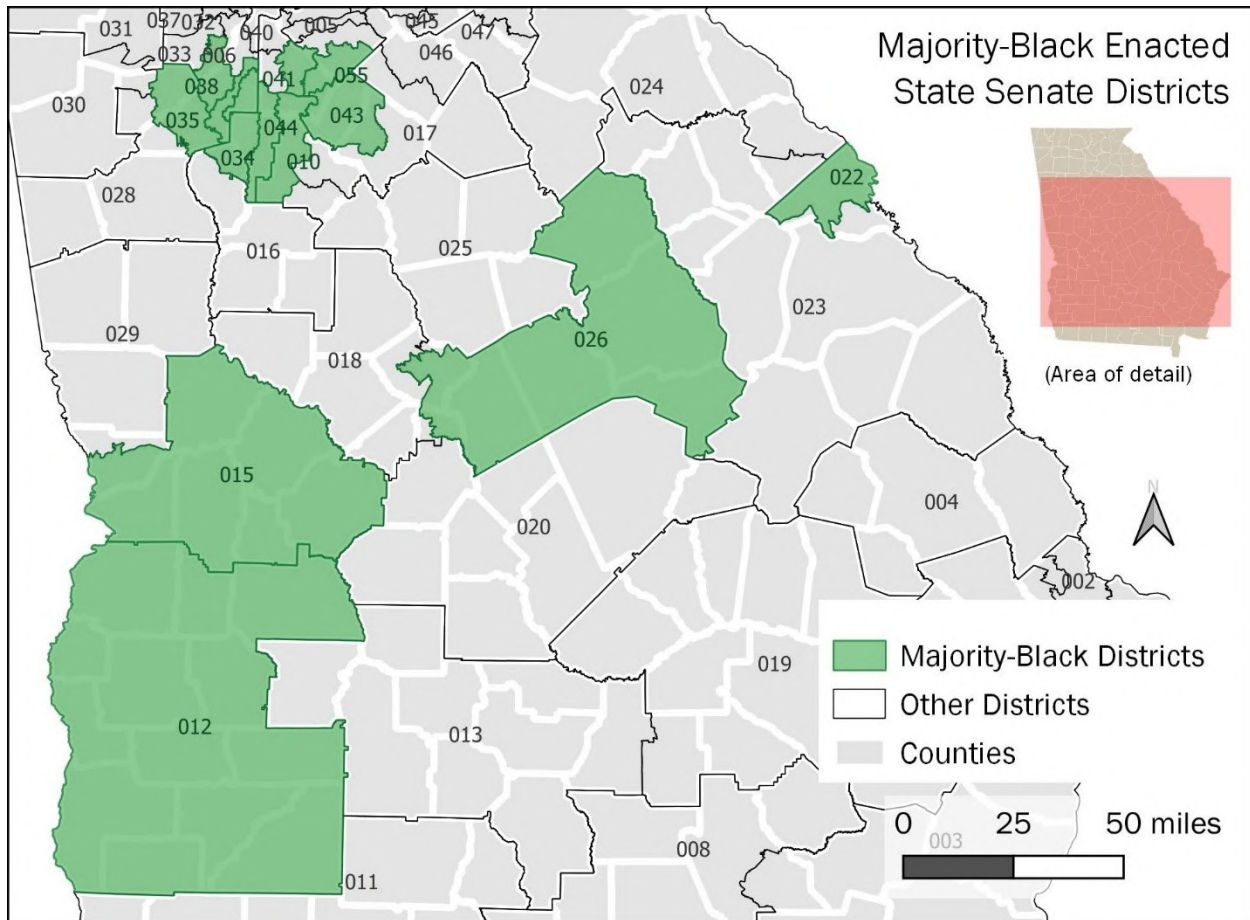
is designed to have a population near 191,284, or one-fifty-sixth of Georgia's total population. See Figure 2.

**Figure 2: Map of all districts in enacted State Senate plan.**



22. Of the 56 districts in the enacted plan, 14 are majority-Black.<sup>6</sup> Ten of those are in the Metro Atlanta area and four are in the Black Belt. These districts are highlighted in Figure 3 below.

**Figure 3: Map indicating majority-Black districts in enacted State Senate plan.**



23. For more maps and statistics related to the enacted State Senate districts, please see **Attachment D**.

<sup>6</sup> Per convention in Section 2 cases, “majority-Black” is taken to indicate that the district’s *voting age* population that identifies as Black (alone or in combination) constitutes more than 50% of the district’s voting age population.

## **B. Illustrative State Senate plan**

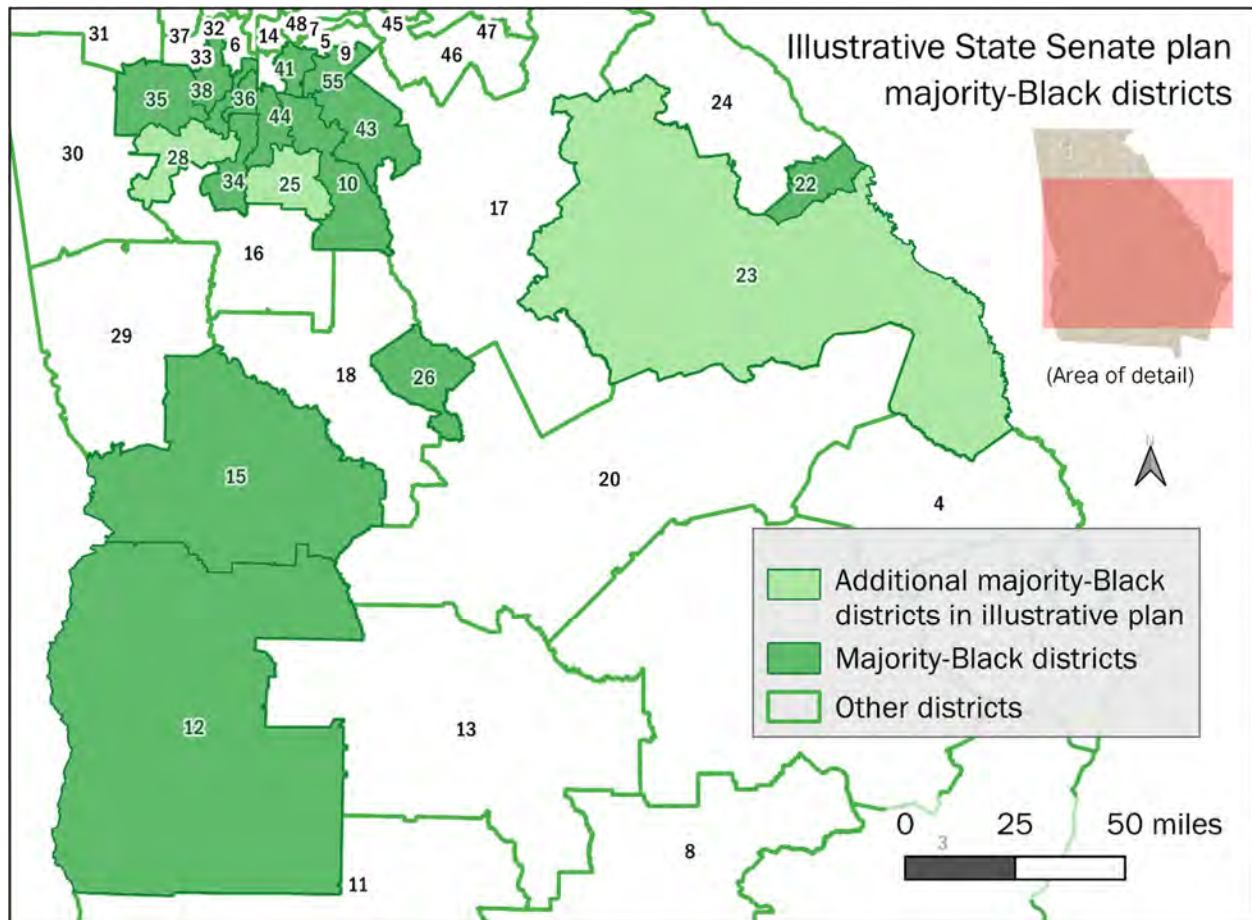
24. The illustrative State Senate plan, like the enacted plan, has 56 districts, all designed to have populations near 191,284.

25. The illustrative plans for the State Senate and House discussed in this report have both been modified slightly from the versions provided as part of the PI proceedings. With the availability of additional data (e.g., incumbent addresses) and information gleaned during the PI proceedings, I sought to improve the plans' performance on multiple criteria. During both the earlier process of creating the PI illustrative plans and the process of revising those plans to create the plans described in this report, I was constantly balancing a number of considerations, and there was no one dominant factor or metric. More details about differences between the newer versions of the illustrative plans and the PI versions are provided in the "Comparative characteristics" sections below.

26. One of the guiding principles in the creation of both the State Senate and House illustrative plans was to minimize changes to the enacted plan while adhering to other neutral criteria. Modifying one district necessarily requires changes to districts adjacent to the original modification, and harmonizing those changes with traditional redistricting criteria (such as population equality and intactness of counties) often inescapably results in cascading changes to other surrounding districts. Notably, most of the enacted plans' districts remain intact in my illustrative plans. In the illustrative State Senate plan, just 22 of the districts were modified, leaving the other 34 unchanged.

27. The illustrative plan includes three additional majority-Black State Senate districts compared to the enacted plan, for a total of 17. Specifically, Senate Districts 23, 25, and 28 are not majority-Black in the enacted plan but are majority-Black in the illustrative plan. See Figure 4 and Table 1.

**Figure 4: Map of majority-Black districts in the illustrative State Senate plan.**



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**Table 1: Illustrative Senate plan majority-Black districts with BVAP percentages.**

District	BVAP%	District	BVAP%	District	BVAP%
10	61.10%	26	52.84%	39	60.21%
12	57.97%	28	57.28%	41	62.61%
15	54.00%	34	58.97%	43	58.52%
22	50.84%	35	54.05%	44	71.52%
23	51.06%	36	51.34%	55	65.97%
25	58.93%	38	66.36%		

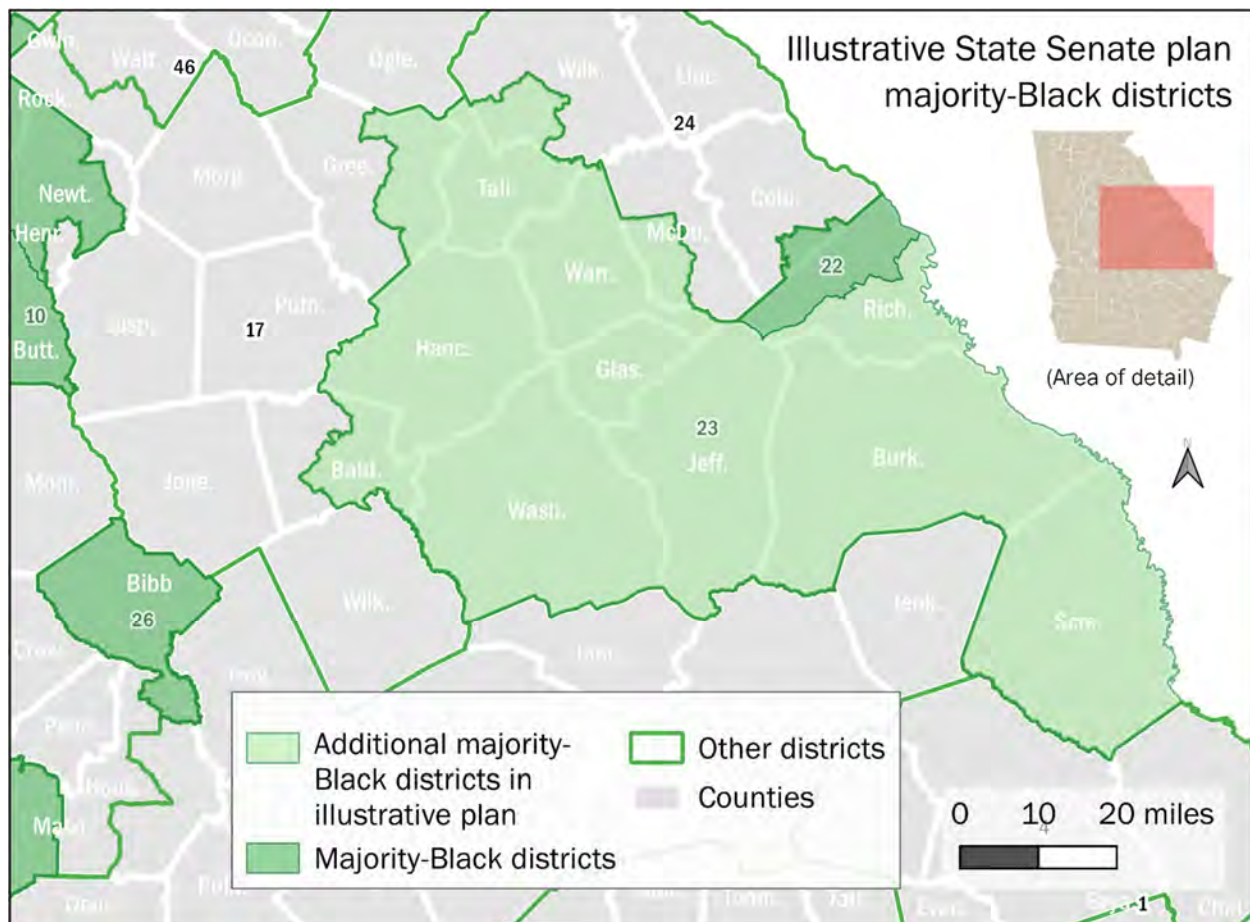
28. The enacted plans have fewer majority-Black districts than the illustrative plans because, in part, more Black voters were heavily concentrated into certain Metro Atlanta districts in the enacted plans.

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29. The additional majority-Black State Senate district in the eastern Black Belt area (District 23) includes all of Burke, Glascock, Hancock, Jefferson, Screven, Taliaferro, Warren, and Washington Counties and parts of Baldwin, Greene, McDuffie, Augusta-Richmond, and Wilkes Counties. See Figure 5.<sup>7</sup>

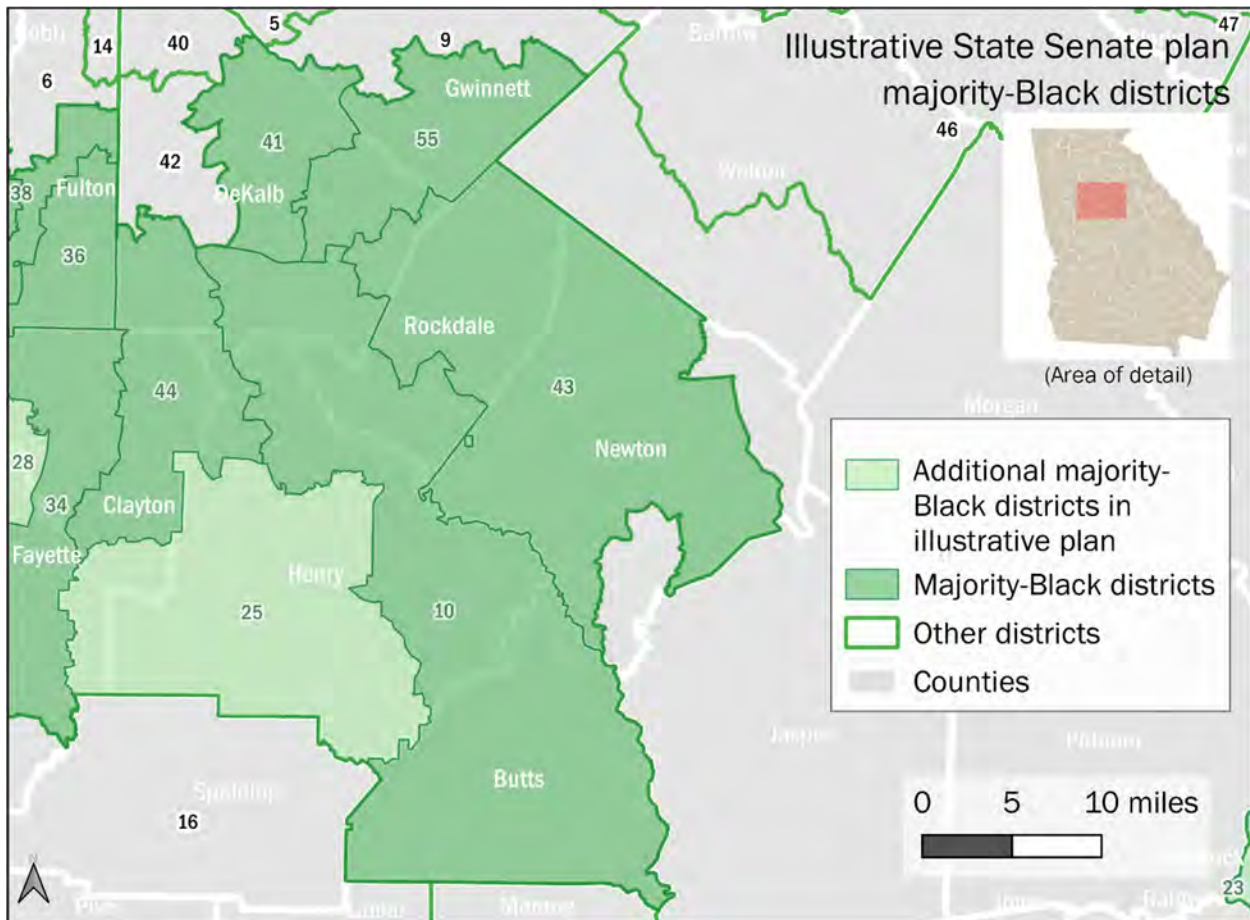
**Figure 5: Map of eastern Black Belt region of illustrative plan with majority-Black State Senate districts indicated.**



<sup>7</sup> Additionally, in the illustrative plan, Macon-Bibb County is no longer divided; the majority-Black District 26 includes all of Macon-Bibb County in a single district (as well as a part of Houston County). The intactness of Macon-Bibb County is in keeping with recommendations made during public comment at the hearing held in Macon, Georgia on July 29<sup>th</sup>, 2021. Two witnesses at the hearing—including Cathy Cox, the former Georgia Secretary of State and then Dean of Mercer University School of Law—spoke about Macon-Bibb County as a community that should be considered as a unit and kept whole. See <https://www.youtube.com/watch?v=lykQpSFVerY> (video at 1:36:52 and 1:37:46). Written statements submitted online also supported keeping Macon-Bibb County intact. See, e.g., comments of S. Doonan (July 26<sup>th</sup>, 2021), C. Hargrove (July 30<sup>th</sup>, 2021), and A. Bailey (December 1<sup>st</sup>, 2021) at <https://www.legis.ga.gov/joint-office/reapportionment/public-comments>.

30. The additional majority-Black State Senate district in the southeastern Metro Atlanta area (District 25) is composed of portions of Clayton and Henry Counties. See Figure 6.

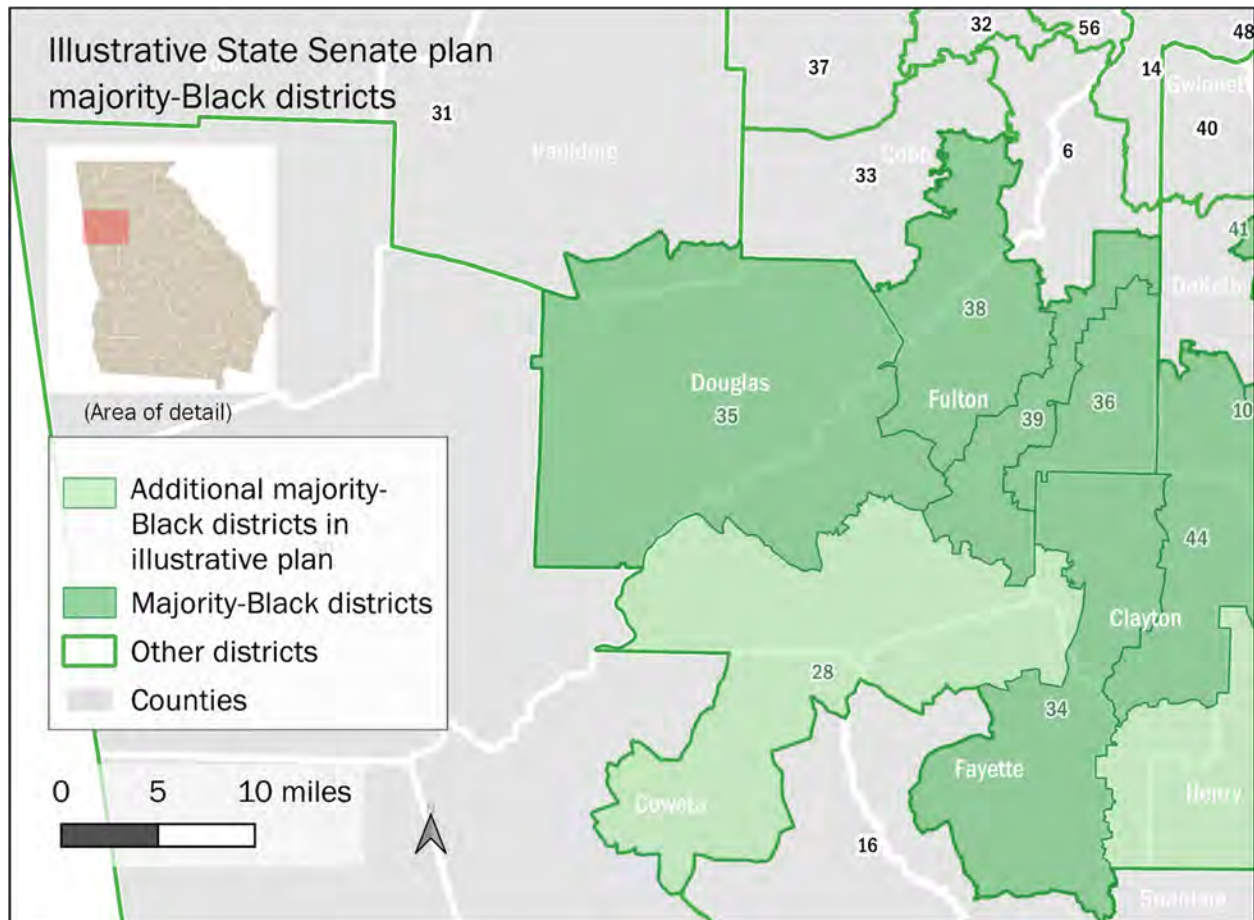
**Figure 6: Map of eastern Metro Atlanta area of illustrative plan with majority-Black State Senate districts indicated.**



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31. The additional majority-Black State Senate district in the southwestern Metro Atlanta area (District 28) is composed of portions of Clayton, Coweta, Fayette, and Fulton Counties. See Figure 7.<sup>8</sup>

**Figure 7: Map of western Metro Atlanta area of illustrative plan with majority-Black State Senate districts indicated.**



32. For more demographic statistics related to the illustrative State Senate districts, please see **Attachment E**.

<sup>8</sup> Incidentally, the illustrative map also includes all of Douglas County in one majority-Black State Senate district, rather than dividing it between two districts as it is in the enacted plan.



### **C. Comparative characteristics**

33. In undertaking the creation of a new redistricting plan for the State Senate, the Senate Reapportionment Committee adopted the “2021-2022 Senate Reapportionment Committee Guidelines,” a full copy of which is appended to this report as **Attachment F**. Within this document is a section called “GENERAL PRINCIPLES FOR DRAFTING PLANS,” which contains a list of principles. The illustrative plan was drawn to comply with and balance these principles.

34. The guidelines provide that “[e]ach legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below.” Noting that adherence to other principles can be in tension with population equality, both the enacted plan and the illustrative plan get substantially closer to population equality than the permissible threshold of  $\pm 5\%$ . In both plans, most district populations are within  $\pm 1\%$  of the ideal, and a small minority are within between  $\pm 1$  and  $2\%$ . None has a deviation of more than  $2\%$ . For the enacted plan, the relative average deviation is  $0.53\%$ , and for the illustrative plan the relative average deviation is  $0.67\%$ .

35. The guidelines additionally provide that “[d]istricts shall be composed of contiguous geography.” The illustrative plan districts meet this contiguity requirement in the same manner as the enacted plan.

36. The guidelines further provide that “[c]ompactness” “should [be] consider[ed].” Numerous measures exist for quantifying compactness of districts, and a selection of some of the most commonly used measures in redistricting are shown in

Table 2 below—both for the enacted plan and the illustrative plan. One can see that the average compactness measures for the plans are almost identical. An explanation of the five compactness metrics is provided as **Attachment G**.<sup>9</sup>

**Table 2: Compactness measures for enacted and illustrative State Senate plans.**

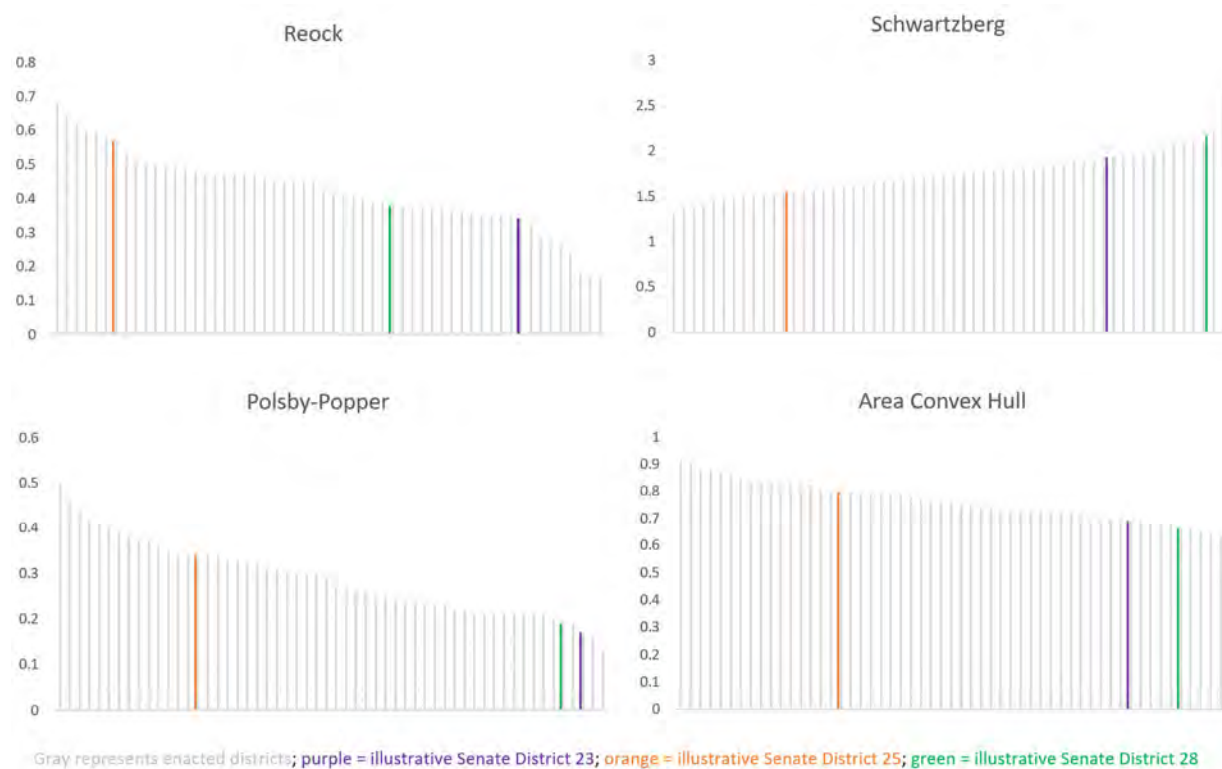
	Reock (average)	Schwartzberg (average)	Polsby- Popper (average)	Area/Convex Hull (average)	Number of Cut Edges
Enacted	0.42	1.75	0.29	0.76	11,005
Illustrative	0.41	1.76	0.28	0.75	11,003

37. Figure 8 below shows how the three additional majority-Black districts in the illustrative State Senate plan all fall within the range of compactness scores of districts in the enacted plan. The gray lines represent the compactness scores of each of the enacted districts, in sorted order. The purple, orange, and green lines represent the scores of illustrative Districts 23, 25, and 28, respectively. The heights of the lines represent the score (marked on the axis on the left), and the location of the line indicates the position within the sorted order between maximum compactness (left side) and minimum compactness (right side). For all four measures, the scores of the three additional majority-Black districts in the illustrative plan are comparable to those of enacted districts and indicate greater compactness than the least compact districts in the enacted plan. See Table 3 for the specific related numeric scores.

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<sup>9</sup> A simplified summary of how to interpret the measures follows: the Reock, Polsby-Popper, and Area/Convex Hull measures all provide scores between zero and one, with scores closer to one (i.e., *higher* values) indicating more compactness; the Schwartzberg measure provides scores greater than or equal to one, and scores closer to one (i.e., *lower* values) indicate more compactness; and for the Number of Cut Edges, which is only meaningful for comparing entire plans—not individual districts—a lower score indicates more compactness.

**Figure 8: Sorted compactness measures for all enacted plan districts and additional majority-Black districts in the illustrative State Senate plan.**



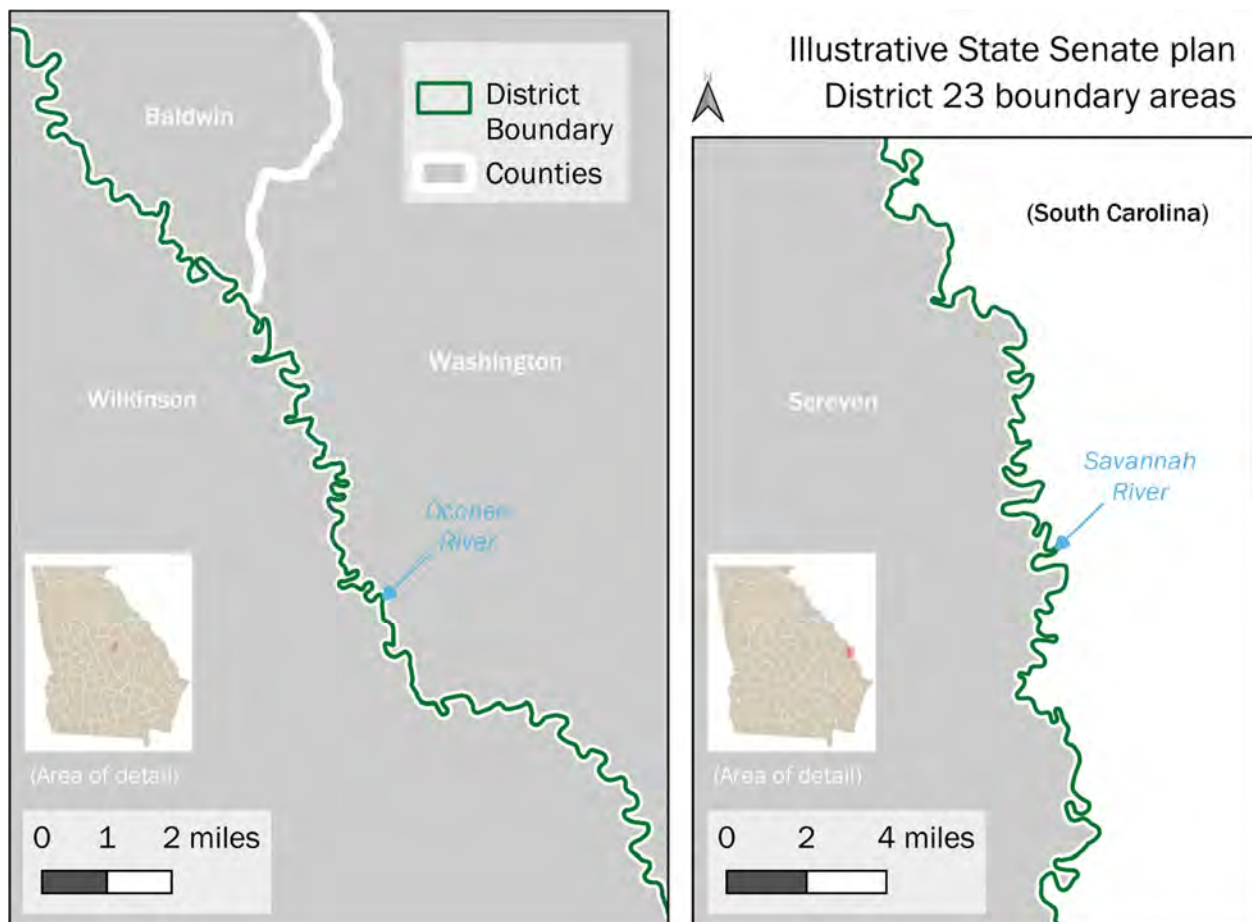
**Table 3: Summary compactness scores for enacted State Senate districts and compactness scores for illustrative State Senate districts.**

	Measures of Compactness			
	Reock	Schwartzberg	Polsby-Popper	Area/ Convex Hull
Enacted plan least compact score	0.17	2.67	0.13	0.50
Enacted plan median score	0.415	1.725	0.28	0.755
Illustrative District 23 score	0.34	1.93	0.17	0.69
Illustrative District 25 score	0.57	1.55	0.34	0.80
Illustrative District 28 score	0.38	2.17	0.19	0.66

38. Illustrative State Senate District 23 offers an interesting example of how different compactness measures weight boundary features in different ways. In Figure 8 above, one can see that illustrative State Senate District 23 scores very close to the

“bottom” (i.e., least compact) value in the range for the Polsby-Popper measure, but not for the other three measures. The Polsby-Popper measure, which considers a district’s perimeter in its formula, heavily penalizes a district if it has a wiggly border, even if the district’s overall shape isn’t stringy or convoluted. Figure 9 below shows two sections of illustrative District 23’s outline where it is simply following county boundaries, and those county boundaries happen to be serpentine in shape. As is often the case, the county boundaries follow significant rivers (the Oconee and Savannah), which are widely considered to be intuitive features to use as the division between districts or other administrative areas.

**Figure 9: Detail of selected Illustrative State Senate District 23 boundaries.**



39. The guidelines also provide that “[t]he boundaries of counties and precincts” “should [be] consider[ed].” In redistricting in the United States, consideration of such boundaries is generally taken to mean that counties and precincts should be kept intact to the extent possible (i.e., not split among multiple districts). While the Reapportionment Committee’s language regarding this guideline is not explicit, Table 4: below provides numbers of counties and VTDs (the Census “Voting District” used by redistricting software as a proxy for precincts) split in both the enacted and illustrative State Senate plans.

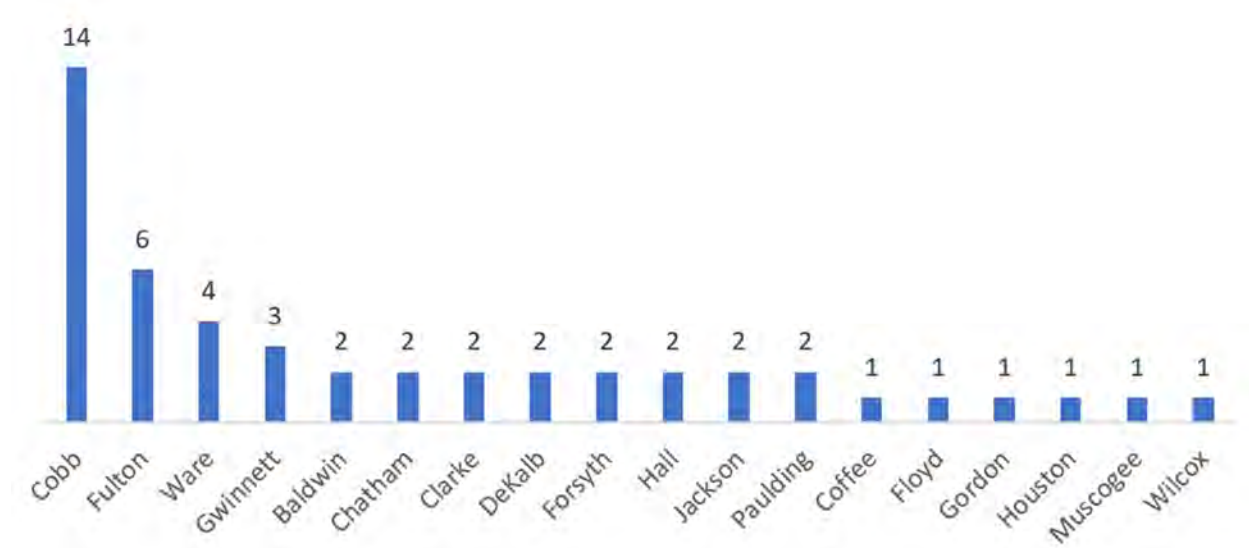
**Table 4: Political subdivision splits for enacted and illustrative State Senate plans.**

	Intact Counties	Split Counties	Split VTDs
Enacted	130	29	47
Illustrative	125	34	49

40. While the creation of three additional majority-Black State Senate districts involved the division of additional counties and VTDs, the differences are marginal.<sup>10</sup> Figure 10 below shows which counties those VTD splits are in in the illustrative State Senate plan. All of the VTDs split in the illustrative State Senate plan are confined to just 18 of the State’s 159 counties.

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<sup>10</sup> The number of county splits in the State Senate illustrative plan (34) is lower than the number of such splits in the State Senate plan adopted in 2014 (38), which was used in elections from 2014 through 2020. See [https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/senate14-county.pdf?sfvrsn=e8061e5c\\_2](https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/senate14-county.pdf?sfvrsn=e8061e5c_2) and [https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/counties-by-house-districts.pdf?sfvrsn=b7c39a42\\_2](https://www.legis.ga.gov/api/document/docs/default-source/reapportionment-document-library/counties-by-house-districts.pdf?sfvrsn=b7c39a42_2).

**Figure 10: VTD splits in illustrative State Senate plan by county.**

41. The guidelines further call for consideration of “[c]ommunities of interest.” Communities of interest can be larger than a county or smaller than a college campus, and individuals may have different opinions about their exact geographic extents. In identifying such communities, I generally referred to recognizable entities visible in the *Maptitude for Redistricting* software interface, such as municipalities and landmark areas, as well as areas and communities I’ve heard described by Georgians, either in personal conversations or in statements made in public hearings. When making changes to districts for my PI illustrative plan, I did strive to keep communities of interest intact as much as possible while also honoring the other guidelines. In that plan, however, I inadvertently divided the two campuses of Georgia College (they are both in Milledgeville, but about a mile apart). The revised district lines for the illustrative plan submitted with this report not only keep both campuses in the same State Senate district, but they also do a better job of keeping central Milledgeville in a single district.

42. The final specified guideline is that “[e]fforts should be made to avoid the unnecessary pairing of incumbents.” Based on my analysis of the residential addresses of the recently elected State Senators (provided by counsel), the illustrative plan would not pair any incumbent Senators in the same district. The avoidance of any incumbent pairing represents an improvement over the PI illustrative plan, which paired two incumbents according to a declaration from John Morgan provided as part of the PI proceedings.<sup>11</sup>

43. For more detailed statistics and reports on the above characteristics, please see **Attachment H**.

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<sup>11</sup> See Declaration of John B. Morgan, January 18, 2022, p. 8.

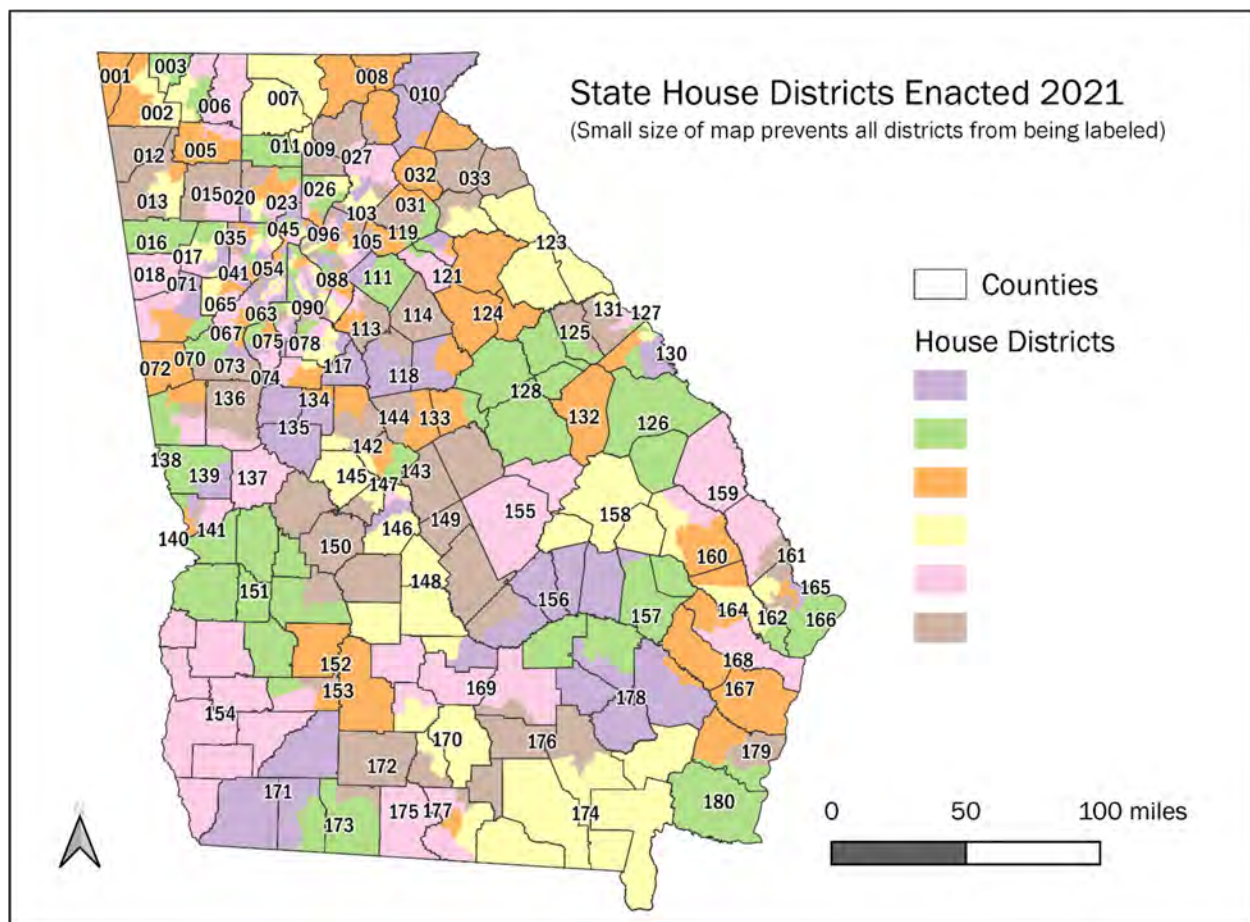


## IV. Georgia House redistricting plan

### A. Review of enacted House plan

44. On December 30<sup>th</sup>, 2021, Governor Kemp signed new House of Representatives districts into law. With districts for 180 Representatives in this enacted plan, each district is designed to have a population near 59,511, or one-one-hundred-eightieth of Georgia's total population. See Figure 11.

**Figure 11: Map of all districts in enacted House plan.**

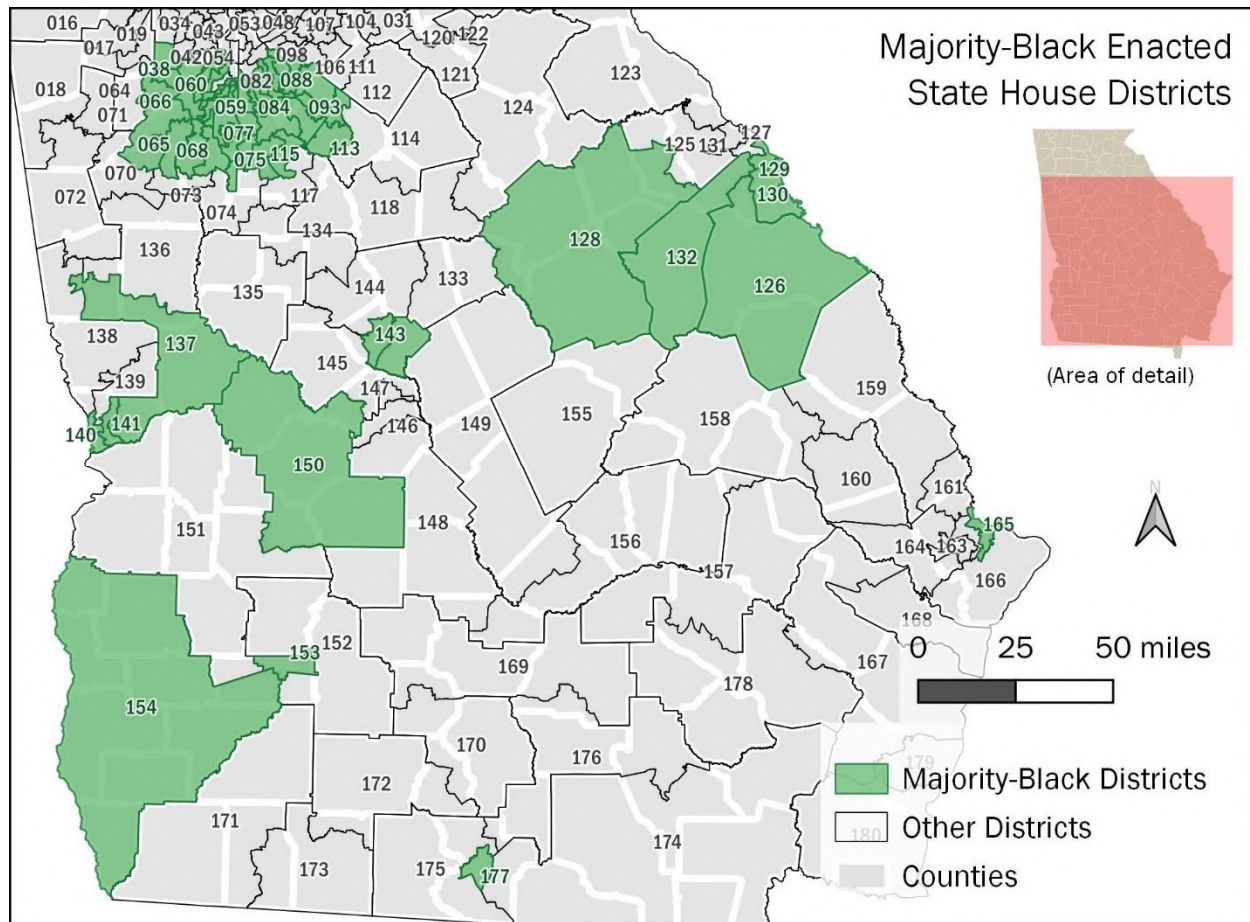


45. Of the 180 districts in the enacted plan, 49 are majority-Black. Thirty-four of those are in the Metro Atlanta area, 13 are in the Black Belt, and two small districts are



within Chatham (anchored in Savannah) and Lowndes Counties (anchored in Valdosta) in the southeastern part of the state. These districts are highlighted in Figure 12 below.

**Figure 12: Map indicating majority-Black districts in enacted House plan.**



46. For more maps and statistics related to the enacted House districts, please see **Attachment I**.

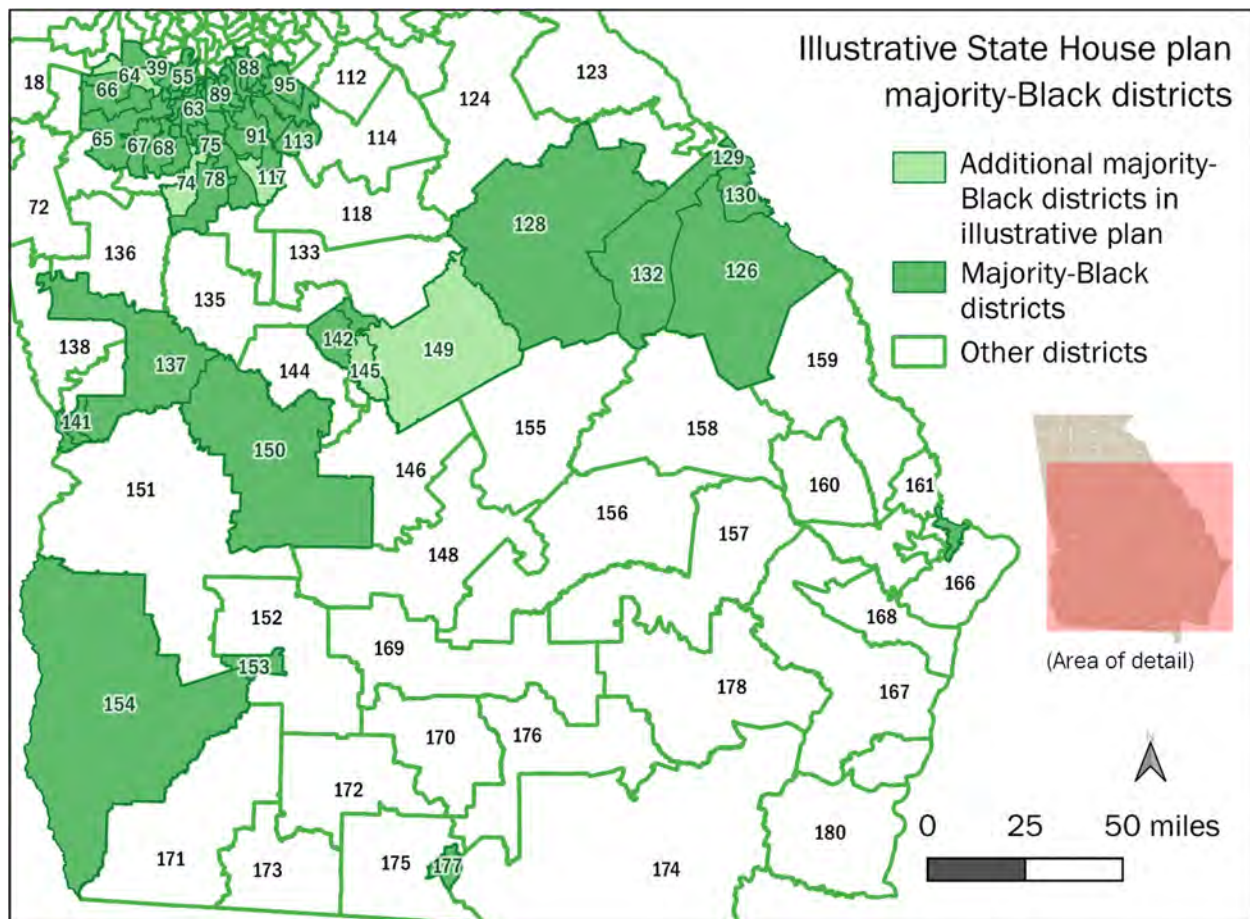
## **B. Illustrative House plan**

47. The illustrative House plan, like the enacted plan, has 180 districts, all with populations near 59,511. As with the illustrative State Senate plan, one of the guiding principles was to minimize changes to the enacted plan while adhering to the range of

other neutral criteria. In fact, just 25 of the districts were modified, leaving the other 155 unchanged. The PI version of the illustrative plan, by contrast, modified 26 districts.

48. The illustrative plan includes five additional majority-Black House districts compared to the enacted plan, for a total of 54. Specifically, House Districts 64, 74, 117, 145, and 149 are not majority-Black in the enacted plan but are majority-Black in the illustrative plan. See Figure 13 and Table 5.

**Figure 13: Map of majority-Black districts in the illustrative House plan.**



**Table 5: Illustrative House plan majority-Black districts with BVAP percentages.**

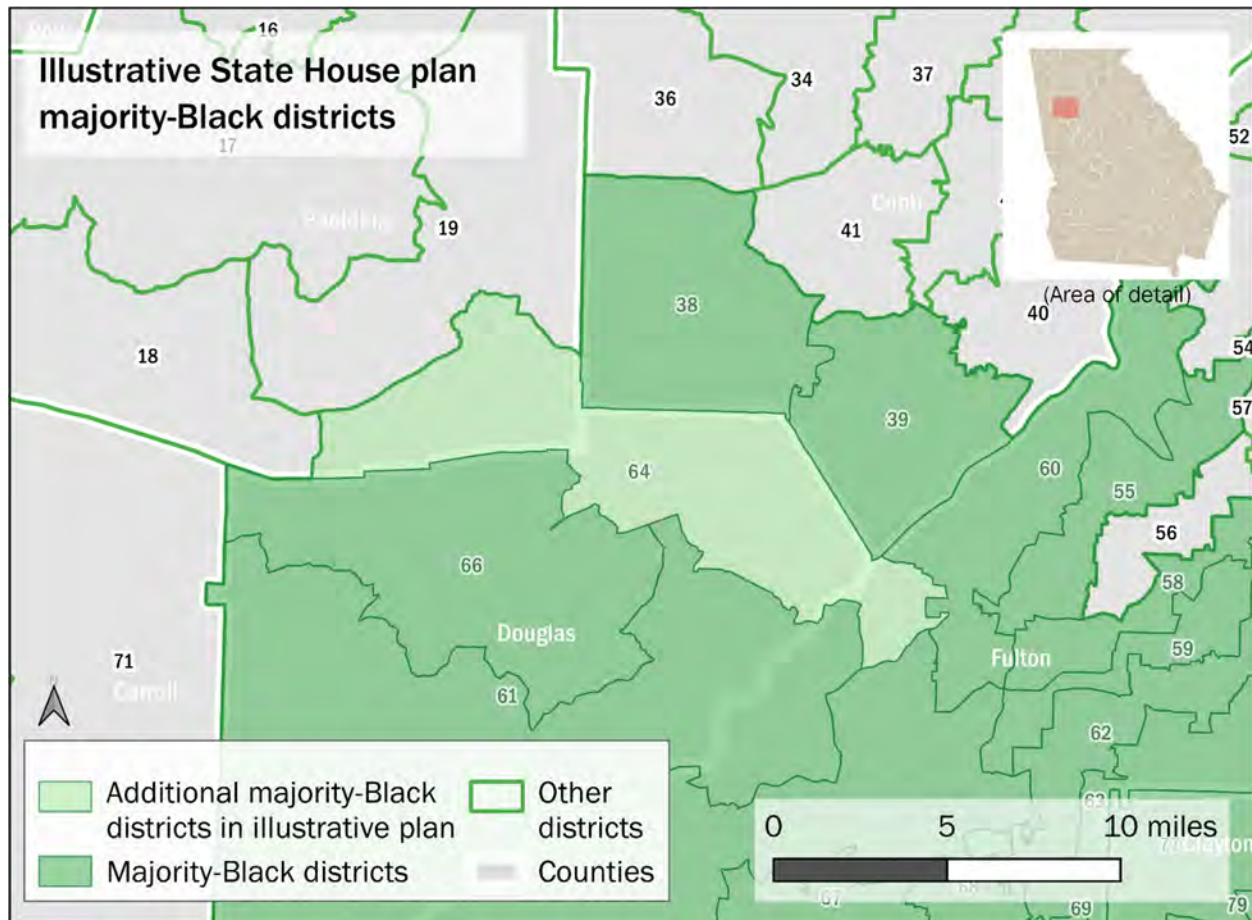
District	BVAP%	District	BVAP%	District	BVAP%	District	BVAP%
38	54.23%	69	62.73%	91	60.01%	137	52.13%
39	55.29%	74	53.94%	92	68.79%	140	57.63%
55	55.38%	75	66.89%	93	65.36%	141	57.46%
58	63.04%	76	67.23%	94	69.04%	142	50.14%
59	70.09%	77	76.13%	95	67.15%	143	50.64%
60	63.88%	78	51.03%	113	59.53%	145	50.38%
61	53.49%	79	71.59%	115	53.77%	149	51.53%
62	72.26%	84	73.66%	116	51.95%	150	53.56%
63	69.33%	85	62.71%	117	51.56%	153	67.95%
64	50.24%	86	75.05%	126	54.47%	154	54.82%
65	63.34%	87	73.08%	128	50.41%	165	50.33%
66	53.88%	88	63.35%	129	54.87%	177	53.88%
67	58.92%	89	62.54%	130	59.91%		
68	55.75%	90	58.49%	132	52.34%		

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49. The additional majority-Black House district in the western Metro Atlanta area (District 64) is composed of portions of Douglas, Fulton, and Paulding Counties.

See Figure 14.

**Figure 14: Map of western Metro Atlanta area of illustrative plan with majority-Black House districts indicated.**

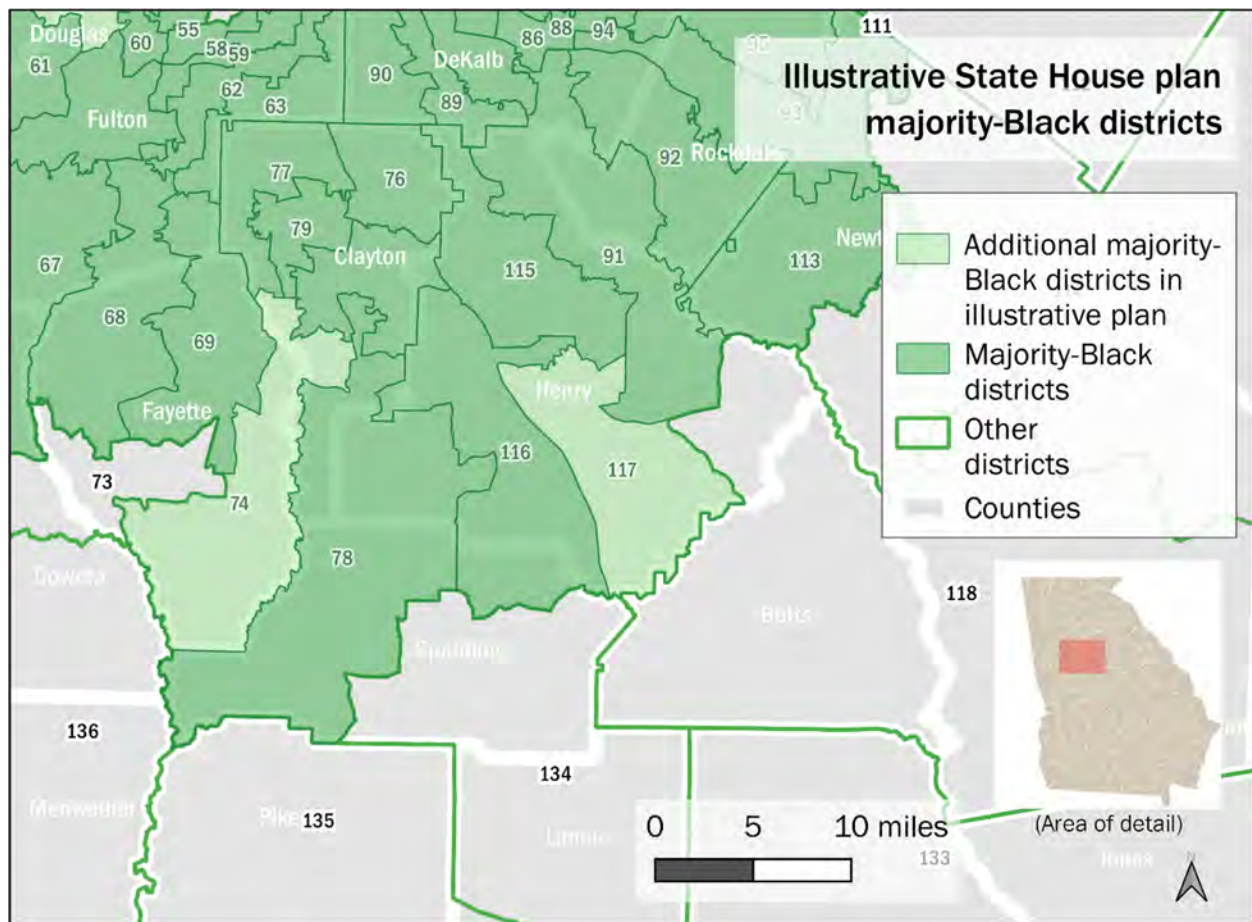


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50. The additional majority-Black House districts in the southern Metro Atlanta area (Districts 74 and 117) are built from portions of Clayton, Fayette, and Henry Counties. See Figure 15.

**Figure 15: Map of southern Metro Atlanta area of illustrative plan with majority-Black House districts indicated.**



51. The two additional majority-Black House districts in the central Black Belt area (Districts 145 and 149) are built from portions of Baldwin, Macon-Bibb, and Houston Counties, as well as all of Twiggs and Wilkinson Counties. The adjacent Twiggs and Wilkinson Counties, included in their entirety in District 149, have been identified

by General Assembly staff as “constitut[ing] a single community of interest.”<sup>12</sup> The illustrative plan, like the enacted plan, divides Macon-Bibb County into four districts, two of which (Districts 142 and 143) are wholly contained in Macon-Bibb County, and two of which (Districts 145 and 149 in the illustrative plan) extend outside the county as well. The orientation of Districts 142 and 143 also ensures that the northern portions of Macon-Bibb County stay in a Macon-Bibb County district with portions of Macon, rather than being put in a district with a more rural neighboring county like Monroe; this type of arrangement was specifically recommended during public comment at a Joint Reapportionment Committee hearing.<sup>13</sup> See Figure 16.

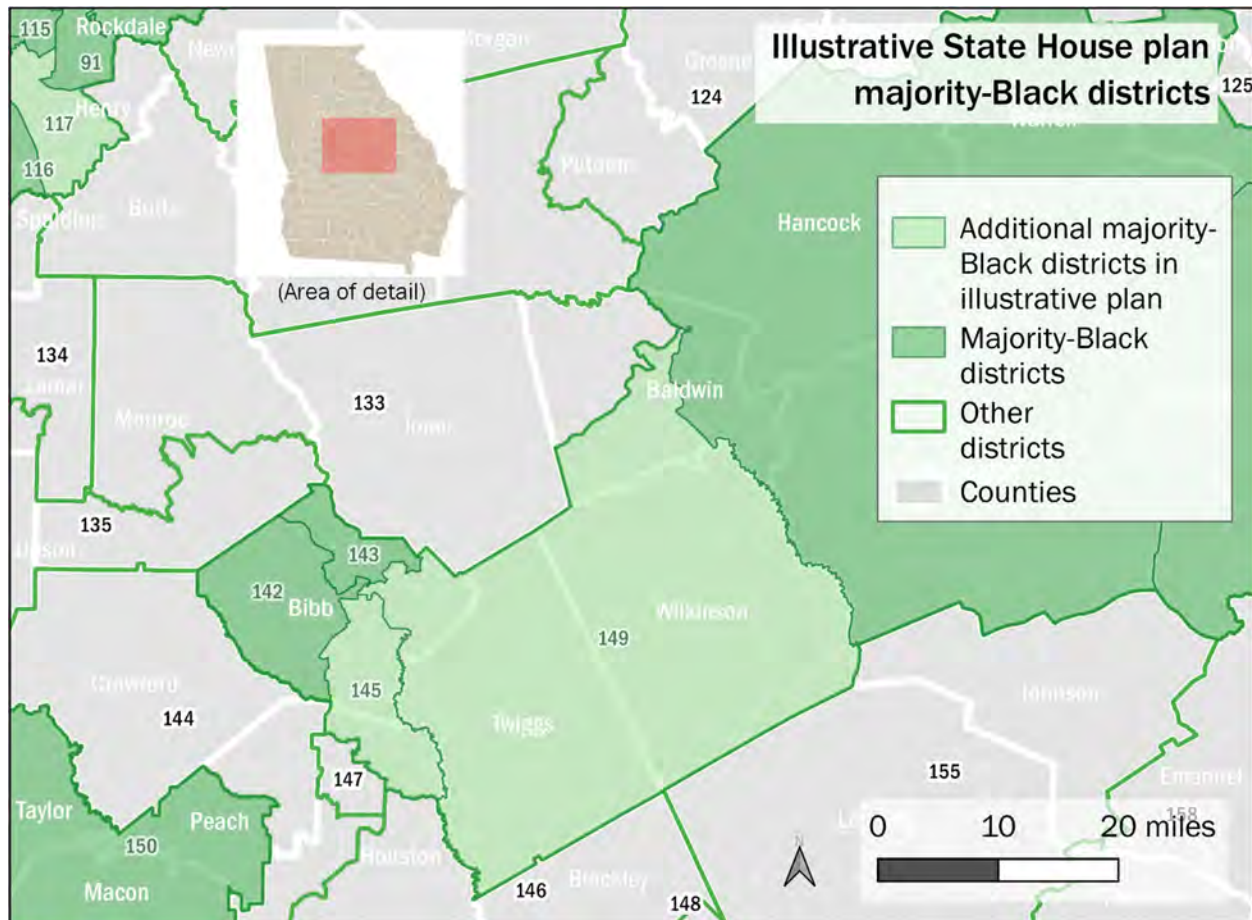
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<sup>12</sup> Specifically, Gina Wright, Executive Director of the General Assembly's Legislative and Congressional Reapportionment Office, included this statement in her declaration filed before the Court's PI hearing. See Declaration of Gina Wright, February 4<sup>th</sup>, 2022, p. 9.

<sup>13</sup> See, e.g., comment at Georgia General Assembly Joint Reapportionment Committee hearing held in Macon, Georgia on July 29<sup>th</sup>, 2021, <https://www.youtube.com/watch?v=IYkQpSFVerY> (video at 33:42).

**Figure 16: Map of central Black Belt region of illustrative plan with majority-Black House districts indicated.**



52. District 149 generally follows the orientation of the Georgia Fall Line geological feature, which brings with it shared economic, historic, and ecological similarities.<sup>14</sup> Macon and Milledgeville, parts of which are in illustrative House District 149, are both characterized as “Fall Line Cities,”<sup>15</sup> and were identified in public comment

<sup>14</sup> See, e.g., <https://www.georgiaencyclopedia.org/articles/geography-environment/fall-line/> and <http://southres.com/uptowncolumbusdams/thefallline.php>.

<sup>15</sup> See “Fall Line Cities” map at <https://www.gpb.org/blogs/education-matters/2017/02/06/new-virtual-field-trip-physical-features-of-georgia> and the southres.com article in the preceding footnote.

before the General Assembly's Joint Reapportionment Committee as two cities that should be kept in the same district.<sup>16</sup>

53. For more demographic statistics related to the illustrative House districts, please see **Attachment J**.

### **C. Comparative characteristics**

54. In undertaking the creation of a new redistricting plan for the House, the House Reapportionment Committee adopted the "2021-2022 House Reapportionment Committee Guidelines," a full copy of which is appended to this report as **Attachment K**. Within this document is a section called "GENERAL PRINCIPLES FOR DRAFTING PLANS," which contains a list of principles. The illustrative plan was drawn to comply with and balance these principles. As with the Senate Committee's principles discussed above, five of the principles can be quantitatively analyzed to help illustrate adherence.

55. The guidelines provide that "[e]ach legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below." As with the Senate plan, both the enacted plan and the illustrative plan get substantially closer to population equality than the permissible threshold of  $\pm 5\%$ . In both plans, most district populations are within  $\pm 1\%$  of the ideal, and a small minority are within between  $\pm 1$  and  $2\%$ . None has a deviation of more than  $2\%$ . For the enacted plan, the relative average deviation is  $0.61\%$ , and for the illustrative plan the relative average deviation is  $0.64\%$ .

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<sup>16</sup> See, e.g., comment from Georgia General Assembly Joint Reapportionment Committee hearing on June 15<sup>th</sup>, 2021 at <https://www.youtube.com/watch?v=sewqUNTIUxA> (video at 49:15).



56. The guidelines additionally provide that “[d]istricts shall be composed of contiguous geography.” The illustrative plan districts meet this contiguity requirement in the same manner as the enacted plan.

57. The guidelines further provide that “[c]ompactness” “should [be] consider[ed].” A selection of some of the most commonly used measures of compactness are shown in Table 6 below—both for the enacted plan and the illustrative plan. One can see that the average compactness measures for the plans are almost identical, if not identical.

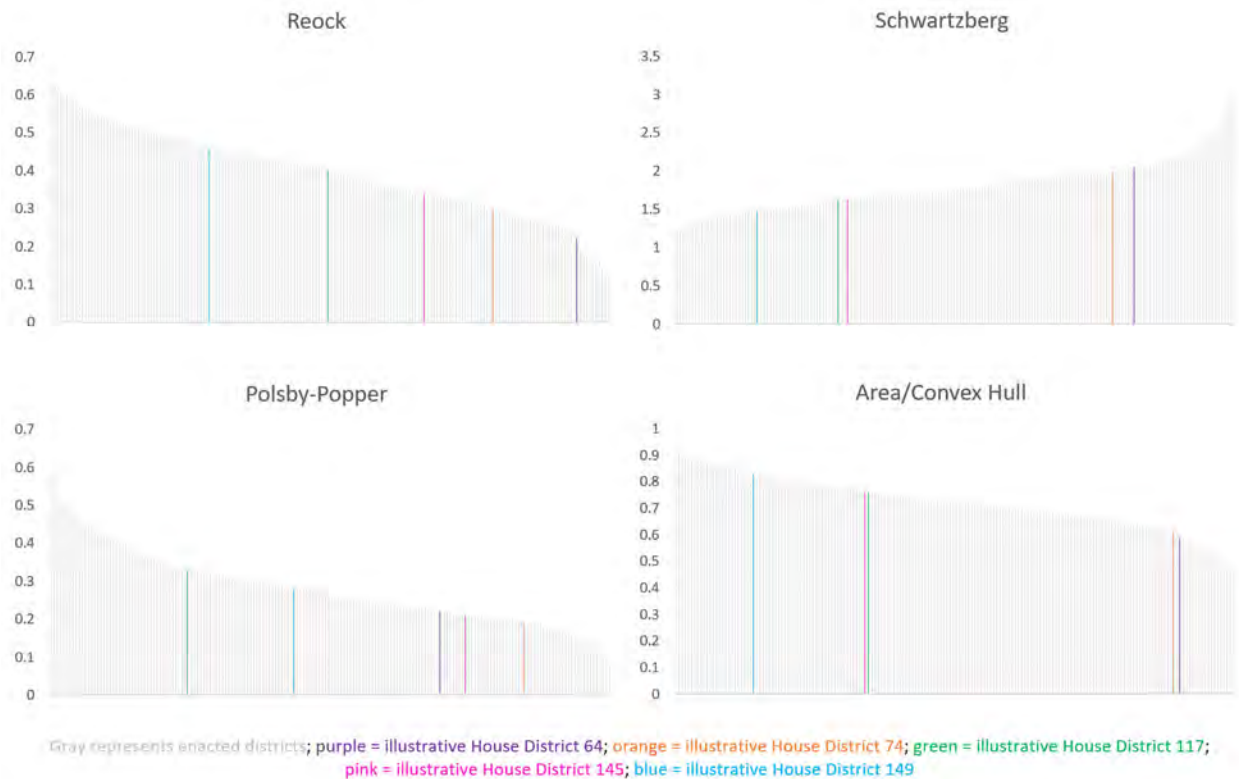
**Table 6: Compactness measures for enacted and illustrative House plans.**

	Reock (average)	Schwartzberg (average)	Polsby- Popper (average)	Area/Convex Hull (average)	Number of Cut Edges
Enacted	0.39	1.80	0.28	0.72	22,020
Illustrative	0.39	1.81	0.28	0.72	22,359

58. Figure 17 below shows how the five additional majority-Black districts in the illustrative House plan all fall within the range of compactness scores of districts in the enacted plan. The gray lines represent the compactness scores of each of the enacted districts, in sorted order. The purple, orange, green, pink, and blue lines represent the scores of illustrative House Districts 64, 74, 117, 145, and 149, respectively. The heights of the lines represent the score (marked on the axis on the left), and the location of the line indicates the position within the sorted order between maximum compactness (left side) and minimum compactness (right side). For all four measures, the scores of the five additional majority-Black districts in the illustrative plan are comparable to those of

enacted districts and indicate greater compactness than the least compact district in the enacted plan. See Table 7 for the specific related numeric scores.

**Figure 17: Sorted compactness measures for all enacted plan districts and additional majority-Black districts in the illustrative House plan.**



**Table 7: Summary compactness scores for enacted House districts and compactness scores for illustrative House districts.**

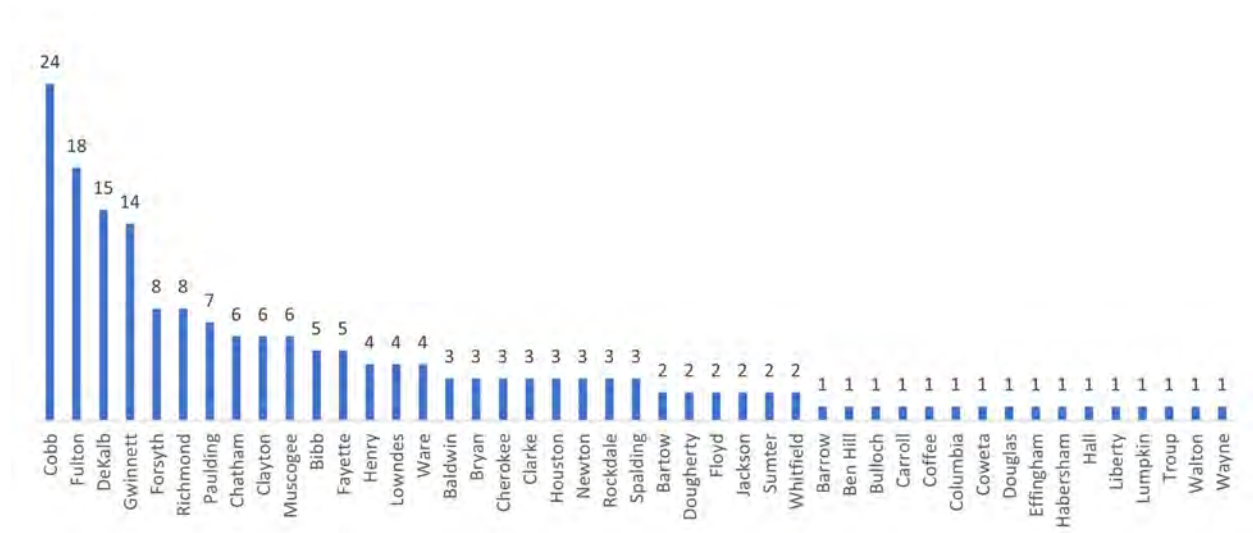
	Measures of Compactness			
	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Enacted plan least compact score	0.12	2.98	0.10	0.46
Enacted plan median score	0.40	1.765	0.26	0.72
Illustrative District 64 score	0.22	2.05	0.22	0.59
Illustrative District 74 score	0.30	1.98	0.19	0.61
Illustrative District 117 score	0.40	1.62	0.33	0.76
Illustrative District 145 score	0.34	1.63	0.21	0.76
Illustrative District 149 score	0.46	1.48	0.28	0.83

59. The guidelines further provide that “[t]he boundaries of counties and precincts” “should [be] consider[ed].” Table 8 below shows that the numbers of counties and VTDs (akin to precincts) split in the enacted and illustrative House plans are nearly equal. This version of the illustrative House plan splits six fewer VTDs than the PI version. Figure 18 below shows which counties those VTD splits are in. Just 45 of the State’s 159 counties account for all of the splits.

**Table 8: Political subdivision splits for enacted and illustrative House plans.**

	Intact Counties	Split Counties	Split VTDs
Enacted	90	69	185
Illustrative	89	70	186

**Figure 18: VTD splits in illustrative State House plan by county.**



60. The guidelines next call for consideration of “[c]ommunities of interest.” My approach to preserving the intactness of communities of interest in the illustrative House map was similar to the one described in the State Senate “Comparative characteristics” section above. As with the comparable State Senate illustrative map, I

had inadvertently divided the two campuses of Georgia College in the initial illustrative House plan provided during the PI proceeding. The newer House illustrative plan rectifies that community split, and also keeps the central community of Milledgeville more intact. Additionally, as mentioned in the previous section, the district boundaries keep together communities in the Macon-Bibb County area as well as in the central Black Belt region.

61. The final specified guideline is that “[e]fforts should be made to avoid the unnecessary pairing of incumbents.” Based on analysis of the residential addresses of the recently elected State Representatives (provided by counsel), the illustrative plan would evidently pair a total of eight incumbents in the same districts.<sup>17</sup> This is the same number of incumbent pairings reported for the enacted plan in the declaration from John Morgan, provided as part of the PI proceedings.<sup>18</sup> Further it represents a significant improvement over the PI illustrative plan (created without knowledge of incumbent addresses), which paired 16 incumbents, according to the same declaration.<sup>19</sup>

62. For more detailed statistics and reports on the above characteristics, please see **Attachment L**.

## **V. Conclusion**

63. This report has demonstrated that it is possible to create three additional majority-Black districts in the Georgia State Senate plan and five additional majority-

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<sup>17</sup> Namely Mike Glanton and Kimberly R. New in District 61, El-Mahdi Holly and Regina Lewis-Ward in District 115, Miriam Paris and Dale Washburn in District 142, and Shaw Blackmon and Robert Dickey in District 144.

<sup>18</sup> See Declaration of John B. Morgan, January 18<sup>th</sup>, 2022, p. 9.

<sup>19</sup> Id.

Black districts in the Georgia House of Representatives plan in accordance with traditional redistricting principles.

64. I reserve the right to supplement this report in consideration of additional facts, testimony, or materials that may come to light.

Executed on December 5<sup>th</sup>, 2022.

A handwritten signature in black ink, appearing to read "Blakeman B. Esselstyn", written over a horizontal line.

Blakeman B. Esselstyn

**Esselstyn Report: Attachment A**

December 2022

**Blakeman (“Blake”) B. Esselstyn**

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**EDUCATION**

- University of Pennsylvania, School of Engineering and Applied Science, Master of Computer and Information Technology, 2003; GPA 4.0
- Yale University, Geology & Geophysics and International Studies, Bachelor of Arts, 1996

**PROFESSIONAL CERTIFICATIONS**

- Geographic Information Systems Professional (GISP), #6946, 2009
- American Institute of Certified Planners (AICP), #026364, 2013

**EMPLOYMENT (Teaching positions listed separately)**

- Redistricting Consultant, dba Mapfigure Consulting (and as Blake Esselstyn), Asheville, NC, 2016-present (and in the Netherlands starting late 2022)
- Principal Consultant, FrontWater, LLC, Asheville, NC, 2015-present
- Urban Planner III – GIS Specialist, City of Asheville Department of Planning and Urban Design, Asheville, NC, 2008-2015
- Urban Planner II, City of Asheville Planning Department, Asheville, NC, 2004-2008
- Independent GIS Consultant, Freelance, Asheville, NC, 2003-2004
- GIS Programmer, Azavea, Inc., Philadelphia, PA, 2002
- Web Support Fellow, University of Pennsylvania, Philadelphia, PA, 2002
- GIS Analyst, Applied Geographics, Inc., Boston, MA, 2001
- GIS Intern, Community and Environmental Spatial Analysis Center, Seattle, WA, 2000
- GIS Analyst, Applied Geographics, Inc., Boston, MA, 2000
- Mapping Technician, Schlosser Geographic Systems, Seattle, WA, 1997
- Digital Mapping Resources Consultant, Social Science Statistical Laboratory at Yale University, New Haven, CT, 1997
- Special Assistant to the CityRoom Coordinator, Neighborhood Partnerships Network, New Haven, CT, 1996-1997

- Lab Monitor, Center for Earth Observation at Yale University, New Haven, CT, 1995

#### TEACHING EMPLOYMENT

- Adjunct Faculty, Lenoir-Rhyne University, Asheville, NC, 2019  
Taught full-semester graduate-level Geographic Information Systems (GIS) course
- Adjunct Faculty, Western Carolina University, Asheville, NC, 2017  
Taught full-semester graduate-level GIS course
- GIS Course Assistant, University of Pennsylvania, Philadelphia, PA, 2002-2003  
Served as teaching assistant for two undergraduate GIS semester courses
- Teacher, Equity American School, Guatemala City, Guatemala, 1998-1999  
Led mathematics department for grades 7-12; taught one technology course
- Teacher, International School of Panama, Panama City, Republic of Panama, 1997-1998  
Taught computer programming and mathematics to secondary school students

#### LITIGATION EXPERIENCE (As GIS and/or redistricting expert)

- Testifying expert for plaintiffs, in *Grant v. Raffensperger*, U.S District Court for the Northern District of Georgia, 2022
- Consulting expert for plaintiffs, in *League of United Latin American Citizens v. Abbott*, U.S District Court for the Western District of Texas, 2022
- Consulting expert for plaintiffs, in *Rivera v. Schwab*, Wyandotte County (KS) District Court, 2022
- Consulting expert for plaintiffs, in *Harper v. Lewis*, Wake County (NC) Superior Court, 2019
- Consulting expert for plaintiffs, in *Common Cause v. Lewis*, Wake County (NC) Superior Court, 2019
- Preparation of redistricting map exhibits used in *Vesilind v. Virginia State Board of Elections*, Richmond (VA) Circuit Court, 2017
- Expert witness analysis, deposition, and testimony for City of Asheville, in *Jensen v. City of Asheville*, Buncombe County (NC) Superior Court, 2009-2010
- Expert witness analysis and testimony for City of Asheville, in *Hall v. City of Asheville*, Buncombe County (NC) Superior Court, 2007
- Expert witness analysis and testimony for City of Asheville, in *Arnold v. City of Asheville*, Buncombe County (NC) Superior Court, 2005



## PUBLIC REDISTRICTING PROJECT EXPERIENCE

- Design and completion of adopted electoral redistricting plans for Wake County (NC) Board of Education, 2021-2022
- Design and completion of adopted electoral redistricting plans for Mecklenburg County (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for Craven County (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for City of Fayetteville (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for City of Greenville (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Town of Cary (NC) Town Council, 2021
- Design and completion of adopted electoral redistricting plans for City of Hickory (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Town of Mooresville (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for City of Clinton (NC) City Council, 2021
- Design and completion of adopted electoral redistricting plans for Siler City (NC) Board of Commissioners, 2021
- Design and completion of adopted electoral redistricting plans for Town of Tarboro (NC) Town Council, 2021
- Design and completion of adopted electoral redistricting plans for Durham Public Schools (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Pitt County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Union County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans for Edgecombe County (NC) Board of Education, 2021
- Design and completion of adopted electoral redistricting plans (in advance of Census data delivery) for Town of Cary (NC) Town Council, 2021
- Lead presenter, Lenoir-Rhyne University Hands-on Redistricting Workshop, Virtual, 2021
- Software operator and presenter, National Conference of State Legislatures Redistricting Seminar: Redistricting Simulation, Columbus, OH, 2019

- Software operator and presenter, National Conference of State Legislatures Redistricting Seminar: Redistricting Simulation, Providence, RI, 2019
- Hands-on GIS software workshop session leader, Metric Geometry of Gerrymandering Group (MGGG) Conference at the University of Texas, Austin, TX, 2018
- Co-leader of redistricting hackathon, Metric Geometry of Gerrymandering Group (MGGG) Conference at Duke University, Durham, NC, 2017
- Preparation of simulated redistricting plans for Democracy North Carolina's Districting Voter Education Forum, Asheville, NC, 2017
- Hands-on GIS software workshop session assistant, Metric Geometry of Gerrymandering Group (MGGG) Conference at Tufts University, Medford, MA, 2017
- Redistricting software operator (converting retired jurists' instructions into maps), Duke University and Common Cause NC independent redistricting commission simulation, Raleigh, NC *and* Winston-Salem, NC, 2016

#### SPEAKER OR PANELIST

- "Political Reapportionment: Drawing Boundaries with QGIS," FOSS4G (Free and Open Source Software for Geospatial) Conference, Florence, Italy, 2022
- "Just Maps: How Gerrymandering Imperils the Right to Vote," Osher Lifelong Learning Institute at the University of North Carolina Asheville, virtual, 2022
- "How to Be a Redistricting Watchdog," Duke University's Redistricting and American Democracy Conference, Durham, NC, 2021
- "North Carolina Redistricting with Geographers: Local Knowledge & Community Considerations," American Association of Geographers (AAG) Redistricting Panel Series, Virtual, 2021
- "The Basics of Redistricting for Local Governments," NC Council of School Attorneys Summer Law Conference, Virtual, 2021
- "Census Timing and Redistricting," UNC School of Government: Municipal Attorneys' Winter Conference, Virtual, 2021
- "Census Delays and Redistricting," North Carolina League of Municipalities Online Meeting, Virtual, 2021
- "Redistricting: Ten Big Changes that GIS People Should Know About for 2021," North Carolina GIS Conference, Virtual, 2021
- "Demographics, the Census, and a Bit about Redistricting," UNC School of Government: County Attorneys Conference, Virtual, 2021
- "NC Redistricting Updates for the GIS Community," Mountain Region GIS Alliance, Virtual, 2021

- “The Census and Demographics,” UNC School of Government: Redistricting for Local Governments Conference, Virtual, 2021
- “The Mechanics of Redistricting,” UNC School of Government: Redistricting for Local Governments Conference, Virtual, 2021
- “Ask the Experts Panel,” National Conference of State Legislatures (NCSL) Redistricting Seminar, Virtual, 2021
- “GIS and the Data Handoff,” National Conference of State Legislatures (NCSL) Redistricting Seminar, Virtual, 2021
- “Electoral Redistricting for School Boards after the 2020 Census,” North Carolina School Boards Association 2020 Annual Conference, Virtual, 2020
- “Redistricting Software 2021: The Next Generation of Tools Could Open New Doors,” Urban and Regional Information Systems Association (URISA) GIS-Pro Conference, Virtual, 2020
- “Changing Demographics, Drawing Districts, and County Impacts,” North Carolina Association of County Commissioners 113<sup>th</sup> Annual Conference, Virtual, 2020
- “QGIS and democracy: Redistricting and reapportionment with QGIS,” QGIS North America Conference, Virtual, 2020
- “Does Your Vote Count?: The Impact of Gerrymandering,” virtual panel hosted by League of Women Voters Asheville Buncombe, NC, 2020
- [Scheduled, but cancelled due to COVID-19] “Redistricting with QGIS,” Free and Open Source Software for Geospatial Conference, Calgary, Alberta, Canada, 2020
- [Scheduled, but cancelled due to COVID-19] Teaching Faculty (session title to be determined), National Conference of State Legislatures Redistricting Seminar, Las Vegas, NV, 2020
- [Scheduled, but cancelled due to COVID-19] “Census Geography, Precision, & Privacy,” Census Symposium, University of North Carolina Asheville, NC, 2020
- “The State of Redistricting Software and Data Resources for 2020,” Quantitative Investigations of Gerrymandering and Redistricting Conference, Duke University, Durham, NC, 2020
- “School Board Elections,” 53rd School Attorneys’ Conference, UNC School of Government, Chapel Hill, NC, 2020
- “Methods and Techniques in Redistricting,” Harvard Geography of Redistricting Conference, Cambridge, MA, 2019
- “Redistricting Software: A new generation of geospatial tools,” North Carolina GIS Conference, Winston-Salem, NC, 2019
- “The Latest Mapping Technology,” Reason, Reform & Redistricting Conference, Duke University, Durham, NC, 2019

- “Redistricting—What Happens Now?” Voter Education Panel hosted by League of Women Voters (and others), Hendersonville, NC, 2019
- “What are all These Districts? How did We Get Here, and Redistricting Reform,” Grassroots Democracy: A Nonpartisan Voter Education Series, Leicester, NC, 2019
- “Re-GIS-tracting? A new generation of redistricting geo-tools,” Mountain Region GIS Alliance, Asheville, NC, 2019
- “Representing (mis)representation,” Tapestry Data Storytelling Conference, University of Miami, Miami, FL, 2018
- “A Redistricting Tour,” Democracy in our Hands Conference, Asheville, NC, 2018
- “Dis-tricks: GIS and Public Understanding of Redistricting,” NC ArcGIS Users Group, Asheville, NC, 2018
- “Visual Explanations of Gerrymandering,” Highlands Indivisible, Highlands, NC, 2018
- “Dave’s Redistricting App,” Metric Geometry of Gerrymandering Workshop, University of Texas, Austin, TX, 2018
- “Districting Voter Education Forum,” Democracy North Carolina, Asheville, NC, 2017
- “When GIS leads planners astray,” American Planning Association National Conference, New York, NY, 2017
- “Conveying Uncertainty with GIS,” Azavea, Philadelphia, PA, 2017
- “GISkepticism,” Appalachian State University, Boone, NC, 2017
- “When GIS leads planners astray,” North Carolina Planning Conference, American Planning Association North Carolina Chapter, Asheville, NC, 2016
- “What if the ‘S’ in GIS stood for Skepticism?” Mountain Region GIS Alliance, Asheville, NC, 2015
- “Open Data? Show Me the Money!” North Carolina GIS Conference, Raleigh, NC, 2015

#### TEACHING AS SINGLE-CLASS GUEST SPEAKER (On redistricting and/or GIS)

- Lenoir-Rhyne University, Public Policy Course (speaking on redistricting and representation), 2021
- Lenoir-Rhyne University, Geographic Information Systems Course (speaking on GIS), 2021
- University of North Carolina Asheville, Mathematics: Voting Theory Course (speaking on redistricting), 2020
- Metric Geometry and Gerrymandering Group Redistricting Lab (Tufts University + MIT), Geodata Bootcamp Mapmaking Session (speaking on redistricting software), 2020

- [Scheduled, but cancelled due to COVID-19] Duke University, Law School: Election Law Course (leading hands-on redistricting simulation exercise), April 2020
- Duke University, Data Science Capstone Seminar (speaking on data science professional/career advice), 2020
- University of North Carolina Asheville, Political Science: Census Course (speaking on redistricting), 2020
- Lenoir-Rhyne University, Public Policy Course (speaking on redistricting), 2019
- Western Carolina University, Geographic Information Systems Course (speaking on GIS), 2019
- Duke University, Democracy Lab Seminar (speaking on redistricting software tools), 2018
- University of North Carolina Asheville, Political Science: US Elections Course (speaking on redistricting), 2018
- University of North Carolina Asheville, Mathematics: Voting Theory Course (speaking on redistricting), 2018
- Lenoir-Rhyne University, Sustainability Management & Decision-Making Course (speaking on GIS/location intelligence), 2018
- Yale University, School of Organization and Management: Business Information Course (speaking on Maptitude—one class + multiple labs), 1997

#### MEDIA APPEARANCES, OP-EDS, AND CITATIONS

- “Gerrymandered or no? How will courts judge new North Carolina political maps?” *Raleigh News & Observer*, February 8, 2022
- “Monster: Math, maps and power in North Carolina,” special podcast series from *Raleigh News & Observer*, September 24, 2021
- “Census data has arrived. What comes next?” *Chatham News + Record*, September 1, 2021
- “An Explainer for Redistricting Criteria, Part 1: Political Boundaries,” *John Locke Foundation*, August 23, 2021
- “Special report: Demystifying the redistricting process,” *NC Policy Watch*, August 20, 2021
- “Raleigh, Cary and other NC cities may have to push back their 2021 elections,” *Raleigh News & Observer*, February 24, 2021
- “Triad Cities Awaiting Census Data May Delay Elections,” WFDD Radio, February 17, 2021
- Live interview, WPTF Radio Afternoon News, February 15, 2021
- “Census Delays Could Delay Charlotte City Council, CMS Fall Elections,” WFAE Radio, January 28, 2021

- “What do Buncombe's new district lines mean for 2020 commissioner elections?” (map citation), *Asheville Citizen-Times*, November 21, 2019
- “Confused about new legislative districts? This ‘map geek’ can help,” *NC Policy Watch*, November 21, 2019
- “Which district are you in? After gerrymandering fight, Asheville, Buncombe get final state districts,” *Asheville Citizen-Times*, November 4, 2019
- “Suggestions for a fair redistricting process,” *Princeton Election Consortium*, September 16, 2019
- “How will Asheville, Buncombe County be affected by gerrymandering decision?” *Asheville Citizen-Times*, September 6, 2019
- “2019 Districting,” JMPRO TV's *The Weekly Update*, September 1, 2019
- “As redistricting battle continues in NC, League of Women Voters holds panel,” *WLOS-TV*, August 11, 2019
- “With No Supreme Court End to Gerrymandering, Will States Make It More Extreme?” (citation/link of blog article), *New York Times*, June 28, 2019
- “The Supreme Court takes on gerrymandering. A cottage industry wants to prove it's gone too far,” *USA Today*, March 26, 2019
- “Gerrymandering: 'Packing' and 'Cracking,' the meat and potatoes of partisan redistricting,” *USA Today*, March 25, 2019
- “NC gerrymandering: Turner, McGrady lead reform effort on redistricting,” *Asheville Citizen-Times*, February 14, 2019
- “Looking for a Way Forward on Redistricting Reform,” *Duke Today*, January 28, 2019
- “Will Asheville try to stop the state from splitting it into districts?” (map citation), *Asheville Citizen-Times*, January 23, 2019
- “Some takeaways from NC's elections,” *WRAL.com*, Nov 7, 2018
- “New Asheville districts are racial gerrymandering, black council members say” *Asheville Citizen-Times*, July 2, 2018
- “Legislature sets up districts for Asheville council, eliminates primaries” (map citation), *Asheville Citizen-Times*, June 27, 2018
- “Van Duyn to back Asheville council districts bill if Senate shifts election dates” (map citation), *Asheville Citizen-Times*, June 21, 2018
- “I Ran the Worst 5K of My Life So I Could Explain Gerrymandering to You,” *POLITICO Magazine*, November 15, 2017
- “Event to cover Nov. vote on City Council districts,” *Asheville Citizen-Times*, October 17, 2017

- “Republicans silent in wake of court order to draw new maps in one month,” *NC Policy Watch*, August 2, 2017
- “Who makes the grade? This week’s editorial report card,” *Asheville Citizen-Times*, June 2, 2017
- “Asheville grows; Charlotte, Raleigh and their suburbs grow faster,” *Asheville Citizen-Times*, May 29, 2017
- “Boundary issues: Where does Asheville end?” (op-ed), *Mountain Xpress*, April 29, 2016
- “For better or worse, Asheville growth inevitable,” *Asheville Citizen-Times*, November 21, 2015
- “St. Lawrence Green no litmus test for voters” (op-ed), *Mountain Xpress*, October 29, 2015

#### PUBLISHED WORK

- “Redistricting Software Applications, Data, and Related Tools,” supplement to *Redistricting: A Guide for the GIS Community*, Urban and Regional Information Systems Association, 2021
- (Co-authored with Mark Salling, PhD, GISP) “GIS Software Functionality for Redistricting,” *The GIS Professional*, Issue 301, Urban and Regional Information Systems Association, May/June 2021
- (Co-authored with Joan Gardner, Suzanne Rotwein, and Tong Zhang) “Integrating GIS and Social Marketing at HCFA,” *ESRI Map Book*, Volume 16, ESRI Press, 2001

#### SELF-PUBLISHED PUBLIC-FACING EXPLANATORY WRITING & MAPS

- (Co-authored with Christopher Cooper, Gregory Herschlag, Jonathan Mattingly, Rebecca Tippet) “NC General Assembly County Clusterings from the 2020 Census,” *Quantifying Gerrymandering* Blog, August 17, 2021
- (Co-authored with Christopher Cooper, Gregory Herschlag, Jonathan Mattingly, Rebecca Tippet) “Legislative County Clustering in North Carolina—Looking towards the 2020 Census,” *Quantifying Gerrymandering* Blog, July 16, 2021
- Created the blogs at [districks.com](https://districks.com) (2017) and [mapfigure.com](https://mapfigure.com) (2020) — the story maps “A ‘Stephenson’ explainer” and “Could COVID repercussions delay NC elections in 2021 & 2022?” have each been viewed more than 2,000 times.

#### REDISTRICTING AND GIS SOFTWARE EXPERIENCE

- MapInfo (first used 1996)
- Maptitude (first used 1997)
- Esri ArcGIS/ArcInfo/ArcView (first used 2000)

- QGIS (first used 2015)
- Maptitude for Redistricting (first used 2016)
- Dave's Redistricting App (first used 2016)
- DistrictBuilder (first used 2017)
- Esri Redistricting (first used 2018)
- Districtr (first used 2019)
- Statto Software Redistricter (first used 2019)
- ArcBridge DISTRICTSolv (first used 2020)

#### SELECTED AWARDS (As team member)

- G. Herbert Stout Award for Visionary use of GIS by Local Government, 2009
- International Economic Development Council, Excellence in New Media Initiatives, 2008
- Marvin Collins Outstanding Planning Award for Innovations in Planning Services, Education, and Public Involvement, 2007

#### SERVICE AS ELECTION OFFICIAL

- Poll worker for multiple elections in Buncombe County, North Carolina (2012, 2020, 2022) and King County, Washington (2000), including as Chief Precinct Judge in 2020 general election and 2022 primary election

#### SERVICE ON BOARDS AND COMMISSIONS

- Asheville City Council Appointee to Comprehensive Plan Advisory Committee, 2016-2018

#### ADDITIONAL TRAINING

- Introduction to GIS for Equity and Social Justice, Urban and Regional Information Systems Association Certified Workshop, Virtual, 2020
- Public Data, Public Access, Privacy, and Security: U.S. Law and Policy, Urban and Regional Information Systems Association Certified Workshop, Raleigh, NC, 2015
- An Overview of Open Source GIS Software, Urban and Regional Information Systems Association Certified Workshop, Portland, OR, 2012



- An Introduction to Public Participation GIS: Using GIS to Support Community Decision Making, Urban and Regional Information Systems Association Certified Workshop, Orlando, FL, 2010
- 3-D Geospatial Best Practices and Project Implementation Methods, Urban and Regional Information Systems Association Certified Workshop, Vancouver, BC (Canada), 2006

#### MEMBERSHIPS

- Urban and Regional Information Systems Association (URISA)
- Mountain Region GIS Alliance (MRGAC)
- American Planning Association (APA)

**Esselstyn Report: Attachment B**

## **Data sources, software, and methodology**

1. I arrived at the findings in the expert report using data from the United States Census Bureau's website (<https://www.census.gov>). This federal agency produces a) geographic files—e.g., county boundaries and block boundaries, b) tables of the block-level demographic information yielded specifically for redistricting (sometimes referred to as the PL 94-171 data) from the decennial census counts, c) “block assignment files,” which are important for linking geography data to other data, and d) other interactive web-based resources. Representative links for these four categories of data are provided below:

- a) <https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2020.html>
- b) <https://data.census.gov/cedsci/all?q=&y=2020&d=DEC%20Redistricting%20Data%20%28PL%2094-171%29>
- c) <https://www.census.gov/geographies/reference-files/time-series/geo/block-assignment-files.html>
- d) <https://www.census.gov/library/stories/state-by-state/georgia-population-change-between-census-decade.html>

2. Another key source of information for the analysis was the Georgia General Assembly's Legislative and Congressional Reapportionment Office webpage, available at <https://www.legis.ga.gov/joint-office/reapportionment>. This webpage provided links to representations of the enacted State Senate and State House plans, as well as statistical summaries for the plans and copies of the Reapportionment Committee Guidelines for each chamber.

3. The list of residential addresses of elected Georgia General Assembly legislators was provided to me by counsel. To associate those addresses with coordinates on a map, I used the *Google Maps Platform's Geocoding API*.

4. The primary software application I used in the analysis of maps and the creation of the illustrative plans is *Maptitude for Redistricting*, produced by the Caliper Corporation. This specialized geographic information system (GIS) software allows for the importing, interconnecting, and synthesis of the multiple Census Bureau data files listed above. It allows for an existing plan to be imported (like the enacted plans from the Georgia General Assembly), then modified, or plans can be created starting from a blank template. The application generates not only the aggregated statistics for each of the created districts, but also can supply reports on overall characteristics of the plan like average district compactness and population deviation. *Maptitude for Redistricting* is widely used by state and local governments for redistricting and is in fact used by the Georgia General Assembly.

5. For the production of the visual figures in the report, I used two other pieces of software. For the maps, I used a separate open-source GIS software tool called *QGIS*. *QGIS* enabled me to take geographic files exported from *Maptitude for Redistricting* and create high-resolution graphics for insertion into the document with myriad options for customization of visual elements. For the graphs and charts, I used *Microsoft Excel*.

**Esselstyn Report: Attachment C**

County	Total population	% single race			% single race			% Black alone		
		% single race White	% single race Black	American Indian and Alaska Native	% single race Asian	% single race Pacific Islander	% other single race	% two or more races	or in combination	% Hispanic or Latino
Appling	18,444	70.9%	18.4%	0.5%	0.7%	0.0%	5.7%	3.8%	19.8%	9.9%
Atkinson	8,286	63.7%	14.6%	0.8%	0.2%	0.0%	12.5%	8.1%	15.5%	24.7%
Bacon	11,140	74.1%	15.8%	0.1%	0.4%	0.0%	5.1%	4.5%	17.7%	7.9%
Baker	2,876	53.4%	39.3%	0.0%	0.6%	0.0%	2.5%	4.1%	41.0%	5.0%
Baldwin	43,799	51.7%	42.0%	0.2%	1.4%	0.1%	1.5%	3.1%	43.3%	2.6%
Banks	18,035	87.8%	2.2%	0.6%	1.1%	0.1%	2.8%	5.4%	3.3%	6.5%
Barrow	83,505	69.0%	12.4%	0.5%	3.9%	0.0%	6.0%	8.1%	14.3%	12.6%
Bartow	108,901	75.7%	10.6%	0.4%	1.1%	0.0%	4.9%	7.3%	12.3%	9.9%
Ben Hill	17,194	54.9%	36.4%	0.4%	0.7%	0.0%	3.2%	4.4%	38.0%	6.1%
Berrien	18,160	80.6%	10.8%	0.2%	0.4%	0.1%	2.6%	5.3%	12.1%	5.8%
Bibb	157,346	36.7%	54.6%	0.2%	2.1%	0.0%	2.4%	4.0%	56.5%	4.3%
Bleckley	12,583	71.7%	22.4%	0.2%	1.2%	0.1%	1.6%	2.9%	23.5%	3.7%
Brantley	18,021	91.2%	3.2%	0.3%	0.2%	0.0%	0.7%	4.4%	4.1%	1.8%
Brooks	16,301	57.1%	35.1%	0.3%	0.4%	0.0%	2.8%	4.3%	36.5%	5.9%
Bryan	44,738	72.0%	14.5%	0.3%	2.4%	0.1%	2.2%	8.5%	16.7%	7.3%
Bulloch	81,099	62.5%	28.4%	0.3%	1.6%	0.1%	2.3%	4.8%	30.1%	5.2%
Burke	24,596	49.5%	44.8%	0.2%	0.4%	0.1%	1.3%	3.7%	46.5%	3.2%
Butts	25,434	66.1%	26.9%	0.2%	0.4%	0.0%	1.7%	4.7%	28.4%	3.2%
Calhoun	5,573	32.0%	64.3%	0.1%	0.3%	0.0%	1.8%	1.4%	65.1%	2.7%
Camden	54,768	70.1%	17.7%	0.5%	1.6%	0.1%	2.1%	7.9%	20.2%	6.7%
Candler	10,981	61.6%	24.5%	0.3%	0.6%	0.0%	7.4%	5.5%	25.6%	12.5%
Carroll	119,148	69.3%	18.6%	0.4%	0.9%	0.0%	4.2%	6.6%	20.7%	8.0%
Catoosa	67,872	88.3%	2.7%	0.4%	1.5%	0.1%	1.3%	5.7%	3.9%	3.4%
Charlton	12,518	69.9%	21.0%	0.4%	0.9%	0.0%	4.3%	3.6%	22.4%	16.3%
Chatham	295,291	48.7%	37.0%	0.4%	3.6%	0.2%	3.9%	6.2%	39.1%	8.1%
Chattahoochee	9,565	62.4%	15.8%	0.5%	3.2%	1.2%	6.1%	10.9%	19.1%	16.8%
Chattooga	24,965	81.3%	9.6%	0.4%	0.4%	0.0%	3.4%	4.8%	11.5%	5.2%
Cherokee	266,620	76.8%	6.7%	0.5%	2.1%	0.0%	4.7%	9.2%	8.1%	12.0%
Clarke	128,671	58.2%	24.6%	0.5%	3.9%	0.1%	6.1%	6.7%	26.2%	11.1%
Clay	2,848	40.4%	56.1%	0.0%	0.2%	0.0%	0.3%	3.0%	57.4%	1.4%
Clayton	297,595	10.3%	69.9%	0.7%	4.6%	0.1%	8.8%	5.7%	72.7%	14.3%
Clinch	6,749	63.8%	29.1%	0.4%	0.3%	0.2%	2.1%	3.9%	31.1%	3.7%
Cobb	766,149	50.6%	26.6%	0.6%	5.6%	0.1%	7.1%	9.5%	29.1%	14.5%
Coffee	43,092	59.0%	27.8%	0.5%	0.7%	0.1%	6.9%	5.0%	29.2%	12.6%
Colquitt	45,898	59.4%	21.9%	0.9%	0.8%	0.0%	10.5%	6.5%	23.2%	19.0%
Columbia	156,010	65.4%	18.1%	0.3%	4.6%	0.2%	2.5%	8.8%	20.8%	7.6%
Cook	17,229	63.7%	27.7%	0.4%	0.6%	0.1%	3.1%	4.4%	29.1%	6.6%
Coweta	146,158	69.6%	17.7%	0.4%	2.3%	0.0%	3.2%	6.8%	19.4%	7.6%
Crawford	12,130	74.3%	18.7%	0.5%	0.3%	0.0%	1.3%	5.0%	20.2%	3.4%
Crisp	20,128	49.7%	44.1%	0.2%	0.9%	0.0%	1.9%	3.2%	45.7%	3.1%
Dade	16,251	91.7%	0.9%	0.5%	0.8%	0.0%	0.8%	5.3%	1.4%	2.2%
Dawson	26,798	89.0%	0.8%	0.3%	0.9%	0.1%	2.5%	6.4%	1.5%	6.0%
Decatur	29,367	49.6%	41.7%	0.4%	0.6%	0.1%	4.1%	3.6%	42.8%	6.5%
DeKalb	764,382	29.5%	50.9%	0.6%	6.6%	0.0%	5.9%	6.5%	53.3%	10.7%
Dodge	19,925	65.3%	29.5%	0.1%	0.5%	0.1%	1.4%	3.1%	30.9%	3.1%
Dooley	11,208	41.9%	49.6%	0.2%	0.5%	0.0%	5.0%	2.8%	50.4%	7.1%
Dougherty	85,790	24.5%	69.9%	0.2%	0.8%	0.0%	1.6%	3.0%	71.6%	2.8%
Douglas	144,237	36.2%	48.4%	0.5%	1.6%	0.1%	5.8%	7.3%	51.5%	11.1%
Early	10,854	44.8%	51.2%	0.3%	0.4%	0.0%	0.6%	2.6%	52.4%	1.7%
Echols	3,697	68.5%	4.2%	1.8%	0.3%	0.0%	14.7%	10.4%	5.2%	29.5%
Effingham	64,769	75.9%	13.7%	0.4%	1.1%	0.1%	2.1%	6.9%	15.5%	5.4%
Elbert	19,637	65.3%	26.9%	0.3%	0.9%	0.0%	2.6%	3.9%	28.1%	5.1%
Emanuel	22,768	61.6%	31.9%	0.3%	0.6%	0.0%	2.5%	3.1%	33.2%	4.4%
Evans	10,774	57.9%	28.9%	0.3%	0.8%	0.1%	6.4%	5.6%	30.4%	11.5%
Fannin	25,319	93.0%	0.3%	0.4%	0.4%	0.0%	1.3%	4.5%	0.8%	3.0%
Fayette	119,194	58.5%	24.8%	0.3%	5.4%	0.0%	3.3%	7.6%	26.9%	8.0%
Floyd	98,584	70.5%	14.3%	0.7%	1.3%	0.0%	5.9%	7.3%	15.8%	11.6%
Forsyth	251,283	65.1%	4.3%	0.4%	18.0%	0.0%	4.1%	8.1%	5.3%	10.0%
Franklin	23,424	83.0%	8.1%	0.2%	1.1%	0.0%	2.8%	4.7%	9.4%	4.8%
Fulton	1,066,710	39.3%	42.5%	0.3%	7.6%	0.0%	3.6%	6.6%	44.8%	8.1%
Gilmer	31,353	86.0%	0.5%	0.8%	0.5%	0.0%	6.5%	5.7%	0.9%	11.5%
Glascocock	2,884	89.8%	6.8%	0.0%	0.2%	0.1%	0.1%	2.9%	7.8%	1.8%
Glynn	84,499	64.2%	24.5%	0.4%	1.4%	0.1%	3.7%	5.7%	26.2%	7.5%

Georgia county demographic statistics from 2020 census data, generated by Blake Esselstyn

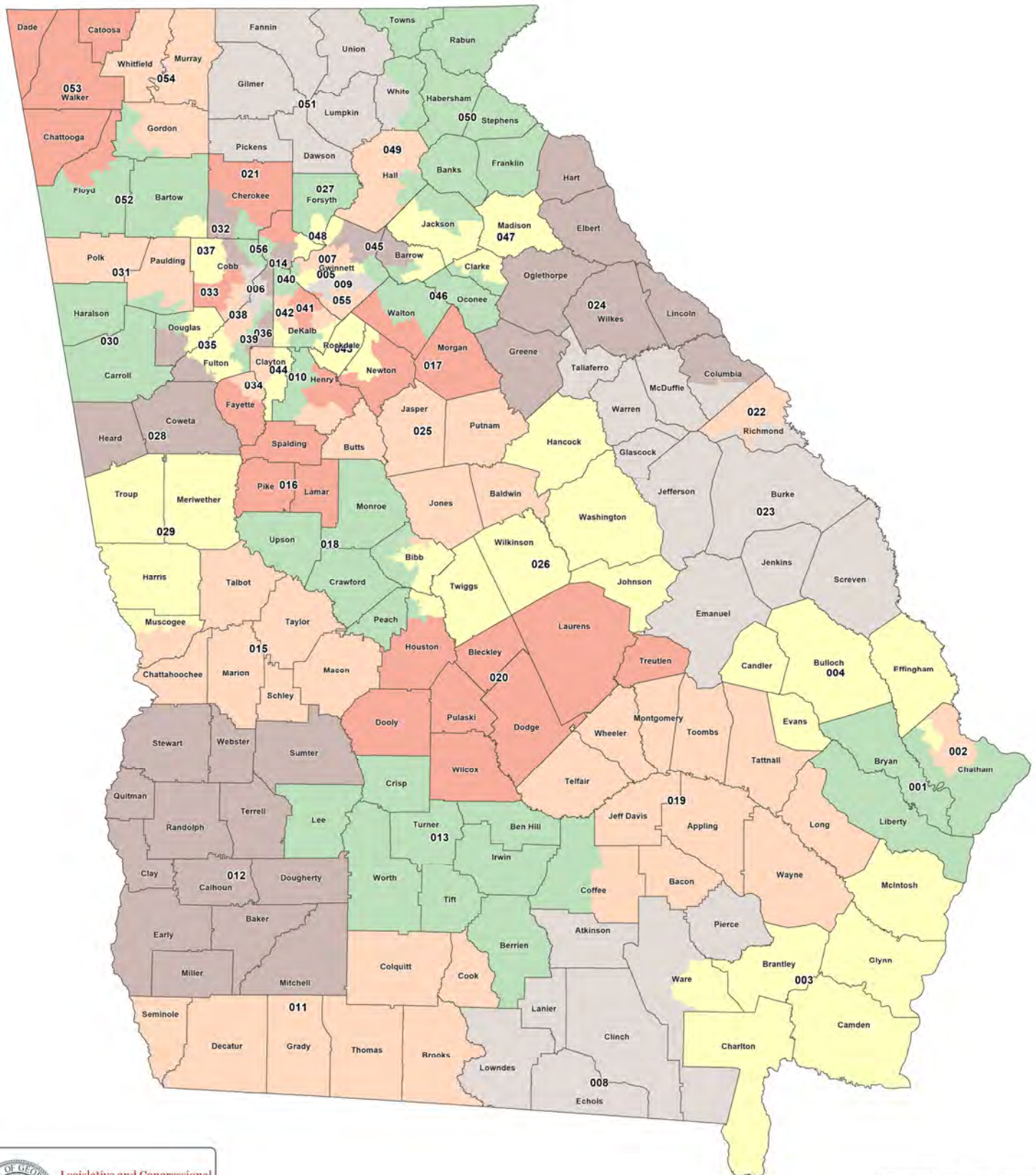
County	Total population	% single race				% single race		% Black alone			% Hispanic or Latino
		% single race White	% single race Black	American Indian and	% single race Asian	Hawaiian or	% other single race	% two or more races	or in combination		
				Alaska Native		Pacific Islander					
Gordon	57,544	78.4%	3.7%	0.6%	1.3%	0.0%	8.0%	8.0%	5.1%	15.6%	
Grady	26,236	57.4%	28.0%	1.0%	0.5%	0.0%	8.0%	5.1%	29.3%	12.5%	
Greene	18,915	59.7%	30.7%	0.2%	0.9%	0.0%	3.7%	4.7%	31.9%	6.8%	
Gwinnett	957,062	35.5%	27.4%	0.8%	13.3%	0.1%	12.1%	10.7%	30.1%	23.0%	
Habersham	46,031	78.7%	3.8%	0.5%	2.2%	0.1%	6.6%	8.1%	4.7%	14.9%	
Hall	203,136	64.4%	7.2%	0.9%	2.1%	0.1%	14.4%	11.0%	8.4%	28.1%	
Hancock	8,735	27.7%	69.0%	0.3%	0.4%	0.0%	0.3%	2.3%	70.2%	0.7%	
Haralson	29,919	90.3%	4.2%	0.2%	0.6%	0.0%	0.7%	3.9%	5.2%	1.7%	
Harris	34,668	76.0%	15.1%	0.4%	1.1%	0.1%	1.4%	5.9%	16.6%	4.1%	
Hart	25,828	75.3%	16.8%	0.2%	1.3%	0.0%	1.8%	4.6%	18.3%	3.6%	
Heard	11,412	84.8%	8.3%	0.3%	0.5%	0.1%	0.9%	5.3%	10.0%	2.2%	
Henry	240,712	37.1%	49.1%	0.3%	3.4%	0.1%	3.6%	6.5%	52.0%	7.7%	
Houston	163,633	54.1%	32.2%	0.4%	3.0%	0.1%	3.0%	7.3%	34.5%	7.2%	
Irwin	9,666	67.1%	23.1%	0.2%	1.2%	0.0%	5.2%	3.2%	24.1%	6.9%	
Jackson	75,907	79.7%	6.9%	0.3%	2.3%	0.1%	4.1%	6.6%	8.1%	8.8%	
Jasper	14,588	74.8%	16.9%	0.3%	0.2%	0.1%	2.5%	5.3%	18.3%	4.7%	
Jeff Davis	14,779	70.1%	15.6%	0.6%	0.4%	0.0%	8.5%	4.9%	16.9%	13.9%	
Jefferson	15,709	44.2%	50.8%	0.3%	0.4%	0.0%	1.7%	2.6%	52.3%	2.9%	
Jenkins	8,674	53.9%	40.9%	0.4%	0.1%	0.1%	2.1%	2.4%	41.9%	3.5%	
Johnson	9,189	63.4%	33.0%	0.3%	0.3%	0.2%	0.5%	2.4%	34.0%	1.3%	
Jones	28,347	71.3%	23.9%	0.2%	0.5%	0.0%	0.7%	3.5%	25.1%	1.7%	
Lamar	18,500	67.4%	26.6%	0.1%	0.6%	0.0%	1.1%	4.2%	28.2%	2.6%	
Lanier	9,877	68.8%	22.0%	0.4%	0.8%	0.2%	1.9%	5.8%	24.0%	5.8%	
Laurens	49,570	56.8%	37.0%	0.2%	1.0%	0.0%	1.6%	3.4%	38.6%	2.9%	
Lee	33,163	69.3%	22.2%	0.2%	2.6%	0.0%	1.1%	4.5%	23.4%	2.9%	
Liberty	65,256	39.8%	43.1%	0.5%	2.1%	0.7%	4.1%	9.7%	47.7%	11.9%	
Lincoln	7,690	68.1%	27.6%	0.2%	0.3%	0.0%	0.3%	3.4%	28.8%	1.2%	
Long	16,168	56.9%	25.5%	0.8%	1.1%	0.6%	5.6%	9.5%	29.3%	12.2%	
Lowndes	118,251	51.7%	37.6%	0.4%	1.7%	0.1%	2.7%	5.8%	39.5%	6.7%	
Lumpkin	33,488	88.8%	1.3%	0.6%	0.8%	0.1%	2.1%	6.4%	2.0%	5.3%	
Macon	12,082	34.4%	59.3%	0.3%	1.3%	0.1%	2.7%	2.0%	60.4%	3.9%	
Madison	30,120	79.6%	9.2%	0.3%	1.8%	0.0%	3.4%	5.8%	10.6%	6.5%	
Marion	7,498	60.7%	28.7%	0.3%	0.7%	0.2%	4.6%	4.7%	29.6%	7.5%	
McDuffie	21,632	53.5%	40.1%	0.2%	0.4%	0.1%	1.6%	4.0%	41.8%	3.7%	
McIntosh	10,975	65.1%	29.1%	0.3%	0.4%	0.0%	0.6%	4.4%	31.0%	2.1%	
Meriwether	20,613	59.3%	35.3%	0.3%	0.4%	0.0%	1.0%	3.6%	36.6%	2.3%	
Miller	6,000	66.4%	29.2%	0.2%	0.5%	0.1%	0.9%	2.7%	30.5%	2.3%	
Mitchell	21,755	47.2%	46.5%	0.2%	0.5%	0.0%	2.8%	2.7%	47.8%	4.4%	
Monroe	27,957	72.0%	21.9%	0.2%	0.9%	0.0%	1.1%	4.0%	23.0%	2.6%	
Montgomery	8,610	67.2%	24.8%	0.3%	0.5%	0.0%	3.8%	3.5%	25.8%	6.6%	
Morgan	20,097	72.7%	20.5%	0.2%	0.6%	0.0%	1.9%	4.0%	21.6%	3.5%	
Murray	39,973	83.4%	0.7%	1.5%	0.3%	0.0%	7.0%	7.0%	1.4%	14.8%	
Muscogee	206,922	39.9%	46.5%	0.4%	2.7%	0.3%	3.2%	7.1%	49.4%	8.0%	
Newton	112,483	42.7%	46.9%	0.3%	0.9%	0.1%	3.3%	5.7%	49.7%	6.4%	
Oconee	41,799	82.4%	4.6%	0.2%	5.0%	0.0%	2.1%	5.7%	5.5%	5.6%	
Oglethorpe	14,825	74.7%	15.2%	0.4%	0.9%	0.0%	2.8%	6.0%	16.6%	5.9%	
Paulding	168,661	65.9%	22.1%	0.4%	1.2%	0.1%	3.0%	7.3%	24.5%	7.4%	
Peach	27,981	44.7%	43.7%	0.4%	0.7%	0.0%	5.3%	5.2%	45.2%	9.1%	
Pickens	33,216	91.5%	0.9%	0.4%	0.6%	0.0%	1.4%	5.1%	1.5%	3.6%	
Pierce	19,716	84.5%	8.1%	0.4%	0.4%	0.0%	2.8%	3.7%	9.1%	5.1%	
Pike	18,889	87.0%	7.7%	0.2%	0.4%	0.0%	0.7%	4.0%	8.5%	1.8%	
Polk	42,853	72.9%	12.2%	0.8%	0.6%	0.1%	7.8%	5.7%	13.6%	13.0%	
Pulaski	9,855	61.9%	32.2%	0.1%	0.9%	0.0%	2.0%	2.8%	33.0%	3.3%	
Putnam	22,047	66.5%	24.6%	0.4%	0.5%	0.0%	2.8%	5.2%	25.9%	7.1%	
Quitman	2,235	53.2%	41.1%	0.6%	0.5%	0.0%	0.4%	4.1%	43.2%	1.4%	
Rabun	16,883	89.0%	0.7%	0.4%	0.4%	0.0%	3.1%	6.4%	1.2%	8.6%	
Randolph	6,425	35.1%	60.3%	0.2%	0.3%	0.0%	1.4%	2.6%	61.4%	2.2%	
Richmond	206,607	34.4%	55.3%	0.3%	1.9%	0.2%	2.3%	5.6%	58.1%	5.5%	
Rockdale	93,570	27.4%	58.1%	0.3%	1.6%	0.1%	5.7%	6.6%	61.1%	10.2%	
Schley	4,547	75.3%	19.3%	0.1%	0.4%	0.0%	1.1%	3.7%	20.5%	3.8%	
Screven	14,067	57.5%	37.7%	0.4%	0.4%	0.1%	0.8%	3.2%	39.3%	2.0%	
Seminole	9,147	61.9%	32.7%	0.1%	0.7%	0.0%	1.4%	3.2%	33.8%	2.5%	
Spalding	67,306	56.2%	34.6%	0.4%	1.0%	0.0%	2.5%	5.3%	36.4%	5.4%	

County	Total population	% single race			% single race			% Black alone		
		% single race White	% single race Black	American Indian and Alaska Native	% single race Asian	% single race Pacific Islander	% other single race	% two or more races	or in combination	% Hispanic or Latino
Stephens	26,784	80.6%	11.1%	0.4%	0.9%	0.0%	1.1%	5.9%	13.2%	3.2%
Stewart	5,314	25.4%	46.4%	0.2%	3.2%	0.1%	22.1%	2.5%	47.8%	22.9%
Sumter	29,616	39.8%	51.1%	0.3%	1.7%	0.0%	4.1%	3.1%	52.5%	6.0%
Talbot	5,733	42.9%	53.7%	0.1%	0.3%	0.0%	0.2%	2.8%	54.9%	2.0%
Taliaferro	1,559	38.9%	53.4%	0.3%	0.4%	0.0%	1.8%	5.3%	56.2%	4.4%
Tattnall	22,842	62.5%	26.3%	0.4%	0.6%	0.0%	5.6%	4.6%	27.7%	10.1%
Taylor	7,816	59.4%	36.2%	0.3%	0.5%	0.1%	0.8%	2.8%	37.7%	2.1%
Telfair	12,477	58.3%	37.1%	0.3%	0.3%	0.0%	1.7%	2.4%	38.1%	15.5%
Terrell	9,185	35.2%	60.6%	0.1%	0.7%	0.0%	0.6%	2.6%	62.1%	1.9%
Thomas	45,798	57.6%	35.7%	0.4%	0.9%	0.0%	1.6%	3.8%	37.1%	3.4%
Tift	41,344	56.2%	29.3%	0.3%	1.6%	0.0%	6.7%	5.8%	30.8%	12.6%
Toombs	27,030	61.3%	26.0%	0.4%	0.8%	0.0%	6.5%	5.1%	27.4%	11.3%
Towns	12,493	92.8%	1.0%	0.2%	0.6%	0.0%	1.5%	3.8%	1.3%	3.3%
Treutlen	6,406	64.1%	31.6%	0.3%	0.1%	0.0%	1.0%	2.8%	33.0%	2.7%
Troup	69,426	55.7%	35.0%	0.3%	2.3%	0.1%	2.5%	4.2%	36.7%	4.3%
Turner	9,006	53.4%	40.7%	0.1%	0.6%	0.0%	1.9%	3.3%	42.3%	4.1%
Twiggs	8,022	56.4%	38.9%	0.3%	0.5%	0.0%	0.5%	3.5%	40.2%	1.5%
Union	24,632	92.7%	0.5%	0.4%	0.4%	0.0%	1.1%	4.9%	0.9%	3.3%
Upson	27,700	65.5%	28.5%	0.3%	0.5%	0.0%	1.3%	3.8%	30.1%	2.3%
Walker	67,654	88.9%	4.2%	0.3%	0.4%	0.1%	1.1%	5.0%	5.4%	2.5%
Walton	96,673	72.0%	17.9%	0.3%	1.5%	0.1%	2.6%	5.6%	19.5%	5.4%
Ware	36,251	62.4%	29.7%	0.3%	0.9%	0.0%	2.4%	4.3%	31.5%	4.4%
Warren	5,215	38.2%	58.5%	0.3%	0.3%	0.1%	0.3%	2.3%	60.0%	1.0%
Washington	19,988	42.4%	53.7%	0.2%	0.4%	0.0%	0.8%	2.5%	54.9%	1.7%
Wayne	30,144	72.5%	19.8%	0.3%	0.6%	0.0%	2.5%	4.2%	21.2%	5.7%
Webster	2,348	48.8%	45.3%	0.1%	0.5%	0.3%	0.9%	4.2%	47.1%	2.5%
Wheeler	7,471	56.6%	38.6%	0.4%	0.2%	0.0%	2.0%	2.2%	39.5%	3.6%
White	28,003	90.2%	1.7%	0.5%	0.6%	0.0%	1.2%	5.8%	2.6%	3.3%
Whitfield	102,864	63.3%	3.7%	2.0%	1.4%	0.0%	17.7%	11.9%	4.8%	35.9%
Wilcox	8,766	59.9%	35.4%	0.0%	0.6%	0.0%	1.5%	2.6%	36.1%	3.1%
Wilkes	9,565	52.8%	40.2%	0.4%	0.6%	0.0%	1.9%	4.1%	41.7%	4.2%
Wilkinson	8,877	58.2%	35.8%	0.3%	0.3%	0.1%	1.3%	4.0%	37.5%	2.7%
Worth	20,784	69.9%	25.4%	0.3%	0.4%	0.0%	0.8%	3.1%	26.5%	1.8%



**Esselstyn Report: Attachment D**

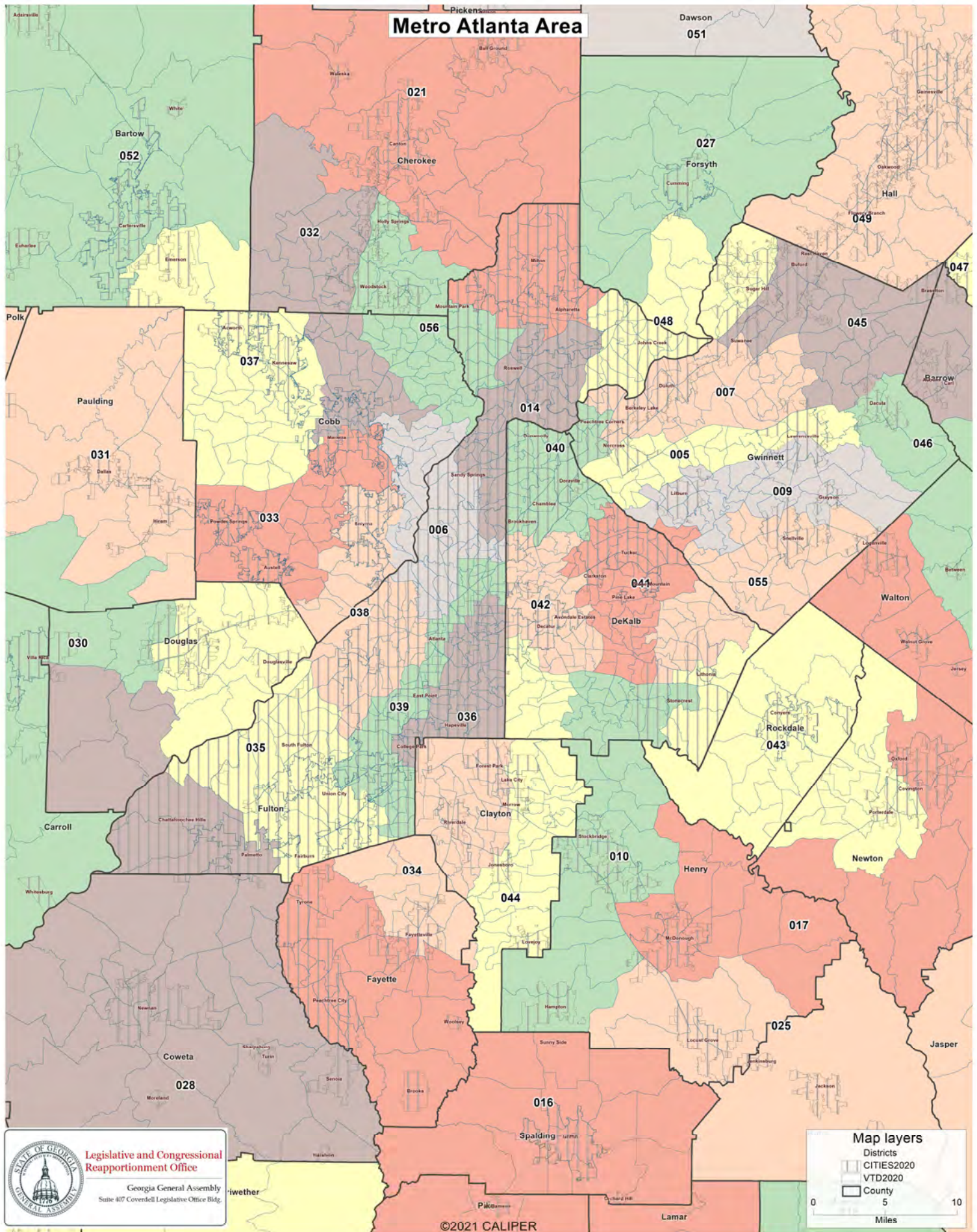
# Proposed Georgia Senate Districts





# Proposed Georgia Senate Districts

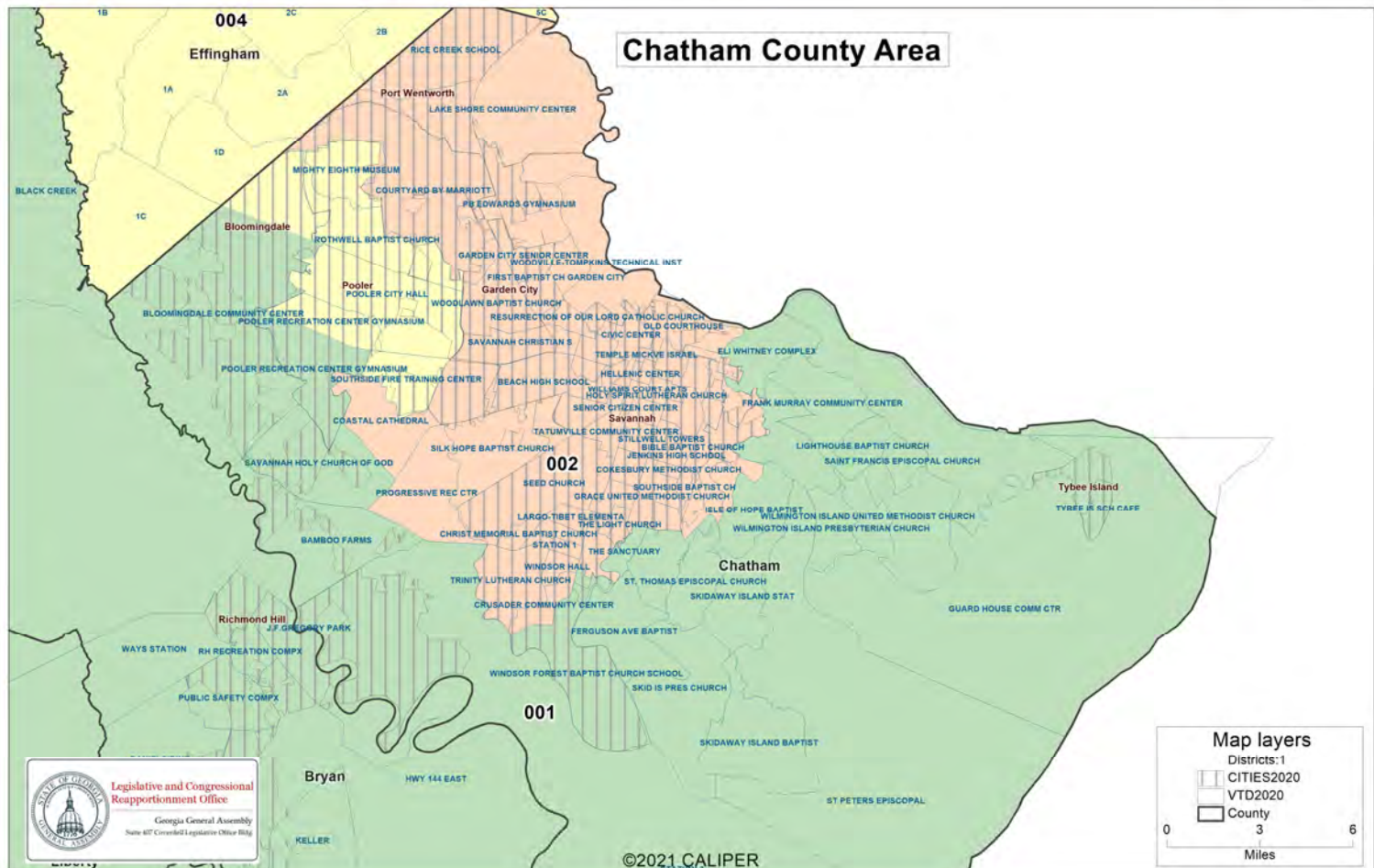
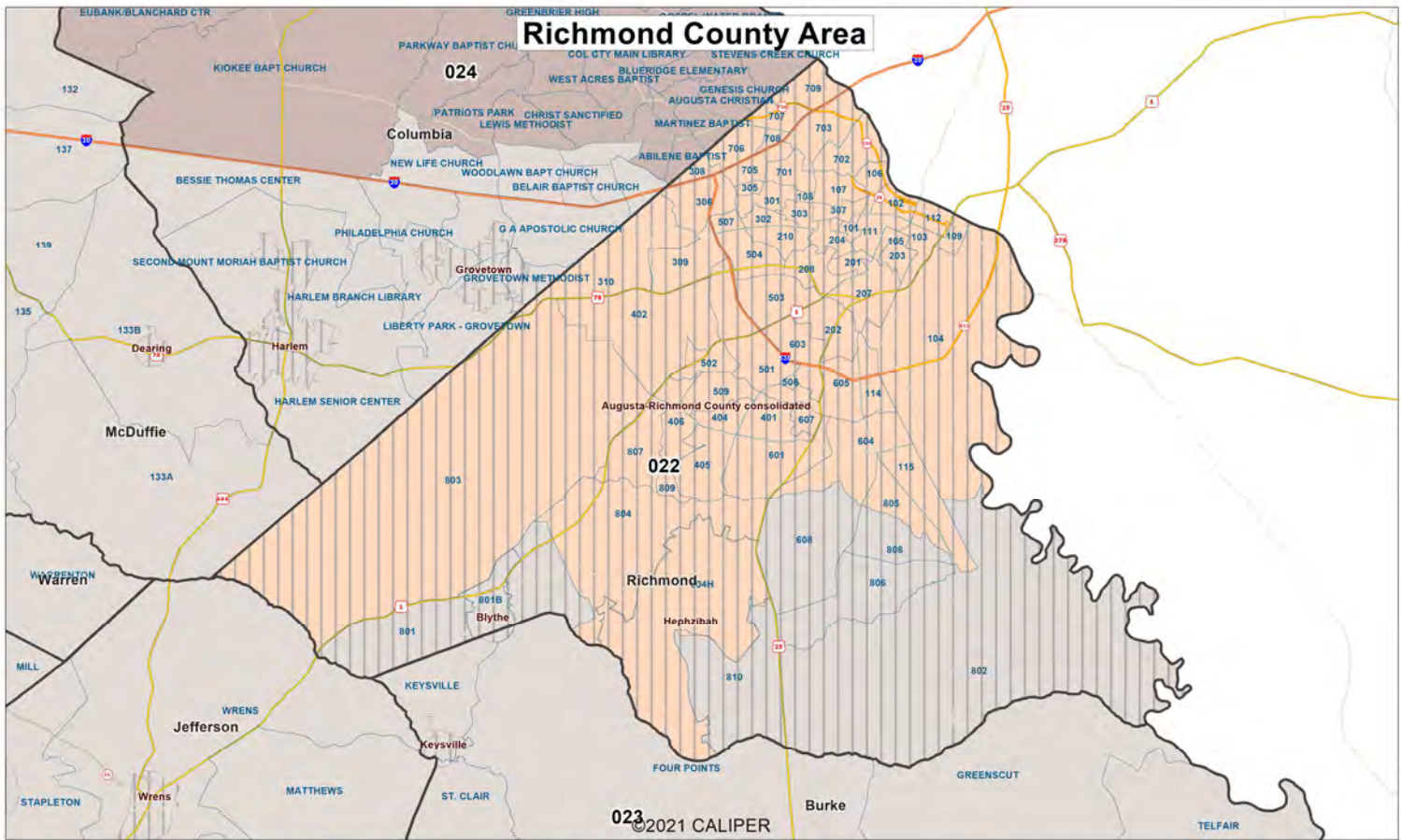
Client: S018  
Plan: Senate-prop1-2021  
Type: Senate





# Proposed Georgia Senate Districts

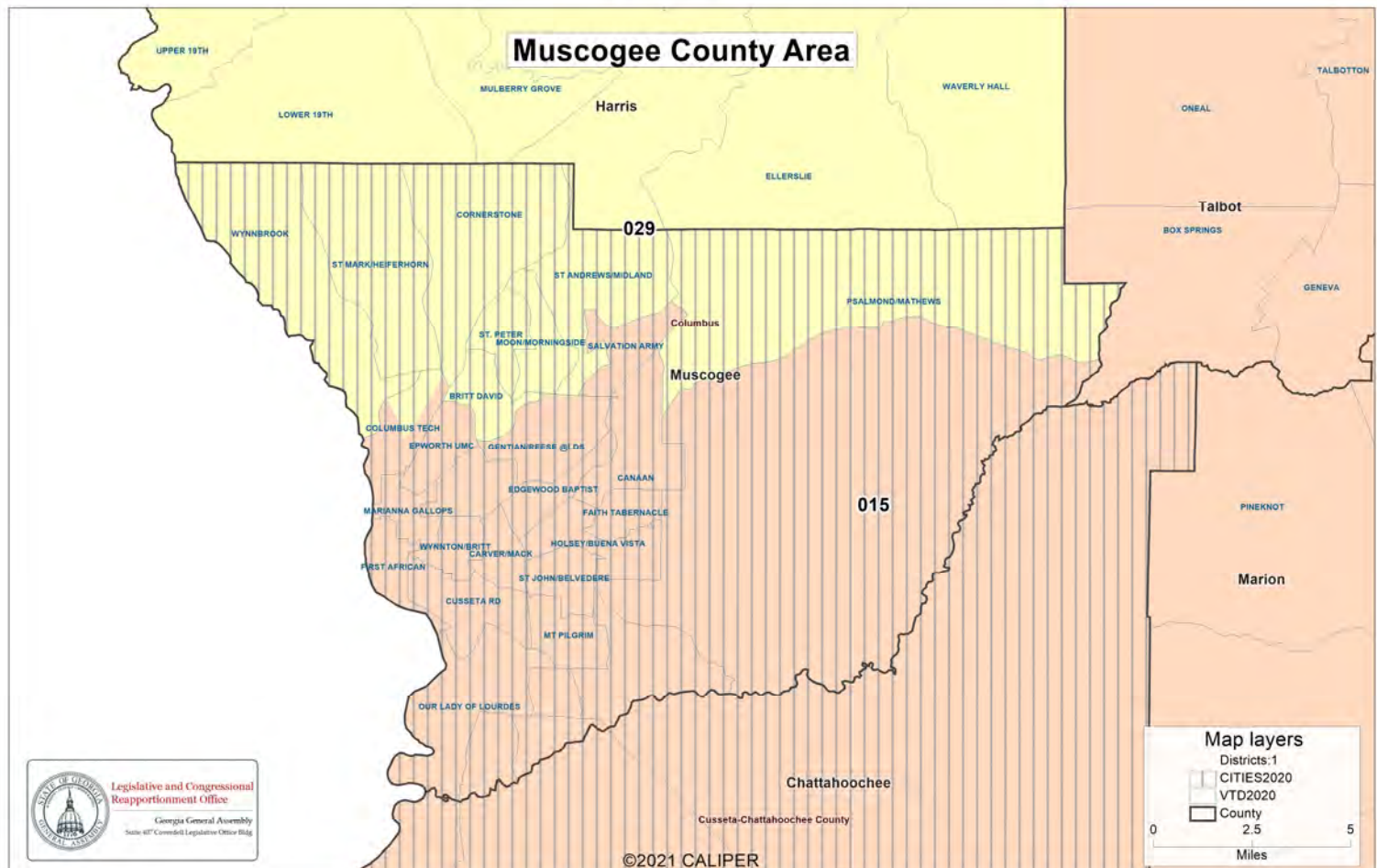
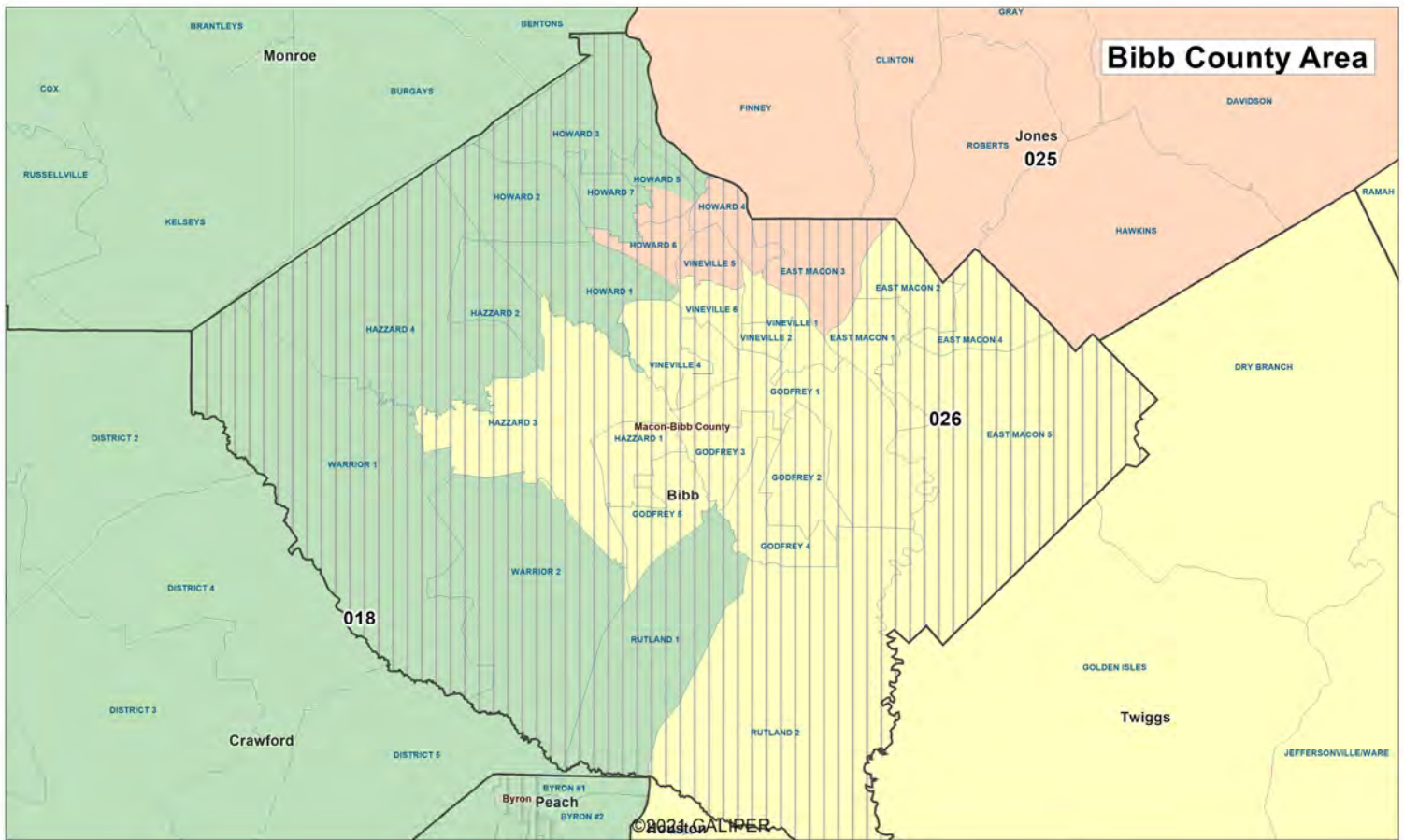
Client: S018  
Plan: Senate-prop1-2021  
Type: Senate





# Proposed Georgia Senate Districts

Client: S018  
Plan: Senate-prop1-2021  
Type: Senate



Legislative and Congressional  
Reapportionment Office

Georgia General Assembly  
Suite 607, Cordeiro Legislative Office Bldg.

## Map layers

Districts:1

CITIES2020

VTD2020



County

2.5

Miles

0

5

User: S018

Plan Name: Senate-prop1-2021

Plan Type: Senate

## Population Summary

### Summary Statistics:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	-1,964 to 1,879
Absolute Overall Range:	3,843
Relative Range:	-1.03% to 0.98%
Relative Overall Range:	2.01%
Absolute Mean Deviation:	1,012.61
Relative Mean Deviation:	0.53%
Standard Deviation:	1,154.96

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
001	191,402	118	0.06%	145,428	75.98%	58.9%	23.66%	8.78%	2.64%	0.25%	0.3%	0.48%	4.99%
002	190,408	-876	-0.46%	150,843	79.22%	36.4%	47.51%	8.36%	3.4%	0.21%	0.15%	0.46%	3.49%
003	191,212	-72	-0.04%	148,915	77.88%	66.23%	20.92%	6.82%	1.22%	0.26%	0.09%	0.42%	4.04%
004	191,098	-186	-0.10%	146,443	76.63%	64.48%	22.6%	6.49%	1.86%	0.23%	0.07%	0.38%	3.9%
005	191,921	637	0.33%	139,394	72.63%	13.35%	26.84%	45.47%	10.98%	0.15%	0.04%	0.64%	2.52%
006	191,401	117	0.06%	155,781	81.39%	56.41%	21.47%	9.18%	7.21%	0.16%	0.03%	1.11%	4.42%
007	189,709	-1,575	-0.82%	147,425	77.71%	35.09%	20.08%	18.57%	21.67%	0.16%	0.04%	0.66%	3.72%
008	192,396	1,112	0.58%	145,144	75.44%	57.39%	30.03%	7.28%	1.21%	0.28%	0.07%	0.35%	3.4%
009	192,915	1,631	0.85%	142,054	73.64%	32.04%	28.46%	21.09%	13.98%	0.18%	0.03%	0.72%	3.48%
010	192,898	1,614	0.84%	147,884	76.66%	17.71%	68.95%	6.03%	3.1%	0.18%	0.03%	0.66%	3.34%
011	189,976	-1,308	-0.68%	144,597	76.11%	55.75%	31.13%	9.36%	0.69%	0.23%	0.03%	0.26%	2.54%
012	190,819	-465	-0.24%	149,154	78.17%	33.83%	58.82%	3.89%	0.86%	0.16%	0.02%	0.21%	2.2%
013	189,326	-1,958	-1.02%	144,141	76.13%	61.25%	27.08%	7.2%	1.2%	0.17%	0.02%	0.26%	2.81%
014	192,533	1,249	0.65%	155,340	80.68%	54.63%	16.79%	13.97%	9.46%	0.13%	0.04%	0.79%	4.19%
015	189,446	-1,838	-0.96%	144,506	76.28%	34.07%	52.31%	7.57%	1.31%	0.23%	0.27%	0.44%	3.79%
016	191,829	545	0.28%	147,133	76.7%	64.19%	22.31%	5.95%	3.04%	0.17%	0.03%	0.51%	3.79%
017	192,510	1,226	0.64%	144,472	75.05%	56.69%	31.21%	6.08%	1.41%	0.16%	0.05%	0.59%	3.81%
018	191,825	541	0.28%	150,196	78.3%	58.41%	30.01%	5.18%	2.42%	0.22%	0.03%	0.4%	3.33%
019	192,316	1,032	0.54%	146,131	75.98%	61.67%	24.76%	9.72%	0.58%	0.17%	0.06%	0.27%	2.77%
020	192,588	1,304	0.68%	147,033	76.35%	59.74%	30.65%	4.21%	1.73%	0.15%	0.05%	0.31%	3.16%
021	192,572	1,288	0.67%	145,120	75.36%	71.13%	6.52%	10.13%	7.38%	0.19%	0.04%	0.53%	4.08%
022	193,163	1,879	0.98%	150,450	77.89%	31.1%	56.58%	5.63%	1.97%	0.24%	0.18%	0.44%	3.86%
023	190,344	-940	-0.49%	144,113	75.71%	54.27%	34.66%	5.46%	1.16%	0.24%	0.1%	0.34%	3.78%
024	192,674	1,390	0.73%	148,602	77.13%	67.45%	18.98%	5.4%	3.31%	0.18%	0.09%	0.43%	4.15%
025	191,161	-123	-0.06%	148,917	77.9%	57.45%	33.4%	4.27%	1.08%	0.16%	0.05%	0.43%	3.16%
026	189,945	-1,339	-0.70%	145,744	76.73%	33.26%	57.37%	4.85%	0.83%	0.21%	0.04%	0.31%	3.14%
027	190,676	-608	-0.32%	139,196	73%	68%	4.31%	11.61%	11.41%	0.18%	0.04%	0.52%	3.94%
028	190,422	-862	-0.45%	144,973	76.13%	67.06%	18.79%	7.4%	1.96%	0.22%	0.04%	0.48%	4.06%
029	189,424	-1,860	-0.97%	145,674	76.9%	60.71%	26.22%	5.34%	3.02%	0.23%	0.1%	0.42%	3.97%

## Population Summary

Senate-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
030	191,475	191	0.10%	145,077	75.77%	66.97%	19.83%	7.27%	0.95%	0.23%	0.03%	0.49%	4.24%
031	192,560	1,276	0.67%	142,251	73.87%	65.2%	19.83%	8.85%	1.07%	0.23%	0.06%	0.58%	4.19%
032	192,448	1,164	0.61%	149,879	77.88%	63.13%	13.22%	12.09%	5.49%	0.2%	0.04%	0.91%	4.91%
033	192,694	1,410	0.74%	146,415	75.98%	26%	40.48%	26.72%	2.13%	0.19%	0.05%	0.86%	3.56%
034	190,668	-616	-0.32%	141,840	74.39%	11.11%	66.6%	14.82%	3.9%	0.23%	0.04%	0.6%	2.7%
035	192,839	1,555	0.81%	144,675	75.02%	16.46%	69.77%	8.68%	1.13%	0.17%	0.06%	0.64%	3.08%
036	192,282	998	0.52%	161,385	83.93%	33.1%	51.35%	7.56%	3.58%	0.17%	0.04%	0.53%	3.68%
037	192,671	1,387	0.73%	147,779	76.7%	62.38%	18.04%	9.99%	3.85%	0.16%	0.03%	0.78%	4.76%
038	193,155	1,871	0.98%	148,367	76.81%	20.03%	62.74%	9.72%	3.42%	0.18%	0.04%	0.58%	3.29%
039	191,500	216	0.11%	156,022	81.47%	25.32%	60.33%	6.1%	4.25%	0.16%	0.04%	0.57%	3.22%
040	190,544	-740	-0.39%	147,000	77.15%	43.69%	16.42%	24.81%	10.84%	0.12%	0.04%	0.65%	3.43%
041	191,023	-261	-0.14%	145,278	76.05%	18.86%	60.28%	7.32%	9.19%	0.22%	0.02%	0.64%	3.48%
042	190,940	-344	-0.18%	153,952	80.63%	49.91%	28.14%	10.13%	6.81%	0.13%	0.03%	0.61%	4.24%
043	192,729	1,445	0.76%	145,741	75.62%	23.45%	62.77%	8.13%	1.24%	0.17%	0.09%	0.67%	3.49%
044	190,036	-1,248	-0.65%	145,224	76.42%	13.02%	69.13%	9.96%	4.15%	0.16%	0.04%	0.62%	2.91%
045	190,692	-592	-0.31%	140,706	73.79%	52.74%	17.12%	14.66%	10.69%	0.13%	0.03%	0.62%	4.01%
046	190,312	-972	-0.51%	146,713	77.09%	67.24%	16.64%	7.99%	3.77%	0.2%	0.03%	0.58%	3.56%
047	190,607	-677	-0.35%	146,599	76.91%	64.67%	16.96%	11.22%	2.66%	0.16%	0.04%	0.58%	3.71%
048	190,123	-1,161	-0.61%	136,995	72.06%	49.01%	8.35%	7.58%	30.59%	0.13%	0.04%	0.55%	3.75%
049	189,355	-1,929	-1.01%	144,123	76.11%	60.85%	7.13%	26.24%	2.15%	0.15%	0.04%	0.35%	3.08%
050	189,320	-1,964	-1.03%	148,799	78.6%	78.61%	5.05%	11.08%	1.22%	0.22%	0.04%	0.26%	3.52%
051	190,167	-1,117	-0.58%	155,571	81.81%	88.75%	0.84%	5.43%	0.59%	0.31%	0.02%	0.3%	3.77%
052	190,799	-485	-0.25%	146,620	76.85%	71.8%	12.39%	10.11%	1.08%	0.21%	0.03%	0.35%	4.02%
053	190,236	-1,048	-0.55%	148,201	77.9%	85.78%	4.46%	3.98%	1%	0.24%	0.06%	0.3%	4.18%
054	192,443	1,159	0.61%	143,843	74.75%	65.71%	2.97%	26.66%	1.14%	0.19%	0.02%	0.25%	3.07%
055	190,155	-1,129	-0.59%	141,968	74.66%	18.09%	62.96%	10.14%	4.19%	0.17%	0.04%	0.73%	3.67%
056	191,226	-58	-0.03%	144,448	75.54%	73.9%	6.36%	8.63%	5.67%	0.11%	0.03%	0.75%	4.56%

**Total: 10,711,908****Ideal District: 191,284**

User: S018

Plan Name: Senate-prop1-2021

Plan Type: Senate

## Population Summary

### Summary Statistics:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	-1,964 to 1,879
Absolute Overall Range:	3,843
Relative Range:	-1.03% to 0.98%
Relative Overall Range:	2.01%
Absolute Mean Deviation:	1,012.61
Relative Mean Deviation:	0.53%
Standard Deviation:	1,154.96

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
001	191,402	118	0.06%	145,428	75.98%	61.99%	22.8%	7.55%	2.81%	0.28%	0.27%	0.4%	3.9%
002	190,408	-876	-0.46%	150,843	79.22%	40.21%	44.81%	7.48%	3.77%	0.22%	0.15%	0.42%	2.95%
003	191,212	-72	-0.04%	148,915	77.88%	68.88%	19.81%	6.17%	1.27%	0.27%	0.08%	0.34%	3.19%
004	191,098	-186	-0.10%	146,443	76.63%	66.78%	21.98%	5.52%	1.9%	0.24%	0.07%	0.33%	3.17%
005	191,921	637	0.33%	139,394	72.63%	15.69%	27.21%	41.67%	12.41%	0.14%	0.04%	0.55%	2.28%
006	191,401	117	0.06%	155,781	81.39%	57.79%	21.79%	8.24%	7.14%	0.16%	0.03%	1.05%	3.8%
007	189,709	-1,575	-0.82%	147,425	77.71%	37.84%	19.33%	16.56%	22.58%	0.16%	0.05%	0.55%	2.93%
008	192,396	1,112	0.58%	145,144	75.44%	60.1%	29.02%	6.21%	1.27%	0.29%	0.08%	0.27%	2.75%
009	192,915	1,631	0.85%	142,054	73.64%	35.81%	27.23%	18.77%	14.59%	0.18%	0.04%	0.59%	2.8%
010	192,898	1,614	0.84%	147,884	76.66%	19.64%	68.31%	5.18%	3.15%	0.18%	0.04%	0.61%	2.89%
011	189,976	-1,308	-0.68%	144,597	76.11%	58.97%	30.08%	7.6%	0.72%	0.26%	0.02%	0.22%	2.13%
012	190,819	-465	-0.24%	149,154	78.17%	36.71%	56.63%	3.48%	0.92%	0.18%	0.02%	0.18%	1.88%
013	189,326	-1,958	-1.02%	144,141	76.13%	64.1%	26.01%	6.01%	1.21%	0.17%	0.02%	0.21%	2.26%
014	192,533	1,249	0.65%	155,340	80.68%	57.1%	16.83%	12.13%	9.43%	0.12%	0.05%	0.74%	3.61%
015	189,446	-1,838	-0.96%	144,506	76.28%	36.52%	51.56%	6.59%	1.45%	0.23%	0.25%	0.36%	3.04%
016	191,829	545	0.28%	147,133	76.7%	66.91%	21.49%	5.03%	2.92%	0.18%	0.03%	0.42%	3.01%
017	192,510	1,226	0.64%	144,472	75.05%	59.42%	30.21%	5.13%	1.41%	0.17%	0.03%	0.49%	3.14%
018	191,825	541	0.28%	150,196	78.3%	60.69%	29.2%	4.51%	2.46%	0.22%	0.03%	0.29%	2.6%
019	192,316	1,032	0.54%	146,131	75.98%	63.99%	24.52%	8.38%	0.62%	0.18%	0.06%	0.2%	2.06%
020	192,588	1,304	0.68%	147,033	76.35%	61.71%	30.17%	3.49%	1.76%	0.16%	0.05%	0.25%	2.41%
021	192,572	1,288	0.67%	145,120	75.36%	73.87%	6.37%	8.77%	6.98%	0.18%	0.04%	0.48%	3.32%
022	193,163	1,879	0.98%	150,450	77.89%	34.38%	53.94%	5.35%	2.3%	0.24%	0.18%	0.38%	3.24%
023	190,344	-940	-0.49%	144,113	75.71%	56.89%	33.91%	4.52%	1.24%	0.25%	0.09%	0.27%	2.84%
024	192,674	1,390	0.73%	148,602	77.13%	69.81%	18.69%	4.4%	3.27%	0.2%	0.07%	0.35%	3.2%
025	191,161	-123	-0.06%	148,917	77.9%	59.94%	32.23%	3.66%	1.09%	0.18%	0.04%	0.39%	2.48%
026	189,945	-1,339	-0.70%	145,744	76.73%	36.6%	55.18%	4.24%	0.92%	0.22%	0.03%	0.24%	2.56%
027	190,676	-608	-0.32%	139,196	73%	71.5%	4.16%	10.2%	10.27%	0.15%	0.04%	0.45%	3.22%
028	190,422	-862	-0.45%	144,973	76.13%	69.44%	18.18%	6.44%	1.99%	0.23%	0.04%	0.38%	3.29%



## Population Summary

Senate-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn ]	[% NH18+_Oth]	[% NH18+_ 2+ Races]
029	189,424	-1,860	-0.97%	145,674	76.9%	63.22%	25.52%	4.45%	3%	0.23%	0.11%	0.33%	3.13%
030	191,475	191	0.10%	145,077	75.77%	69.41%	19.44%	6.1%	0.97%	0.24%	0.03%	0.41%	3.4%
031	192,560	1,276	0.67%	142,251	73.87%	68.26%	19.13%	7.42%	1.12%	0.22%	0.06%	0.46%	3.33%
032	192,448	1,164	0.61%	149,879	77.88%	65.78%	13.13%	10.55%	5.42%	0.2%	0.04%	0.83%	4.05%
033	192,694	1,410	0.74%	146,415	75.98%	30.25%	40.26%	22.93%	2.35%	0.22%	0.05%	0.81%	3.14%
034	190,668	-616	-0.32%	141,840	74.39%	13.36%	66.5%	12.75%	4.26%	0.22%	0.04%	0.56%	2.31%
035	192,839	1,555	0.81%	144,675	75.02%	18.82%	68.87%	7.51%	1.26%	0.18%	0.06%	0.59%	2.7%
036	192,282	998	0.52%	161,385	83.93%	36.18%	48.68%	7.06%	4.01%	0.17%	0.04%	0.51%	3.34%
037	192,671	1,387	0.73%	147,779	76.7%	65.37%	17.41%	8.69%	3.94%	0.17%	0.04%	0.67%	3.73%
038	193,155	1,871	0.98%	148,367	76.81%	21.87%	62.45%	8.44%	3.55%	0.18%	0.04%	0.56%	2.92%
039	191,500	216	0.11%	156,022	81.47%	27.87%	57.97%	5.65%	4.83%	0.15%	0.04%	0.5%	2.98%
040	190,544	-740	-0.39%	147,000	77.15%	46.34%	17.32%	21.62%	11.15%	0.11%	0.04%	0.59%	2.84%
041	191,023	-261	-0.14%	145,278	76.05%	21.39%	59.67%	6.68%	8.42%	0.22%	0.02%	0.6%	3.01%
042	190,940	-344	-0.18%	153,952	80.63%	51.39%	28.73%	8.64%	7.16%	0.12%	0.03%	0.53%	3.4%
043	192,729	1,445	0.76%	145,741	75.62%	26.53%	61.35%	6.89%	1.34%	0.17%	0.08%	0.6%	3.05%
044	190,036	-1,248	-0.65%	145,224	76.42%	15.29%	68.39%	8.6%	4.37%	0.17%	0.04%	0.56%	2.58%
045	190,692	-592	-0.31%	140,706	73.79%	55.47%	16.86%	13.05%	10.89%	0.13%	0.03%	0.5%	3.07%
046	190,312	-972	-0.51%	146,713	77.09%	69.9%	15.64%	6.99%	3.85%	0.22%	0.02%	0.5%	2.89%
047	190,607	-677	-0.35%	146,599	76.91%	67.46%	16.34%	9.57%	2.79%	0.17%	0.04%	0.5%	3.13%
048	190,123	-1,161	-0.61%	136,995	72.06%	52.25%	8.26%	7%	29.05%	0.11%	0.04%	0.47%	2.83%
049	189,355	-1,929	-1.01%	144,123	76.11%	65.64%	7.12%	21.9%	2.22%	0.16%	0.04%	0.29%	2.63%
050	189,320	-1,964	-1.03%	148,799	78.6%	81.54%	5.03%	8.78%	1.24%	0.24%	0.03%	0.24%	2.91%
051	190,167	-1,117	-0.58%	155,571	81.81%	90.24%	0.84%	4.34%	0.61%	0.33%	0.02%	0.27%	3.34%
052	190,799	-485	-0.25%	146,620	76.85%	74.74%	12.08%	8.24%	1.13%	0.22%	0.02%	0.29%	3.27%
053	190,236	-1,048	-0.55%	148,201	77.9%	87.31%	4.49%	3.23%	0.99%	0.26%	0.06%	0.22%	3.44%
054	192,443	1,159	0.61%	143,843	74.75%	69.98%	3.07%	22.64%	1.15%	0.22%	0.02%	0.21%	2.71%
055	190,155	-1,129	-0.59%	141,968	74.66%	20.56%	62.42%	8.71%	4.24%	0.18%	0.04%	0.67%	3.18%
056	191,226	-58	-0.03%	144,448	75.54%	76.17%	6.37%	7.66%	5.51%	0.12%	0.03%	0.63%	3.51%

**Total: 10,711,908****Ideal District: 191,284**

The preceding report, published by the Georgia General Assembly, does not include statistics for the percentage of the voting age population that is “Black or African American alone or in combination,” also known as the “any part Black voting age population” percentage or “APBVAP%.” As these percentages are relevant for determining which State Senate districts can be considered majority-Black under the conventions used in the expert report, I have provided them below after having exported a listing from the *Maptitude for Redistricting* software.

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
1	25.08%	15	54.00%	29	26.88%	43	64.33%
2	46.86%	16	22.70%	30	20.92%	44	71.34%
3	21.18%	17	32.01%	31	20.70%	45	18.58%
4	23.37%	18	30.40%	32	14.86%	46	16.90%
5	29.94%	19	25.72%	33	42.96%	47	17.42%
6	23.90%	20	31.28%	34	69.54%	48	9.47%
7	21.44%	21	7.46%	35	71.90%	49	7.96%
8	30.38%	22	56.50%	36	51.34%	50	5.61%
9	29.53%	23	35.48%	37	19.27%	51	1.21%
10	71.46%	24	19.85%	38	65.30%	52	13.04%
11	31.04%	25	33.48%	39	60.70%	53	5.10%
12	57.97%	26	56.99%	40	19.24%	54	3.79%
13	26.97%	27	5.00%	41	62.61%	55	65.97%
14	18.97%	28	19.51%	42	30.78%	56	7.57%

**Esselstyn Report: Attachment E**

District	Population	Deviation	% Deviation	% single-race			% single-race			% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)	
				American Indian	Alaska Native	% single-race White (total pop)	% single-race Black (total pop)	Pacific Islander	% single-race Asian (total pop)					% single-race Other (total pop)
1	191,402	118	0.06%	61.01%	24.27%	0.38%	2.69%	0.33%	3.22%	8.11%	8.78%	27.05%	25.08%	
2	190,408	-876	-0.46%	37.90%	48.03%	0.36%	3.44%	0.17%	4.31%	5.79%	8.36%	50.27%	46.86%	
3	191,212	-72	-0.04%	68.28%	21.28%	0.42%	1.25%	0.11%	2.73%	5.93%	6.82%	23.14%	21.18%	
4	191,098	-186	-0.10%	65.93%	22.86%	0.34%	1.88%	0.08%	2.94%	5.97%	6.49%	24.63%	23.37%	
5	191,921	637	0.33%	18.45%	27.57%	1.64%	11.06%	0.07%	27.36%	13.84%	45.48%	30.07%	29.94%	
6	191,834	550	0.29%	57.94%	21.00%	0.37%	7.36%	0.04%	4.82%	8.47%	9.84%	23.20%	22.95%	
7	189,709	-1,575	-0.82%	37.68%	20.56%	0.59%	21.74%	0.07%	9.04%	10.32%	18.57%	22.96%	21.44%	
8	192,396	1,112	0.58%	59.12%	30.35%	0.43%	1.24%	0.08%	3.29%	5.49%	7.28%	32.11%	30.38%	
9	192,915	1,631	0.85%	34.88%	29.00%	0.84%	14.04%	0.05%	10.88%	10.31%	21.09%	31.62%	29.53%	
10	192,601	1,317	0.69%	32.32%	59.43%	0.23%	1.03%	0.02%	2.00%	4.96%	4.20%	62.00%	61.10%	
11	189,976	-1,308	-0.68%	57.47%	31.30%	0.57%	0.71%	0.03%	5.24%	4.67%	9.36%	32.62%	31.04%	
12	190,819	-465	-0.24%	34.34%	59.08%	0.21%	0.88%	0.03%	2.56%	2.90%	3.89%	60.59%	57.97%	
13	194,905	3,621	1.89%	62.81%	27.41%	0.29%	1.19%	0.03%	3.72%	4.55%	7.10%	28.75%	27.24%	
14	192,533	1,249	0.65%	56.63%	17.15%	0.39%	9.49%	0.05%	6.50%	9.81%	13.97%	19.43%	18.97%	
15	189,446	-1,838	-0.96%	35.64%	52.99%	0.37%	1.35%	0.29%	3.34%	6.01%	7.57%	55.72%	54.00%	
16	190,077	-1,207	-0.63%	69.67%	19.46%	0.29%	2.53%	0.03%	2.09%	5.93%	5.29%	20.93%	19.72%	
17	193,838	2,554	1.34%	70.00%	21.64%	0.26%	0.94%	0.04%	2.25%	4.88%	4.73%	22.98%	21.77%	
18	192,680	1,396	0.73%	59.61%	29.57%	0.30%	2.27%	0.06%	2.50%	5.69%	5.47%	31.37%	30.04%	
19	192,316	1,032	0.54%	64.20%	25.16%	0.41%	0.60%	0.07%	4.94%	4.62%	9.72%	26.72%	25.72%	
20	194,919	3,635	1.90%	60.69%	32.35%	0.23%	1.01%	0.06%	1.82%	3.84%	3.81%	33.78%	32.45%	
21	192,572	1,288	0.67%	73.26%	6.66%	0.50%	7.41%	0.04%	3.93%	8.19%	10.13%	8.04%	7.46%	
22	188,930	-2,354	-1.23%	36.87%	50.98%	0.35%	2.31%	0.19%	2.78%	6.52%	6.88%	54.05%	50.84%	
23	188,095	-3,189	-1.67%	42.46%	51.48%	0.29%	0.61%	0.10%	1.42%	3.64%	3.04%	53.25%	51.06%	
24	194,277	2,993	1.56%	69.67%	17.49%	0.29%	3.58%	0.13%	1.95%	6.88%	5.61%	19.48%	18.38%	
25	192,708	1,424	0.74%	27.57%	58.22%	0.34%	3.61%	0.06%	3.89%	6.30%	8.14%	61.38%	58.93%	
26	190,535	-749	-0.39%	36.13%	54.05%	0.30%	1.92%	0.04%	2.93%	4.64%	5.41%	56.18%	52.84%	
27	190,676	-608	-0.32%	69.94%	4.43%	0.45%	11.44%	0.04%	4.92%	8.78%	11.61%	5.51%	5.00%	
28	189,696	-1,588	-0.83%	30.66%	56.20%	0.36%	2.24%	0.04%	4.70%	5.79%	8.95%	58.59%	57.28%	
29	189,424	-1,860	-0.97%	61.96%	26.49%	0.34%	3.05%	0.11%	2.15%	5.90%	5.34%	28.39%	26.88%	
30	191,939	655	0.34%	74.89%	14.88%	0.37%	0.83%	0.03%	3.07%	5.92%	6.15%	16.66%	15.77%	
31	192,755	1,471	0.77%	68.30%	19.22%	0.44%	1.07%	0.07%	4.02%	6.88%	8.60%	21.30%	19.61%	
32	192,448	1,164	0.61%	65.58%	13.56%	0.45%	5.53%	0.05%	5.09%	9.73%	12.09%	15.61%	14.86%	
33	192,694	1,410	0.74%	30.10%	41.18%	1.03%	2.16%	0.07%	14.18%	11.27%	26.72%	44.04%	42.96%	
34	192,023	739	0.39%	22.60%	57.52%	0.67%	4.16%	0.06%	8.70%	6.30%	14.36%	60.15%	58.97%	
35	193,194	1,910	1.00%	33.51%	52.94%	0.43%	1.33%	0.07%	4.93%	6.79%	9.56%	55.95%	54.05%	

District	Population	Deviation	% Deviation	% single- race White (total pop)	% single- race Black (total pop)	% single- race American Indian	% single- race Asian (total pop)	% single- race Native Hawaiian	% single- race Other (total pop)	% multi- racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
						Alaska Native (total pop)		Pacific Islander (total pop)					
36	192,282	998	0.52%	34.70%	51.92%	0.35%	3.62%	0.05%	3.23%	6.14%	7.56%	54.36%	51.34%
37	192,671	1,387	0.73%	64.32%	18.38%	0.38%	3.89%	0.04%	3.92%	9.08%	9.99%	20.86%	19.27%
38	190,605	-679	-0.36%	20.91%	64.48%	0.43%	3.34%	0.05%	4.86%	5.94%	9.12%	67.17%	66.36%
39	190,184	-1,100	-0.58%	26.93%	60.38%	0.30%	4.33%	0.05%	2.86%	5.16%	6.09%	62.78%	60.21%
40	190,544	-740	-0.39%	46.44%	16.84%	1.29%	10.90%	0.06%	14.32%	10.16%	24.81%	18.75%	19.24%
41	191,023	-261	-0.14%	19.86%	60.99%	0.44%	9.23%	0.02%	3.93%	5.54%	7.32%	63.74%	62.61%
42	190,153	-1,131	-0.59%	52.87%	26.90%	0.45%	6.95%	0.03%	4.97%	7.83%	10.21%	28.96%	29.09%
43	191,784	500	0.26%	30.42%	57.48%	0.33%	1.16%	0.11%	4.56%	5.95%	8.28%	60.40%	58.52%
44	188,256	-3,028	-1.58%	14.26%	69.94%	0.50%	4.23%	0.05%	5.60%	5.40%	9.71%	72.72%	71.52%
45	190,692	-592	-0.31%	55.41%	17.52%	0.47%	10.75%	0.04%	6.32%	9.49%	14.66%	19.69%	18.58%
46	190,312	-972	-0.51%	68.86%	16.88%	0.35%	3.81%	0.04%	3.65%	6.40%	7.99%	18.49%	16.90%
47	190,607	-677	-0.35%	66.86%	17.14%	0.41%	2.70%	0.05%	5.81%	7.04%	11.22%	18.64%	17.42%
48	190,123	-1,161	-0.61%	50.35%	8.51%	0.26%	30.63%	0.04%	2.69%	7.52%	7.58%	9.93%	9.47%
49	189,355	-1,929	-1.01%	65.60%	7.32%	0.80%	2.17%	0.05%	13.52%	10.54%	26.24%	8.50%	7.96%
50	189,320	-1,964	-1.03%	80.96%	5.13%	0.49%	1.23%	0.05%	5.21%	6.93%	11.08%	6.19%	5.61%
51	190,167	-1,117	-0.58%	89.94%	0.88%	0.51%	0.60%	0.03%	2.50%	5.55%	5.43%	1.49%	1.21%
52	190,799	-485	-0.25%	73.61%	12.56%	0.54%	1.09%	0.03%	5.02%	7.14%	10.11%	14.20%	13.04%
53	190,236	-1,048	-0.55%	86.66%	4.52%	0.38%	1.01%	0.07%	1.96%	5.40%	3.98%	5.74%	5.10%
54	192,443	1,159	0.61%	71.00%	3.13%	1.54%	1.16%	0.03%	13.21%	9.94%	26.66%	4.22%	3.79%
55	190,155	-1,129	-0.59%	19.41%	63.85%	0.45%	4.23%	0.06%	4.93%	7.08%	10.14%	67.34%	65.97%
56	191,226	-58	-0.03%	75.62%	6.50%	0.26%	5.69%	0.04%	2.88%	9.02%	8.63%	8.08%	7.57%

**Esselstyn Report: Attachment F**

## **2021 Committee Guidelines**

### **I. HEARINGS AND MEETINGS**

#### **A. PUBLIC HEARINGS**

1. A series of public hearings were held to actively seek public participation and input concerning the General Assembly's redrawing of congressional and legislative districts.
2. Video recordings of all hearings are and shall remain available on the legislative website, [www.legis.ga.gov](http://www.legis.ga.gov)

#### **B. COMMITTEE MEETINGS**

1. All formal meetings of the full committee will be open to the public.
2. When the General Assembly is not in session, notices of all such meetings will be posted at the Offices of the Clerk of the House or Secretary of the Senate and other appropriate places at least 24 hours in advance of any meeting. Individual notices may be transmitted by email to any citizen or organization requesting the same without charge. Persons or organizations needing this information should contact the Senate Press Office or House Communications Office or the Secretary of the Senate or Clerk of the House to be placed on the notification list.
3. Minutes of all such meetings shall be kept and maintained in accordance with the rules of the House and Senate. Copies of the minutes should be made available in a timely manner at a reasonable cost in accordance with these same rules.

### **II. PUBLIC ACCESS TO REDISTRICTING DATA AND MATERIALS**

- A. Census information databases on any medium created at public expense and held by the Committee or by the Legislative and Congressional Reapportionment Office for use in the redistricting process are included as public records and copies can be made available to the public in accordance with the rules of the General Assembly and subject to reasonable charges for search, retrieval, reproduction and other reasonable, related costs.
- B. Copies of the public records described above may be obtained at the cost of reproduction by members of the public on electronic media if the material exists on an appropriate electronic medium. Cost of reproduction may include not only the medium on which the copies made, but also the labor cost for the search, retrieval, and reproduction of the records and other reasonable, related costs.

- C. These guidelines regarding public access to redistricting data and materials do not apply to plans or other related materials prepared by or on behalf of an individual Member of the General Assembly using the Legislative and Congressional Reapportionment Office, where those plans and materials have not been made public through presentation to the Committee.

### **III. REDISTRICTING PLANS**

#### **A. GENERAL PRINCIPLES FOR DRAFTING PLANS**

1. Each congressional district should be drawn with a total population of plus or minus one person from the ideal district size.
2. Each legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below.
3. All plans adopted by the Committee will comply with Section 2 of the Voting Rights Act of 1965, as amended.
4. All plans adopted by the Committee will comply with the United States and Georgia Constitutions.
5. Districts shall be composed of contiguous geography. Districts that connect on a single point are not contiguous.
6. No multi-member districts shall be drawn on any legislative redistricting plan.
7. The Committee should consider:
  - a. The boundaries of counties and precincts;
  - b. Compactness; and
  - c. Communities of interest.
8. Efforts should be made to avoid the unnecessary pairing of incumbents.
9. The identifying of these criteria is not intended to limit the consideration of any other principles or factors that the Committee deems appropriate.



B. PLANS PRODUCED THROUGH THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. Staff of the Legislative and Congressional Reapportionment Office will be available to all members of the General Assembly requesting assistance in accordance with the policy of that office.
2. Census data and redistricting work maps will be available to all members of the General Assembly upon request, provided that (a) the map was created by the requesting member, (b) the map is publicly available, or (c) the Legislative and Congressional Reapportionment Office has been granted permission by the author of the map to share a copy with the requesting member.
3. As noted above, redistricting plans and other records related to the provision of staff services to individual members of the General Assembly will not be subject to public disclosure. Only the author of a particular map may waive the confidentiality of his or her own work product. This confidentiality provision will not apply with respect to records related to the provision of staff services to any committee or subcommittee as a whole or to any records which are or have been previously disclosed by or pursuant to the direction of an individual member of the General Assembly.

C. PLANS PRODUCED OUTSIDE OF THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. All plans submitted to the Committee will be made part of the public record and made available in the same manner as other committee public records.
2. All plans prepared outside the Legislative and Congressional Reapportionment Office must be submitted to that office prior to presentation to the Committee by a Member of the General Assembly for technical verification and presentation and bill preparation. All pieces of census geography must be accounted for in some district.
3. The electronic submission of material for technical verification must be made in accordance with the following requirements or in a manner specifically approved and accepted by the Legislative and Congressional Reapportionment Office.
  - a. The submission shall be in electronic format with accompanying documentation that shows the submitting sponsor of the proposed plan and contact person for the proposed plan, including email address and telephone number.

- b. An electronic map image that clearly depicts defined boundaries, utilizing the 2020 United States Census geographic boundaries, and a block equivalency file containing two columns. The first column shall list the 15-digit census block identification numbers, and the second column shall list the three-digit district identification number. Both block and district numbers shall be zero-filled text files. Such files shall be submitted in .xis, .xlsx, .dbf, .txt, or .csv file formats. The following is a sample:

```
BlockID, DISTRICT
"13001950100101","008"
"13001950100102","008"
"13001950100103","008"
"13001950100104","008"
"13001950100105","008"
"13001950100106","008"
```

- 4. If submission of the plan cannot be done electronically, the following requirements must be followed:
  - a. All drafts, amendments, or revisions should be on clearly-depicted maps that follow the 2020 Census geographic boundaries and should be accompanied by a statistical sheet listing the Census geography including the total population for each district.
  - b. All plans submitted should either be a complete statewide plan or fit back into the plan that they modified, so that the proposal can be evaluated in the context of a statewide plan. All pieces of Census geography must be accounted for in some district.

#### D. GENERAL GUIDELINES FOR PRESENTATION OF ALL PLANS

- 1. A redistricting plan may be presented for consideration by the Committee only through the sponsorship of one or more Member(s) of the General Assembly. All such drafts of and amendments or revisions to plans presented at any committee meeting must be on clearly-depicted maps which follow the 2020 Census geographic boundaries and accompanied by a statistical sheet listing the Census geography, including the total population and minority populations for each proposed district.
- 2. No plan may be presented to the Committee unless that plan makes accommodations for and fits back into a specific, identified statewide map for the particular legislative body involved.

3. All plans presented at committee meetings will be made available for inspection by the public either electronically or by hard copy available at the Office of Legislative and Congressional Reapportionment.
- E. These guidelines may be reconsidered or amended by the Committee.

**Esselstyn Report: Attachment G**

## Explanation of compactness measures

The following explanations of the five measures of compactness considered in the report are taken from the documentation that accompanies *Maptitude for Redistricting*, the software that was used to generate the compactness scores.

The **Reock** test is an area-based measure that compares each district to a circle, which is considered to be the most compact shape possible. For each district, the Reock test computes the ratio of the area of the district to the area of the minimum enclosing circle for the district. The measure is always between 0 and 1, with 1 being the most compact.

The **Schwartzberg** test is a perimeter-based measure that compares a simplified version of each district to a circle, which is considered to be the most compact shape possible. [...] For each district, the Schwartzberg test computes the ratio of the perimeter of the simplified version of the district to the perimeter of a circle with the same area as the original district. [...] This measure is usually greater than or equal to 1, with 1 being the most compact.

The **Polsby-Popper** test computes the ratio of the district area to the area of a circle with the same perimeter:  $4\pi\text{Area}/(\text{Perimeter}^2)$ . The measure is always between 0 and 1, with 1 being the most compact.

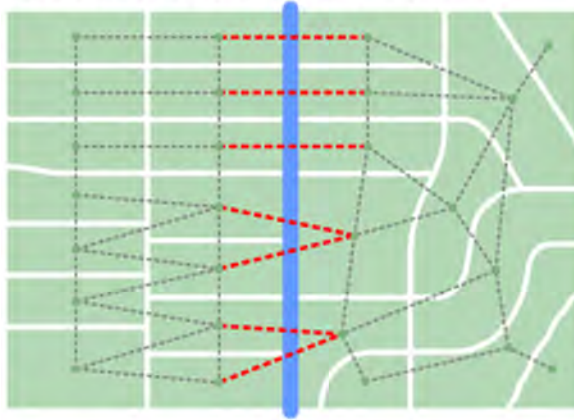
The **Area/Convex Hull** test computes the ratio the district area to the area of the convex hull of the district (minimum convex polygon which completely contains the district). The measure is always between 0 and 1, with 1 being the most compact.

The **Cut Edges** test counts the number of edges removed (“cut”) from the adjacency (dual) graph of the base layer to define the districting plan. The adjacency

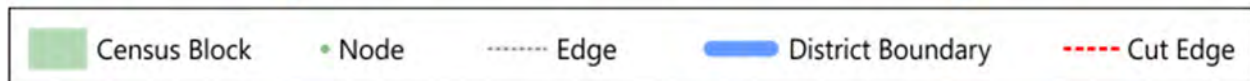
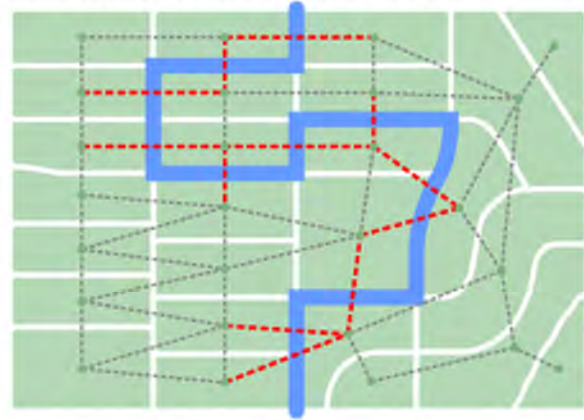
graph is defined by creating a node for each base layer area. An edge is added between two nodes if the two corresponding base layer areas are adjacent: i.e., share a common linear boundary. If such a boundary forms part of the district boundary then its corresponding edge is cut by the plan. The measure is a single number for the plan. A smaller number implies a more compact plan.

Explanatory graphic for the Cut Edges test (from same source):

This district boundary cuts 7 edges:



This district boundary cuts 12 edges:



**Esselstyn Report: Attachment H**

## More detailed tables for comparative characteristics of State Senate plans

### Population Deviation:

The deviation statistics for each individual district in the respective plans can be found in **Attachment D** and **Attachment E**. Below are the summary statistics generated by the *Maptitude for Redistricting* software.

#### Enacted plan:

Population Range:	189,320 to 193,163
Ratio Range:	0.02
Absolute Range:	
Absolute Overall Range:	
Relative Range:	-1,964 to 1,879
Relative Overall Range:	3,843
Absolute Mean Deviation:	-1.03% to 0.98%
Relative Mean Deviation:	2.01%
Standard Deviation:	1,012.61
	0.53%

#### Illustrative plan:

Population Range:	
Ratio Range:	
Absolute Range:	188,095 to 194,919
Absolute Overall Range:	0.04
Relative Range:	-3,189 to 3,635
Relative Overall Range:	6,824
Absolute Mean Deviation:	-1.67% to 1.90%
Relative Mean Deviation:	3.57%
Standard Deviation:	1,283.86
	0.67%
	1,529.53

### Compactness:

Below is the compactness report for the Senate enacted plan.



User:

Plan Name: GA Sen 000

Plan Type: Reference

## Measures of Compactness Report

Thursday, January 13, 2022

1:11 PM

Number of cut edges: 11,005

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
1	0.49	1.60	0.31	0.79
2	0.47	1.80	0.22	0.73
3	0.39	1.70	0.21	0.70
4	0.47	1.64	0.27	0.75
5	0.17	2.10	0.21	0.65
6	0.41	1.94	0.24	0.70
7	0.35	1.66	0.34	0.79
8	0.45	1.77	0.23	0.73
9	0.24	2.06	0.21	0.69
10	0.28	1.98	0.23	0.69
11	0.36	1.57	0.33	0.79

**Measures of Compactness Report**

GA Sen 000

Number of cut edges: 11,005

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
12	0.62	1.46	0.39	0.86
13	0.45	1.72	0.26	0.73
14	0.27	1.90	0.24	0.66
15	0.57	1.52	0.32	0.83
16	0.37	1.55	0.31	0.77
17	0.35	2.22	0.17	0.63
18	0.47	1.85	0.21	0.76
19	0.53	1.47	0.37	0.84
20	0.41	1.50	0.36	0.80
21	0.42	1.56	0.33	0.83
22	0.41	1.68	0.29	0.75
23	0.37	1.93	0.16	0.70
24	0.37	1.89	0.21	0.68
25	0.39	1.81	0.24	0.73

**Measures of Compactness Report**

GA Sen 000

Number of cut edges: 11,005

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
26	0.47	1.90	0.20	0.68
27	0.50	1.37	0.46	0.88
28	0.45	1.79	0.25	0.69
29	0.58	1.37	0.42	0.88
30	0.60	1.51	0.41	0.87
31	0.37	1.58	0.38	0.84
32	0.29	1.98	0.21	0.64
33	0.40	1.96	0.22	0.72
34	0.45	1.60	0.34	0.74
35	0.47	1.78	0.26	0.83
36	0.32	1.76	0.30	0.76
37	0.49	1.51	0.37	0.80
38	0.36	2.01	0.21	0.76
39	0.17	2.67	0.13	0.50

**Measures of Compactness Report**

GA Sen 000

Number of cut edges: 11,005

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
40	0.51	1.65	0.34	0.78
41	0.51	1.78	0.30	0.74
42	0.48	1.73	0.32	0.82
43	0.64	1.56	0.35	0.85
44	0.18	2.12	0.19	0.68
45	0.35	1.72	0.30	0.73
46	0.37	1.99	0.21	0.72
47	0.36	2.06	0.19	0.66
48	0.35	1.61	0.34	0.79
49	0.46	1.55	0.34	0.79
50	0.45	1.79	0.23	0.72
51	0.68	1.31	0.50	0.92
52	0.47	1.80	0.25	0.72
53	0.49	1.48	0.40	0.90

**Measures of Compactness Report**

GA Sen 000

Number of cut edges: 11,005

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.50
Max	0.68	2.67	0.50	0.92
Mean	0.42	1.75	0.29	0.76
Std. Dev.	0.11	0.25	0.08	0.08
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
54	0.60	1.38	0.44	0.83
55	0.34	1.84	0.27	0.81
56	0.38	1.70	0.30	0.80

Measures of Compactness Report

GA Sen 000

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

**Below is the compactness report for the Senate illustrative plan.**

User:

Plan Name: **GA Senate Illustrative**Plan Type: **Reference**

## Measures of Compactness Report

Saturday, December 3, 2022

2:09 PM

Number of cut edges: 11,003

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
1	0.49	1.60	0.31	0.79
2	0.47	1.80	0.22	0.73
3	0.39	1.70	0.21	0.70
4	0.47	1.64	0.27	0.75
5	0.17	2.10	0.21	0.65
6	0.42	1.95	0.23	0.71
7	0.35	1.66	0.34	0.79
8	0.45	1.77	0.23	0.73
9	0.24	2.06	0.21	0.69
10	0.25	2.08	0.19	0.68
11	0.36	1.57	0.33	0.79



**Measures of Compactness Report**

GA Senate Illustrative

Number of cut edges: 11,003

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
12	0.62	1.46	0.39	0.86
13	0.48	1.70	0.25	0.76
14	0.27	1.90	0.24	0.66
15	0.57	1.52	0.32	0.83
16	0.39	1.76	0.27	0.71
17	0.35	2.21	0.16	0.60
18	0.38	1.91	0.20	0.66
19	0.53	1.47	0.37	0.84
20	0.28	1.83	0.24	0.71
21	0.42	1.56	0.33	0.83
22	0.33	1.70	0.32	0.74
23	0.34	1.93	0.17	0.69
24	0.27	1.87	0.23	0.72
25	0.57	1.55	0.34	0.80

**Measures of Compactness Report**

GA Senate Illustrative

Number of cut edges: 11,003

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
26	0.44	1.56	0.25	0.77
27	0.50	1.37	0.46	0.88
28	0.38	2.17	0.19	0.66
29	0.58	1.37	0.42	0.88
30	0.41	1.55	0.38	0.84
31	0.40	1.43	0.46	0.86
32	0.29	1.98	0.21	0.64
33	0.40	1.96	0.22	0.72
34	0.31	1.98	0.21	0.66
35	0.59	1.48	0.42	0.86
36	0.32	1.76	0.30	0.76
37	0.49	1.51	0.37	0.80
38	0.37	2.05	0.20	0.75
39	0.18	2.67	0.13	0.52

**Measures of Compactness Report**

GA Senate Illustrative

Number of cut edges: 11,003

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
40	0.51	1.65	0.34	0.78
41	0.51	1.78	0.30	0.74
42	0.47	1.96	0.25	0.78
43	0.49	1.82	0.25	0.79
44	0.33	1.95	0.24	0.72
45	0.35	1.72	0.30	0.73
46	0.37	1.99	0.21	0.72
47	0.36	2.06	0.19	0.66
48	0.35	1.61	0.34	0.79
49	0.46	1.55	0.34	0.79
50	0.45	1.79	0.23	0.72
51	0.68	1.31	0.50	0.92
52	0.47	1.80	0.25	0.72
53	0.49	1.48	0.40	0.90

**Measures of Compactness Report**

GA Senate Illustrative

Number of cut edges: 11,003

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.17	1.31	0.13	0.52
Max	0.68	2.67	0.50	0.92
Mean	0.41	1.76	0.28	0.75
Std. Dev.	0.11	0.26	0.09	0.08
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
54	0.60	1.38	0.44	0.83
55	0.34	1.84	0.27	0.81
56	0.38	1.70	0.30	0.80

Measures of Compactness Report

GA Senate Illustrative

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

**Divisions of counties and precincts (VTDs):**

Below is the political subdivisions splits report for the Senate enacted plan.

User:

Plan Name: **GA Senate Enacted**Plan Type: **Reference**

## Political Subdivision Splits Between Districts

Saturday, December 3, 2022

3:21 PM

Number of subdivisions not split:

County	130
Voting District	2,651

Number of subdivisions split into more than one district:

County	29
Voting District	47

Number of splits involving no population:

County	0
Voting District	8

### Split Counts

#### *County*

Cases where an area is split among 2 Districts: 18  
 Cases where an area is split among 3 Districts: 7  
 Cases where an area is split among 6 Districts: 1  
 Cases where an area is split among 7 Districts: 1  
 Cases where an area is split among 9 Districts: 1  
 Cases where an area is split among 10 Districts: 1

#### *Voting District*

Cases where an area is split among 2 Districts: 46  
 Cases where an area is split among 3 Districts: 1

County	Voting District	District	Population
<i>Split Counties:</i>			
Barrow GA		45	39,217
Barrow GA		46	17,116
Barrow GA		47	27,172
Bartow GA		37	11,130
Bartow GA		52	97,771
Bibb GA		18	53,182
Bibb GA		25	15,513
Bibb GA		26	88,651
Chatham GA		1	81,408
Chatham GA		2	190,408
Chatham GA		4	23,475
Cherokee GA		21	109,034
Cherokee GA		32	90,981
Cherokee GA		56	66,605
Clarke GA		46	52,016
Clarke GA		47	76,655
Clayton GA		34	158,608
Clayton GA		44	138,987
Cobb GA		6	92,249

**Political Subdivision Splits Between Districts**

GA Senate Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA		32	101,467
Cobb GA		33	192,694
Cobb GA		37	181,541
Cobb GA		38	108,305
Cobb GA		56	89,893
Coffee GA		13	19,881
Coffee GA		19	23,211
Columbia GA		23	59,796
Columbia GA		24	96,214
DeKalb GA		10	75,906
DeKalb GA		40	164,997
DeKalb GA		41	183,560
DeKalb GA		42	190,940
DeKalb GA		43	32,212
DeKalb GA		44	51,049
DeKalb GA		55	65,718
Douglas GA		28	25,889
Douglas GA		30	23,454
Douglas GA		35	94,894
Fayette GA		16	87,134
Fayette GA		34	32,060
Floyd GA		52	85,090
Floyd GA		53	13,494
Forsyth GA		27	190,676
Forsyth GA		48	60,607
Fulton GA		6	99,152
Fulton GA		14	192,533
Fulton GA		21	83,538
Fulton GA		28	6,963
Fulton GA		35	97,945
Fulton GA		36	192,282
Fulton GA		38	84,850
Fulton GA		39	191,500
Fulton GA		48	83,219
Fulton GA		56	34,728
Gordon GA		52	7,938
Gordon GA		54	49,606
Gwinnett GA		5	191,921
Gwinnett GA		7	189,709
Gwinnett GA		9	192,915
Gwinnett GA		40	25,547
Gwinnett GA		41	7,463
Gwinnett GA		45	151,475
Gwinnett GA		46	27,298
Gwinnett GA		48	46,297
Gwinnett GA		55	124,437
Hall GA		49	189,355



**Political Subdivision Splits Between Districts**

GA Senate Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Hall GA		50	13,781
Henry GA		10	116,992
Henry GA		17	82,287
Henry GA		25	41,433
Houston GA		18	42,875
Houston GA		20	74,275
Houston GA		26	46,483
Jackson GA		47	56,660
Jackson GA		50	19,247
Muscogee GA		15	142,205
Muscogee GA		29	64,717
Newton GA		17	45,536
Newton GA		43	66,947
Paulding GA		30	18,954
Paulding GA		31	149,707
Richmond GA		22	193,163
Richmond GA		23	13,444
Walton GA		17	44,590
Walton GA		46	52,083
Ware GA		3	10,431
Ware GA		8	25,820
White GA		50	12,642
White GA		51	15,361
<i>Split VTDs:</i>			
Bibb GA	HOWARD 1	18	5,912
Bibb GA	HOWARD 1	25	31
Bibb GA	HOWARD 2	18	5,445
Bibb GA	HOWARD 2	25	0
Bibb GA	HOWARD 3	18	12,640
Bibb GA	HOWARD 3	25	14
Bibb GA	HOWARD 5	18	267
Bibb GA	HOWARD 5	25	2,103
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	1	4,099
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	4	755
Chatham GA	POOLER CHRURCH	1	5,330
Chatham GA	POOLER CHRURCH	4	4,407
Clarke GA	3B	46	5,752
Clarke GA	3B	47	4,194
Clarke GA	6C	46	2,971
Clarke GA	6C	47	2,036
Cobb GA	Dobbins 01	6	6,586
Cobb GA	Dobbins 01	33	6,310
Cobb GA	Dobbins 01	38	505
Cobb GA	Elizabeth 01	32	3,771
Cobb GA	Elizabeth 01	37	2,099

**Political Subdivision Splits Between Districts**

GA Senate Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA	Kennesaw 1A	32	1,471
Cobb GA	Kennesaw 1A	37	2,972
Cobb GA	Marietta 3A	32	3,439
Cobb GA	Marietta 3A	33	5,460
Cobb GA	Marietta 5A	6	0
Cobb GA	Marietta 5A	33	4,334
Cobb GA	Marietta 6A	6	3,022
Cobb GA	Marietta 6A	32	1,532
Cobb GA	Marietta 7A	6	993
Cobb GA	Marietta 7A	33	5,918
Cobb GA	Nickajack 01	6	2,398
Cobb GA	Nickajack 01	38	3,728
Cobb GA	Norton Park 01	33	7,049
Cobb GA	Norton Park 01	38	752
Cobb GA	Oregon 03	33	12,988
Cobb GA	Oregon 03	37	0
Cobb GA	Powers Ferry 01	6	4,963
Cobb GA	Powers Ferry 01	33	464
Cobb GA	Sewell Mill 03	6	5,051
Cobb GA	Sewell Mill 03	33	1,886
Cobb GA	Vinings 02	6	4,624
Cobb GA	Vinings 02	38	5,019
Coffee GA	DOUGLAS	13	12,595
Coffee GA	DOUGLAS	19	15,976
Floyd GA	GARDEN LAKES	52	1,024
Floyd GA	GARDEN LAKES	53	7,817
Forsyth GA	BIG CREEK	27	15,216
Forsyth GA	BIG CREEK	48	10,302
Forsyth GA	POLO	27	24,894
Forsyth GA	POLO	48	964
Fulton GA	RW09	21	2,971
Fulton GA	RW09	56	4,750
Fulton GA	RW12	21	4,274
Fulton GA	RW12	56	3,958
Fulton GA	SC08B	35	223
Fulton GA	SC08B	39	5,124
Fulton GA	SC18C	35	1,852
Fulton GA	SC18C	39	521
Gordon GA	LILY POND	52	1,641
Gordon GA	LILY POND	54	996
Gwinnett GA	DACULA	45	2,699
Gwinnett GA	DACULA	46	4,613
Gwinnett GA	LAWRENCEVILLE E	5	2,075
Gwinnett GA	LAWRENCEVILLE E	9	1,386
Gwinnett GA	PINCKNEYVILLE W	5	5,605
Gwinnett GA	PINCKNEYVILLE W	7	2,701
Hall GA	GLADE	49	5,135

**Political Subdivision Splits Between Districts**

GA Senate Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Hall GA	GLADE	50	1,735
Hall GA	TADMORE	49	4,129
Hall GA	TADMORE	50	10,220
Houston GA	FMMS	18	5,178
Houston GA	FMMS	20	8,151
Houston GA	MCMS	18	3,625
Houston GA	MCMS	20	9,869
Houston GA	RECR	20	0
Houston GA	RECR	26	17,798
Jackson GA	Central Jackson	47	24,383
Jackson GA	Central Jackson	50	0
Jackson GA	North Jackson	47	0
Jackson GA	North Jackson	50	19,247
Muscogee GA	COLUMBUS TECH	15	6,919
Muscogee GA	COLUMBUS TECH	29	2,228
Paulding GA	CARL SCOGGINS MID SC	30	7,586
Paulding GA	CARL SCOGGINS MID SC	31	2,162
Paulding GA	TAYLOR FARM PARK	30	475
Paulding GA	TAYLOR FARM PARK	31	12,958
Ware GA	100	3	2,672
Ware GA	100	8	3,692
Ware GA	200A	3	0
Ware GA	200A	8	4,133
Ware GA	304	3	0
Ware GA	304	8	2,107
Ware GA	400	3	4,626
Ware GA	400	8	406

**Below is the political subdivisions splits report for the Senate illustrative plan.**

User:

Plan Name: **GA Senate Illustrative**Plan Type: **Reference**

## Political Subdivision Splits Between Districts

Saturday, December 3, 2022

3:10 PM

Number of subdivisions not split:

County	125
Voting District	2,649

Number of subdivisions split into more than one district:

County	34
Voting District	49

Number of splits involving no population:

County	0
Voting District	7

### Split Counts

#### *County*

Cases where an area is split among 2 Districts: 22

Cases where an area is split among 3 Districts: 7

Cases where an area is split among 4 Districts: 1

Cases where an area is split among 6 Districts: 1

Cases where an area is split among 7 Districts: 1

Cases where an area is split among 9 Districts: 1

Cases where an area is split among 10 Districts: 1

#### *Voting District*

Cases where an area is split among 2 Districts: 48

Cases where an area is split among 3 Districts: 1

County	Voting District	District	Population
<i>Split Counties:</i>			
Baldwin GA		17	16,966
Baldwin GA		23	26,833
Barrow GA		45	39,217
Barrow GA		46	17,116
Barrow GA		47	27,172
Bartow GA		37	11,130
Bartow GA		52	97,771
Chatham GA		1	81,408
Chatham GA		2	190,408
Chatham GA		4	23,475
Cherokee GA		21	109,034
Cherokee GA		32	90,981
Cherokee GA		56	66,605
Clarke GA		46	52,016
Clarke GA		47	76,655
Clayton GA		25	37,295
Clayton GA		28	19,071
Clayton GA		34	135,995

**Political Subdivision Splits Between Districts**

GA Senate Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Clayton GA		44	105,234
Cobb GA		6	97,590
Cobb GA		32	101,467
Cobb GA		33	192,694
Cobb GA		37	181,541
Cobb GA		38	102,964
Cobb GA		56	89,893
Coffee GA		13	19,881
Coffee GA		19	23,211
Columbia GA		22	30,174
Columbia GA		24	125,836
Coweta GA		16	39,894
Coweta GA		28	74,804
Coweta GA		30	31,460
DeKalb GA		10	82,066
DeKalb GA		40	164,997
DeKalb GA		41	183,560
DeKalb GA		42	190,153
DeKalb GA		43	17,660
DeKalb GA		44	60,228
DeKalb GA		55	65,718
Fayette GA		16	45,488
Fayette GA		28	17,678
Fayette GA		34	56,028
Floyd GA		52	85,090
Floyd GA		53	13,494
Forsyth GA		27	190,676
Forsyth GA		48	60,607
Fulton GA		6	94,244
Fulton GA		14	192,533
Fulton GA		21	83,538
Fulton GA		28	78,143
Fulton GA		35	30,198
Fulton GA		36	192,282
Fulton GA		38	87,641
Fulton GA		39	190,184
Fulton GA		48	83,219
Fulton GA		56	34,728
Gordon GA		52	7,938
Gordon GA		54	49,606
Greene GA		17	14,168
Greene GA		23	4,747
Gwinnett GA		5	191,921
Gwinnett GA		7	189,709
Gwinnett GA		9	192,915
Gwinnett GA		40	25,547
Gwinnett GA		41	7,463

**Political Subdivision Splits Between Districts**

GA Senate Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Gwinnett GA		45	151,475
Gwinnett GA		46	27,298
Gwinnett GA		48	46,297
Gwinnett GA		55	124,437
Hall GA		49	189,355
Hall GA		50	13,781
Henry GA		10	62,505
Henry GA		25	155,413
Henry GA		44	22,794
Houston GA		18	96,912
Houston GA		20	33,532
Houston GA		26	33,189
Jackson GA		47	56,660
Jackson GA		50	19,247
McDuffie GA		23	12,164
McDuffie GA		24	9,468
Muscogee GA		15	142,205
Muscogee GA		29	64,717
Newton GA		17	9,333
Newton GA		43	103,150
Paulding GA		31	149,902
Paulding GA		35	18,759
Richmond GA		22	158,756
Richmond GA		23	47,851
Rockdale GA		10	22,596
Rockdale GA		43	70,974
Walton GA		17	44,590
Walton GA		46	52,083
Ware GA		3	10,431
Ware GA		8	25,820
White GA		50	12,642
White GA		51	15,361
Wilcox GA		13	5,579
Wilcox GA		20	3,187
Wilkes GA		23	3,747
Wilkes GA		24	5,818
<i>Split VTDs:</i>			
Baldwin GA	NORTH MILLEDGEVILLE	17	2,373
Baldwin GA	NORTH MILLEDGEVILLE	23	991
Baldwin GA	SOUTH MILLEDGEVILLE	17	1,215
Baldwin GA	SOUTH MILLEDGEVILLE	23	2,491
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	1	4,099
Chatham GA	BLOOMINGDALE COMMUNITY CENTER	4	755
Chatham GA	POOLER CHRURCH	1	5,330
Chatham GA	POOLER CHRURCH	4	4,407

**Political Subdivision Splits Between Districts**

GA Senate Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Clarke GA	3B	46	5,752
Clarke GA	3B	47	4,194
Clarke GA	6C	46	2,971
Clarke GA	6C	47	2,036
Cobb GA	Dobbins 01	6	6,586
Cobb GA	Dobbins 01	33	6,310
Cobb GA	Dobbins 01	38	505
Cobb GA	Elizabeth 01	32	3,771
Cobb GA	Elizabeth 01	37	2,099
Cobb GA	Kennesaw 1A	32	1,471
Cobb GA	Kennesaw 1A	37	2,972
Cobb GA	Marietta 3A	32	3,439
Cobb GA	Marietta 3A	33	5,460
Cobb GA	Marietta 5A	6	0
Cobb GA	Marietta 5A	33	4,334
Cobb GA	Marietta 6A	6	3,022
Cobb GA	Marietta 6A	32	1,532
Cobb GA	Marietta 7A	6	993
Cobb GA	Marietta 7A	33	5,918
Cobb GA	Nickajack 01	6	2,398
Cobb GA	Nickajack 01	38	3,728
Cobb GA	Norton Park 01	33	7,049
Cobb GA	Norton Park 01	38	752
Cobb GA	Oregon 03	33	12,988
Cobb GA	Oregon 03	37	0
Cobb GA	Powers Ferry 01	6	4,963
Cobb GA	Powers Ferry 01	33	464
Cobb GA	Sewell Mill 03	6	5,051
Cobb GA	Sewell Mill 03	33	1,886
Cobb GA	Smyrna 1A	6	5,341
Cobb GA	Smyrna 1A	38	1,292
Cobb GA	Vinings 02	6	4,624
Cobb GA	Vinings 02	38	5,019
Coffee GA	DOUGLAS	13	12,595
Coffee GA	DOUGLAS	19	15,976
DeKalb GA	Flakes Mill Fire Station	10	2,263
DeKalb GA	Flakes Mill Fire Station	44	396
DeKalb GA	Harris - Narvie J. Harris Elem	10	3,339
DeKalb GA	Harris - Narvie J. Harris Elem	44	1,682
Floyd GA	GARDEN LAKES	52	1,024
Floyd GA	GARDEN LAKES	53	7,817
Forsyth GA	BIG CREEK	27	15,216
Forsyth GA	BIG CREEK	48	10,302
Forsyth GA	POLO	27	24,894
Forsyth GA	POLO	48	964



**Political Subdivision Splits Between Districts**

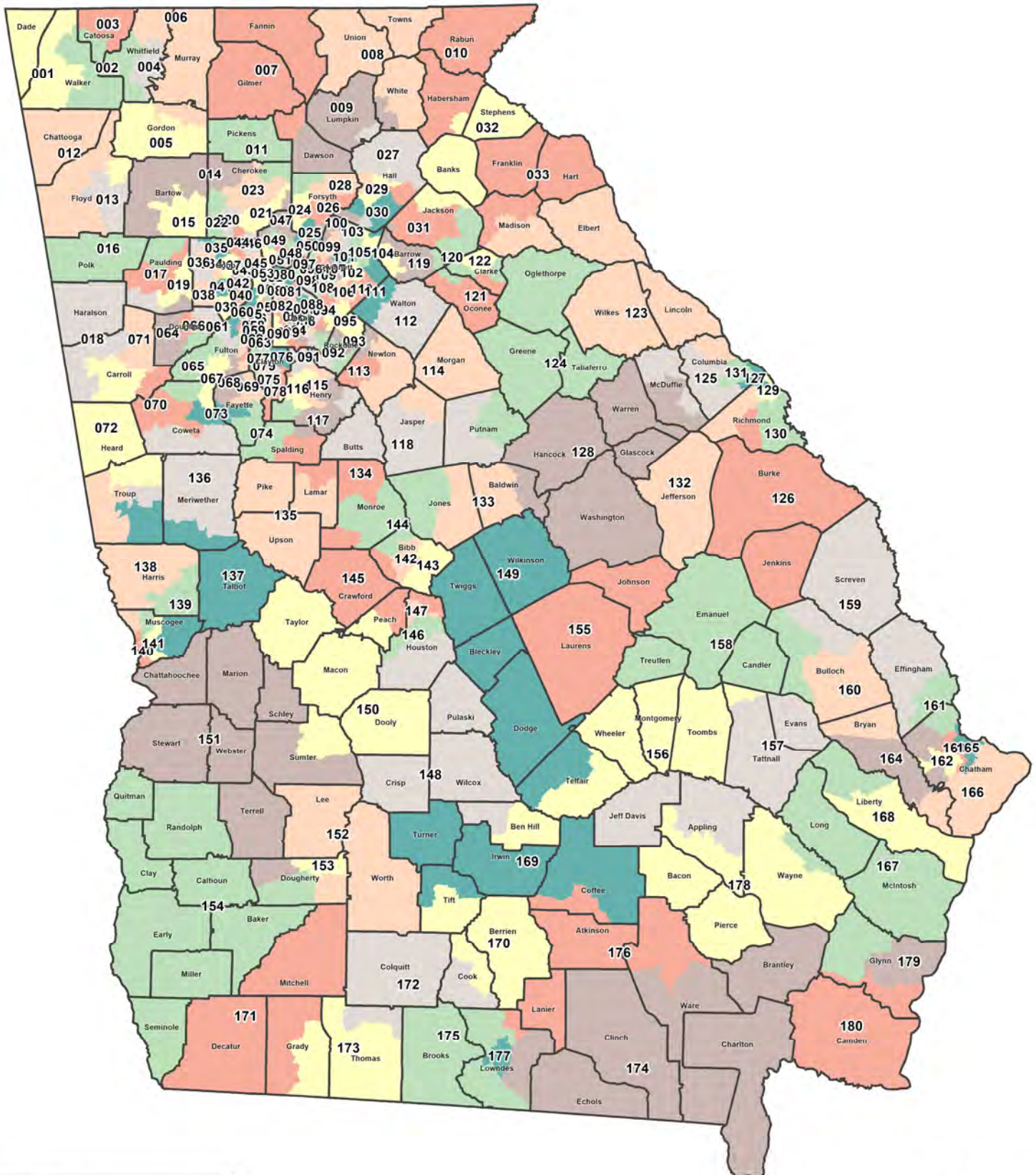
GA Senate Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Fulton GA	RW09	21	2,971
Fulton GA	RW09	56	4,750
Fulton GA	RW12	21	4,274
Fulton GA	RW12	56	3,958
Fulton GA	SC05A	28	681
Fulton GA	SC05A	35	317
Fulton GA	SC08B	28	223
Fulton GA	SC08B	39	5,124
Fulton GA	SC13	28	15
Fulton GA	SC13	35	4,019
Fulton GA	SC18C	35	1,852
Fulton GA	SC18C	39	521
Gordon GA	LILY POND	52	1,641
Gordon GA	LILY POND	54	996
Gwinnett GA	DACULA	45	2,699
Gwinnett GA	DACULA	46	4,613
Gwinnett GA	LAWRENCEVILLE E	5	2,075
Gwinnett GA	LAWRENCEVILLE E	9	1,386
Gwinnett GA	PINCKNEYVILLE W	5	5,605
Gwinnett GA	PINCKNEYVILLE W	7	2,701
Hall GA	GLADE	49	5,135
Hall GA	GLADE	50	1,735
Hall GA	TADMORE	49	4,129
Hall GA	TADMORE	50	10,220
Houston GA	RECR	20	0
Houston GA	RECR	26	17,798
Jackson GA	Central Jackson	47	24,383
Jackson GA	Central Jackson	50	0
Jackson GA	North Jackson	47	0
Jackson GA	North Jackson	50	19,247
Muscogee GA	COLUMBUS TECH	15	6,919
Muscogee GA	COLUMBUS TECH	29	2,228
Paulding GA	AUSTIN MIDDLE SCHOOL	31	971
Paulding GA	AUSTIN MIDDLE SCHOOL	35	9,922
Paulding GA	TAYLOR FARM PARK	31	4,596
Paulding GA	TAYLOR FARM PARK	35	8,837
Ware GA	100	3	2,672
Ware GA	100	8	3,692
Ware GA	200A	3	0
Ware GA	200A	8	4,133
Ware GA	304	3	0
Ware GA	304	8	2,107
Ware GA	400	3	4,626
Ware GA	400	8	406
Wilcox GA	ROCHELLE SOUTH	13	786
Wilcox GA	ROCHELLE SOUTH	20	794

**Esselstyn Report: Attachment I**

# Proposed Georgia House Districts

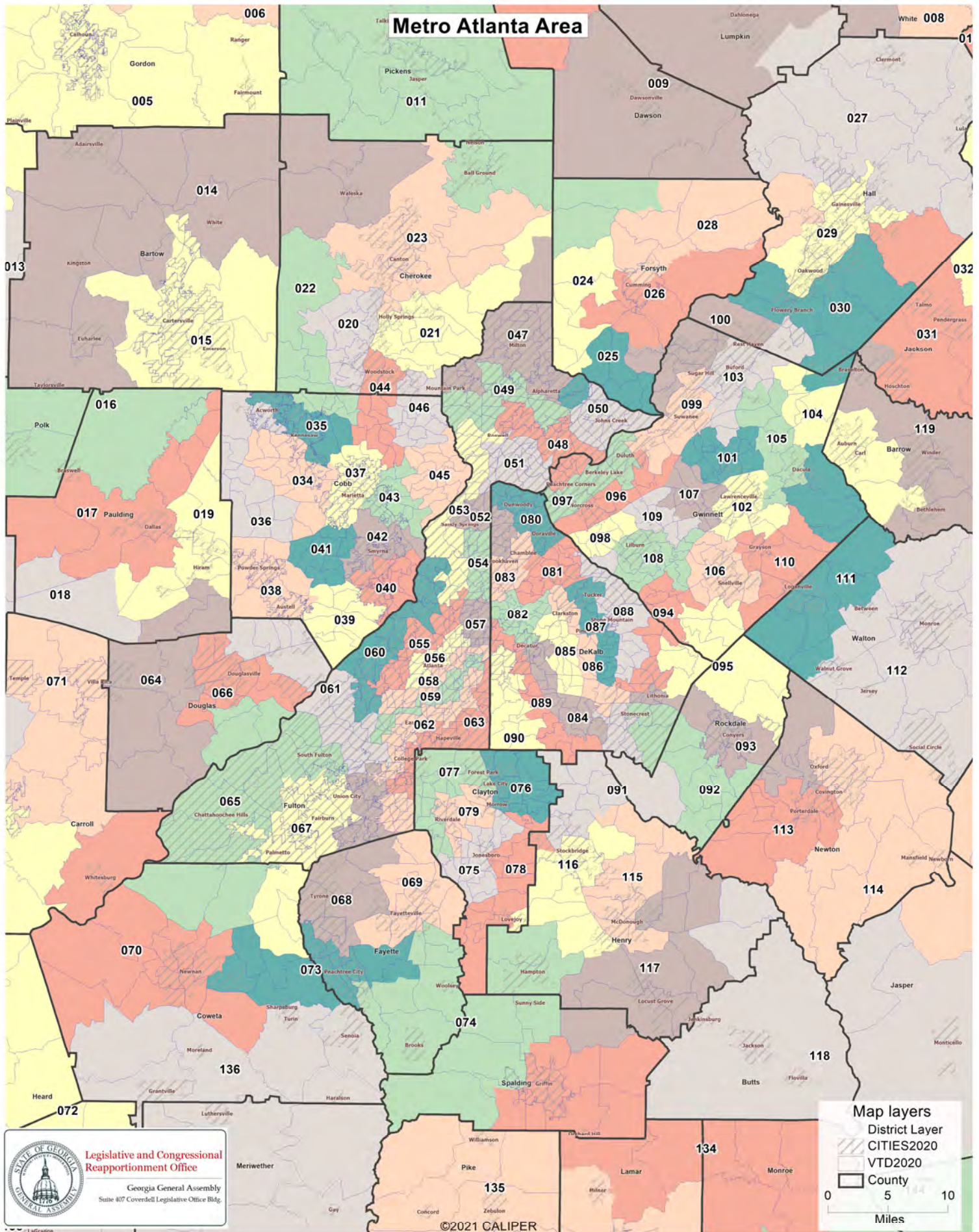
Client: H097  
Plan: House-prop1-2021  
Type: House





# Proposed Georgia House Districts

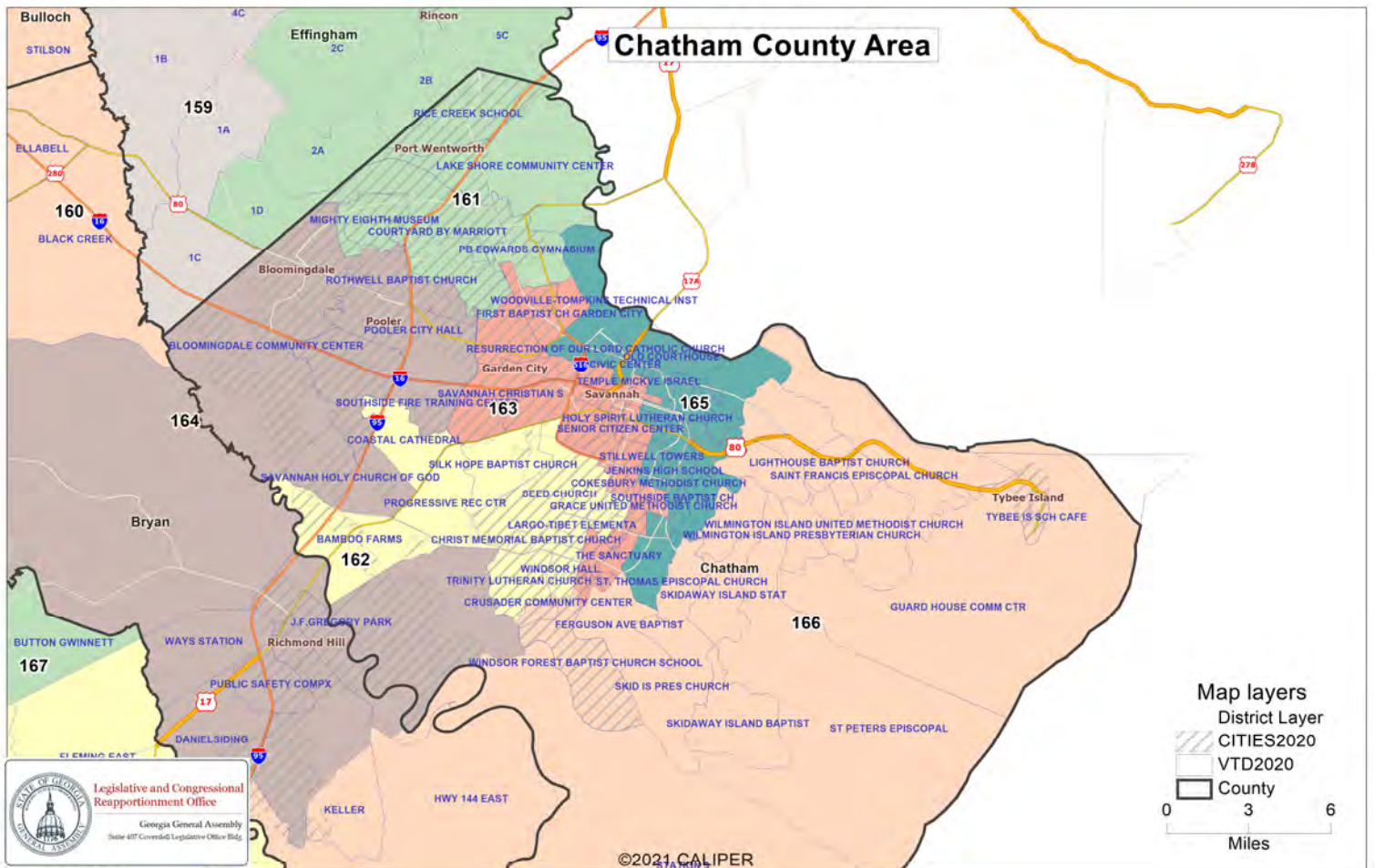
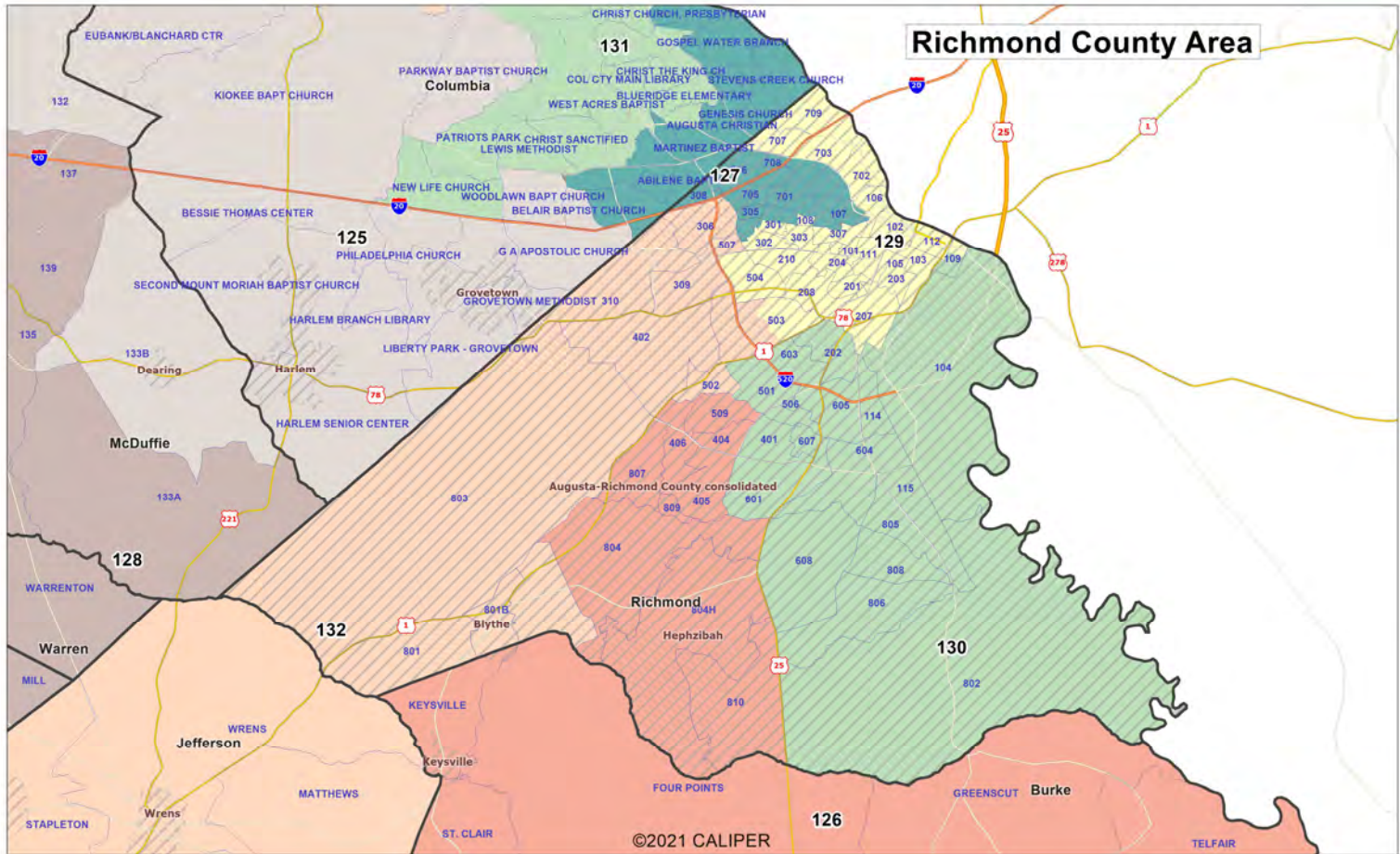
Client: H097  
Plan: House-prop1-2021  
Type: House





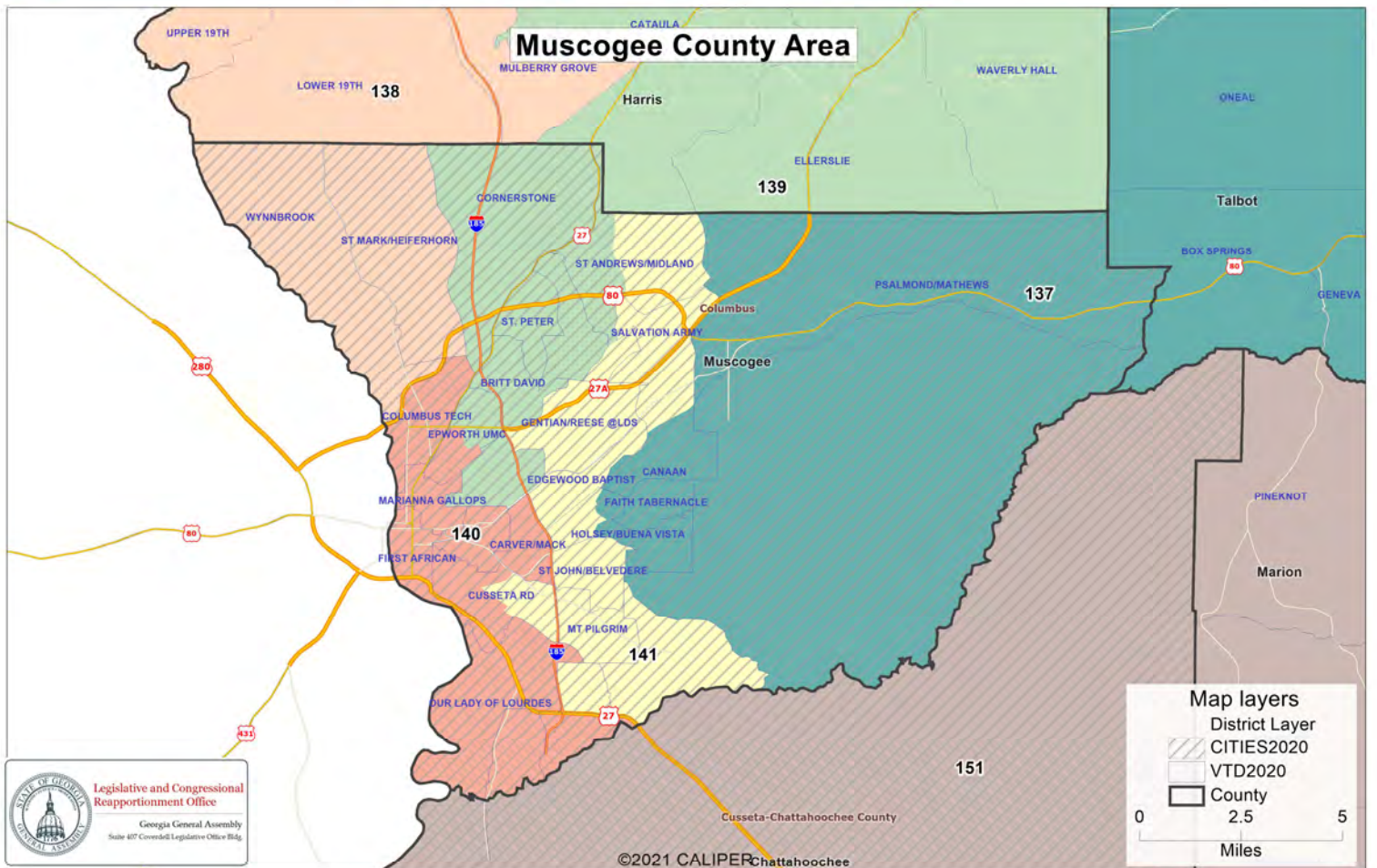
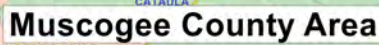
# Proposed Georgia House Districts

Client: H097  
Plan: House-prop1-2021  
Type: House





## Bibb County Area



User: H097

Plan Name: House-prop1-2021

Plan Type: House

## Population Summary

### Summary Statistics:

Population Range: 58,678 to 60,308  
 Ratio Range: 0.03  
 Absolute Range: -833 to 797  
 Absolute Overall Range: 1,630  
 Relative Range: -1.40% to 1.34%  
 Relative Overall Range: 2.74%  
 Absolute Mean Deviation: 363.71  
 Relative Mean Deviation: 0.61%  
 Standard Deviation: 417.67

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
001	59,666	155	0.26%	46,801	78.44%	87.88%	3.9%	2.59%	0.53%	0.31%	0.04%	0.3%	4.45%
002	59,773	262	0.44%	46,159	77.22%	83.24%	2.56%	9.09%	1.1%	0.18%	0.02%	0.26%	3.55%
003	60,199	688	1.16%	46,716	77.6%	86.9%	2.82%	3.6%	1.63%	0.27%	0.14%	0.18%	4.46%
004	59,070	-441	-0.74%	42,798	72.45%	42.01%	4.17%	50.07%	1.23%	0.17%	0.02%	0.28%	2.05%
005	58,837	-674	-1.13%	44,623	75.84%	75.46%	3.76%	15.29%	1.24%	0.2%	0.02%	0.22%	3.81%
006	59,712	201	0.34%	45,152	75.62%	80.15%	1.01%	14.51%	0.51%	0.2%	0.01%	0.2%	3.4%
007	59,081	-430	-0.72%	48,771	82.55%	87.97%	0.37%	7.43%	0.45%	0.26%	0.01%	0.24%	3.27%
008	59,244	-267	-0.45%	49,612	83.74%	90.8%	1.13%	3.21%	0.54%	0.3%	0.01%	0.34%	3.67%
009	59,474	-37	-0.06%	48,273	81.17%	87.78%	1.01%	5.49%	0.79%	0.37%	0.06%	0.36%	4.15%
010	59,519	8	0.01%	47,164	79.24%	78.61%	2.97%	13.11%	1.51%	0.17%	0.06%	0.24%	3.33%
011	58,792	-719	-1.21%	45,396	77.21%	87.43%	1.55%	5.33%	1.15%	0.22%	0.02%	0.3%	4%
012	59,300	-211	-0.35%	46,487	78.39%	78.45%	8.61%	7.68%	1.01%	0.16%	0.01%	0.42%	3.68%
013	59,150	-361	-0.61%	45,176	76.38%	62.24%	18.71%	13.52%	1.29%	0.22%	0.03%	0.33%	3.65%
014	59,135	-376	-0.63%	45,511	76.96%	81.38%	5.86%	7.04%	0.77%	0.21%	0.03%	0.34%	4.36%
015	59,213	-298	-0.50%	45,791	77.33%	68.38%	13.61%	11.74%	1.3%	0.25%	0.04%	0.49%	4.19%
016	59,402	-109	-0.18%	44,009	74.09%	72.9%	11.15%	10.95%	0.76%	0.22%	0.05%	0.43%	3.54%
017	59,120	-391	-0.66%	42,761	72.33%	63.28%	22.06%	7.9%	1.33%	0.23%	0.07%	0.64%	4.49%
018	59,335	-176	-0.30%	45,159	76.11%	84.78%	7.11%	2.93%	0.59%	0.23%	0.04%	0.35%	3.97%
019	58,955	-556	-0.93%	44,299	75.14%	62.06%	23.47%	7.87%	1.14%	0.25%	0.08%	0.64%	4.49%
020	60,107	596	1.00%	45,725	76.07%	73.93%	8.13%	10.6%	1.97%	0.16%	0.04%	0.63%	4.54%
021	59,529	18	0.03%	44,931	75.48%	80.04%	4.29%	8.54%	1.84%	0.19%	0.04%	0.66%	4.4%
022	59,460	-51	-0.09%	45,815	77.05%	62.53%	13.94%	13.26%	3.86%	0.2%	0.03%	0.81%	5.37%
023	59,048	-463	-0.78%	44,254	74.95%	71.47%	5.64%	17.19%	1.06%	0.22%	0.04%	0.36%	4.01%
024	59,011	-500	-0.84%	41,814	70.86%	60.13%	6%	11.36%	17.65%	0.21%	0.04%	0.62%	3.98%
025	59,414	-97	-0.16%	42,520	71.57%	51.99%	5%	5.42%	33.55%	0.15%	0.03%	0.51%	3.36%
026	59,248	-263	-0.44%	44,081	74.4%	63.48%	3.29%	12.07%	16.8%	0.18%	0.04%	0.5%	3.64%
027	58,795	-716	-1.20%	46,004	78.24%	79.69%	3.22%	11.82%	0.82%	0.19%	0.04%	0.3%	3.91%
028	58,972	-539	-0.91%	44,444	75.36%	76.5%	3.39%	13.59%	2.06%	0.16%	0.03%	0.4%	3.86%
029	59,200	-311	-0.52%	43,131	72.86%	36.05%	12.13%	46.28%	2.72%	0.12%	0.06%	0.41%	2.23%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
030	59,266	-245	-0.41%	45,414	76.63%	67.03%	7.37%	18.78%	3.04%	0.15%	0.03%	0.34%	3.26%
031	59,901	390	0.66%	43,120	71.99%	65.57%	6.64%	21.63%	2.27%	0.19%	0.02%	0.37%	3.31%
032	59,145	-366	-0.62%	45,942	77.68%	80.8%	7.24%	6.03%	1.26%	0.29%	0.05%	0.25%	4.09%
033	59,187	-324	-0.54%	46,498	78.56%	79.94%	10.97%	4.08%	1.2%	0.15%	0.01%	0.36%	3.29%
034	59,875	364	0.61%	45,758	76.42%	66.59%	14.46%	9.06%	4.41%	0.11%	0.04%	0.68%	4.65%
035	59,889	378	0.64%	48,312	80.67%	50.12%	26.55%	12.7%	4.43%	0.21%	0.04%	0.9%	5.04%
036	59,994	483	0.81%	44,911	74.86%	68.01%	16.01%	7.46%	3.07%	0.14%	0.03%	0.73%	4.55%
037	59,176	-335	-0.56%	46,223	78.11%	42.2%	26%	21.96%	4.5%	0.21%	0.03%	1%	4.11%
038	59,317	-194	-0.33%	44,839	75.59%	25.93%	52.72%	14.72%	1.77%	0.22%	0.07%	0.7%	3.88%
039	59,381	-130	-0.22%	44,436	74.83%	20.6%	52.08%	21.79%	1.5%	0.14%	0.03%	0.65%	3.2%
040	59,044	-467	-0.78%	47,976	81.25%	48.94%	30.78%	6.43%	8.54%	0.17%	0.02%	0.7%	4.43%
041	60,122	611	1.03%	45,271	75.3%	23.42%	36.44%	33.22%	2.81%	0.18%	0.05%	0.86%	3.02%
042	59,620	109	0.18%	48,525	81.39%	35.47%	31.18%	20.49%	7.11%	0.19%	0.03%	1.15%	4.37%
043	59,464	-47	-0.08%	47,033	79.09%	43.32%	24.35%	15.85%	7.83%	0.21%	0.09%	2.4%	5.96%
044	60,002	491	0.83%	46,773	77.95%	64.71%	10.98%	11.99%	5.71%	0.18%	0.02%	1.17%	5.24%
045	59,738	227	0.38%	44,023	73.69%	72.29%	4.14%	5.5%	12.94%	0.07%	0.02%	0.67%	4.38%
046	59,108	-403	-0.68%	44,132	74.66%	72.43%	6.76%	8.24%	6.93%	0.12%	0.04%	0.82%	4.66%
047	59,126	-385	-0.65%	43,932	74.3%	61.71%	9.44%	7.83%	15.91%	0.2%	0.03%	0.7%	4.17%
048	59,003	-508	-0.85%	44,779	75.89%	59.05%	10.16%	14.1%	11.77%	0.08%	0.05%	0.64%	4.16%
049	59,153	-358	-0.60%	45,263	76.52%	68.94%	7.2%	7.56%	11.41%	0.1%	0.02%	0.68%	4.09%
050	59,523	12	0.02%	43,940	73.82%	41.55%	11.04%	7.06%	35.46%	0.09%	0.04%	0.66%	4.1%
051	58,952	-559	-0.94%	47,262	80.17%	51.02%	21.93%	15.47%	5.83%	0.17%	0.04%	1.03%	4.51%
052	59,811	300	0.50%	48,525	81.13%	53.81%	13.71%	7.98%	19.72%	0.14%	0.06%	0.72%	3.86%
053	59,953	442	0.74%	46,944	78.3%	70.3%	12.31%	8.2%	4.46%	0.1%	0.02%	0.63%	3.98%
054	60,083	572	0.96%	50,338	83.78%	61.03%	12.98%	15.17%	6.51%	0.14%	0.03%	0.57%	3.56%
055	59,971	460	0.77%	49,255	82.13%	33.78%	54.54%	5.14%	2.85%	0.18%	0.03%	0.4%	3.09%
056	58,929	-582	-0.98%	52,757	89.53%	34.03%	46.33%	5.81%	9.32%	0.18%	0.07%	0.45%	3.8%
057	59,969	458	0.77%	52,097	86.87%	62.89%	15.57%	8.83%	7.58%	0.11%	0.02%	0.65%	4.36%
058	59,057	-454	-0.76%	50,514	85.53%	24.98%	63.09%	5.03%	2.76%	0.14%	0.03%	0.51%	3.45%
059	59,434	-77	-0.13%	49,179	82.75%	19.37%	69.55%	4.45%	2.52%	0.16%	0.02%	0.56%	3.36%
060	59,709	198	0.33%	45,490	76.19%	26.72%	61.76%	5.87%	2.04%	0.17%	0.05%	0.44%	2.96%
061	59,302	-209	-0.35%	45,447	76.64%	14.79%	71.51%	9.1%	0.87%	0.15%	0.06%	0.54%	2.98%
062	59,450	-61	-0.10%	46,426	78.09%	17.17%	70.09%	7.61%	1.13%	0.21%	0.04%	0.53%	3.22%
063	59,381	-130	-0.22%	45,043	75.85%	16.74%	68%	10.42%	1.32%	0.21%	0.03%	0.51%	2.78%
064	58,986	-525	-0.88%	44,189	74.91%	54.76%	29.35%	8.84%	1.37%	0.27%	0.03%	0.78%	4.6%
065	59,464	-47	-0.08%	44,386	74.64%	29.55%	60.08%	5.23%	1.08%	0.18%	0.06%	0.57%	3.27%
066	59,047	-464	-0.78%	44,278	74.99%	29.98%	52.03%	11.05%	1.72%	0.24%	0.07%	0.79%	4.11%
067	59,135	-376	-0.63%	44,299	74.91%	29.09%	57.14%	8.71%	1.29%	0.18%	0.03%	0.5%	3.06%
068	59,477	-34	-0.06%	44,835	75.38%	31.15%	54.67%	7.3%	2.79%	0.16%	0.04%	0.7%	3.19%
069	58,682	-829	-1.39%	45,548	77.62%	24.1%	61.87%	6.47%	3.04%	0.17%	0.04%	0.89%	3.41%
070	59,121	-390	-0.66%	45,249	76.54%	56.51%	27.61%	9.08%	2.17%	0.2%	0.05%	0.47%	3.9%
071	59,538	27	0.05%	44,582	74.88%	67.15%	18.89%	7.44%	0.96%	0.25%	0.02%	0.51%	4.78%
072	59,660	149	0.25%	46,229	77.49%	67.26%	19.34%	8.16%	0.96%	0.2%	0.02%	0.3%	3.75%
073	60,036	525	0.88%	45,736	76.18%	69.92%	11.27%	7.96%	5.88%	0.15%	0.03%	0.52%	4.26%



## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
074	58,956	-555	-0.93%	44,696	75.81%	61.32%	25.24%	6.67%	2.05%	0.2%	0.02%	0.52%	3.98%
075	59,743	232	0.39%	43,850	73.4%	9.24%	71.27%	12.97%	2.66%	0.19%	0.06%	0.71%	2.9%
076	59,759	248	0.42%	44,371	74.25%	8.61%	64.24%	15.61%	8.11%	0.19%	0.04%	0.57%	2.63%
077	59,242	-269	-0.45%	44,207	74.62%	6.22%	72.49%	14.22%	4.03%	0.22%	0.06%	0.5%	2.27%
078	59,044	-467	-0.78%	44,572	75.49%	12.69%	69.39%	9.94%	4.03%	0.19%	0.03%	0.65%	3.08%
079	59,500	-11	-0.02%	43,223	72.64%	5.69%	68.19%	18.11%	4.87%	0.21%	0.01%	0.57%	2.34%
080	59,461	-50	-0.08%	44,784	75.32%	45.02%	11.65%	26.17%	13.02%	0.08%	0.04%	0.63%	3.39%
081	59,007	-504	-0.85%	46,259	78.4%	44.28%	18.64%	24.58%	8.14%	0.14%	0.02%	0.55%	3.65%
082	59,724	213	0.36%	50,238	84.12%	61.86%	14.34%	7.52%	11.03%	0.11%	0.03%	0.65%	4.46%
083	59,416	-95	-0.16%	46,581	78.4%	44.13%	12.06%	33.75%	6.29%	0.1%	0.02%	0.61%	3.03%
084	59,862	351	0.59%	47,350	79.1%	21.11%	69.74%	3.4%	1.4%	0.16%	0.03%	0.59%	3.58%
085	59,373	-138	-0.23%	46,308	78%	17.08%	60.18%	5.99%	12.29%	0.25%	0.02%	0.68%	3.5%
086	59,205	-306	-0.51%	44,614	75.36%	10.6%	71.76%	4.64%	9.02%	0.15%	0.02%	0.67%	3.14%
087	59,709	198	0.33%	45,615	76.4%	11.48%	70.08%	7.73%	6.46%	0.21%	0.02%	0.7%	3.33%
088	59,689	178	0.30%	46,073	77.19%	15.98%	60.71%	11.46%	7.49%	0.23%	0.06%	0.68%	3.39%
089	59,866	355	0.60%	46,198	77.17%	30.38%	59.77%	3.8%	1.78%	0.15%	0.03%	0.48%	3.6%
090	59,812	301	0.51%	48,015	80.28%	32.08%	57.15%	4.65%	1.58%	0.12%	0.03%	0.62%	3.76%
091	60,050	539	0.91%	46,173	76.89%	19.7%	67.92%	7%	1.39%	0.17%	0.04%	0.54%	3.25%
092	60,273	762	1.28%	46,551	77.23%	20.98%	67.63%	5.49%	1.58%	0.16%	0.04%	0.74%	3.39%
093	60,118	607	1.02%	44,734	74.41%	19.94%	63.27%	11.24%	1.34%	0.16%	0.1%	0.69%	3.26%
094	59,211	-300	-0.50%	44,809	75.68%	16.38%	65.88%	8.72%	4.85%	0.19%	0.02%	0.58%	3.37%
095	60,030	519	0.87%	44,948	74.88%	18.79%	64.99%	9.32%	2.29%	0.19%	0.05%	0.73%	3.63%
096	59,515	4	0.01%	44,671	75.06%	17.47%	20.71%	40.49%	17.64%	0.15%	0.06%	0.72%	2.76%
097	59,072	-439	-0.74%	46,339	78.44%	33.19%	25.12%	21.86%	15%	0.19%	0.05%	0.68%	3.92%
098	59,998	487	0.82%	42,734	71.23%	9.69%	19.56%	57.42%	10.69%	0.13%	0.05%	0.6%	1.86%
099	59,850	339	0.57%	45,004	75.19%	39.77%	13.49%	9.52%	32.49%	0.15%	0.04%	0.56%	3.98%
100	60,030	519	0.87%	42,669	71.08%	55.88%	9.01%	10.85%	19.49%	0.18%	0.05%	0.53%	4.01%
101	59,938	427	0.72%	46,584	77.72%	37.36%	22.37%	20.17%	15.23%	0.16%	0.05%	0.7%	3.96%
102	58,959	-552	-0.93%	42,968	72.88%	26.79%	36.41%	23.45%	8.97%	0.22%	0.03%	0.69%	3.44%
103	60,197	686	1.15%	44,399	73.76%	49.51%	15.16%	19.06%	11.68%	0.13%	0.04%	0.61%	3.81%
104	59,362	-149	-0.25%	43,306	72.95%	60.44%	15.61%	12.64%	6.32%	0.16%	0.04%	0.6%	4.2%
105	59,344	-167	-0.28%	43,474	73.26%	38.89%	27.8%	18.1%	10.56%	0.1%	0.03%	0.65%	3.88%
106	59,112	-399	-0.67%	43,890	74.25%	36.66%	35.66%	12.66%	9.78%	0.17%	0.03%	0.81%	4.23%
107	59,702	191	0.32%	44,509	74.55%	19.03%	27.46%	34.49%	15.45%	0.16%	0.03%	0.64%	2.73%
108	59,577	66	0.11%	44,308	74.37%	38.96%	17.34%	20.98%	18.06%	0.17%	0.03%	0.67%	3.78%
109	59,630	119	0.20%	44,140	74.02%	13.5%	29.44%	39.32%	14.39%	0.14%	0.05%	0.63%	2.54%
110	59,951	440	0.74%	43,226	72.1%	32.7%	45.9%	11.87%	4.49%	0.18%	0.04%	0.84%	3.97%
111	60,009	498	0.84%	44,096	73.48%	60.53%	21.74%	10.37%	2.5%	0.18%	0.04%	0.73%	3.91%
112	59,349	-162	-0.27%	45,120	76.02%	71.55%	18.88%	4%	1.27%	0.2%	0.04%	0.47%	3.59%
113	60,053	542	0.91%	44,538	74.16%	28.82%	57.75%	7.78%	0.79%	0.14%	0.12%	0.62%	3.98%
114	59,867	356	0.60%	45,872	76.62%	66.9%	23.89%	4.53%	0.7%	0.18%	0.03%	0.45%	3.33%
115	60,174	663	1.11%	44,807	74.46%	33.12%	51.3%	7.88%	2.67%	0.17%	0.04%	0.81%	4%
116	59,913	402	0.68%	45,791	76.43%	23.87%	56.71%	8.14%	6.39%	0.18%	0.08%	0.83%	3.81%
117	60,130	619	1.04%	44,973	74.79%	51.61%	35.88%	6.28%	1.53%	0.17%	0.04%	0.59%	3.9%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
118	59,987	476	0.80%	46,342	77.25%	68.26%	22.55%	4.5%	0.43%	0.18%	0.02%	0.47%	3.59%
119	58,947	-564	-0.95%	44,005	74.65%	66.88%	12.47%	12.17%	3.83%	0.16%	0.02%	0.58%	3.89%
120	58,982	-529	-0.89%	46,767	79.29%	69.85%	13.48%	8.42%	4.05%	0.15%	0.05%	0.5%	3.49%
121	59,127	-384	-0.65%	46,598	78.81%	75.06%	8.66%	6.27%	5.64%	0.11%	0%	0.53%	3.73%
122	59,632	121	0.20%	48,840	81.9%	49.13%	30.63%	13.78%	2.13%	0.28%	0.06%	0.86%	3.13%
123	59,282	-229	-0.38%	46,572	78.56%	65.88%	23.82%	5.33%	1.14%	0.17%	0.02%	0.26%	3.39%
124	59,221	-290	-0.49%	47,638	80.44%	61.53%	26.06%	7.57%	1.14%	0.19%	0.02%	0.37%	3.12%
125	60,137	626	1.05%	43,812	72.85%	60%	21.67%	8.93%	2.4%	0.29%	0.19%	0.52%	5.99%
126	59,260	-251	-0.42%	45,497	76.78%	37.81%	53.88%	3.63%	0.76%	0.27%	0.15%	0.37%	3.13%
127	58,678	-833	-1.40%	45,889	78.2%	65.92%	17.12%	5.58%	5.63%	0.18%	0.18%	0.51%	4.88%
128	58,864	-647	-1.09%	46,488	78.98%	44.14%	51%	1.91%	0.36%	0.19%	0.03%	0.17%	2.22%
129	58,829	-682	-1.15%	46,873	79.68%	33.83%	54.95%	4.74%	2.1%	0.21%	0.14%	0.43%	3.6%
130	59,203	-308	-0.52%	44,019	74.35%	30.19%	60.27%	4.33%	0.79%	0.24%	0.16%	0.42%	3.6%
131	58,890	-621	-1.04%	42,968	72.96%	65.57%	15.99%	7.07%	4.92%	0.19%	0.14%	0.61%	5.51%
132	59,142	-369	-0.62%	46,752	79.05%	33.1%	51.88%	7.91%	2.38%	0.26%	0.19%	0.37%	3.91%
133	59,202	-309	-0.52%	47,222	79.76%	56.35%	37.05%	2.42%	1.12%	0.15%	0.04%	0.38%	2.48%
134	59,396	-115	-0.19%	45,110	75.95%	56.72%	34.18%	4.39%	0.74%	0.22%	0.02%	0.35%	3.37%
135	60,063	552	0.93%	46,725	77.79%	70.69%	22.83%	2.21%	0.51%	0.16%	0.01%	0.33%	3.25%
136	59,298	-213	-0.36%	45,367	76.51%	62.16%	28%	4.4%	1.54%	0.24%	0.03%	0.42%	3.21%
137	59,551	40	0.07%	45,358	76.17%	38.1%	51.27%	5.17%	1.66%	0.12%	0.14%	0.37%	3.17%
138	58,912	-599	-1.01%	45,684	77.55%	70.29%	18.77%	4.1%	2.39%	0.25%	0.06%	0.36%	3.77%
139	59,010	-501	-0.84%	45,522	77.14%	63.55%	19.18%	7.24%	4.03%	0.25%	0.21%	0.59%	4.96%
140	59,294	-217	-0.36%	44,411	74.9%	28.76%	55.8%	9.04%	1.02%	0.27%	0.24%	0.53%	4.34%
141	59,019	-492	-0.83%	44,677	75.7%	29.41%	54.88%	7.93%	2.53%	0.24%	0.3%	0.45%	4.25%
142	59,608	97	0.16%	44,584	74.8%	30.78%	60.48%	4.23%	1.29%	0.16%	0.01%	0.36%	2.68%
143	59,469	-42	-0.07%	46,390	78.01%	29.08%	61.66%	4.87%	0.97%	0.19%	0.05%	0.36%	2.82%
144	59,232	-279	-0.47%	46,370	78.29%	60.82%	29.32%	2.91%	3.46%	0.14%	0.02%	0.36%	2.97%
145	59,863	352	0.59%	45,844	76.58%	51.64%	35.66%	7.02%	0.9%	0.28%	0.04%	0.41%	4.05%
146	60,203	692	1.16%	44,589	74.06%	59.32%	26.73%	5.66%	2.67%	0.17%	0.09%	0.45%	4.91%
147	59,178	-333	-0.56%	44,902	75.88%	51.94%	29.55%	8.3%	4.76%	0.23%	0.07%	0.51%	4.64%
148	59,984	473	0.79%	46,614	77.71%	58.49%	33.89%	3.66%	0.9%	0.12%	0.04%	0.28%	2.63%
149	58,893	-618	-1.04%	46,821	79.5%	60.01%	31.14%	5.61%	0.57%	0.17%	0.03%	0.2%	2.28%
150	59,276	-235	-0.39%	47,050	79.37%	36.16%	53.23%	7.23%	1.17%	0.17%	0.03%	0.17%	1.85%
151	60,059	548	0.92%	46,973	78.21%	45.21%	42.21%	7.51%	1.29%	0.18%	0.23%	0.25%	3.12%
152	60,134	623	1.05%	46,026	76.54%	66.12%	25.86%	2.84%	1.6%	0.21%	0.03%	0.3%	3.03%
153	59,299	-212	-0.36%	45,692	77.05%	24.38%	69.08%	2.93%	0.89%	0.13%	0.02%	0.24%	2.33%
154	59,994	483	0.81%	47,273	78.8%	39.54%	55.53%	2.1%	0.38%	0.16%	0.01%	0.2%	2.09%
155	58,759	-752	-1.26%	45,208	76.94%	57.32%	36.14%	2.62%	0.91%	0.18%	0.05%	0.26%	2.52%
156	59,444	-67	-0.11%	45,867	77.16%	58.49%	29.79%	8.27%	0.6%	0.17%	0.01%	0.25%	2.42%
157	59,957	446	0.75%	45,311	75.57%	61.81%	23.59%	11.19%	0.54%	0.16%	0.04%	0.21%	2.47%
158	59,440	-71	-0.12%	45,549	76.63%	59.27%	31.5%	5.6%	0.75%	0.18%	0.03%	0.25%	2.42%
159	59,895	384	0.65%	44,871	74.92%	67.46%	23.88%	3.65%	0.54%	0.28%	0.03%	0.34%	3.82%
160	59,935	424	0.71%	48,057	80.18%	66.84%	21.68%	5.5%	1.62%	0.24%	0.1%	0.28%	3.76%
161	60,097	586	0.98%	44,371	73.83%	57.53%	25.83%	7.89%	3.03%	0.24%	0.09%	0.5%	4.9%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH_Wht]	[% NH_Blkl]	[% Hispanic Origin]	[% NH_Asn]	[% NH_Ind]	[% NH_Hwn]	[% NH_Oth]	[% NH_2+ Races]
162	60,308	797	1.34%	46,733	77.49%	36.7%	43.34%	10.78%	4%	0.2%	0.24%	0.54%	4.19%
163	60,123	612	1.03%	48,461	80.6%	38.48%	46.14%	8.45%	3.12%	0.19%	0.13%	0.39%	3.1%
164	60,101	590	0.99%	45,851	76.29%	57.7%	22.03%	9.95%	4.21%	0.24%	0.12%	0.68%	5.08%
165	59,978	467	0.78%	48,247	80.44%	35.1%	52.41%	5.53%	3.19%	0.22%	0.14%	0.38%	3.02%
166	60,242	731	1.23%	47,580	78.98%	82.79%	4.94%	5.19%	2.65%	0.16%	0.05%	0.4%	3.82%
167	59,493	-18	-0.03%	44,140	74.19%	62.89%	20.99%	8.81%	1.42%	0.35%	0.23%	0.5%	4.79%
168	60,147	636	1.07%	44,867	74.6%	36.24%	43.3%	11.22%	1.98%	0.31%	0.67%	0.48%	5.79%
169	59,138	-373	-0.63%	45,267	76.54%	58.36%	28.84%	9.03%	0.79%	0.15%	0.02%	0.2%	2.6%
170	60,116	605	1.02%	45,316	75.38%	60.65%	24.39%	10.43%	1.19%	0.13%	0.02%	0.28%	2.91%
171	59,237	-274	-0.46%	45,969	77.6%	51.23%	39.79%	5.73%	0.54%	0.21%	0.03%	0.21%	2.26%
172	59,961	450	0.76%	44,756	74.64%	57.24%	23.26%	16%	0.77%	0.21%	0.03%	0.23%	2.27%
173	59,743	232	0.39%	45,292	75.81%	52.67%	36.22%	6.95%	0.79%	0.33%	0.02%	0.3%	2.72%
174	59,852	341	0.57%	45,760	76.46%	70.83%	16.91%	7.88%	0.47%	0.35%	0.04%	0.22%	3.3%
175	59,993	482	0.81%	44,704	74.52%	64.08%	23.75%	6.1%	1.78%	0.26%	0.07%	0.34%	3.64%
176	59,470	-41	-0.07%	44,991	75.65%	63.56%	21.74%	9.95%	0.91%	0.24%	0.08%	0.29%	3.23%
177	59,992	481	0.81%	46,014	76.7%	33.22%	54.7%	6.69%	1.26%	0.21%	0.07%	0.42%	3.42%
178	59,877	366	0.62%	45,638	76.22%	75.62%	14.4%	6.22%	0.52%	0.18%	0.01%	0.29%	2.76%
179	59,356	-155	-0.26%	47,156	79.45%	59.03%	28.39%	7.73%	1.06%	0.17%	0.13%	0.39%	3.11%
180	59,412	-99	-0.17%	45,362	76.35%	68.71%	16.96%	6.47%	1.56%	0.32%	0.11%	0.57%	5.3%

**Total: 10,711,908****Ideal District: 59,511**

User: H097

Plan Name: House-prop1-2021

Plan Type: House

## Population Summary

### Summary Statistics:

Population Range: 58,678 to 60,308  
 Ratio Range: 0.03  
 Absolute Range: -833 to 797  
 Absolute Overall Range: 1,630  
 Relative Range: -1.40% to 1.34%  
 Relative Overall Range: 2.74%  
 Absolute Mean Deviation: 363.71  
 Relative Mean Deviation: 0.61%  
 Standard Deviation: 417.67

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn]	[% NH18+_Oth]	[% NH18+_2+ Races]
001	59,666	155	0.26%	46,801	78.44%	89.43%	3.65%	2.11%	0.57%	0.32%	0.05%	0.21%	3.65%
002	59,773	262	0.44%	46,159	77.22%	85.33%	2.64%	7.57%	1.07%	0.2%	0.02%	0.2%	2.97%
003	60,199	688	1.16%	46,716	77.6%	88.46%	2.71%	2.96%	1.56%	0.28%	0.14%	0.14%	3.77%
004	59,070	-441	-0.74%	42,798	72.45%	47.78%	4.53%	44.13%	1.28%	0.19%	0.02%	0.21%	1.86%
005	58,837	-674	-1.13%	44,623	75.84%	78.55%	3.81%	12.62%	1.26%	0.22%	0.03%	0.19%	3.31%
006	59,712	201	0.34%	45,152	75.62%	83%	1%	11.96%	0.51%	0.25%	0.02%	0.17%	3.09%
007	59,081	-430	-0.72%	48,771	82.55%	90.15%	0.34%	5.53%	0.46%	0.27%	0.01%	0.21%	3.02%
008	59,244	-267	-0.45%	49,612	83.74%	91.87%	1.12%	2.74%	0.54%	0.3%	0%	0.29%	3.13%
009	59,474	-37	-0.06%	48,273	81.17%	88.93%	1.06%	4.74%	0.83%	0.41%	0.06%	0.33%	3.64%
010	59,519	8	0.01%	47,164	79.24%	81.82%	3.19%	10.04%	1.58%	0.18%	0.03%	0.21%	2.95%
011	58,792	-719	-1.21%	45,396	77.21%	89.31%	1.43%	4.23%	1.06%	0.23%	0.03%	0.27%	3.44%
012	59,300	-211	-0.35%	46,487	78.39%	80.42%	8.94%	6.15%	1.01%	0.18%	0%	0.33%	2.97%
013	59,150	-361	-0.61%	45,176	76.38%	66.3%	18.03%	10.84%	1.36%	0.22%	0.02%	0.26%	2.97%
014	59,135	-376	-0.63%	45,511	76.96%	83.02%	6.06%	5.88%	0.8%	0.25%	0.02%	0.31%	3.65%
015	59,213	-298	-0.50%	45,791	77.33%	71.9%	13.11%	9.67%	1.36%	0.27%	0.03%	0.36%	3.3%
016	59,402	-109	-0.18%	44,009	74.09%	76.42%	10.83%	8.61%	0.79%	0.21%	0.05%	0.32%	2.76%
017	59,120	-391	-0.66%	42,761	72.33%	66.02%	21.24%	6.94%	1.41%	0.25%	0.06%	0.54%	3.55%
018	59,335	-176	-0.30%	45,159	76.11%	86.01%	7.17%	2.39%	0.62%	0.26%	0.04%	0.26%	3.24%
019	58,955	-556	-0.93%	44,299	75.14%	65.37%	22.26%	6.8%	1.21%	0.21%	0.07%	0.48%	3.59%
020	60,107	596	1.00%	45,725	76.07%	76.4%	7.96%	9.18%	2.03%	0.14%	0.04%	0.55%	3.7%
021	59,529	18	0.03%	44,931	75.48%	82.07%	4.23%	7.44%	1.87%	0.22%	0.05%	0.61%	3.51%
022	59,460	-51	-0.09%	45,815	77.05%	65.61%	13.32%	11.57%	4.04%	0.21%	0.03%	0.76%	4.47%
023	59,048	-463	-0.78%	44,254	74.95%	75.29%	5.48%	14.23%	1.12%	0.21%	0.05%	0.32%	3.3%
024	59,011	-500	-0.84%	41,814	70.86%	63.42%	6.04%	10.32%	16.41%	0.17%	0.05%	0.56%	3.03%
025	59,414	-97	-0.16%	42,520	71.57%	56.12%	5.08%	5.09%	30.56%	0.1%	0.03%	0.45%	2.56%
026	59,248	-263	-0.44%	44,081	74.4%	68.21%	3.18%	10.76%	14.26%	0.12%	0.04%	0.44%	2.99%
027	58,795	-716	-1.20%	46,004	78.24%	82.61%	3.07%	9.6%	0.83%	0.2%	0.04%	0.24%	3.4%
028	58,972	-539	-0.91%	44,444	75.36%	79.36%	3.15%	11.44%	2.16%	0.17%	0.03%	0.36%	3.33%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn ]	[% NH18+_Oth]	[% NH18+_ 2+ Races]
029	59,200	-311	-0.52%	43,131	72.86%	42.29%	12.55%	39.71%	3.02%	0.14%	0.06%	0.33%	1.91%
030	59,266	-245	-0.41%	45,414	76.63%	70.5%	7.19%	16.13%	2.96%	0.15%	0.02%	0.28%	2.77%
031	59,901	390	0.66%	43,120	71.99%	68.65%	6.79%	18.95%	2.35%	0.21%	0.03%	0.32%	2.69%
032	59,145	-366	-0.62%	45,942	77.68%	82.98%	7.21%	4.87%	1.25%	0.32%	0.05%	0.2%	3.12%
033	59,187	-324	-0.54%	46,498	78.56%	82.25%	10.57%	3.13%	1.16%	0.15%	0.01%	0.29%	2.43%
034	59,875	364	0.61%	45,758	76.42%	69.23%	14.11%	7.85%	4.43%	0.12%	0.03%	0.65%	3.58%
035	59,889	378	0.64%	48,312	80.67%	53.63%	25.59%	11.15%	4.58%	0.19%	0.05%	0.77%	4.04%
036	59,994	483	0.81%	44,911	74.86%	70.77%	15.48%	6.51%	3.02%	0.15%	0.04%	0.6%	3.44%
037	59,176	-335	-0.56%	46,223	78.11%	46.26%	25.84%	18.64%	4.61%	0.21%	0.02%	0.91%	3.52%
038	59,317	-194	-0.33%	44,839	75.59%	30.1%	51.13%	12.62%	1.87%	0.24%	0.05%	0.63%	3.36%
039	59,381	-130	-0.22%	44,436	74.83%	23.47%	52.5%	18.66%	1.77%	0.17%	0.03%	0.6%	2.79%
040	59,044	-467	-0.78%	47,976	81.25%	51.14%	30.35%	5.92%	8.24%	0.15%	0.01%	0.63%	3.55%
041	60,122	611	1.03%	45,271	75.3%	27.62%	36.96%	28.55%	3.13%	0.22%	0.05%	0.84%	2.62%
042	59,620	109	0.18%	48,525	81.39%	39%	30.85%	17.38%	7.45%	0.2%	0.04%	1.14%	3.94%
043	59,464	-47	-0.08%	47,033	79.09%	46.31%	24.03%	14.15%	7.62%	0.21%	0.09%	2.27%	5.32%
044	60,002	491	0.83%	46,773	77.95%	67.69%	10.5%	10.53%	5.78%	0.2%	0.02%	1.06%	4.23%
045	59,738	227	0.38%	44,023	73.69%	74.94%	4.27%	4.85%	12.05%	0.05%	0.02%	0.59%	3.23%
046	59,108	-403	-0.68%	44,132	74.66%	74.81%	6.79%	7.38%	6.72%	0.13%	0.04%	0.61%	3.53%
047	59,126	-385	-0.65%	43,932	74.3%	63.89%	9.3%	7.37%	15.16%	0.17%	0.03%	0.62%	3.46%
048	59,003	-508	-0.85%	44,779	75.89%	61.77%	10.14%	12.41%	11.59%	0.08%	0.04%	0.56%	3.42%
049	59,153	-358	-0.60%	45,263	76.52%	71.48%	7.22%	6.7%	10.74%	0.1%	0.03%	0.63%	3.12%
050	59,523	12	0.02%	43,940	73.82%	44.37%	10.8%	6.36%	34.63%	0.07%	0.05%	0.58%	3.13%
051	58,952	-559	-0.94%	47,262	80.17%	54.33%	21.3%	13.31%	5.93%	0.18%	0.05%	1.01%	3.89%
052	59,811	300	0.50%	48,525	81.13%	55.14%	14.19%	7.41%	19.12%	0.14%	0.07%	0.68%	3.24%
053	59,953	442	0.74%	46,944	78.3%	71.2%	12.71%	7.44%	4.58%	0.09%	0.02%	0.54%	3.41%
054	60,083	572	0.96%	50,338	83.78%	62.98%	13.67%	12.79%	6.86%	0.13%	0.03%	0.53%	3.02%
055	59,971	460	0.77%	49,255	82.13%	35.51%	52.85%	4.97%	3.19%	0.18%	0.04%	0.37%	2.88%
056	58,929	-582	-0.98%	52,757	89.53%	36.98%	42.9%	5.84%	9.92%	0.2%	0.08%	0.41%	3.67%
057	59,969	458	0.77%	52,097	86.87%	63.64%	16.18%	7.95%	7.99%	0.1%	0.02%	0.6%	3.52%
058	59,057	-454	-0.76%	50,514	85.53%	27.56%	60.36%	5.07%	3.04%	0.12%	0.04%	0.51%	3.3%
059	59,434	-77	-0.13%	49,179	82.75%	22.04%	66.72%	4.43%	2.9%	0.17%	0.02%	0.54%	3.18%
060	59,709	198	0.33%	45,490	76.19%	28.09%	61.3%	5.11%	2.17%	0.18%	0.05%	0.43%	2.67%
061	59,302	-209	-0.35%	45,447	76.64%	16.75%	71.33%	7.61%	0.97%	0.17%	0.05%	0.51%	2.6%
062	59,450	-61	-0.10%	46,426	78.09%	19.07%	69.19%	6.83%	1.3%	0.21%	0.05%	0.47%	2.88%
063	59,381	-130	-0.22%	45,043	75.85%	19.22%	66.7%	9.26%	1.54%	0.21%	0.04%	0.47%	2.56%
064	58,986	-525	-0.88%	44,189	74.91%	57.83%	28.63%	7.44%	1.41%	0.3%	0.04%	0.7%	3.67%
065	59,464	-47	-0.08%	44,386	74.64%	31.46%	59.19%	4.53%	1.15%	0.19%	0.05%	0.51%	2.92%
066	59,047	-464	-0.78%	44,278	74.99%	33.93%	50.39%	9.49%	1.86%	0.26%	0.08%	0.63%	3.36%
067	59,135	-376	-0.63%	44,299	74.91%	30.86%	56.59%	7.75%	1.39%	0.19%	0.03%	0.49%	2.7%
068	59,477	-34	-0.06%	44,835	75.38%	33.94%	53.42%	6.33%	2.77%	0.14%	0.05%	0.63%	2.72%
069	58,682	-829	-1.39%	45,548	77.62%	26.89%	60.9%	5.42%	3.12%	0.18%	0.04%	0.78%	2.68%
070	59,121	-390	-0.66%	45,249	76.54%	59.69%	26.23%	7.96%	2.23%	0.22%	0.06%	0.4%	3.22%
071	59,538	27	0.05%	44,582	74.88%	69.8%	18.45%	6.18%	1.01%	0.24%	0.02%	0.42%	3.88%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn ]	[% NH18+_Oth]	[% NH18+_ 2+ Races]
072	59,660	149	0.25%	46,229	77.49%	69.24%	19.51%	6.94%	0.93%	0.19%	0.02%	0.23%	2.94%
073	60,036	525	0.88%	45,736	76.18%	72.58%	10.84%	7.05%	5.58%	0.14%	0.03%	0.4%	3.38%
074	58,956	-555	-0.93%	44,696	75.81%	64.44%	24%	5.55%	2.04%	0.21%	0.02%	0.47%	3.26%
075	59,743	232	0.39%	43,850	73.4%	11.27%	71.04%	11.28%	2.93%	0.18%	0.07%	0.66%	2.57%
076	59,759	248	0.42%	44,371	74.25%	10.51%	64.4%	13.23%	8.69%	0.21%	0.05%	0.51%	2.41%
077	59,242	-269	-0.45%	44,207	74.62%	7.58%	73.27%	12.2%	4.36%	0.23%	0.06%	0.41%	1.9%
078	59,044	-467	-0.78%	44,572	75.49%	15.05%	68.35%	8.89%	4.21%	0.2%	0.03%	0.63%	2.63%
079	59,500	-11	-0.02%	43,223	72.64%	7.15%	68.44%	16.03%	5.51%	0.2%	0.01%	0.56%	2.09%
080	59,461	-50	-0.08%	44,784	75.32%	47.63%	12.45%	23.12%	13.33%	0.07%	0.04%	0.56%	2.79%
081	59,007	-504	-0.85%	46,259	78.4%	47.01%	19.77%	20.92%	8.71%	0.14%	0.01%	0.46%	2.98%
082	59,724	213	0.36%	50,238	84.12%	62.46%	15.19%	6.79%	11.35%	0.11%	0.04%	0.56%	3.51%
083	59,416	-95	-0.16%	46,581	78.4%	47.9%	13.51%	28.47%	6.91%	0.1%	0.02%	0.55%	2.55%
084	59,862	351	0.59%	47,350	79.1%	21.29%	70.47%	2.96%	1.48%	0.16%	0.02%	0.55%	3.07%
085	59,373	-138	-0.23%	46,308	78%	19.48%	59.85%	5.92%	10.8%	0.21%	0.02%	0.57%	3.14%
086	59,205	-306	-0.51%	44,614	75.36%	12.08%	72.02%	4.29%	7.95%	0.15%	0.01%	0.65%	2.84%
087	59,709	198	0.33%	45,615	76.4%	13.5%	69.72%	6.69%	6.22%	0.24%	0.02%	0.64%	2.97%
088	59,689	178	0.30%	46,073	77.19%	18.3%	60.15%	9.97%	7.64%	0.22%	0.07%	0.64%	3.01%
089	59,866	355	0.60%	46,198	77.17%	31.07%	60.06%	3.42%	1.92%	0.15%	0.03%	0.41%	2.93%
090	59,812	301	0.51%	48,015	80.28%	33.98%	56.05%	4.26%	1.82%	0.12%	0.03%	0.53%	3.2%
091	60,050	539	0.91%	46,173	76.89%	22%	67.15%	5.86%	1.44%	0.15%	0.05%	0.49%	2.86%
092	60,273	762	1.28%	46,551	77.23%	24.05%	65.71%	4.68%	1.67%	0.17%	0.03%	0.61%	3.08%
093	60,118	607	1.02%	44,734	74.41%	22.91%	62.36%	9.58%	1.48%	0.17%	0.09%	0.61%	2.81%
094	59,211	-300	-0.50%	44,809	75.68%	18.42%	65.61%	7.29%	4.85%	0.19%	0.02%	0.54%	3.07%
095	60,030	519	0.87%	44,948	74.88%	21.83%	63.61%	7.94%	2.43%	0.22%	0.04%	0.67%	3.27%
096	59,515	4	0.01%	44,671	75.06%	20.32%	20.75%	36.03%	19.7%	0.11%	0.04%	0.6%	2.44%
097	59,072	-439	-0.74%	46,339	78.44%	36.44%	24.16%	19.23%	16.07%	0.19%	0.05%	0.6%	3.25%
098	59,998	487	0.82%	42,734	71.23%	11.66%	20.91%	52.77%	12.28%	0.12%	0.05%	0.51%	1.71%
099	59,850	339	0.57%	45,004	75.19%	42.1%	13.07%	8.67%	32.63%	0.13%	0.04%	0.48%	2.89%
100	60,030	519	0.87%	42,669	71.08%	59.05%	8.86%	9.98%	18.41%	0.19%	0.06%	0.43%	3.02%
101	59,938	427	0.72%	46,584	77.72%	40.14%	21.87%	18.24%	15.98%	0.16%	0.05%	0.54%	3.02%
102	58,959	-552	-0.93%	42,968	72.88%	30.65%	34.79%	21.34%	9.57%	0.2%	0.03%	0.52%	2.89%
103	60,197	686	1.15%	44,399	73.76%	52.42%	15.01%	16.89%	12.19%	0.12%	0.03%	0.5%	2.83%
104	59,362	-149	-0.25%	43,306	72.95%	62.96%	15.44%	11.14%	6.38%	0.18%	0.05%	0.51%	3.34%
105	59,344	-167	-0.28%	43,474	73.26%	41.74%	26.67%	16.76%	11.05%	0.1%	0.03%	0.54%	3.12%
106	59,112	-399	-0.67%	43,890	74.25%	41.22%	33.7%	11.14%	9.73%	0.16%	0.03%	0.74%	3.28%
107	59,702	191	0.32%	44,509	74.55%	21.96%	27.02%	31.09%	16.75%	0.18%	0.04%	0.56%	2.4%
108	59,577	66	0.11%	44,308	74.37%	43.36%	16.55%	18.16%	18.34%	0.18%	0.04%	0.53%	2.84%
109	59,630	119	0.20%	44,140	74.02%	15.44%	29.65%	36.12%	15.82%	0.12%	0.06%	0.55%	2.25%
110	59,951	440	0.74%	43,226	72.1%	36.58%	44.02%	10.49%	4.72%	0.18%	0.04%	0.72%	3.25%
111	60,009	498	0.84%	44,096	73.48%	64%	20.56%	8.84%	2.56%	0.2%	0.04%	0.64%	3.17%
112	59,349	-162	-0.27%	45,120	76.02%	73.73%	18.26%	3.28%	1.26%	0.22%	0.02%	0.41%	2.81%
113	60,053	542	0.91%	44,538	74.16%	31.8%	56.48%	6.65%	0.83%	0.15%	0.11%	0.59%	3.39%
114	59,867	356	0.60%	45,872	76.62%	68.84%	23.42%	3.73%	0.71%	0.18%	0.01%	0.35%	2.76%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn ]	[% NH18+_Oth]	[% NH18+_ 2+ Races]
115	60,174	663	1.11%	44,807	74.46%	36.95%	49.2%	6.97%	2.68%	0.2%	0.05%	0.69%	3.26%
116	59,913	402	0.68%	45,791	76.43%	27.22%	54.93%	7.29%	6.48%	0.19%	0.09%	0.74%	3.05%
117	60,130	619	1.04%	44,973	74.79%	54.5%	34.54%	5.44%	1.54%	0.19%	0.04%	0.52%	3.22%
118	59,987	476	0.80%	46,342	77.25%	69.73%	22.7%	3.68%	0.42%	0.2%	0.02%	0.39%	2.85%
119	58,947	-564	-0.95%	44,005	74.65%	69.8%	12.31%	10.44%	3.75%	0.17%	0.02%	0.43%	3.08%
120	58,982	-529	-0.89%	46,767	79.29%	71.94%	13.21%	7.09%	4.18%	0.16%	0.05%	0.44%	2.91%
121	59,127	-384	-0.65%	46,598	78.81%	76.13%	8.6%	5.57%	5.84%	0.1%	0%	0.46%	3.3%
122	59,632	121	0.20%	48,840	81.9%	54.8%	27.13%	11.7%	2.41%	0.32%	0.06%	0.79%	2.79%
123	59,282	-229	-0.38%	46,572	78.56%	68.06%	23.42%	4.31%	1.06%	0.19%	0.02%	0.2%	2.75%
124	59,221	-290	-0.49%	47,638	80.44%	65.01%	24.61%	6.17%	1.08%	0.19%	0.02%	0.31%	2.61%
125	60,137	626	1.05%	43,812	72.85%	63.03%	21.43%	7.66%	2.6%	0.31%	0.16%	0.39%	4.41%
126	59,260	-251	-0.42%	45,497	76.78%	39.97%	52.63%	3.17%	0.89%	0.29%	0.16%	0.29%	2.62%
127	58,678	-833	-1.40%	45,889	78.2%	68.13%	16.88%	4.77%	5.68%	0.19%	0.16%	0.43%	3.77%
128	58,864	-647	-1.09%	46,488	78.98%	46.49%	49.38%	1.7%	0.35%	0.19%	0.01%	0.17%	1.71%
129	58,829	-682	-1.15%	46,873	79.68%	37.16%	52.33%	4.26%	2.4%	0.19%	0.15%	0.41%	3.1%
130	59,203	-308	-0.52%	44,019	74.35%	33.74%	57.69%	3.86%	0.97%	0.26%	0.19%	0.34%	2.95%
131	58,890	-621	-1.04%	42,968	72.96%	68.16%	15.87%	5.87%	5.21%	0.21%	0.1%	0.55%	4.03%
132	59,142	-369	-0.62%	46,752	79.05%	35.63%	49.82%	7.8%	2.74%	0.27%	0.16%	0.3%	3.28%
133	59,202	-309	-0.52%	47,222	79.76%	58.39%	35.87%	2.15%	1.15%	0.15%	0.04%	0.36%	1.89%
134	59,396	-115	-0.19%	45,110	75.95%	59.9%	32.37%	3.74%	0.81%	0.23%	0.02%	0.25%	2.69%
135	60,063	552	0.93%	46,725	77.79%	71.78%	22.84%	1.82%	0.55%	0.16%	0.01%	0.25%	2.57%
136	59,298	-213	-0.36%	45,367	76.51%	63.9%	27.76%	3.64%	1.55%	0.26%	0.04%	0.29%	2.55%
137	59,551	40	0.07%	45,358	76.17%	40.82%	50.02%	4.48%	1.73%	0.12%	0.12%	0.26%	2.44%
138	58,912	-599	-1.01%	45,684	77.55%	72.34%	18.26%	3.31%	2.43%	0.26%	0.07%	0.35%	2.97%
139	59,010	-501	-0.84%	45,522	77.14%	66.19%	18.56%	6.36%	3.89%	0.25%	0.24%	0.46%	4.04%
140	59,294	-217	-0.36%	44,411	74.9%	31.7%	54.74%	8.02%	1.17%	0.24%	0.2%	0.49%	3.43%
141	59,019	-492	-0.83%	44,677	75.7%	31.77%	54.65%	6.55%	2.69%	0.27%	0.3%	0.38%	3.38%
142	59,608	97	0.16%	44,584	74.8%	34.8%	57.42%	3.7%	1.4%	0.17%	0.02%	0.28%	2.2%
143	59,469	-42	-0.07%	46,390	78.01%	32.28%	58.98%	4.67%	1.07%	0.21%	0.05%	0.3%	2.44%
144	59,232	-279	-0.47%	46,370	78.29%	62.95%	28.34%	2.55%	3.45%	0.14%	0.02%	0.26%	2.29%
145	59,863	352	0.59%	45,844	76.58%	55.12%	33.97%	5.94%	0.99%	0.33%	0.03%	0.3%	3.32%
146	60,203	692	1.16%	44,589	74.06%	61.84%	26.08%	4.73%	2.98%	0.18%	0.09%	0.39%	3.71%
147	59,178	-333	-0.56%	44,902	75.88%	55.32%	28.41%	7.17%	4.85%	0.25%	0.07%	0.41%	3.52%
148	59,984	473	0.79%	46,614	77.71%	60.45%	33.11%	3.08%	0.87%	0.14%	0.04%	0.21%	2.1%
149	58,893	-618	-1.04%	46,821	79.5%	60.99%	30.75%	5.69%	0.57%	0.19%	0.04%	0.14%	1.63%
150	59,276	-235	-0.39%	47,050	79.37%	38.31%	52.5%	6.13%	1.18%	0.16%	0.03%	0.15%	1.54%
151	60,059	548	0.92%	46,973	78.21%	47.2%	40.96%	7.28%	1.43%	0.18%	0.18%	0.19%	2.58%
152	60,134	623	1.05%	46,026	76.54%	67.94%	25.26%	2.34%	1.52%	0.24%	0.04%	0.19%	2.46%
153	59,299	-212	-0.36%	45,692	77.05%	27.66%	66.38%	2.55%	1%	0.16%	0.03%	0.23%	2.01%
154	59,994	483	0.81%	47,273	78.8%	42.24%	53.68%	1.67%	0.36%	0.19%	0%	0.16%	1.7%
155	58,759	-752	-1.26%	45,208	76.94%	59.77%	34.6%	2.22%	0.95%	0.16%	0.04%	0.21%	2.05%
156	59,444	-67	-0.11%	45,867	77.16%	60.92%	29.32%	6.88%	0.62%	0.16%	0.01%	0.15%	1.93%
157	59,957	446	0.75%	45,311	75.57%	64.48%	23.7%	8.96%	0.57%	0.17%	0.04%	0.16%	1.93%

## Population Summary

House-prop1-2021

District	Population	Deviation	% Devn.	[18+_Pop]	[% 18+_Pop]	[% NH18+_Wht]	[% NH18+_Blk]	[% H18+_Pop]	[% NH18+_Asn]	[% NH18+_Ind]	[% NH18+_Hwn ]	[% NH18+_Oth]	[% NH18+_2+ Races]
158	59,440	-71	-0.12%	45,549	76.63%	62.21%	30.2%	4.52%	0.71%	0.21%	0.03%	0.18%	1.93%
159	59,895	384	0.65%	44,871	74.92%	69.39%	23.44%	2.87%	0.57%	0.31%	0.04%	0.26%	3.12%
160	59,935	424	0.71%	48,057	80.18%	68.48%	21.07%	5.04%	1.64%	0.24%	0.09%	0.27%	3.17%
161	60,097	586	0.98%	44,371	73.83%	60.16%	25.26%	6.82%	3.16%	0.25%	0.09%	0.48%	3.77%
162	60,308	797	1.34%	46,733	77.49%	40.62%	41.13%	9.58%	4.16%	0.22%	0.24%	0.44%	3.61%
163	60,123	612	1.03%	48,461	80.6%	41.92%	43.78%	7.38%	3.6%	0.2%	0.1%	0.33%	2.68%
164	60,101	590	0.99%	45,851	76.29%	60.61%	21.43%	8.49%	4.37%	0.26%	0.12%	0.6%	4.12%
165	59,978	467	0.78%	48,247	80.44%	39.18%	48.49%	5.33%	3.68%	0.25%	0.14%	0.35%	2.57%
166	60,242	731	1.23%	47,580	78.98%	84.71%	4.96%	4.07%	2.69%	0.18%	0.05%	0.36%	2.97%
167	59,493	-18	-0.03%	44,140	74.19%	65.96%	20.55%	7.41%	1.48%	0.39%	0.18%	0.39%	3.66%
168	60,147	636	1.07%	44,867	74.6%	39.29%	42.28%	10.3%	2.32%	0.33%	0.65%	0.38%	4.46%
169	59,138	-373	-0.63%	45,267	76.54%	60.95%	28.12%	7.66%	0.88%	0.14%	0.03%	0.16%	2.06%
170	60,116	605	1.02%	45,316	75.38%	64.17%	23.21%	8.65%	1.19%	0.12%	0.02%	0.25%	2.38%
171	59,237	-274	-0.46%	45,969	77.6%	53.85%	38.58%	4.63%	0.56%	0.24%	0.02%	0.17%	1.95%
172	59,961	450	0.76%	44,756	74.64%	61.03%	22.46%	13.42%	0.78%	0.23%	0.03%	0.19%	1.87%
173	59,743	232	0.39%	45,292	75.81%	55.68%	35.18%	5.35%	0.84%	0.37%	0.02%	0.26%	2.31%
174	59,852	341	0.57%	45,760	76.46%	72.25%	16.08%	7.96%	0.52%	0.38%	0.03%	0.15%	2.64%
175	59,993	482	0.81%	44,704	74.52%	66.49%	23.13%	5.03%	1.85%	0.28%	0.06%	0.3%	2.86%
176	59,470	-41	-0.07%	44,991	75.65%	66.15%	21.61%	8.24%	0.96%	0.25%	0.1%	0.19%	2.49%
177	59,992	481	0.81%	46,014	76.7%	37.12%	51.68%	6.12%	1.36%	0.24%	0.08%	0.36%	3.04%
178	59,877	366	0.62%	45,638	76.22%	77.79%	13.99%	5.14%	0.54%	0.2%	0.01%	0.23%	2.09%
179	59,356	-155	-0.26%	47,156	79.45%	63.69%	25.74%	6.38%	1.07%	0.15%	0.11%	0.34%	2.51%
180	59,412	-99	-0.17%	45,362	76.35%	71.17%	16.63%	5.62%	1.67%	0.31%	0.11%	0.47%	4.02%

Total: 10,711,908

Ideal District: 59,511



The preceding report, published by the Georgia General Assembly, does not include statistics for the percentage of the voting age population that is “Black or African American alone or in combination,” also known as the “any part Black voting age population” percentage or “APBVAP%.” As these percentages are relevant for determining which House districts can be considered majority-Black under the conventions used in the expert report, I have provided them below after having exported a listing from the *Maptitude for Redistricting* software.

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
1	4.20%	25	5.90%	49	8.42%	73	12.11%	97	26.77%
2	3.15%	26	4.01%	50	12.40%	74	25.52%	98	23.25%
3	3.35%	27	3.69%	51	23.68%	75	74.40%	99	14.71%
4	5.38%	28	3.93%	52	15.99%	76	67.23%	100	10.01%
5	4.60%	29	13.59%	53	14.53%	77	76.13%	101	24.19%
6	1.51%	30	8.10%	54	15.47%	78	71.58%	102	37.62%
7	0.62%	31	7.57%	55	55.38%	79	71.59%	103	16.79%
8	1.43%	32	7.96%	56	45.48%	80	14.18%	104	17.03%
9	1.57%	33	11.20%	57	18.06%	81	21.83%	105	29.05%
10	3.73%	34	15.67%	58	63.04%	82	16.83%	106	36.27%
11	1.85%	35	28.40%	59	70.09%	83	15.12%	107	29.63%
12	9.68%	36	16.98%	60	63.88%	84	73.66%	108	18.35%
13	19.18%	37	28.18%	61	74.29%	85	62.71%	109	32.51%
14	6.85%	38	54.23%	62	72.26%	86	75.05%	110	47.19%
15	14.19%	39	55.29%	63	69.33%	87	73.08%	111	22.29%
16	11.69%	40	32.98%	64	30.72%	88	63.35%	112	19.21%
17	23.02%	41	39.35%	65	61.98%	89	62.54%	113	59.53%
18	7.98%	42	33.70%	66	53.41%	90	58.49%	114	24.74%
19	24.15%	43	26.53%	67	58.92%	91	70.04%	115	52.13%
20	9.25%	44	12.05%	68	55.75%	92	68.79%	116	58.13%
21	5.06%	45	5.28%	69	63.56%	93	65.36%	117	36.61%
22	15.10%	46	8.07%	70	27.83%	94	69.04%	118	23.60%
23	6.50%	47	10.72%	71	19.92%	95	67.15%	119	13.49%
24	7.00%	48	11.79%	72	20.86%	96	23.00%	120	14.28%

(Table continues on following page.)

(Cont.)

District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%	District	APBVAP%
121	9.56%	133	36.76%	145	35.67%	157	24.67%	169	29.04%
122	28.42%	134	33.57%	146	27.61%	158	31.20%	170	24.22%
123	24.28%	135	23.75%	147	30.12%	159	24.50%	171	39.60%
124	25.58%	136	28.67%	148	34.02%	160	22.60%	172	23.32%
125	23.68%	137	52.13%	149	32.15%	161	27.14%	173	36.27%
126	54.47%	138	19.32%	150	53.56%	162	43.73%	174	17.37%
127	18.52%	139	20.27%	151	42.41%	163	45.49%	175	24.17%
128	50.41%	140	57.63%	152	26.06%	164	23.47%	176	22.68%
129	54.87%	141	57.46%	153	67.95%	165	50.33%	177	53.88%
130	59.91%	142	59.52%	154	54.82%	166	5.67%	178	14.79%
131	17.62%	143	60.79%	155	35.85%	167	22.28%	179	27.03%
132	52.34%	144	29.33%	156	30.25%	168	46.26%	180	18.21%

**Esselstyn Report: Attachment J**

District	Population	Deviation	% Deviation	% single-race American Indian			% single-race Native Hawaiian			% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
				% single-race White (total pop)	% single-race Black (total pop)	Alaska Native (total pop)	% single-race Asian (total pop)	Pacific Islander (total pop)	% single-race Other (total pop)				
1	59,666	155	0.26%	88.62%	3.94%	0.41%	0.54%	0.06%	1.12%	5.32%	2.59%	5.09%	4.20%
2	59,773	262	0.44%	85.43%	2.68%	0.43%	1.12%	0.02%	3.69%	6.63%	9.09%	3.64%	3.15%
3	60,199	688	1.16%	87.87%	2.90%	0.36%	1.64%	0.14%	1.40%	5.69%	3.60%	4.09%	3.35%
4	59,070	-441	-0.74%	51.31%	4.41%	2.94%	1.27%	0.04%	25.56%	14.47%	50.07%	5.53%	5.38%
5	58,837	-674	-1.13%	78.57%	3.88%	0.60%	1.24%	0.03%	7.79%	7.90%	15.29%	5.24%	4.60%
6	59,712	201	0.34%	83.29%	1.07%	1.22%	0.53%	0.02%	6.80%	7.06%	14.51%	1.88%	1.51%
7	59,081	-430	-0.72%	89.34%	0.40%	0.61%	0.47%	0.02%	4.07%	5.09%	7.43%	0.87%	0.62%
8	59,244	-267	-0.45%	91.67%	1.16%	0.38%	0.55%	0.01%	1.22%	5.01%	3.21%	1.73%	1.43%
9	59,474	-37	-0.06%	89.17%	1.05%	0.49%	0.79%	0.06%	2.17%	6.27%	5.49%	1.79%	1.57%
10	59,519	8	0.01%	81.72%	3.03%	0.47%	1.53%	0.06%	5.51%	7.68%	13.11%	3.84%	3.73%
11	58,792	-719	-1.21%	88.57%	1.61%	0.37%	1.16%	0.03%	1.98%	6.28%	5.33%	2.35%	1.85%
12	59,300	-211	-0.35%	79.74%	8.68%	0.52%	1.01%	0.01%	4.44%	5.61%	7.68%	10.20%	9.68%
13	59,150	-361	-0.61%	64.15%	18.92%	0.81%	1.29%	0.03%	6.65%	8.15%	13.52%	20.65%	19.18%
14	59,135	-376	-0.63%	83.05%	5.98%	0.34%	0.79%	0.03%	3.25%	6.56%	7.04%	7.34%	6.85%
15	59,213	-298	-0.50%	70.65%	13.85%	0.55%	1.31%	0.05%	6.05%	7.56%	11.74%	15.79%	14.19%
16	59,402	-109	-0.18%	75.06%	11.36%	0.61%	0.77%	0.06%	6.25%	5.89%	10.95%	12.76%	11.69%
17	59,120	-391	-0.66%	65.08%	22.54%	0.36%	1.34%	0.08%	2.97%	7.63%	7.90%	25.01%	23.02%
18	59,335	-176	-0.30%	85.62%	7.19%	0.28%	0.61%	0.04%	1.30%	4.96%	2.93%	8.63%	7.98%
19	58,955	-556	-0.93%	63.74%	23.95%	0.39%	1.17%	0.09%	3.33%	7.34%	7.87%	26.38%	24.15%
20	60,107	596	1.00%	76.19%	8.34%	0.31%	2.01%	0.04%	3.95%	9.16%	10.60%	9.94%	9.25%
21	59,529	18	0.03%	81.93%	4.37%	0.38%	1.86%	0.05%	2.97%	8.44%	8.54%	5.63%	5.06%
22	59,460	-51	-0.09%	65.22%	14.31%	0.44%	3.90%	0.04%	5.20%	10.90%	13.26%	16.63%	15.10%
23	59,048	-463	-0.78%	75.17%	5.81%	1.01%	1.08%	0.05%	7.59%	9.29%	17.19%	7.20%	6.50%
24	59,011	-500	-0.84%	61.94%	6.14%	0.45%	17.71%	0.04%	4.82%	8.90%	11.36%	7.31%	7.00%
25	59,414	-97	-0.16%	53.10%	5.06%	0.19%	33.57%	0.03%	1.50%	6.55%	5.42%	6.07%	5.90%
26	59,248	-263	-0.44%	65.34%	3.41%	0.50%	16.82%	0.05%	5.34%	8.54%	12.07%	4.47%	4.01%
27	58,795	-716	-1.20%	82.10%	3.31%	0.44%	0.84%	0.04%	5.55%	7.72%	11.82%	4.40%	3.69%
28	58,972	-539	-0.91%	79.07%	3.49%	0.53%	2.09%	0.03%	5.99%	8.79%	13.59%	4.55%	3.93%
29	59,200	-311	-0.52%	43.92%	12.45%	1.40%	2.77%	0.07%	25.34%	14.04%	46.28%	13.74%	13.59%
30	59,266	-245	-0.41%	70.51%	7.56%	0.49%	3.06%	0.04%	8.72%	9.63%	18.78%	8.75%	8.10%
31	59,901	390	0.66%	69.79%	6.83%	0.61%	2.33%	0.04%	10.78%	9.61%	21.63%	7.96%	7.57%
32	59,145	-366	-0.62%	82.12%	7.33%	0.48%	1.28%	0.07%	2.88%	5.84%	6.03%	8.88%	7.96%
33	59,187	-324	-0.54%	80.79%	11.02%	0.21%	1.20%	0.02%	2.22%	4.54%	4.08%	12.37%	11.20%
34	59,875	364	0.61%	68.37%	14.73%	0.32%	4.45%	0.04%	3.38%	8.70%	9.06%	16.87%	15.67%
35	59,889	378	0.64%	52.51%	27.13%	0.48%	4.49%	0.05%	5.14%	10.20%	12.70%	30.41%	28.40%
36	59,994	483	0.81%	69.47%	16.26%	0.25%	3.10%	0.05%	2.80%	8.08%	7.46%	18.43%	16.98%

District	Population	Deviation	% Deviation	% single-race		% single-race		% single-race		% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
				White (total pop)	Black (total pop)	American Indian Alaska Native (total pop)	Asian (total pop)	Pacific Islander (total pop)	Other (total pop)				
37	59,176	-335	-0.56%	45.62%	26.57%	0.99%	4.53%	0.06%	11.93%	10.30%	21.96%	29.02%	28.18%
38	59,317	-194	-0.33%	27.97%	53.68%	0.59%	1.80%	0.09%	7.72%	8.15%	14.72%	56.91%	54.23%
39	59,381	-130	-0.22%	22.83%	52.84%	0.79%	1.53%	0.04%	12.96%	9.01%	21.79%	55.60%	55.29%
40	59,044	-467	-0.78%	50.09%	31.39%	0.25%	8.59%	0.03%	2.33%	7.32%	6.43%	34.18%	32.98%
41	60,122	611	1.03%	29.51%	37.00%	1.11%	2.85%	0.06%	16.74%	12.72%	33.22%	39.66%	39.35%
42	59,620	109	0.18%	38.93%	31.87%	0.61%	7.17%	0.05%	10.28%	11.09%	20.49%	34.76%	33.70%
43	59,464	-47	-0.08%	45.84%	24.83%	0.92%	7.85%	0.10%	9.01%	11.45%	15.85%	27.49%	26.53%
44	60,002	491	0.83%	66.91%	11.23%	0.41%	5.74%	0.04%	5.13%	10.53%	11.99%	13.32%	12.05%
45	59,738	227	0.38%	73.40%	4.24%	0.15%	12.96%	0.02%	1.48%	7.75%	5.50%	5.53%	5.28%
46	59,108	-403	-0.68%	74.02%	6.93%	0.26%	6.95%	0.04%	2.77%	9.03%	8.24%	8.59%	8.07%
47	59,126	-385	-0.65%	63.20%	9.59%	0.31%	15.95%	0.03%	2.72%	8.19%	7.83%	11.15%	10.72%
48	59,003	-508	-0.85%	60.96%	10.38%	0.43%	11.79%	0.06%	6.20%	10.18%	14.10%	12.23%	11.79%
49	59,153	-358	-0.60%	70.45%	7.33%	0.17%	11.43%	0.03%	2.42%	8.17%	7.56%	8.85%	8.42%
50	59,523	12	0.02%	42.70%	11.30%	0.14%	35.51%	0.04%	2.70%	7.60%	7.06%	13.04%	12.40%
51	58,952	-559	-0.94%	53.22%	22.42%	0.44%	5.86%	0.05%	7.50%	10.50%	15.47%	25.05%	23.68%
52	59,811	300	0.50%	55.20%	13.94%	0.30%	19.75%	0.06%	3.11%	7.64%	7.98%	15.82%	15.99%
53	59,953	442	0.74%	71.67%	12.59%	0.20%	4.49%	0.03%	3.08%	7.94%	8.20%	14.49%	14.53%
54	60,083	572	0.96%	62.88%	13.25%	0.42%	6.56%	0.05%	7.69%	9.16%	15.17%	15.06%	15.47%
55	59,971	460	0.77%	34.75%	55.03%	0.28%	2.88%	0.05%	2.12%	4.90%	5.14%	57.32%	55.38%
56	58,929	-582	-0.98%	35.60%	46.85%	0.24%	9.36%	0.08%	1.88%	5.99%	5.81%	49.24%	45.48%
57	59,969	458	0.77%	64.40%	15.89%	0.36%	7.63%	0.03%	3.92%	7.76%	8.83%	17.83%	18.06%
58	59,057	-454	-0.76%	26.52%	63.71%	0.23%	2.79%	0.04%	1.78%	4.93%	5.03%	66.10%	63.04%
59	59,434	-77	-0.13%	20.24%	70.27%	0.26%	2.54%	0.03%	1.60%	5.07%	4.45%	73.14%	70.09%
60	59,709	198	0.33%	27.39%	62.26%	0.35%	2.05%	0.05%	2.94%	4.95%	5.87%	64.58%	63.88%
61	58,950	-561	-0.94%	34.98%	52.47%	0.42%	1.40%	0.05%	4.25%	6.44%	8.36%	55.51%	53.49%
62	59,450	-61	-0.10%	18.14%	70.86%	0.38%	1.16%	0.06%	4.11%	5.29%	7.61%	73.56%	72.26%
63	59,381	-130	-0.22%	18.46%	68.64%	0.56%	1.36%	0.05%	5.60%	5.33%	10.42%	70.98%	69.33%
64	59,648	137	0.23%	36.92%	48.40%	0.45%	1.04%	0.09%	5.96%	7.14%	11.25%	51.05%	50.24%
65	59,240	-271	-0.46%	30.99%	61.67%	0.27%	0.81%	0.04%	1.62%	4.59%	3.70%	64.10%	63.34%
66	58,961	-550	-0.92%	31.21%	53.46%	0.47%	1.86%	0.10%	5.44%	7.46%	10.88%	56.82%	53.88%
67	59,135	-376	-0.63%	30.47%	57.71%	0.33%	1.31%	0.03%	4.63%	5.52%	8.71%	59.93%	58.92%
68	59,477	-34	-0.06%	32.13%	55.20%	0.33%	2.82%	0.05%	3.68%	5.78%	7.30%	57.48%	55.75%
69	58,358	-1,153	-1.94%	26.08%	61.75%	0.28%	2.95%	0.04%	3.29%	5.61%	6.42%	64.56%	62.73%
70	59,121	-390	-0.66%	58.14%	27.99%	0.40%	2.19%	0.05%	4.48%	6.75%	9.08%	30.02%	27.83%
71	59,538	27	0.05%	68.61%	19.16%	0.45%	0.98%	0.02%	3.53%	7.25%	7.44%	21.49%	19.92%
72	59,660	149	0.25%	68.83%	19.64%	0.38%	0.96%	0.03%	4.59%	5.58%	8.16%	21.43%	20.86%

District	Population	Deviation	% Deviation	% single-race									
				% single-race American Indian		% single-race Native Hawaiian		% single-race Black		% single-race White		% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
				Alaska Native (total pop)	% single-race Asian (total pop)	Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)				
73	60,036	525	0.88%	71.55%	11.47%	0.30%	5.94%	0.04%	2.53%	8.17%	7.96%	13.10%	12.11%
74	58,418	-1,093	-1.84%	34.64%	52.32%	0.33%	2.41%	0.06%	4.25%	5.99%	8.22%	54.91%	53.94%
75	59,759	248	0.42%	14.87%	65.44%	0.59%	4.89%	0.07%	8.12%	6.03%	13.11%	68.43%	66.89%
76	59,759	248	0.42%	10.18%	64.99%	0.82%	8.16%	0.06%	9.45%	6.35%	15.61%	67.71%	67.23%
77	59,242	-269	-0.45%	7.77%	73.39%	0.59%	4.06%	0.08%	9.22%	4.89%	14.22%	75.90%	76.13%
78	59,890	379	0.64%	36.56%	51.33%	0.44%	1.69%	0.04%	3.94%	6.01%	8.29%	54.01%	51.03%
79	59,500	-11	-0.02%	7.56%	69.08%	0.94%	4.92%	0.03%	11.61%	5.87%	18.11%	71.79%	71.59%
80	59,461	-50	-0.08%	47.83%	12.00%	1.52%	13.08%	0.07%	15.40%	10.10%	26.17%	13.67%	14.18%
81	59,007	-504	-0.85%	47.01%	19.09%	1.27%	8.24%	0.03%	13.87%	10.49%	24.58%	21.16%	21.83%
82	59,724	213	0.36%	63.25%	14.66%	0.28%	11.08%	0.03%	2.93%	7.77%	7.52%	16.35%	16.83%
83	59,416	-95	-0.16%	47.55%	12.45%	1.70%	6.34%	0.03%	21.02%	10.92%	33.75%	14.01%	15.12%
84	59,862	351	0.59%	21.61%	70.46%	0.19%	1.44%	0.03%	1.26%	5.01%	3.40%	73.35%	73.66%
85	59,373	-138	-0.23%	18.61%	60.90%	0.38%	12.33%	0.03%	2.65%	5.11%	5.99%	63.41%	62.71%
86	59,205	-306	-0.51%	11.04%	72.44%	0.30%	9.07%	0.02%	2.71%	4.42%	4.64%	75.09%	75.05%
87	59,709	198	0.33%	12.16%	70.92%	0.41%	6.49%	0.02%	4.81%	5.20%	7.73%	74.02%	73.08%
88	59,689	178	0.30%	17.17%	61.41%	0.65%	7.51%	0.07%	6.54%	6.65%	11.46%	64.53%	63.35%
89	59,866	355	0.60%	31.03%	60.27%	0.22%	1.80%	0.03%	1.37%	5.29%	3.80%	62.63%	62.54%
90	59,812	301	0.51%	32.92%	57.69%	0.24%	1.62%	0.04%	1.83%	5.67%	4.65%	60.13%	58.49%
91	59,956	445	0.75%	32.76%	58.67%	0.24%	1.19%	0.03%	2.03%	5.07%	4.42%	61.23%	60.01%
92	60,273	762	1.28%	21.57%	68.31%	0.24%	1.59%	0.04%	2.99%	5.27%	5.49%	71.31%	68.79%
93	60,118	607	1.02%	21.33%	64.04%	0.36%	1.34%	0.11%	6.56%	6.26%	11.24%	66.95%	65.36%
94	59,211	-300	-0.50%	17.43%	66.81%	0.45%	4.88%	0.03%	4.41%	5.99%	8.72%	69.91%	69.04%
95	60,030	519	0.87%	19.99%	65.91%	0.39%	2.30%	0.08%	4.61%	6.72%	9.32%	69.44%	67.15%
96	59,515	4	0.01%	21.85%	21.31%	1.48%	17.72%	0.08%	25.19%	12.37%	40.49%	23.47%	23.00%
97	59,072	-439	-0.74%	35.90%	25.79%	0.68%	15.07%	0.09%	11.43%	11.04%	21.86%	28.56%	26.77%
98	59,998	487	0.82%	15.89%	20.23%	2.15%	10.77%	0.10%	36.38%	14.49%	57.42%	22.14%	23.25%
99	59,850	339	0.57%	41.47%	13.80%	0.36%	32.56%	0.05%	3.65%	8.11%	9.52%	15.90%	14.71%
100	60,030	519	0.87%	57.78%	9.19%	0.42%	19.53%	0.06%	4.06%	8.96%	10.85%	10.66%	10.01%
101	59,938	427	0.72%	40.65%	22.90%	0.69%	15.32%	0.06%	8.64%	11.74%	20.17%	25.66%	24.19%
102	58,959	-552	-0.93%	29.76%	37.16%	0.98%	9.04%	0.04%	12.08%	10.94%	23.45%	40.20%	37.62%
103	60,197	686	1.15%	52.61%	15.52%	0.60%	11.76%	0.06%	8.69%	10.76%	19.06%	17.66%	16.79%
104	59,362	-149	-0.25%	62.99%	15.96%	0.40%	6.37%	0.05%	5.27%	8.95%	12.64%	18.10%	17.03%
105	59,344	-167	-0.28%	41.69%	28.45%	0.51%	10.63%	0.04%	7.83%	10.85%	18.10%	31.08%	29.05%
106	59,112	-399	-0.67%	38.57%	36.27%	0.61%	9.86%	0.06%	5.99%	8.65%	12.66%	39.28%	36.27%
107	59,702	191	0.32%	23.31%	28.16%	1.39%	15.52%	0.05%	18.46%	13.13%	34.49%	30.77%	29.63%
108	59,577	66	0.11%	41.71%	17.71%	0.93%	18.12%	0.04%	11.15%	10.35%	20.98%	20.05%	18.35%

District	Population	Deviation	% Deviation	% single-race		% single-race		% single-race		% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
				White (total pop)	Black (total pop)	American Indian Alaska Native (total pop)	Asian (total pop)	Native Hawaiian Islander (total pop)	Other (total pop)				
109	59,630	119	0.20%	18.29%	30.16%	1.16%	14.48%	0.07%	22.25%	13.59%	39.32%	32.86%	32.51%
110	59,951	440	0.74%	34.57%	46.58%	0.33%	4.53%	0.06%	5.00%	8.94%	11.87%	50.11%	47.19%
111	60,009	498	0.84%	62.34%	22.08%	0.40%	2.53%	0.07%	4.84%	7.75%	10.37%	24.28%	22.29%
112	59,349	-162	-0.27%	72.57%	19.06%	0.28%	1.28%	0.06%	1.89%	4.87%	4.00%	20.49%	19.21%
113	60,053	542	0.91%	30.11%	58.29%	0.30%	0.81%	0.14%	4.15%	6.21%	7.78%	61.62%	59.53%
114	59,867	356	0.60%	67.78%	24.16%	0.28%	0.71%	0.04%	2.21%	4.83%	4.53%	25.79%	24.74%
115	59,789	278	0.47%	30.02%	53.14%	0.46%	4.80%	0.06%	4.84%	6.70%	9.30%	56.23%	53.77%
116	60,380	869	1.46%	33.11%	52.02%	0.29%	4.57%	0.08%	3.53%	6.39%	7.80%	55.04%	51.95%
117	60,142	631	1.06%	36.94%	50.92%	0.30%	1.57%	0.06%	3.70%	6.51%	7.78%	53.97%	51.56%
118	59,987	476	0.80%	69.35%	22.72%	0.26%	0.45%	0.03%	1.99%	5.21%	4.50%	24.16%	23.60%
119	58,947	-564	-0.95%	69.24%	12.73%	0.46%	3.87%	0.03%	5.81%	7.87%	12.17%	14.47%	13.49%
120	58,982	-529	-0.89%	71.79%	13.65%	0.34%	4.08%	0.06%	3.79%	6.29%	8.42%	15.04%	14.28%
121	59,127	-384	-0.65%	76.66%	8.80%	0.18%	5.66%	0.01%	2.50%	6.19%	6.27%	9.96%	9.56%
122	59,632	121	0.20%	51.35%	30.85%	0.60%	2.17%	0.08%	8.43%	6.54%	13.78%	32.33%	28.42%
123	59,282	-229	-0.38%	67.02%	23.91%	0.30%	1.16%	0.03%	2.63%	4.94%	5.33%	25.32%	24.28%
124	59,221	-290	-0.49%	62.85%	26.19%	0.32%	1.15%	0.03%	3.77%	5.71%	7.57%	27.61%	25.58%
125	60,137	626	1.05%	62.06%	22.24%	0.45%	2.48%	0.22%	3.27%	9.29%	8.93%	25.37%	23.68%
126	59,260	-251	-0.42%	38.66%	54.30%	0.34%	0.76%	0.16%	1.55%	4.22%	3.63%	56.45%	54.47%
127	58,678	-833	-1.40%	67.34%	17.46%	0.27%	5.68%	0.18%	1.94%	7.13%	5.58%	19.67%	18.52%
128	58,864	-647	-1.09%	44.54%	51.11%	0.21%	0.36%	0.04%	0.81%	2.92%	1.91%	52.50%	50.41%
129	58,829	-682	-1.15%	34.71%	55.50%	0.31%	2.12%	0.15%	2.15%	5.05%	4.74%	58.21%	54.87%
130	59,203	-308	-0.52%	30.99%	60.84%	0.33%	0.82%	0.19%	1.93%	4.90%	4.33%	63.45%	59.91%
131	58,890	-621	-1.04%	67.43%	16.38%	0.29%	4.98%	0.17%	1.99%	8.77%	7.07%	18.92%	17.62%
132	59,142	-369	-0.62%	35.30%	52.48%	0.35%	2.42%	0.19%	3.20%	6.05%	7.91%	55.26%	52.34%
133	59,768	257	0.43%	68.72%	25.32%	0.16%	1.00%	0.03%	1.00%	3.77%	2.36%	26.58%	26.11%
134	59,046	-465	-0.78%	53.95%	38.20%	0.30%	0.75%	0.03%	1.98%	4.79%	4.33%	40.04%	37.41%
135	60,013	502	0.84%	74.82%	19.45%	0.24%	0.62%	0.01%	1.02%	3.84%	2.12%	20.68%	20.35%
136	59,298	-213	-0.36%	63.16%	28.15%	0.34%	1.55%	0.03%	2.06%	4.71%	4.40%	29.56%	28.67%
137	59,551	40	0.07%	39.25%	51.92%	0.19%	1.69%	0.14%	2.07%	4.75%	5.17%	54.16%	52.13%
138	58,912	-599	-1.01%	71.33%	18.92%	0.36%	2.41%	0.06%	1.57%	5.36%	4.10%	20.49%	19.32%
139	59,010	-501	-0.84%	65.30%	19.63%	0.39%	4.09%	0.22%	2.55%	7.82%	7.24%	21.77%	20.27%
140	59,294	-217	-0.36%	30.34%	56.56%	0.53%	1.06%	0.26%	4.45%	6.81%	9.04%	59.80%	57.63%
141	59,019	-492	-0.83%	30.98%	55.60%	0.36%	2.59%	0.33%	3.04%	7.10%	7.93%	58.90%	57.46%
142	59,320	-191	-0.32%	39.78%	51.89%	0.25%	2.27%	0.02%	2.32%	3.48%	4.22%	53.52%	50.14%
143	59,122	-389	-0.65%	38.76%	52.08%	0.21%	2.55%	0.04%	1.91%	4.44%	3.76%	54.15%	50.64%
144	58,533	-978	-1.64%	64.43%	24.36%	0.33%	2.88%	0.06%	1.91%	6.03%	5.04%	26.09%	24.94%

District	Population	Deviation	% Deviation	% single-race									
				% single-race American Indian			% single-race Native Hawaiian			% Black alone or in combination			
				% single-race White (total pop)	% single-race Black (total pop)	Alaska Native (total pop)	% single-race Asian (total pop)	Pacific Islander (total pop)	% single-race Other (total pop)	% multi-racial (total pop)	% Hispanic or Latino (total pop)	% Black alone or in combination (total pop)	% Black alone or in combination (voting age pop)
145	59,668	157	0.26%	36.17%	51.16%	0.47%	1.19%	0.07%	4.44%	6.50%	8.64%	53.76%	50.38%
146	59,197	-314	-0.53%	67.39%	23.72%	0.21%	1.65%	0.08%	1.64%	5.31%	4.55%	25.26%	24.38%
147	58,567	-944	-1.59%	54.11%	30.64%	0.32%	3.95%	0.10%	3.34%	7.54%	7.61%	33.12%	30.55%
148	59,887	376	0.63%	56.80%	37.60%	0.18%	0.61%	0.03%	1.74%	3.04%	5.86%	38.90%	37.30%
149	59,392	-119	-0.20%	41.24%	52.64%	0.22%	0.77%	0.06%	1.87%	3.21%	2.88%	54.31%	51.53%
150	59,276	-235	-0.39%	37.15%	53.50%	0.30%	1.19%	0.05%	4.73%	3.08%	7.23%	54.77%	53.56%
151	60,059	548	0.92%	46.66%	42.45%	0.27%	1.32%	0.25%	4.52%	4.53%	7.51%	44.17%	42.41%
152	60,134	623	1.05%	66.75%	25.98%	0.27%	1.61%	0.05%	1.33%	4.01%	2.84%	27.20%	26.06%
153	59,299	-212	-0.36%	24.79%	69.44%	0.17%	0.92%	0.03%	1.68%	2.97%	2.93%	71.14%	67.95%
154	59,994	483	0.81%	39.90%	55.77%	0.19%	0.39%	0.02%	1.00%	2.72%	2.10%	57.13%	54.82%
155	60,134	623	1.05%	58.50%	35.73%	0.21%	0.90%	0.05%	1.41%	3.19%	2.65%	37.24%	35.23%
156	60,647	1,136	1.91%	60.55%	29.57%	0.37%	0.61%	0.01%	4.56%	4.33%	8.19%	30.89%	29.87%
157	59,957	446	0.75%	63.89%	23.82%	0.39%	0.56%	0.04%	6.64%	4.65%	11.19%	25.21%	24.67%
158	59,440	-71	-0.12%	60.33%	31.67%	0.27%	0.77%	0.03%	3.07%	3.86%	5.60%	33.07%	31.20%
159	59,895	384	0.65%	68.50%	24.02%	0.35%	0.54%	0.05%	1.54%	5.00%	3.65%	25.56%	24.50%
160	59,935	424	0.71%	68.19%	22.04%	0.32%	1.64%	0.10%	2.38%	5.33%	5.50%	23.64%	22.60%
161	60,097	586	0.98%	59.24%	26.27%	0.34%	3.05%	0.11%	3.15%	7.84%	7.89%	28.87%	27.14%
162	60,308	797	1.34%	38.55%	43.95%	0.43%	4.04%	0.26%	5.71%	7.06%	10.78%	46.66%	43.73%
163	60,123	612	1.03%	39.74%	46.54%	0.40%	3.15%	0.16%	4.62%	5.39%	8.45%	48.40%	45.49%
164	60,101	590	0.99%	60.02%	22.55%	0.45%	4.26%	0.13%	4.01%	8.58%	9.95%	25.07%	23.47%
165	59,978	467	0.78%	36.28%	52.86%	0.30%	3.23%	0.16%	2.74%	4.44%	5.53%	54.85%	50.33%
166	60,242	731	1.23%	84.02%	5.04%	0.23%	2.67%	0.05%	1.68%	6.30%	5.19%	6.05%	5.67%
167	59,493	-18	-0.03%	64.99%	21.40%	0.62%	1.47%	0.26%	3.75%	7.52%	8.81%	23.93%	22.28%
168	60,147	636	1.07%	39.01%	44.49%	0.44%	2.06%	0.73%	3.84%	9.43%	11.22%	49.11%	46.26%
169	59,138	-373	-0.63%	60.27%	29.04%	0.33%	0.79%	0.03%	5.16%	4.37%	9.03%	30.38%	29.04%
170	60,116	605	1.02%	62.84%	24.56%	0.31%	1.19%	0.03%	5.44%	5.62%	10.43%	26.05%	24.22%
171	59,237	-274	-0.46%	52.16%	40.00%	0.33%	0.54%	0.03%	3.52%	3.41%	5.73%	41.21%	39.60%
172	59,961	450	0.76%	60.41%	23.41%	0.80%	0.77%	0.03%	8.71%	5.87%	16.00%	24.67%	23.32%
173	59,743	232	0.39%	53.63%	36.40%	0.63%	0.83%	0.02%	4.16%	4.33%	6.95%	37.84%	36.27%
174	59,852	341	0.57%	73.85%	17.42%	0.47%	0.49%	0.05%	3.09%	4.63%	7.88%	18.81%	17.37%
175	59,993	482	0.81%	65.60%	23.98%	0.37%	1.79%	0.08%	2.45%	5.73%	6.10%	25.56%	24.17%
176	59,470	-41	-0.07%	66.19%	21.96%	0.45%	0.93%	0.11%	4.65%	5.71%	9.95%	23.59%	22.68%
177	59,992	481	0.81%	34.69%	55.26%	0.37%	1.30%	0.09%	3.02%	5.27%	6.69%	57.52%	53.88%
178	59,877	366	0.62%	77.36%	14.59%	0.35%	0.52%	0.01%	3.20%	3.97%	6.22%	15.91%	14.79%
179	59,356	-155	-0.26%	60.43%	28.66%	0.39%	1.07%	0.17%	4.00%	5.27%	7.73%	30.40%	27.03%
180	59,412	-99	-0.17%	70.77%	17.31%	0.47%	1.62%	0.13%	2.05%	7.65%	6.47%	19.73%	18.21%



**Esselstyn Report: Attachment K**

## **2021-2022 GUIDELINES FOR THE HOUSE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT COMMITTEE**

### **I. HEARINGS AND MEETINGS**

#### **A. PUBLIC HEARINGS**

1. A series of public hearings were held to actively seek public participation and input concerning the General Assembly's redrawing of congressional and legislative districts.
2. Video recordings of all hearings are and shall remain available on the legislative website, [www.legis.ga.gov](http://www.legis.ga.gov)

#### **B. COMMITTEE MEETINGS**

1. All formal meetings of the full committee will be open to the public.
2. When the General Assembly is not in session, notices of all such meetings will be posted at the Offices of the Clerk of the House or Secretary of the Senate and other appropriate places at least 24 hours in advance of any meeting. Individual notices may be transmitted by email to any citizen or organization requesting the same without charge. Persons or organizations needing this information should contact the Senate Press Office or House Communications Office or the Secretary of the Senate or Clerk of the House to be placed on the notification list.
3. Minutes of all such meetings shall be kept and maintained in accordance with the rules of the House and Senate. Copies of the minutes should be made available in a timely manner at a reasonable cost in accordance with these same rules.

### **II. PUBLIC ACCESS TO REDISTRICTING DATA AND MATERIALS**

- A. Census information databases on any medium created at public expense and held by the Committee or by the Legislative and Congressional Reapportionment Office for use in the redistricting process are included as public records and copies can be made available to the public in accordance with the rules of the General Assembly and subject to reasonable charges for search, retrieval, reproduction and other reasonable, related costs.
- B. Copies of the public records described above may be obtained at the cost of reproduction by members of the public on electronic media if the material exists on an appropriate electronic medium. Cost of reproduction may include not only the medium on which the copies made, but also the labor cost for the search, retrieval, and reproduction of the records and other reasonable, related costs.

- C. These guidelines regarding public access to redistricting data and materials do not apply to plans or other related materials prepared by or on behalf of an individual Member of the General Assembly using the Legislative and Congressional Reapportionment Office, where those plans and materials have not been made public through presentation to the Committee.

### **III. REDISTRICTING PLANS**

#### **A. GENERAL PRINCIPLES FOR DRAFTING PLANS**

1. Each congressional district should be drawn with a total population of plus or minus one person from the ideal district size.
2. Each legislative district of the General Assembly should be drawn to achieve a total population that is substantially equal as practicable, considering the principles listed below.
3. All plans adopted by the Committee will comply with Section 2 of the Voting Rights Act of 1965, as amended.
4. All plans adopted by the Committee will comply with the United States and Georgia Constitutions.
5. Districts shall be composed of contiguous geography. Districts that connect on a single point are not contiguous.
6. No multi-member districts shall be drawn on any legislative redistricting plan.
7. The Committee should consider:
  - a. The boundaries of counties and precincts;
  - b. Compactness; and
  - c. Communities of interest.
8. Efforts should be made to avoid the unnecessary pairing of incumbents.
9. The identifying of these criteria is not intended to limit the consideration of any other principles or factors that the Committee deems appropriate.

#### **B. PLANS PRODUCED THROUGH THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE**

1. Staff of the Legislative and Congressional Reapportionment Office will be available to all members of the General Assembly requesting assistance in accordance with the policy of that office.
2. Census data and redistricting work maps will be available to all members of the General Assembly upon request, provided that (a) the map was created by the requesting member, (b) the map is publicly available, or (c) the Legislative and Congressional Reapportionment Office has been granted permission by the author of the map to share a copy with the requesting member.
3. As noted above, redistricting plans and other records related to the provision of staff services to individual members of the General Assembly will not be subject to public disclosure. Only the author of a particular map may waive the confidentiality of his or her own work product. This confidentiality provision will not apply with respect to records related to the provision of staff services to any committee or subcommittee as a whole or to any records which are or have been previously disclosed by or pursuant to the direction of an individual member of the General Assembly.

C. PLANS PRODUCED OUTSIDE OF THE LEGISLATIVE AND CONGRESSIONAL REAPPORTIONMENT OFFICE

1. All plans submitted to the Committee will be made part of the public record and made available in the same manner as other committee public records.
2. All plans prepared outside the Legislative and Congressional Reapportionment Office must be submitted to that office prior to presentation to the Committee by a Member of the General Assembly for technical verification and presentation and bill preparation. All pieces of census geography must be accounted for in some district.
3. The electronic submission of material for technical verification must be made in accordance with the following requirements or in a manner specifically approved and accepted by the Legislative and Congressional Reapportionment Office.
  - a. The submission shall be in electronic format with accompanying documentation that shows the submitting sponsor of the proposed plan and contact person for the proposed plan, including email address and telephone number.
  - b. An electronic map image that clearly depicts defined boundaries, utilizing the 2020 United States Census geographic boundaries,

and a block equivalency file containing two columns. The first column shall list the 15-digit census block identification numbers, and the second column shall list the three-digit district identification number. Both block and district numbers shall be zero-filled text files. Such files shall be submitted in .xis, .xlsx, .dbf, .txt, or .csv file formats. The following is a sample:

```
BlockID, DISTRICT
"13001950100101","008"
"13001950100102","008"
"13001950100103","008"
"13001950100104","008"
"13001950100105","008"
"13001950100106","008"
```

4. If submission of the plan cannot be done electronically, the following requirements must be followed:
  - a. All drafts, amendments, or revisions should be on clearly-depicted maps that follow the 2020 Census geographic boundaries and should be accompanied by a statistical sheet listing the Census geography including the total population for each district.
  - b. All plans submitted should either be a complete statewide plan or fit back into the plan that they modified, so that the proposal can be evaluated in the context of a statewide plan. All pieces of Census geography must be accounted for in some district.

#### D. GENERAL GUIDELINES FOR PRESENTATION OF ALL PLANS

1. A redistricting plan may be presented for consideration by the Committee only through the sponsorship of one or more Member(s) of the General Assembly. All such drafts of and amendments or revisions to plans presented at any committee meeting must be on clearly-depicted maps which follow the 2020 Census geographic boundaries and accompanied by a statistical sheet listing the Census geography, including the total population and minority populations for each proposed district.
2. No plan may be presented to the Committee unless that plan makes accommodations for and fits back into a specific, identified statewide map for the particular legislative body involved.

3. All plans presented at committee meetings will be made available for inspection by the public either electronically or by hard copy available at the Office of Legislative and Congressional Reapportionment.
- E. These guidelines may be reconsidered or amended by the Committee.

**Esselstyn Report: Attachment L**

## More detailed tables for comparative characteristics of House plans

### Population Deviation:

The deviation statistics for each individual district in the respective plans can be found in **Attachment I** and **Attachment J**. Below are the summary statistics generated by the *Maptitude for Redistricting* software.

#### Enacted plan:

Population Range:	58,678 to 60,308
Ratio Range:	0.03
Absolute Range:	-833 to 797
Absolute Overall Range:	1,630
Relative Range:	-1.40% to 1.34%
Relative Overall Range:	2.74%
Absolute Mean Deviation:	363.71
Relative Mean Deviation:	0.61%
Standard Deviation:	417.67

#### Illustrative plan:

Population Range:	58,358 to 60,647
Ratio Range:	0.04
Absolute Range:	-1,153 to 1,136
Absolute Overall Range:	2,289
Relative Range:	-1.94% to 1.91%
Relative Overall Range:	3.85%
Absolute Mean Deviation:	379.46
Relative Mean Deviation:	0.64%
Standard Deviation:	442.99

### Compactness:

Below is the compactness report for the House enacted plan.



User:

Plan Name: EnachSEfromGA

Plan Type:

## Measures of Compactness Report

Tuesday, January 11, 2022

9:53 PM

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
001	0.53	1.45	0.45	0.85
002	0.53	1.95	0.24	0.71
003	0.50	1.49	0.41	0.83
004	0.37	1.93	0.21	0.72
005	0.43	1.67	0.25	0.73
006	0.45	1.72	0.26	0.77
007	0.62	1.31	0.50	0.89
008	0.46	1.71	0.27	0.71
009	0.47	1.63	0.30	0.78
010	0.34	1.48	0.30	0.81
011	0.31	1.72	0.26	0.71

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
012	0.47	1.66	0.31	0.85
013	0.47	2.06	0.19	0.74
014	0.32	1.95	0.23	0.73
015	0.55	1.63	0.33	0.79
016	0.31	1.57	0.35	0.88
017	0.28	1.97	0.21	0.64
018	0.41	1.88	0.25	0.76
019	0.26	1.90	0.26	0.68
020	0.46	1.40	0.45	0.81
021	0.26	1.81	0.27	0.73
022	0.28	1.80	0.22	0.69
023	0.40	1.84	0.19	0.69
024	0.35	1.77	0.30	0.79
025	0.39	1.69	0.31	0.68

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
026	0.27	1.82	0.26	0.70
027	0.60	1.54	0.34	0.82
028	0.38	1.58	0.35	0.80
029	0.34	1.97	0.21	0.62
030	0.43	1.71	0.30	0.66
031	0.44	1.67	0.25	0.70
032	0.39	1.64	0.33	0.73
033	0.49	1.53	0.37	0.80
034	0.45	1.61	0.33	0.75
035	0.32	1.76	0.24	0.73
036	0.32	1.90	0.23	0.68
037	0.45	1.66	0.28	0.82
038	0.59	1.28	0.58	0.91
039	0.59	1.45	0.40	0.87

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
040	0.49	1.69	0.29	0.76
041	0.60	1.47	0.40	0.85
042	0.40	2.01	0.21	0.64
043	0.42	1.94	0.22	0.69
044	0.31	1.76	0.29	0.73
045	0.41	1.64	0.32	0.77
046	0.55	1.42	0.47	0.84
047	0.29	2.02	0.21	0.61
048	0.34	2.12	0.19	0.62
049	0.30	2.23	0.15	0.59
050	0.42	1.40	0.46	0.77
051	0.54	1.60	0.36	0.73
052	0.48	1.65	0.35	0.72
053	0.16	2.52	0.14	0.50

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
054	0.37	1.49	0.45	0.87
055	0.18	2.42	0.16	0.59
056	0.26	2.04	0.23	0.69
057	0.57	1.30	0.59	0.91
058	0.13	2.76	0.13	0.54
059	0.12	2.98	0.11	0.46
060	0.19	2.39	0.15	0.58
061	0.25	2.12	0.20	0.64
062	0.16	2.92	0.10	0.48
063	0.16	2.61	0.14	0.49
064	0.37	1.60	0.36	0.78
065	0.46	2.06	0.17	0.72
066	0.36	1.94	0.25	0.67
067	0.36	2.39	0.12	0.61

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
068	0.32	2.19	0.17	0.71
069	0.40	1.88	0.25	0.69
070	0.45	1.94	0.23	0.65
071	0.44	1.56	0.35	0.79
072	0.42	1.86	0.23	0.73
073	0.28	2.12	0.20	0.66
074	0.50	1.79	0.25	0.76
075	0.42	1.82	0.28	0.64
076	0.53	1.33	0.51	0.86
077	0.40	2.11	0.21	0.64
078	0.21	2.08	0.19	0.62
079	0.50	2.06	0.21	0.73
080	0.38	1.49	0.42	0.79
081	0.47	1.54	0.40	0.81

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
082	0.49	1.74	0.30	0.72
083	0.34	1.62	0.36	0.80
084	0.25	1.97	0.20	0.67
085	0.36	1.65	0.32	0.77
086	0.17	2.34	0.17	0.55
087	0.26	1.97	0.24	0.70
088	0.26	2.14	0.20	0.67
089	0.14	2.90	0.10	0.47
090	0.36	1.78	0.29	0.83
091	0.45	2.08	0.20	0.62
092	0.36	1.98	0.20	0.71
093	0.26	2.66	0.11	0.54
094	0.31	2.42	0.15	0.56
095	0.44	1.72	0.25	0.75

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
096	0.18	2.18	0.21	0.66
097	0.28	1.96	0.24	0.67
098	0.42	1.35	0.52	0.88
099	0.36	1.80	0.29	0.72
100	0.34	1.78	0.29	0.66
101	0.53	1.44	0.46	0.82
102	0.56	1.58	0.35	0.77
103	0.33	1.96	0.24	0.62
104	0.28	1.90	0.25	0.74
105	0.34	1.78	0.28	0.69
106	0.66	1.36	0.50	0.85
107	0.51	1.68	0.32	0.75
108	0.43	1.64	0.32	0.71
109	0.39	1.70	0.28	0.70



**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
110	0.36	1.68	0.33	0.74
111	0.33	1.76	0.29	0.68
112	0.62	1.26	0.52	0.91
113	0.50	1.57	0.32	0.85
114	0.51	1.70	0.28	0.71
115	0.44	1.92	0.23	0.63
116	0.41	1.81	0.28	0.63
117	0.41	1.74	0.28	0.75
118	0.35	1.92	0.22	0.68
119	0.39	1.89	0.21	0.64
120	0.44	1.83	0.25	0.72
121	0.43	1.61	0.30	0.76
122	0.48	1.48	0.43	0.85
123	0.30	1.89	0.18	0.69

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
124	0.44	1.78	0.23	0.69
125	0.41	1.89	0.17	0.72
126	0.52	1.39	0.41	0.80
127	0.35	2.17	0.20	0.58
128	0.60	1.51	0.32	0.79
129	0.48	1.94	0.25	0.66
130	0.51	1.48	0.25	0.75
131	0.38	1.74	0.28	0.70
132	0.27	1.69	0.30	0.75
133	0.55	1.36	0.42	0.83
134	0.33	1.96	0.23	0.67
135	0.57	1.32	0.42	0.88
136	0.54	1.74	0.26	0.77
137	0.33	2.22	0.16	0.57

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
138	0.33	2.00	0.20	0.70
139	0.28	1.93	0.23	0.66
140	0.29	2.06	0.19	0.65
141	0.26	2.16	0.20	0.52
142	0.35	1.82	0.23	0.70
143	0.50	1.53	0.30	0.79
144	0.51	1.56	0.32	0.84
145	0.38	1.85	0.19	0.72
146	0.26	2.00	0.19	0.62
147	0.33	1.84	0.26	0.64
148	0.44	1.81	0.24	0.69
149	0.32	1.68	0.22	0.72
150	0.44	1.67	0.28	0.78
151	0.53	1.82	0.22	0.71

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
152	0.40	1.68	0.30	0.81
153	0.30	1.73	0.30	0.70
154	0.41	1.48	0.33	0.79
155	0.49	1.33	0.48	0.89
156	0.23	1.92	0.20	0.67
157	0.32	1.95	0.19	0.72
158	0.48	1.52	0.33	0.80
159	0.34	1.62	0.22	0.73
160	0.49	1.32	0.37	0.88
161	0.51	1.51	0.31	0.81
162	0.37	1.99	0.21	0.61
163	0.27	2.34	0.18	0.54
164	0.30	2.10	0.17	0.66
165	0.23	2.23	0.16	0.52

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
166	0.43	1.43	0.36	0.82
167	0.42	1.97	0.19	0.65
168	0.24	1.67	0.26	0.69
169	0.28	1.97	0.23	0.64
170	0.53	1.49	0.34	0.82
171	0.35	1.46	0.37	0.83
172	0.44	1.59	0.32	0.77
173	0.57	1.46	0.38	0.85
174	0.41	1.70	0.24	0.75
175	0.47	1.54	0.37	0.83
176	0.34	2.23	0.16	0.54
177	0.43	1.57	0.34	0.76
178	0.48	1.83	0.22	0.75
179	0.45	1.39	0.42	0.87

**Measures of Compactness Report**

EnacHSEfromGA

Number of cut edges: 22,020

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.80	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
180	0.61	1.23	0.40	0.85

Measures of Compactness Report

EnacHSEfromGA

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

**Below is the compactness report for the House illustrative plan.**



User:

Plan Name: GA House Illustrative

Plan Type:

## Measures of Compactness Report

Saturday, December 3, 2022

10:02 PM

Number of cut edges: 22,359

	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

District	Reock	Schwartzberg	Polsby-Popper	Area/Convex Hull
1	0.53	1.45	0.45	0.85
2	0.53	1.95	0.24	0.71
3	0.50	1.49	0.41	0.83
4	0.37	1.93	0.21	0.72
5	0.43	1.67	0.25	0.73
6	0.45	1.72	0.26	0.77
7	0.62	1.31	0.50	0.89
8	0.46	1.71	0.27	0.71
9	0.47	1.63	0.30	0.78
10	0.34	1.48	0.30	0.81
11	0.31	1.72	0.26	0.71

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
12	0.47	1.66	0.31	0.85
13	0.47	2.06	0.19	0.74
14	0.32	1.95	0.23	0.73
15	0.55	1.63	0.33	0.79
16	0.31	1.57	0.35	0.88
17	0.28	1.97	0.21	0.64
18	0.41	1.88	0.25	0.76
19	0.26	1.90	0.26	0.68
20	0.46	1.40	0.45	0.81
21	0.26	1.81	0.27	0.73
22	0.28	1.80	0.22	0.69
23	0.40	1.84	0.19	0.69
24	0.35	1.77	0.30	0.79
25	0.39	1.69	0.31	0.68

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
26	0.27	1.82	0.26	0.70
27	0.60	1.54	0.34	0.82
28	0.38	1.58	0.35	0.80
29	0.34	1.97	0.21	0.62
30	0.43	1.71	0.30	0.66
31	0.44	1.67	0.25	0.70
32	0.39	1.64	0.33	0.73
33	0.49	1.53	0.37	0.80
34	0.45	1.61	0.33	0.75
35	0.32	1.76	0.24	0.73
36	0.32	1.90	0.23	0.68
37	0.45	1.66	0.28	0.82
38	0.59	1.28	0.58	0.91
39	0.59	1.45	0.40	0.87

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
40	0.49	1.69	0.29	0.76
41	0.60	1.47	0.40	0.85
42	0.40	2.01	0.21	0.64
43	0.42	1.94	0.22	0.69
44	0.31	1.76	0.29	0.73
45	0.41	1.64	0.32	0.77
46	0.55	1.42	0.47	0.84
47	0.29	2.02	0.21	0.61
48	0.34	2.12	0.19	0.62
49	0.30	2.23	0.15	0.59
50	0.42	1.40	0.46	0.77
51	0.54	1.60	0.36	0.73
52	0.48	1.65	0.35	0.72
53	0.16	2.52	0.14	0.50

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
54	0.37	1.49	0.45	0.87
55	0.18	2.42	0.16	0.59
56	0.26	2.04	0.23	0.69
57	0.57	1.30	0.59	0.91
58	0.13	2.76	0.13	0.54
59	0.12	2.98	0.11	0.46
60	0.19	2.39	0.15	0.58
61	0.33	2.05	0.21	0.60
62	0.16	2.92	0.10	0.48
63	0.16	2.61	0.14	0.49
64	0.22	2.05	0.22	0.59
65	0.36	2.59	0.11	0.59
66	0.39	1.63	0.35	0.79
67	0.36	2.39	0.12	0.61

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
68	0.32	2.19	0.17	0.71
69	0.33	2.06	0.22	0.68
70	0.45	1.94	0.23	0.65
71	0.44	1.56	0.35	0.79
72	0.42	1.86	0.23	0.73
73	0.28	2.12	0.20	0.66
74	0.30	1.98	0.19	0.61
75	0.46	2.23	0.18	0.68
76	0.53	1.33	0.51	0.86
77	0.40	2.11	0.21	0.64
78	0.31	2.05	0.18	0.65
79	0.50	2.06	0.21	0.73
80	0.38	1.49	0.42	0.79
81	0.47	1.54	0.40	0.81

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
82	0.49	1.74	0.30	0.72
83	0.34	1.62	0.36	0.80
84	0.25	1.97	0.20	0.67
85	0.36	1.65	0.32	0.77
86	0.17	2.34	0.17	0.55
87	0.26	1.97	0.24	0.70
88	0.26	2.14	0.20	0.67
89	0.14	2.90	0.10	0.47
90	0.36	1.78	0.29	0.83
91	0.27	2.15	0.17	0.63
92	0.36	1.98	0.20	0.71
93	0.26	2.66	0.11	0.54
94	0.31	2.42	0.15	0.56
95	0.44	1.72	0.25	0.75

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
96	0.18	2.18	0.21	0.66
97	0.28	1.96	0.24	0.67
98	0.42	1.35	0.52	0.88
99	0.36	1.80	0.29	0.72
100	0.34	1.78	0.29	0.66
101	0.53	1.44	0.46	0.82
102	0.56	1.58	0.35	0.77
103	0.33	1.96	0.24	0.62
104	0.28	1.90	0.25	0.74
105	0.34	1.78	0.28	0.69
106	0.66	1.36	0.50	0.85
107	0.51	1.68	0.32	0.75
108	0.43	1.64	0.32	0.71
109	0.39	1.70	0.28	0.70



**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
110	0.36	1.68	0.33	0.74
111	0.33	1.76	0.29	0.68
112	0.62	1.26	0.52	0.91
113	0.50	1.57	0.32	0.85
114	0.51	1.70	0.28	0.71
115	0.29	1.77	0.28	0.71
116	0.33	1.98	0.23	0.62
117	0.40	1.62	0.33	0.76
118	0.35	1.92	0.22	0.68
119	0.39	1.89	0.21	0.64
120	0.44	1.83	0.25	0.72
121	0.43	1.61	0.30	0.76
122	0.48	1.48	0.43	0.85
123	0.30	1.89	0.18	0.69

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
124	0.44	1.78	0.23	0.69
125	0.41	1.89	0.17	0.72
126	0.52	1.39	0.41	0.80
127	0.35	2.17	0.20	0.58
128	0.60	1.51	0.32	0.79
129	0.48	1.94	0.25	0.66
130	0.51	1.48	0.25	0.75
131	0.38	1.74	0.28	0.70
132	0.27	1.69	0.30	0.75
133	0.36	1.69	0.29	0.76
134	0.37	1.73	0.31	0.74
135	0.39	1.79	0.23	0.69
136	0.54	1.74	0.26	0.77
137	0.33	2.22	0.16	0.57

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
138	0.33	2.00	0.20	0.70
139	0.28	1.93	0.23	0.66
140	0.29	2.06	0.19	0.65
141	0.26	2.16	0.20	0.52
142	0.56	1.42	0.36	0.84
143	0.31	1.85	0.26	0.65
144	0.43	1.83	0.22	0.71
145	0.34	1.63	0.21	0.76
146	0.50	1.79	0.26	0.68
147	0.44	1.57	0.37	0.80
148	0.35	2.23	0.18	0.59
149	0.46	1.48	0.28	0.83
150	0.44	1.67	0.28	0.78
151	0.53	1.82	0.22	0.71

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
152	0.40	1.68	0.30	0.81
153	0.30	1.73	0.30	0.70
154	0.41	1.48	0.33	0.79
155	0.47	1.40	0.44	0.86
156	0.25	1.94	0.20	0.71
157	0.32	1.95	0.19	0.72
158	0.48	1.52	0.33	0.80
159	0.34	1.62	0.22	0.73
160	0.49	1.32	0.37	0.88
161	0.51	1.51	0.31	0.81
162	0.37	1.99	0.21	0.61
163	0.27	2.34	0.18	0.54
164	0.30	2.10	0.17	0.66
165	0.23	2.23	0.16	0.52

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10

<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
166	0.43	1.43	0.36	0.82
167	0.42	1.97	0.19	0.65
168	0.24	1.67	0.26	0.69
169	0.28	1.97	0.23	0.64
170	0.53	1.49	0.34	0.82
171	0.35	1.46	0.37	0.83
172	0.44	1.59	0.32	0.77
173	0.57	1.46	0.38	0.85
174	0.41	1.70	0.24	0.75
175	0.47	1.54	0.37	0.83
176	0.34	2.23	0.16	0.54
177	0.43	1.57	0.34	0.76
178	0.48	1.83	0.22	0.75
179	0.45	1.39	0.42	0.87

**Measures of Compactness Report**

GA House Illustrative

Number of cut edges: 22,359

	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
Sum	N/A	N/A	N/A	N/A
Min	0.12	1.23	0.10	0.46
Max	0.66	2.98	0.59	0.91
Mean	0.39	1.81	0.28	0.72
Std. Dev.	0.11	0.33	0.10	0.10
<b>District</b>	<b>Reock</b>	<b>Schwartzberg</b>	<b>Polsby-Popper</b>	<b>Area/Convex Hull</b>
180	0.61	1.23	0.40	0.85

Measures of Compactness Report

GA House Illustrative

Measures of Compactness Summary

Reock	The measure is always between 0 and 1, with 1 being the most compact.
Schwartzberg	The measure is usually greater than or equal to 1, with 1 being the most compact.
Polsby-Popper	The measure is always between 0 and 1, with 1 being the most compact.
Area / Convex Hull	The measure is always between 0 and 1, with 1 being the most compact.
Cut Edges	A smaller number implies a more compact plan. The measure should only be used to compare plans defined on the same base layer.

**Divisions of counties and precincts (VTDs):**

Below is the political subdivisions splits report for the House enacted plan.

Related note: The first page of the following report generated by *Maptitude for Redistricting* software reports a total number of Voting District (VTD) “subdivisions split in to more than one district,” namely 184. However, the “Split Counts” “Voting District” section of the report indicates that “[c]ases where an area is split among 2 Districts” total 175, and “[c]ases where an area is split among 3 Districts” total 10—and the total of 175 and 10 equals 185, not 184. In correspondence with Caliper Corporation (the company that produces *Maptitude for Redistricting*), I have verified that 185 is the correct total, hence that is the number provided in the summary table in section IV.C. of the expert report, not 184.



User:

Plan Name: **GA House Enacted**

Plan Type:

## Political Subdivision Splits Between Districts

Saturday, December 3, 2022

10:53 PM

Number of subdivisions not split:

County	90
Voting District	2,514

Number of subdivisions split into more than one district:

County	69
Voting District	184

Number of splits involving no population:

County	0
Voting District	16

### Split Counts

#### *County*

Cases where an area is split among 2 Districts: 34  
 Cases where an area is split among 3 Districts: 9  
 Cases where an area is split among 4 Districts: 12  
 Cases where an area is split among 5 Districts: 4  
 Cases where an area is split among 6 Districts: 3  
 Cases where an area is split among 7 Districts: 2  
 Cases where an area is split among 9 Districts: 1  
 Cases where an area is split among 14 Districts: 1  
 Cases where an area is split among 17 Districts: 1  
 Cases where an area is split among 21 Districts: 1  
 Cases where an area is split among 22 Districts: 1

#### *Voting District*

Cases where an area is split among 2 Districts: 175  
 Cases where an area is split among 3 Districts: 10

County	Voting District	District	Population
<i>Split Counties:</i>			
Appling GA		157	12,825
Appling GA		178	5,619
Baldwin GA		128	5,158
Baldwin GA		133	38,641
Barrow GA		104	24,245
Barrow GA		119	54,736
Barrow GA		120	4,524
Bartow GA		14	49,688
Bartow GA		15	59,213
Ben Hill GA		148	5,115
Ben Hill GA		156	12,079
Bibb GA		142	59,608
Bibb GA		143	59,469
Bibb GA		144	33,948

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Bibb GA		145	4,321
Bryan GA		160	11,008
Bryan GA		164	21,420
Bryan GA		166	12,310
Bulloch GA		158	19,285
Bulloch GA		159	12,887
Bulloch GA		160	48,927
Carroll GA		18	18,789
Carroll GA		70	2,854
Carroll GA		71	59,538
Carroll GA		72	37,967
Catoosa GA		2	7,673
Catoosa GA		3	60,199
Chatham GA		161	28,269
Chatham GA		162	60,308
Chatham GA		163	60,123
Chatham GA		164	38,681
Chatham GA		165	59,978
Chatham GA		166	47,932
Cherokee GA		11	6,557
Cherokee GA		14	9,447
Cherokee GA		20	60,107
Cherokee GA		21	59,529
Cherokee GA		22	30,874
Cherokee GA		23	59,048
Cherokee GA		44	21,989
Cherokee GA		46	15,178
Cherokee GA		47	3,891
Clarke GA		120	30,095
Clarke GA		121	26,478
Clarke GA		122	59,632
Clarke GA		124	12,466
Clayton GA		75	59,743
Clayton GA		76	59,759
Clayton GA		77	59,242
Clayton GA		78	55,197
Clayton GA		79	59,500
Clayton GA		116	4,154
Cobb GA		22	28,586
Cobb GA		34	59,875
Cobb GA		35	59,889
Cobb GA		36	59,994
Cobb GA		37	59,176
Cobb GA		38	59,317
Cobb GA		39	59,381
Cobb GA		40	59,044
Cobb GA		41	60,122

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA		42	59,620
Cobb GA		43	59,464
Cobb GA		44	38,013
Cobb GA		45	59,738
Cobb GA		46	43,930
Coffee GA		169	33,736
Coffee GA		176	9,356
Columbia GA		123	2,205
Columbia GA		125	55,389
Columbia GA		127	39,526
Columbia GA		131	58,890
Cook GA		170	7,342
Cook GA		172	9,887
Coweta GA		65	13,008
Coweta GA		67	17,272
Coweta GA		70	56,267
Coweta GA		73	31,608
Coweta GA		136	28,003
Dawson GA		7	2,409
Dawson GA		9	24,389
DeKalb GA		52	28,300
DeKalb GA		80	59,461
DeKalb GA		81	59,007
DeKalb GA		82	59,724
DeKalb GA		83	59,416
DeKalb GA		84	59,862
DeKalb GA		85	59,373
DeKalb GA		86	59,205
DeKalb GA		87	59,709
DeKalb GA		88	47,844
DeKalb GA		89	59,866
DeKalb GA		90	59,812
DeKalb GA		91	19,700
DeKalb GA		92	15,607
DeKalb GA		93	11,690
DeKalb GA		94	31,207
DeKalb GA		95	14,599
Dougherty GA		151	6,268
Dougherty GA		152	6,187
Dougherty GA		153	59,299
Dougherty GA		154	14,036
Douglas GA		61	30,206
Douglas GA		64	35,576
Douglas GA		65	19,408
Douglas GA		66	59,047
Effingham GA		159	32,941
Effingham GA		161	31,828

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Fayette GA		68	29,719
Fayette GA		69	37,303
Fayette GA		73	28,428
Fayette GA		74	23,744
Floyd GA		5	5,099
Floyd GA		12	34,335
Floyd GA		13	59,150
Forsyth GA		11	19,019
Forsyth GA		24	59,011
Forsyth GA		25	46,134
Forsyth GA		26	59,248
Forsyth GA		28	50,864
Forsyth GA		100	17,007
Fulton GA		25	13,280
Fulton GA		47	55,235
Fulton GA		48	43,976
Fulton GA		49	59,153
Fulton GA		50	59,523
Fulton GA		51	58,952
Fulton GA		52	31,511
Fulton GA		53	59,953
Fulton GA		54	60,083
Fulton GA		55	59,971
Fulton GA		56	58,929
Fulton GA		57	59,969
Fulton GA		58	59,057
Fulton GA		59	59,434
Fulton GA		60	59,709
Fulton GA		61	29,096
Fulton GA		62	59,450
Fulton GA		63	59,381
Fulton GA		65	27,048
Fulton GA		67	41,863
Fulton GA		68	29,758
Fulton GA		69	21,379
Glynn GA		167	20,499
Glynn GA		179	59,356
Glynn GA		180	4,644
Gordon GA		5	53,738
Gordon GA		6	3,806
Grady GA		171	8,115
Grady GA		173	18,121
Gwinnett GA		30	8,620
Gwinnett GA		48	15,027
Gwinnett GA		88	11,845
Gwinnett GA		94	28,004
Gwinnett GA		95	34,221

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Gwinnett GA		96	59,515
Gwinnett GA		97	59,072
Gwinnett GA		98	59,998
Gwinnett GA		99	59,850
Gwinnett GA		100	35,204
Gwinnett GA		101	59,938
Gwinnett GA		102	58,959
Gwinnett GA		103	51,691
Gwinnett GA		104	35,117
Gwinnett GA		105	59,344
Gwinnett GA		106	59,112
Gwinnett GA		107	59,702
Gwinnett GA		108	59,577
Gwinnett GA		109	59,630
Gwinnett GA		110	59,951
Gwinnett GA		111	22,685
Habersham GA		10	42,636
Habersham GA		32	3,395
Hall GA		27	54,508
Hall GA		28	8,108
Hall GA		29	59,200
Hall GA		30	50,646
Hall GA		31	14,349
Hall GA		100	7,819
Hall GA		103	8,506
Harris GA		138	21,634
Harris GA		139	13,034
Henry GA		74	18,397
Henry GA		78	3,847
Henry GA		91	35,569
Henry GA		115	60,174
Henry GA		116	55,759
Henry GA		117	54,737
Henry GA		118	12,229
Houston GA		145	28,132
Houston GA		146	60,203
Houston GA		147	59,178
Houston GA		148	16,120
Jackson GA		31	45,552
Jackson GA		32	10,931
Jackson GA		119	4,211
Jackson GA		120	15,213
Jasper GA		114	2,855
Jasper GA		118	11,733
Jones GA		133	20,561
Jones GA		144	7,786
Lamar GA		134	5,026

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Lamar GA		135	13,474
Liberty GA		167	5,109
Liberty GA		168	60,147
Lowndes GA		174	9,770
Lowndes GA		175	43,692
Lowndes GA		176	4,797
Lowndes GA		177	59,992
Lumpkin GA		9	29,201
Lumpkin GA		27	4,287
Madison GA		33	9,935
Madison GA		123	20,185
McDuffie GA		125	4,748
McDuffie GA		128	16,884
Meriwether GA		136	13,382
Meriwether GA		137	7,231
Monroe GA		134	9,272
Monroe GA		144	17,498
Monroe GA		145	1,187
Muscogee GA		137	30,443
Muscogee GA		138	12,190
Muscogee GA		139	45,976
Muscogee GA		140	59,294
Muscogee GA		141	59,019
Newton GA		93	15,515
Newton GA		113	60,053
Newton GA		114	36,915
Oconee GA		120	9,150
Oconee GA		121	32,649
Paulding GA		16	16,549
Paulding GA		17	59,120
Paulding GA		18	10,627
Paulding GA		19	58,955
Paulding GA		64	23,410
Peach GA		145	14,093
Peach GA		150	13,888
Putnam GA		118	10,591
Putnam GA		124	11,456
Richmond GA		126	25,990
Richmond GA		127	19,152
Richmond GA		129	58,829
Richmond GA		130	59,203
Richmond GA		132	43,433
Rockdale GA		91	4,781
Rockdale GA		92	44,666
Rockdale GA		93	32,913
Rockdale GA		95	11,210
Spalding GA		74	16,815

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Spalding GA		117	5,393
Spalding GA		134	45,098
Sumter GA		150	14,282
Sumter GA		151	15,334
Tattnall GA		156	1,263
Tattnall GA		157	21,579
Telfair GA		149	9,486
Telfair GA		156	2,991
Thomas GA		172	4,176
Thomas GA		173	41,622
Tift GA		169	6,730
Tift GA		170	34,614
Troup GA		72	10,281
Troup GA		136	17,913
Troup GA		137	16,144
Troup GA		138	25,088
Walker GA		1	43,415
Walker GA		2	24,239
Walton GA		111	37,324
Walton GA		112	59,349
Ware GA		174	9,097
Ware GA		176	27,154
Wayne GA		167	6,742
Wayne GA		178	23,402
White GA		8	22,119
White GA		9	5,884
Whitfield GA		2	27,861
Whitfield GA		4	59,070
Whitfield GA		6	15,933
<i>Split VTDs:</i>			
Barrow GA	16	104	1,708
Barrow GA	16	119	8,060
Bartow GA	CASSVILLE	14	15,558
Bartow GA	CASSVILLE	15	1,047
Bartow GA	WHITE	14	3,335
Bartow GA	WHITE	15	211
Ben Hill GA	WEST	148	5,115
Ben Hill GA	WEST	156	5,229
Bibb GA	HOWARD 1	142	2,326
Bibb GA	HOWARD 1	144	3,617
Bibb GA	HOWARD 2	142	2,369
Bibb GA	HOWARD 2	144	3,076
Bibb GA	HOWARD 3	142	0
Bibb GA	HOWARD 3	144	12,654
Bibb GA	WARRIOR 2	142	4,426
Bibb GA	WARRIOR 2	145	852
Bryan GA	DANIELSIDING	164	1,268

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Bryan GA	DANIELSIDING	166	1,741
Bryan GA	HWY 144 EAST	164	4,552
Bryan GA	HWY 144 EAST	166	4,707
Bryan GA	J.F.GREGORY PARK	164	3,489
Bryan GA	J.F.GREGORY PARK	166	144
Bulloch GA	CHURCH	158	3,764
Bulloch GA	CHURCH	159	5,869
Carroll GA	BONNER	71	410
Carroll GA	BONNER	72	5,554
Chatham GA	CRUSADER COMMUNITY CENTER	162	2,134
Chatham GA	CRUSADER COMMUNITY CENTER	166	1,493
Chatham GA	GEORGETOWN ELEMENTAR	164	5,562
Chatham GA	GEORGETOWN ELEMENTAR	166	0
Chatham GA	GRACE UNITED METHODIST CHURCH	163	2,064
Chatham GA	GRACE UNITED METHODIST CHURCH	165	397
Chatham GA	ROTHWELL BAPTIST CHURCH	161	5,335
Chatham GA	ROTHWELL BAPTIST CHURCH	164	4,987
Chatham GA	THE LIGHT CHURCH	162	1,177
Chatham GA	THE LIGHT CHURCH	163	1,109
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	163	785
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	166	1,890
Cherokee GA	CARMEL	20	5,626
Cherokee GA	CARMEL	22	1,222
Cherokee GA	CARMEL	44	0
Cherokee GA	FREEHOME	21	3,200
Cherokee GA	FREEHOME	47	3,891
Cherokee GA	HOLLY SPRINGS	21	2,250
Cherokee GA	HOLLY SPRINGS	23	2,578
Clarke GA	1A	122	2,758
Clarke GA	1A	124	2,286
Clarke GA	4B	121	7,082
Clarke GA	4B	122	5,589
Clarke GA	7C	120	1,922
Clarke GA	7C	121	3,184
Clayton GA	LOVEJOY 1	75	5,018
Clayton GA	LOVEJOY 1	78	601



**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Clayton GA	LOVEJOY 3	78	9,099
Clayton GA	LOVEJOY 3	116	4,154
Clayton GA	MORROW 4	76	1,911
Clayton GA	MORROW 4	78	1,316
Cobb GA	Acworth 1B	35	7,322
Cobb GA	Acworth 1B	36	142
Cobb GA	Baker 01	22	5,226
Cobb GA	Baker 01	35	1,996
Cobb GA	Bells Ferry 03	22	4,918
Cobb GA	Bells Ferry 03	44	3,763
Cobb GA	Dobbins 01	42	11,055
Cobb GA	Dobbins 01	43	2,346
Cobb GA	Elizabeth 01	34	700
Cobb GA	Elizabeth 01	37	5,170
Cobb GA	Elizabeth 04	37	2,031
Cobb GA	Elizabeth 04	43	2,387
Cobb GA	Kennesaw 1A	22	599
Cobb GA	Kennesaw 1A	35	3,844
Cobb GA	Kennesaw 3A	22	0
Cobb GA	Kennesaw 3A	34	871
Cobb GA	Kennesaw 3A	35	8,631
Cobb GA	Lassiter 01	44	2,121
Cobb GA	Lassiter 01	46	2,600
Cobb GA	Lindley 01	39	5,678
Cobb GA	Lindley 01	40	582
Cobb GA	Mableton 01	38	1,589
Cobb GA	Mableton 01	39	5,513
Cobb GA	Mableton 02	38	256
Cobb GA	Mableton 02	39	5,427
Cobb GA	Marietta 1A	37	3,349
Cobb GA	Marietta 1A	43	6,645
Cobb GA	Marietta 2A	34	1,664
Cobb GA	Marietta 2A	37	811
Cobb GA	Marietta 5A	37	2,877
Cobb GA	Marietta 5A	43	1,457
Cobb GA	Marietta 6A	37	1,532
Cobb GA	Marietta 6A	43	3,022
Cobb GA	Marietta 7A	42	1,494
Cobb GA	Marietta 7A	43	5,417
Cobb GA	North Cobb 01	35	2,611
Cobb GA	North Cobb 01	36	559
Cobb GA	Norton Park 01	41	1,955
Cobb GA	Norton Park 01	42	5,846
Cobb GA	Oregon 03	37	6,683
Cobb GA	Oregon 03	41	6,305
Cobb GA	Pine Mountain 02	34	3,976
Cobb GA	Pine Mountain 02	35	0

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA	Smyrna 1A	40	1,292
Cobb GA	Smyrna 1A	42	5,341
Cobb GA	Smyrna 4A	40	6,599
Cobb GA	Smyrna 4A	42	1,609
Cobb GA	Smyrna 7A	39	905
Cobb GA	Smyrna 7A	40	7,690
Coffee GA	DOUGLAS	169	19,642
Coffee GA	DOUGLAS	176	8,929
Columbia GA	PATRIOTS PARK	125	326
Columbia GA	PATRIOTS PARK	131	5,958
Coweta GA	JEFFERSON PARKWAY	70	12,590
Coweta GA	JEFFERSON PARKWAY	73	1,521
DeKalb GA	Cedar Grove Middle	89	2,204
DeKalb GA	Cedar Grove Middle	90	316
DeKalb GA	Clarkston	85	5,454
DeKalb GA	Clarkston	86	9,300
DeKalb GA	Dresden Elem (CHA)	81	5,398
DeKalb GA	Dresden Elem (CHA)	83	7,691
DeKalb GA	Freedom Middle	86	1,002
DeKalb GA	Freedom Middle	87	3,088
DeKalb GA	Glennwood (DEC)	82	2,059
DeKalb GA	Glennwood (DEC)	84	1,221
DeKalb GA	Glenwood Road	85	1,698
DeKalb GA	Glenwood Road	86	1,064
DeKalb GA	Memorial South	86	2,226
DeKalb GA	Memorial South	87	2,547
DeKalb GA	Panola Road	86	3,296
DeKalb GA	Panola Road	94	460
DeKalb GA	Redan Middle	87	1,419
DeKalb GA	Redan Middle	88	1,633
DeKalb GA	Rockbridge Road	94	3,736
DeKalb GA	Rockbridge Road	95	1,104
DeKalb GA	Snapfinger Road South	84	920
DeKalb GA	Snapfinger Road South	91	1,271
DeKalb GA	Stone Mill Elem	87	1,863
DeKalb GA	Stone Mill Elem	88	4,069
DeKalb GA	Stone Mountain Champion (STO)	87	1,338
DeKalb GA	Stone Mountain Champion (STO)	88	2,865
DeKalb GA	Stone Mountain Middle (TUC)	87	656
DeKalb GA	Stone Mountain Middle (TUC)	88	3,960
DeKalb GA	Tucker Library (TUC)	81	2,394
DeKalb GA	Tucker Library (TUC)	88	1,635
Dougherty GA	DARTON COLLEGE	151	4,018
Dougherty GA	DARTON COLLEGE	153	2,465

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Dougherty GA	MT ZION CENTER	153	1,245
Dougherty GA	MT ZION CENTER	154	3,972
Effingham GA	4B	159	1,960
Effingham GA	4B	161	959
Fayette GA	ABERDEEN	68	983
Fayette GA	ABERDEEN	73	1,392
Fayette GA	BRAELINN	73	605
Fayette GA	BRAELINN	74	1,646
Fayette GA	STARRSMILL	73	1,932
Fayette GA	STARRSMILL	74	2,452
Floyd GA	ALTO PARK	12	1,576
Floyd GA	ALTO PARK	13	3,847
Floyd GA	MT ALTO NORTH	12	1,080
Floyd GA	MT ALTO NORTH	13	4,509
Forsyth GA	BROWNS BRIDGE	26	10,116
Forsyth GA	BROWNS BRIDGE	28	2,801
Forsyth GA	CONCORD	11	7,687
Forsyth GA	CONCORD	28	7,982
Forsyth GA	CUMMING	26	4,666
Forsyth GA	CUMMING	28	2,410
Forsyth GA	HEARDSVILLE	11	11,332
Forsyth GA	HEARDSVILLE	24	1,335
Forsyth GA	HEARDSVILLE	28	333
Forsyth GA	OTWELL	24	3,988
Forsyth GA	OTWELL	26	6,597
Forsyth GA	OTWELL	28	7,875
Forsyth GA	POLO	24	9,868
Forsyth GA	POLO	25	0
Forsyth GA	POLO	26	15,990
Forsyth GA	SOUTH FORSYTH	25	10,064
Forsyth GA	SOUTH FORSYTH	100	11,887
Forsyth GA	WINDERMERE	26	11,718
Forsyth GA	WINDERMERE	100	5,120
Fulton GA	08C	53	1,524
Fulton GA	08C	60	335
Fulton GA	09K	55	3,033
Fulton GA	09K	60	4,105
Fulton GA	10D	55	1,756
Fulton GA	10D	60	4,311
Fulton GA	11C	55	340
Fulton GA	11C	60	3,418
Fulton GA	AP022	48	862
Fulton GA	AP022	49	2,505
Fulton GA	AP07B	47	1,250
Fulton GA	AP07B	49	1,304
Fulton GA	AP14	48	4,109
Fulton GA	AP14	49	281

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Fulton GA	EP01B	59	2,393
Fulton GA	EP01B	62	2,049
Fulton GA	JC19	48	3,608
Fulton GA	JC19	51	1,792
Fulton GA	ML012	47	501
Fulton GA	ML012	49	123
Fulton GA	ML01B	47	284
Fulton GA	ML01B	49	61
Fulton GA	RW03	51	1,292
Fulton GA	RW03	53	6,066
Fulton GA	RW09	47	2,971
Fulton GA	RW09	49	4,750
Fulton GA	SC02	60	220
Fulton GA	SC02	61	773
Fulton GA	SC05B	61	1,575
Fulton GA	SC05B	65	2,978
Fulton GA	SC07A	65	1,028
Fulton GA	SC07A	67	7,728
Fulton GA	SC08B	62	92
Fulton GA	SC08B	68	5,255
Fulton GA	SC13	65	2,858
Fulton GA	SC13	67	1,176
Fulton GA	UC02A	65	1,070
Fulton GA	UC02A	67	13,013
Gwinnett GA	BAYCREEK A	106	934
Gwinnett GA	BAYCREEK A	110	2,651
Gwinnett GA	BAYCREEK D	102	3,729
Gwinnett GA	BAYCREEK D	110	2,597
Gwinnett GA	BERKSHIRE H	98	2,475
Gwinnett GA	BERKSHIRE H	108	1,991
Gwinnett GA	CATES J	94	955
Gwinnett GA	CATES J	108	4,255
Gwinnett GA	DULUTH F	96	7,245
Gwinnett GA	DULUTH F	107	5,149
Gwinnett GA	DULUTH G	96	1,426
Gwinnett GA	DULUTH G	99	3,389
Gwinnett GA	DUNCANS D	30	8,620
Gwinnett GA	DUNCANS D	104	1,575
Gwinnett GA	LAWRENCEVILLE F	102	2,073
Gwinnett GA	LAWRENCEVILLE F	105	3,924
Gwinnett GA	LAWRENCEVILLE M	102	4,231
Gwinnett GA	LAWRENCEVILLE M	105	7,770
Gwinnett GA	MARTINS H	107	8,164
Gwinnett GA	MARTINS H	109	892
Gwinnett GA	PINCKNEYVILLE W	96	5,745
Gwinnett GA	PINCKNEYVILLE W	97	2,561
Gwinnett GA	PUCKETTS E	103	1,506

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Gwinnett GA	PUCKETTS E	105	7,421
Gwinnett GA	SUGAR HILL D	100	2,158
Gwinnett GA	SUGAR HILL D	103	6,421
Gwinnett GA	SUWANEE F	99	3,224
Gwinnett GA	SUWANEE F	103	2,836
Habersham GA	HABERSHAM SOUTH	10	8,687
Habersham GA	HABERSHAM SOUTH	32	1,972
Hall GA	WILSON	28	3,803
Hall GA	WILSON	29	4,979
Henry GA	FLIPPEN	115	0
Henry GA	FLIPPEN	116	5,686
Henry GA	HICKORY FLAT	115	7,135
Henry GA	HICKORY FLAT	116	17
Henry GA	LOWES	116	5,233
Henry GA	LOWES	117	8,688
Henry GA	RED OAK	78	3,847
Henry GA	RED OAK	116	3,999
Henry GA	STOCKBRIDGE CENTRAL	78	0
Henry GA	STOCKBRIDGE CENTRAL	91	7,453
Henry GA	SWAN LAKE	91	3,240
Henry GA	SWAN LAKE	115	1,518
Houston GA	CENT	145	69
Houston GA	CENT	147	11,815
Houston GA	FMMS	146	9,734
Houston GA	FMMS	147	3,595
Houston GA	HHPC	145	8,748
Houston GA	HHPC	147	6,643
Houston GA	MCMS	146	3,947
Houston GA	MCMS	147	9,547
Houston GA	RECR	145	15,867
Houston GA	RECR	146	0
Houston GA	RECR	147	1,931
Houston GA	ROZR	146	13,202
Houston GA	ROZR	148	7,640
Houston GA	VHS	146	5,586
Houston GA	VHS	148	4,039
Jackson GA	North Jackson	31	4,513
Jackson GA	North Jackson	32	10,931
Jackson GA	North Jackson	120	3,803
Jackson GA	West Jackson	31	16,656
Jackson GA	West Jackson	119	4,211
Jones GA	CLINTON	133	384
Jones GA	CLINTON	144	2,481
Lamar GA	MILNER	134	3,043
Lamar GA	MILNER	135	2,725
Liberty GA	BUTTON GWINNETT	167	5,109
Liberty GA	BUTTON GWINNETT	168	4,344

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Lowndes GA	NORTHSIDE	175	8,373
Lowndes GA	NORTHSIDE	177	37,217
Lowndes GA	RAINWATER	175	6,400
Lowndes GA	RAINWATER	177	8,754
Lowndes GA	S LOWNDES	174	1,951
Lowndes GA	S LOWNDES	175	3,755
Lowndes GA	TRINITY	175	9,620
Lowndes GA	TRINITY	176	4,797
Lowndes GA	TRINITY	177	6,930
Lumpkin GA	DAHLONEGA	9	29,201
Lumpkin GA	DAHLONEGA	27	4,287
Muscogee GA	CUSSETA RD	140	5,391
Muscogee GA	CUSSETA RD	141	5,010
Muscogee GA	EPWORTH UMC	139	3,363
Muscogee GA	EPWORTH UMC	140	4,560
Muscogee GA	FORT/WADDELL	137	5,599
Muscogee GA	FORT/WADDELL	141	6,645
Muscogee GA	OUR LADY OF LOURDES	140	13,744
Muscogee GA	OUR LADY OF LOURDES	141	32
Muscogee GA	ROTHSCHILD	137	8,327
Muscogee GA	ROTHSCHILD	141	3,143
Muscogee GA	ST ANDREWS/MIDLAND	139	5,899
Muscogee GA	ST ANDREWS/MIDLAND	141	5,582
Newton GA	CEDAR SHOALS	93	1,206
Newton GA	CEDAR SHOALS	113	3,687
Newton GA	FAIRVIEW	93	856
Newton GA	FAIRVIEW	113	3,443
Newton GA	TOWN	93	1,668
Newton GA	TOWN	113	5,075
Paulding GA	AUSTIN MIDDLE SCHOOL	18	916
Paulding GA	AUSTIN MIDDLE SCHOOL	64	9,977
Paulding GA	BURNT HICKORY PARK	16	8,392
Paulding GA	BURNT HICKORY PARK	17	16
Paulding GA	CARL SCOGGINS MID SC	17	517
Paulding GA	CARL SCOGGINS MID SC	18	7,991
Paulding GA	CARL SCOGGINS MID SC	19	1,240
Paulding GA	HIRAM HIGH SCHOOL	17	0
Paulding GA	HIRAM HIGH SCHOOL	19	16,110
Paulding GA	SARA RAGSDALE ELM SC	17	5,972
Paulding GA	SARA RAGSDALE ELM SC	18	1,720
Paulding GA	SHELTON ELEMENTARY SCHOOL	16	8,152
Paulding GA	SHELTON ELEMENTARY SCHOOL	17	12,810
Paulding GA	SHELTON ELEMENTARY SCHOOL	19	5,455
Paulding GA	WATSON GOVERNMENT COMPLEX	16	5

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Paulding GA	WATSON GOVERNMENT COMPLEX	17	17,525
Richmond GA	109	129	954
Richmond GA	109	130	886
Richmond GA	301	127	2,362
Richmond GA	301	129	894
Richmond GA	402	126	0
Richmond GA	402	132	9,711
Richmond GA	503	129	3,260
Richmond GA	503	132	2,535
Richmond GA	702	127	586
Richmond GA	702	129	2,007
Richmond GA	703	127	1,164
Richmond GA	703	129	6,148
Richmond GA	803	126	0
Richmond GA	803	132	2,432
Richmond GA	807	126	2,403
Richmond GA	807	132	0
Rockdale GA	MILSTEAD	93	6,444
Rockdale GA	MILSTEAD	95	0
Rockdale GA	OLD TOWNE	93	10,095
Rockdale GA	OLD TOWNE	95	872
Rockdale GA	ROCKDALE	92	6,218
Rockdale GA	ROCKDALE	93	79
Spalding GA	CARVER FIRE STATION	74	235
Spalding GA	CARVER FIRE STATION	134	2,835
Spalding GA	GARY REID FIRE STATION	74	2,075
Spalding GA	GARY REID FIRE STATION	134	4,817
Spalding GA	UGA CAMPUS	74	787
Spalding GA	UGA CAMPUS	134	5,290
Sumter GA	GSW CONF CENTER	150	4,568
Sumter GA	GSW CONF CENTER	151	1,549
Sumter GA	REES PARK	150	5,179
Sumter GA	REES PARK	151	447
Troup GA	MOUNTVILLE	136	2,068
Troup GA	MOUNTVILLE	137	497
Walton GA	BROKEN ARROW	111	2,993
Walton GA	BROKEN ARROW	112	3,003
Ware GA	100	174	2,672
Ware GA	100	176	3,692
Ware GA	200A	174	0
Ware GA	200A	176	4,133
Ware GA	304	174	0
Ware GA	304	176	2,107
Ware GA	400	174	2,506
Ware GA	400	176	2,526
Wayne GA	OGLETHORPE	167	1,928

**Political Subdivision Splits Between Districts**

GA House Enacted

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Wayne GA	OGLETHORPE	178	637
Whitfield GA	2A	2	3,864
Whitfield GA	2A	4	1,000
Whitfield GA	PLEASANT GROVE	2	6,210
Whitfield GA	PLEASANT GROVE	6	2,122



Below is the political subdivisions splits report for the House illustrative plan.

Related note: The first page of the following report generated by *Maptitude for Redistricting* software reports a total number of Voting District (VTD) “subdivisions split in to more than one district,” namely 185. However, the “Split Counts” “Voting District” section of the report indicates that “[c]ases where an area is split among 2 Districts” total 175, and “[c]ases where an area is split among 3 Districts” total 11—and the total of 175 and 11 equals 186, not 185. Based on my correspondence with Caliper Corporation described above, I have reported 186 as the correct total in the summary table in section IV.C. of the report, not 185.

User:

Plan Name: **GA House Illustrative**

Plan Type:

## Political Subdivision Splits Between Districts

Saturday, December 3, 2022

10:06 PM

Number of subdivisions not split:

County	89
Voting District	2,513

Number of subdivisions split into more than one district:

County	70
Voting District	185

Number of splits involving no population:

County	0
Voting District	13

### Split Counts

#### *County*

Cases where an area is split among 2 Districts: 35  
 Cases where an area is split among 3 Districts: 9  
 Cases where an area is split among 4 Districts: 12  
 Cases where an area is split among 5 Districts: 4  
 Cases where an area is split among 6 Districts: 2  
 Cases where an area is split among 7 Districts: 3  
 Cases where an area is split among 9 Districts: 1  
 Cases where an area is split among 14 Districts: 1  
 Cases where an area is split among 17 Districts: 1  
 Cases where an area is split among 21 Districts: 1  
 Cases where an area is split among 23 Districts: 1

#### *Voting District*

Cases where an area is split among 2 Districts: 175  
 Cases where an area is split among 3 Districts: 11

County	Voting District	District	Population
<i>Split Counties:</i>			
Appling GA		157	12,825
Appling GA		178	5,619
Baldwin GA		128	5,158
Baldwin GA		133	12,336
Baldwin GA		149	26,305
Barrow GA		104	24,245
Barrow GA		119	54,736
Barrow GA		120	4,524
Bartow GA		14	49,688
Bartow GA		15	59,213
Ben Hill GA		148	5,115
Ben Hill GA		156	12,079
Bibb GA		142	59,320
Bibb GA		143	59,122

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Bibb GA		145	22,716
Bibb GA		149	16,188
Bryan GA		160	11,008
Bryan GA		164	21,420
Bryan GA		166	12,310
Bulloch GA		158	19,285
Bulloch GA		159	12,887
Bulloch GA		160	48,927
Carroll GA		18	18,789
Carroll GA		70	2,854
Carroll GA		71	59,538
Carroll GA		72	37,967
Catoosa GA		2	7,673
Catoosa GA		3	60,199
Chatham GA		161	28,269
Chatham GA		162	60,308
Chatham GA		163	60,123
Chatham GA		164	38,681
Chatham GA		165	59,978
Chatham GA		166	47,932
Cherokee GA		11	6,557
Cherokee GA		14	9,447
Cherokee GA		20	60,107
Cherokee GA		21	59,529
Cherokee GA		22	30,874
Cherokee GA		23	59,048
Cherokee GA		44	21,989
Cherokee GA		46	15,178
Cherokee GA		47	3,891
Clarke GA		120	30,095
Clarke GA		121	26,478
Clarke GA		122	59,632
Clarke GA		124	12,466
Clayton GA		74	34,350
Clayton GA		75	55,912
Clayton GA		76	59,759
Clayton GA		77	59,242
Clayton GA		78	24,678
Clayton GA		79	59,500
Clayton GA		116	4,154
Cobb GA		22	28,586
Cobb GA		34	59,875
Cobb GA		35	59,889
Cobb GA		36	59,994
Cobb GA		37	59,176
Cobb GA		38	59,317
Cobb GA		39	59,381

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA		40	59,044
Cobb GA		41	60,122
Cobb GA		42	59,620
Cobb GA		43	59,464
Cobb GA		44	38,013
Cobb GA		45	59,738
Cobb GA		46	43,930
Coffee GA		169	33,736
Coffee GA		176	9,356
Columbia GA		123	2,205
Columbia GA		125	55,389
Columbia GA		127	39,526
Columbia GA		131	58,890
Cook GA		170	7,342
Cook GA		172	9,887
Coweta GA		65	13,008
Coweta GA		67	17,272
Coweta GA		70	56,267
Coweta GA		73	31,608
Coweta GA		136	28,003
Dawson GA		7	2,409
Dawson GA		9	24,389
DeKalb GA		52	28,300
DeKalb GA		80	59,461
DeKalb GA		81	59,007
DeKalb GA		82	59,724
DeKalb GA		83	59,416
DeKalb GA		84	59,862
DeKalb GA		85	59,373
DeKalb GA		86	59,205
DeKalb GA		87	59,709
DeKalb GA		88	47,844
DeKalb GA		89	59,866
DeKalb GA		90	59,812
DeKalb GA		91	19,700
DeKalb GA		92	15,607
DeKalb GA		93	11,690
DeKalb GA		94	31,207
DeKalb GA		95	14,599
Dodge GA		148	18,550
Dodge GA		155	1,375
Dougherty GA		151	6,268
Dougherty GA		152	6,187
Dougherty GA		153	59,299
Dougherty GA		154	14,036
Douglas GA		61	48,764
Douglas GA		64	30,206

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Douglas GA		65	6,306
Douglas GA		66	58,961
Effingham GA		159	32,941
Effingham GA		161	31,828
Fayette GA		68	29,719
Fayette GA		69	36,979
Fayette GA		73	28,428
Fayette GA		74	24,068
Floyd GA		5	5,099
Floyd GA		12	34,335
Floyd GA		13	59,150
Forsyth GA		11	19,019
Forsyth GA		24	59,011
Forsyth GA		25	46,134
Forsyth GA		26	59,248
Forsyth GA		28	50,864
Forsyth GA		100	17,007
Fulton GA		25	13,280
Fulton GA		47	55,235
Fulton GA		48	43,976
Fulton GA		49	59,153
Fulton GA		50	59,523
Fulton GA		51	58,952
Fulton GA		52	31,511
Fulton GA		53	59,953
Fulton GA		54	60,083
Fulton GA		55	59,971
Fulton GA		56	58,929
Fulton GA		57	59,969
Fulton GA		58	59,057
Fulton GA		59	59,434
Fulton GA		60	59,709
Fulton GA		61	10,186
Fulton GA		62	59,450
Fulton GA		63	59,381
Fulton GA		64	6,032
Fulton GA		65	39,926
Fulton GA		67	41,863
Fulton GA		68	29,758
Fulton GA		69	21,379
Glynn GA		167	20,499
Glynn GA		179	59,356
Glynn GA		180	4,644
Gordon GA		5	53,738
Gordon GA		6	3,806
Grady GA		171	8,115
Grady GA		173	18,121

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Gwinnett GA		30	8,620
Gwinnett GA		48	15,027
Gwinnett GA		88	11,845
Gwinnett GA		94	28,004
Gwinnett GA		95	34,221
Gwinnett GA		96	59,515
Gwinnett GA		97	59,072
Gwinnett GA		98	59,998
Gwinnett GA		99	59,850
Gwinnett GA		100	35,204
Gwinnett GA		101	59,938
Gwinnett GA		102	58,959
Gwinnett GA		103	51,691
Gwinnett GA		104	35,117
Gwinnett GA		105	59,344
Gwinnett GA		106	59,112
Gwinnett GA		107	59,702
Gwinnett GA		108	59,577
Gwinnett GA		109	59,630
Gwinnett GA		110	59,951
Gwinnett GA		111	22,685
Habersham GA		10	42,636
Habersham GA		32	3,395
Hall GA		27	54,508
Hall GA		28	8,108
Hall GA		29	59,200
Hall GA		30	50,646
Hall GA		31	14,349
Hall GA		100	7,819
Hall GA		103	8,506
Harris GA		138	21,634
Harris GA		139	13,034
Henry GA		75	3,847
Henry GA		78	18,397
Henry GA		91	35,475
Henry GA		115	59,789
Henry GA		116	50,833
Henry GA		117	60,142
Henry GA		118	12,229
Houston GA		144	32,310
Houston GA		145	36,952
Houston GA		146	35,804
Houston GA		147	58,567
Jackson GA		31	45,552
Jackson GA		32	10,931
Jackson GA		119	4,211
Jackson GA		120	15,213

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Jasper GA		114	2,855
Jasper GA		118	11,733
Lamar GA		134	13,948
Lamar GA		135	4,552
Liberty GA		167	5,109
Liberty GA		168	60,147
Lowndes GA		174	9,770
Lowndes GA		175	43,692
Lowndes GA		176	4,797
Lowndes GA		177	59,992
Lumpkin GA		9	29,201
Lumpkin GA		27	4,287
Madison GA		33	9,935
Madison GA		123	20,185
McDuffie GA		125	4,748
McDuffie GA		128	16,884
Meriwether GA		136	13,382
Meriwether GA		137	7,231
Monroe GA		133	19,085
Monroe GA		135	8,872
Muscogee GA		137	30,443
Muscogee GA		138	12,190
Muscogee GA		139	45,976
Muscogee GA		140	59,294
Muscogee GA		141	59,019
Newton GA		93	15,515
Newton GA		113	60,053
Newton GA		114	36,915
Oconee GA		120	9,150
Oconee GA		121	32,649
Paulding GA		16	16,549
Paulding GA		17	59,120
Paulding GA		18	10,627
Paulding GA		19	58,955
Paulding GA		64	23,410
Peach GA		144	14,093
Peach GA		150	13,888
Putnam GA		118	10,591
Putnam GA		124	11,456
Richmond GA		126	25,990
Richmond GA		127	19,152
Richmond GA		129	58,829
Richmond GA		130	59,203
Richmond GA		132	43,433
Rockdale GA		91	4,781
Rockdale GA		92	44,666
Rockdale GA		93	32,913

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Rockdale GA		95	11,210
Spalding GA		78	16,815
Spalding GA		116	5,393
Spalding GA		134	45,098
Sumter GA		150	14,282
Sumter GA		151	15,334
Tattnall GA		156	1,263
Tattnall GA		157	21,579
Telfair GA		148	8,283
Telfair GA		156	4,194
Thomas GA		172	4,176
Thomas GA		173	41,622
Tift GA		169	6,730
Tift GA		170	34,614
Troup GA		72	10,281
Troup GA		136	17,913
Troup GA		137	16,144
Troup GA		138	25,088
Walker GA		1	43,415
Walker GA		2	24,239
Walton GA		111	37,324
Walton GA		112	59,349
Ware GA		174	9,097
Ware GA		176	27,154
Wayne GA		167	6,742
Wayne GA		178	23,402
White GA		8	22,119
White GA		9	5,884
Whitfield GA		2	27,861
Whitfield GA		4	59,070
Whitfield GA		6	15,933
Wilcox GA		146	955
Wilcox GA		148	7,811
<i>Split VTDs:</i>			
Baldwin GA	NORTH BALDWIN	133	4,245
Baldwin GA	NORTH BALDWIN	149	647
Baldwin GA	NORTH MILLEDGEVILLE	133	864
Baldwin GA	NORTH MILLEDGEVILLE	149	2,500
Baldwin GA	SOUTH MILLEDGEVILLE	133	932
Baldwin GA	SOUTH MILLEDGEVILLE	149	2,774
Barrow GA	16	104	1,708
Barrow GA	16	119	8,060
Bartow GA	CASSVILLE	14	15,558
Bartow GA	CASSVILLE	15	1,047
Bartow GA	WHITE	14	3,335
Bartow GA	WHITE	15	211
Ben Hill GA	WEST	148	5,115



**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Ben Hill GA	WEST	156	5,229
Bibb GA	GODFREY 1	142	4,656
Bibb GA	GODFREY 1	149	6,278
Bibb GA	HOWARD 1	142	5,180
Bibb GA	HOWARD 1	143	763
Bibb GA	HOWARD 3	142	1,789
Bibb GA	HOWARD 3	143	10,865
Bibb GA	RUTLAND 1	142	1,475
Bibb GA	RUTLAND 1	145	6,465
Bibb GA	VINEVILLE 3	142	232
Bibb GA	VINEVILLE 3	143	4,182
Bryan GA	DANIELSIDING	164	1,268
Bryan GA	DANIELSIDING	166	1,741
Bryan GA	HWY 144 EAST	164	4,552
Bryan GA	HWY 144 EAST	166	4,707
Bryan GA	J.F.GREGORY PARK	164	3,489
Bryan GA	J.F.GREGORY PARK	166	144
Bulloch GA	CHURCH	158	3,764
Bulloch GA	CHURCH	159	5,869
Carroll GA	BONNER	71	410
Carroll GA	BONNER	72	5,554
Chatham GA	CRUSADER COMMUNITY CENTER	162	2,134
Chatham GA	CRUSADER COMMUNITY CENTER	166	1,493
Chatham GA	GEORGETOWN ELEMENTAR	164	5,562
Chatham GA	GEORGETOWN ELEMENTAR	166	0
Chatham GA	GRACE UNITED METHODIST CHURCH	163	2,064
Chatham GA	GRACE UNITED METHODIST CHURCH	165	397
Chatham GA	ROTHWELL BAPTIST CHURCH	161	5,335
Chatham GA	ROTHWELL BAPTIST CHURCH	164	4,987
Chatham GA	THE LIGHT CHURCH	162	1,177
Chatham GA	THE LIGHT CHURCH	163	1,109
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	163	785
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	166	1,890
Cherokee GA	CARMEL	20	5,626
Cherokee GA	CARMEL	22	1,222
Cherokee GA	CARMEL	44	0

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cherokee GA	FREEHOME	21	3,200
Cherokee GA	FREEHOME	47	3,891
Cherokee GA	HOLLY SPRINGS	21	2,250
Cherokee GA	HOLLY SPRINGS	23	2,578
Clarke GA	1A	122	2,758
Clarke GA	1A	124	2,286
Clarke GA	4B	121	7,082
Clarke GA	4B	122	5,589
Clarke GA	7C	120	1,922
Clarke GA	7C	121	3,184
Clayton GA	JONESBORO 13	74	2,066
Clayton GA	JONESBORO 13	75	752
Clayton GA	JONESBORO 14	75	2,726
Clayton GA	JONESBORO 14	78	2,387
Clayton GA	JONESBORO 3	74	0
Clayton GA	JONESBORO 3	75	5,962
Clayton GA	LOVEJOY 1	74	4,484
Clayton GA	LOVEJOY 1	75	948
Clayton GA	LOVEJOY 1	78	187
Clayton GA	LOVEJOY 3	78	9,099
Clayton GA	LOVEJOY 3	116	4,154
Clayton GA	MORROW 4	75	1,316
Clayton GA	MORROW 4	76	1,911
Cobb GA	Acworth 1B	35	7,322
Cobb GA	Acworth 1B	36	142
Cobb GA	Baker 01	22	5,226
Cobb GA	Baker 01	35	1,996
Cobb GA	Bells Ferry 03	22	4,918
Cobb GA	Bells Ferry 03	44	3,763
Cobb GA	Dobbins 01	42	11,055
Cobb GA	Dobbins 01	43	2,346
Cobb GA	Elizabeth 01	34	700
Cobb GA	Elizabeth 01	37	5,170
Cobb GA	Elizabeth 04	37	2,031
Cobb GA	Elizabeth 04	43	2,387
Cobb GA	Kennesaw 1A	22	599
Cobb GA	Kennesaw 1A	35	3,844
Cobb GA	Kennesaw 3A	22	0
Cobb GA	Kennesaw 3A	34	871
Cobb GA	Kennesaw 3A	35	8,631
Cobb GA	Lassiter 01	44	2,121
Cobb GA	Lassiter 01	46	2,600
Cobb GA	Lindley 01	39	5,678
Cobb GA	Lindley 01	40	582
Cobb GA	Mableton 01	38	1,589
Cobb GA	Mableton 01	39	5,513
Cobb GA	Mableton 02	38	256

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Cobb GA	Mableton 02	39	5,427
Cobb GA	Marietta 1A	37	3,349
Cobb GA	Marietta 1A	43	6,645
Cobb GA	Marietta 2A	34	1,664
Cobb GA	Marietta 2A	37	811
Cobb GA	Marietta 5A	37	2,877
Cobb GA	Marietta 5A	43	1,457
Cobb GA	Marietta 6A	37	1,532
Cobb GA	Marietta 6A	43	3,022
Cobb GA	Marietta 7A	42	1,494
Cobb GA	Marietta 7A	43	5,417
Cobb GA	North Cobb 01	35	2,611
Cobb GA	North Cobb 01	36	559
Cobb GA	Norton Park 01	41	1,955
Cobb GA	Norton Park 01	42	5,846
Cobb GA	Oregon 03	37	6,683
Cobb GA	Oregon 03	41	6,305
Cobb GA	Pine Mountain 02	34	3,976
Cobb GA	Pine Mountain 02	35	0
Cobb GA	Smyrna 1A	40	1,292
Cobb GA	Smyrna 1A	42	5,341
Cobb GA	Smyrna 4A	40	6,599
Cobb GA	Smyrna 4A	42	1,609
Cobb GA	Smyrna 7A	39	905
Cobb GA	Smyrna 7A	40	7,690
Coffee GA	DOUGLAS	169	19,642
Coffee GA	DOUGLAS	176	8,929
Columbia GA	PATRIOTS PARK	125	326
Columbia GA	PATRIOTS PARK	131	5,958
Coweta GA	JEFFERSON PARKWAY	70	12,590
Coweta GA	JEFFERSON PARKWAY	73	1,521
DeKalb GA	Cedar Grove Middle	89	2,204
DeKalb GA	Cedar Grove Middle	90	316
DeKalb GA	Clarkston	85	5,454
DeKalb GA	Clarkston	86	9,300
DeKalb GA	Dresden Elem (CHA)	81	5,398
DeKalb GA	Dresden Elem (CHA)	83	7,691
DeKalb GA	Freedom Middle	86	1,002
DeKalb GA	Freedom Middle	87	3,088
DeKalb GA	Glennwood (DEC)	82	2,059
DeKalb GA	Glennwood (DEC)	84	1,221
DeKalb GA	Glenwood Road	85	1,698
DeKalb GA	Glenwood Road	86	1,064
DeKalb GA	Memorial South	86	2,226
DeKalb GA	Memorial South	87	2,547
DeKalb GA	Panola Road	86	3,296
DeKalb GA	Panola Road	94	460

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
DeKalb GA	Redan Middle	87	1,419
DeKalb GA	Redan Middle	88	1,633
DeKalb GA	Rockbridge Road	94	3,736
DeKalb GA	Rockbridge Road	95	1,104
DeKalb GA	Snapfinger Road South	84	920
DeKalb GA	Snapfinger Road South	91	1,271
DeKalb GA	Stone Mill Elem	87	1,863
DeKalb GA	Stone Mill Elem	88	4,069
DeKalb GA	Stone Mountain Champion (STO)	87	1,338
DeKalb GA	Stone Mountain Champion (STO)	88	2,865
DeKalb GA	Stone Mountain Middle (TUC)	87	656
DeKalb GA	Stone Mountain Middle (TUC)	88	3,960
DeKalb GA	Tucker Library (TUC)	81	2,394
DeKalb GA	Tucker Library (TUC)	88	1,635
Dougherty GA	DARTON COLLEGE	151	4,018
Dougherty GA	DARTON COLLEGE	153	2,465
Dougherty GA	MT ZION CENTER	153	1,245
Dougherty GA	MT ZION CENTER	154	3,972
Douglas GA	MIRROR LAKE ELEMENTA	61	5,093
Douglas GA	MIRROR LAKE ELEMENTA	66	3,661
Effingham GA	4B	159	1,960
Effingham GA	4B	161	959
Fayette GA	ABERDEEN	68	983
Fayette GA	ABERDEEN	73	1,392
Fayette GA	BANKS	69	1,812
Fayette GA	BANKS	74	247
Fayette GA	BRAELINN	73	605
Fayette GA	BRAELINN	74	1,646
Fayette GA	MURPHY	69	146
Fayette GA	MURPHY	74	3,848
Fayette GA	STARRSMILL	73	1,932
Fayette GA	STARRSMILL	74	2,452
Floyd GA	ALTO PARK	12	1,576
Floyd GA	ALTO PARK	13	3,847
Floyd GA	MT ALTO NORTH	12	1,080
Floyd GA	MT ALTO NORTH	13	4,509
Forsyth GA	BROWNS BRIDGE	26	10,116
Forsyth GA	BROWNS BRIDGE	28	2,801
Forsyth GA	CONCORD	11	7,687
Forsyth GA	CONCORD	28	7,982
Forsyth GA	CUMMING	26	4,666
Forsyth GA	CUMMING	28	2,410
Forsyth GA	HEARDSVILLE	11	11,332
Forsyth GA	HEARDSVILLE	24	1,335

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Forsyth GA	HEARDSVILLE	28	333
Forsyth GA	OTWELL	24	3,988
Forsyth GA	OTWELL	26	6,597
Forsyth GA	OTWELL	28	7,875
Forsyth GA	POLO	24	9,868
Forsyth GA	POLO	25	0
Forsyth GA	POLO	26	15,990
Forsyth GA	SOUTH FORSYTH	25	10,064
Forsyth GA	SOUTH FORSYTH	100	11,887
Forsyth GA	WINDERMERE	26	11,718
Forsyth GA	WINDERMERE	100	5,120
Fulton GA	08C	53	1,524
Fulton GA	08C	60	335
Fulton GA	09K	55	3,033
Fulton GA	09K	60	4,105
Fulton GA	10D	55	1,756
Fulton GA	10D	60	4,311
Fulton GA	11C	55	340
Fulton GA	11C	60	3,418
Fulton GA	AP022	48	862
Fulton GA	AP022	49	2,505
Fulton GA	AP07B	47	1,250
Fulton GA	AP07B	49	1,304
Fulton GA	AP14	48	4,109
Fulton GA	AP14	49	281
Fulton GA	EP01B	59	2,393
Fulton GA	EP01B	62	2,049
Fulton GA	JC19	48	3,608
Fulton GA	JC19	51	1,792
Fulton GA	ML012	47	501
Fulton GA	ML012	49	123
Fulton GA	ML01B	47	284
Fulton GA	ML01B	49	61
Fulton GA	RW03	51	1,292
Fulton GA	RW03	53	6,066
Fulton GA	RW09	47	2,971
Fulton GA	RW09	49	4,750
Fulton GA	SC02	60	220
Fulton GA	SC02	65	773
Fulton GA	SC07A	65	1,028
Fulton GA	SC07A	67	7,728
Fulton GA	SC08B	62	92
Fulton GA	SC08B	68	5,255
Fulton GA	SC13	61	589
Fulton GA	SC13	65	2,269
Fulton GA	SC13	67	1,176
Fulton GA	UC02A	65	1,070

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Fulton GA	UC02A	67	13,013
Gwinnett GA	BAYCREEK A	106	934
Gwinnett GA	BAYCREEK A	110	2,651
Gwinnett GA	BAYCREEK D	102	3,729
Gwinnett GA	BAYCREEK D	110	2,597
Gwinnett GA	BERKSHIRE H	98	2,475
Gwinnett GA	BERKSHIRE H	108	1,991
Gwinnett GA	CATES J	94	955
Gwinnett GA	CATES J	108	4,255
Gwinnett GA	DULUTH F	96	7,245
Gwinnett GA	DULUTH F	107	5,149
Gwinnett GA	DULUTH G	96	1,426
Gwinnett GA	DULUTH G	99	3,389
Gwinnett GA	DUNCANS D	30	8,620
Gwinnett GA	DUNCANS D	104	1,575
Gwinnett GA	LAWRENCEVILLE F	102	2,073
Gwinnett GA	LAWRENCEVILLE F	105	3,924
Gwinnett GA	LAWRENCEVILLE M	102	4,231
Gwinnett GA	LAWRENCEVILLE M	105	7,770
Gwinnett GA	MARTINS H	107	8,164
Gwinnett GA	MARTINS H	109	892
Gwinnett GA	PINCKNEYVILLE W	96	5,745
Gwinnett GA	PINCKNEYVILLE W	97	2,561
Gwinnett GA	PUCKETTS E	103	1,506
Gwinnett GA	PUCKETTS E	105	7,421
Gwinnett GA	SUGAR HILL D	100	2,158
Gwinnett GA	SUGAR HILL D	103	6,421
Gwinnett GA	SUWANEE F	99	3,224
Gwinnett GA	SUWANEE F	103	2,836
Habersham GA	HABERSHAM SOUTH	10	8,687
Habersham GA	HABERSHAM SOUTH	32	1,972
Hall GA	WILSON	28	3,803
Hall GA	WILSON	29	4,979
Henry GA	LAKE HAVEN	116	4,546
Henry GA	LAKE HAVEN	117	1,242
Henry GA	LOCUST GROVE	116	4,436
Henry GA	LOCUST GROVE	117	5,352
Henry GA	RED OAK	75	3,847
Henry GA	RED OAK	116	3,999
Henry GA	SWAN LAKE	91	1,951
Henry GA	SWAN LAKE	115	2,807
Houston GA	CENT	145	315
Houston GA	CENT	147	11,569
Houston GA	MCMS	144	11,859
Houston GA	MCMS	147	1,635
Houston GA	ROZR	144	13,202
Houston GA	ROZR	146	7,640

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Jackson GA	North Jackson	31	4,513
Jackson GA	North Jackson	32	10,931
Jackson GA	North Jackson	120	3,803
Jackson GA	West Jackson	31	16,656
Jackson GA	West Jackson	119	4,211
Liberty GA	BUTTON GWINNETT	167	5,109
Liberty GA	BUTTON GWINNETT	168	4,344
Lowndes GA	NORTHSIDE	175	8,373
Lowndes GA	NORTHSIDE	177	37,217
Lowndes GA	RAINWATER	175	6,400
Lowndes GA	RAINWATER	177	8,754
Lowndes GA	S LOWNDES	174	1,951
Lowndes GA	S LOWNDES	175	3,755
Lowndes GA	TRINITY	175	9,620
Lowndes GA	TRINITY	176	4,797
Lowndes GA	TRINITY	177	6,930
Lumpkin GA	DAHLONEGA	9	29,201
Lumpkin GA	DAHLONEGA	27	4,287
Muscogee GA	CUSSETA RD	140	5,391
Muscogee GA	CUSSETA RD	141	5,010
Muscogee GA	EPWORTH UMC	139	3,363
Muscogee GA	EPWORTH UMC	140	4,560
Muscogee GA	FORT/WADDELL	137	5,599
Muscogee GA	FORT/WADDELL	141	6,645
Muscogee GA	OUR LADY OF LOURDES	140	13,744
Muscogee GA	OUR LADY OF LOURDES	141	32
Muscogee GA	ROTHSCHILD	137	8,327
Muscogee GA	ROTHSCHILD	141	3,143
Muscogee GA	ST ANDREWS/MIDLAND	139	5,899
Muscogee GA	ST ANDREWS/MIDLAND	141	5,582
Newton GA	CEDAR SHOALS	93	1,206
Newton GA	CEDAR SHOALS	113	3,687
Newton GA	FAIRVIEW	93	856
Newton GA	FAIRVIEW	113	3,443
Newton GA	TOWN	93	1,668
Newton GA	TOWN	113	5,075
Paulding GA	AUSTIN MIDDLE SCHOOL	18	916
Paulding GA	AUSTIN MIDDLE SCHOOL	64	9,977
Paulding GA	BURNT HICKORY PARK	16	8,392
Paulding GA	BURNT HICKORY PARK	17	16
Paulding GA	CARL SCOGGINS MID SC	17	517
Paulding GA	CARL SCOGGINS MID SC	18	7,991
Paulding GA	CARL SCOGGINS MID SC	19	1,240
Paulding GA	HIRAM HIGH SCHOOL	17	0
Paulding GA	HIRAM HIGH SCHOOL	19	16,110
Paulding GA	SARA RAGSDALE ELM SC	17	5,972
Paulding GA	SARA RAGSDALE ELM SC	18	1,720

**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Paulding GA	SHELTON ELEMENTARY SCHOOL	16	8,152
Paulding GA	SHELTON ELEMENTARY SCHOOL	17	12,810
Paulding GA	SHELTON ELEMENTARY SCHOOL	19	5,455
Paulding GA	WATSON GOVERNMENT COMPLEX	16	5
Paulding GA	WATSON GOVERNMENT COMPLEX	17	17,525
Richmond GA	109	129	954
Richmond GA	109	130	886
Richmond GA	301	127	2,362
Richmond GA	301	129	894
Richmond GA	402	126	0
Richmond GA	402	132	9,711
Richmond GA	503	129	3,260
Richmond GA	503	132	2,535
Richmond GA	702	127	586
Richmond GA	702	129	2,007
Richmond GA	703	127	1,164
Richmond GA	703	129	6,148
Richmond GA	803	126	0
Richmond GA	803	132	2,432
Richmond GA	807	126	2,403
Richmond GA	807	132	0
Rockdale GA	MILSTEAD	93	6,444
Rockdale GA	MILSTEAD	95	0
Rockdale GA	OLD TOWNE	93	10,095
Rockdale GA	OLD TOWNE	95	872
Rockdale GA	ROCKDALE	92	6,218
Rockdale GA	ROCKDALE	93	79
Spalding GA	CARVER FIRE STATION	78	235
Spalding GA	CARVER FIRE STATION	134	2,835
Spalding GA	GARY REID FIRE STATION	78	2,075
Spalding GA	GARY REID FIRE STATION	134	4,817
Spalding GA	UGA CAMPUS	78	787
Spalding GA	UGA CAMPUS	134	5,290
Sumter GA	GSW CONF CENTER	150	4,568
Sumter GA	GSW CONF CENTER	151	1,549
Sumter GA	REES PARK	150	5,179
Sumter GA	REES PARK	151	447
Troup GA	MOUNTVILLE	136	2,068
Troup GA	MOUNTVILLE	137	497
Walton GA	BROKEN ARROW	111	2,993
Walton GA	BROKEN ARROW	112	3,003
Ware GA	100	174	2,672
Ware GA	100	176	3,692



**Political Subdivision Splits Between Districts**

GA House Illustrative

<b>County</b>	<b>Voting District</b>	<b>District</b>	<b>Population</b>
Ware GA	200A	174	0
Ware GA	200A	176	4,133
Ware GA	304	174	0
Ware GA	304	176	2,107
Ware GA	400	174	2,506
Ware GA	400	176	2,526
Wayne GA	OGLETHORPE	167	1,928
Wayne GA	OGLETHORPE	178	637
Whitfield GA	2A	2	3,864
Whitfield GA	2A	4	1,000
Whitfield GA	PLEASANT GROVE	2	6,210
Whitfield GA	PLEASANT GROVE	6	2,122

# Redistricting Following the 2020 Census

Adam Mitchell  
Tharrington Smith, LLP

Blake Esselstyn  
Mapfigure Consulting

WAKE COUNTY PUBLIC SCHOOL SYSTEM  
February 16th, 22nd, and 23rd, 2022

**Exhibit**  
0002

# What is redistricting and does the Board need to undertake the redistricting process?

- ▶ Redistricting is based on the constitutional principle of one-person one-vote
  - ▶ This is a way of saying that the relative voting strength of all voters in the county should be close to identical; and
  - ▶ While true population equality is required for the Congress, local governments are given more flexibility.
- ▶ A local government needs to redistrict after the return of each decennial census if two criteria are met:
  - ▶ It uses true electoral districts in its elections; and
  - ▶ The current districts are not within +/- 5% of the ideal district population using the 2020 census data.

# Who is responsible for the redistricting process?

- ▶ Under NCGS 115C-37(i), the Board is responsible for the process; and
- ▶ Once the Board adopts its plan, no further approvals are required before the plan goes into effect.

# How is the process conducted?

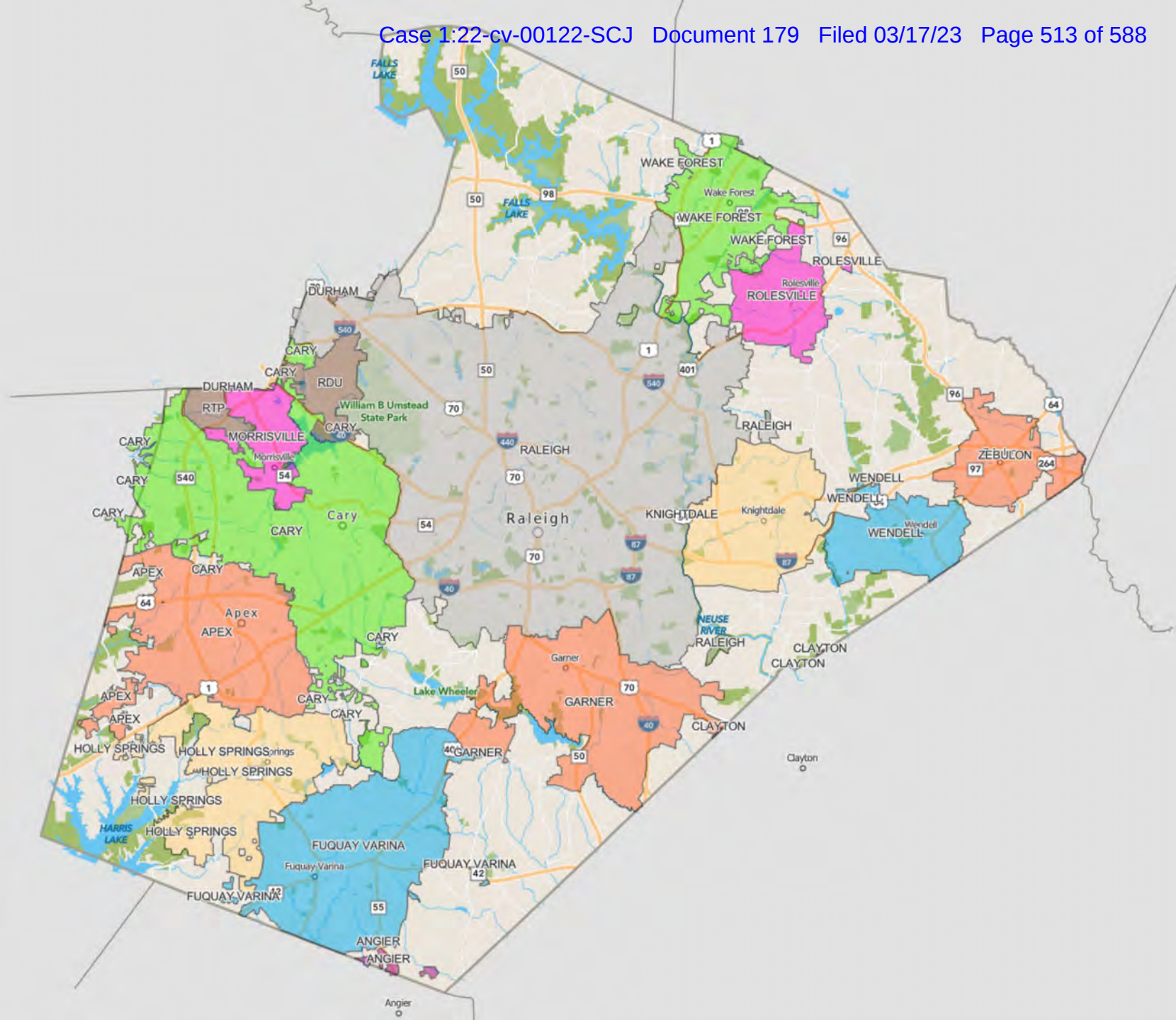
- ▶ The law offers little specific guidance, but
  - ▶ The process takes place in open, public meetings;
  - ▶ The Board had an introductory presentation on September 21, 2021;
  - ▶ The Board considered criteria or guidance for the process on December 7, 2021;
  - ▶ We drafted three plans initially presented to the Board on February 1, 2022;
  - ▶ Public input is important, including three public engagement sessions;
  - ▶ The Board will receive the input from these sessions, and will work to reach consensus around a preferred plan;
  - ▶ We will prepare the necessary resolutions for the Board to adopt that plan; and
  - ▶ Once adopted, we will export the new maps to the Board of Elections, the County GIS Department, etc.

# When does the process need to be completed?

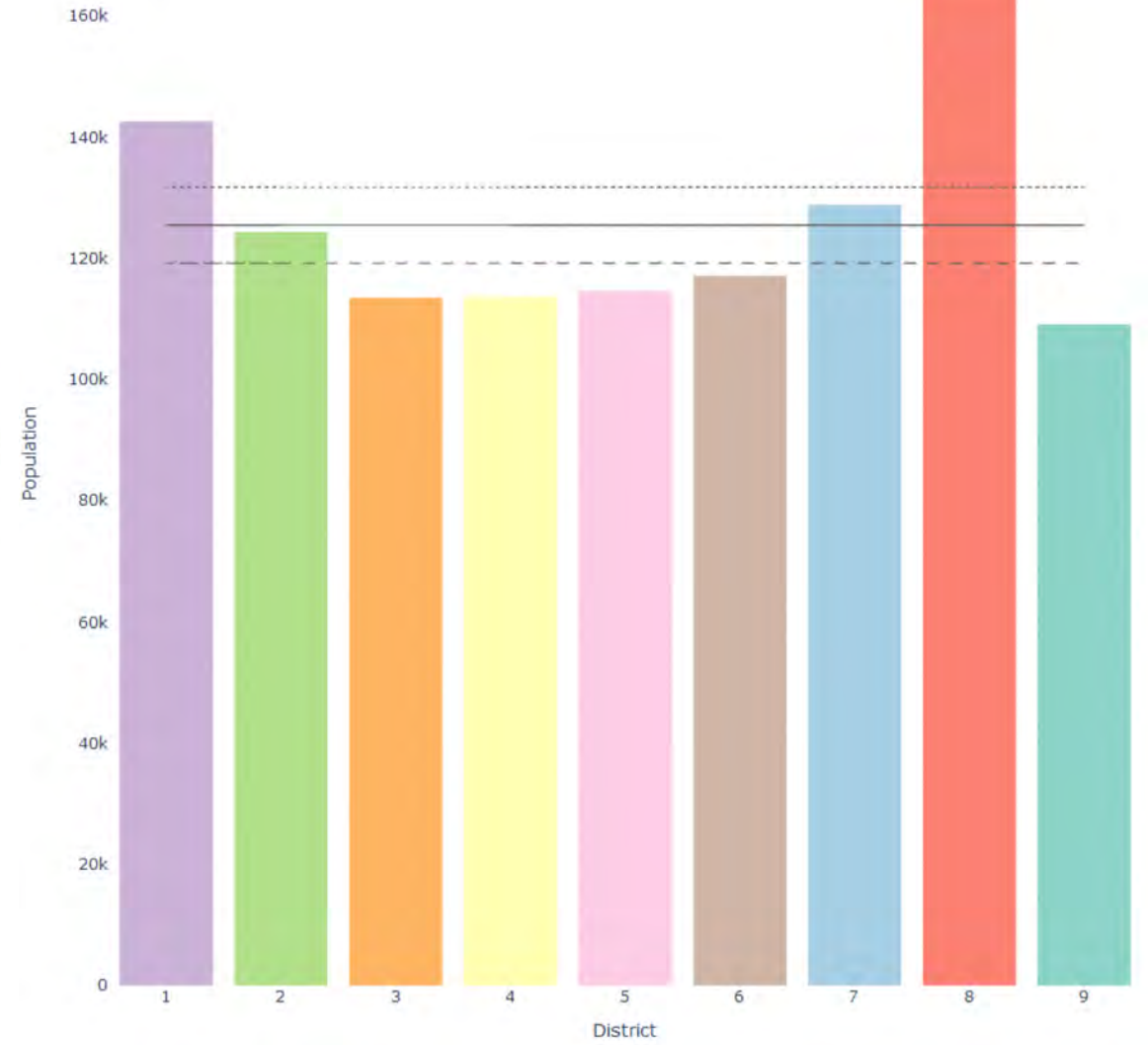
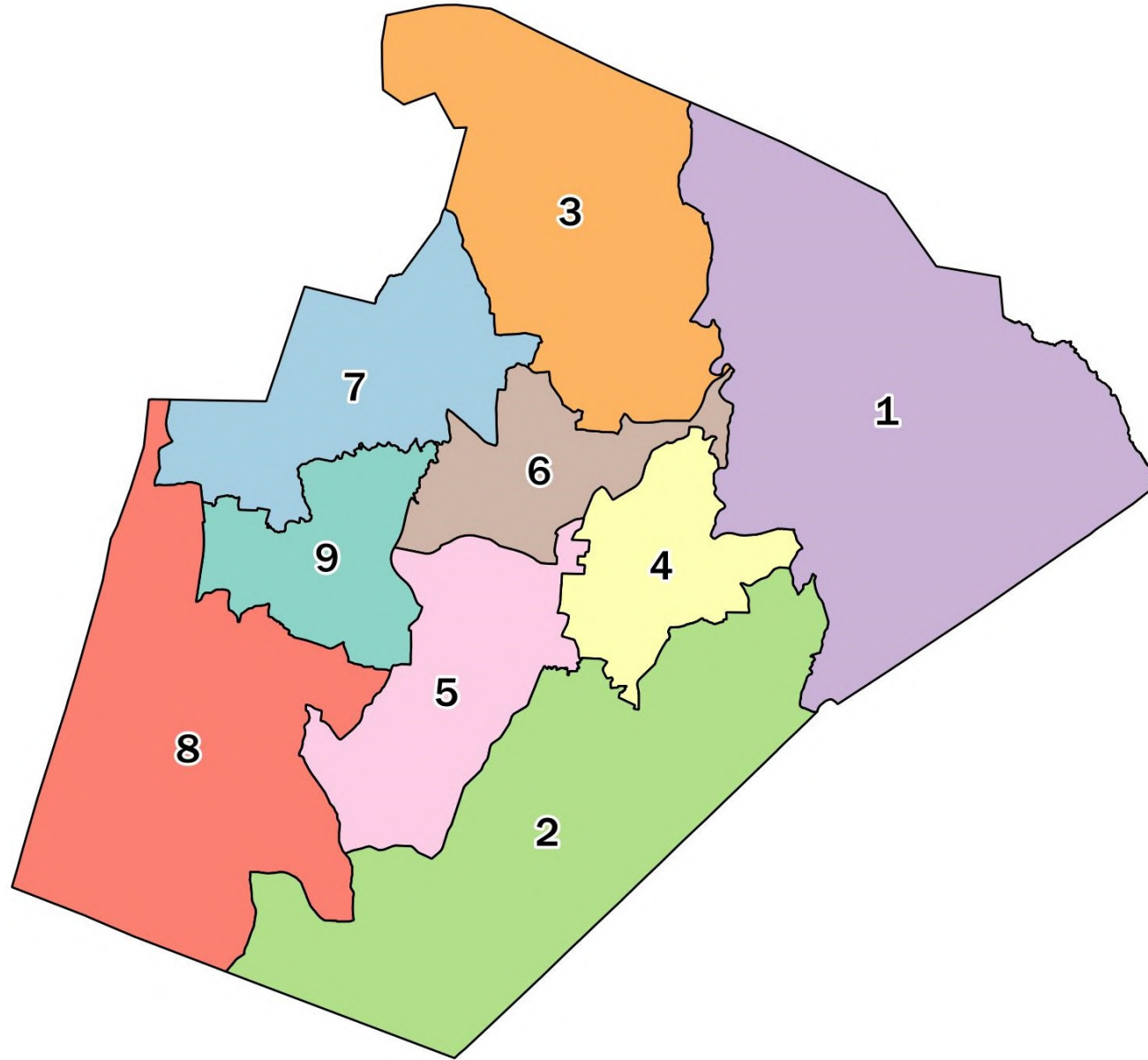
- ▶ The next election is in November of 2022 and the filing period opens July 1;
- ▶ We will need to complete the process in advance of the opening of the filing period so that candidates know which districts they reside in; and
- ▶ To allow for appropriate time, the Board is looking to adopt its plan in March or April.

# JURISDICTION

- ANGIER
- APEX
- CARY
- CLAYTON
- DURHAM
- FUQUAY VARINA
- GARNER
- HOLLY SPRINGS
- KNIGHTDALE
- MORRISVILLE
- RALEIGH
- RDU
- ROLESVILLE
- RTP
- WAKE FOREST
- WENDELL
- ZEBULON







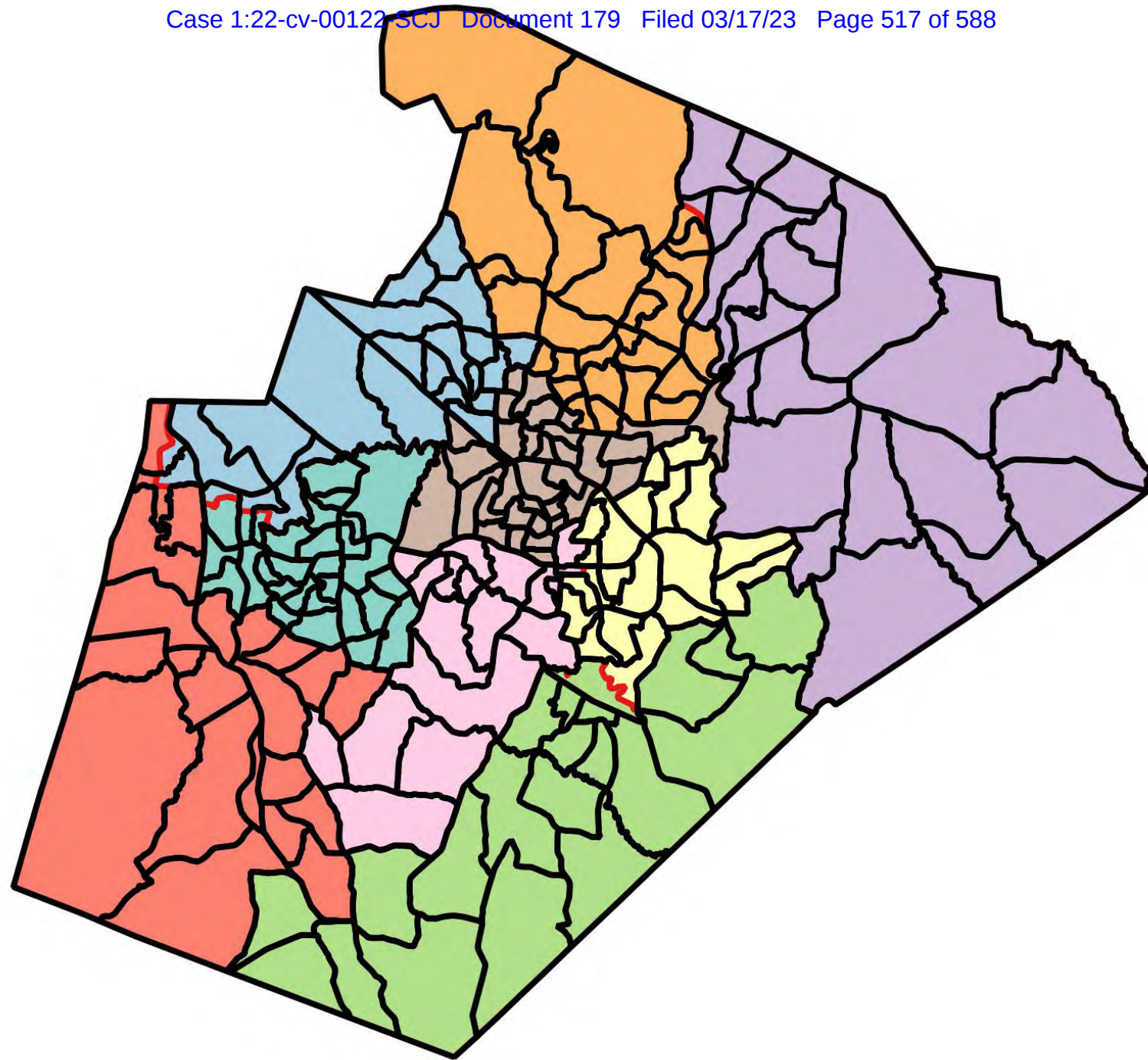


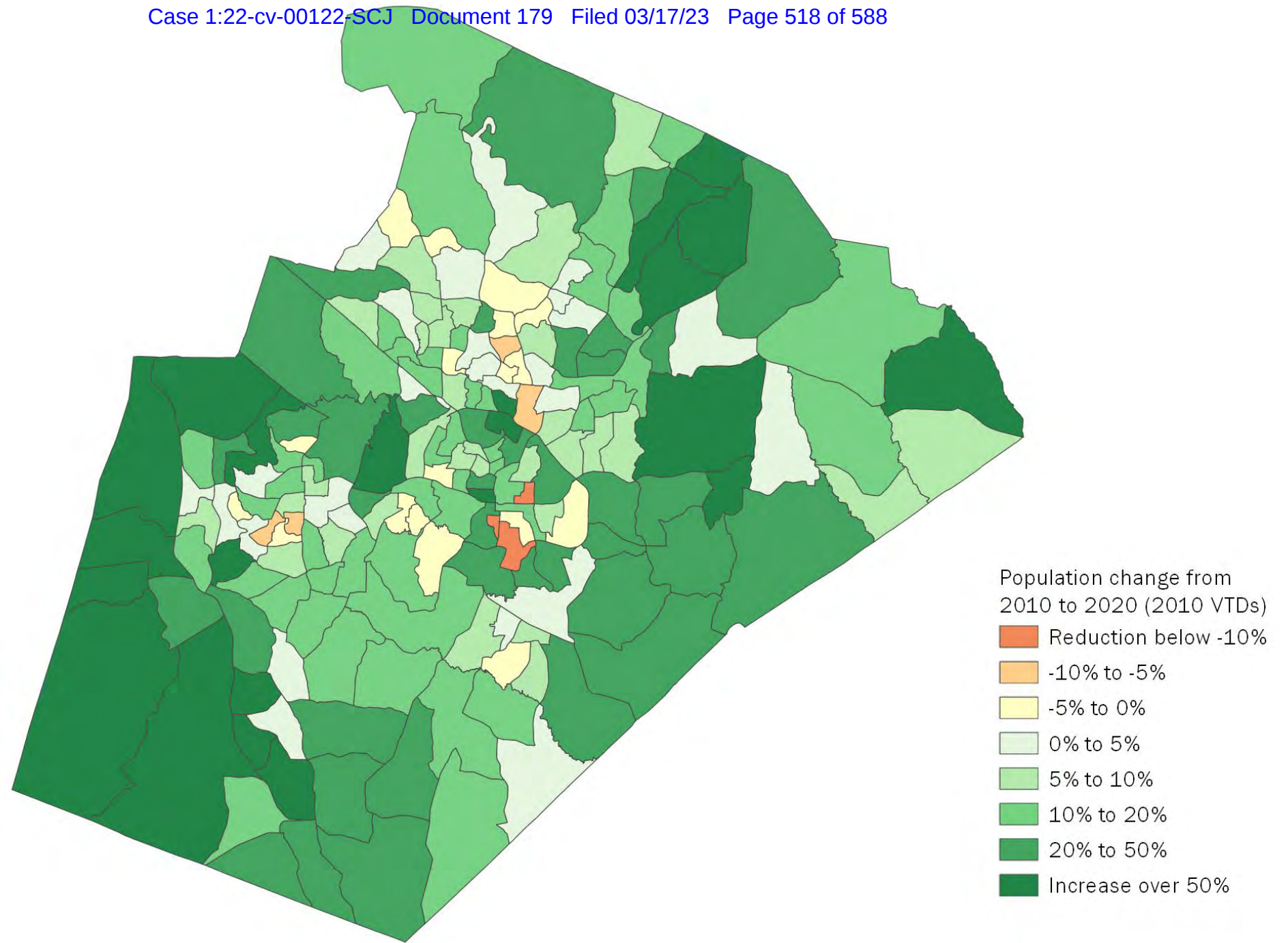
# Foundational Criteria Satisfied in All Draft Plans

- Population equality
- Consideration of the Federal Voting Rights Act
- Contiguity
- All split census blocks resolved (and no split blocks introduced)
- (Partisan election data were *not* considered.)

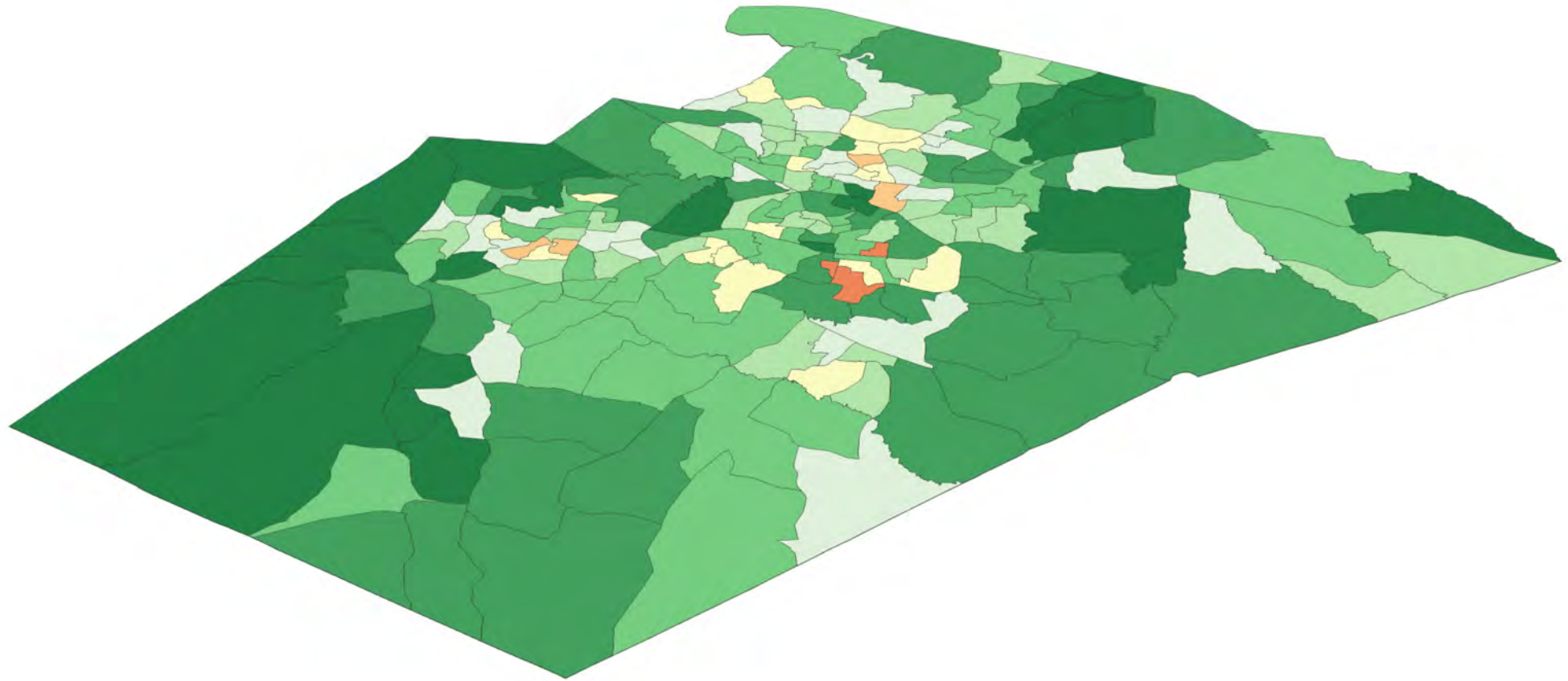
## Higher-Tier (Fully Applied) Criteria Satisfied in All Draft Plans

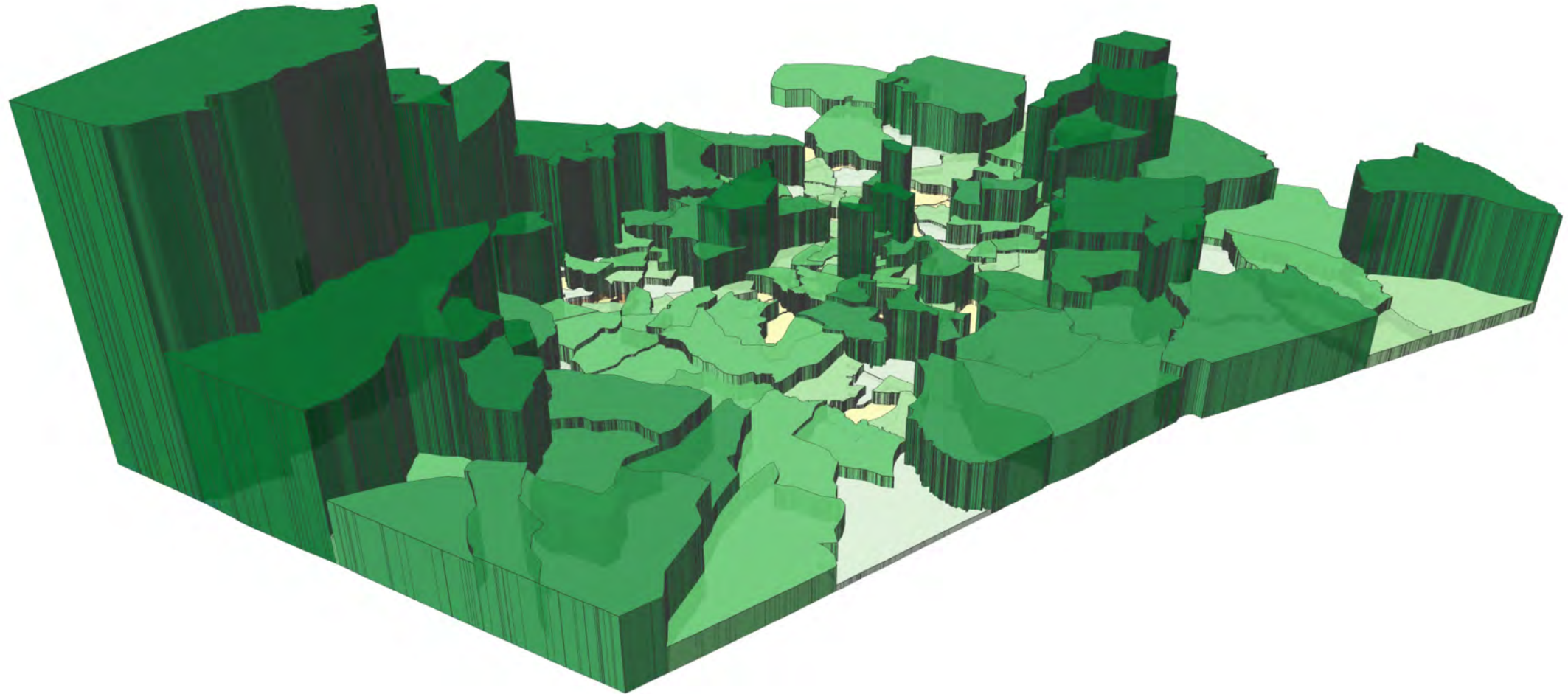
- Using the existing districts as a starting point and striving to preserve their cores
- Using precincts/VTDs as building blocks and keeping them intact (zero precinct splits in any draft plan)
- Avoiding the pairing of incumbents in the same district
- Taking into account expected growth





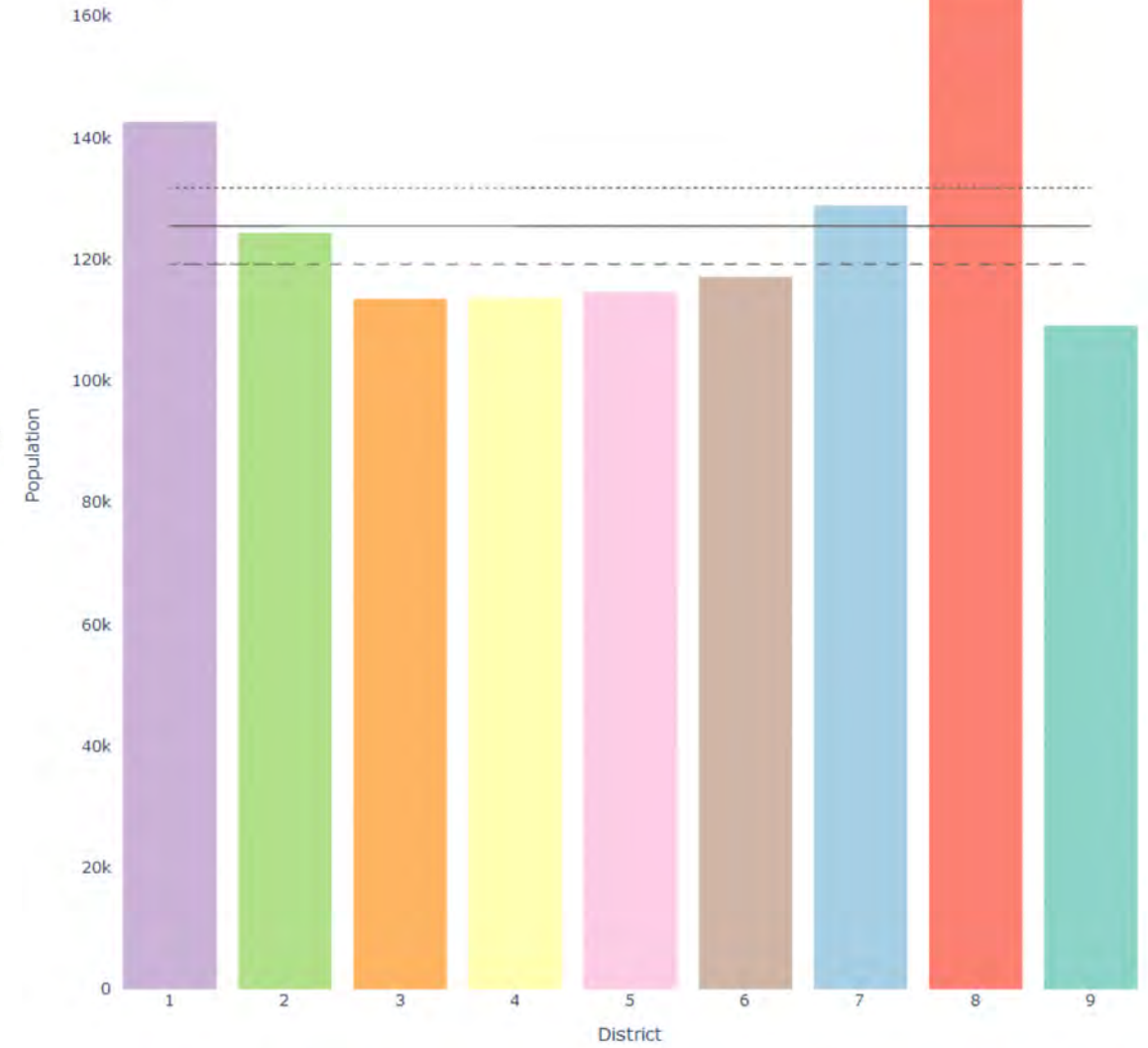
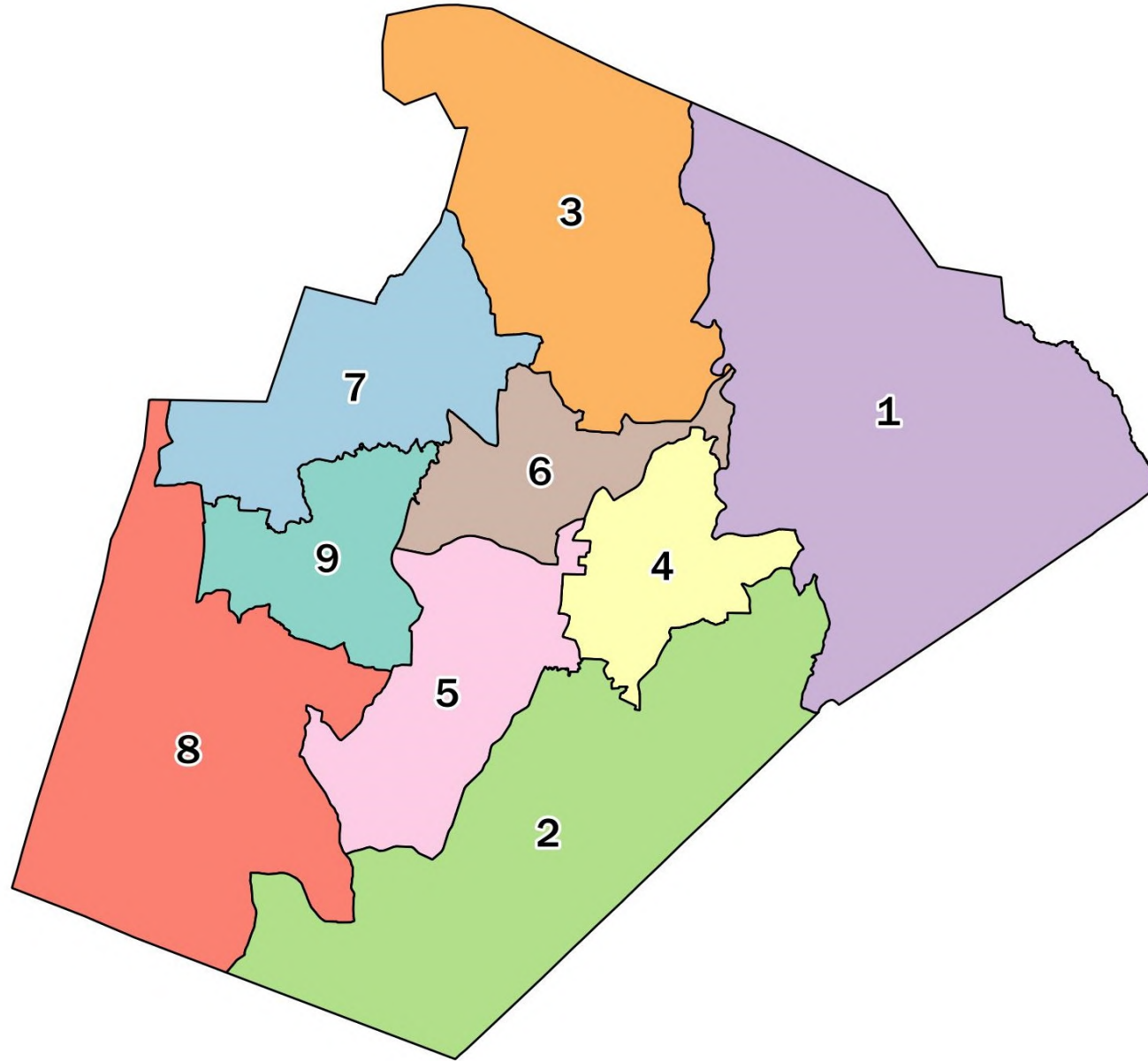






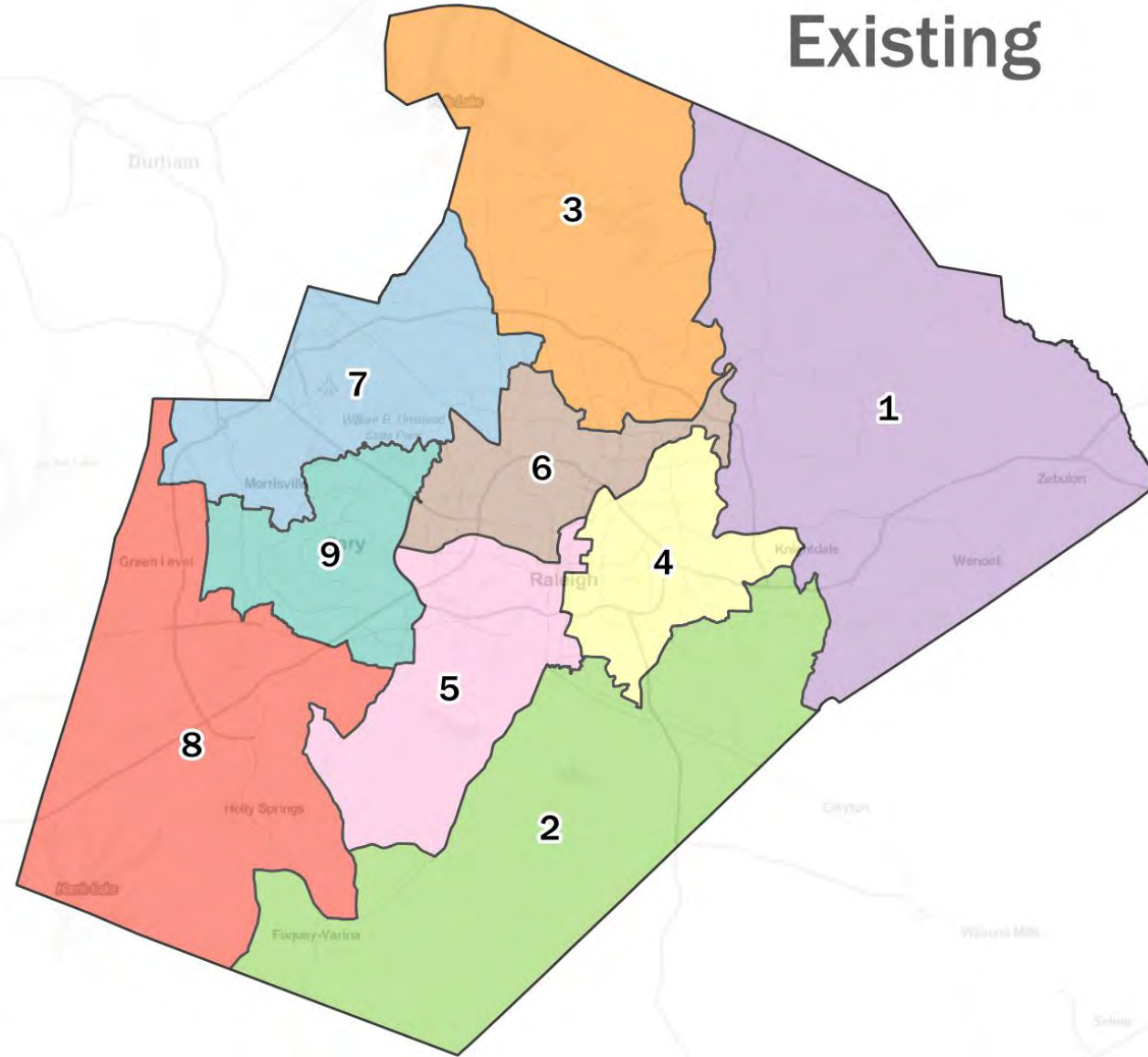
## Next-Tier Criteria Applied to the Extent Possible (Tradeoffs Inevitable)

- Balancing area superintendents
- Striving to keep assignment districts intact, or at least reducing the number/extent of splits
- Balancing high schools across districts
- Consideration of neighborhoods and communities of interest
- Consideration of municipal jurisdictions

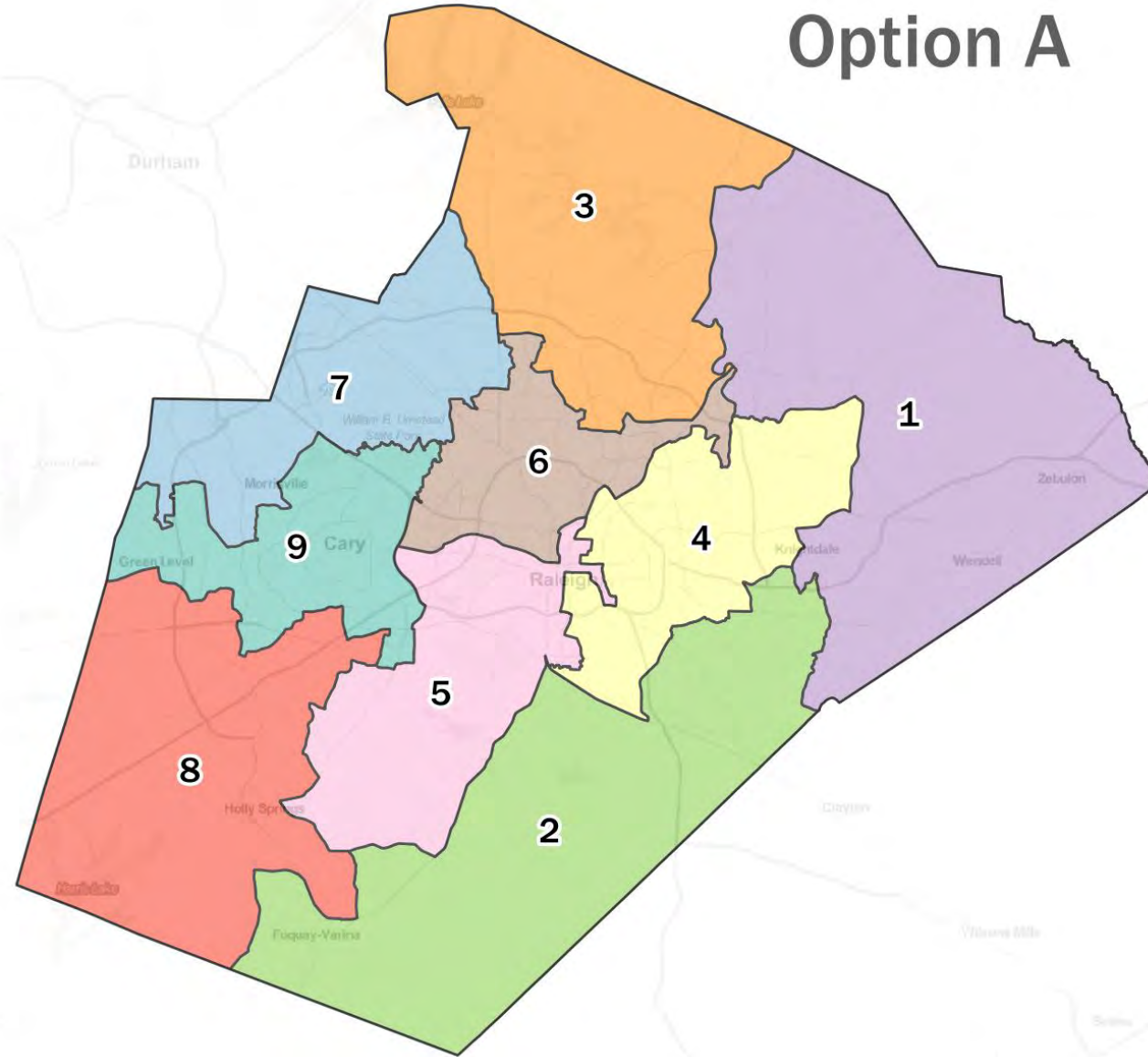


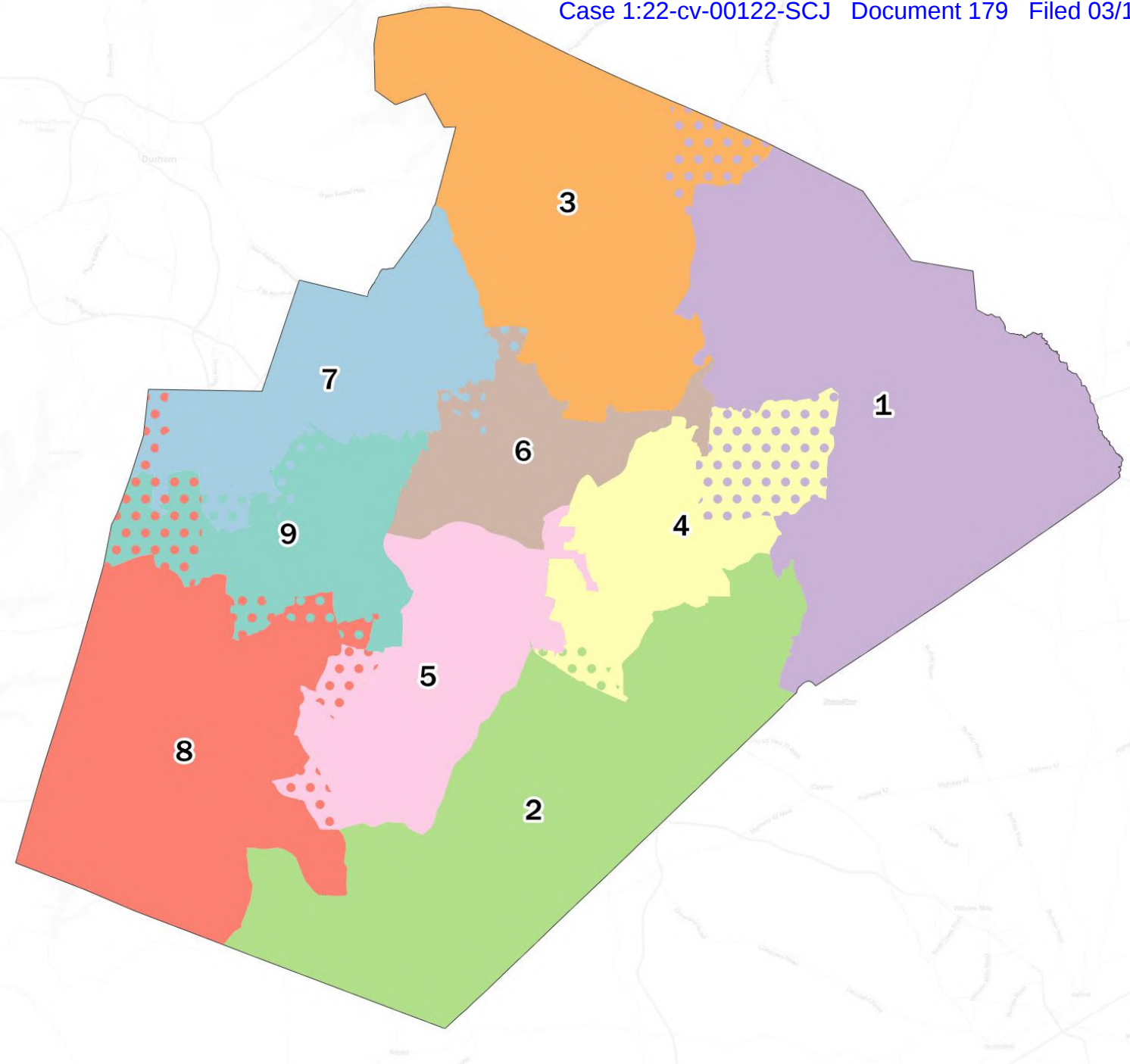


## Existing



## Option A





## Option A Changes

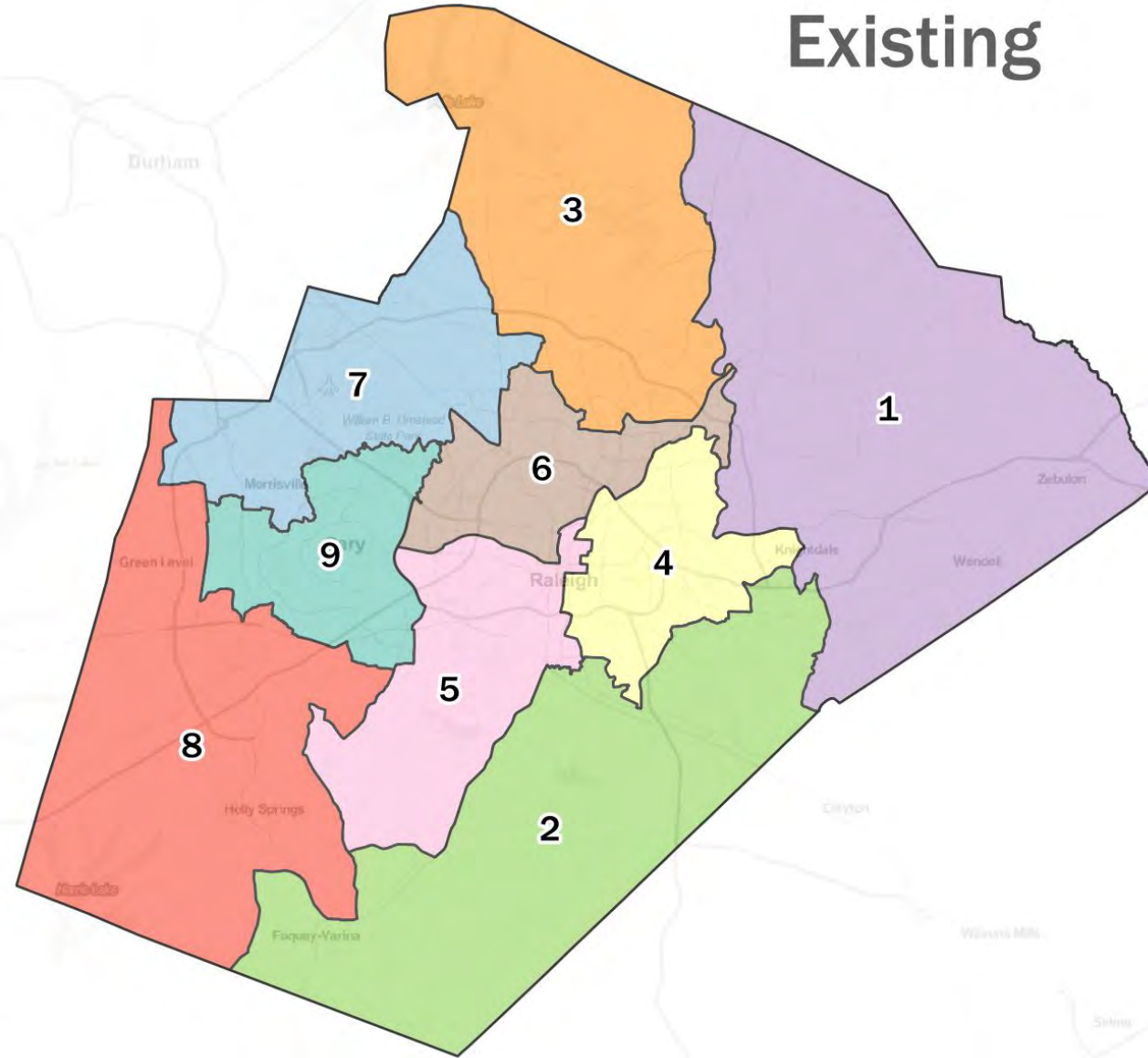
- Solid background colors represent the proposed district
- Dots represent the existing district
- If no dots are visible, no changes are proposed

# Description of Changes in Option A

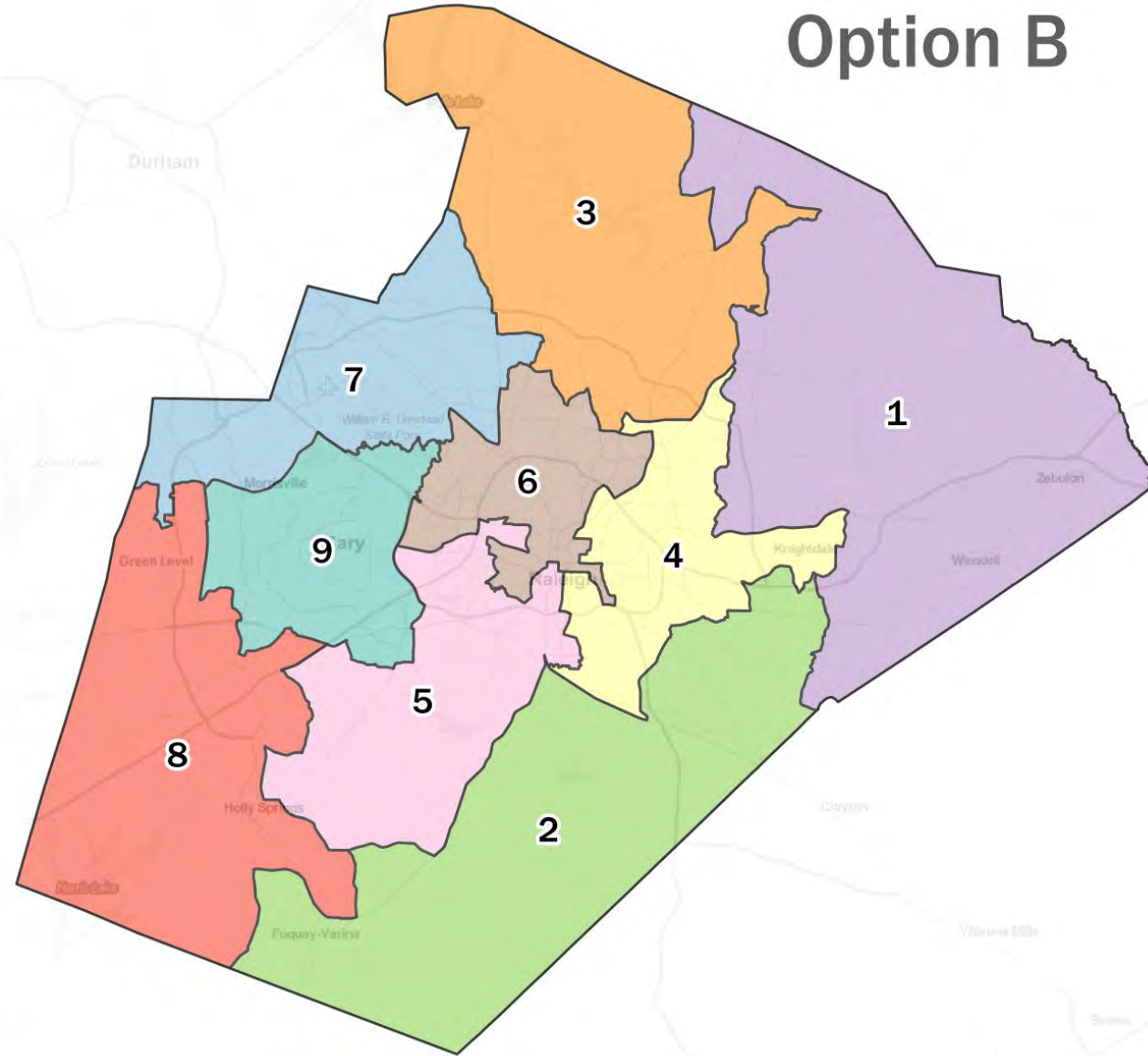
- ▶ Reduces D1's surplus of high schools
- ▶ D1 has just two area superintendents (instead of 3)
- ▶ Very little change to D2 (just resolving precinct split)
- ▶ D7 has only two area superintendents (though one has changed)
- ▶ D3, D7, and D9 increase their number of high schools (improving balance)
- ▶ The Knightdale municipality is more wholly in D4, not bisected as before
- ▶ Does divide Town of Wake Forest
- ▶ Does not address D5's surplus of area superintendent presence
- ▶ D5 continues to have more high schools than most districts



## Existing

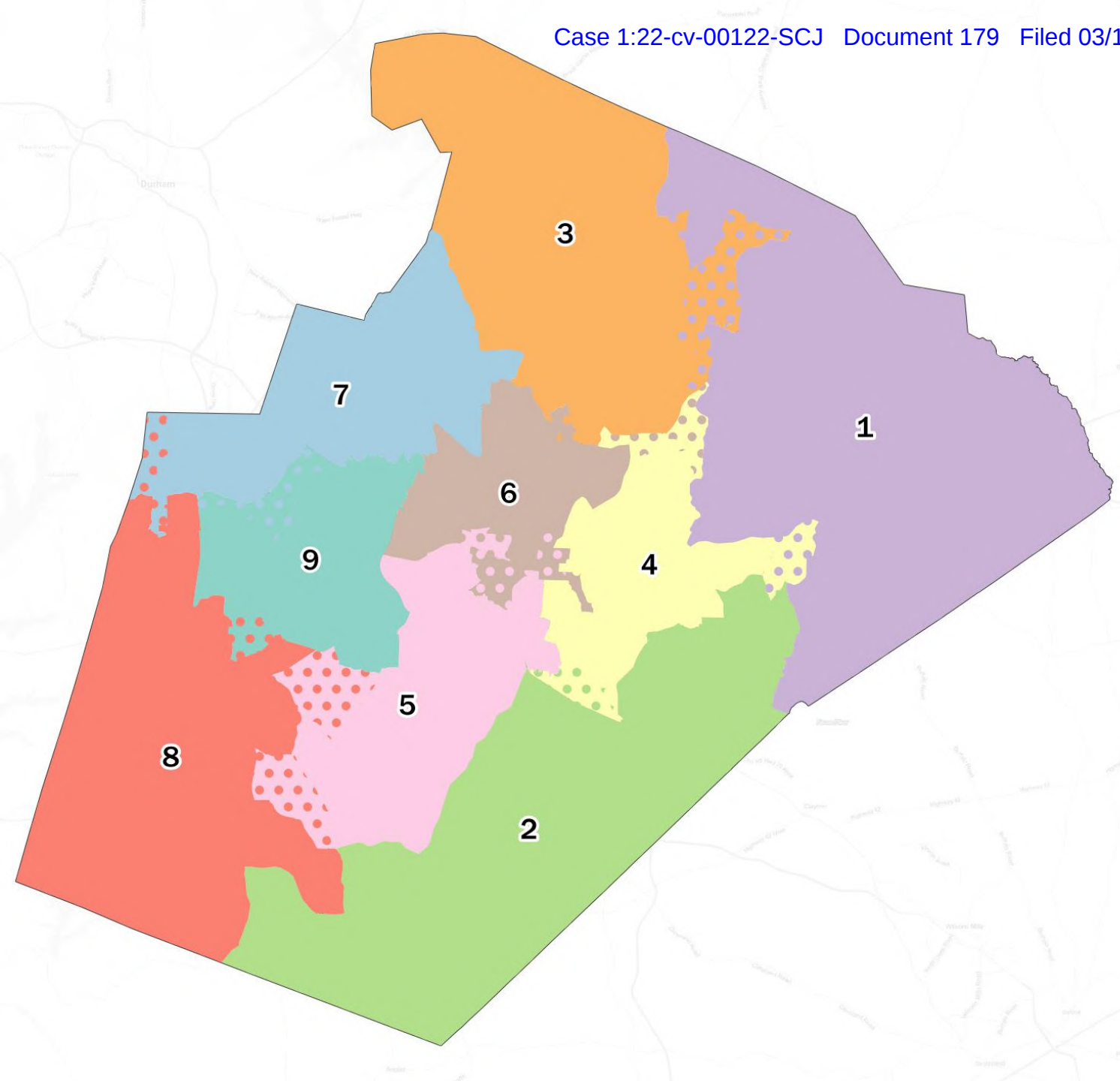


## Option B



## Option B Changes

- Solid background colors represent the proposed district
- Dots represent the existing district
- If no dots are visible, no changes are proposed

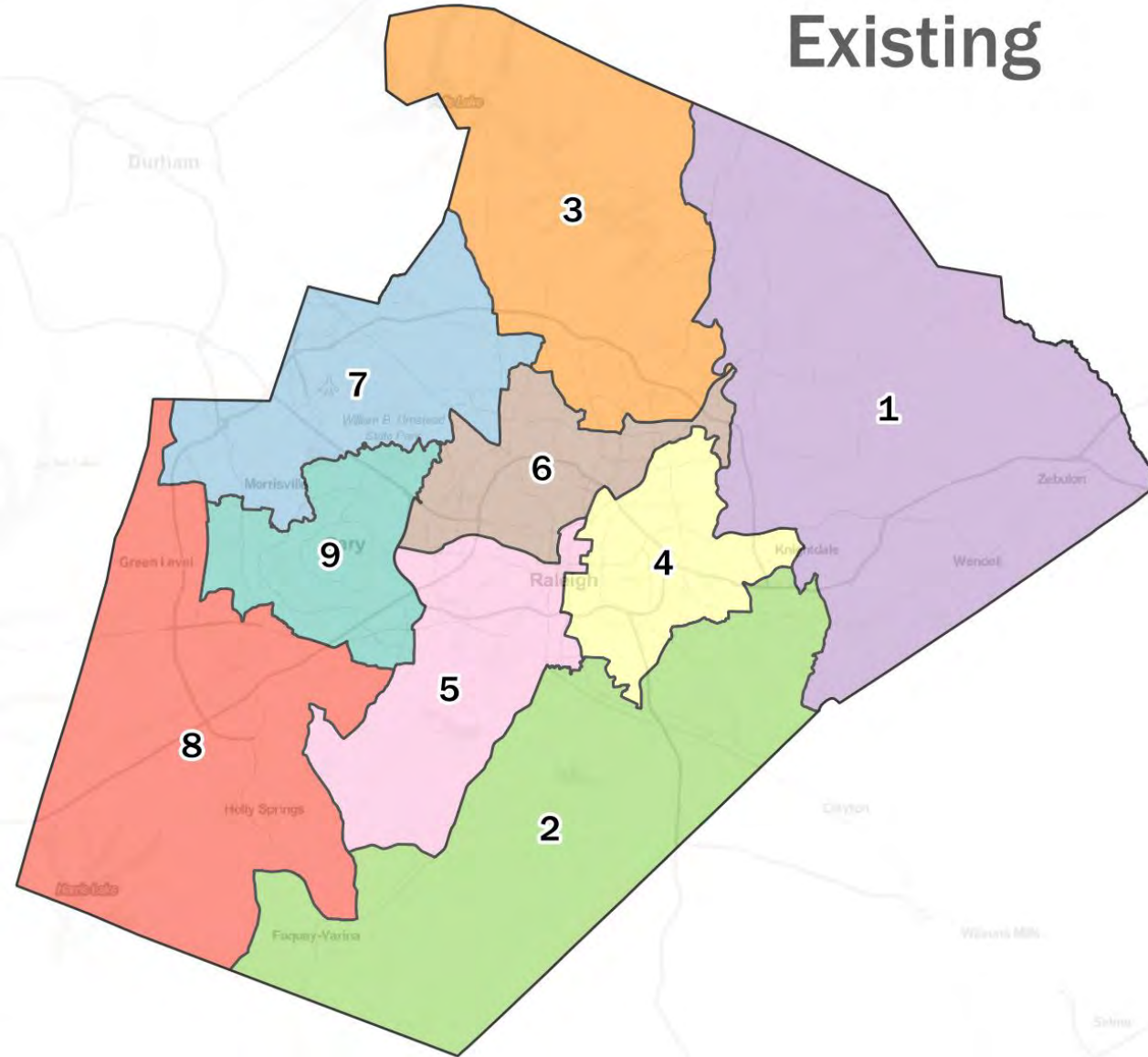


## Description of Changes in Option B

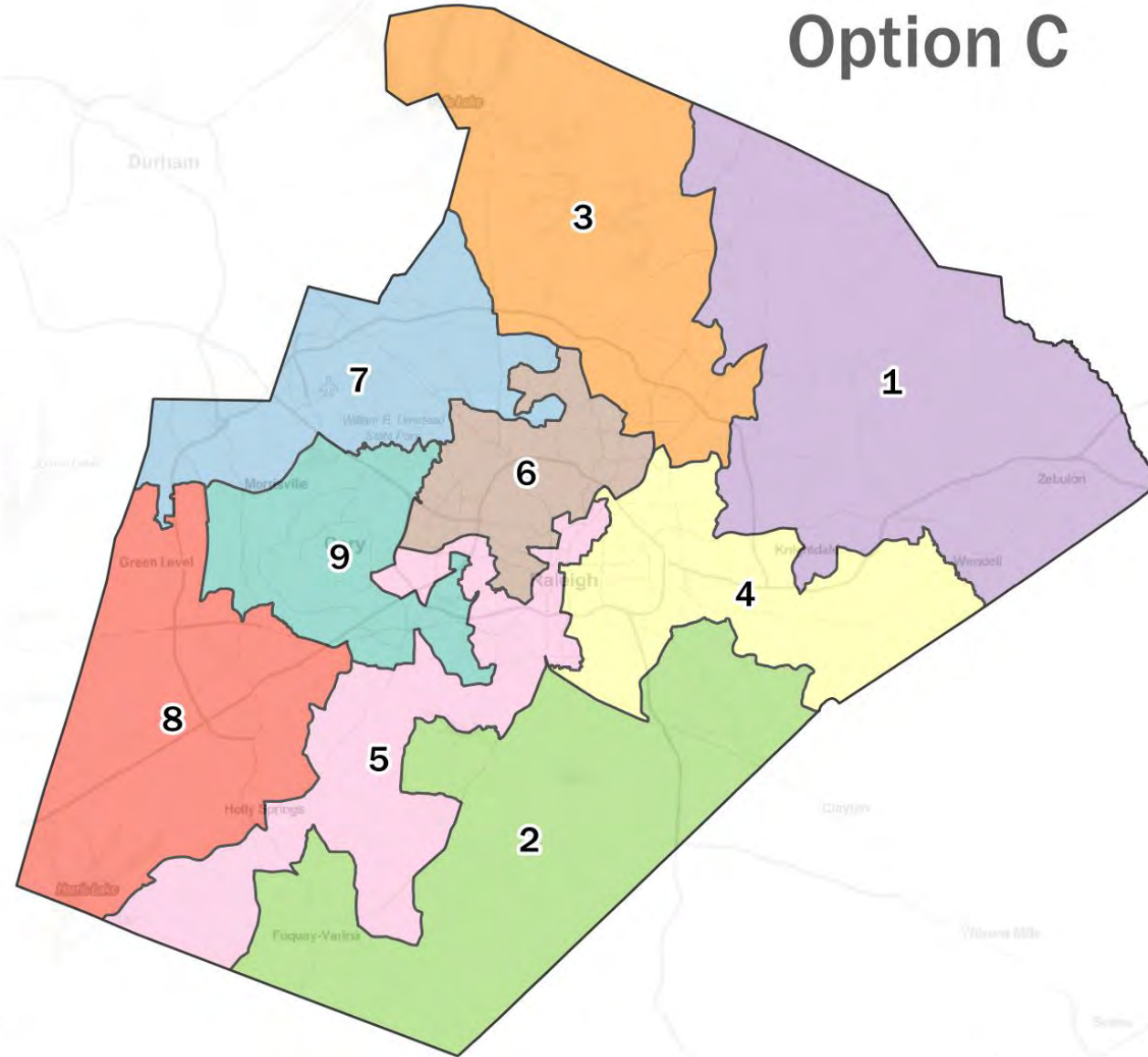
- ▶ Rolesville High attendance area in 3 districts (had been 4)
- ▶ D6 gets some of D5's surplus of high schools
- ▶ D3 gets two high schools from D1 surplus
- ▶ Minimal changes to D2 AND D7 (just resolving precinct splits)
- ▶ D5 has one fewer area superintendent
- ▶ Puts almost all of Green Hope High attendance area into D9 (greatly reduces amount of division)
- ▶ D8 no longer has attendance areas of Athens Drive High and Middle Creek High (they go into D5)
- ▶ Other improvements to high school balance (see table)
- ▶ Enloe High attendance area now in D6 (had been just in D4 & D5)
- ▶ Does divide the Heritage High attendance area (had been all in D1)
- ▶ D7 remains with just two high schools



## Existing

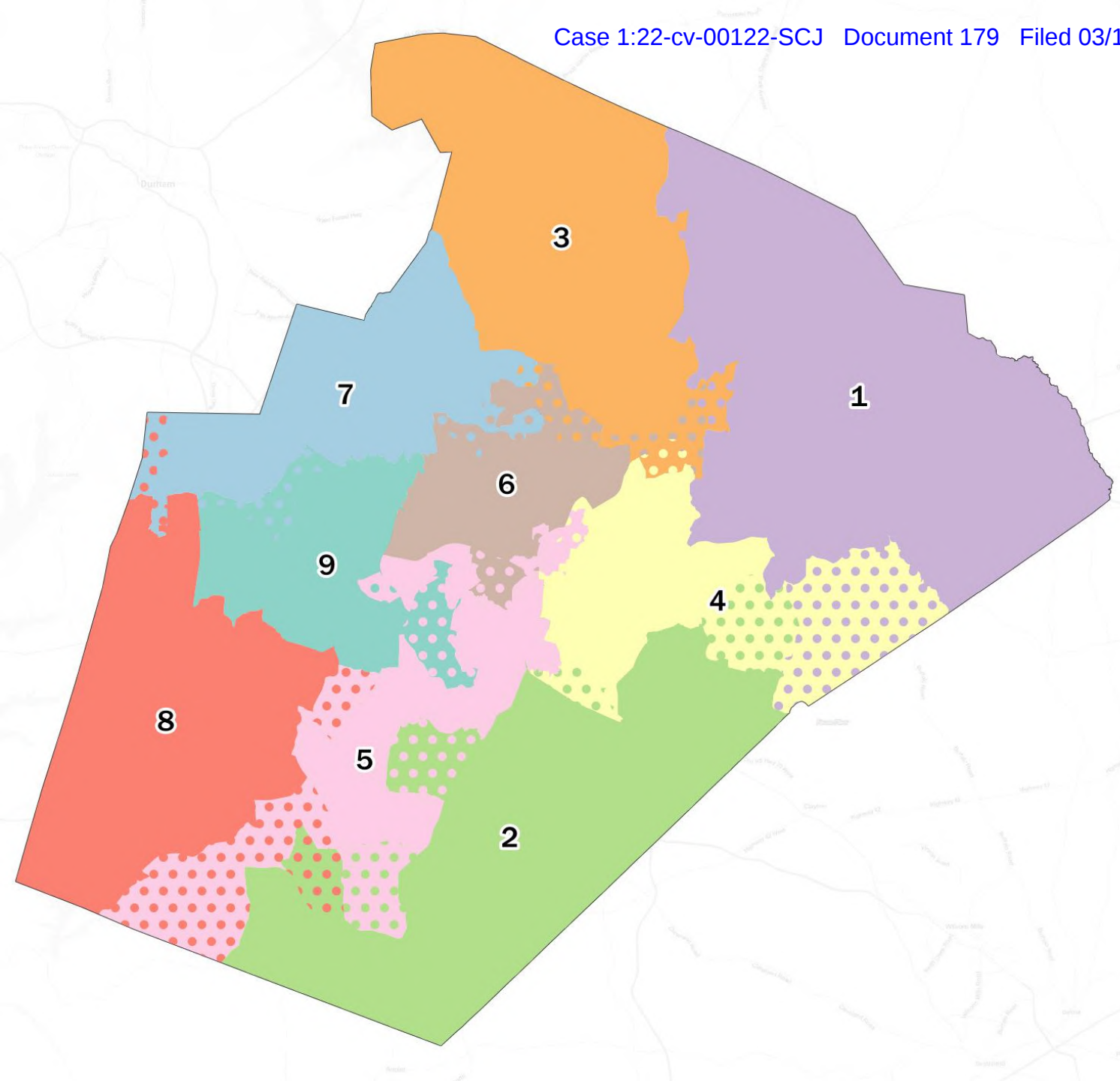


## Option C



## Option C Changes

- Solid background colors represent the proposed district
- Dots represent the existing district
- If no dots are visible, no changes are proposed





# Description of Changes in Option C

- ▶ Only two area superintendents in D1 (had been three)
- ▶ Rolesville High attendance area in three districts (down from four)
- ▶ Knightdale High attendance area in just two districts (vs. three now)
- ▶ Splits Wake Forest (municipality) less than Options A and B
- ▶ D2 no longer has tiny piece of Knightdale
- ▶ D5 goes from six area superintendents to four
- ▶ D9 gets one fewer area superintendent
- ▶ D8 no longer has fragment of Fuquay-Varina
- ▶ Middle Creek High and Fuquay-Varina High assignment areas each span one fewer district
- ▶ Other improvements to high school balance (see table)
- ▶ Does divide Wendell between D1 and D4
- ▶ D3, D5, and D6 get small pieces of additional attendance areas

# High Schools\* by District

Plan	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Standard Deviation
Existing	6	3	2	6	7	3	2	5	4	1.75
Option A	3	3	4	7	7	3	3	3	5	1.62
Option B	4	3	4	7	4	5	2	4	5	1.31
Option C	5	4	4	7	4	3	3	3	5	1.23

\*Note that these numbers include academies and virtual/alternative programs. For example, District 4 contains SCORE Academy River Oaks, Longview School, and Mary E. Phillips High School—in all of the plans.

# Area Superintendents by District

Plan	District 1	District 2	District 3	District 4	District 5	District 6	District 7	District 8	District 9	Average	Standard Deviation
Existing	3	2	2	4	6	5	2	2	2	3.11	1.45
Option A	2	2	2	4	6	5	2	2	2	3.00	1.49
Option B	2	2	2	4	5	5	2	3	3	3.11	1.20
Option C	2	2	3	5	4	4	2	3	3	3.11	0.99



## Population Summary Report

District No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total (%)	Non-Hispanic Asian (%)	Non-Hispanic black (%)	Hispanic (%)	Non-Hispanic white (%)	Non-Hispanic some other race (%)	Non-Hispanic two or more minority race (%)
D1	142,445	125,490	16,955	13.51	12.61%	3.50%	24.14%	12.86%	56.28%	1.12%	0.87%
D2	124,239	125,490	-1,251	-1.00	11.00%	2.34%	23.18%	14.28%	56.97%	1.02%	0.73%
D3	113,388	125,490	-12,102	-9.64	10.04%	5.36%	18.52%	9.44%	63.78%	1.13%	0.73%
D4	113,533	125,490	-11,957	-9.53	10.05%	3.88%	46.95%	20.31%	26.16%	0.87%	1.04%
D5	114,489	125,490	-11,001	-8.77	10.14%	8.29%	16.67%	11.39%	60.50%	1.34%	0.65%
D6	116,905	125,490	-8,585	-6.84	10.35%	4.10%	15.50%	11.21%	66.70%	1.01%	0.59%
D7	128,682	125,490	3,192	2.54	11.39%	21.36%	13.50%	7.01%	55.34%	1.15%	0.69%
D8	166,760	125,490	41,270	32.89	14.77%	18.34%	8.23%	7.38%	63.11%	1.33%	0.55%
D9	108,969	125,490	-16,521	-13.17	9.65%	15.65%	8.59%	10.05%	62.74%	1.37%	0.63%

**TOTAL Population:** 1,129,410

Mean Target Population: 125,490

Mean Deviation: 13,648

Mean Percent Deviation: 10.88

Largest Positive Deviation: 41,270

Largest Negative Deviation: -16,521

Overall Range in Deviation: 57,791

Overall Range in Deviation Percentage: 46.05

# Existing Districts

## Population Summary Report

District No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total (%)	Non-Hispanic Asian (%)	Non-Hispanic black (%)	Hispanic (%)	Non-Hispanic white (%)	Non-Hispanic some other race (%)	Non-Hispanic two or more minority race (%)
D1	119,306	125,490	-6,184	-4.93	10.56%	3.45%	24.07%	12.79%	56.46%	1.14%	0.84%
D2	120,323	125,490	-5,167	-4.12	10.65%	2.34%	22.74%	14.02%	57.69%	1.03%	0.71%
D3	124,650	125,490	-840	-0.67	11.04%	5.22%	17.88%	9.26%	64.77%	1.11%	0.73%
D4	127,741	125,490	2,251	1.79	11.31%	3.84%	45.50%	20.36%	27.46%	0.90%	1.06%
D5	127,055	125,490	1,565	1.25	11.25%	8.08%	16.23%	10.78%	61.80%	1.34%	0.63%
D6	127,925	125,490	2,435	1.94	11.33%	4.10%	15.29%	10.91%	67.23%	1.00%	0.57%
D7	131,024	125,490	5,534	4.41	11.60%	24.40%	13.26%	6.82%	52.66%	1.20%	0.72%
D8	121,425	125,490	-4,065	-3.24	10.75%	11.72%	8.42%	7.98%	68.78%	1.36%	0.54%
D9	129,961	125,490	4,471	3.56	11.51%	21.31%	8.40%	9.45%	58.00%	1.31%	0.62%

**TOTAL Population:** 1,129,410

Mean Target Population: 125,490

Mean Deviation: 3,612

Mean Percent Deviation: 2.88

Largest Positive Deviation: 5,534

Largest Negative Deviation: -6,184

Overall Range in Deviation: 11,718

Overall Range in Deviation Percentage: 9.34

# Option A



## Population Summary Report

District No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total (%)	Non-Hispanic Asian (%)	Non-Hispanic black (%)	Hispanic (%)	Non-Hispanic white (%)	Non-Hispanic some other race (%)	Non-Hispanic two or more minority race (%)
D1	121,041	125,490	-4,449	-3.55	10.72%	3.30%	25.25%	13.26%	54.97%	1.08%	0.88%
D2	120,323	125,490	-5,167	-4.12	10.65%	2.34%	22.74%	14.02%	57.69%	1.03%	0.71%
D3	127,641	125,490	2,151	1.71	11.30%	5.34%	17.97%	9.25%	64.52%	1.15%	0.71%
D4	129,616	125,490	4,126	3.29	11.48%	3.98%	45.52%	20.89%	26.83%	0.90%	1.06%
D5	125,971	125,490	481	0.38	11.15%	7.87%	14.38%	10.69%	63.91%	1.41%	0.62%
D6	127,364	125,490	1,874	1.49	11.28%	4.81%	14.57%	9.50%	68.58%	1.04%	0.56%
D7	126,883	125,490	1,393	1.11	11.23%	21.75%	13.93%	7.05%	54.46%	1.12%	0.73%
D8	119,915	125,490	-5,575	-4.44	10.62%	18.18%	8.16%	8.01%	62.69%	1.32%	0.53%
D9	130,656	125,490	5,166	4.12	11.57%	18.02%	8.54%	9.43%	61.09%	1.35%	0.61%

**TOTAL Population:** 1,129,410

Mean Target Population: 125,490

Mean Deviation: 3,376

Mean Percent Deviation: 2.69

Largest Positive Deviation: 5,166

Largest Negative Deviation: -5,575

Overall Range in Deviation: 10,741

Overall Range in Deviation Percentage: 8.56

# Option B

## Population Summary Report

District No.	TOTAL Population	Target Population	Target Deviation	Target Deviation (%)	Total (%)	Non-Hispanic Asian (%)	Non-Hispanic black (%)	Hispanic (%)	Non-Hispanic white (%)	Non-Hispanic some other race (%)	Non-Hispanic two or more minority race (%)
D1	119,276	125,490	-6,214	-4.95	10.56%	3.54%	22.64%	12.41%	58.16%	1.14%	0.87%
D2	119,532	125,490	-5,958	-4.75	10.58%	2.44%	22.29%	13.49%	58.56%	1.05%	0.71%
D3	124,284	125,490	-1,206	-0.96	11.00%	5.82%	21.72%	12.14%	57.43%	1.11%	0.78%
D4	126,434	125,490	944	0.75	11.19%	3.14%	45.75%	19.47%	28.89%	0.87%	1.02%
D5	127,439	125,490	1,949	1.55	11.28%	6.96%	14.74%	11.09%	64.00%	1.37%	0.64%
D6	129,539	125,490	4,049	3.23	11.47%	4.95%	14.38%	10.26%	67.88%	1.03%	0.55%
D7	131,684	125,490	6,194	4.94	11.66%	21.06%	14.03%	6.95%	55.11%	1.14%	0.73%
D8	120,630	125,490	-4,860	-3.87	10.68%	18.94%	7.37%	7.38%	63.39%	1.35%	0.55%
D9	130,592	125,490	5,102	4.07	11.56%	18.05%	9.11%	9.29%	60.65%	1.34%	0.60%

**TOTAL Population:** 1,129,410

Mean Target Population: 125,490

Mean Deviation: 4,053

Mean Percent Deviation: 3.23

Largest Positive Deviation: 6,194

Largest Negative Deviation: -6,214

Overall Range in Deviation: 12,408

Overall Range in Deviation Percentage: 9.89

# Option C

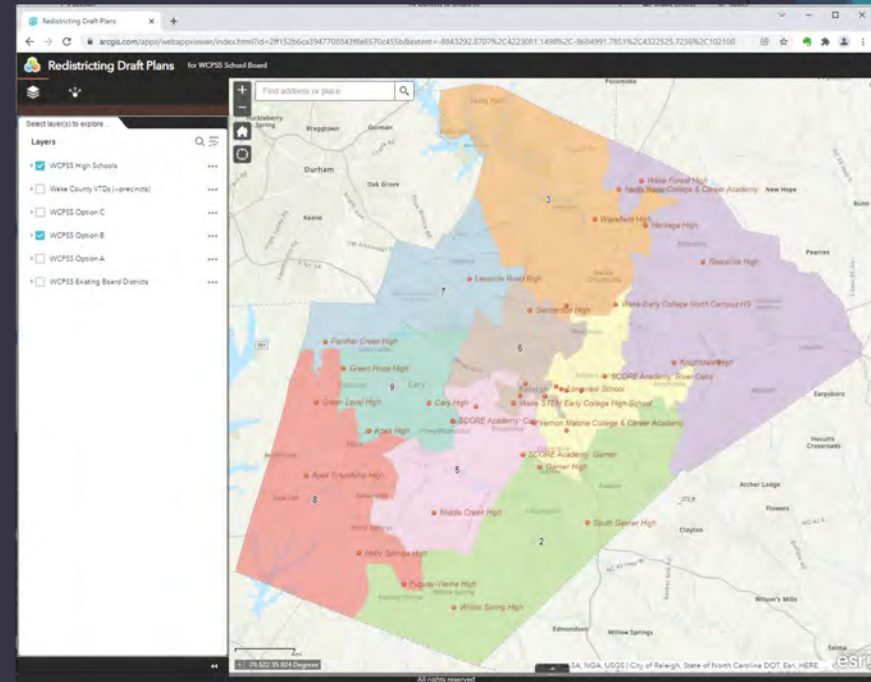


Interactive online map of the plans  
can be viewed at:

<https://arcg.is/1PX0yr0>

## The web-based map allows you to:

- Zoom fully in and out
- Pan around the map while zoomed in
- Search for a specific address or landmark
- Turn layers on and off to compare plans
- See locations of high schools





Questions and discussion welcomed!

## THE VERY BASICS ON COUNTY REDISTRICTING

North Carolina Association of County Commissioners Annual Conference  
*Changing Demographics, Drawing Districts, and County Impacts*  
August 6, 2020

Deborah Stagner, *Attorney, Tharrington Smith, LLP, Raleigh*

Blake Esselstyn, *Geographer and Redistricting Consultant,  
Mapfigure Consulting, Asheville*

1. A decennial census is mandated by the Constitution. The 2020 census is a count of the entire U.S. population as of April 1, 2020.
2. A county board of commissioners needs to redraw its election district lines after the 2020 census only if (a) the board uses true election districts, *i.e.*, only voters who live in the district may vote for that seat, and (b) the current districts are substantially unequal.
3. Districts should be drawn so that population is as nearly equal as practicable. The accepted rule of thumb for local governments is that there should be no more than a ten percent overall deviation from the ideal. If the 2020 census shows that the board's existing districts already are within the ten percent overall deviation range, there is no need to redistrict.
4. One-person/one-vote does not apply to residency districts, *i.e.*, when candidates are required to reside in particular districts but still run at large.
5. The list of county boards of commissioners using true election districts includes: Anson, Bladen, Buncombe, Caswell, Chowan, Columbus, Craven, Cumberland, Duplin, Edgecombe, Forsyth, Franklin, Granville, Guilford, Halifax, Harnett, Lee, Lenoir, Mecklenburg, Montgomery, Nash, Orange, Pamlico, Pasquotank, Pitt, Robeson, Sampson, Vance, Washington, Wayne and Wilson.
6. The board of commissioners is responsible for redrawing its districts. See N.C. General Statutes § 153A-22. New electoral districts are adopted by resolution.
7. In order to utilize new districts for the 2022 election, the board's resolution must be adopted at least 150 days before the primary.
8. No change in the boundaries of a district will affect the unexpired term of a commissioner residing in the district and serving on the board on the effective date of the resolution.
9. The preclearance requirement of Section 5 of the federal Voting Rights Act is no longer in effect, meaning that there is no review of the board's drawing of new districts unless a lawsuit is brought.
10. Generally, race may not be considered in drawing election districts. If districts were originally drawn subject to a federal court order or consent decree in a voting rights case, however, the board may have to consider whether new districts still provide sufficient opportunity for African American voters to elect candidates.

**Exhibit**  
**0003**

JANUARY 25 - 26, 2019

# Reason, Reform & Redistricting Conference

Common Cause collaborated with Duke University's Center for Political Leadership, Innovation, and Service (POLIS) to organize two days of engagement with national and North Carolina thought leaders and policy makers working towards ending partisan gerrymandering.

[Download the Conference Program](#)

**Duke | POLIS**  
CENTER FOR POLITICAL LEADERSHIP, INNOVATION, AND SERVICE

 **Common Cause**

**SANFORD**  
SCHOOL OF PUBLIC POLICY 

## 2018 Reason, Reform & Redistricting Conference

Day 1: Friday, January 25, 2019

**11:00 am: Registration and Lunch**

**11:45 am – 12:00 pm: Welcome: Fritz Mayer**

**Exhibit  
0004**

**12:00 pm – 1:00 pm: Pursuing an End to Partisan Gerrymandering in North Carolina**

North Carolina experts and political observers discuss the highlights and low-lights of North Carolina politics in light of the 2018 election and the fight for fair maps.

- **Jane Pinsky**, Director, North Carolina Coalition for Lobbying and Government Reform (*moderator*)
- **Fmr. Rep. Jonathan Jordan**
- **Tom Ross**, North Carolinians for Redistricting Reform
- **Erin Byrd**, Executive Director, Blueprint NC
- **Bob Phillips**, Executive Director, Common Cause North Carolina

**1:00 pm – 2:00 pm: State of the Nation**

The midterm elections have changed the field of play when it comes to redistricting and other good government reforms. What happened? What did we learn? Where do we go from here? National political and policy experts will discuss where things stand post-midterms and what to anticipate moving forward.

- **Kareem Crayton**, Executive Director, Southern Coalition for Social Justice (*moderator*)
- **Kathay Feng**, National Redistricting Director, Common Cause
- **Jessica Jones Capparell**, Policy and Legislative Affairs Senior Manager, League of Women Voters
- **Arturo Vargas**, Executive Director, NALEO

**2:00 pm – 2:15 pm      BREAK****2:15 pm – 3:15 pm: An Overview of Pending and Upcoming Gerrymandering Litigation**

Hear from the legal teams on the forefront of the fight for fair maps in the courts as they discuss their strategies, challenges and paths to success. No previous legal expertise needed!

- **Michael Li**, Senior Counsel – Democracy Program, Brennan Center (*moderator*)
- **Emmet Bondurant**, Partner, Bondurant, Mixson & Ellmore, LLP
- **Allison Riggs**, Staff Attorney – Voting Rights Project, Southern Coalition for Social Justice
- **Michael Kimberly**, Partner, Mayer Brown, LLP
- **Tom Wolf**, Counsel – Democracy Program, Brennan Center

**3:30 pm – 4:45 pm: How to Measure the Impact of Partisan Gerrymandering**

Common Cause's Partisan Gerrymandering Writing Contest challenged the best and brightest to come up with innovative approaches to the unique legal, social science and other challenges we face in the fight for fair maps. Come hear their solutions!

- **Jonathan Mattingly**, Professor of Mathematics, Duke University (*moderator*)
- **Suzanne Almeida**, Redistricting and Representation Counsel, Common Cause (*moderator*)
- **Samuel Wang**, Princeton Gerrymandering Project
- **Michael D. McDonald** and **Dan Magleby**, Binghamton University
- **John Curiel** and **Tyler Steelman**, University of North Carolina

### 3:30 pm – 4:45 pm: **Shaping the 2020 Census**

The 2020 Census is fast approaching and this panel will address the policy, legal, and practical challenges we face as we advocate for a full and accurate count. Hear from experts, organizers, and former census director Vincent Barabba as they discuss what needs to happen and how you can help.

- **Keshia Morris**, Census Project, Common Cause (*moderator*)
- **Vincent Barabba**, former Census Director
- **Beth Lynk**, Census Campaign Director, Leadership Conference
- **Tamieka Atkins**, Executive Director, ProGeorgia
- **John Marion**, Executive Director, Common Cause Rhode Island

### 4:50 pm – 5:10 pm: **Fighting Gerrymandering in the U.S. Congress**

**U.S. Congressman David Price** (D – North Carolina 4th District) will discuss congressional level efforts to eradicate gerrymandering and provide insights on how experts and advocates can help.

### 5:30 pm – 6:30 pm: **Reception, details TBA**

## Day 2: Saturday, January 26, 2019

### 8:00 am – 9:00 am: **Breakfast and Registration**

### 9:00 am – 10:00 am: **North Carolina State of Play**

As the home to litigation on the congressional and state maps, a robust grassroots organizing campaign for reform, and a difficult political climate, North Carolina presents unique challenges and opportunities for redistricting reform. North Carolinians in the thick of the fight discuss their strategies to move reform forward, the lessons they've learned thus far, and what they want everyone else to understand about North Carolina.

- **Bob Phillips**, Executive Director, Common Cause North Carolina (*moderator*)
- **Mayor Vivian Jones**, Wake Forest, North Carolina
- **Tom Ross**, North Carolinians for Redistricting Reform

- **Jane Pinsky**, Director, North Carolina Coalition for Lobbying and Government Reform
- **Tomas Lopez**, Executive Director, Democracy NC

### 10:15 am – 11:15 am: Lessons Learned from State Victories

This year, voters in an unprecedented five states passed reforms to make redistricting a fairer and more transparent process. We'll examine the organizing and communications strategies that citizen-activists implemented to win. Hear from local advocates and organizers about how they won, what happens next, and what they wish they knew before they started.

- **Dan Vicuna**, National Redistricting Manager, Common Cause (*moderator*)
- **Katie Fahey**, Executive Director, Voters Not Politicians (Michigan)
- **Curtis Hubbard**, Fair Maps Colorado
- **Catherine Turcer**, Executive Director, Common Cause Ohio
- **Sean Soendker Nicholson**, Campaign Director, Clean Missouri

### 10:15 am – 11:15 am: Building the Evidence of Partisan Gerrymandering

Successful partisan gerrymandering claims require a combination of social science metrics, personal stories, and legal analysis. Leading lawyers and social scientists discuss their strategies for how to build a strong case, establishing standing, and using statistical evidence.

- **Ben Thorpe**, Associate, Bondurant, Mixson & Ellmore, LLP (*moderator*)
- **Jowei Chen**, Associate Professor of Political Science, University of Michigan
- **Edwin Speas**, Partner, Poyner Spruill
- **Allison Riggs**, Senior Attorney – Voting Rights Project, Southern Coalition for Social Justice
- **Jonathan Mattingly**, Professor of Mathematics, Duke University

### 11:30 am – 12:30 pm: LUNCH PROGRAM: A People-Centric Perspective on Redistricting

- **Kathay Feng**, National Redistricting Director, Common Cause
- **David Daley**, author of “Ratf\*\*ked: Why Your Voice Doesn’t Count”
- **Faulkner Fox**, author and creative writing instructor at Duke University
- **Sam Levine**, Huffington Post

### 12:45 pm – 1:45 pm: Fighting Gerrymandering with the First Amendment

With the new composition of the Supreme Court, how can advocates use First Amendment-based legal strategies to win? Legal experts will discuss a variety of strategies rooted in the First Amendment and how they can be used in the context of partisan gerrymandering litigation.

- **Justin Levitt**, Associate Dean for Research and Professor of Law, Loyola Law School (*moderator*)
- **Emmet Bondurant**, Partner, Bondurant, Mixson & Ellmore, LLP
- **Daniel Tokaji**, Professor of Constitutional Law, Ohio State University

### 12:45 pm – 1:45 pm: Racial Equity and Redistricting

How should we integrate racial equity into discussions about redistricting reform? Hear from advocates, organizers and mapmakers on what strategies have worked for them, what work is left to do, and how the redistricting reform movement benefits from true diversity and inclusion.

- **Celina Stewart**, Director of Advocacy and Litigation, League of Women Voters (*moderator*)
- **Tram Nguyen**, Co-Executive Director, New Virginia Majority
- **Micah Sims**, Executive Director, Common Cause Pennsylvania
- **La'Meshia Whittington-Kaminski**, North Carolina Organizer, Friends of the Earth

### 2:00 pm – 3:00 pm: Collecting Public Input in the Redistricting Process

How do we ensure that districts reflect the true boundaries of communities? We ask community members! Come learn about public education and organizing strategies to collect and reflect back community input on district boundaries.

- **Reggie Weaver**, Civic Engagement Coordinator, Common Cause North Carolina (*moderator*)
- **Vincent Barabba**, California Redistricting Commissioner
- **Ivanna Gonzales**, Deputy Director, BluePrint NC
- **Leonard Gorman**, Executive Director, Navajo Nation Human Rights Commission

### 2:00 pm – 3:00 pm: The Latest Mapping Technology

Although redistricting is traditionally done behind closed doors, new technology is making it possible for everyday people to engage in the process. What are some strategies to leverage this new technology? Hear from panelists who are tackling this issue head on, experience the technology first hand, and workshop strategies that could work in your community. **Bring your laptop – this session provides the opportunity for hands on mapping experience!**

- **Kathay Feng**, National Redistricting Director, Common Cause (*moderator*)
- **Blake Esselstyn**, Principal, EQV Maps
- **David Thornburgh**, President & CEO, Committee of Seventy

### 3:15 pm – 4:00 pm: What's Next?

What have we learned and where do we go from here? Fritz Mayer, Duke POLIS and Kathay Feng, Common Cause will discuss takeaways and next steps from the conference.

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## About districks

*Districks* is a blog and information source focused solely on gerrymandering and redistricting. Born of a hunger for better coverage, this new data journalism project combines lucid visualizations and geographic storytelling to shed more light on these critical issues.

The founder, Blake Esselstyn, is an unaffiliated voter and redistricting consultant based in North Carolina, longtime hotbed of gerrymandering shenanigans. In addition to his studies at Yale and Penn, Blake has spent over two decades crunching geographic data, then synthesizing and communicating the stories they reveal.



As the name 'districks' suggests, the site specifically aims to expose and illuminate the skulduggery of the current redistricting status quo. However, while recognizing the need for reform, districks seeks to steer clear of specific advocacy, hoping instead to better inform citizens and empower them to pursue change as they see fit.

For more about the blog, see [the initial, introductory post](https://blog.districks.com/about/).

**Exhibit**  
0005

Districks is an initiative of FrontWater, LLC.

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Congress

# 44 Years of Redistricting Consequences in 14 Seconds

This motion chart animation highlights the supercharged packing and cracking of U.S. Congressional districts in 2011, and the effects on election outcomes.



**Blake Esselstyn**

Nov 11, 2017 • 1 min read

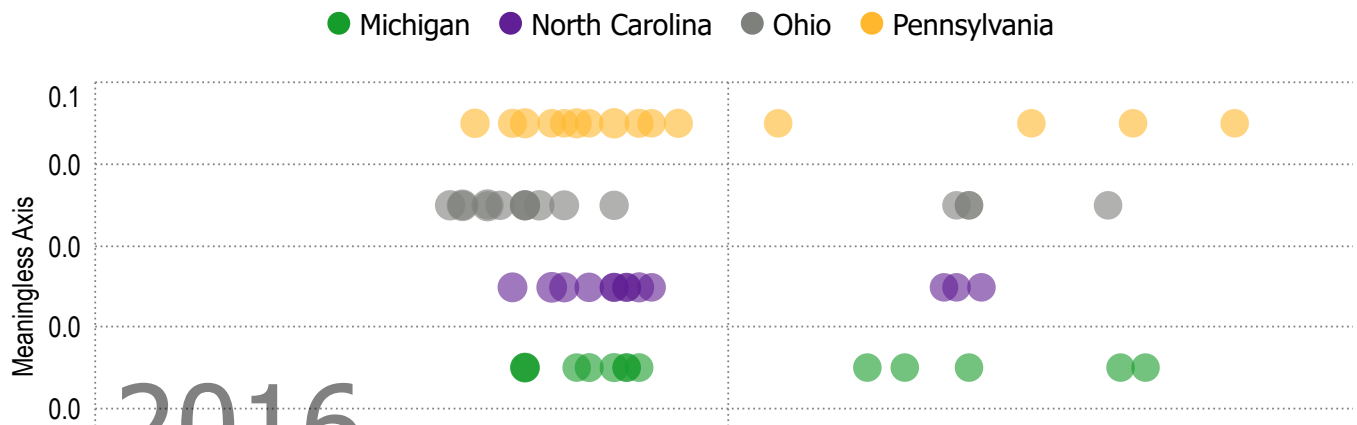
**Exhibit  
0006**

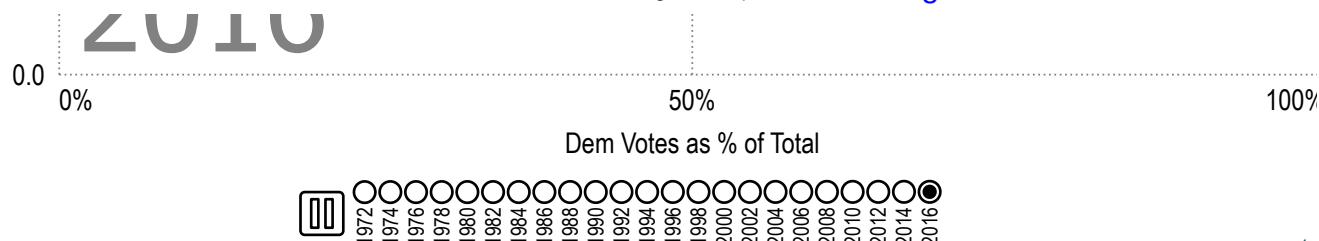
I don't remember ever having seen a motion chart used to illustrate gerrymandering. But after watching a [Hans Rosling video](#), I got to thinking about how his method of animation showing change over time might shed light on the topic – particularly the supercharged packing and cracking in certain purple states after 2010.

Since [Google dropped its support for motion charts earlier this year](#), I've been experimenting with [Charté](#). A first effort is below, highlighting the alphabetically convenient "M-N-O-P" battleground states. Look for the split around the 50% line starting in 2012, indicating the disappearance of competitive races:

## Congressional Elections 1972-2016 Sorted by % of Votes for Democrats

Only contested elections shown. Based on two-party results.





CHARTÉ.

Worth noting:

- You can pause and restart the animation
- Review the changes and patterns at your own speed by hovering over specific years at the bottom (works best when paused)
- It's interesting to focus on one state at a time
- I find the shift from the '06-'08-'10 triplet to the '12-'14-'16 triplet pretty striking

Certainly, others have previously examined these distributions over different years (see [here](#), [here](#), [here](#), and [here](#), e.g.) with more useful metrics applied, but perhaps this visual will be a helpful way for some viewers to grasp the story.

Big thanks to Sam Wang and Brian Remlinger at the [Princeton Gerrymandering Project](#) for their help.

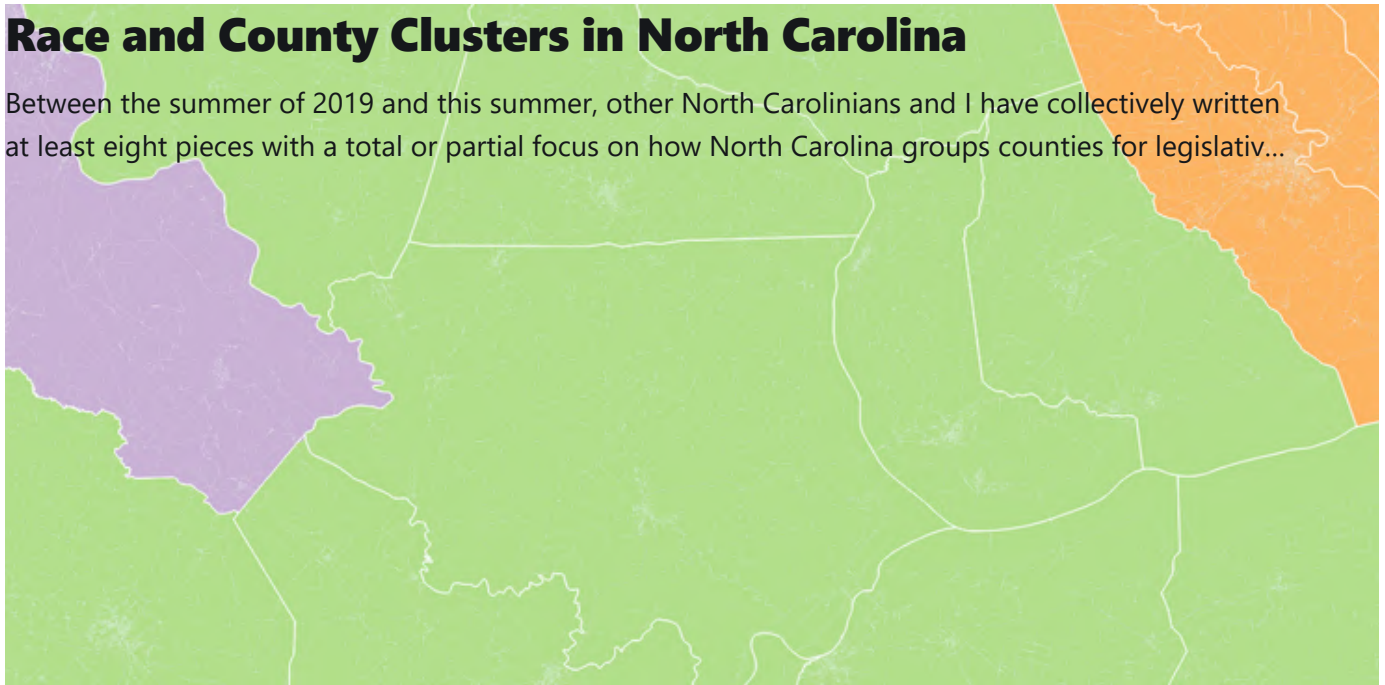
If time allows, I'd like to improve the chart by ditching the Y-axis, adding a band to better indicate the competitive range, and including a red/blue color scheme to emphasize the partisan divide.

If folks have other suggestions, or if anyone has seen a similar motion chart or animation related to gerrymandering, please [let me know](#).

## Sign up for more like this.

## Race and County Clusters in North Carolina

Between the summer of 2019 and this summer, other North Carolinians and I have collectively written at least eight pieces with a total or partial focus on how North Carolina groups counties for legislativ...



districts © 2023

Powered by Ghost

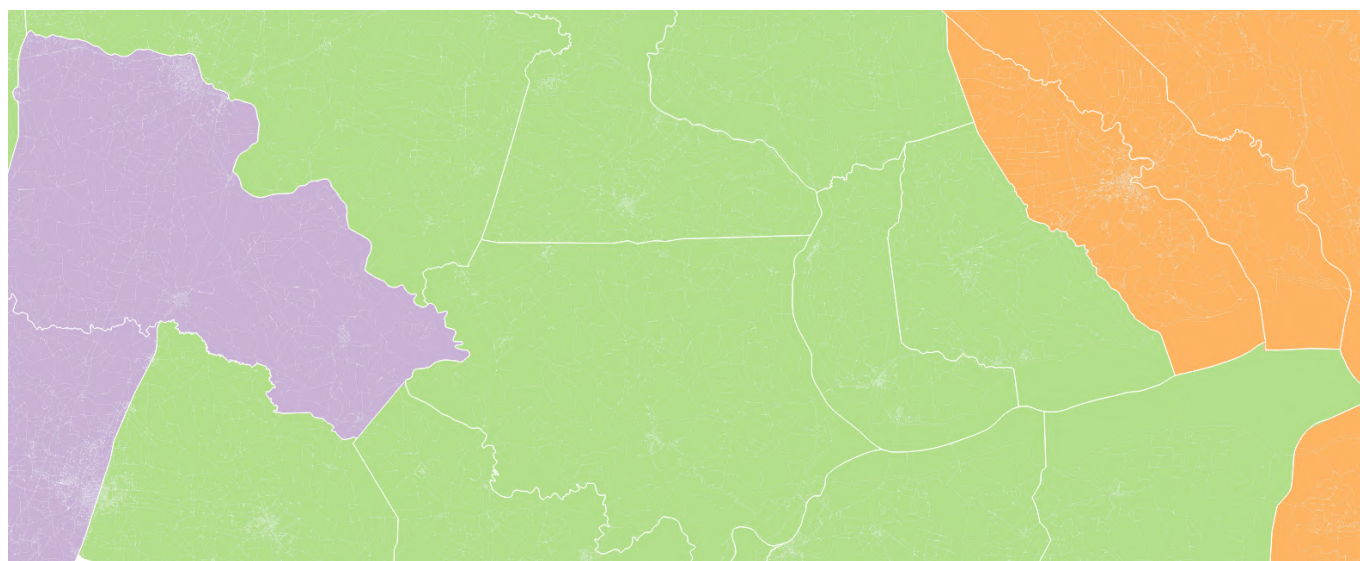
# Race and County Clusters in North Carolina

Exhibit  
0007



Blake Esselstyn

Aug 12, 2021 • 5 min read



Between the summer of 2019 and this summer, other North Carolinians and I have collectively written at least eight pieces with a total or partial focus on how North Carolina groups counties for legislative redistricting. But none of them have squarely addressed race. This post, published on the day the raw redistricting data are due to arrive, aims to address at least two ways that race can figure into the clustering picture.

[For a resource that provides links and context for most of the previous articles, see [Chris Cooper's article from yesterday](#). And as was the case with my recent "[limbo](#)



bubble" StoryMap, this post assumes a basic understanding of how the Stephenson process works.]

I am not an attorney. Nor have I run this content by any attorneys. So my interpretations here should perhaps be taken with a grain or two of salt. That said, my understanding of this landscape is informed by numerous discussions with attorneys in recent years.

## Issues of race figure prominently in the *Stephenson* court decision

The *Stephenson* case from 2002 is the source of the method for grouping counties. And the Court's opinions document that provides the recipe mentions the Voting Rights Act of 1965 (aka VRA) no fewer than 70 times. Terms like "minority," "African-American," "race," "racial," "discrimination," and "discriminatory" can be found throughout.

The court's direction that legislators undertaking redistricting should not consider the recipe without regard to race is explicit. In fact, the section of the opinion that spells out the steps of the grouping process (pages 42–45 of this PDF) begins with the requirement that "to ensure full compliance with federal law, legislative districts required by the VRA shall be formed prior to creation of non-VRA districts."

Some readers may be thinking that the *Stephenson* decision predated the *Shelby County v. Holder* decision from 2013 which effectively removed the "preclearance" requirement from Section 5 of the VRA. While that is true, my understanding is that a redistricting plan could still be challenged under Section 2 of the Voting Rights Act if consideration of the voting rights of communities of color are not taken into account.

Section 2 provides that "states or their political subdivisions may not impose any voting qualification or prerequisite that impairs or dilutes, on account of race or color, a citizen's opportunity to participate in the political process and to elect representatives of his or her choice" (this quote is taken from the *Stephenson* decision itself, p. 11).

As recently as November of 2017, the General Assembly's own online overview of the redistricting process, in the "What rules have to be followed?" section, stated the following:

*First, the General Assembly should draw the districts required by the Voting Rights Act. Second, it should [...]*

Why then, haven't discussions of race figured more prominently when new groupings have been established in the past?

## **Considerations of race could dictate a departure from the so-called "optimal" county grouping**

Determining whether districts (or county groupings that affect districts) comply with Section 2 of the Voting Rights Act is very hard, if not impossible, to do with an automated algorithm. It's not as simple as creating "majority minority" districts. In some cases, specialized statisticians are brought in to to assess the extent of racially polarized voting, which can involve extensive complicated analysis.

My understanding is that, in past cycles like 2011, what happened was that the optimal grouping (presumably generated with a race-neutral algorithm) was presented by the General Assembly. Voting rights groups then had the opportunity to challenge the clusters if there was concern that the clusterings didn't comply with the VRA. They could have, but they didn't—evidently because they didn't see those clusters as problematic.

But what if this time around, the clusters generated by the race-neutral algorithm are found to be problematic by voting rights groups? As best as I can tell, a challenge could be mounted based on a concern that the clusters didn't provide sufficient opportunity for large, concentrated communities of color to elect the representatives of their choice.



If the challenge was upheld, how would the clustering process then proceed? I don't know. My best guess is that problematic county clusters would be redrawn in a negotiated process, then an automated process would be used to cluster the remaining, unaffected counties. But that's only a guess.

There might even be a scenario without a challenge, where NCGA leaders on their own accord opt to depart from the automated "optimal" groupings because those grouping plans might allow for significantly fewer VRA districts than, say, the existing House or Senate plan. I should emphasize that this scenario is based on conjecture on my part.

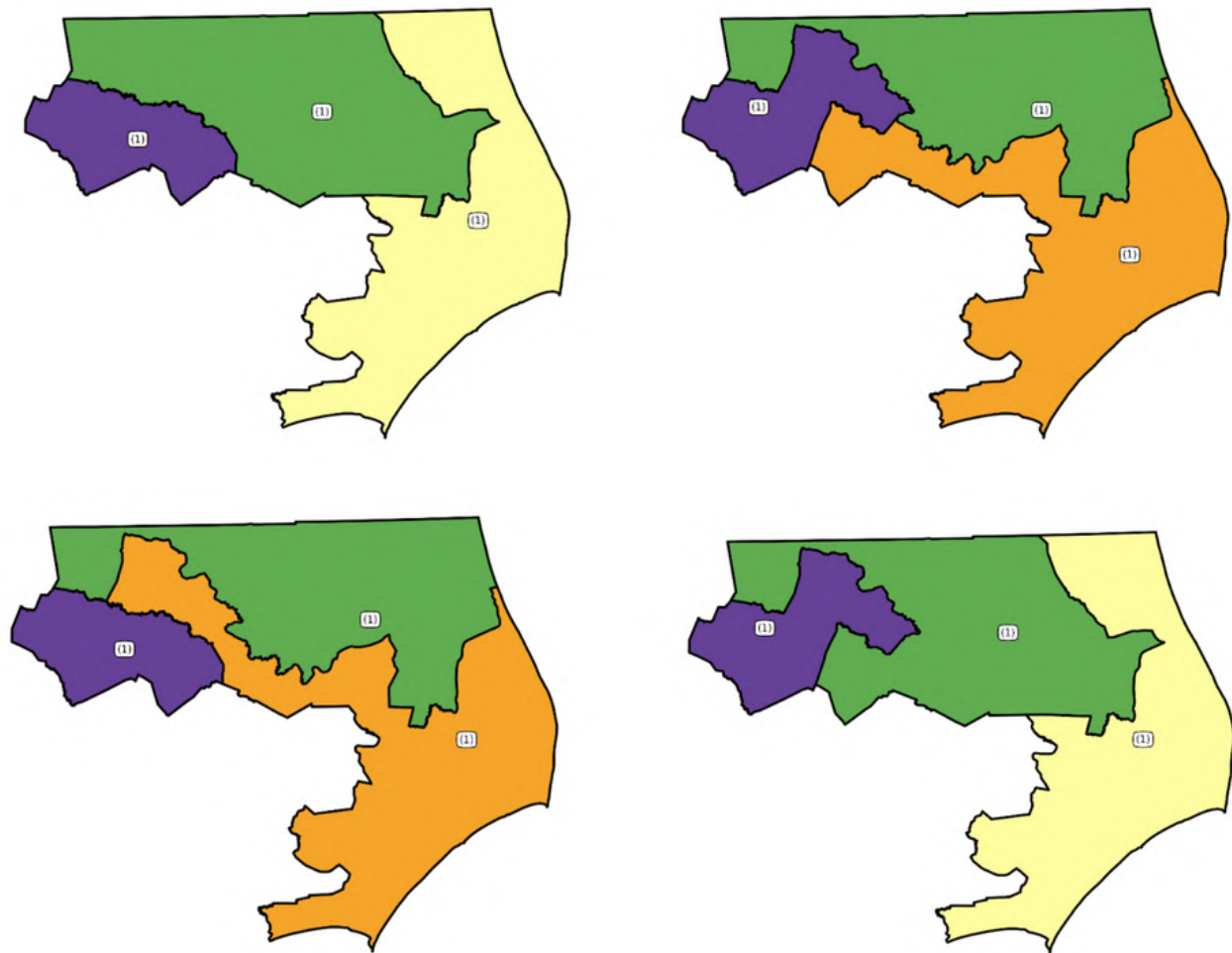
## **Considerations of race could affect how mapmakers choose between different optimal clusterings**

Clever mathematicians have shown that the algorithm can (and often does) yield more than one optimal solution to the grouping puzzle. If there are multiple options, how will the NCGA leaders choose the one that ultimately is used? Unless I've missed some major proposals unveiled this morning, we don't know.

[This StoryMap contemplates one such scenario where decision-makers might be tempted to choose based on partisan preferences.]

As of Tuesday (I haven't checked today), the General Assembly had proposed a process where race would not be considered. But, as noted above, compliance with the VRA is required and necessitates consideration of race.

The clustering-related analysis from July of four different 2020 county population estimates provided one scenario—based on estimates from the Redistricting Data Hub—where North Carolina's northeastern counties could be grouped four different ways to create Senate districts. (Those northeastern counties encompass one of the most diverse areas of the state.)



Each of the shaded clusters of counties above would make up one single Senate district.

The same Redistricting Data Hub population estimates included breakdowns by race, so I compared the racial composition of each of the theoretical districts above. I had hoped to provide some nice visualizations of the data, but don't have the time to finish them, alas. (Whose idea was it to release the data four days earlier than predicted!? =] )

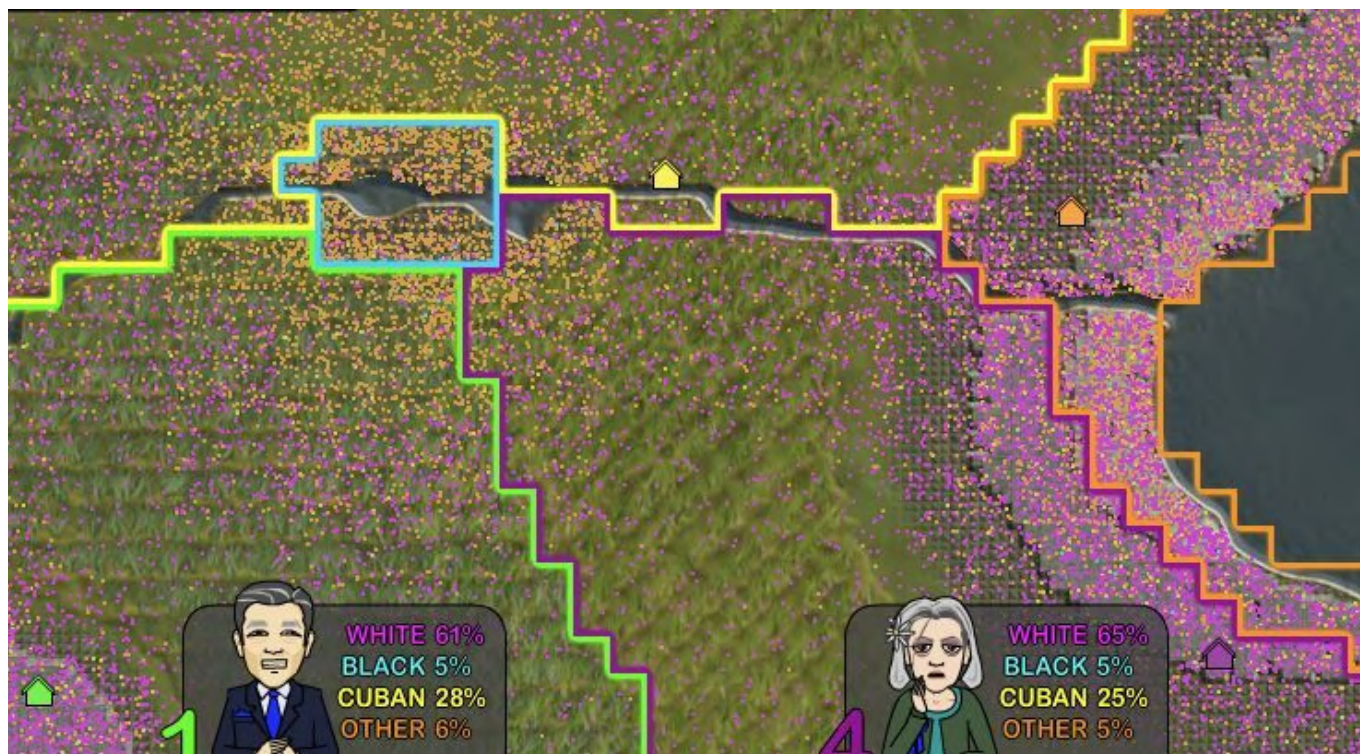
Very briefly, the two options where the eastern district is yellow would have a green district where Black people are more numerous than White people. The other two options would have a green district with a White majority. Without getting into the intricacies of whether the latter two could satisfy the VRA, I will posit that

considerations of the racial makeup of the different grouping options could sway the decision.

I could say more, but the release of the data is now less than an hour away.

Have I mentioned that I'm not an attorney?

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## An Appreciation of The ReDistricting Game (based on a premature misapprehension)

A tribute to a delightfully thoughtful and educational redistricting game. Maybe folks should play it over the holiday break!

Dec 23, 2020 · 8 min read

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Quantitatively Delineating the Black Belt Geographic Region

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**Exhibit  
0008**



# Quantitatively Delineating the Black Belt Geographic Region

GERALD R. WEBSTER AND JERROD BOWMAN

University of Wyoming and University of Alabama

*The Southern Black Belt has been variously defined in character and geographic extent. In the nineteenth century settlement focused upon the region's rich dark soils for which it was originally named. The Black Belt became the site of the South's Antebellum plantation-cotton-slave complex. Today many of the counties in the region have large African American populations and are more noted for their lack of economic opportunities than the fertility of their soils. As a result, the Black Belt region is now more commonly defined on demographic and economic factors than soil. Using principal components analysis, this study attempts to define quantitatively the county membership of the Alabama and Georgia Black Belts based upon a set of criteria commonly associated with the character of the Black Belt. It finds the Alabama Black Belt has greater uniformity of character than the Georgia Black Belt, and that growing urbanization has brought economic opportunities to some portions of the region.*

KEY WORDS: Southern Black Belt, Alabama, Georgia

## INTRODUCTION

The label "Black Belt" has been in use for well over a century to variously include part or all of an elongated geographic region running from east-central Mississippi to the Virginia Tidewater. In spite of this longevity, the Black Belt's geographic ex-

tent and the basis for its labeling have long been ill-defined if not disputed (Webster and Samson, 1992). This is arguably curious for those states in which the Black Belt was a central force for their historical and developmental trajectories. In such states as Alabama and Georgia, for example, a compelling case can be made that the Black Belt served as their cultural hearths, the progenitors of their Antebellum cultures. Likewise in the twentieth century, many of the South's preeminent battles during the Civil Rights Movement were fought in the Black Belt (e.g., Webster 1992). Thus, the Black Belt region played a prominent if not dominant role in the two most important events in the South's history, the Civil War and the Civil Rights Movement.

The basis for the label "Black Belt" has been confused if not disputed for decades. For example, Kennedy in a 1934 (81) article in *Social Forces* states that "whatever the origins of 'Black Belt,' the name has lost its original significance." Ten years later Sisk (1943, 47) in an *Alabama Historical Quarterly* article wrote that "It is still a moot question as to whether the name of the area came from the color of the soil, or because of the heavy Negro population." Other authors including Cleland in 1920 (379) point out the confusion over the region's label in Alabama, but state clearly

SOUTHEASTERN GEOGRAPHER, 48(1) 2008: pp. 3-18

that the origins of the label Black Belt stem from the “dark color of the soil which is in striking contrast to the red and yellow soils of most of the state.” In 1941 Gibson (1941, 1) noted that “Many misconceptions regarding the origins of the name have arisen from loose usage” and that “some popularly assign the high proportion of Negro population” as the basis for the label. But Gibson also clearly asserts that the “term Black Belt bears a definite association with the dark prairie soil of south central Alabama.”

Cleland (1920) and Gibson’s (1941) assertions that the region’s name stems originally from the color of its soil are supported by Webster and Samson’s (1992) review of descriptions of the region dating to the early nineteenth century. The Black Belt included some of the South’s most productive soils, and the Antebellum cotton-slave-plantation complex developed rapidly in the Black Belt counties in such states as Alabama and Georgia. The importation of thousands of slaves to these states from the late eighteenth through mid-nineteenth centuries increasingly led the label “Black Belt” to refer to the region’s population and not its rich soils by the late nineteenth century (Webster and Samson 1992). In W.E.B. Du Bois’s (1903, 2003) chapter in *The Souls of Black Folks* entitled “Of the Black Belt,” no formal definition of the region in Georgia is provided but both its soil and people are discussed. In a *Sewanee Review* article in 1897 (203), Meriwether (1877) used the label Black Belt to refer to a “district” in which blacks outnumbered whites. As used by Ulrich Phillips (1904, 1905, 1906), the label Black Belt also clearly had a demographic meaning. In his 1906 article on “The Economic Cost of Slaveholding,” for example, Phillips in-

cludes a map of the southern “black belts” defining them as including all counties with populations more than 50 percent African American (Phillips, 1906).

Similar demographic definitions have been used to delineate the extent of the South’s Black Belt throughout the past century including an atlas by Wimberley and Morris (1997) entitled *The Southern Black Belt: A National Perspective*. Their definition suggests counties in the Black Belt include those with “higher-than-average percentages of black residents” and runs from eastern Texas through Arkansas, Louisiana, Mississippi, Alabama, Georgia, the Carolinas and Virginia (1997). Thus, from this perspective the Mississippi Delta region is added to the Black Belt by virtue of its population, and not the similarity of its soils to those found in the Alabama Black Belt to the east. Arguably, Kennedy (1940) was correct 65 years ago when he stated that “[t]oday Black Belt in Alabama connotes primarily neither Negroes nor soil, but a way of living.” This assertion almost certainly pertains to the region’s extent beyond Alabama as well, and reflects the reality that today the Black Belt is best defined by a complex of variables reflecting economic, social, demographic and political factors.

The areal extent of each state’s portion of the Black Belt region is also highly variable as defined by different authors and in different periods. For example, Webster and Samson (1992) found the number of counties included in the Alabama Black Belt ranged from as few as eight as identified by Evans (1940) and Flewellen (1940), to over two dozen in the region as defined by Odum (1936). Similarly, while Odum (1936) included 64 counties in the Georgia Black Belt, Offord and Berentsen

(1982) included all or part of 73 different counties in the region. Such widely varying geographic definitions of the spatial extent of the Black Belt insure difficulties if not contradictions will ensue when reviewing research on the region's past, present and future. Clearly, research findings emanating from a study defining the Alabama Black Belt as including eight counties are not fully comparable to those resulting from a study defining the region as including double that number.

The ill-defined geographic extent of the Black Belt has limited the effective application of policies to improve the economic circumstances of the region's population on more than one occasion. Soon after being reelected to a second term as Governor of Alabama in 2002, Bob Riley announced he would create a commission to focus upon improving conditions in the Black Belt. After criticism for delays (e.g., *Tuscaloosa News* 2004), Governor Riley issued an executive order creating the Black Belt Action Commission on August 14, 2004. The executive order did not define the extent of the Black Belt, but rather stated that "twelve (12) of Alabama's Black Belt counties, including Pickens, Sumter, Choctaw, Greene, Hale, Marengo, Perry, Dallas, Wilcox, Lowndes, Macon and Bullock, have been identified as the appropriate focus of this project" (Riley, 2004). Thus, the order's language suggests that these twelve counties are a subset of those that might be identified both in Alabama and in surrounding states such as Mississippi or Georgia (Tomberlin, 2003). In 2000, Congress created the Delta Regional Authority, an economic development authority targeting seven states in the Mississippi River Valley but also including Alabama though it lies outside the Mississippi

River Valley (Delta Regional Authority, 2007a). In fact, the inclusion of the Alabama Black Belt counties, including Barbour, Choctaw, Dallas, Hale, Marengo, Pickens, Washington, Bullock, Clarke, Escambia, Lowndes, Monroe, Russell, Wilcox, Butler, Conecuh, Greene, Macon, Perry and Sumter, likely stemmed not from their status as impoverished Black Belt counties but from the status of Senator Richard Shelby's clout in the U.S. Senate and his demand that the counties be included in the program (Dedrick, 2002; Archibald, et al., 2002). From a policy perspective, it would be clearly helpful to define the extent of the region to insure that all appropriate counties are included in the efforts of public policy makers.

#### PURPOSE AND APPROACH

This study attempts to quantitatively define the counties included in the Alabama and Georgia Black Belts considering social, economic, political and demographic data. Thus, this work accepts the reality that non-physiographic factors are now central to the use of the regional label "Black Belt." The process used in the study involved multiple steps. First, the authors reviewed the literature to identify a set of characteristics generally associated with the label "Black Belt." Among these characteristics are 1) substantial concentrations of African American population, 2) agrarian landscapes, 3) comparatively low levels of urbanization, 4) generally limited non-agricultural economic opportunities, 5) comparatively high rates of poverty and unemployment, 6) comparatively low levels of educational attainment, 7) comparatively high dependency ratios, 8) comparatively slow rates of pop-



ulation growth or absolute population decline, 9) comparatively low levels of community health including higher rates of infant mortality, and 10) comparatively high rates of support for the Democratic Party, among the several others that might be identified.

The second stage of the research process focused on the identification and analyses of variables representing these characteristics. This stage involved the initial collection of nearly 200 different potential variables for analysis. Factor analysis was used to progressively decrease this pool of potential variables based upon the relevance of each to the larger data set. For example, the statistical relevance of any given variable may in part be judged on the basis of its communality and inter-correlations with the broader data set. A variable found to have a statistical communality of 20 percent or less with the entire data set is arguably a poor representative measure of one of the Black Belt's characteristics as identified in the literature. It was our intention to reduce the variable list to 30 or fewer measures in the final factoring model.

Factor or principal component analysis may be employed to regionalize a geographic area on the basis of a defined phenomenon. The effort here strived to arrive at a factoring solution which resulted in at least one dimension dominantly reflecting the circumstances of the Black Belt counties of Georgia and Alabama. After arriving at this solution, scores for all counties in Georgia and Alabama were calculated on the dimension to develop a map of the counties in both states most reflecting Black Belt characteristics. Realizing that regions rarely have geographically definitive boundaries, the map was constructed

in such a manner as to also identify those counties reflecting combinations of Black Belt and non-Black Belt characteristics.

## RESULTS AND ANALYSIS

As noted earlier, the analysis began with the collection of more than 200 potential variables at the county level to be used in a factoring methodology towards development of a composite indicator of Black Belt characteristics. The variables examined included measures of demographic, social, economic and political indicators. For example, the original basis for delimiting the Black Belt pertained to its high quality soil and agricultural sector. As a result, several agricultural variables were examined including the value of farm products produced per farm acre. Similarly, the region's agrarian character would likely lead to lower population densities than might be expected in more urbanized and industrialized areas. As a result, county population densities were included. Clearly, the Black Belt has also long been associated with substantial concentrations of African American population as compared to non-Black Belt counties in the same state. The African American proportion of each county's population was therefore included. Given the Black Belt's long status as an economically lagging region, income levels, indicators of poverty and unemployment rates were also examined. Poverty and unemployment can place substantial stresses on families. Toward assessing this likelihood the married proportion of the adult population was examined. Politically, the Black Belt region has also emerged in the past few decades as one of the most consistent supporters of the Democratic Party as

Table 1. Variable List

1. Percent African American
2. Percent of Adult Population Married
3. Percent of Population Below the Poverty Level
4. Percent of Employment in Service Occupations
5. Infant Mortality Rate
6. Population Density
7. Unemployment Rate
8. Percent of Households with Social Security Income
9. Percent of Population Belonging to a Conservative Protestant Denomination
10. Percent of Population 25 Years and Older with a Four Year College Degree
11. Percent of Occupied Housing without Phone Service
12. Dollar Value of Farm Operations Per Acre
13. Dependency Ratio
14. Percent of Votes for Democratic Party in 2004 Presidential Election

well as progressive change (e.g., Webster, 1996; Webster and Webster, 2004). As a result, the proportion of each county’s vote for the Democratic Party in various elections was also included in the preliminary analysis (Moseley, 2001). Religious conservatism has recently had substantial effects upon southern political patterns (e.g., Webster and Webster, 2004). As a result, the proportion of each county’s population belonging to a conservative religious denomination was examined for relevance (see Webster, 1997; Webster and Webster, 2004 for a discussion of this variable).

In 1940 Renwick Kennedy (1940, 284) argued that the Alabama Black Belt was the best “preserved” of the South’s planta-

tion belts. Our preliminary analysis led us to this same conclusion, and we therefore primarily calibrated our model upon the delineation of the Alabama Black Belt, subsequently analyzing all Georgia counties, and all counties in both states simultaneously. In total our successive runs isolated fourteen variables reflecting characteristics aiding in the isolation of Black Belt from non-Black Belt counties in the two states (Table 1).

After experimenting with various factoring methods and methods of rotation, a non-rotated principal components analysis was selected as the most successful approach (see Archer and Taylor, 1981 for a discussion of factoring techniques in geography). We discuss our findings by providing overviews of the results separately for Alabama and Georgia, followed by a description of the joint run including data for both states.

Alabama

The principal components analysis of the Alabama data resulted in the identification of two dimensions with eigenvalues above 1.0 accounting for nearly 72 percent of the data set’s total variance (Table 2).

As expected, the first component reflected Black Belt characteristics and alone accounted for nearly 45 percent of the data set’s variance. Loading coefficients by variables on individual components may be interpreted in much the same manner as a correlation coefficient. Thus, the greater the magnitude of a loading, the more reflective an individual variable is to the composite character of the component. In terms of the Alabama results, the three highest loadings on Component I were for percent below the poverty level (0.95),

Table 2. Alabama Principal Components Analysis

Variable	Component I	Component II
% Below Poverty Level	.95	
% African American	.88	
% Democratic Vote	.85	
% Married	−.82	−.49
% Occupied Housing with no Phone	.75	−.49
Unemployment Rate	.75	
Value of Farm Operations per Acre	−.70	
Dependency Ratio	.69	−.41
% Belonging to a Conservative Protestant Denomination	−.60	−.64
% Employed in Service Occupations	.59	.53
Infant Mortality Rate	.49	
Population Density	−.48	.63
% of Population 25 and Older with a College Degree	−.42	.74
% Households Receiving Social Security		−.77
Percent of Variance	47.7	24.2
Cumulative Percent	47.7	71.9

percent African American (0.88), and percent Democratic Party vote in the 2004 presidential election (0.85). Thus, simplistically this component was representative of counties with poor, substantially African American populations that were strongly Democratic voters in the 2004 presidential election.

The dimension was also positively associated with the infant mortality rate (0.49), employment in service occupations (0.59), higher dependency ratios (0.69), the unemployment rate (0.75), and higher rates of housing without telephone service (0.75) (Table 2). Not surprisingly, the dimension was associated with lower rates of college degrees (−0.42), lower population densities (−0.48), lower rates of adherence to conservative religious denomi-

nations which tend to be dominated by whites (−0.60), lower returns on farm operations per acre (−0.70) and lower rates of marriage (−0.82). It is notable that none of the three variables with the largest loadings on Component I had loadings above 0.40 on the second component, underscoring the second dimension’s contrast in character with measures that are generally considered indicative of the Black Belt.

Component scores for each county on Component I were calculated and mapped (Figures 1a and 1b).

The scores indicate how strongly reflective each county is of the complex of variables loading on the component. Thus, a county with a strong positive score on the component epitomizes the composite



### Figure 1a County Names

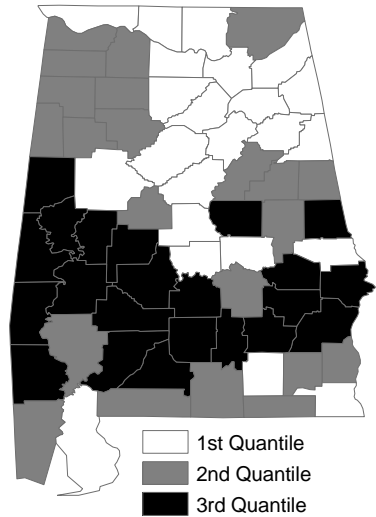


Figure 1b Component 1 Scores

Figure 1. County Names and Component 1 Scores for Alabama.

structure of the dimension. Similarly, a county with a strongly negative score contrasts sharply with the composite circumstances indicated by the component. The scores for all counties on Component I were divided into quantiles ("thirds") to create a choropleth map. Thus, those counties in the top quantile most reflect Black Belt characteristics, while those counties in the lowest quantile contrast sharply with Black Belt characteristics. Those counties falling in the middle quantile may reflect a combination of characteristics, some associated with aspects of the Black Belt.

The twenty-two counties having the largest scores on Component I include those most typically placed in the Alabama Black Belt such as Greene, Hale, Perry and Marengo (Figures 1a and 1b). But the scores also indicate the continuation of the Black Belt region on to the east to include Macon, Chambers, Russell, Barbour and Pike counties. Notably, Mont-

gomery and Lee counties, arguably due to their levels of urbanization and associated characteristics, did not fall into the Black Belt category. Rapidly suburbanizing counties such as Autauga and Elmore, though contiguous with the region, were also found sharply contrasting with Black Belt characteristics.

Georgia

The principal components analysis of the fourteen variables at the county level for Georgia produced three components with eigenvalues above 1.0 accounting for 70 percent of the data set's variance (Table 3).

The first component represented characteristics associated with the Black Belt and accounted for 41 percent of the data set's variance. It is notable that the direction of the loading coefficient signs for all fourteen variables on the first component for both Alabama and Georgia were the

Table 3. Georgia Principal Components Analysis

Variable	Component I	Component II	Component III
% Below Poverty Level	.89		
Value of Farm Operations per Acre	-.79		
% Occupied Housing with no Phone	.77		
% African American	.76	.58	
% Married	-.68	-.59	
% Households Receiving Social Security	.67	-.48	
% of Population 25 and Older with a College Degree	-.67	.55	
Dependency Ratio	.60	-.42	
% Democratic Vote	.58	.71	
Infant Mortality Rate	.55		-.41
% Employed in Service Occupations	.54		.44
Unemployment Rate	.53		
Population Density	-.44	.67	.41
% Belonging to a Conservative Protestant Denomination		-.65	-.42
Percent of Variance	40.8	21.4	7.9
Cumulative Percent	40.8	62.2	70.1

same, though some shuffling in the order of coefficient magnitudes was present. The greatest magnitude loading on the component was produced by percent below the poverty level at 0.89, the same variable having the largest loading on the Black Belt component in the Alabama analysis as well. The three next largest loadings were produced by the value of farm operations per acre (−0.79), percent of occupied housing with no phone (0.77), and percent African American (0.76). Simplistically this component is representative of poor counties, with comparatively unproductive agricultural sectors, substandard housing, and including substantial African American populations.

The Georgia Black Belt component was also positively associated with the unem-

ployment rate (0.53), percent employed in service occupations (0.54), percent Democratic vote in the 2004 presidential election (0.58), the dependency ratio (0.60) and percent of households receiving social security (0.67). The component was negatively associated with population density (−0.44), the proportion of adults with a college degree (−0.67) and percent married (−0.68). Though not emphasized here, the second and third components are interesting. The second component accounted for 21 percent of the data set’s variance, and reflected well-educated urbanized settings with African American concentrations such as metropolitan Atlanta. Component III accounted for eight percent of the data set’s variance, and reflected concentrations of religious conser-



Figure 2a County Names

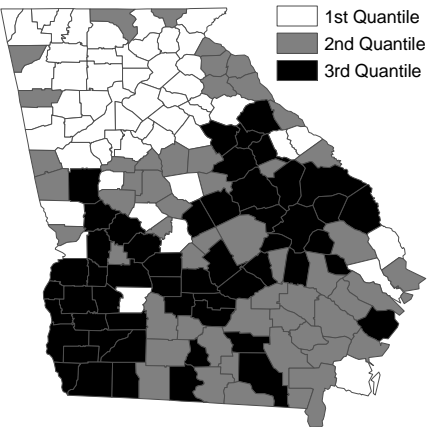


Figure 2b Component 1 Scores

Figure 2. County Names and Component 1 Scores for Georgia.

vatives in areas with moderate population densities.

Scores were calculated for all counties on Component I, here interpreted as the “Black Belt Component.” As was the case with the Alabama scores, Georgia’s counties were divided into quantiles. The highest quantile of scores on Component I follow the general track of what others have characterized as the Georgia Black Belt running from the southwestern portion of the state off to the northeast (Figures 2a and 2b).

Notably, the Georgia swath of counties is not as continuous as that identified in Alabama with counties falling into all three intervals in the generalized geographic belt. Arguably this reflects the greater demographic and economic change that has occurred in Georgia relative to Alabama during the past century. For example Hartshorn (1997) suggests that a manufacturing “boombelt” centered upon the Interstate 85 corridor has developed from Virginia to the southwest terminating at Montgomery. But it is also clear that this belt has had far more effect in Georgia than

Alabama, and most particularly around metropolitan Atlanta. As a result, metropolitan Atlanta appears on the map as a substantial and largely contiguous cluster of counties quite in contrast to the character of the Black Belt dimension. There further appears to be a cluster of counties immediately to the South of metropolitan Atlanta that transitions to the Georgia Black Belt. Thus, it seems clear that the uniformity of the Georgia Black Belt is far less than that found for the region in Alabama.

*Alabama and Georgia  
Joint Analysis*

The third principal components analysis simultaneously entered both the Alabama and Georgia data. The central question in this analysis pertained to whether we could identify a continuous swath of Black Belt counties running across both states. The analysis resulted in three components with eigenvalues above 1.0, which jointly accounted for 71 percent of the data set’s variance (Table 4).

Table 4. Alabama and Georgia Principal Components Analysis

Variable	Component I	Component II	Component III
% Below Poverty Level	.91		
% African American	.79	.54	
% Occupied Housing with no Phone	.75		
Value of Farm Operations per Acre	−.74		
% Married	−.72	−.57	
% Democratic Vote	.67	.62	
Dependency Ratio	.63	−.41	
% Households Receiving Social Security	.60	−.58	
% of Population 25 and Older with a College Degree	−.60	.60	
Unemployment Rate	.59		.56
% Employed in Service Occupations	.52	.40	−.49
Infant Mortality Rate	.52		−.41
Population Density	−.42	.64	.42
% Belonging to a Conservative Protestant Denomination		−.75	.42
Percent of Variance	40.9	22.5	7.6
Cumulative Percent	40.9	63.4	71.0

Accounting for 41 percent of the data set’s variance, Component I’s loadings alone indicate Black Belt characteristics. By far the largest magnitude loading was for percent of the population below the poverty level at 0.91, followed by percent African American at 0.79 and percent of occupied housing without phone service at 0.75. Thus, simplistically this dimension represented poor counties with large African American populations, and poor quality housing. Additionally, positive loadings were produced for the infant mortality rate (0.52), percent of employment in service occupations (0.52), the unemployment rate (0.59), the percent of households receiving social security (0.60), the dependency ratio (0.63) and percent Democratic vote in the 2004 presidential

election (0.67). The component was negatively associated with population density (−0.42), the proportion of the population having a college degree (−0.60), the married proportion of the population (−0.72) and the value of farm operations per acre (−0.74). While not emphasized here, the remaining two components were also interesting. Component II was indicative of more urbanized counties with significant African American populations, higher population densities and levels of educational attainment. Component III was representative of counties with largely white populations with moderate population densities.

Scores on Component I were calculated for all Alabama and Georgia counties and partitioned into three intervals. Those

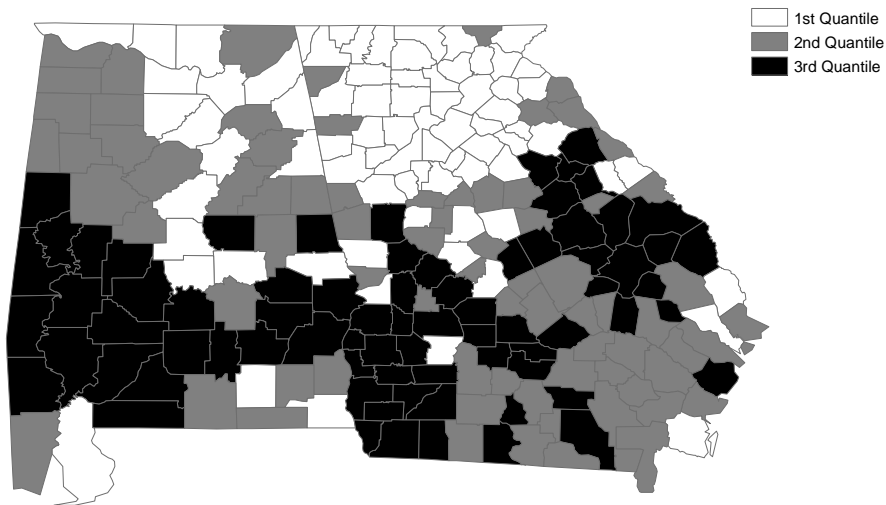


Figure 3. Component 1 Scores for Alabama and Georgia.

counties falling into the highest quantile of all scores were deemed indicative of Black Belt characteristics (Figure 3).

This interval creates a continuous swath of counties from the Alabama border with Mississippi to south-central Georgia where it is interrupted by a cluster of transitional counties including Pulaski, Bleckley, Laurens, Wheeler and Montgomery. Notably, this cluster sits between Interstates 16 and 75 providing them a significant measure of accessibility to Macon. It also seems highly probable that the less pronounced and contiguous pattern of Black Belt counties in Georgia results from the location of urban and suburban complexes. Similar to the effect of Montgomery in Alabama, the Georgia cities of Columbus, Albany, Macon, Augusta and Savannah create pockets of counties which have characteristics contrasting with those associated with the Black Belt. For example, Bibb County, the location of the city of Macon, may be characterized as having a

combination of both Black Belt and non-Black Belt characteristics. But neighboring counties such as Jones, Monroe, Crawford and Houston contrast substantially with the Black Belt dimension. They therefore are arguably similar to rapidly suburbanizing Elmore and Autauga counties in the sphere of Montgomery in Alabama. Clearly, suburbanizing counties surrounding urban places will reflect characteristics in terms of income, housing quality, and employment categories that are likely to contrast sharply with our Black Belt model. A review of the locations of both cities and freeways confirms this pattern (Figure 4).

DISCUSSION

This analysis indicates that the Alabama and Georgia Black Belts continue to have characteristics which differentiate them from the remainders of their respective states. Most clearly our model indicates that comparative poverty remains an



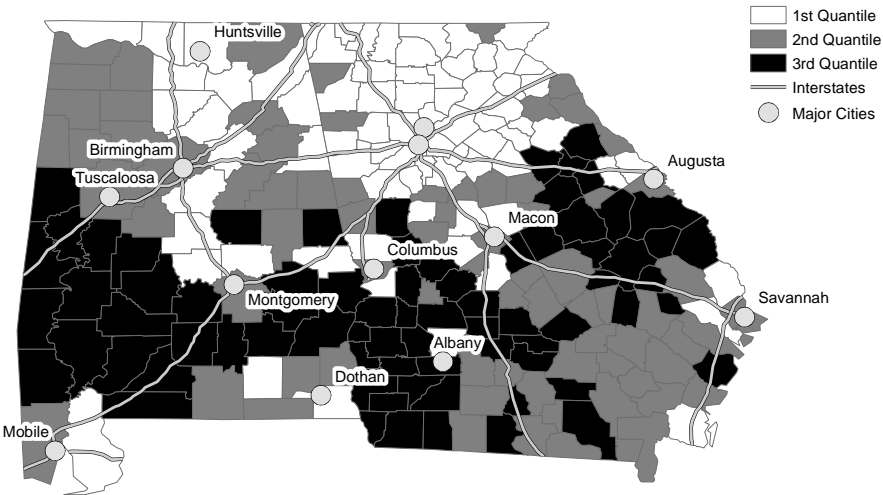


Figure 4. Component 1 Scores for Alabama and Georgia with Major Cities and Interstate Freeways.

overriding reality in both the Alabama and Georgia Black Belts. In fact, the proportion of the population below the poverty level was the most salient variable in both the separate analyses of Alabama and Georgia as well as the joint analysis of both states. Among the other most significant variables were percent African American and percent of occupied housing without a phone.

The approach to delineating the Black Belt employed here accepts that the region reflects a complex of interacting forces and characteristics. Given its emphasis on socioeconomic factors, our definition also implicitly suggests that county membership in the Black Belt may be dynamic with jurisdictions moving in and out of the classification through time. For example, given the salience of poverty to a county's status as an areal member of the Black Belt, economic development processes have the potential to improve a county's economic profile and alter its Black Belt

classification. In the future we may therefore speak of the historic Black Belt which might include most if not all of the counties we have identified, but hopefully also an eroding membership as there are reductions in the levels of poverty now permeating the region.

An additional important point pertains to the historical and current internal uniformity of the Black Belt region, which is surprisingly great when one considers the region's long history. For example, settlement in both the Georgia and Alabama Black Belt occurred in the first half of the nineteenth century. By the 1850s the plantation-cotton-slave complex dominated the region in both states, becoming a central target of the bloody conflict of the 1860s. In spite of the wealth of the elite in the Black Belts of both states, the war exposed the widespread and grinding poverty of the majority of the region's population. It is therefore striking that 140 years later our model suggests poverty is

the preeminent characteristic of the Black Belt today. One must ask how a region of such substantive importance to the history of the South as a whole has continued to be characterized by its levels of poverty and not by successful efforts to improve the socioeconomic conditions of its people.

A final point pertains to the role of urbanization upon the characteristics of Black Belt counties. In V.O. Key's (1984) seminal 1949 *Southern Politics in State and Nation* he states that "The growth of cities contains the seeds of political change for the South." While focused upon political change, Key also suggests that the growth of "urbanism" would have profound consequences for the South's social and economic settings because of the associated reduction in the salience of race in more urbanized settings. Given our results, most particularly for Georgia, Key's arguments a half century ago appear of substantial currency with urbanizing and suburbanizing counties providing improved access to socioeconomic opportunities for their populations. While clearly such processes will alter the essential character of the historic Black Belt, they may also provide a means of providing a future for the region without the seemingly endemic poverty suffered by a majority of its population for well over a century.

#### CONCLUSIONS

In 1993 students at the University of Alabama in undergraduate geography courses were asked to draw in the boundaries of the Alabama Black Belt on a map of the state depicting only county boundaries (Webster and Samson, 1993). The

intention of this survey was to develop an operational definition of the counties in the Alabama Black Belt based upon the perceptions of native Alabamians. Seventy-seven percent of those claiming to be Alabama residents responded that they had heard of the Black Belt but only 68 students or 35 percent of the 193 completing the survey were able to draw a map of the region. The resulting maps were highly variable and included every portion of the state from the Florida to Tennessee borders. Using a map of the state depicting the Black Belt found in a high school history textbook then in use, the average level of areal correspondence between the student maps and the map in the textbook was 0.24, meaning the average student generated map was only 24 percent correct. The most accurate map was only 52 percent accurate in its level of correspondence to the map in the high school history textbook.

The results of this survey indicated a woeful lack of geographic knowledge about the Black Belt by young Alabama residents who may well only traverse the region via the state's highways or free-ways. Given the substantial influence of the region to the state's history, this lack of geographic knowledge may be a central reason for the continued lagging status of the Black Belt. In short, to many Alabamians, the Black Belt is distant both geographically and temporally—it is a place to which many can trace their family roots but where few travel and explore. Arguably, an increased educational focus about the region could result in demands for a renewed governmental focus to end the Black Belt's continuing status as one of the nation's poorest regions.

As noted above, Alabama Governor Bob Riley created the Black Belt Action Commission in mid-August of 2004. Although previous attempts to improve conditions in the Black Belt by other administrations were largely unsuccessful, Riley's Commission appears to be having some initial successes. The Commission has two co-chairs with direct experience in the region. Additionally, there are thirteen different committees comprised of citizen volunteers, politicians and experts. Among these are committees on agriculture, community development, education, health, manufacturing, transportation and infrastructure. These committees identify problems and projects, and aid local leaders in identifying state and federal grants to fund their efforts. In the Black Belt Action Commission's (2006) "2nd Annual Report" a number of "impacts" are noted including reductions in unemployment, the addition and expansion of businesses, computers being donated to local schools, and medical assistance to thousands of Black Belt residents. It has long been argued that the Black Belt is underserved in terms of highways. Plans are now underway to upgrade US 80, a major route through the region, to four lanes. Discussions have also been initiated to extend I-85 from Montgomery to the Mississippi border (Black Belt Action Commission, 2006). Likewise, the Delta Regional Authority program has established several development initiatives that target the Black Belt, such as the Delta Development Highway System which provides transportation funding to over 350 miles of road in Alabama (Delta Regional Authority 2007b). In addition, the Delta Leadership Institute has been established at the University of Alabama "designed to create a corps of leaders with a regional

and national perspective" (Delta Regional Authority, 2007c, 1). While such activities will not alone transform the Black Belt, public policy programs have arguably made progress due to their reliance on local residents who are both aware of the region's problems and committed to pursuing solutions.

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**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

ANNIE LOIS GRANT, *et al.*,

*Plaintiffs,*

v.

BRAD RAFFENSPERGER, *et al.*,

*Defendants.*

CIVIL ACTION

FILE NO. 1:22-CV-00122-SCJ

**EXPERT REPORT OF JOHN B. MORGAN**

Pursuant to 28 U.S.C. § 1746, Fed. R. Civ. P. 26, and F.R.E. 702 and 703, I, JOHN B. MORGAN, make the following declaration:

1. My name is John B. Morgan. I am over the age of 21 years, and I am under no legal disability which would prevent me from giving this declaration. If called to testify, I would testify under oath to these facts.

2. I hold a B.A. in History from the University of Chicago. As detailed in my CV, attached as Exhibit 1, I have extensive experience over many years in the field of redistricting. I have worked on redistricting plans in the redistricting efforts following the 1990 Census, the 2000 Census, the 2010 Census and the 2020 Census. I have testified as an expert witness in demographics and redistricting.

**Exhibit  
0009**

3. I am being compensated at a rate of \$325 per hour for my services in this case.

4. The redistricting geographic information system (GIS) software package used for this analysis is Maptitude for Redistricting 2021 from Caliper Corporation. The redistricting software was loaded with the census PL94-171 data from the Census Bureau and the census geography for Georgia. I was also provided with election data files used by the Georgia General Assembly during the redistricting process. The full suite of census geography was available, including counties, places, voting districts, water bodies, and roads, as well as census blocks, which are the lowest level of geography for which the Census Bureau reports population counts. Census blocks are generally bounded by visible features, such as roads, streams, and railroads and they can range in size from a city block in urban and suburban areas to many square miles in rural areas.

5. I have been asked to review the House of Representatives and State Senate plans considered and adopted by the Georgia General Assembly and compare them to the proposed House and Senate plans drawn by Mr. Esselstyn and offer opinions regarding my analysis.

6. As a result of this analysis my opinion is that the Esselstyn 1205 Senate and House plans are focused on race, prioritizing race to the detriment of traditional redistricting factors.

**Data utilized for analysis**

7. A House and Senate plan was submitted for a preliminary injunction hearing, earlier in this case (I am designating these as PI plans). A House and Senate plan were submitted in Mr. Esselstyn's expert report in this case on December 5, 2022 (I am designating these as 1205 plans).

8. In preparing this analysis, I was given the block-equivalency files of the Esselstyn plans as well as the block-equivalency files of the 2021 adopted plans and incumbent databases used by the Georgia General Assembly during the redistricting process. The incumbent databases list the address locations and districts of the Representatives and Senators serving under the existing House (2015-enacted) and Senate (2014-enacted) plans prior to the election of 2022. I was also given information on incumbents who were not intending to run for re-election to their current offices in 2022.

9. I loaded the 2021 House and 2021 Senate plans enacted by the Georgia General Assembly into the Maptitude for Redistricting software using the block-equivalency files provided. I loaded the Esselstyn House plans and the Esselstyn



Senate plans into the Maptitude for Redistricting software using the block-equivalency files provided. I loaded the prior House (2015-enacted) and Senate (2014-enacted) plans into the Maptitude for Redistricting software using files provided with software. I loaded the associated incumbent databases provided.

10. Using the Maptitude for Redistricting software, I ran seven reports for each 1205 Esselstyn plan:

- 1- Measures of compactness report,
- 2- Districts & incumbents report,
- 3- Population summary report,
- 4- Political subdivision splits report,
- 5- Plan component report,
- 6- Core constituency report compared to PI plan,
- 7- Core constituency report compared to Enacted 2021 plan.

11. Each report is included in the appendices to this report as exhibits 2-15. I previously created these reports for the enacted plans that are included in my December 5, 2022 expert report. I also created population summary reports for the PI plans.

12. I also created a series of maps comparing the 1205 plans and the enacted plans. These maps show a theme of AP-Black % on the voting districts and overlays

of selected districts in the enacted plans and the 1205 plans for comparison. Each of these maps for the Senate is included as Exhibits 16-35 and each of these maps for the House is included as Exhibits 36-46.

### **State Senate Plan Analysis**

13. Using the Population summary reports, I tallied the number of majority-Black districts using any-part Black voting age population (18+ AP-Black) for each Senate plan. The chart below shows the total number of majority-Black districts in the 2021 adopted Senate plan, the Esselstyn 1205 Senate plan and the Esselstyn PI Senate plan, as well as the number of districts in the percentage ranges using the any-part Black voting age population.

**Chart 1: Number of Majority-Black Senate Districts.**

<b>Majority-Black Senate Districts</b>			
<b>% AP Black VAP</b>	<b>2021 Adopted Plan</b>	<b>Esselstyn Plan 1205</b>	<b>Esselstyn Plan PI</b>
Over 75%	0	0	0
70% to 75%	3	1	1
65% to 70%	3	2	2
60% to 65%	3	3	4
55% to 60%	3	5	4
52% to 55%	1	3	3
50% to 52%	1	3	3
<b>Total # Districts</b>	<b>14</b>	<b>17</b>	<b>17</b>

14. The 2021 adopted Senate plan includes 14 majority-Black districts, the Esselstyn 1205 Senate plan includes 17 majority-Black districts, and the Esselstyn PI Senate plan has 17 majority-Black districts.

15. The plan drafted by Mr. Esselstyn (1205) differs slightly from the plan submitted previously for the preliminary injunction hearing in this case. There are changes affecting four districts: Districts 17 and 23 exchange population, and 16 and 34 exchange population.

16. Below is a chart which summarizes the changes between the two plans.

**Chart 2: Changes from Esselstyn Sen PI to Esselstyn Sen 1205**

District	Esselstyn Sen 1205 Population	Esselstyn Sen 1205 dev	Esselstyn Sen PI Population	Esselstyn Sen PI dev	Pop. Diff	Pop. % Diff	Esselstyn Sen 1205 % AP Black VAP	Esselstyn Sen PI % AP Black VAP
16	190077	-0.63%	193863	1.35%	-3786	-2.0%	19.7%	19.3%
34	192023	0.39%	188237	-1.59%	3786	2.0%	59.0%	60.2%
17	193838	1.34%	189212	-1.08%	4626	2.4%	21.8%	21.7%
23	188095	-1.67%	192721	0.75%	-4626	-2.5%	51.1%	50.4%

17. Senate District 16 exchanges population with Senate District 34, resulting in a deviation that moves from +1.35% to -0.63% and an 18+ AP Black % that moves from 60.2% to 59.0%.

18. District 34 exchanges population with District 16, resulting in a deviation that moves from +1.59% to +0.39% and an 18+ AP Black % that moves from 19.3% to 19.7%.

19. In another part of the state, Senate District 17 exchanges population with Senate District 23, resulting in a deviation that moves from +1.08% to +1.34% and an 18+ AP Black % that moves from 21.7% to 21.8%.

20. District 23 exchanges population with District 17, resulting in a deviation that moves from +0.75% to -1.67% and an 18+ AP Black % that moves from 50.4% to 51.1%. In this exchange, both districts 17 and 23 show an increase in 18+ AP Black %. While that might not seem possible from a logical point of view, is possible because the deviation of Senate District 23 is lowered to the make it the lowest deviation in the entire plan at -1.67%. Having a lower total population, but approximately the same AP Black population results in a higher AP Black %.

21. Looking more closely at the Esselstyn Senate 1205 plan, here is a chart that summarizes top-line statistics about the plan and compares them to the enacted plan.

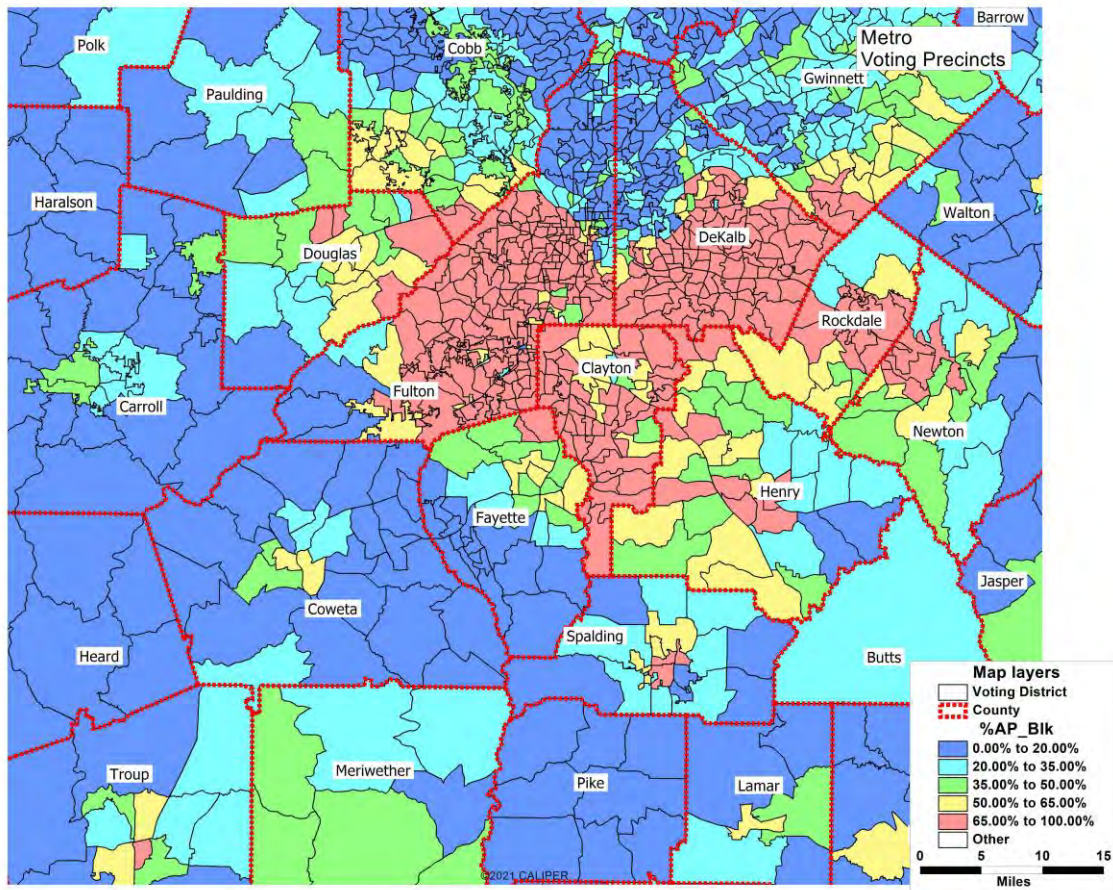
**Chart 3: Esselstyn 1205 Senate and Enacted Senate Plan comparisons**

<b>Plan metrics</b>	<b>Esselstyn Senate 1205</b>	<b>Enacted Senate</b>
County splits	34	29
Voting precinct splits	49	47
Mean compactness - Reock	0.41	0.42
Mean compactness - Polsby Popper	0.28	0.29
# Paired incumbents	6	4
# Seats majority 18+_AP_Blk%	17	14
Deviation relative range	-1.67% to +1.90%	-1.03% to +0.98%
Deviation overall range	3.57%	2.01%

22. In addition to the overall plan metrics in the chart above, the Core constituency report (Ex. 8) shows that the Esselstyn 1205 Senate plan has 34 districts that are exactly the same as the enacted Senate plan. With 34 of 56 districts exactly the same, it is not surprising that the Esselstyn 1205 Senate plan has mean compactness scores close to, but still lower than the enacted Senate plan.

23. The Esselstyn 1205 Senate plan changes 22 districts to create three new Black-majority Senate districts.

24. Below is a map showing the Metro region with a theme of AP-Black % on the voting districts, as well as maps of Senate District 10 in the Enacted Senate plan and the Esselstyn 1205 Senate plan.

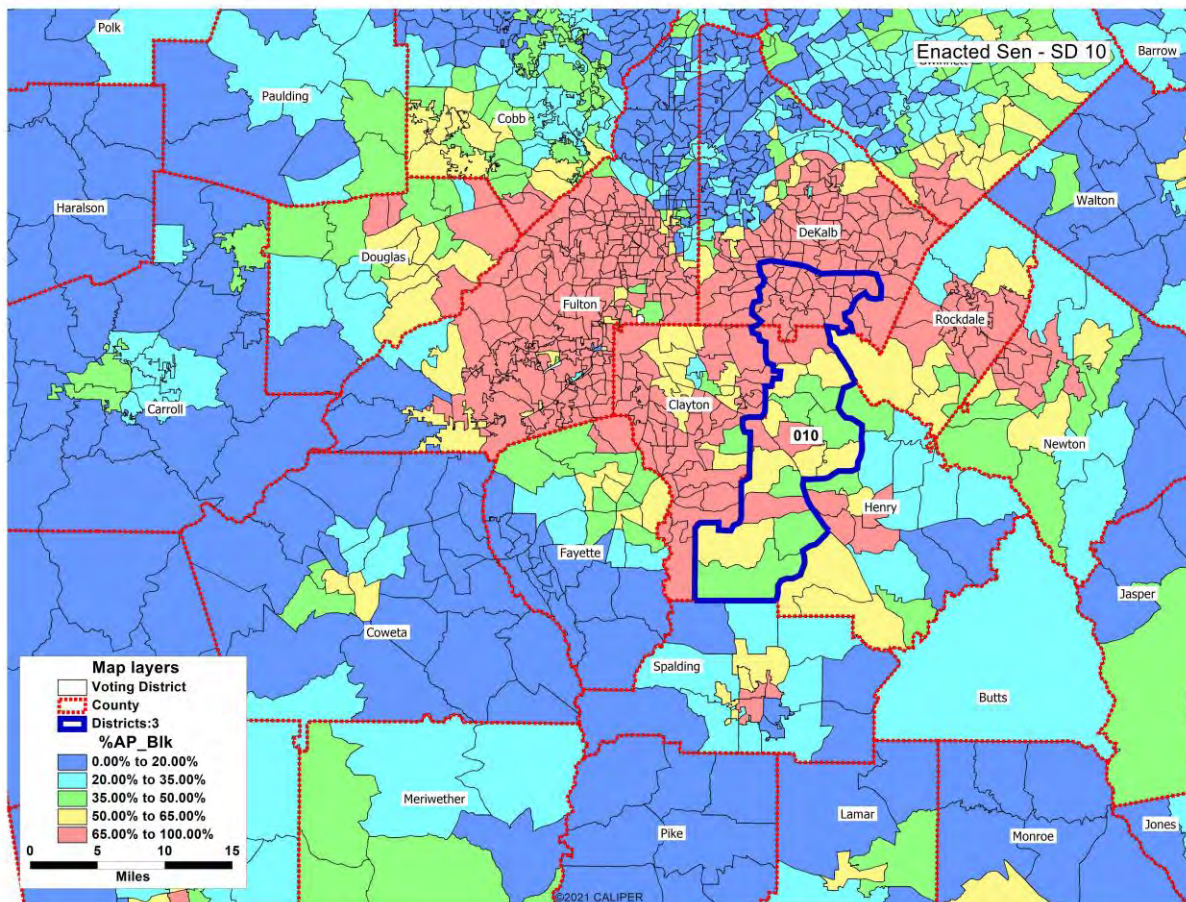


25. Voting districts themed in red have an AP-Black % of greater than 65% and voting districts themed in yellow have an AP-Black % of 50% to 65%. Voting districts themed in green have an AP-Black % of 35% to 50%; light blue have an AP-Black % of 20% to 35%; and darker blue have an AP-Black % of less than 20%.

26. Senate District 10 in the enacted plan is anchored in heavily Black southern DeKalb County (Stonecrest area) and follows the western boundary of Henry County down to its southern border with Spalding County. This district has

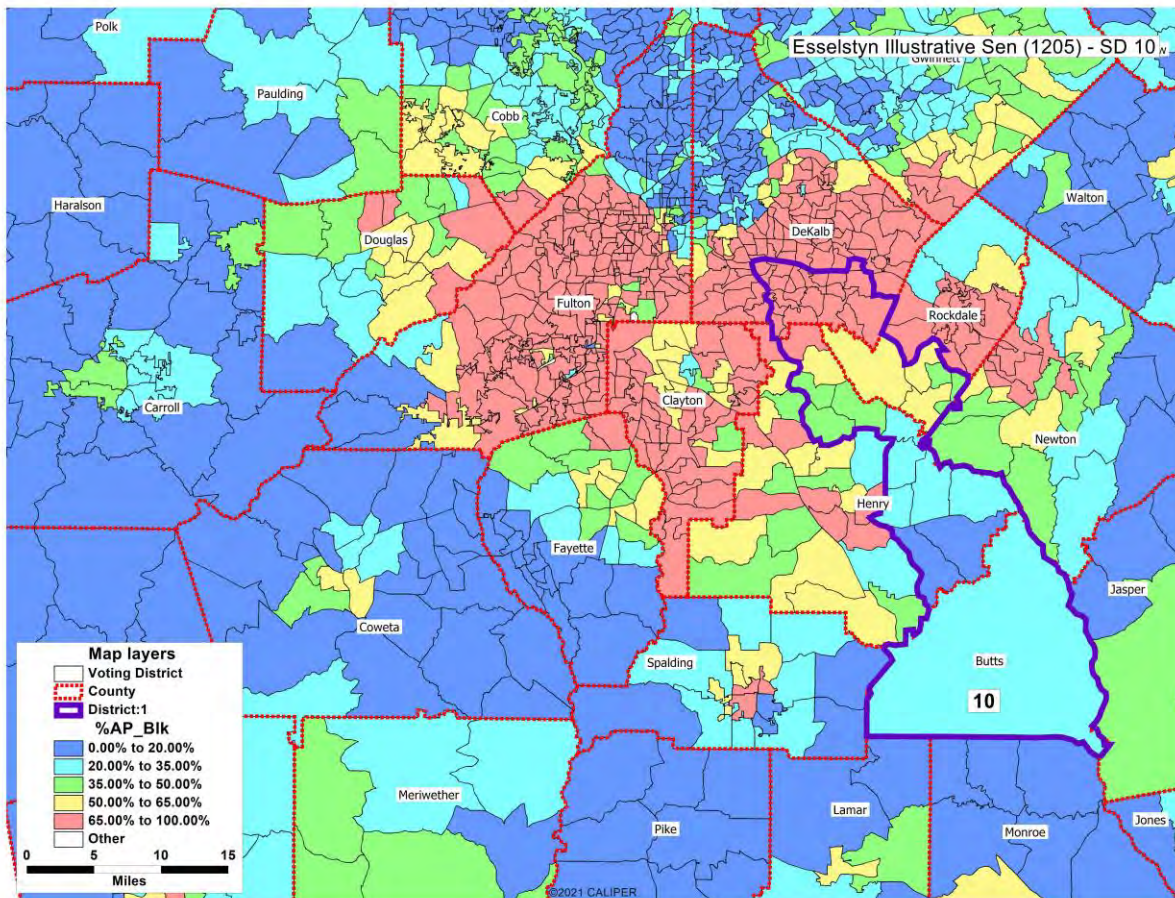


a Reock compactness score of 0.28 and a Polsby-Popper compactness score of 0.23 and the district is 71.46% 18+AP Black. It is comprised of parts of two counties and measures 25 miles from north to south.



27. In comparison, Senate District 10 in the Esselstyn 1205 Senate plan is anchored in heavily Black southern DeKalb County (Stonecrest area) and stretches through Rockdale County and Henry County to pick up predominantly white Butts County. The construction of Senate District 10 splits a portion of Rockdale County

and strategically avoids much of the Black population in Henry County (the portion of Henry County in SD 10 is only 35.1% 18+ AP Black %). This district has a Reock compactness score of 0.25 and a Polsby-Popper compactness score of 0.19 and the district is 61.1% 18+AP Black. It is comprised of parts of four counties and measures 43 miles from north to south.

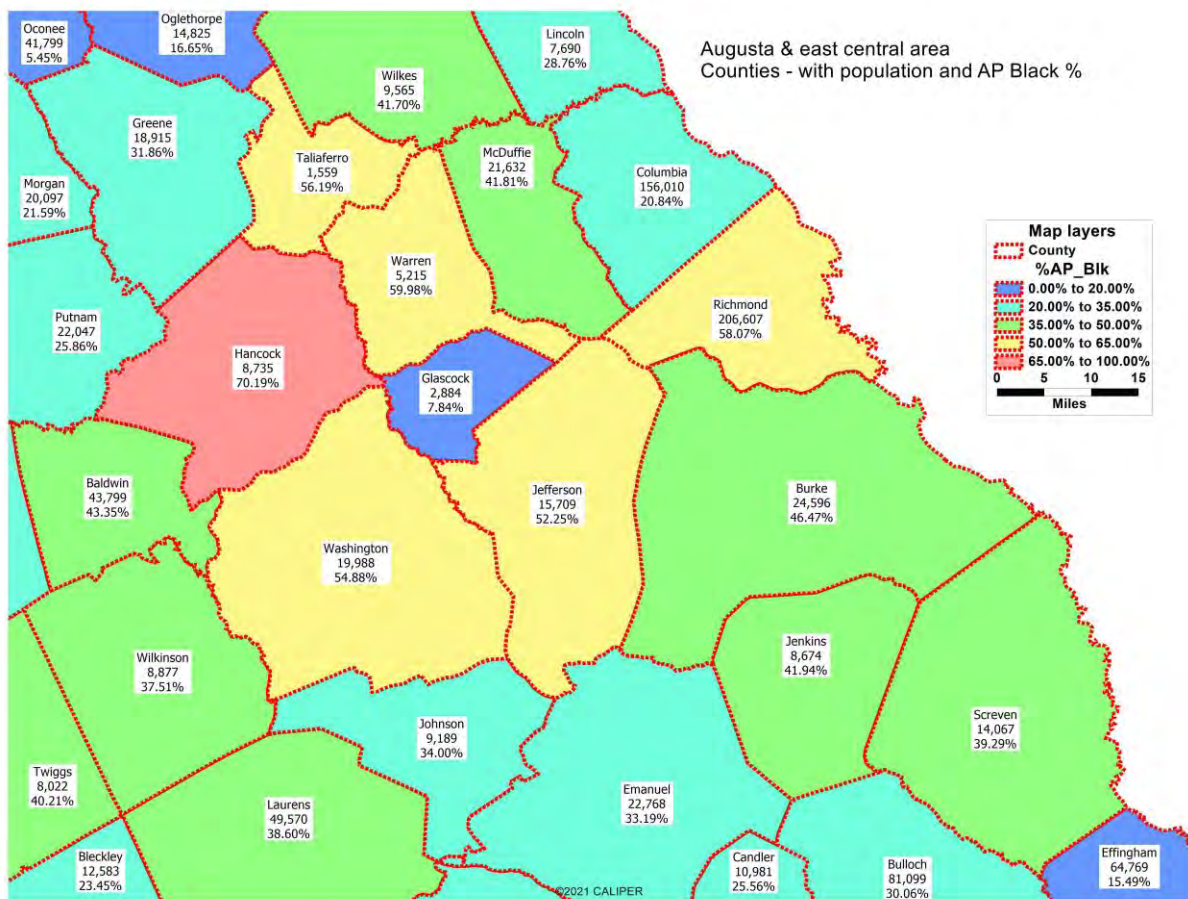


28. Looking at specific districts (as above) shows that the compactness of the districts is impacted by the efforts to create more majority Black districts. The

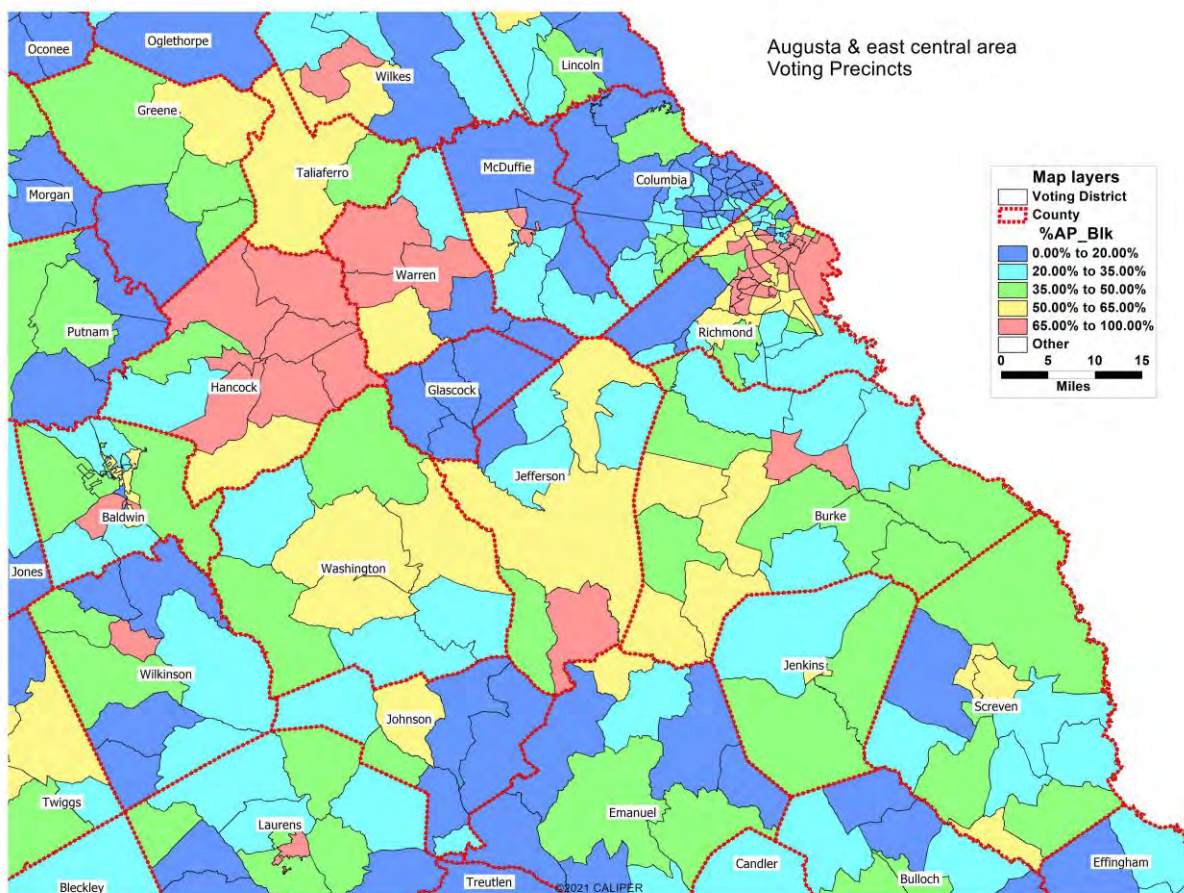


Black percentage is lowered only by elongating the district to include lower concentrations of Black population. This allows the Black population to be redistributed and to create other majority Black districts.

29. Below is a map showing Augusta and the East Central region with a theme of AP-Black % on the counties. The map shows that Richmond County (Augusta) has a majority of AP-Black population. At over 200,000 in population, Richmond County has more than enough population for a Senate district. The map also shows some majority AP-Black population counties, which are not very populous, to the west of Augusta – Washington, Jefferson, Hancock, Warren and Taliaferro.

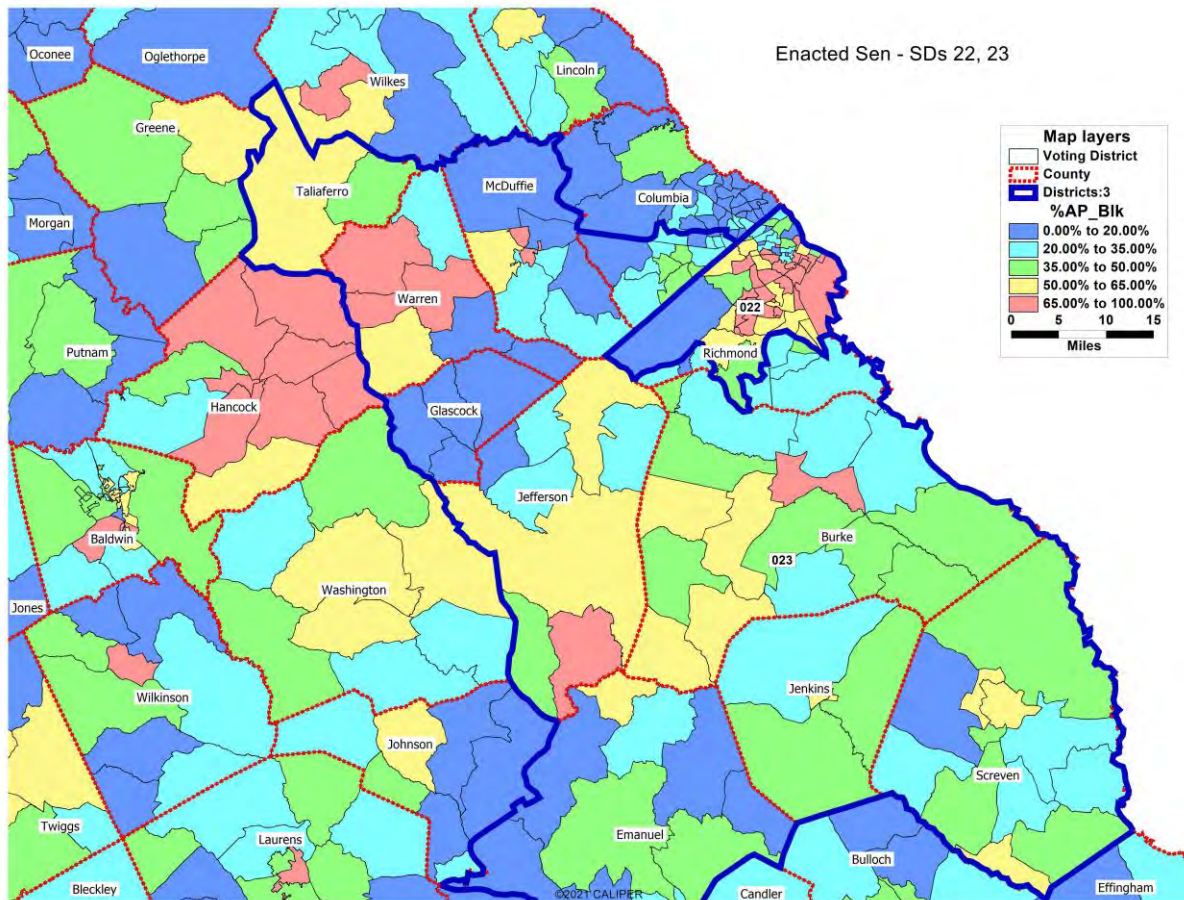


30. A similarly themed map on the voting districts shows concentrations of Black population in the region.



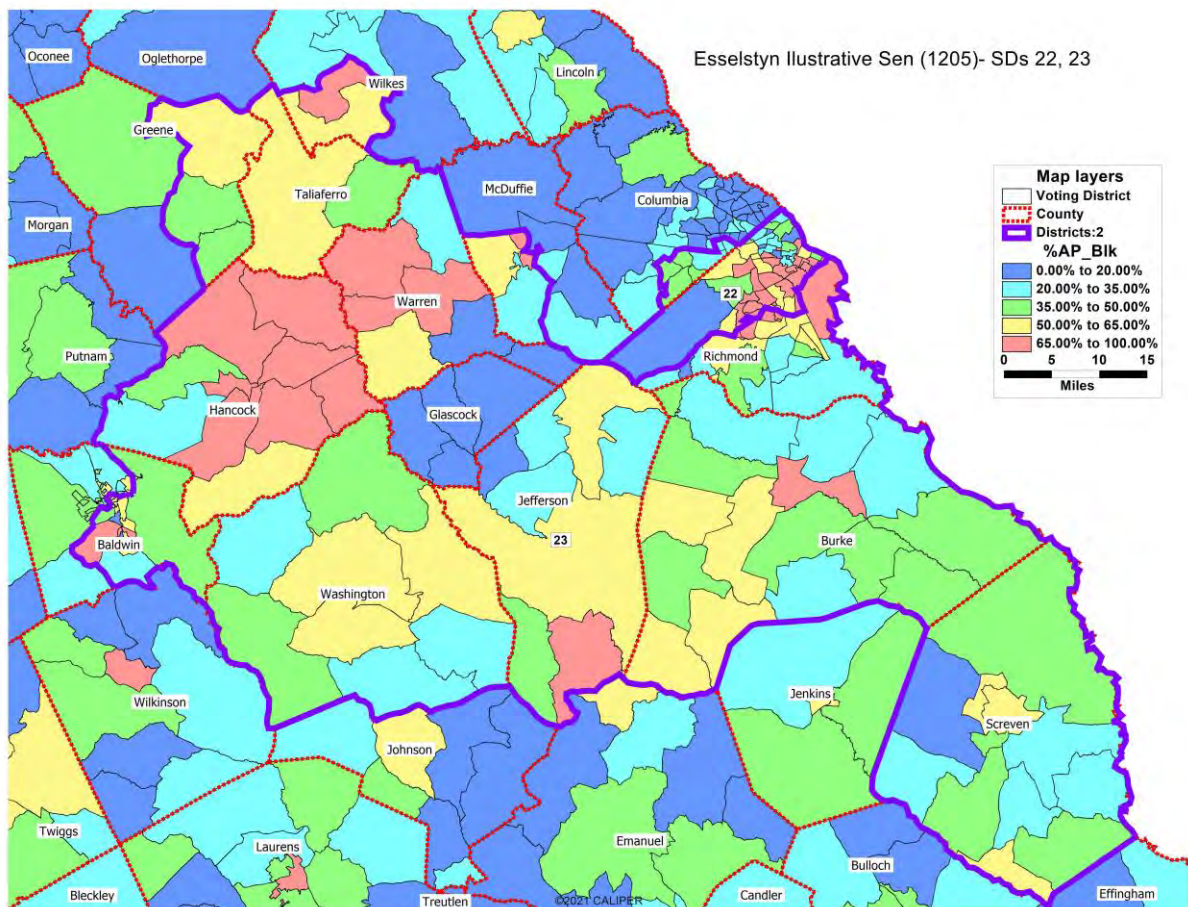
31. Senate District 22 in the enacted plan is drawn entirely within Richmond County. Enacted Senate District 22 has a Reock compactness score of 0.41 and a Polsby-Popper compactness score of 0.29 and the district is 56.5% 18+AP Black. In the enacted plan, the balance of Richmond County is placed in Senate District 23 along with a portion of Columbia County and nine whole counties. Enacted Senate District 23 has a Reock compactness score of 0.37 and a Polsby-Popper compactness score of 0.16 and the district is 35.48% 18+AP Black.





32. In order to change the racial makeup of Senate Districts 22 and 23, the Esselstyn 1205 Senate plan pushes part of SD 22 out of Richmond County into Columbia County. The Esselstyn 1205 Senate plan strategically utilizes the Black population in Columbia County, selecting the highest-concentration AP-Black population voting districts close to the county border in order to keep SD 22 above 50% 18+AP Black population. By moving SD 22 into Columbia County, stronger

concentrations of Black population in Richmond County can be transferred into Senate District 23.



33. The construction of Senate District 23 in the Cooper 1205 Senate plan splits Wilkes, Greene, McDuffie and Baldwin Counties, taking the lion's share of Black population in each of those counties into the district. The map shows that the boundary of Senate District 23 follows the contours of the underlying high concentrations of Black population within voting precincts. Senate District 23

connects many separate enclaves of Black population from these split counties, including Milledgeville in Baldwin County, which measures more than 80 miles away from the eastern part of the district in Augusta. The chart below shows that the counties are split such that the portion with higher concentrations of Black population is in SD 23 and the portion with lower concentrations of Black population is outside the district.

**Chart 4: Counties split in Esselstyn Senate 1205 SD 23**

Split County	Pop.	AP Black Pop.	VAP	AP Black VAP	% AP Black VAP
Baldwin (in 23)	26833	13267	22274	10300	46%
Baldwin (outside 23)	16966	5718	13458	4215	31%
Greene (in 23)	4747	2373	3666	1772	48%
Greene (outside 23)	14168	3654	11692	2698	23%
McDuffie (in 23)	12164	7350	9042	5130	57%
McDuffie (outside 23)	9468	1695	7573	1295	17%
Richmond (in 23)	47851	28212	36201	20443	56%
Richmond (outside 23)	158756	91758	124698	67487	54%
Wilkes (in 23)	3747	2465	2873	1840	64%
Wilkes (outside 23)	5818	1524	4778	1231	26%

34. As discussed earlier in this report, Esselstyn 1205 Senate district 23 has the lowest population deviation at -1.67% and this deviation has an effect on the 18+AP Black population in the district. Senate District 23 also has the most split counties of any district in the plan at five split counties.

35. The chart below compares the split counties in both the Enacted and Esselstyn 1205 Senate plans as well as some demographic data for those counties. The enacted Senate plan splits 29 counties and the Esselstyn 1205 Senate plan splits 34 counties. Both plans split the same 27 counties.

**Chart 5: County splits Enacted SD vs Esselstyn 1205**

County	Population	AP Blk	AP Blk %	18+ Pop	18+ AP Blk	18+ AP Blk %	Split in Enacted Senate	Split in Esselstyn Sen 1205
Barrow	83,505	11,907	14.3%	62,195	8,222	13.2%	X	X
Bartow	108,901	13,395	12.3%	83,570	9,377	11.2%	X	X
Chatham	295,291	115,458	39.1%	234,715	85,178	36.3%	X	X
Cherokee	266,620	21,687	8.1%	202,928	14,976	7.4%	X	X
Clarke	128,671	33,672	26.2%	106,830	24,776	23.2%	X	X
Clayton	297,595	216,351	72.7%	220,578	158,854	72.0%	X	X
Cobb	766,149	223,116	29.1%	591,848	166,141	28.1%	X	X
Coffee	43,092	12,575	29.2%	32,419	9,191	28.4%	X	X
Columbia	156,010	32,516	20.8%	114,823	22,273	19.4%	X	X
DeKalb	764,382	407,451	53.3%	595,276	314,230	52.8%	X	X
Fayette	119,194	32,076	26.9%	91,798	23,728	25.8%	X	X
Floyd	98,584	15,606	15.8%	76,295	11,064	14.5%	X	X
Forsyth	251,283	13,222	5.3%	181,193	8,751	4.8%	X	X
Fulton	1,066,710	477,624	44.8%	847,182	368,635	43.5%	X	X
Gordon	57,544	2,919	5.1%	43,500	1,939	4.5%	X	X
Gwinnett	957,062	287,687	30.1%	709,484	202,762	28.6%	X	X
Hall	203,136	17,006	8.4%	153,844	12,094	7.9%	X	X
Henry	240,712	125,211	52.0%	179,973	89,657	49.8%	X	X
Houston	163,633	56,520	34.5%	122,118	39,605	32.4%	X	X
Jackson	75,907	6,148	8.1%	56,451	4,268	7.6%	X	X
Muscogee	206,922	102,212	49.4%	157,052	74,301	47.3%	X	X
Newton	112,483	55,901	49.7%	84,748	40,433	47.7%	X	X
Paulding	168,661	41,296	24.5%	123,998	28,164	22.7%	X	X
Richmond	206,607	119,970	58.1%	160,899	87,930	54.6%	X	X
Walton	96,673	18,804	19.5%	73,098	13,165	18.0%	X	X
Ware	36,251	11,421	31.5%	27,788	8,226	29.6%	X	X
White	28,003	721	2.6%	22,482	484	2.2%	X	X
Bibb	157,346	88,865	56.5%	120,902	64,270	53.2%	X	
Douglas	144,237	74,260	51.5%	108,428	53,377	49.2%	X	



<b>County</b>	<b>Population</b>	<b>AP Blk</b>	<b>AP Blk %</b>	<b>18+ Pop</b>	<b>18+ AP Blk</b>	<b>18+ AP Blk %</b>	<b>Split in Enacted Senate</b>	<b>Split in Esselstyn Sen 1205</b>
Baldwin	43,799	18,985	43.3%	35,732	14,515	40.6%		X
Coweta	146,158	28,289	19.4%	111,155	20,196	18.2%		X
Greene	18,915	6,027	31.9%	15,358	4,470	29.1%		X
McDuffie	21,632	9,045	41.8%	16,615	6,425	38.7%		X
Rockdale	93,570	57,204	61.1%	71,503	41,935	58.6%		X
Wilcox	8,766	3,161	36.1%	7,218	2,693	37.3%		X
Wilkes	9,565	3,989	41.7%	7,651	3,071	40.1%		X
<b>TOTAL</b>							<b>29</b>	<b>34</b>

36. In comparison to the enacted senate plan, the Esselstyn 1205 Senate plan makes two counties whole (Bibb and Douglas counties) but introduces seven new county splits (Baldwin, Coweta, Greene, McDuffie, Rockdale, Wilcox and Wilkes counties). Four of the seven additional county splits are directly due to Senate District 23. All seven additional split counties are attributable to the effort to create new majority Black districts.

37. Based on my analysis of the Esselstyn 1205 Senate plan, the impact of engineering more majority Black districts can be seen in the overall plan metrics and the differences from the enacted plan. Further, my analysis of the traditional redistricting factors – maintaining communities and traditional boundaries, compactness, and deviation - along with the manipulation of the boundaries of the new AP-Black districts, supports my opinion that the Esselstyn 1205 Senate plan is focused on race, prioritizing race to the detriment of traditional redistricting factors.



### **State House Plan Analysis**

38. Using the Population summary reports, I tallied the number of majority-Black districts using any-part Black voting age population for each House plan. The chart below shows the total number of majority-Black districts in the 2021 adopted House plan, the Esselstyn 1205 House plan and the Esselstyn PI House plan, as well as the number of districts in the percentage ranges using the any-part Black voting age population.

**Chart 6: Number of Majority-Black House Districts**

<b>Majority-Black House Districts</b>			
<b>% AP Black VAP</b>	<b>2021 Adopted Plan</b>	<b>Esselstyn Plan 1205</b>	<b>Esselstyn Plan PI</b>
Over 75%	2	2	2
70% to 75%	9	5	5
65% to 70%	7	8	8
60% to 65%	8	8	8
55% to 60%	11	9	10
52% to 55%	10	12	10
50% to 52%	2	10	11
<b>Total # Districts</b>	<b>49</b>	<b>54</b>	<b>54</b>

39. The 2021 adopted House plan includes 49 majority-Black districts, the Esselstyn 1205 House plan includes 54 majority-Black districts, and the Esselstyn PI House plan has 54 majority-Black districts.

40. The House plan drafted by Mr. Esselstyn (1205) differs slightly from the House plan submitted previously for the preliminary injunction hearing in this case. There are changes affecting eight districts: Districts 61, 65 and 66 exchange population; Districts 128, 133 and 149 exchange population; and Districts 144, and 147 exchange population.

**Chart 7: Changes Esselstyn House 1205 from Esselstyn House PI**

District	Esselstyn Hse 1205 Pop	Esselstyn Hse 1205 Dev	Esselstyn Hse PI Pop	Esselstyn Hse PI Dev	Pop. Diff	Pop. % Diff	Esselstyn Hse 1205 % AP Black VAP	Esselstyn Hse PI % AP Black VAP
61	58950	-0.94%	58928	-0.98%	22	0.0%	53.5%	64.9%
65	59240	-0.46%	59076	-0.73%	164	0.3%	63.3%	55.3%
66	58961	-0.92%	59147	-0.61%	-186	-0.3%	53.9%	50.6%
128	58864	-1.09%	58869	-1.08%	-5	0.0%	50.4%	50.4%
133	59768	0.43%	59695	0.31%	73	0.1%	26.1%	27.6%
149	59392	-0.20%	59460	-0.09%	-68	-0.1%	51.5%	50.0%
144	58533	-1.64%	58642	-1.46%	-109	-0.2%	24.9%	25.0%
147	58567	-1.59%	58458	-1.77%	109	0.2%	30.5%	30.5%

41. In the Metro Atlanta area, House District 61 exchanges population with House Districts 65 and 66, resulting in a deviation that moves from -0.98% to -0.94% and an 18+ AP Black % that moves from 64.9% to 53.5%.

42. House District 65 exchanges population with House District 61, resulting in a deviation that moves from -0.73% to -0.46% and an 18+ AP Black % that moves from 55.3% to 63.3%.

43. House District 66 exchanges population with House District 61, resulting in a deviation that moves from -0.61% to -0.92% and an 18+ AP Black % that moves from 50.6% to 53.9%.

44. In Houston County, House District 144 exchanges population with House District 147, resulting in a deviation that moves from -1.46% to -1.64% and an 18+ AP Black % that moves from 25.0% to 24.9%.

45. House District 147 exchanges population with House District 144, resulting in a deviation that moves from -1.77% to -1.59% and an 18+ AP Black % that moves from 30.5% to 30.5%.

46. In Baldwin County, House District 128 exchanges population with House District 149, resulting in a deviation that moves from -1.08% to -1.09% and an 18+ AP Black % that moves from 50.4% to 50.4%. The effect of these changes makes the Esselstyn 1205 House District 128 the same as the enacted House District 128.

47. In Baldwin County, House District 133 exchanges population with House District 149, resulting in a deviation that moves from +0.31% to +0.43% and an 18+ AP Black % that moves from 27.6% to 26.1%.

48. In Baldwin County, House District 149 exchanges population with House Districts 128 and 133, resulting in a new deviation that moves from -0.09% to -0.20% and an 18+ AP Black % that moves from 50.0% to 51.5%.

49. Looking more closely at the Esselstyn House 1205 plan, here is a chart that summarizes top-line statistics about the plan and compares them to the enacted plan.

**Chart 8: Esselstyn 1205 House and Enacted House Plan comparisons**

<b>Plan metrics</b>	<b>Esselstyn House 1205</b>	<b>Enacted House</b>
County splits	70	69
Voting precinct splits	185	184
Mean compactness - Reock	0.39	0.39
Mean compactness - Polsby Popper	0.28	0.28
# Paired incumbents	28	20
# Seats majority 18+_AP_Bl% %	54	49
Deviation relative range	-1.94% to 1.91%	-1.40% to 1.34%
Deviation overall range	3.85%	2.74%

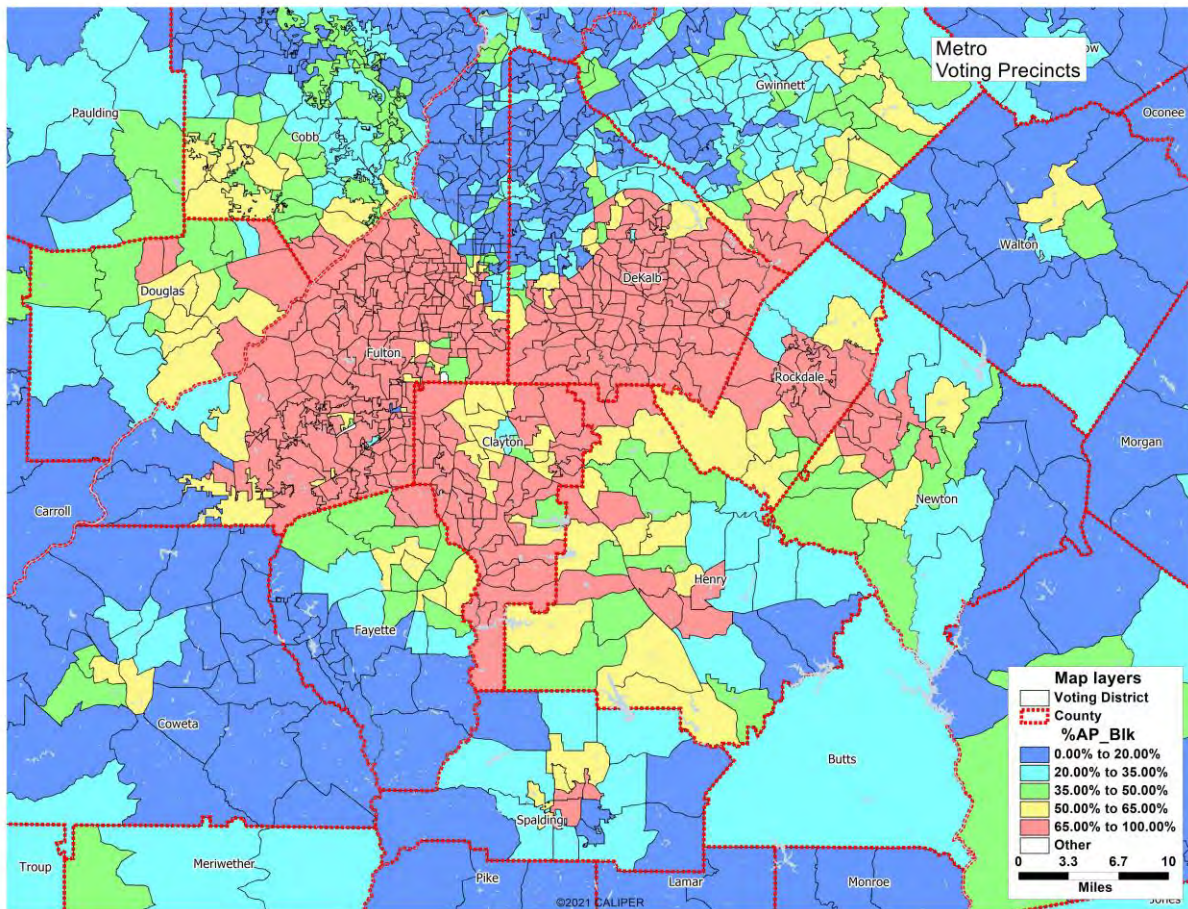
50. The Esselstyn 1205 plan uses a deviation range that is a full percentage point larger in range than the 2021 Enacted House plan. The overall compactness scores on the Esselstyn 1205 House plan and the 2021 enacted House plan are similar; however, of the 25 districts changed in the Esselstyn 1205 House plan, 15

districts are less compact on the Reock measurement, and 14 districts are less compact on the Polsby-Popper measurement. The chart below shows the compactness scores of the newly created majority-Black districts which Mr. Esselstyn identified in his report and the compactness scores of the corresponding district number in the 2021 adopted plans.

**Chart 9: Compactness score summary**

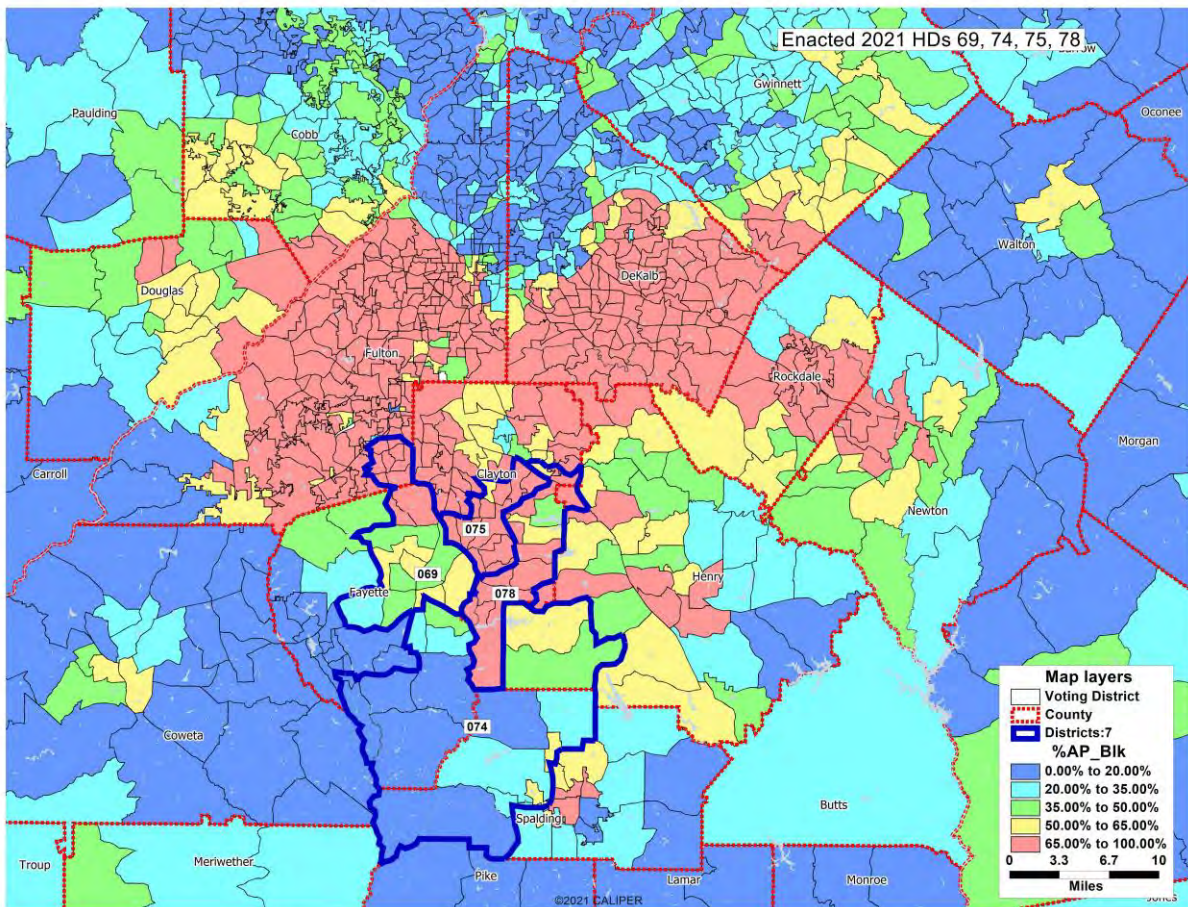
<b>New Black-Majority District</b>	<b>Enacted Plan Reock</b>	<b>Esselstyn 1205 Plan Reock</b>	<b>Enacted Plan Polsby-Popper</b>	<b>Esselstyn 1205 Plan Polsby-Popper</b>
<b>House 64</b>	<b>0.37</b>	0.22	<b>0.36</b>	0.22
<b>House 74</b>	<b>0.50</b>	0.30	<b>0.25</b>	0.19
<b>House 117</b>	<b>0.41</b>	0.40	0.28	<b>0.33</b>
<b>House 145</b>	<b>0.38</b>	0.34	0.19	<b>0.21</b>
<b>House 149</b>	0.32	<b>0.46</b>	0.22	<b>0.28</b>

51. Below is a map showing the Metro region with a theme of AP-Black % on the voting districts, as well as maps of a group of four house districts (69, 74, 75, and 78) in the Enacted House and the Esselstyn 1205 House plan.

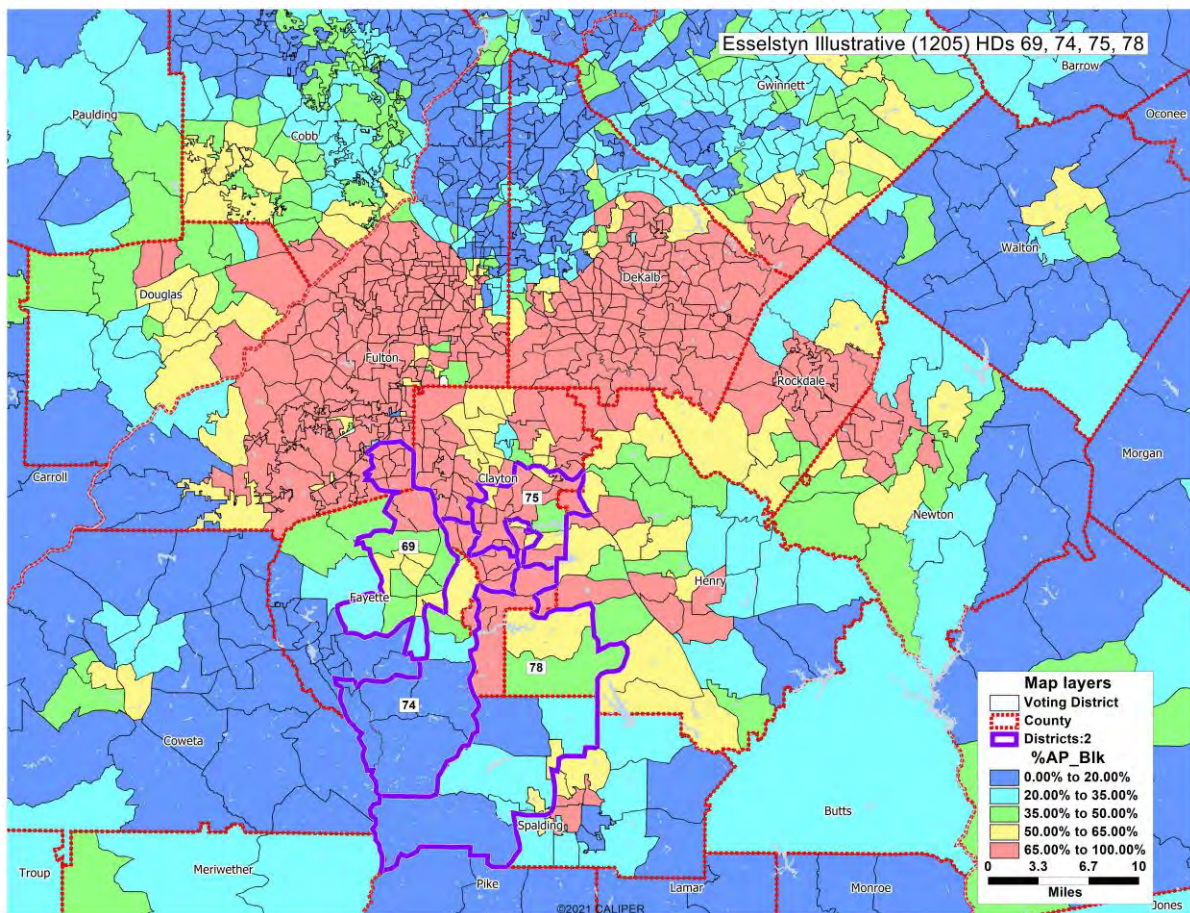


52. As shown in the Senate plan analysis, the voting districts themed in red have an AP-Black % of greater than 65% and voting districts themed in yellow have an AP-Black % of 50% to 65%. Voting districts themed in green have an AP-Black % of 35% to 50%; light blue have an AP-Black % of 20% to 35%; and darker blue have an AP-Black % of less than 20%.





53. In the enacted House plan, Districts 75 and 78 are primarily within Clayton County, District 69 is anchored in heavily Black southern Fulton County combined with central Fayette County, and District 74 is comprised of southern Fayette County, western Spalding County and two voting precincts of Henry County.



54. In the Esselstyn 1205 House plan, the engineering of a new majority Black district is accomplished by elongating the districts to connect to Clayton County to predominantly white areas of Fayette and Spalding Counties. District 74 takes the “tail” of southern Clayton County and goes south through Henry to western Spalding County. District 74 takes part of Jonesboro in Clayton County, punches through the blocking District 69, to go south to southern Fayette County. The data in the chart below shows that the configuration of these four districts in the Esselstyn



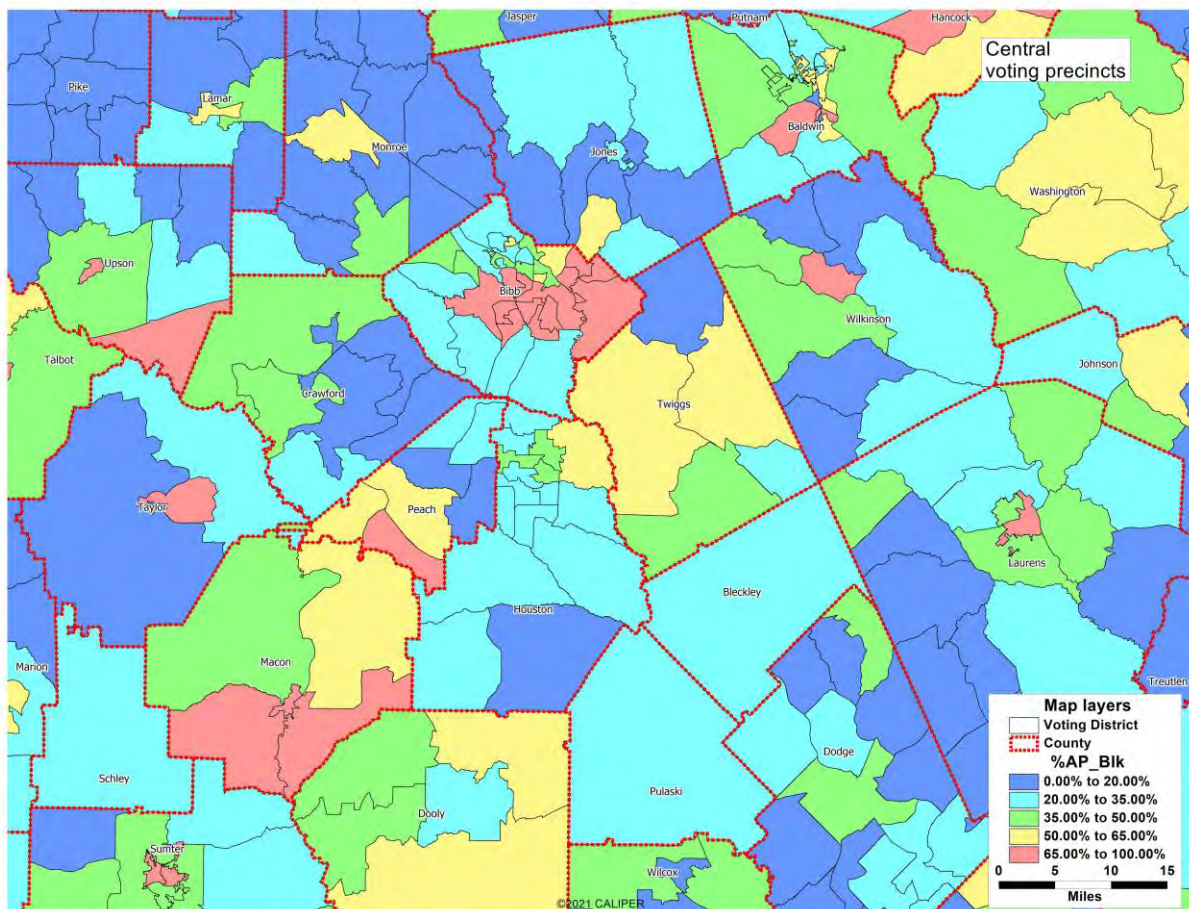
1205 House plan lowers the mean compactness score compared to the configuration of the districts in the Enacted House plan.

**Chart 10: Compactness scores in four House districts**

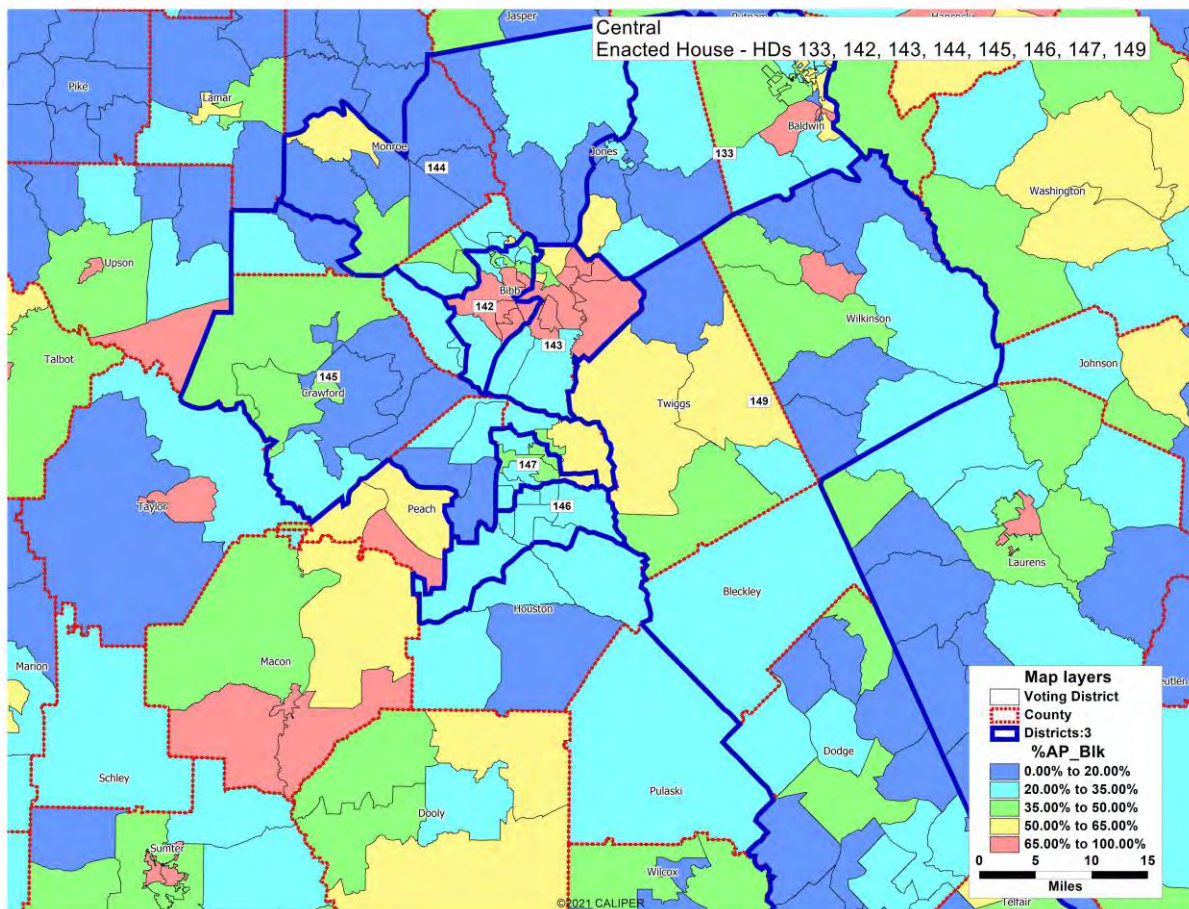
District	Enacted House				Esselstyn House 1205			
	% Devn.	Reock	Polsby-Popper	% 18+ AP Blk	% Devn.	Reock	Polsby-Popper	% 18+ AP Blk
069	-1.39	0.4	0.25	63.56%	-1.94	0.33	0.22	62.7%
074	-0.93	0.5	0.25	25.52%	-1.84	0.3	0.19	53.9%
075	0.39	0.42	0.28	74.40%	0.42	0.46	0.18	66.9%
078	-0.78	0.21	0.19	71.58%	0.64	0.31	0.18	51.0%
Mean Compactness	0.38 0.24				0.35 0.19			

55. Looking at specific districts (as above) shows that the compactness of the districts is impacted by the efforts to create more majority Black districts. The Black percentage is lowered only by elongating the district to include lower concentrations of Black population. This allows the Black population to be redistributed and to create other majority Black districts.

56. Below is a map showing Central Georgia around Macon with a theme of AP-Black % on the voting districts. The map shows a concentration of Black population in Bibb County (Macon) as well as enclaves of majority AP-Black population voting precincts within the center of the surrounding rural counties.

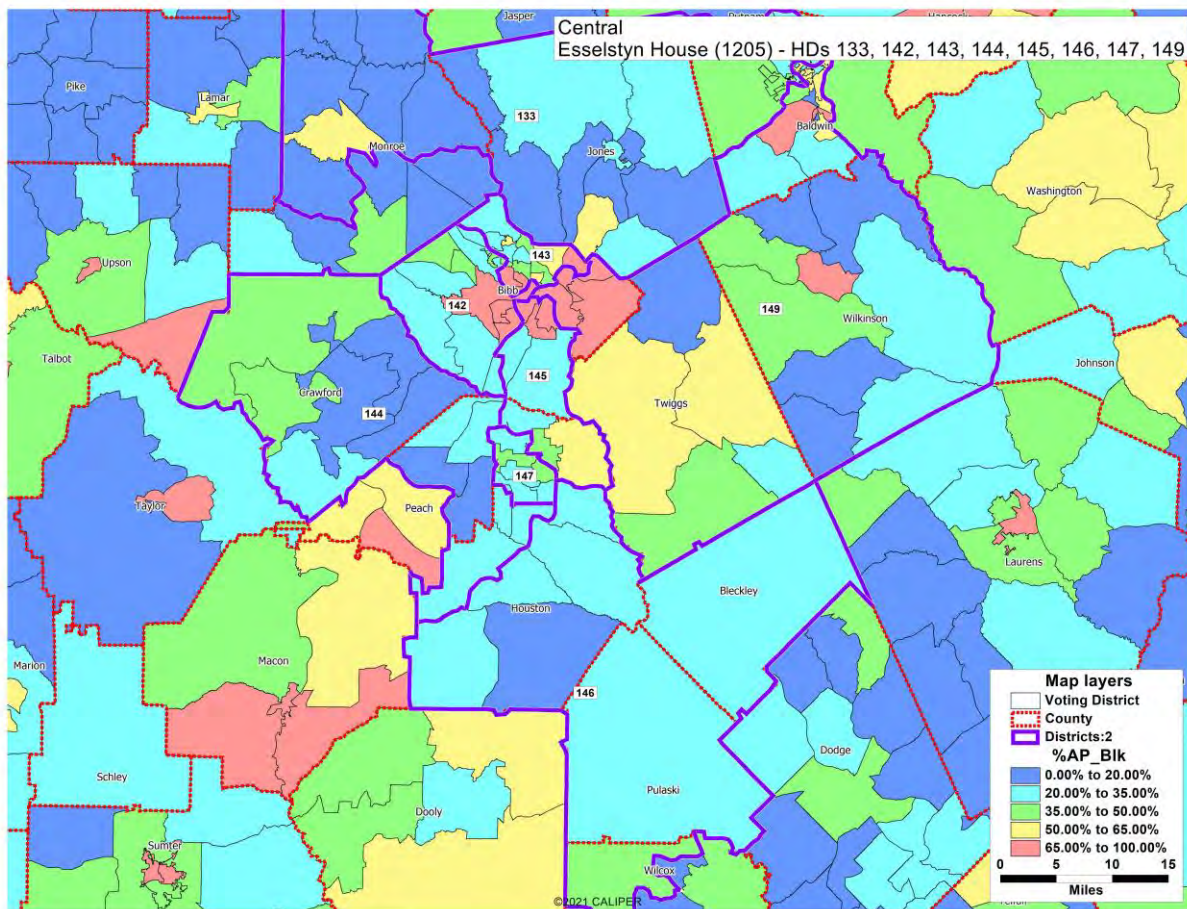


57. The enacted plan has two majority 18+AP Black districts drawn entirely within Bibb County. Enacted House District 143 is in the eastern portion of Bibb County, enacted House District 142 is in the central portion of Bibb County, leaving the western portion of Bibb County in districts to the north and west.



58. In order to create additional majority 18+AP-Black districts in the Macon area, the Esselstyn 1205 House plan moves House Districts 142 and 143 to the west and lowers their 18+AP-Black % to barely 50%. The plan strategically utilizes the remaining Black population in Bibb County, to spin one district to the south to pick-up Black population from the Robins Air Force base in Houston County and spin one district to the east to connect through two counties to Milledgeville in Baldwin County.





59. The chart below compares the split counties in both the Enacted and Esselstyn 1205 House plans as well as some demographic data for those counties. The enacted House plan splits 69 counties and the Esselstyn 1205 House plan splits 70 counties. Both plans split the same 68 counties.

**Chart 11: County splits Enacted HD vs Esselstyn 1205**

Name	Population	AP Blk	AP Blk %	18+ Pop	18+ AP Blk	18+ AP Blk %	Split in Enacted House	Split in Esselstyn 1205 House
Appling	18,444	3,647	19.8%	13,958	2,540	18.2%	x	x
Baldwin	43,799	18,985	43.3%	35,732	14,515	40.6%	x	x
Barrow	83,505	11,907	14.3%	62,195	8,222	13.2%	x	x
Bartow	108,901	13,395	12.3%	83,570	9,377	11.2%	x	x
Ben Hill	17,194	6,537	38.0%	13,165	4,745	36.0%	x	x
Bibb	157,346	88,865	56.5%	120,902	64,270	53.2%	x	x
Bryan	44,738	7,463	16.7%	31,828	5,025	15.8%	x	x
Bulloch	81,099	24,375	30.1%	64,494	18,220	28.3%	x	x
Carroll	119,148	24,618	20.7%	90,996	17,827	19.6%	x	x
Catoosa	67,872	2,642	3.9%	52,448	1,684	3.2%	x	x
Chatham	295,291	115,458	39.1%	234,715	85,178	36.3%	x	x
Cherokee	266,620	21,687	8.1%	202,928	14,976	7.4%	x	x
Clarke	128,671	33,672	26.2%	106,830	24,776	23.2%	x	x
Clayton	297,595	216,351	72.7%	220,578	158,854	72.0%	x	x
Cobb	766,149	223,116	29.1%	591,848	166,141	28.1%	x	x
Coffee	43,092	12,575	29.2%	32,419	9,191	28.4%	x	x
Columbia	156,010	32,516	20.8%	114,823	22,273	19.4%	x	x
Cook	17,229	5,014	29.1%	12,938	3,595	27.8%	x	x
Coweta	146,158	28,289	19.4%	111,155	20,196	18.2%	x	x
Dawson	26,798	392	1.5%	21,441	249	1.2%	x	x
DeKalb	764,382	407,451	53.3%	595,276	314,230	52.8%	x	x
Dougherty	85,790	61,457	71.6%	66,266	45,631	68.9%	x	x
Douglas	144,237	74,260	51.5%	108,428	53,377	49.2%	x	x
Effingham	64,769	10,035	15.5%	47,295	6,831	14.4%	x	x
Fayette	119,194	32,076	26.9%	91,798	23,728	25.8%	x	x
Floyd	98,584	15,606	15.8%	76,295	11,064	14.5%	x	x
Forsyth	251,283	13,222	5.3%	181,193	8,751	4.8%	x	x
Fulton	1,066,710	477,624	44.8%	847,182	368,635	43.5%	x	x
Glynn	84,499	22,098	26.2%	66,468	15,620	23.5%	x	x
Gordon	57,544	2,919	5.1%	43,500	1,939	4.5%	x	x
Grady	26,236	7,693	29.3%	19,962	5,678	28.4%	x	x
Gwinnett	957,062	287,687	30.1%	709,484	202,762	28.6%	x	x
Habersham	46,031	2,165	4.7%	35,878	1,675	4.7%	x	x
Hall	203,136	17,006	8.4%	153,844	12,094	7.9%	x	x
Harris	34,668	5,742	16.6%	26,799	4,431	16.5%	x	x
Henry	240,712	125,211	52.0%	179,973	89,657	49.8%	x	x

Name	Population	AP Blk	AP Blk %	18+ Pop	18+ AP Blk	18+ AP Blk %	Split in Enacted House	Split in Esselstyn 1205 House
Houston	163,633	56,520	34.5%	122,118	39,605	32.4%	x	x
Jackson	75,907	6,148	8.1%	56,451	4,268	7.6%	x	x
Jasper	14,588	2,676	18.3%	11,118	1,966	17.7%	x	x
Lamar	18,500	5,220	28.2%	14,541	4,017	27.6%	x	x
Liberty	65,256	31,146	47.7%	48,014	21,700	45.2%	x	x
Lowndes	118,251	46,758	39.5%	89,031	33,302	37.4%	x	x
Lumpkin	33,488	685	2.0%	27,689	507	1.8%	x	x
Madison	30,120	3,196	10.6%	23,112	2,225	9.6%	x	x
McDuffie	21,632	9,045	41.8%	16,615	6,425	38.7%	x	x
Meriwether	20,613	7,547	36.6%	16,526	5,845	35.4%	x	x
Monroe	27,957	6,444	23.0%	21,913	5,068	23.1%	x	x
Muscogee	206,922	102,212	49.4%	157,052	74,301	47.3%	x	x
Newton	112,483	55,901	49.7%	84,748	40,433	47.7%	x	x
Oconee	41,799	2,280	5.5%	30,221	1,660	5.5%	x	x
Paulding	168,661	41,296	24.5%	123,998	28,164	22.7%	x	x
Peach	27,981	12,645	45.2%	22,111	9,720	44.0%	x	x
Putnam	22,047	5,701	25.9%	17,847	4,229	23.7%	x	x
Richmond	206,607	119,970	58.1%	160,899	87,930	54.6%	x	x
Rockdale	93,570	57,204	61.1%	71,503	41,935	58.6%	x	x
Spalding	67,306	24,522	36.4%	52,123	17,511	33.6%	x	x
Sumter	29,616	15,546	52.5%	23,036	11,479	49.8%	x	x
Tattnall	22,842	6,331	27.7%	17,654	4,886	27.7%	x	x
Telfair	12,477	4,754	38.1%	10,190	3,806	37.4%	x	x
Thomas	45,798	16,975	37.1%	35,037	12,332	35.2%	x	x
Tift	41,344	12,734	30.8%	31,224	8,963	28.7%	x	x
Troup	69,426	25,473	36.7%	52,581	18,202	34.6%	x	x
Walker	67,654	3,664	5.4%	52,794	2,454	4.6%	x	x
Walton	96,673	18,804	19.5%	73,098	13,165	18.0%	x	x
Ware	36,251	11,421	31.5%	27,788	8,226	29.6%	x	x
Wayne	30,144	6,390	21.2%	23,105	4,662	20.2%	x	x
White	28,003	721	2.6%	22,482	484	2.2%	x	x
Whitfield	102,864	4,919	4.8%	76,262	3,349	4.4%	x	x
Jones	28,347	7,114	25.1%	21,575	5,341	24.8%	x	
Dodge	19,925	6,148	30.9%	15,709	4,725	30.1%		x
Wilcox	8,766	3,161	36.1%	7,218	2,693	37.3%		x
<b>TOTAL</b>							<b>69</b>	<b>70</b>

60. In comparison to the enacted House plan, the Esselstyn 1205 House plan makes one county whole (Jones) but introduces two new county splits (Dodge and Wilcox). Both additional split counties are attributable to the effort to create new majority Black districts.

61. Based on my analysis of the Esselstyn 1205 House plan, the impact of engineering more majority Black districts can be seen in the overall plan metrics and the differences from the enacted plan. Further, my analysis of the traditional redistricting factors – maintaining communities and traditional boundaries, compactness, and deviation – along with the manipulation of the boundaries of the new AP-Black districts, supports my opinion that the Esselstyn 1205 House plan is focused on race, prioritizing race to the detriment of traditional redistricting factors.

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

Executed this 23rd day of January, 2023.

  
\_\_\_\_\_  
JOHN B. MORGAN



# **EXHIBIT 1**

**Exhibit**  
**0010**

**JOHN B. MORGAN**  
*Curriculum Vitae*

**Redistricting Background and Experience**

- Performed redistricting work in 20 states, in the areas of map drawing, problem-solving and redistricting software operation.
- Performed demographic and election analysis work in 40 states, for both statewide and legislative candidates

*2021-2022 Redistricting Cycle*

- Mapping expert for Michigan Independent Citizens Redistricting Commission
- Mapping expert for Virginia Redistricting Commission
- Mapping expert for New Jersey Congressional Redistricting Commission
- Mapping expert for New Jersey Legislative Redistricting Commission
- Staff analyst for New Mexico Senate Republican caucus – Dec. 2021 special session
- Mapping consultant to Indiana State Senate Republican caucus
- Mapping consultant to redistricting commissioners in Atlantic County, New Jersey
- Drafted county commission districts for Sampson County, North Carolina
- Drafted wards for town of Brownsburg, Indiana

*2011-2012 Redistricting Cycle*

- Served as a consultant for:
  - Connecticut Redistricting Commission
  - Ohio Reapportionment Board
  - New Jersey Legislative Redistricting Commission
  - New Jersey Congressional Redistricting Commission
  - Pennsylvania Legislative Reapportionment Commission
- Drafted Wake County, North Carolina school board districts
- Drafted county commission districts in Sampson and Craven counties in North Carolina and Atlantic County in New Jersey
- Worked with redistricting commissions in Atlantic and Essex counties, New Jersey.
- Worked on statewide congressional, legislative, and local plans in the following states: Connecticut, Indiana, Kansas, Missouri, New Jersey, New Mexico, North Carolina, Ohio, Pennsylvania, South Carolina, and Virginia
- Plans drafted by Morgan adopted in whole or part by the following states: Connecticut, Indiana, New Jersey, New Mexico, North Carolina, South Carolina, Virginia.

*2001-2002 Redistricting Cycle*

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Georgia, Indiana, Iowa, New Jersey, North Carolina, Pennsylvania, Rhode Island, and Virginia.
- Dealt with redistricting issues as a member of the Majority Leader's legislative staff in Virginia House of Delegates. Drafted alternate plans for use by the minority parties in

Rhode Island. Drafted alternate plans for use by legislative leadership in considering plans drawn by redistricting commission staff in Iowa.

#### *1991-1992 Redistricting Cycle*

- Worked on statewide congressional and legislative redistricting plans in the following states: Florida, Illinois, Indiana, Michigan, New Jersey, New York, Pennsylvania, Wisconsin.
- Focused primarily on Voting Rights Act issues with Black, Hispanic and Asian communities.
- Federal court incorporated portion of legislative plan drafted in part by Morgan for Wisconsin into final decree, finding the configuration superior to other plans in its treatment of minority voters.

#### *Expert Experience and Trial Testimony*

- Recognized as an expert in demographics and redistricting in *Egolf v. Duran*, New Mexico First Judicial District Court, Case No. D-101-CV-2011-02942, which dealt with New Mexico's legislative plans.
- In *Egolf v. Duran*, the Court adopted a House redistricting plan principally drafted by Morgan.
- Filed expert reports in *Georgia State Conference of NAACP v. Fayette County Board of Commissioners*.
- Filed expert reports and expert testimony in *Page v. Board of Elections*, Eastern District of Virginia; provided expert testimony at trial.
- Testified at trial in *Bethune Hill v. Virginia Board of Elections* and *Vesilind v. Virginia Board of Elections*.
- Filed expert report in *Georgia NAACP v. Gwinnett County*.
- Filed expert reports and expert testimony *Alpha Phi Alpha v. Raffensperger*; *Grant v. Raffensperger*; and *Pendergrass v. Raffensperger*

#### **Education**

- Bachelor of Arts degree in History from the University of Chicago
- Graduated with honors.
- Bachelor's Honors thesis on "The Net Effects of Gerrymandering 1896-1932."
- Demographic study on LaSalle, Illinois was published in *The History of the Illinois and Michigan Canal, Volume Five*.

#### **Employment**

- President of Applied Research Coordinates, a consulting firm specializing in political and demographic analysis and its application to elections and redistricting, 2007 to present
- Redistricting consultant for many legislatures and commissions: 1991, 2001, 2011, 2021
- Executive Director, GOPAC (Hon. J.C. Watts, Chairman), 2004-2007
- Vice-President of Applied Research Coordinates, 1999-2004
- National Field Director, GOPAC (Rep. John Shadegg, Chairman) 1995-1999
- Research Analyst, Applied Research Coordinates 1991-1995
- Research Analyst, Republican National Committee 1988-1989, summer

## **EXHIBIT 2**

User:

Plan Name: Grant\_Esselstyn\_Sen\_illus\_12\_05

Plan Type:

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Sen\_illus\_12\_05

	Reock	Polsby-Popper
Sum	N/A	N/A
Min	0.17	0.13
Max	0.68	0.50
Mean	0.41	0.28
Std. Dev.	0.11	0.09

District	Reock	Polsby-Popper
1	0.49	0.31
2	0.47	0.22
3	0.39	0.21
4	0.47	0.27
5	0.17	0.21
6	0.42	0.23
7	0.35	0.34
8	0.45	0.23
9	0.24	0.21
10	0.25	0.19
11	0.36	0.33
12	0.62	0.39
13	0.48	0.25
14	0.27	0.24
15	0.57	0.32
16	0.39	0.27
17	0.35	0.16
18	0.38	0.20
19	0.53	0.37

<b>District</b>	<b>Reock</b>	<b>Polsby-Popper</b>
20	0.28	0.24
21	0.42	0.33
22	0.33	0.32
23	0.34	0.17
24	0.27	0.23
25	0.57	0.34
26	0.44	0.25
27	0.50	0.46
28	0.38	0.19
29	0.58	0.42
30	0.41	0.38
31	0.40	0.46
32	0.29	0.21
33	0.40	0.22
34	0.31	0.21
35	0.59	0.42
36	0.32	0.30
37	0.49	0.37
38	0.37	0.20
39	0.18	0.13
40	0.51	0.34
41	0.51	0.30
42	0.47	0.25
43	0.49	0.25
44	0.33	0.24
45	0.35	0.30
46	0.37	0.21
47	0.36	0.19
48	0.35	0.34
49	0.46	0.34
50	0.45	0.23

District	Reock	Polsby-Popper
51	0.68	0.50
52	0.47	0.25
53	0.49	0.40
54	0.60	0.44
55	0.34	0.27
56	0.38	0.30

#### Measures of Compactness Summary

<b>Reock</b>	The measure is always between 0 and 1, with 1 being the most compact.
<b>Polsby-Popper</b>	The measure is always between 0 and 1, with 1 being the most compact.

## **EXHIBIT 3**



User:

Plan Name: Grant\_Esselstyn\_Sen\_illus\_12\_05

Plan Type:

## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Sen\_illus\_12\_05

District	Name	Party	Previous District
1	Ben Watson	R	1
2	Lester Jackson, III	D	2
3	Sheila McNeill	R	3
4	Billy Hickman	R	4
5	Sheikh Rahman	D	5
6	Jen Jordan	D	6
7			
8	Russ Goodman	R	8
9	Nikki Merritt	D	9
10	Burt Jones	R	25
10	Emanuel Jones	D	10
11	Dean Burke	R	11
12	Freddie Powell Sims	D	12
13	Carden Summers	R	13
13	Tyler Harper	R	7
14			
15	Ed Harbison	D	15
16	Marty Harbin	R	16
17			
18	John Kennedy	R	18
19	Blake Tillery	R	19
20	Larry Walker III	R	20
21	Brandon Beach	R	21
22	Harold Jones	D	22
23	Max Burns	R	23
24	Lee Anderson	R	24
25	Brian Strickland	R	17
26	David Lucas	D	26
27	Greg Dolezal	R	27
28	Matt Brass	R	28
29	Randy Robertson	R	29
30	Mike Dugan	R	30
31	Jason Anavitarte	R	31
32	Kay Kirkpatrick	R	32
33	Michael Rhett	D	33
34	Valencia Seay	D	34
35	Donzella James	D	35
36	Nan Orrock	D	36
37	Lindsey Tippins	R	37
38	Horacena Tate	D	39

39	Sonya Halpern	D	39
40	Sally Harrell	D	40
41	Kim Jackson	D	41
42	Elena Parent	D	42
43	Tonya Anderson	D	43
44	Gail Davenport	D	44
45	Clint Dixon	R	45
46	Bill Cowsert	R	46
47	Frank Ginn	R	47
48	Michelle Au	D	48
49	Butch Miller	R	49
50	Bo Hatchett	R	50
51	Steve Gooch	R	51
52	Chuck Hufstetler	R	52
52	Bruce Thompson	R	14
53	Jeff Mullis	R	53
54	Chuck Payne	R	54
55	Gloria Butler	D	55
56	John Albers	R	56

Number of Incumbents in District with more than one Incumbent:

6

Number of Districts with No Incumbent:

3

Number of Districts with Incumbents of more than one party:

1

Number of Districts with Paired Democrats:

0

Number of Districts with Paired Republicans:

2



## **EXHIBIT 4**

User:

Plan Name: Grant\_Esselstyn\_Sen\_illus\_12\_05

Plan Type:

## Population Summary

### Population Summary

Grant\_Esselstyn\_Sen\_illus\_12\_05

District	Population	Deviation	% Devn.	[% 18+_AP_Blkl	[% Black]
1	191,402	118	0.06%	25.08%	24.27%
2	190,408	-876	-0.46%	46.86%	48.03%
3	191,212	-72	-0.04%	21.18%	21.28%
4	191,098	-186	-0.10%	23.37%	22.86%
5	191,921	637	0.33%	29.94%	27.57%
6	191,834	550	0.29%	22.95%	21%
7	189,709	-1,575	-0.82%	21.44%	20.56%
8	192,396	1,112	0.58%	30.38%	30.35%
9	192,915	1,631	0.85%	29.53%	29%
10	192,601	1,317	0.69%	61.1%	59.43%
11	189,976	-1,308	-0.68%	31.04%	31.3%
12	190,819	-465	-0.24%	57.97%	59.08%
13	194,905	3,621	1.89%	27.24%	27.41%
14	192,533	1,249	0.65%	18.97%	17.15%
15	189,446	-1,838	-0.96%	54%	52.99%
16	190,077	-1,207	-0.63%	19.72%	19.46%
17	193,838	2,554	1.34%	21.77%	21.64%
18	192,680	1,396	0.73%	30.04%	29.57%
19	192,316	1,032	0.54%	25.72%	25.16%
20	194,919	3,635	1.90%	32.45%	32.35%
21	192,572	1,288	0.67%	7.46%	6.66%
22	188,930	-2,354	-1.23%	50.84%	50.98%
23	188,095	-3,189	-1.67%	51.06%	51.48%
24	194,277	2,993	1.56%	18.38%	17.49%
25	192,708	1,424	0.74%	58.93%	58.22%
26	190,535	-749	-0.39%	52.84%	54.05%
27	190,676	-608	-0.32%	5%	4.43%
28	189,696	-1,588	-0.83%	57.28%	56.2%
29	189,424	-1,860	-0.97%	26.88%	26.49%
30	191,939	655	0.34%	15.77%	14.88%
31	192,755	1,471	0.77%	19.61%	19.22%
32	192,448	1,164	0.61%	14.86%	13.56%
33	192,694	1,410	0.74%	42.96%	41.18%
34	192,023	739	0.39%	58.97%	57.52%
35	193,194	1,910	1.00%	54.05%	52.94%
36	192,282	998	0.52%	51.34%	51.92%
37	192,671	1,387	0.73%	19.27%	18.38%
38	190,605	-679	-0.35%	66.36%	64.48%

**Population Summary**

Grant\_Esselstyn\_Sen\_illus\_12\_05

39	190,184	-1,100	-0.58%	60.21%	60.38%
40	190,544	-740	-0.39%	19.24%	16.84%
41	191,023	-261	-0.14%	62.61%	60.99%
42	190,153	-1,131	-0.59%	29.09%	26.9%
43	191,784	500	0.26%	58.52%	57.48%
44	188,256	-3,028	-1.58%	71.52%	69.94%
45	190,692	-592	-0.31%	18.58%	17.52%
46	190,312	-972	-0.51%	16.9%	16.88%
47	190,607	-677	-0.35%	17.42%	17.14%
48	190,123	-1,161	-0.61%	9.47%	8.51%
49	189,355	-1,929	-1.01%	7.96%	7.32%
50	189,320	-1,964	-1.03%	5.61%	5.13%
51	190,167	-1,117	-0.58%	1.21%	0.88%
52	190,799	-485	-0.25%	13.04%	12.56%
53	190,236	-1,048	-0.55%	5.1%	4.52%
54	192,443	1,159	0.61%	3.79%	3.13%
55	190,155	-1,129	-0.59%	65.97%	63.85%
56	191,226	-58	-0.03%	7.57%	6.5%

Total Population: 10,711,908

Ideal District Population: 191,284

**Summary Statistics:**

Population Range:	188,095 to 194,919
Ratio Range:	0.04
Absolute Range:	-3,189 to 3,635
Absolute Overall Range:	6824
Relative Range:	-1.67% to 1.90%
Relative Overall Range:	3.57%
Absolute Mean Deviation:	1283.86
Relative Mean Deviation:	0.67%
Standard Deviation:	1529.53

## **EXHIBIT 5**

User:

Plan Name: Grant\_Esselstyn\_Sen\_12\_05

Plan Type:

## Political Subdivision Splits Between Districts

### Political Subdivision Splits Between Districts

Grant\_Esselstyn\_Sen\_12\_05

Number of subdivisions not split:

County	125
Voting District	2,649

Number of subdivisions split into more than one district:

County	34
Voting District	49

Number of splits involving no population:

County	0
Voting District	7

#### Split Counts

##### *County*

Cases where an area is split among 2 Districts: 22

Cases where an area is split among 3 Districts: 7

Cases where an area is split among 4 Districts: 1

Cases where an area is split among 6 Districts: 1

Cases where an area is split among 7 Districts: 1

Cases where an area is split among 9 Districts: 1

Cases where an area is split among 10 Districts: 1

##### *Voting District*

Cases where an area is split among 2 Districts: 48

Cases where an area is split among 3 Districts: 1

County	Voting District	District	Population
<i>Split Counties:</i>			
Baldwin GA		17	16,966
Baldwin GA		23	26,833
Barrow GA		45	39,217
Barrow GA		46	17,116
Barrow GA		47	27,172
Bartow GA		37	11,130
Bartow GA		52	97,771
Chatham GA		1	81,408
Chatham GA		2	190,408
Chatham GA		4	23,475
Cherokee GA		21	109,034
Cherokee GA		32	90,981
Cherokee GA		56	66,605
Clarke GA		46	52,016
Clarke GA		47	76,655
Clayton GA		25	37,295
Clayton GA		28	19,071
Clayton GA		34	135,995



**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Sen\_12\_05

Clayton GA	44	105,234
Cobb GA	6	97,590
Cobb GA	32	101,467
Cobb GA	33	192,694
Cobb GA	37	181,541
Cobb GA	38	102,964
Cobb GA	56	89,893
Coffee GA	13	19,881
Coffee GA	19	23,211
Columbia GA	22	30,174
Columbia GA	24	125,836
Coweta GA	16	39,894
Coweta GA	28	74,804
Coweta GA	30	31,460
DeKalb GA	10	82,066
DeKalb GA	40	164,997
DeKalb GA	41	183,560
DeKalb GA	42	190,153
DeKalb GA	43	17,660
DeKalb GA	44	60,228
DeKalb GA	55	65,718
Fayette GA	16	45,488
Fayette GA	28	17,678
Fayette GA	34	56,028
Floyd GA	52	85,090
Floyd GA	53	13,494
Forsyth GA	27	190,676
Forsyth GA	48	60,607
Fulton GA	6	94,244
Fulton GA	14	192,533
Fulton GA	21	83,538
Fulton GA	28	78,143
Fulton GA	35	30,198
Fulton GA	36	192,282
Fulton GA	38	87,641
Fulton GA	39	190,184
Fulton GA	48	83,219
Fulton GA	56	34,728
Gordon GA	52	7,938
Gordon GA	54	49,606
Greene GA	17	14,168
Greene GA	23	4,747
Gwinnett GA	5	191,921
Gwinnett GA	7	189,709
Gwinnett GA	9	192,915
Gwinnett GA	40	25,547
Gwinnett GA	41	7,463
Gwinnett GA	45	151,475
Gwinnett GA	46	27,298
Gwinnett GA	48	46,297
Gwinnett GA	55	124,437



**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Sen\_12\_05

Hall GA		49	189,355
Hall GA		50	13,781
Henry GA		10	62,505
Henry GA		25	155,413
Henry GA		44	22,794
Houston GA		18	96,912
Houston GA		20	33,532
Houston GA		26	33,189
Jackson GA		47	56,660
Jackson GA		50	19,247
McDuffie GA		23	12,164
McDuffie GA		24	9,468
Muscogee GA		15	142,205
Muscogee GA		29	64,717
Newton GA		17	9,333
Newton GA		43	103,150
Paulding GA		31	149,902
Paulding GA		35	18,759
Richmond GA		22	158,756
Richmond GA		23	47,851
Rockdale GA		10	22,596
Rockdale GA		43	70,974
Walton GA		17	44,590
Walton GA		46	52,083
Ware GA		3	10,431
Ware GA		8	25,820
White GA		50	12,642
White GA		51	15,361
Wilcox GA		13	5,579
Wilcox GA		20	3,187
Wilkes GA		23	3,747
Wilkes GA		24	5,818

*Split VTDs:*

Baldwin GA	NORTH MILLEDGEVILLE	17	2,373
Baldwin GA	NORTH MILLEDGEVILLE	23	991
Baldwin GA	SOUTH MILLEDGEVILLE	17	1,215
Baldwin GA	SOUTH MILLEDGEVILLE	23	2,491
Chatham GA	BLOOMINGDALE	1	4,099
	COMMUNITY CENTER		
Chatham GA	BLOOMINGDALE	4	755
	COMMUNITY CENTER		
Chatham GA	POOLER CHRURCH	1	5,330
Chatham GA	POOLER CHRURCH	4	4,407
Clarke GA	3B	46	5,752
Clarke GA	3B	47	4,194
Clarke GA	6C	46	2,971
Clarke GA	6C	47	2,036
Cobb GA	Dobbins 01	6	6,586
Cobb GA	Dobbins 01	33	6,310
Cobb GA	Dobbins 01	38	505
Cobb GA	Elizabeth 01	32	3,771

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Sen\_12\_05

Cobb GA	Elizabeth 01	37	2,099
Cobb GA	Kennesaw 1A	32	1,471
Cobb GA	Kennesaw 1A	37	2,972
Cobb GA	Marietta 3A	32	3,439
Cobb GA	Marietta 3A	33	5,460
Cobb GA	Marietta 5A	6	0
Cobb GA	Marietta 5A	33	4,334
Cobb GA	Marietta 6A	6	3,022
Cobb GA	Marietta 6A	32	1,532
Cobb GA	Marietta 7A	6	993
Cobb GA	Marietta 7A	33	5,918
Cobb GA	Nickajack 01	6	2,398
Cobb GA	Nickajack 01	38	3,728
Cobb GA	Norton Park 01	33	7,049
Cobb GA	Norton Park 01	38	752
Cobb GA	Oregon 03	33	12,988
Cobb GA	Oregon 03	37	0
Cobb GA	Powers Ferry 01	6	4,963
Cobb GA	Powers Ferry 01	33	464
Cobb GA	Sewell Mill 03	6	5,051
Cobb GA	Sewell Mill 03	33	1,886
Cobb GA	Smyrna 1A	6	5,341
Cobb GA	Smyrna 1A	38	1,292
Cobb GA	Vinings 02	6	4,624
Cobb GA	Vinings 02	38	5,019
Coffee GA	DOUGLAS	13	12,595
Coffee GA	DOUGLAS	19	15,976
DeKalb GA	Flakes Mill Fire Station	10	2,263
DeKalb GA	Flakes Mill Fire Station	44	396
DeKalb GA	Harris - Narvie J. Harris Elem	10	3,339
DeKalb GA	Harris - Narvie J. Harris Elem	44	1,682
Floyd GA	GARDEN LAKES	52	1,024
Floyd GA	GARDEN LAKES	53	7,817
Forsyth GA	BIG CREEK	27	15,216
Forsyth GA	BIG CREEK	48	10,302
Forsyth GA	POLO	27	24,894
Forsyth GA	POLO	48	964
Fulton GA	RW09	21	2,971
Fulton GA	RW09	56	4,750
Fulton GA	RW12	21	4,274
Fulton GA	RW12	56	3,958
Fulton GA	SC05A	28	681
Fulton GA	SC05A	35	317
Fulton GA	SC08B	28	223
Fulton GA	SC08B	39	5,124
Fulton GA	SC13	28	15
Fulton GA	SC13	35	4,019
Fulton GA	SC18C	35	1,852
Fulton GA	SC18C	39	521

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Sen\_12\_05

Gordon GA	LILY POND	52	1,641
Gordon GA	LILY POND	54	996
Gwinnett GA	DACULA	45	2,699
Gwinnett GA	DACULA	46	4,613
Gwinnett GA	LAWRENCEVILLE E	5	2,075
Gwinnett GA	LAWRENCEVILLE E	9	1,386
Gwinnett GA	PINCKNEYVILLE W	5	5,605
Gwinnett GA	PINCKNEYVILLE W	7	2,701
Hall GA	GLADE	49	5,135
Hall GA	GLADE	50	1,735
Hall GA	TADMORE	49	4,129
Hall GA	TADMORE	50	10,220
Houston GA	RECR	20	0
Houston GA	RECR	26	17,798
Jackson GA	Central Jackson	47	24,383
Jackson GA	Central Jackson	50	0
Jackson GA	North Jackson	47	0
Jackson GA	North Jackson	50	19,247
Muscogee GA	COLUMBUS TECH	15	6,919
Muscogee GA	COLUMBUS TECH	29	2,228
Paulding GA	AUSTIN MIDDLE SCHOOL	31	971
Paulding GA	AUSTIN MIDDLE SCHOOL	35	9,922
Paulding GA	TAYLOR FARM PARK	31	4,596
Paulding GA	TAYLOR FARM PARK	35	8,837
Ware GA	100	3	2,672
Ware GA	100	8	3,692
Ware GA	200A	3	0
Ware GA	200A	8	4,133
Ware GA	304	3	0
Ware GA	304	8	2,107
Ware GA	400	3	4,626
Ware GA	400	8	406
Wilcox GA	ROCHELLE SOUTH	13	786
Wilcox GA	ROCHELLE SOUTH	20	794

## **EXHIBIT 6**

User:

Plan Name: Grant\_Esselstyn\_Sen\_12\_05

Plan Type:

## Plan Components with Population Detail

### Plan Components with Population Detail

Grant\_Esselstyn\_Sen\_12\_05

	Total Population	AP_Bl
<b>District 1</b>		
<b>County: Bryan GA</b>		
Total:	44,738	7,463
		16.68%
Voting Age	31,828	5,025
		15.79%
<b>County: Chatham GA</b>		
Total:	81,408	13,170
		16.18%
Voting Age	65,586	9,743
		14.86%
<b>County: Liberty GA</b>		
Total:	65,256	31,146
		47.73%
Voting Age	48,014	21,700
		45.20%
<b>District 1 Total</b>		
Total:	191,402	51,779
		27.05%
Voting Age	145,428	36,468
		25.08%
<b>District 2</b>		
<b>County: Chatham GA</b>		
Total:	190,408	95,717
		50.27%
Voting Age	150,843	70,688
		46.86%
<b>District 2 Total</b>		
Total:	190,408	95,717
		50.27%
Voting Age	150,843	70,688
		46.86%
<b>District 3</b>		
<b>County: Brantley GA</b>		
Total:	18,021	733
		4.07%
Voting Age	13,692	470
		3.43%
<b>County: Camden GA</b>		
Total:	54,768	11,072
		20.22%
Voting Age	41,808	7,828
		18.72%
<b>County: Charlton GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	12,518	2,798
		22.35%
Voting Age	10,135	2,147
		21.18%
<b>County: Glynn GA</b>		
Total:	84,499	22,098
		26.15%
Voting Age	66,468	15,620
		23.50%
<b>County: McIntosh GA</b>		
Total:	10,975	3,400
		30.98%
Voting Age	9,040	2,641
		29.21%
<b>County: Ware GA</b>		
Total:	10,431	4,137
		39.66%
Voting Age	7,772	2,839
		36.53%
<b>District 3 Total</b>		
Total:	191,212	44,238
		23.14%
Voting Age	148,915	31,545
		21.18%
<b>District 4</b>		
<b>County: Bulloch GA</b>		
Total:	81,099	24,375
		30.06%
Voting Age	64,494	18,220
		28.25%
<b>County: Candler GA</b>		
Total:	10,981	2,807
		25.56%
Voting Age	8,241	2,009
		24.38%
<b>County: Chatham GA</b>		
Total:	23,475	6,571
		27.99%
Voting Age	18,286	4,747
		25.96%
<b>County: Effingham GA</b>		
Total:	64,769	10,035
		15.49%
Voting Age	47,295	6,831
		14.44%
<b>County: Evans GA</b>		
Total:	10,774	3,273
		30.38%
Voting Age	8,127	2,410
		29.65%
<b>District 4 Total</b>		
Total:	191,098	47,061
		24.63%
Voting Age	146,443	34,217



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		23.37%
<b>District 5</b>		
<b>County: Gwinnett GA</b>		
Total:	191,921	57,719
		30.07%
Voting Age	139,394	41,736
		29.94%
<b>District 5 Total</b>		
Total:	191,921	57,719
		30.07%
Voting Age	139,394	41,736
		29.94%
<b>District 6</b>		
<b>County: Cobb GA</b>		
Total:	97,590	26,434
		27.09%
Voting Age	79,732	20,955
		26.28%
<b>County: Fulton GA</b>		
Total:	94,244	18,062
		19.17%
Voting Age	76,010	14,793
		19.46%
<b>District 6 Total</b>		
Total:	191,834	44,496
		23.20%
Voting Age	155,742	35,748
		22.95%
<b>District 7</b>		
<b>County: Gwinnett GA</b>		
Total:	189,709	43,563
		22.96%
Voting Age	147,425	31,601
		21.44%
<b>District 7 Total</b>		
Total:	189,709	43,563
		22.96%
Voting Age	147,425	31,601
		21.44%
<b>District 8</b>		
<b>County: Atkinson GA</b>		
Total:	8,286	1,284
		15.50%
Voting Age	6,129	937
		15.29%
<b>County: Clinch GA</b>		
Total:	6,749	2,096
		31.06%
Voting Age	5,034	1,406
		27.93%
<b>County: Echols GA</b>		
Total:	3,697	193
		5.22%
Voting Age	2,709	121

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		4.47%
<b>County: Lanier GA</b>		
Total:	9,877	2,369
		23.99%
Voting Age	7,326	1,683
		22.97%
<b>County: Lowndes GA</b>		
Total:	118,251	46,758
		39.54%
Voting Age	89,031	33,302
		37.40%
<b>County: Pierce GA</b>		
Total:	19,716	1,801
		9.13%
Voting Age	14,899	1,262
		8.47%
<b>County: Ware GA</b>		
Total:	25,820	7,284
		28.21%
Voting Age	20,016	5,387
		26.91%
<b>District 8 Total</b>		
Total:	192,396	61,785
		32.11%
Voting Age	145,144	44,098
		30.38%
<b>District 9</b>		
<b>County: Gwinnett GA</b>		
Total:	192,915	61,009
		31.62%
Voting Age	142,054	41,948
		29.53%
<b>District 9 Total</b>		
Total:	192,915	61,009
		31.62%
Voting Age	142,054	41,948
		29.53%
<b>District 10</b>		
<b>County: Butts GA</b>		
Total:	25,434	7,212
		28.36%
Voting Age	20,360	5,660
		27.80%
<b>County: DeKalb GA</b>		
Total:	82,066	78,042
		95.10%
Voting Age	63,260	60,044
		94.92%
<b>County: Henry GA</b>		
Total:	62,505	22,655
		36.25%
Voting Age	47,084	16,528
		35.10%
<b>County: Rockdale GA</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	22,596	11,509
		50.93%
Voting Age	17,865	8,544
		47.83%
<b>District 10 Total</b>		
Total:	192,601	119,418
		62.00%
Voting Age	148,569	90,776
		61.10%
<b>District 11</b>		
<b>County: Brooks GA</b>		
Total:	16,301	5,958
		36.55%
Voting Age	12,747	4,357
		34.18%
<b>County: Colquitt GA</b>		
Total:	45,898	10,648
		23.20%
Voting Age	34,193	7,461
		21.82%
<b>County: Cook GA</b>		
Total:	17,229	5,014
		29.10%
Voting Age	12,938	3,595
		27.79%
<b>County: Decatur GA</b>		
Total:	29,367	12,583
		42.85%
Voting Age	22,443	9,189
		40.94%
<b>County: Grady GA</b>		
Total:	26,236	7,693
		29.32%
Voting Age	19,962	5,678
		28.44%
<b>County: Seminole GA</b>		
Total:	9,147	3,093
		33.81%
Voting Age	7,277	2,275
		31.26%
<b>County: Thomas GA</b>		
Total:	45,798	16,975
		37.06%
Voting Age	35,037	12,332
		35.20%
<b>District 11 Total</b>		
Total:	189,976	61,964
		32.62%
Voting Age	144,597	44,887
		31.04%
<b>District 12</b>		
<b>County: Baker GA</b>		
Total:	2,876	1,178
		40.96%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Voting Age	2,275	932 40.97%
<b>County: Calhoun GA</b>		
Total:	5,573	3,629 65.12%
Voting Age	4,687	2,998 63.96%
<b>County: Clay GA</b>		
Total:	2,848	1,634 57.37%
Voting Age	2,246	1,231 54.81%
<b>County: Dougherty GA</b>		
Total:	85,790	61,457 71.64%
Voting Age	66,266	45,631 68.86%
<b>County: Early GA</b>		
Total:	10,854	5,688 52.40%
Voting Age	8,315	4,075 49.01%
<b>County: Miller GA</b>		
Total:	6,000	1,831 30.52%
Voting Age	4,749	1,358 28.60%
<b>County: Mitchell GA</b>		
Total:	21,755	10,394 47.78%
Voting Age	17,065	7,917 46.39%
<b>County: Quitman GA</b>		
Total:	2,235	965 43.18%
Voting Age	1,870	765 40.91%
<b>County: Randolph GA</b>		
Total:	6,425	3,947 61.43%
Voting Age	4,977	2,913 58.53%
<b>County: Stewart GA</b>		
Total:	5,314	2,538 47.76%
Voting Age	4,617	2,048 44.36%
<b>County: Sumter GA</b>		
Total:	29,616	15,546 52.49%
Voting Age	23,036	11,479 49.83%
<b>County: Terrell GA</b>		
Total:	9,185	5,707

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		62.13%
Voting Age	7,204	4,274
		59.33%
<b>County: Webster GA</b>		
Total:	2,348	1,107
		47.15%
Voting Age	1,847	844
		45.70%
<b>District 12 Total</b>		
Total:	190,819	115,621
		60.59%
Voting Age	149,154	86,465
		57.97%
<b>District 13</b>		
<b>County: Ben Hill GA</b>		
Total:	17,194	6,537
		38.02%
Voting Age	13,165	4,745
		36.04%
<b>County: Berrien GA</b>		
Total:	18,160	2,198
		12.10%
Voting Age	13,690	1,499
		10.95%
<b>County: Coffee GA</b>		
Total:	19,881	4,080
		20.52%
Voting Age	14,865	2,978
		20.03%
<b>County: Crisp GA</b>		
Total:	20,128	9,194
		45.68%
Voting Age	15,570	6,603
		42.41%
<b>County: Irwin GA</b>		
Total:	9,666	2,333
		24.14%
Voting Age	7,547	1,720
		22.79%
<b>County: Lee GA</b>		
Total:	33,163	7,755
		23.38%
Voting Age	24,676	5,503
		22.30%
<b>County: Tift GA</b>		
Total:	41,344	12,734
		30.80%
Voting Age	31,224	8,963
		28.71%
<b>County: Turner GA</b>		
Total:	9,006	3,813
		42.34%
Voting Age	6,960	2,752
		39.54%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

<b>County: Wilcox GA</b>		
Total:	5,579	1,866 33.45%
Voting Age	4,705	1,669 35.47%
<b>County: Worth GA</b>		
Total:	20,784	5,517 26.54%
Voting Age	16,444	4,108 24.98%
<b>District 13 Total</b>		
Total:	194,905	56,027 28.75%
Voting Age	148,846	40,540 27.24%
<b>District 14</b>		
<b>County: Fulton GA</b>		
Total:	192,533	37,409 19.43%
Voting Age	155,340	29,470 18.97%
<b>District 14 Total</b>		
Total:	192,533	37,409 19.43%
Voting Age	155,340	29,470 18.97%
<b>District 15</b>		
<b>County: Chattahoochee GA</b>		
Total:	9,565	1,825 19.08%
Voting Age	7,199	1,287 17.88%
<b>County: Macon GA</b>		
Total:	12,082	7,296 60.39%
Voting Age	9,938	6,021 60.59%
<b>County: Marion GA</b>		
Total:	7,498	2,223 29.65%
Voting Age	5,854	1,687 28.82%
<b>County: Muscogee GA</b>		
Total:	142,205	87,188 61.31%
Voting Age	107,284	63,629 59.31%
<b>County: Schley GA</b>		
Total:	4,547	933 20.52%
Voting Age	3,328	644 19.35%
<b>County: Talbot GA</b>		
Total:	5,733	3,145

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		54.86%
Voting Age	4,783	2,537
		53.04%
<b>County: Taylor GA</b>		
Total:	7,816	2,946
		37.69%
Voting Age	6,120	2,235
		36.52%
<b>District 15 Total</b>		
Total:	189,446	105,556
		55.72%
Voting Age	144,506	78,040
		54.00%
<b>District 16</b>		
<b>County: Coweta GA</b>		
Total:	39,894	3,351
		8.40%
Voting Age	30,518	2,478
		8.12%
<b>County: Fayette GA</b>		
Total:	45,488	5,070
		11.15%
Voting Age	34,787	3,585
		10.31%
<b>County: Lamar GA</b>		
Total:	18,500	5,220
		28.22%
Voting Age	14,541	4,017
		27.63%
<b>County: Pike GA</b>		
Total:	18,889	1,613
		8.54%
Voting Age	14,337	1,254
		8.75%
<b>County: Spalding GA</b>		
Total:	67,306	24,522
		36.43%
Voting Age	52,123	17,511
		33.60%
<b>District 16 Total</b>		
Total:	190,077	39,776
		20.93%
Voting Age	146,306	28,845
		19.72%
<b>District 17</b>		
<b>County: Baldwin GA</b>		
Total:	16,966	5,718
		33.70%
Voting Age	13,458	4,215
		31.32%
<b>County: Greene GA</b>		
Total:	14,168	3,654
		25.79%
Voting Age	11,692	2,698

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		23.08%
<b>County: Jasper GA</b>		
Total:	14,588	2,676
		18.34%
Voting Age	11,118	1,966
		17.68%
<b>County: Jones GA</b>		
Total:	28,347	7,114
		25.10%
Voting Age	21,575	5,341
		24.76%
<b>County: Morgan GA</b>		
Total:	20,097	4,339
		21.59%
Voting Age	15,574	3,280
		21.06%
<b>County: Newton GA</b>		
Total:	9,333	1,544
		16.54%
Voting Age	7,166	1,113
		15.53%
<b>County: Oglethorpe GA</b>		
Total:	14,825	2,468
		16.65%
Voting Age	11,639	1,853
		15.92%
<b>County: Putnam GA</b>		
Total:	22,047	5,701
		25.86%
Voting Age	17,847	4,229
		23.70%
<b>County: Walton GA</b>		
Total:	44,590	7,994
		17.93%
Voting Age	33,470	5,536
		16.54%
<b>County: Wilkinson GA</b>		
Total:	8,877	3,330
		37.51%
Voting Age	7,026	2,549
		36.28%
<b>District 17 Total</b>		
Total:	193,838	44,538
		22.98%
Voting Age	150,565	32,780
		21.77%
<b>District 18</b>		
<b>County: Crawford GA</b>		
Total:	12,130	2,455
		20.24%
Voting Age	9,606	1,938
		20.17%
<b>County: Houston GA</b>		
Total:	96,912	30,579



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		31.55%
Voting Age	73,167	21,685
		29.64%
<b>County: Monroe GA</b>		
Total:	27,957	6,444
		23.05%
Voting Age	21,913	5,068
		23.13%
<b>County: Peach GA</b>		
Total:	27,981	12,645
		45.19%
Voting Age	22,111	9,720
		43.96%
<b>County: Upson GA</b>		
Total:	27,700	8,324
		30.05%
Voting Age	21,711	6,202
		28.57%
<b>District 18 Total</b>		
Total:	192,680	60,447
		31.37%
Voting Age	148,508	44,613
		30.04%
<b>District 19</b>		
<b>County: Appling GA</b>		
Total:	18,444	3,647
		19.77%
Voting Age	13,958	2,540
		18.20%
<b>County: Bacon GA</b>		
Total:	11,140	1,970
		17.68%
Voting Age	8,310	1,245
		14.98%
<b>County: Coffee GA</b>		
Total:	23,211	8,495
		36.60%
Voting Age	17,554	6,213
		35.39%
<b>County: Jeff Davis GA</b>		
Total:	14,779	2,493
		16.87%
Voting Age	10,856	1,752
		16.14%
<b>County: Long GA</b>		
Total:	16,168	4,734
		29.28%
Voting Age	11,234	3,107
		27.66%
<b>County: Montgomery GA</b>		
Total:	8,610	2,224
		25.83%
Voting Age	6,792	1,781
		26.22%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

<b>County: Tattnall GA</b>		
Total:	22,842	6,331 27.72%
Voting Age	17,654	4,886 27.68%
<b>County: Telfair GA</b>		
Total:	12,477	4,754 38.10%
Voting Age	10,190	3,806 37.35%
<b>County: Toombs GA</b>		
Total:	27,030	7,402 27.38%
Voting Age	20,261	5,036 24.86%
<b>County: Wayne GA</b>		
Total:	30,144	6,390 21.20%
Voting Age	23,105	4,662 20.18%
<b>County: Wheeler GA</b>		
Total:	7,471	2,949 39.47%
Voting Age	6,217	2,561 41.19%
<b>District 19 Total</b>		
Total:	192,316	51,389 26.72%
Voting Age	146,131	37,589 25.72%
<b>District 20</b>		
<b>County: Bleckley GA</b>		
Total:	12,583	2,951 23.45%
Voting Age	9,613	2,036 21.18%
<b>County: Dodge GA</b>		
Total:	19,925	6,148 30.86%
Voting Age	15,709	4,725 30.08%
<b>County: Dooly GA</b>		
Total:	11,208	5,652 50.43%
Voting Age	9,187	4,526 49.27%
<b>County: Emanuel GA</b>		
Total:	22,768	7,556 33.19%
Voting Age	17,320	5,404 31.20%
<b>County: Houston GA</b>		
Total:	33,532	7,767 23.16%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Voting Age	24,548	5,417 22.07%
<b>County: Jenkins GA</b>		
Total:	8,674	3,638 41.94%
Voting Age	7,005	2,843 40.59%
<b>County: Johnson GA</b>		
Total:	9,189	3,124 34.00%
Voting Age	7,474	2,513 33.62%
<b>County: Laurens GA</b>		
Total:	49,570	19,132 38.60%
Voting Age	37,734	13,695 36.29%
<b>County: Pulaski GA</b>		
Total:	9,855	3,250 32.98%
Voting Age	8,012	2,564 32.00%
<b>County: Treutlen GA</b>		
Total:	6,406	2,114 33.00%
Voting Age	4,934	1,514 30.69%
<b>County: Twiggs GA</b>		
Total:	8,022	3,226 40.21%
Voting Age	6,589	2,627 39.87%
<b>County: Wilcox GA</b>		
Total:	3,187	1,295 40.63%
Voting Age	2,513	1,024 40.75%
<b>District 20 Total</b>		
Total:	194,919	65,853 33.78%
Voting Age	150,638	48,888 32.45%
<b>District 21</b>		
<b>County: Cherokee GA</b>		
Total:	109,034	6,259 5.74%
Voting Age	82,623	4,208 5.09%
<b>County: Fulton GA</b>		
Total:	83,538	9,233 11.05%
Voting Age	62,497	6,615 10.58%
<b>District 21 Total</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	192,572	15,492
		8.04%
Voting Age	145,120	10,823
		7.46%
<b>District 22</b>		
<b>County: Columbia GA</b>		
Total:	30,174	10,351
		34.30%
Voting Age	21,768	6,970
		32.02%
<b>County: Richmond GA</b>		
Total:	158,756	91,758
		57.80%
Voting Age	124,698	67,487
		54.12%
<b>District 22 Total</b>		
Total:	188,930	102,109
		54.05%
Voting Age	146,466	74,457
		50.84%
<b>District 23</b>		
<b>County: Baldwin GA</b>		
Total:	26,833	13,267
		49.44%
Voting Age	22,274	10,300
		46.24%
<b>County: Burke GA</b>		
Total:	24,596	11,430
		46.47%
Voting Age	18,778	8,362
		44.53%
<b>County: Glascock GA</b>		
Total:	2,884	226
		7.84%
Voting Age	2,236	167
		7.47%
<b>County: Greene GA</b>		
Total:	4,747	2,373
		49.99%
Voting Age	3,666	1,772
		48.34%
<b>County: Hancock GA</b>		
Total:	8,735	6,131
		70.19%
Voting Age	7,487	5,108
		68.22%
<b>County: Jefferson GA</b>		
Total:	15,709	8,208
		52.25%
Voting Age	12,301	6,324
		51.41%
<b>County: McDuffie GA</b>		
Total:	12,164	7,350
		60.42%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Voting Age	9,042	5,130 56.74%
<b>County: Richmond GA</b>		
Total:	47,851	28,212 58.96%
Voting Age	36,201	20,443 56.47%
<b>County: Screven GA</b>		
Total:	14,067	5,527 39.29%
Voting Age	10,893	4,144 38.04%
<b>County: Taliaferro GA</b>		
Total:	1,559	876 56.19%
Voting Age	1,289	722 56.01%
<b>County: Warren GA</b>		
Total:	5,215	3,128 59.98%
Voting Age	4,159	2,360 56.74%
<b>County: Washington GA</b>		
Total:	19,988	10,969 54.88%
Voting Age	15,709	8,333 53.05%
<b>County: Wilkes GA</b>		
Total:	3,747	2,465 65.79%
Voting Age	2,873	1,840 64.04%
<b>District 23 Total</b>		
Total:	188,095	100,162 53.25%
Voting Age	146,908	75,005 51.06%
<b>District 24</b>		
<b>County: Columbia GA</b>		
Total:	125,836	22,165 17.61%
Voting Age	93,055	15,303 16.45%
<b>County: Elbert GA</b>		
Total:	19,637	5,520 28.11%
Voting Age	15,493	4,122 26.61%
<b>County: Hart GA</b>		
Total:	25,828	4,732 18.32%
Voting Age	20,436	3,447 16.87%
<b>County: Lincoln GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	7,690	2,212
		28.76%
Voting Age	6,270	1,728
		27.56%
<b>County: McDuffie GA</b>		
Total:	9,468	1,695
		17.90%
Voting Age	7,573	1,295
		17.10%
<b>County: Wilkes GA</b>		
Total:	5,818	1,524
		26.19%
Voting Age	4,778	1,231
		25.76%
<b>District 24 Total</b>		
Total:	194,277	37,848
		19.48%
Voting Age	147,605	27,126
		18.38%
<b>District 25</b>		
<b>County: Clayton GA</b>		
Total:	37,295	29,368
		78.75%
Voting Age	27,594	21,280
		77.12%
<b>County: Henry GA</b>		
Total:	155,413	88,923
		57.22%
Voting Age	115,669	63,144
		54.59%
<b>District 25 Total</b>		
Total:	192,708	118,291
		61.38%
Voting Age	143,263	84,424
		58.93%
<b>District 26</b>		
<b>County: Bibb GA</b>		
Total:	157,346	88,865
		56.48%
Voting Age	120,902	64,270
		53.16%
<b>County: Houston GA</b>		
Total:	33,189	18,174
		54.76%
Voting Age	24,403	12,503
		51.24%
<b>District 26 Total</b>		
Total:	190,535	107,039
		56.18%
Voting Age	145,305	76,773
		52.84%
<b>District 27</b>		
<b>County: Forsyth GA</b>		
Total:	190,676	10,506

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		5.51%
Voting Age	139,196	6,961
		5.00%
<b>District 27 Total</b>		
Total:	190,676	10,506
		5.51%
Voting Age	139,196	6,961
		5.00%
<b>District 28</b>		
<b>County: Clayton GA</b>		
Total:	19,071	15,696
		82.30%
Voting Age	14,534	12,068
		83.03%
<b>County: Coweta GA</b>		
Total:	74,804	20,264
		27.09%
Voting Age	56,582	14,367
		25.39%
<b>County: Fayette GA</b>		
Total:	17,678	9,748
		55.14%
Voting Age	13,709	7,429
		54.19%
<b>County: Fulton GA</b>		
Total:	78,143	65,444
		83.75%
Voting Age	58,266	48,095
		82.54%
<b>District 28 Total</b>		
Total:	189,696	111,152
		58.59%
Voting Age	143,091	81,959
		57.28%
<b>District 29</b>		
<b>County: Harris GA</b>		
Total:	34,668	5,742
		16.56%
Voting Age	26,799	4,431
		16.53%
<b>County: Meriwether GA</b>		
Total:	20,613	7,547
		36.61%
Voting Age	16,526	5,845
		35.37%
<b>County: Muscogee GA</b>		
Total:	64,717	15,024
		23.21%
Voting Age	49,768	10,672
		21.44%
<b>County: Troup GA</b>		
Total:	69,426	25,473
		36.69%
Voting Age	52,581	18,202

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		34.62%
<b>District 29 Total</b>		
Total:	189,424	53,786
		28.39%
Voting Age	145,674	39,150
		26.88%
<b>District 30</b>		
<b>County: Carroll GA</b>		
Total:	119,148	24,618
		20.66%
Voting Age	90,996	17,827
		19.59%
<b>County: Coweta GA</b>		
Total:	31,460	4,674
		14.86%
Voting Age	24,055	3,351
		13.93%
<b>County: Haralson GA</b>		
Total:	29,919	1,541
		5.15%
Voting Age	22,854	1,106
		4.84%
<b>County: Heard GA</b>		
Total:	11,412	1,142
		10.01%
Voting Age	8,698	832
		9.57%
<b>District 30 Total</b>		
Total:	191,939	31,975
		16.66%
Voting Age	146,603	23,116
		15.77%
<b>District 31</b>		
<b>County: Paulding GA</b>		
Total:	149,902	35,238
		23.51%
Voting Age	110,217	23,946
		21.73%
<b>County: Polk GA</b>		
Total:	42,853	5,816
		13.57%
Voting Age	32,238	3,991
		12.38%
<b>District 31 Total</b>		
Total:	192,755	41,054
		21.30%
Voting Age	142,455	27,937
		19.61%
<b>District 32</b>		
<b>County: Cherokee GA</b>		
Total:	90,981	9,461
		10.40%
Voting Age	69,190	6,571
		9.50%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

<b>County: Cobb GA</b>		
Total:	101,467	20,578
		20.28%
Voting Age	80,689	15,703
		19.46%
<b>District 32 Total</b>		
Total:	192,448	30,039
		15.61%
Voting Age	149,879	22,274
		14.86%
<b>District 33</b>		
<b>County: Cobb GA</b>		
Total:	192,694	84,864
		44.04%
Voting Age	146,415	62,897
		42.96%
<b>District 33 Total</b>		
Total:	192,694	84,864
		44.04%
Voting Age	146,415	62,897
		42.96%
<b>District 34</b>		
<b>County: Clayton GA</b>		
Total:	135,995	98,239
		72.24%
Voting Age	98,847	71,113
		71.94%
<b>County: Fayette GA</b>		
Total:	56,028	17,258
		30.80%
Voting Age	43,302	12,714
		29.36%
<b>District 34 Total</b>		
Total:	192,023	115,497
		60.15%
Voting Age	142,149	83,827
		58.97%
<b>District 35</b>		
<b>County: Douglas GA</b>		
Total:	144,237	74,260
		51.48%
Voting Age	108,428	53,377
		49.23%
<b>County: Fulton GA</b>		
Total:	30,198	27,771
		91.96%
Voting Age	22,906	20,845
		91.00%
<b>County: Paulding GA</b>		
Total:	18,759	6,058
		32.29%
Voting Age	13,781	4,218
		30.61%
<b>District 35 Total</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	193,194	108,089
		55.95%
Voting Age	145,115	78,440
		54.05%
<b>District 36</b>		
<b>County: Fulton GA</b>		
Total:	192,282	104,523
		54.36%
Voting Age	161,385	82,859
		51.34%
<b>District 36 Total</b>		
Total:	192,282	104,523
		54.36%
Voting Age	161,385	82,859
		51.34%
<b>District 37</b>		
<b>County: Bartow GA</b>		
Total:	11,130	646
		5.80%
Voting Age	8,818	435
		4.93%
<b>County: Cobb GA</b>		
Total:	181,541	39,545
		21.78%
Voting Age	138,961	28,049
		20.18%
<b>District 37 Total</b>		
Total:	192,671	40,191
		20.86%
Voting Age	147,779	28,484
		19.27%
<b>District 38</b>		
<b>County: Cobb GA</b>		
Total:	102,964	44,999
		43.70%
Voting Age	79,498	33,840
		42.57%
<b>County: Fulton GA</b>		
Total:	87,641	83,029
		94.74%
Voting Age	66,587	63,096
		94.76%
<b>District 38 Total</b>		
Total:	190,605	128,028
		67.17%
Voting Age	146,085	96,936
		66.36%
<b>District 39</b>		
<b>County: Fulton GA</b>		
Total:	190,184	119,401
		62.78%
Voting Age	155,780	93,789
		60.21%
<b>District 39 Total</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	190,184	119,401
		62.78%
Voting Age	155,780	93,789
		60.21%
<b>District 40</b>		
<b>County: DeKalb GA</b>		
Total:	164,997	27,095
		16.42%
Voting Age	127,423	21,898
		17.19%
<b>County: Gwinnett GA</b>		
Total:	25,547	8,624
		33.76%
Voting Age	19,577	6,379
		32.58%
<b>District 40 Total</b>		
Total:	190,544	35,719
		18.75%
Voting Age	147,000	28,277
		19.24%
<b>District 41</b>		
<b>County: DeKalb GA</b>		
Total:	183,560	120,328
		65.55%
Voting Age	139,591	90,016
		64.49%
<b>County: Gwinnett GA</b>		
Total:	7,463	1,434
		19.21%
Voting Age	5,687	945
		16.62%
<b>District 41 Total</b>		
Total:	191,023	121,762
		63.74%
Voting Age	145,278	90,961
		62.61%
<b>District 42</b>		
<b>County: DeKalb GA</b>		
Total:	190,153	55,060
		28.96%
Voting Age	153,285	44,597
		29.09%
<b>District 42 Total</b>		
Total:	190,153	55,060
		28.96%
Voting Age	153,285	44,597
		29.09%
<b>District 43</b>		
<b>County: DeKalb GA</b>		
Total:	17,660	15,789
		89.41%
Voting Age	13,478	11,964
		88.77%
<b>County: Newton GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	103,150	54,357
		52.70%
Voting Age	77,582	39,320
		50.68%
<b>County: Rockdale GA</b>		
Total:	70,974	45,695
		64.38%
Voting Age	53,638	33,391
		62.25%
<b>District 43 Total</b>		
Total:	191,784	115,841
		60.40%
Voting Age	144,698	84,675
		58.52%
<b>District 44</b>		
<b>County: Clayton GA</b>		
Total:	105,234	73,048
		69.41%
Voting Age	79,603	54,393
		68.33%
<b>County: DeKalb GA</b>		
Total:	60,228	50,225
		83.39%
Voting Age	47,783	39,047
		81.72%
<b>County: Henry GA</b>		
Total:	22,794	13,633
		59.81%
Voting Age	17,220	9,985
		57.98%
<b>District 44 Total</b>		
Total:	188,256	136,906
		72.72%
Voting Age	144,606	103,425
		71.52%
<b>District 45</b>		
<b>County: Barrow GA</b>		
Total:	39,217	5,033
		12.83%
Voting Age	29,707	3,514
		11.83%
<b>County: Gwinnett GA</b>		
Total:	151,475	32,509
		21.46%
Voting Age	110,999	22,635
		20.39%
<b>District 45 Total</b>		
Total:	190,692	37,542
		19.69%
Voting Age	140,706	26,149
		18.58%
<b>District 46</b>		
<b>County: Barrow GA</b>		
Total:	17,116	3,573

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		20.88%
Voting Age	12,083	2,401
		19.87%
<b>County: Clarke GA</b>		
Total:	52,016	9,024
		17.35%
Voting Age	45,312	6,731
		14.85%
<b>County: Gwinnett GA</b>		
Total:	27,298	9,493
		34.78%
Voting Age	19,469	6,372
		32.73%
<b>County: Oconee GA</b>		
Total:	41,799	2,280
		5.45%
Voting Age	30,221	1,660
		5.49%
<b>County: Walton GA</b>		
Total:	52,083	10,810
		20.76%
Voting Age	39,628	7,629
		19.25%
<b>District 46 Total</b>		
Total:	190,312	35,180
		18.49%
Voting Age	146,713	24,793
		16.90%
<b>District 47</b>		
<b>County: Barrow GA</b>		
Total:	27,172	3,301
		12.15%
Voting Age	20,405	2,307
		11.31%
<b>County: Clarke GA</b>		
Total:	76,655	24,648
		32.15%
Voting Age	61,518	18,045
		29.33%
<b>County: Jackson GA</b>		
Total:	56,660	4,393
		7.75%
Voting Age	41,564	2,966
		7.14%
<b>County: Madison GA</b>		
Total:	30,120	3,196
		10.61%
Voting Age	23,112	2,225
		9.63%
<b>District 47 Total</b>		
Total:	190,607	35,538
		18.64%
Voting Age	146,599	25,543
		17.42%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

**District 48****County: Forsyth GA**

Total:	60,607	2,716
		4.48%
Voting Age	41,997	1,790
		4.26%

**County: Fulton GA**

Total:	83,219	9,960
		11.97%
Voting Age	61,631	7,027
		11.40%

**County: Gwinnett GA**

Total:	46,297	6,203
		13.40%
Voting Age	33,367	4,151
		12.44%

**District 48 Total**

Total:	190,123	18,879
		9.93%
Voting Age	136,995	12,968
		9.47%

**District 49****County: Hall GA**

Total:	189,355	16,099
		8.50%
Voting Age	144,123	11,475
		7.96%

**District 49 Total**

Total:	189,355	16,099
		8.50%
Voting Age	144,123	11,475
		7.96%

**District 50****County: Banks GA**

Total:	18,035	589
		3.27%
Voting Age	13,900	365
		2.63%

**County: Franklin GA**

Total:	23,424	2,207
		9.42%
Voting Age	18,307	1,523
		8.32%

**County: Habersham GA**

Total:	46,031	2,165
		4.70%
Voting Age	35,878	1,675
		4.67%

**County: Hall GA**

Total:	13,781	907
		6.58%
Voting Age	9,721	619
		6.37%

**County: Jackson GA**

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	19,247	1,755
		9.12%
Voting Age	14,887	1,302
		8.75%
<b>County: Rabun GA</b>		
Total:	16,883	210
		1.24%
Voting Age	13,767	129
		0.94%
<b>County: Stephens GA</b>		
Total:	26,784	3,527
		13.17%
Voting Age	21,163	2,467
		11.66%
<b>County: Towns GA</b>		
Total:	12,493	168
		1.34%
Voting Age	10,923	137
		1.25%
<b>County: White GA</b>		
Total:	12,642	198
		1.57%
Voting Age	10,253	124
		1.21%
<b>District 50 Total</b>		
Total:	189,320	11,726
		6.19%
Voting Age	148,799	8,341
		5.61%
<b>District 51</b>		
<b>County: Dawson GA</b>		
Total:	26,798	392
		1.46%
Voting Age	21,441	249
		1.16%
<b>County: Fannin GA</b>		
Total:	25,319	199
		0.79%
Voting Age	21,188	133
		0.63%
<b>County: Gilmer GA</b>		
Total:	31,353	296
		0.94%
Voting Age	25,417	161
		0.63%
<b>County: Lumpkin GA</b>		
Total:	33,488	685
		2.05%
Voting Age	27,689	507
		1.83%
<b>County: Pickens GA</b>		
Total:	33,216	512
		1.54%
Voting Age	26,799	319

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		1.19%
<b>County: Union GA</b>		
Total:	24,632	228
		0.93%
Voting Age	20,808	147
		0.71%
<b>County: White GA</b>		
Total:	15,361	523
		3.40%
Voting Age	12,229	360
		2.94%
<b>District 51 Total</b>		
Total:	190,167	2,835
		1.49%
Voting Age	155,571	1,876
		1.21%
<b>District 52</b>		
<b>County: Bartow GA</b>		
Total:	97,771	12,749
		13.04%
Voting Age	74,752	8,942
		11.96%
<b>County: Floyd GA</b>		
Total:	85,090	14,081
		16.55%
Voting Age	65,739	10,019
		15.24%
<b>County: Gordon GA</b>		
Total:	7,938	266
		3.35%
Voting Age	6,129	159
		2.59%
<b>District 52 Total</b>		
Total:	190,799	27,096
		14.20%
Voting Age	146,620	19,120
		13.04%
<b>District 53</b>		
<b>County: Catoosa GA</b>		
Total:	67,872	2,642
		3.89%
Voting Age	52,448	1,684
		3.21%
<b>County: Chattooga GA</b>		
Total:	24,965	2,865
		11.48%
Voting Age	19,416	2,235
		11.51%
<b>County: Dade GA</b>		
Total:	16,251	228
		1.40%
Voting Age	12,987	140
		1.08%
<b>County: Floyd GA</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

Total:	13,494	1,525
		11.30%
Voting Age	10,556	1,045
		9.90%
<b>County: Walker GA</b>		
Total:	67,654	3,664
		5.42%
Voting Age	52,794	2,454
		4.65%
<b>District 53 Total</b>		
Total:	190,236	10,924
		5.74%
Voting Age	148,201	7,558
		5.10%
<b>District 54</b>		
<b>County: Gordon GA</b>		
Total:	49,606	2,653
		5.35%
Voting Age	37,371	1,780
		4.76%
<b>County: Murray GA</b>		
Total:	39,973	556
		1.39%
Voting Age	30,210	321
		1.06%
<b>County: Whitfield GA</b>		
Total:	102,864	4,919
		4.78%
Voting Age	76,262	3,349
		4.39%
<b>District 54 Total</b>		
Total:	192,443	8,128
		4.22%
Voting Age	143,843	5,450
		3.79%
<b>District 55</b>		
<b>County: DeKalb GA</b>		
Total:	65,718	60,912
		92.69%
Voting Age	50,456	46,664
		92.48%
<b>County: Gwinnett GA</b>		
Total:	124,437	67,133
		53.95%
Voting Age	91,512	46,995
		51.35%
<b>District 55 Total</b>		
Total:	190,155	128,045
		67.34%
Voting Age	141,968	93,659
		65.97%
<b>District 56</b>		
<b>County: Cherokee GA</b>		
Total:	66,605	5,967

**Plan Components with Population Detail**

Grant\_Esselstyn\_Sen\_12\_05

		8.96%
Voting Age	51,115	4,197
		8.21%
<b>County: Cobb GA</b>		
Total:	89,893	6,696
		7.45%
Voting Age	66,553	4,697
		7.06%
<b>County: Fulton GA</b>		
Total:	34,728	2,792
		8.04%
Voting Age	26,780	2,046
		7.64%
<b>District 56 Total</b>		
Total:	191,226	15,455
		8.08%
Voting Age	144,448	10,940
		7.57%



## **EXHIBIT 7**

User:

Plan Name: Grant\_Esselstyn\_Sen\_12\_05

Plan Type:

## Core Constituencies

### Core Constituencies

Grant\_Esselstyn\_Sen\_12\_05

From Plan: GA\_Senate illus-Grant

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 1 --** **191,402 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 1	191,402 (100.00%)	51,779 (100.00%)	145,428 (100.00%)	36,468 (100.00%)
Total and % Population		51,779 (27.05%)	145,428 (75.98%)	36,468 (19.05%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 10 --** **192,601 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 10	192,601 (100.00%)	119,418 (100.00%)	148,569 (100.00%)	90,776 (100.00%)
Total and % Population		119,418 (62.00%)	148,569 (77.14%)	90,776 (47.13%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 11 --** **189,976 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 11	189,976 (100.00%)	61,964 (100.00%)	144,597 (100.00%)	44,887 (100.00%)
Total and % Population		61,964 (32.62%)	144,597 (76.11%)	44,887 (23.63%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 12 --** **190,819 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 12	190,819 (100.00%)	115,621 (100.00%)	149,154 (100.00%)	86,465 (100.00%)
Total and % Population		115,621 (60.59%)	149,154 (78.17%)	86,465 (45.31%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 13 --** **194,905 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 13	194,905 (100.00%)	56,027 (100.00%)	148,846 (100.00%)	40,540 (100.00%)
Total and % Population		56,027 (28.75%)	148,846 (76.37%)	40,540 (20.80%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 14 --** **192,533 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 14	192,533 (100.00%)	37,409 (100.00%)	155,340 (100.00%)	29,470 (100.00%)
Total and % Population		37,409 (19.43%)	155,340 (80.68%)	29,470 (15.31%)

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 15 -- 189,446 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 15	189,446 (100.00%)	105,556 (100.00%)	144,506 (100.00%)	78,040 (100.00%)
Total and % Population		105,556 (55.72%)	144,506 (76.28%)	78,040 (41.19%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 16 -- 190,077 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 16	186,338 (98.03%)	38,968 (97.97%)	143,280 (97.93%)	28,240 (97.90%)
Dist. 34	3,739 (1.97%)	808 (2.03%)	3,026 (2.07%)	605 (2.10%)
Total and % Population		39,776 (20.93%)	146,306 (76.97%)	28,845 (15.18%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 17 -- 193,838 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 17	184,949 (95.41%)	41,658 (93.53%)	143,616 (95.38%)	30,784 (93.91%)
Dist. 23	8,889 (4.59%)	2,880 (6.47%)	6,949 (4.62%)	1,996 (6.09%)
Total and % Population		44,538 (22.98%)	150,565 (77.68%)	32,780 (16.91%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 18 -- 192,680 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 18	192,680 (100.00%)	60,447 (100.00%)	148,508 (100.00%)	44,613 (100.00%)
Total and % Population		60,447 (31.37%)	148,508 (77.07%)	44,613 (23.15%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 19 -- 192,316 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 19	192,316 (100.00%)	51,389 (100.00%)	146,131 (100.00%)	37,589 (100.00%)
Total and % Population		51,389 (26.72%)	146,131 (75.98%)	37,589 (19.55%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 2 -- 190,408 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 2	190,408 (100.00%)	95,717 (100.00%)	150,843 (100.00%)	70,688 (100.00%)
Total and % Population		95,717 (50.27%)	150,843 (79.22%)	70,688 (37.12%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 20 -- 194,919 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 20	194,919 (100.00%)	65,853 (100.00%)	150,638 (100.00%)	48,888 (100.00%)
Total and % Population		65,853 (33.78%)	150,638 (77.28%)	48,888 (25.08%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 21 -- 192,572 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 21	192,572 (100.00%)	15,492 (100.00%)	145,120 (100.00%)	10,823 (100.00%)
Total and % Population		15,492 (8.04%)	145,120 (75.36%)	10,823 (5.62%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 22 --** **188,930 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 22	188,930 (100.00%)	102,109 (100.00%)	146,466 (100.00%)	74,457 (100.00%)
Total and % Population		102,109 (54.05%)	146,466 (77.52%)	74,457 (39.41%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 23 --** **188,095 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 17	4,263 (2.27%)	1,606 (1.60%)	3,475 (2.37%)	1,163 (1.55%)
Dist. 23	183,832 (97.73%)	98,556 (98.40%)	143,433 (97.63%)	73,842 (98.45%)
Total and % Population		100,162 (53.25%)	146,908 (78.10%)	75,005 (39.88%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 24 --** **194,277 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 24	194,277 (100.00%)	37,848 (100.00%)	147,605 (100.00%)	27,126 (100.00%)
Total and % Population		37,848 (19.48%)	147,605 (75.98%)	27,126 (13.96%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 25 --** **192,708 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 25	192,708 (100.00%)	118,291 (100.00%)	143,263 (100.00%)	84,424 (100.00%)
Total and % Population		118,291 (61.38%)	143,263 (74.34%)	84,424 (43.81%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 26 --** **190,535 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 26	190,535 (100.00%)	107,039 (100.00%)	145,305 (100.00%)	76,773 (100.00%)
Total and % Population		107,039 (56.18%)	145,305 (76.26%)	76,773 (40.29%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 27 --** **190,676 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 27	190,676 (100.00%)	10,506 (100.00%)	139,196 (100.00%)	6,961 (100.00%)
Total and % Population		10,506 (5.51%)	139,196 (73.00%)	6,961 (3.65%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 28 --** **189,696 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 28	189,696 (100.00%)	111,152 (100.00%)	143,091 (100.00%)	81,959 (100.00%)

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Total and % Population	111,152 (58.59%)	143,091 (75.43%)	81,959 (43.21%)
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**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 29 --**
**189,424 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 29	189,424 (100.00%)	53,786 (100.00%)	145,674 (100.00%)	39,150 (100.00%)
Total and % Population		53,786 (28.39%)	145,674 (76.90%)	39,150 (20.67%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 3 --**
**191,212 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 3	191,212 (100.00%)	44,238 (100.00%)	148,915 (100.00%)	31,545 (100.00%)
Total and % Population		44,238 (23.14%)	148,915 (77.88%)	31,545 (16.50%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 30 --**
**191,939 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 30	191,939 (100.00%)	31,975 (100.00%)	146,603 (100.00%)	23,116 (100.00%)
Total and % Population		31,975 (16.66%)	146,603 (76.38%)	23,116 (12.04%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 31 --**
**192,755 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 31	192,755 (100.00%)	41,054 (100.00%)	142,455 (100.00%)	27,937 (100.00%)
Total and % Population		41,054 (21.30%)	142,455 (73.90%)	27,937 (14.49%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 32 --**
**192,448 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 32	192,448 (100.00%)	30,039 (100.00%)	149,879 (100.00%)	22,274 (100.00%)
Total and % Population		30,039 (15.61%)	149,879 (77.88%)	22,274 (11.57%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 33 --**
**192,694 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 33	192,694 (100.00%)	84,864 (100.00%)	146,415 (100.00%)	62,897 (100.00%)
Total and % Population		84,864 (44.04%)	146,415 (75.98%)	62,897 (32.64%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 34 --**
**192,023 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 16	7,525 (3.92%)	650 (0.56%)	5,636 (3.96%)	438 (0.52%)
Dist. 34	184,498 (96.08%)	114,847 (99.44%)	136,513 (96.04%)	83,389 (99.48%)
Total and % Population		115,497 (60.15%)	142,149 (74.03%)	83,827 (43.65%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District**
**193,194 Total Population**



**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

**35 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 35	193,194 (100.00%)	108,089 (100.00%)	145,115 (100.00%)	78,440 (100.00%)
Total and % Population		108,089 (55.95%)	145,115 (75.11%)	78,440 (40.60%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 192,282 Total Population****36 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 36	192,282 (100.00%)	104,523 (100.00%)	161,385 (100.00%)	82,859 (100.00%)
Total and % Population		104,523 (54.36%)	161,385 (83.93%)	82,859 (43.09%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 192,671 Total Population****37 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 37	192,671 (100.00%)	40,191 (100.00%)	147,779 (100.00%)	28,484 (100.00%)
Total and % Population		40,191 (20.86%)	147,779 (76.70%)	28,484 (14.78%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 190,605 Total Population****38 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 38	190,605 (100.00%)	128,028 (100.00%)	146,085 (100.00%)	96,936 (100.00%)
Total and % Population		128,028 (67.17%)	146,085 (76.64%)	96,936 (50.86%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 190,184 Total Population****39 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 39	190,184 (100.00%)	119,401 (100.00%)	155,780 (100.00%)	93,789 (100.00%)
Total and % Population		119,401 (62.78%)	155,780 (81.91%)	93,789 (49.31%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 191,098 Total Population****4 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 4	191,098 (100.00%)	47,061 (100.00%)	146,443 (100.00%)	34,217 (100.00%)
Total and % Population		47,061 (24.63%)	146,443 (76.63%)	34,217 (17.91%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 190,544 Total Population****40 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 40	190,544 (100.00%)	35,719 (100.00%)	147,000 (100.00%)	28,277 (100.00%)
Total and % Population		35,719 (18.75%)	147,000 (77.15%)	28,277 (14.84%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 191,023 Total Population****41 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 41	191,023 (100.00%)	121,762 (100.00%)	145,278 (100.00%)	90,961 (100.00%)
Total and % Population		121,762 (63.74%)	145,278 (76.05%)	90,961 (47.62%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 42 --** **190,153 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 42	190,153 (100.00%)	55,060 (100.00%)	153,285 (100.00%)	44,597 (100.00%)
Total and % Population		55,060 (28.96%)	153,285 (80.61%)	44,597 (23.45%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 43 --** **191,784 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 43	191,784 (100.00%)	115,841 (100.00%)	144,698 (100.00%)	84,675 (100.00%)
Total and % Population		115,841 (60.40%)	144,698 (75.45%)	84,675 (44.15%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 44 --** **188,256 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 44	188,256 (100.00%)	136,906 (100.00%)	144,606 (100.00%)	103,425 (100.00%)
Total and % Population		136,906 (72.72%)	144,606 (76.81%)	103,425 (54.94%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 45 --** **190,692 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 45	190,692 (100.00%)	37,542 (100.00%)	140,706 (100.00%)	26,149 (100.00%)
Total and % Population		37,542 (19.69%)	140,706 (73.79%)	26,149 (13.71%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 46 --** **190,312 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 46	190,312 (100.00%)	35,180 (100.00%)	146,713 (100.00%)	24,793 (100.00%)
Total and % Population		35,180 (18.49%)	146,713 (77.09%)	24,793 (13.03%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 47 --** **190,607 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 47	190,607 (100.00%)	35,538 (100.00%)	146,599 (100.00%)	25,543 (100.00%)
Total and % Population		35,538 (18.64%)	146,599 (76.91%)	25,543 (13.40%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 48 --** **190,123 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 48	190,123 (100.00%)	18,879 (100.00%)	136,995 (100.00%)	12,968 (100.00%)
Total and % Population		18,879 (9.93%)	136,995 (72.06%)	12,968 (6.82%)

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 49 --** **189,355 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 49	189,355 (100.00%)	16,099 (100.00%)	144,123 (100.00%)	11,475 (100.00%)
Total and % Population		16,099 (8.50%)	144,123 (76.11%)	11,475 (6.06%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 5 --** **191,921 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 5	191,921 (100.00%)	57,719 (100.00%)	139,394 (100.00%)	41,736 (100.00%)
Total and % Population		57,719 (30.07%)	139,394 (72.63%)	41,736 (21.75%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 50 --** **189,320 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 50	189,320 (100.00%)	11,726 (100.00%)	148,799 (100.00%)	8,341 (100.00%)
Total and % Population		11,726 (6.19%)	148,799 (78.60%)	8,341 (4.41%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 51 --** **190,167 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 51	190,167 (100.00%)	2,835 (100.00%)	155,571 (100.00%)	1,876 (100.00%)
Total and % Population		2,835 (1.49%)	155,571 (81.81%)	1,876 (0.99%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 52 --** **190,799 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 52	190,799 (100.00%)	27,096 (100.00%)	146,620 (100.00%)	19,120 (100.00%)
Total and % Population		27,096 (14.20%)	146,620 (76.85%)	19,120 (10.02%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 53 --** **190,236 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 53	190,236 (100.00%)	10,924 (100.00%)	148,201 (100.00%)	7,558 (100.00%)
Total and % Population		10,924 (5.74%)	148,201 (77.90%)	7,558 (3.97%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 54 --** **192,443 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 54	192,443 (100.00%)	8,128 (100.00%)	143,843 (100.00%)	5,450 (100.00%)
Total and % Population		8,128 (4.22%)	143,843 (74.75%)	5,450 (2.83%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 55 --** **190,155 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 55	190,155 (100.00%)	128,045 (100.00%)	141,968 (100.00%)	93,659 (100.00%)
Total and % Population		128,045 (67.34%)	141,968 (74.66%)	93,659 (49.25%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 56 --** **191,226 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 56	191,226 (100.00%)	15,455 (100.00%)	144,448 (100.00%)	10,940 (100.00%)
Total and % Population		15,455 (8.08%)	144,448 (75.54%)	10,940 (5.72%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 6 --** **191,834 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 6	191,834 (100.00%)	44,496 (100.00%)	155,742 (100.00%)	35,748 (100.00%)
Total and % Population		44,496 (23.20%)	155,742 (81.19%)	35,748 (18.63%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 7 --** **189,709 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 7	189,709 (100.00%)	43,563 (100.00%)	147,425 (100.00%)	31,601 (100.00%)
Total and % Population		43,563 (22.96%)	147,425 (77.71%)	31,601 (16.66%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 8 --** **192,396 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 8	192,396 (100.00%)	61,785 (100.00%)	145,144 (100.00%)	44,098 (100.00%)
Total and % Population		61,785 (32.11%)	145,144 (75.44%)	44,098 (22.92%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 9 --** **192,915 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 9	192,915 (100.00%)	61,009 (100.00%)	142,054 (100.00%)	41,948 (100.00%)
Total and % Population		61,009 (31.62%)	142,054 (73.64%)	41,948 (21.74%)

## **EXHIBIT 8**

User:

Plan Name: Grant\_Esselstyn\_Sen\_illustrative12\_05

Plan Type:

## Core Constituencies

### Core Constituencies

Grant\_Esselstyn\_Sen\_12\_05

From Plan: GA\_Senate2021

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 1 --** **191,402 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 001	191,402 (100.00%)	46,451 (100.00%)	51,779 (100.00%)	145,428 (100.00%)	36,468 (100.00%)
Total and % Population		46,451 (24.27%)	51,779 (27.05%)	145,428 (75.98%)	36,468 (19.05%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 10 --** **192,601 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 010	89,018 (46.22%)	73,374 (64.10%)	76,078 (63.71%)	69,423 (46.73%)	58,869 (64.85%)
Dist. 017	36,218 (18.80%)	9,561 (8.35%)	10,276 (8.61%)	26,690 (17.96%)	7,232 (7.97%)
Dist. 025	30,217 (15.69%)	7,270 (6.35%)	7,736 (6.48%)	23,919 (16.10%)	6,035 (6.65%)
Dist. 043	37,148 (19.29%)	24,264 (21.20%)	25,328 (21.21%)	28,537 (19.21%)	18,640 (20.53%)
Total and % Population		114,469 (59.43%)	119,418 (62.00%)	148,569 (77.14%)	90,776 (47.13%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 11 --** **189,976 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 011	189,976 (100.00%)	59,469 (100.00%)	61,964 (100.00%)	144,597 (100.00%)	44,887 (100.00%)
Total and % Population		59,469 (31.30%)	61,964 (32.62%)	144,597 (76.11%)	44,887 (23.63%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 12 --** **190,819 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 012	190,819 (100.00%)	112,733 (100.00%)	115,621 (100.00%)	149,154 (100.00%)	86,465 (100.00%)
Total and % Population		112,733 (59.08%)	115,621 (60.59%)	149,154 (78.17%)	86,465 (45.31%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 13 --** **194,905 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 013	189,326 (97.14%)	51,601 (96.58%)	54,161 (96.67%)	144,141 (96.84%)	38,871 (95.88%)
Dist. 020	5,579 (2.86%)	1,826 (3.42%)	1,866 (3.33%)	4,705 (3.16%)	1,669 (4.12%)
Total and % Population		53,427 (27.41%)	56,027 (28.75%)	148,846 (76.37%)	40,540 (20.80%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 14 --** **192,533 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 014	192,533 (100.00%)	33,017 (100.00%)	37,409 (100.00%)	155,340 (100.00%)	29,470 (100.00%)
Total and % Population		33,017 (17.15%)	37,409 (19.43%)	155,340 (80.68%)	29,470 (15.31%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 15 --** **189,446 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 015	189,446 (100.00%)	100,396 (100.00%)	105,556 (100.00%)	144,506 (100.00%)	78,040 (100.00%)
Total and % Population		100,396 (52.99%)	105,556 (55.72%)	144,506 (76.28%)	78,040 (41.19%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 16 --** **190,077 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 016	150,183 (79.01%)	34,078 (92.14%)	36,425 (91.58%)	115,788 (79.14%)	26,367 (91.41%)
Dist. 028	39,894 (20.99%)	2,906 (7.86%)	3,351 (8.42%)	30,518 (20.86%)	2,478 (8.59%)
Total and % Population		36,984 (19.46%)	39,776 (20.93%)	146,306 (76.97%)	28,845 (15.18%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 17 --** **193,838 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 017	74,020 (38.19%)	12,832 (30.59%)	13,877 (31.16%)	56,210 (37.33%)	9,929 (30.29%)
Dist. 024	28,993 (14.96%)	5,772 (13.76%)	6,122 (13.75%)	23,331 (15.50%)	4,551 (13.88%)
Dist. 025	81,948 (42.28%)	20,164 (48.07%)	21,209 (47.62%)	63,998 (42.51%)	15,751 (48.05%)
Dist. 026	8,877 (4.58%)	3,175 (7.57%)	3,330 (7.48%)	7,026 (4.67%)	2,549 (7.78%)
Total and % Population		41,943 (21.64%)	44,538 (22.98%)	150,565 (77.68%)	32,780 (16.91%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 18 --** **192,680 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 018	138,643 (71.96%)	41,362 (72.60%)	43,686 (72.27%)	107,971 (72.70%)	32,661 (73.21%)
Dist. 020	40,743 (21.15%)	11,574 (20.31%)	12,393 (20.50%)	30,078 (20.25%)	8,821 (19.77%)
Dist. 026	13,294 (6.90%)	4,039 (7.09%)	4,368 (7.23%)	10,459 (7.04%)	3,131 (7.02%)
Total and % Population		56,975 (29.57%)	60,447 (31.37%)	148,508 (77.07%)	44,613 (23.15%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 19 --** **192,316 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 019	192,316 (100.00%)	48,391 (100.00%)	51,389 (100.00%)	146,131 (100.00%)	37,589 (100.00%)
Total and % Population		48,391 (25.16%)	51,389 (26.72%)	146,131 (75.98%)	37,589 (19.55%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 2 --** **190,408 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 002	190,408 (100.00%)	91,457 (100.00%)	95,717 (100.00%)	150,843 (100.00%)	70,688 (100.00%)
Total and % Population		91,457 (48.03%)	95,717 (50.27%)	150,843 (79.22%)	70,688 (37.12%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 20 --** **194,919 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 020	146,266 (75.04%)	46,083 (73.09%)	48,309 (73.36%)	112,250 (74.52%)	35,501 (72.62%)
Dist. 023	31,442 (16.13%)	10,809 (17.14%)	11,194 (17.00%)	24,325 (16.15%)	8,247 (16.87%)
Dist. 026	17,211 (8.83%)	6,156 (9.76%)	6,350 (9.64%)	14,063 (9.34%)	5,140 (10.51%)
Total and % Population		63,048 (32.35%)	65,853 (33.78%)	150,638 (77.28%)	48,888 (25.08%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 21 --** **192,572 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 021	192,572 (100.00%)	12,821 (100.00%)	15,492 (100.00%)	145,120 (100.00%)	10,823 (100.00%)
Total and % Population		12,821 (6.66%)	15,492 (8.04%)	145,120 (75.36%)	10,823 (5.62%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 22 --** **188,930 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 022	158,756 (84.03%)	87,216 (90.55%)	91,758 (89.86%)	124,698 (85.14%)	67,487 (90.64%)
Dist. 023	30,174 (15.97%)	9,103 (9.45%)	10,351 (10.14%)	21,768 (14.86%)	6,970 (9.36%)
Total and % Population		96,319 (50.98%)	102,109 (54.05%)	146,466 (77.52%)	74,457 (39.41%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 23 --** **188,095 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 022	34,407 (18.29%)	23,288 (24.05%)	24,227 (24.19%)	25,752 (17.53%)	17,522 (23.36%)
Dist. 023	89,638 (47.66%)	39,199 (40.48%)	40,730 (40.66%)	69,147 (47.07%)	30,130 (40.17%)
Dist. 024	8,494 (4.52%)	4,696 (4.85%)	4,838 (4.83%)	6,539 (4.45%)	3,612 (4.82%)
Dist. 025	26,833 (14.27%)	12,890 (13.31%)	13,267 (13.25%)	22,274 (15.16%)	10,300 (13.73%)
Dist. 026	28,723 (15.27%)	16,752 (17.30%)	17,100 (17.07%)	23,196 (15.79%)	13,441 (17.92%)
Total and % Population		96,825 (51.48%)	100,162 (53.25%)	146,908 (78.10%)	75,005 (39.88%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 24 --** **194,277 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 023	39,090 (20.12%)	7,484 (22.03%)	8,484 (22.42%)	28,873 (19.56%)	5,786 (21.33%)
Dist. 024	155,187 (79.88%)	26,487 (77.97%)	29,364 (77.58%)	118,732 (80.44%)	21,340 (78.67%)
Total and % Population		33,971 (17.49%)	37,848 (19.48%)	147,605 (75.98%)	27,126 (13.96%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 25 --** **192,708 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 010	72,694 (37.72%)	40,304 (35.93%)	42,677 (36.08%)	54,945 (38.35%)	30,824 (36.51%)
Dist. 017	46,069 (23.91%)	26,260 (23.41%)	27,827 (23.52%)	34,078 (23.79%)	19,523 (23.12%)
Dist. 025	36,650 (19.02%)	17,374 (15.49%)	18,419 (15.57%)	26,646 (18.60%)	12,797 (15.16%)
Dist. 034	3,542 (1.84%)	2,856 (2.55%)	2,988 (2.53%)	2,793 (1.95%)	2,342 (2.77%)
Dist. 044	33,753 (17.52%)	25,393 (22.63%)	26,380 (22.30%)	24,801 (17.31%)	18,938 (22.43%)
Total and % Population		112,187 (58.22%)	118,291 (61.38%)	143,263 (74.34%)	84,424 (43.81%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 26 --** **190,535 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 018	53,182 (27.91%)	16,710 (16.23%)	17,446 (16.30%)	42,225 (29.06%)	13,001 (16.93%)

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 025	15,513 (8.14%)	6,708 (6.51%)	6,992 (6.53%)	12,080 (8.31%)	4,977 (6.48%)
Dist. 026	121,840 (63.95%)	79,566 (77.26%)	82,601 (77.17%)	91,000 (62.63%)	58,795 (76.58%)
Total and % Population		102,984 (54.05%)	107,039 (56.18%)	145,305 (76.26%)	76,773 (40.29%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 27 --** **190,676 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 027	190,676 (100.00%)	8,440 (100.00%)	10,506 (100.00%)	139,196 (100.00%)	6,961 (100.00%)
Total and % Population		8,440 (4.43%)	10,506 (5.51%)	139,196 (73.00%)	6,961 (3.65%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 28 --** **189,696 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 016	6,708 (3.54%)	2,820 (2.65%)	2,991 (2.69%)	4,937 (3.45%)	2,109 (2.57%)
Dist. 028	81,767 (43.10%)	22,011 (20.65%)	23,739 (21.36%)	62,038 (43.36%)	16,902 (20.62%)
Dist. 034	30,041 (15.84%)	21,601 (20.26%)	22,453 (20.20%)	23,306 (16.29%)	17,388 (21.22%)
Dist. 035	64,956 (34.24%)	54,524 (51.14%)	56,148 (50.51%)	48,220 (33.70%)	41,268 (50.35%)
Dist. 039	6,224 (3.28%)	5,656 (5.31%)	5,821 (5.24%)	4,590 (3.21%)	4,292 (5.24%)
Total and % Population		106,612 (56.20%)	111,152 (58.59%)	143,091 (75.43%)	81,959 (43.21%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 29 --** **189,424 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 029	189,424 (100.00%)	50,184 (100.00%)	53,786 (100.00%)	145,674 (100.00%)	39,150 (100.00%)
Total and % Population		50,184 (26.49%)	53,786 (28.39%)	145,674 (76.90%)	39,150 (20.67%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 3 --** **191,212 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 003	191,212 (100.00%)	40,685 (100.00%)	44,238 (100.00%)	148,915 (100.00%)	31,545 (100.00%)
Total and % Population		40,685 (21.28%)	44,238 (23.14%)	148,915 (77.88%)	31,545 (16.50%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 30 --** **191,939 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 028	42,872 (22.34%)	5,187 (18.16%)	5,816 (18.19%)	32,753 (22.34%)	4,183 (18.10%)
Dist. 030	149,067 (77.66%)	23,379 (81.84%)	26,159 (81.81%)	113,850 (77.66%)	18,933 (81.90%)
Total and % Population		28,566 (14.88%)	31,975 (16.66%)	146,603 (76.38%)	23,116 (12.04%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 31 --** **192,755 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 030	9,032 (4.69%)	883 (2.38%)	1,010 (2.46%)	6,796 (4.77%)	680 (2.43%)
Dist. 031	183,723 (95.31%)	36,172 (97.62%)	40,044 (97.54%)	135,659 (95.23%)	27,257 (97.57%)
Total and % Population		37,055 (19.22%)	41,054 (21.30%)	142,455 (73.90%)	27,937 (14.49%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 32 --** **192,448 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 032	192,448 (100.00%)	26,098 (100.00%)	30,039 (100.00%)	149,879 (100.00%)	22,274 (100.00%)
Total and % Population		26,098 (13.56%)	30,039 (15.61%)	149,879 (77.88%)	22,274 (11.57%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 33 --** **192,694 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 033	192,694 (100.00%)	79,359 (100.00%)	84,864 (100.00%)	146,415 (100.00%)	62,897 (100.00%)
Total and % Population		79,359 (41.18%)	84,864 (44.04%)	146,415 (75.98%)	62,897 (32.64%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 34 --** **192,023 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 016	34,938 (18.19%)	6,278 (5.68%)	6,914 (5.99%)	26,408 (18.58%)	4,917 (5.87%)
Dist. 034	157,085 (81.81%)	104,180 (94.32%)	108,583 (94.01%)	115,741 (81.42%)	78,910 (94.13%)
Total and % Population		110,458 (57.52%)	115,497 (60.15%)	142,149 (74.03%)	83,827 (43.65%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 35 --** **193,194 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 028	25,889 (13.40%)	6,165 (6.03%)	6,766 (6.26%)	19,664 (13.55%)	4,719 (6.02%)
Dist. 030	33,376 (17.28%)	14,319 (14.00%)	15,439 (14.28%)	24,431 (16.84%)	10,733 (13.68%)
Dist. 031	8,837 (4.57%)	2,767 (2.71%)	3,020 (2.79%)	6,592 (4.54%)	2,183 (2.78%)
Dist. 035	125,092 (64.75%)	79,033 (77.27%)	82,864 (76.66%)	94,428 (65.07%)	60,805 (77.52%)
Total and % Population		102,284 (52.94%)	108,089 (55.95%)	145,115 (75.11%)	78,440 (40.60%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 36 --** **192,282 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 036	192,282 (100.00%)	99,832 (100.00%)	104,523 (100.00%)	161,385 (100.00%)	82,859 (100.00%)
Total and % Population		99,832 (51.92%)	104,523 (54.36%)	161,385 (83.93%)	82,859 (43.09%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 37 --** **192,671 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 037	192,671 (100.00%)	35,411 (100.00%)	40,191 (100.00%)	147,779 (100.00%)	28,484 (100.00%)
Total and % Population		35,411 (18.38%)	40,191 (20.86%)	147,779 (76.70%)	28,484 (14.78%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 38 --** **190,605 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 035	2,791 (1.46%)	2,563 (2.09%)	2,684 (2.10%)	2,027 (1.39%)	1,946 (2.01%)
Dist. 038	187,814 (98.54%)	120,333 (97.91%)	125,344 (97.90%)	144,058 (98.61%)	94,990 (97.99%)
Total and % Population		122,896 (64.48%)	128,028 (67.17%)	146,085 (76.64%)	96,936 (50.86%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 39 --** **190,184 Total Population**



**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 006	4,908 (2.58%)	3,733 (3.25%)	3,810 (3.19%)	4,348 (2.79%)	3,379 (3.60%)
Dist. 039	185,276 (97.42%)	111,096 (96.75%)	115,591 (96.81%)	151,432 (97.21%)	90,410 (96.40%)
Total and % Population		114,829 (60.38%)	119,401 (62.78%)	155,780 (81.91%)	93,789 (49.31%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 4 --** **191,098 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 004	191,098 (100.00%)	43,692 (100.00%)	47,061 (100.00%)	146,443 (100.00%)	34,217 (100.00%)
Total and % Population		43,692 (22.86%)	47,061 (24.63%)	146,443 (76.63%)	34,217 (17.91%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 40 --** **190,544 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 040	190,544 (100.00%)	32,087 (100.00%)	35,719 (100.00%)	147,000 (100.00%)	28,277 (100.00%)
Total and % Population		32,087 (16.84%)	35,719 (18.75%)	147,000 (77.15%)	28,277 (14.84%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 41 --** **191,023 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 041	191,023 (100.00%)	116,500 (100.00%)	121,762 (100.00%)	145,278 (100.00%)	90,961 (100.00%)
Total and % Population		116,500 (60.99%)	121,762 (63.74%)	145,278 (76.05%)	90,961 (47.62%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 42 --** **190,153 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 042	182,791 (96.13%)	48,605 (95.04%)	52,350 (95.08%)	147,119 (95.98%)	42,356 (94.97%)
Dist. 044	7,362 (3.87%)	2,537 (4.96%)	2,710 (4.92%)	6,166 (4.02%)	2,241 (5.03%)
Total and % Population		51,142 (26.90%)	55,060 (28.96%)	153,285 (80.61%)	44,597 (23.45%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 43 --** **191,784 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 017	36,203 (18.88%)	12,264 (11.13%)	13,126 (11.33%)	27,494 (19.00%)	9,561 (11.29%)
Dist. 043	155,581 (81.12%)	97,974 (88.87%)	102,715 (88.67%)	117,204 (81.00%)	75,114 (88.71%)
Total and % Population		110,238 (57.48%)	115,841 (60.40%)	144,698 (75.45%)	84,675 (44.15%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 44 --** **188,256 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 010	31,186 (16.57%)	20,789 (15.79%)	21,640 (15.81%)	23,516 (16.26%)	15,978 (15.45%)
Dist. 042	8,149 (4.33%)	5,898 (4.48%)	6,089 (4.45%)	6,833 (4.73%)	5,027 (4.86%)
Dist. 044	148,921 (79.11%)	104,985 (79.73%)	109,177 (79.75%)	114,257 (79.01%)	82,420 (79.69%)
Total and % Population		131,672 (69.94%)	136,906 (72.72%)	144,606 (76.81%)	103,425 (54.94%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 45 --** **190,692 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

Dist. 045	190,692 (100.00%)	33,403 (100.00%)	37,542 (100.00%)	140,706 (100.00%)	26,149 (100.00%)
Total and % Population		33,403 (17.52%)	37,542 (19.69%)	140,706 (73.79%)	26,149 (13.71%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 46 --** **190,312 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 046	190,312 (100.00%)	32,130 (100.00%)	35,180 (100.00%)	146,713 (100.00%)	24,793 (100.00%)
Total and % Population		32,130 (16.88%)	35,180 (18.49%)	146,713 (77.09%)	24,793 (13.03%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 47 --** **190,607 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 047	190,607 (100.00%)	32,662 (100.00%)	35,538 (100.00%)	146,599 (100.00%)	25,543 (100.00%)
Total and % Population		32,662 (17.14%)	35,538 (18.64%)	146,599 (76.91%)	25,543 (13.40%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 48 --** **190,123 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 048	190,123 (100.00%)	16,184 (100.00%)	18,879 (100.00%)	136,995 (100.00%)	12,968 (100.00%)
Total and % Population		16,184 (8.51%)	18,879 (9.93%)	136,995 (72.06%)	12,968 (6.82%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 49 --** **189,355 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 049	189,355 (100.00%)	13,866 (100.00%)	16,099 (100.00%)	144,123 (100.00%)	11,475 (100.00%)
Total and % Population		13,866 (7.32%)	16,099 (8.50%)	144,123 (76.11%)	11,475 (6.06%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 5 --** **191,921 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 005	191,921 (100.00%)	52,919 (100.00%)	57,719 (100.00%)	139,394 (100.00%)	41,736 (100.00%)
Total and % Population		52,919 (27.57%)	57,719 (30.07%)	139,394 (72.63%)	41,736 (21.75%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 50 --** **189,320 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 050	189,320 (100.00%)	9,706 (100.00%)	11,726 (100.00%)	148,799 (100.00%)	8,341 (100.00%)
Total and % Population		9,706 (5.13%)	11,726 (6.19%)	148,799 (78.60%)	8,341 (4.41%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 51 --** **190,167 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 051	190,167 (100.00%)	1,668 (100.00%)	2,835 (100.00%)	155,571 (100.00%)	1,876 (100.00%)
Total and % Population		1,668 (0.88%)	2,835 (1.49%)	155,571 (81.81%)	1,876 (0.99%)

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 52 -- 190,799 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 052	190,799 (100.00%)	23,969 (100.00%)	27,096 (100.00%)	146,620 (100.00%)	19,120 (100.00%)
Total and % Population		23,969 (12.56%)	27,096 (14.20%)	146,620 (76.85%)	19,120 (10.02%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 53 -- 190,236 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 053	190,236 (100.00%)	8,606 (100.00%)	10,924 (100.00%)	148,201 (100.00%)	7,558 (100.00%)
Total and % Population		8,606 (4.52%)	10,924 (5.74%)	148,201 (77.90%)	7,558 (3.97%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 54 -- 192,443 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 054	192,443 (100.00%)	6,014 (100.00%)	8,128 (100.00%)	143,843 (100.00%)	5,450 (100.00%)
Total and % Population		6,014 (3.13%)	8,128 (4.22%)	143,843 (74.75%)	5,450 (2.83%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 55 -- 190,155 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 055	190,155 (100.00%)	121,409 (100.00%)	128,045 (100.00%)	141,968 (100.00%)	93,659 (100.00%)
Total and % Population		121,409 (63.85%)	128,045 (67.34%)	141,968 (74.66%)	93,659 (49.25%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 56 -- 191,226 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 056	191,226 (100.00%)	12,428 (100.00%)	15,455 (100.00%)	144,448 (100.00%)	10,940 (100.00%)
Total and % Population		12,428 (6.50%)	15,455 (8.08%)	144,448 (75.54%)	10,940 (5.72%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 6 -- 191,834 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 006	186,493 (97.22%)	38,139 (94.65%)	42,136 (94.70%)	151,433 (97.23%)	33,852 (94.70%)
Dist. 038	5,341 (2.78%)	2,155 (5.35%)	2,360 (5.30%)	4,309 (2.77%)	1,896 (5.30%)
Total and % Population		40,294 (21.00%)	44,496 (23.20%)	155,742 (81.19%)	35,748 (18.63%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 7 -- 189,709 Total Population**

	Population	Black	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 007	189,709 (100.00%)	39,008 (100.00%)	43,563 (100.00%)	147,425 (100.00%)	31,601 (100.00%)
Total and % Population		39,008 (20.56%)	43,563 (22.96%)	147,425 (77.71%)	31,601 (16.66%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 8 -- 192,396 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Sen\_12\_05

	<b>Population</b>	<b>Black</b>	<b>AP_Bl</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 008	192,396 (100.00%)	58,388 (100.00%)	61,785 (100.00%)	145,144 (100.00%)	44,098 (100.00%)
Total and % Population		58,388 (30.35%)	61,785 (32.11%)	145,144 (75.44%)	44,098 (22.92%)

**Plan: Grant\_Esselstyn\_Sen\_illustrative12\_05, District 9 --****192,915 Total Population**

	<b>Population</b>	<b>Black</b>	<b>AP_Bl</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 009	192,915 (100.00%)	55,952 (100.00%)	61,009 (100.00%)	142,054 (100.00%)	41,948 (100.00%)
Total and % Population		55,952 (29.00%)	61,009 (31.62%)	142,054 (73.64%)	41,948 (21.74%)

## **EXHIBIT 9**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illus\_12\_05

Plan Type:

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Reock	Polsby-Popper
Sum	N/A	N/A
Min	0.12	0.10
Max	0.66	0.59
Mean	0.39	0.28
Std. Dev.	0.11	0.10

District	Reock	Polsby-Popper
1	0.53	0.45
2	0.53	0.24
3	0.50	0.41
4	0.37	0.21
5	0.43	0.25
6	0.45	0.26
7	0.62	0.50
8	0.46	0.27
9	0.47	0.30
10	0.34	0.30
11	0.31	0.26
12	0.47	0.31
13	0.47	0.19
14	0.32	0.23
15	0.55	0.33
16	0.31	0.35
17	0.28	0.21
18	0.41	0.25
19	0.26	0.26

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

20	0.46	0.45
21	0.26	0.27
22	0.28	0.22
23	0.40	0.19
24	0.35	0.30
25	0.39	0.31
26	0.27	0.26
27	0.60	0.34
28	0.38	0.35
29	0.34	0.21
30	0.43	0.30
31	0.44	0.25
32	0.39	0.33
33	0.49	0.37
34	0.45	0.33
35	0.32	0.24
36	0.32	0.23
37	0.45	0.28
38	0.59	0.58
39	0.59	0.40
40	0.49	0.29
41	0.60	0.40
42	0.40	0.21
43	0.42	0.22
44	0.31	0.29
45	0.41	0.32
46	0.55	0.47
47	0.29	0.21
48	0.34	0.19

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

49	0.30	0.15
50	0.42	0.46
51	0.54	0.36
52	0.48	0.35
53	0.16	0.14
54	0.37	0.45
55	0.18	0.16
56	0.26	0.23
57	0.57	0.59
58	0.13	0.13
59	0.12	0.11
60	0.19	0.15
61	0.33	0.21
62	0.16	0.10
63	0.16	0.14
64	0.22	0.22
65	0.36	0.11
66	0.39	0.35
67	0.36	0.12
68	0.32	0.17
69	0.33	0.22
70	0.45	0.23
71	0.44	0.35
72	0.42	0.23
73	0.28	0.20
74	0.30	0.19
75	0.46	0.18
76	0.53	0.51
77	0.40	0.21



## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

78	0.31	0.18
79	0.50	0.21
80	0.38	0.42
81	0.47	0.40
82	0.49	0.30
83	0.34	0.36
84	0.25	0.20
85	0.36	0.32
86	0.17	0.17
87	0.26	0.24
88	0.26	0.20
89	0.14	0.10
90	0.36	0.29
91	0.27	0.17
92	0.36	0.20
93	0.26	0.11
94	0.31	0.15
95	0.44	0.25
96	0.18	0.21
97	0.28	0.24
98	0.42	0.52
99	0.36	0.29
100	0.34	0.29
101	0.53	0.46
102	0.56	0.35
103	0.33	0.24
104	0.28	0.25
105	0.34	0.28
106	0.66	0.50



## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

107	0.51	0.32
108	0.43	0.32
109	0.39	0.28
110	0.36	0.33
111	0.33	0.29
112	0.62	0.52
113	0.50	0.32
114	0.51	0.28
115	0.29	0.28
116	0.33	0.23
117	0.40	0.33
118	0.35	0.22
119	0.39	0.21
120	0.44	0.25
121	0.43	0.30
122	0.48	0.43
123	0.30	0.18
124	0.44	0.23
125	0.41	0.17
126	0.52	0.41
127	0.35	0.20
128	0.60	0.32
129	0.48	0.25
130	0.51	0.25
131	0.38	0.28
132	0.27	0.30
133	0.36	0.29
134	0.37	0.31
135	0.39	0.23

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

136	0.54	0.26
137	0.33	0.16
138	0.33	0.20
139	0.28	0.23
140	0.29	0.19
141	0.26	0.20
142	0.56	0.36
143	0.31	0.26
144	0.43	0.22
145	0.34	0.21
146	0.50	0.26
147	0.44	0.37
148	0.35	0.18
149	0.46	0.28
150	0.44	0.28
151	0.53	0.22
152	0.40	0.30
153	0.30	0.30
154	0.41	0.33
155	0.47	0.44
156	0.25	0.20
157	0.32	0.19
158	0.48	0.33
159	0.34	0.22
160	0.49	0.37
161	0.51	0.31
162	0.37	0.21
163	0.27	0.18
164	0.30	0.17

## Measures of Compactness Report

### Measures of Compactness Report

Grant\_Esselstyn\_Hse\_illus\_12\_05

165	0.23	0.16
166	0.43	0.36
167	0.42	0.19
168	0.24	0.26
169	0.28	0.23
170	0.53	0.34
171	0.35	0.37
172	0.44	0.32
173	0.57	0.38
174	0.41	0.24
175	0.47	0.37
176	0.34	0.16
177	0.43	0.34
178	0.48	0.22
179	0.45	0.42
180	0.61	0.40

#### Measures of Compactness Summary

**Reock**

The measure is always between 0 and 1, with 1 being the most compact.

**Polsby-Popper**

The measure is always between 0 and 1, with 1 being the most compact.

## **EXHIBIT 10**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illus\_12\_05

Plan Type:

## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Name	Party	Previous District
1	Michael Cameron	R	1
2	Steve Tarvin	R	2
3	Dewayne Hill	R	3
4	Kasey Carpenter	R	4
5	Matt Barton	R	5
6	Jason Ridley	R	6
7	David Ralston	R	7
8	Norman Gunter	R	8
9	Will Wade	R	9
10	Victor Anderson	R	10
11	Rick Jasperse	R	11
12	James Lumsden	R	12
13	Katie Dempsey	R	13
14	Mitchell scoggins	R	14
15	Matthew Gambill	R	15
16	Trey Kelley	R	16
17	Martin Momtahan	R	17
18	Tyler Smith	R	18
19	Micah Gravley	R	67
19	Joseph Gullett	R	19
20	Charlice Byrd	R	20
21	Brad Thomas	R	21
21	Wes Cantrell	R	22
22	Ed Setzler	R	35
23	Mandi Ballinger	R	23
24	Sheri Gilligan	R	24
25	Todd Jones	R	25
26	Lauren McDonald	R	26
27	Lee Hawkins	R	27
28			
29	Matt Dubnik	R	29
30			
31	Emory Dunahoo Jr	R	30
31	Thomas Benton	R	31
32	Chris Erwin	R	28
33	Alan Powell	R	32
34	Devan Seabaugh	R	34
35			
36	Ginny Ehrhart	R	36
37	Mary Frances Williams	D	37

## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Name	Party	Previous District
38	David Wilkerson	D	38
39	Erica Thomas	D	39
40	Erick Allen	D	40
41	Michael Smith	D	41
42	Teri Anulewicz	D	42
43			
44	Donald Parsons	R	44
45	Sharon Cooper	R	43
45	Matthew Dollar	R	45
46	John Carson	R	46
47	Jan Jones	R	47
48	Mary Robichaux	D	48
49	Charles Martin	R	49
50	Angelika Kausche	D	50
51	Josh McLauren	D	51
52	Shea Roberts	D	52
53			
54	Betsy Holland	D	54
55	Marie Metze	D	55
56	Mesha Mainor	D	56
57	Stacy Evans	D	57
58	Park Cannon	D	58
59			
60	Sheila Jones	D	53
61			
62	William Boddie	D	62
62	David Dreyer	D	59
63	Kim Schofield	D	60
64	Roger Bruce	D	61
65	Mandisha Thomas	D	65
66	Kimberly Alexander	D	66
67	Philip Singleton	R	71
68	Derrick Jackson	D	64
69	Debra Bazemore	D	63
70	Lynn Smith	R	70
71	James Collins	R	68
72	Randy Nix	R	69
73	Josh Bonner	R	72
74			
75	Mike Glanton	D	75
75	Demetrius Douglas	D	78
76	Sandra Scott	D	76
77	Rhonda Burnough	D	77

## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Name	Party	Previous District
78	Mathiak	R	73
79	Yasmine Neal	D	74
80	Mike Wilensky	D	79
81	Scott Holcomb	D	81
82	Mary Margaret Oliver	D	82
83	Matthew Wilson	D	80
84	Renitta Shannon	D	84
85	Karla Drenner	D	85
86	Zulma Lopez	D	86
87	Viola Davis	D	87
88	Billy Mitchell	D	88
89	Becky Evans	D	83
90	Bee Nguyen	D	89
91	Angela Moore	D	90
92	Rhonda Taylor	D	91
93	Doreen Carter	D	92
94	Karen Bennett	D	94
95	Dar'shun Kendrick	D	93
96	Pedro Marin	D	96
97	Beth Moore	D	95
98	Marvin Lim	D	99
99			
100	Bonnie Rich	R	97
101	Gregg Kennard	D	102
102			
103	Timothy Barr	R	103
104	Chuck Efstration	R	104
105	Donna McLeod	D	105
106	Rebecca Mitchell	D	106
106	Shelly Hutchinson	D	107
107	Sam Park	D	101
108	Jasmine Clark	D	108
109	Dewey McClain	D	100
110			
111	Tom Kirby	R	114
112	Bruce Williamson III	R	115
113	Sharon Henderson	D	113
114	Dave Belton	R	112
115	El-Mahdi Holly	D	111
115	Regina Lewis-Ward	D	109
116			
117			
118	Clint Crowe	R	110



## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Name	Party	Previous District
118	Susan Holmes	R	129
119	Terry England	R	116
120	Houston Gaines	R	117
121	Marcus Wiedower	R	119
122	Spencer Frye	D	118
123	Rob Leverett	R	33
124	Trey Rhodes	R	120
125	Barry Fleming	R	121
126	Gloria Frazier	D	126
127	Mark Newton	R	123
128	Mack Jackson	D	128
129	Wayne Howard	D	124
130	Shelia Nelson	D	125
131	Jodi Lott	R	122
132	Brian Prince	D	127
133	Rick Williams	R	145
134	David Knight	R	130
135	Beth Camp	R	131
136	David Jenkins	R	132
137	Debbie Buckner	D	137
138	Vance Smith	R	133
139	Richard Smith	R	134
140	Calvin Smyre	D	135
141	Carolyn Hugley	D	136
142	Miriam Paris	D	142
142	Dale Washburn	R	141
143	James Beverly	D	143
144	Robert Dickey	R	140
144	Shaw Blackmon	R	146
145			
146	Danny Mathis	R	144
147	Heath Clark	R	147
148	Noel Williams	R	148
148	Robert Pruitt	R	149
149			
150	Patty Bentley	D	139
151	Mike Cheokas	R	138
152	Bill Yearta	R	152
153	CaMia Hopson-Jackson	D	153
154	Gerald Greene	R	151
154	Winfred Dukes	D	154
155	Matt Hatchett	R	150
156	Leesa Hagan	R	156



## Districts & Their Incumbents

### Districts & Their Incumbents

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Name	Party	Previous District
157	William (Bill) Werkheiser	R	157
158	Larry (Butch) Parrish	R	158
159	Jon Burns	R	159
160	Jan Tankersley	R	160
161	Bill Hitchens	R	161
162	Carl Gilliard	D	162
163	Derek Mallow	D	163
164	Ron Stephens	R	164
165			
166	Jesse Petrea	R	166
167	Buddy Deloach	R	167
168	Al Williams	D	168
169	Clay Pirkle	R	155
170	Penny Houston	R	170
171	Joe Campbell	R	171
172	Sam Waston	R	172
173	Darlene Taylor	R	173
174	John Corbett	R	174
175	John LaHood	R	175
176	James Burchett	R	176
176	Dominic LaRiccia	R	169
177	Dexter Sharper	D	177
178	Steven Meeks	R	178
179	Don Hogan	R	179
180	Steven Sainz	R	180

Number of Incumbents in District with more than one Incumbent: 28

Number of Districts with No Incumbent: 16

Number of Districts with Incumbents of more than one party: 2

Number of Districts with Paired Democrats: 4

Number of Districts with Paired Republicans: 8



## **EXHIBIT 11**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illus\_12\_05

Plan Type:

## Population Summary

### Population Summary

Grant\_Esselstyn\_Hse\_illus\_12\_05

District	Population	Deviation	% Devn.	[% 18+_AP_Black]	[% Black]
1	59,666	155	0.26%	4.2%	3.94%
2	59,773	262	0.44%	3.15%	2.68%
3	60,199	688	1.16%	3.35%	2.9%
4	59,070	-441	-0.74%	5.38%	4.41%
5	58,837	-674	-1.13%	4.6%	3.88%
6	59,712	201	0.34%	1.51%	1.07%
7	59,081	-430	-0.72%	0.62%	0.4%
8	59,244	-267	-0.45%	1.43%	1.16%
9	59,474	-37	-0.06%	1.57%	1.05%
10	59,519	8	0.01%	3.73%	3.03%
11	58,792	-719	-1.21%	1.85%	1.61%
12	59,300	-211	-0.35%	9.68%	8.68%
13	59,150	-361	-0.61%	19.18%	18.92%
14	59,135	-376	-0.63%	6.85%	5.98%
15	59,213	-298	-0.50%	14.19%	13.85%
16	59,402	-109	-0.18%	11.69%	11.36%
17	59,120	-391	-0.66%	23.02%	22.54%
18	59,335	-176	-0.30%	7.98%	7.19%
19	58,955	-556	-0.93%	24.15%	23.95%
20	60,107	596	1.00%	9.25%	8.34%
21	59,529	18	0.03%	5.06%	4.37%
22	59,460	-51	-0.09%	15.1%	14.31%
23	59,048	-463	-0.78%	6.5%	5.81%
24	59,011	-500	-0.84%	7%	6.14%
25	59,414	-97	-0.16%	5.9%	5.06%
26	59,248	-263	-0.44%	4.01%	3.41%
27	58,795	-716	-1.20%	3.69%	3.31%
28	58,972	-539	-0.91%	3.93%	3.49%
29	59,200	-311	-0.52%	13.59%	12.45%
30	59,266	-245	-0.41%	8.1%	7.56%
31	59,901	390	0.66%	7.57%	6.83%
32	59,145	-366	-0.62%	7.96%	7.33%
33	59,187	-324	-0.54%	11.2%	11.02%
34	59,875	364	0.61%	15.67%	14.73%
35	59,889	378	0.64%	28.4%	27.13%
36	59,994	483	0.81%	16.98%	16.26%
37	59,176	-335	-0.56%	28.18%	26.57%
38	59,317	-194	-0.33%	54.23%	53.68%

District	Population	Deviation	% Devn.	[% 18+_AP_Blkl	[% Black]
39	59,381	-130	-0.22%	55.29%	52.84%
40	59,044	-467	-0.78%	32.98%	31.39%
41	60,122	611	1.03%	39.35%	37%
42	59,620	109	0.18%	33.7%	31.87%
43	59,464	-47	-0.08%	26.53%	24.83%
44	60,002	491	0.83%	12.05%	11.23%
45	59,738	227	0.38%	5.28%	4.24%
46	59,108	-403	-0.68%	8.07%	6.93%
47	59,126	-385	-0.65%	10.72%	9.59%
48	59,003	-508	-0.85%	11.79%	10.38%
49	59,153	-358	-0.60%	8.42%	7.33%
50	59,523	12	0.02%	12.4%	11.3%
51	58,952	-559	-0.94%	23.68%	22.42%
52	59,811	300	0.50%	15.99%	13.94%
53	59,953	442	0.74%	14.53%	12.59%
54	60,083	572	0.96%	15.47%	13.25%
55	59,971	460	0.77%	55.38%	55.03%
56	58,929	-582	-0.98%	45.48%	46.85%
57	59,969	458	0.77%	18.06%	15.89%
58	59,057	-454	-0.76%	63.04%	63.71%
59	59,434	-77	-0.13%	70.09%	70.27%
60	59,709	198	0.33%	63.88%	62.26%
61	58,950	-561	-0.94%	53.49%	52.47%
62	59,450	-61	-0.10%	72.26%	70.86%
63	59,381	-130	-0.22%	69.33%	68.64%
64	59,648	137	0.23%	50.24%	48.4%
65	59,240	-271	-0.46%	63.34%	61.67%
66	58,961	-550	-0.92%	53.88%	53.46%
67	59,135	-376	-0.63%	58.92%	57.71%
68	59,477	-34	-0.06%	55.75%	55.2%
69	58,358	-1,153	-1.94%	62.73%	61.75%
70	59,121	-390	-0.66%	27.83%	27.99%
71	59,538	27	0.05%	19.92%	19.16%
72	59,660	149	0.25%	20.86%	19.64%
73	60,036	525	0.88%	12.11%	11.47%
74	58,418	-1,093	-1.84%	53.94%	52.32%
75	59,759	248	0.42%	66.89%	65.44%
76	59,759	248	0.42%	67.23%	64.99%
77	59,242	-269	-0.45%	76.13%	73.39%
78	59,890	379	0.64%	51.03%	51.33%
79	59,500	-11	-0.02%	71.59%	69.08%
80	59,461	-50	-0.08%	14.18%	12%
81	59,007	-504	-0.85%	21.83%	19.09%
82	59,724	213	0.36%	16.83%	14.66%
83	59,416	-95	-0.16%	15.12%	12.45%
84	59,862	351	0.59%	73.66%	70.46%

District	Population	Deviation	% Devn.	[% 18+_AP_Blkl	[% Black]
85	59,373	-138	-0.23%	62.71%	60.9%
86	59,205	-306	-0.51%	75.05%	72.44%
87	59,709	198	0.33%	73.08%	70.92%
88	59,689	178	0.30%	63.35%	61.41%
89	59,866	355	0.60%	62.54%	60.27%
90	59,812	301	0.51%	58.49%	57.69%
91	59,956	445	0.75%	60.01%	58.67%
92	60,273	762	1.28%	68.79%	68.31%
93	60,118	607	1.02%	65.36%	64.04%
94	59,211	-300	-0.50%	69.04%	66.81%
95	60,030	519	0.87%	67.15%	65.91%
96	59,515	4	0.01%	23%	21.31%
97	59,072	-439	-0.74%	26.77%	25.79%
98	59,998	487	0.82%	23.25%	20.23%
99	59,850	339	0.57%	14.71%	13.8%
100	60,030	519	0.87%	10.01%	9.19%
101	59,938	427	0.72%	24.19%	22.9%
102	58,959	-552	-0.93%	37.62%	37.16%
103	60,197	686	1.15%	16.79%	15.52%
104	59,362	-149	-0.25%	17.03%	15.96%
105	59,344	-167	-0.28%	29.05%	28.45%
106	59,112	-399	-0.67%	36.27%	36.27%
107	59,702	191	0.32%	29.63%	28.16%
108	59,577	66	0.11%	18.35%	17.71%
109	59,630	119	0.20%	32.51%	30.16%
110	59,951	440	0.74%	47.19%	46.58%
111	60,009	498	0.84%	22.29%	22.08%
112	59,349	-162	-0.27%	19.21%	19.06%
113	60,053	542	0.91%	59.53%	58.29%
114	59,867	356	0.60%	24.74%	24.16%
115	59,789	278	0.47%	53.77%	53.14%
116	60,380	869	1.46%	51.95%	52.02%
117	60,142	631	1.06%	51.56%	50.92%
118	59,987	476	0.80%	23.6%	22.72%
119	58,947	-564	-0.95%	13.49%	12.73%
120	58,982	-529	-0.89%	14.28%	13.65%
121	59,127	-384	-0.65%	9.56%	8.8%
122	59,632	121	0.20%	28.42%	30.85%
123	59,282	-229	-0.38%	24.28%	23.91%
124	59,221	-290	-0.49%	25.58%	26.18%
125	60,137	626	1.05%	23.68%	22.24%
126	59,260	-251	-0.42%	54.47%	54.3%
127	58,678	-833	-1.40%	18.52%	17.46%
128	58,864	-647	-1.09%	50.41%	51.11%
129	58,829	-682	-1.15%	54.87%	55.5%
130	59,203	-308	-0.52%	59.91%	60.84%



District	Population	Deviation	% Devn.	[% 18+_AP_Blkl	[% Black]
131	58,890	-621	-1.04%	17.62%	16.38%
132	59,142	-369	-0.62%	52.34%	52.48%
133	59,768	257	0.43%	26.11%	25.32%
134	59,046	-465	-0.78%	37.41%	38.2%
135	60,013	502	0.84%	20.35%	19.45%
136	59,298	-213	-0.36%	28.67%	28.15%
137	59,551	40	0.07%	52.13%	51.92%
138	58,912	-599	-1.01%	19.32%	18.92%
139	59,010	-501	-0.84%	20.27%	19.63%
140	59,294	-217	-0.36%	57.63%	56.56%
141	59,019	-492	-0.83%	57.46%	55.6%
142	59,320	-191	-0.32%	50.14%	51.89%
143	59,122	-389	-0.65%	50.64%	52.08%
144	58,533	-978	-1.64%	24.94%	24.36%
145	59,668	157	0.26%	50.38%	51.16%
146	59,197	-314	-0.53%	24.38%	23.72%
147	58,567	-944	-1.59%	30.54%	30.63%
148	59,887	376	0.63%	37.3%	37.6%
149	59,392	-119	-0.20%	51.53%	52.64%
150	59,276	-235	-0.39%	53.56%	53.5%
151	60,059	548	0.92%	42.41%	42.45%
152	60,134	623	1.05%	26.06%	25.98%
153	59,299	-212	-0.36%	67.95%	69.44%
154	59,994	483	0.81%	54.82%	55.77%
155	60,134	623	1.05%	35.23%	35.73%
156	60,647	1,136	1.91%	29.87%	29.57%
157	59,957	446	0.75%	24.67%	23.82%
158	59,440	-71	-0.12%	31.19%	31.67%
159	59,895	384	0.65%	24.5%	24.02%
160	59,935	424	0.71%	22.6%	22.04%
161	60,097	586	0.98%	27.14%	26.27%
162	60,308	797	1.34%	43.73%	43.95%
163	60,123	612	1.03%	45.49%	46.54%
164	60,101	590	0.99%	23.47%	22.55%
165	59,978	467	0.78%	50.33%	52.86%
166	60,242	731	1.23%	5.67%	5.04%
167	59,493	-18	-0.03%	22.28%	21.4%
168	60,147	636	1.07%	46.26%	44.49%
169	59,138	-373	-0.63%	29.04%	29.04%
170	60,116	605	1.02%	24.22%	24.56%
171	59,237	-274	-0.46%	39.6%	40%
172	59,961	450	0.76%	23.32%	23.41%
173	59,743	232	0.39%	36.27%	36.4%
174	59,852	341	0.57%	17.37%	17.42%
175	59,993	482	0.81%	24.17%	23.98%
176	59,470	-41	-0.07%	22.68%	21.96%

District	Population	Deviation	% Devn.	[% 18+_AP_Blkl	[% Black]
177	59,992	481	0.81%	53.88%	55.26%
178	59,877	366	0.62%	14.79%	14.59%
179	59,356	-155	-0.26%	27.03%	28.66%
180	59,412	-99	-0.17%	18.21%	17.31%

Total Population: 10,711,908

Ideal District Population: 59,511

#### Summary Statistics:

Population Range: 58,358 to 60,647

Ratio Range: 0.04

Absolute Range: -1,153 to 1,136

Absolute Overall Range: 2289

Relative Range: -1.94% to 1.91%

Relative Overall Range: 3.85%

Absolute Mean Deviation: 379.46

Relative Mean Deviation: 0.64%

Standard Deviation: 442.99













## **EXHIBIT 12**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illus\_12\_05

Plan Type:

## Political Subdivision Splits Between Districts

### Political Subdivision Splits Between Districts

Grant\_Esselstyn\_Hse\_illus\_12\_05

Number of subdivisions not split:

County	89
Voting District	2,513

Number of subdivisions split into more than one district:

County	70
Voting District	185

Number of splits involving no population:

County	0
Voting District	13

#### Split Counts

##### *County*

Cases where an area is split among 2 Districts: 35  
 Cases where an area is split among 3 Districts: 9  
 Cases where an area is split among 4 Districts: 12  
 Cases where an area is split among 5 Districts: 4  
 Cases where an area is split among 6 Districts: 2  
 Cases where an area is split among 7 Districts: 3  
 Cases where an area is split among 9 Districts: 1  
 Cases where an area is split among 14 Districts: 1  
 Cases where an area is split among 17 Districts: 1  
 Cases where an area is split among 21 Districts: 1  
 Cases where an area is split among 23 Districts: 1

##### *Voting District*

Cases where an area is split among 2 Districts: 175  
 Cases where an area is split among 3 Districts: 11

County	Voting District	District	Population
<i>Split Counties:</i>			
Appling GA		157	12,825
Appling GA		178	5,619
Baldwin GA		128	5,158
Baldwin GA		133	12,336
Baldwin GA		149	26,305
Barrow GA		104	24,245
Barrow GA		119	54,736
Barrow GA		120	4,524
Bartow GA		14	49,688
Bartow GA		15	59,213
Ben Hill GA		148	5,115
Ben Hill GA		156	12,079
Bibb GA		142	59,320
Bibb GA		143	59,122
Bibb GA		145	22,716

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Bibb GA	149	16,188
Bryan GA	160	11,008
Bryan GA	164	21,420
Bryan GA	166	12,310
Bulloch GA	158	19,285
Bulloch GA	159	12,887
Bulloch GA	160	48,927
Carroll GA	18	18,789
Carroll GA	70	2,854
Carroll GA	71	59,538
Carroll GA	72	37,967
Catoosa GA	2	7,673
Catoosa GA	3	60,199
Chatham GA	161	28,269
Chatham GA	162	60,308
Chatham GA	163	60,123
Chatham GA	164	38,681
Chatham GA	165	59,978
Chatham GA	166	47,932
Cherokee GA	11	6,557
Cherokee GA	14	9,447
Cherokee GA	20	60,107
Cherokee GA	21	59,529
Cherokee GA	22	30,874
Cherokee GA	23	59,048
Cherokee GA	44	21,989
Cherokee GA	46	15,178
Cherokee GA	47	3,891
Clarke GA	120	30,095
Clarke GA	121	26,478
Clarke GA	122	59,632
Clarke GA	124	12,466
Clayton GA	74	34,350
Clayton GA	75	55,912
Clayton GA	76	59,759
Clayton GA	77	59,242
Clayton GA	78	24,678
Clayton GA	79	59,500
Clayton GA	116	4,154
Cobb GA	22	28,586
Cobb GA	34	59,875
Cobb GA	35	59,889
Cobb GA	36	59,994
Cobb GA	37	59,176
Cobb GA	38	59,317
Cobb GA	39	59,381
Cobb GA	40	59,044
Cobb GA	41	60,122
Cobb GA	42	59,620
Cobb GA	43	59,464
Cobb GA	44	38,013

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Cobb GA	45	59,738
Cobb GA	46	43,930
Coffee GA	169	33,736
Coffee GA	176	9,356
Columbia GA	123	2,205
Columbia GA	125	55,389
Columbia GA	127	39,526
Columbia GA	131	58,890
Cook GA	170	7,342
Cook GA	172	9,887
Coweta GA	65	13,008
Coweta GA	67	17,272
Coweta GA	70	56,267
Coweta GA	73	31,608
Coweta GA	136	28,003
Dawson GA	7	2,409
Dawson GA	9	24,389
DeKalb GA	52	28,300
DeKalb GA	80	59,461
DeKalb GA	81	59,007
DeKalb GA	82	59,724
DeKalb GA	83	59,416
DeKalb GA	84	59,862
DeKalb GA	85	59,373
DeKalb GA	86	59,205
DeKalb GA	87	59,709
DeKalb GA	88	47,844
DeKalb GA	89	59,866
DeKalb GA	90	59,812
DeKalb GA	91	19,700
DeKalb GA	92	15,607
DeKalb GA	93	11,690
DeKalb GA	94	31,207
DeKalb GA	95	14,599
Dodge GA	148	18,550
Dodge GA	155	1,375
Dougherty GA	151	6,268
Dougherty GA	152	6,187
Dougherty GA	153	59,299
Dougherty GA	154	14,036
Douglas GA	61	48,764
Douglas GA	64	30,206
Douglas GA	65	6,306
Douglas GA	66	58,961
Effingham GA	159	32,941
Effingham GA	161	31,828
Fayette GA	68	29,719
Fayette GA	69	36,979
Fayette GA	73	28,428
Fayette GA	74	24,068
Floyd GA	5	5,099



**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Floyd GA	12	34,335
Floyd GA	13	59,150
Forsyth GA	11	19,019
Forsyth GA	24	59,011
Forsyth GA	25	46,134
Forsyth GA	26	59,248
Forsyth GA	28	50,864
Forsyth GA	100	17,007
Fulton GA	25	13,280
Fulton GA	47	55,235
Fulton GA	48	43,976
Fulton GA	49	59,153
Fulton GA	50	59,523
Fulton GA	51	58,952
Fulton GA	52	31,511
Fulton GA	53	59,953
Fulton GA	54	60,083
Fulton GA	55	59,971
Fulton GA	56	58,929
Fulton GA	57	59,969
Fulton GA	58	59,057
Fulton GA	59	59,434
Fulton GA	60	59,709
Fulton GA	61	10,186
Fulton GA	62	59,450
Fulton GA	63	59,381
Fulton GA	64	6,032
Fulton GA	65	39,926
Fulton GA	67	41,863
Fulton GA	68	29,758
Fulton GA	69	21,379
Glynn GA	167	20,499
Glynn GA	179	59,356
Glynn GA	180	4,644
Gordon GA	5	53,738
Gordon GA	6	3,806
Grady GA	171	8,115
Grady GA	173	18,121
Gwinnett GA	30	8,620
Gwinnett GA	48	15,027
Gwinnett GA	88	11,845
Gwinnett GA	94	28,004
Gwinnett GA	95	34,221
Gwinnett GA	96	59,515
Gwinnett GA	97	59,072
Gwinnett GA	98	59,998
Gwinnett GA	99	59,850
Gwinnett GA	100	35,204
Gwinnett GA	101	59,938
Gwinnett GA	102	58,959
Gwinnett GA	103	51,691

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Gwinnett GA	104	35,117
Gwinnett GA	105	59,344
Gwinnett GA	106	59,112
Gwinnett GA	107	59,702
Gwinnett GA	108	59,577
Gwinnett GA	109	59,630
Gwinnett GA	110	59,951
Gwinnett GA	111	22,685
Habersham GA	10	42,636
Habersham GA	32	3,395
Hall GA	27	54,508
Hall GA	28	8,108
Hall GA	29	59,200
Hall GA	30	50,646
Hall GA	31	14,349
Hall GA	100	7,819
Hall GA	103	8,506
Harris GA	138	21,634
Harris GA	139	13,034
Henry GA	75	3,847
Henry GA	78	18,397
Henry GA	91	35,475
Henry GA	115	59,789
Henry GA	116	50,833
Henry GA	117	60,142
Henry GA	118	12,229
Houston GA	144	32,310
Houston GA	145	36,952
Houston GA	146	35,804
Houston GA	147	58,567
Jackson GA	31	45,552
Jackson GA	32	10,931
Jackson GA	119	4,211
Jackson GA	120	15,213
Jasper GA	114	2,855
Jasper GA	118	11,733
Lamar GA	134	13,948
Lamar GA	135	4,552
Liberty GA	167	5,109
Liberty GA	168	60,147
Lowndes GA	174	9,770
Lowndes GA	175	43,692
Lowndes GA	176	4,797
Lowndes GA	177	59,992
Lumpkin GA	9	29,201
Lumpkin GA	27	4,287
Madison GA	33	9,935
Madison GA	123	20,185
McDuffie GA	125	4,748
McDuffie GA	128	16,884
Meriwether GA	136	13,382

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Meriwether GA	137	7,231
Monroe GA	133	19,085
Monroe GA	135	8,872
Muscogee GA	137	30,443
Muscogee GA	138	12,190
Muscogee GA	139	45,976
Muscogee GA	140	59,294
Muscogee GA	141	59,019
Newton GA	93	15,515
Newton GA	113	60,053
Newton GA	114	36,915
Oconee GA	120	9,150
Oconee GA	121	32,649
Paulding GA	16	16,549
Paulding GA	17	59,120
Paulding GA	18	10,627
Paulding GA	19	58,955
Paulding GA	64	23,410
Peach GA	144	14,093
Peach GA	150	13,888
Putnam GA	118	10,591
Putnam GA	124	11,456
Richmond GA	126	25,990
Richmond GA	127	19,152
Richmond GA	129	58,829
Richmond GA	130	59,203
Richmond GA	132	43,433
Rockdale GA	91	4,781
Rockdale GA	92	44,666
Rockdale GA	93	32,913
Rockdale GA	95	11,210
Spalding GA	78	16,815
Spalding GA	116	5,393
Spalding GA	134	45,098
Sumter GA	150	14,282
Sumter GA	151	15,334
Tattnall GA	156	1,263
Tattnall GA	157	21,579
Telfair GA	148	8,283
Telfair GA	156	4,194
Thomas GA	172	4,176
Thomas GA	173	41,622
Tift GA	169	6,730
Tift GA	170	34,614
Troup GA	72	10,281
Troup GA	136	17,913
Troup GA	137	16,144
Troup GA	138	25,088
Walker GA	1	43,415
Walker GA	2	24,239
Walton GA	111	37,324

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Walton GA		112	59,349
Ware GA		174	9,097
Ware GA		176	27,154
Wayne GA		167	6,742
Wayne GA		178	23,402
White GA		8	22,119
White GA		9	5,884
Whitfield GA		2	27,861
Whitfield GA		4	59,070
Whitfield GA		6	15,933
Wilcox GA		146	955
Wilcox GA		148	7,811

*Split VTDs:*

Baldwin GA	NORTH BALDWIN	133	4,245
Baldwin GA	NORTH BALDWIN	149	647
Baldwin GA	NORTH MILLEDGEVILLE	133	864
Baldwin GA	NORTH MILLEDGEVILLE	149	2,500
Baldwin GA	SOUTH MILLEDGEVILLE	133	932
Baldwin GA	SOUTH MILLEDGEVILLE	149	2,774
Barrow GA	16	104	1,708
Barrow GA	16	119	8,060
Bartow GA	CASSVILLE	14	15,558
Bartow GA	CASSVILLE	15	1,047
Bartow GA	WHITE	14	3,335
Bartow GA	WHITE	15	211
Ben Hill GA	WEST	148	5,115
Ben Hill GA	WEST	156	5,229
Bibb GA	GODFREY 1	142	4,656
Bibb GA	GODFREY 1	149	6,278
Bibb GA	HOWARD 1	142	5,180
Bibb GA	HOWARD 1	143	763
Bibb GA	HOWARD 3	142	1,789
Bibb GA	HOWARD 3	143	10,865
Bibb GA	RUTLAND 1	142	1,475
Bibb GA	RUTLAND 1	145	6,465
Bibb GA	VINEVILLE 3	142	232
Bibb GA	VINEVILLE 3	143	4,182
Bryan GA	DANIELSIDING	164	1,268
Bryan GA	DANIELSIDING	166	1,741
Bryan GA	HWY 144 EAST	164	4,552
Bryan GA	HWY 144 EAST	166	4,707
Bryan GA	J.F.GREGORY PARK	164	3,489
Bryan GA	J.F.GREGORY PARK	166	144
Bulloch GA	CHURCH	158	3,764
Bulloch GA	CHURCH	159	5,869
Carroll GA	BONNER	71	410
Carroll GA	BONNER	72	5,554
Chatham GA	CRUSADER COMMUNITY	162	2,134
	CENTER		
Chatham GA	CRUSADER COMMUNITY	166	1,493
	CENTER		

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Chatham GA	GEORGETOWN ELEMENTAR	164	5,562
Chatham GA	GEORGETOWN ELEMENTAR	166	0
Chatham GA	GRACE UNITED METHODIST CHURCH	163	2,064
Chatham GA	GRACE UNITED METHODIST CHURCH	165	397
Chatham GA	ROTHWELL BAPTIST CHURCH	161	5,335
Chatham GA	ROTHWELL BAPTIST CHURCH	164	4,987
Chatham GA	THE LIGHT CHURCH	162	1,177
Chatham GA	THE LIGHT CHURCH	163	1,109
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	163	785
Chatham GA	WINDSOR FOREST BAPTIST CHURCH SCHOOL	166	1,890
Cherokee GA	CARMEL	20	5,626
Cherokee GA	CARMEL	22	1,222
Cherokee GA	CARMEL	44	0
Cherokee GA	FREEHOME	21	3,200
Cherokee GA	FREEHOME	47	3,891
Cherokee GA	HOLLY SPRINGS	21	2,250
Cherokee GA	HOLLY SPRINGS	23	2,578
Clarke GA	1A	122	2,758
Clarke GA	1A	124	2,286
Clarke GA	4B	121	7,082
Clarke GA	4B	122	5,589
Clarke GA	7C	120	1,922
Clarke GA	7C	121	3,184
Clayton GA	JONESBORO 13	74	2,066
Clayton GA	JONESBORO 13	75	752
Clayton GA	JONESBORO 14	75	2,726
Clayton GA	JONESBORO 14	78	2,387
Clayton GA	JONESBORO 3	74	0
Clayton GA	JONESBORO 3	75	5,962
Clayton GA	LOVEJOY 1	74	4,484
Clayton GA	LOVEJOY 1	75	948
Clayton GA	LOVEJOY 1	78	187
Clayton GA	LOVEJOY 3	78	9,099
Clayton GA	LOVEJOY 3	116	4,154
Clayton GA	MORROW 4	75	1,316
Clayton GA	MORROW 4	76	1,911
Cobb GA	Acworth 1B	35	7,322
Cobb GA	Acworth 1B	36	142
Cobb GA	Baker 01	22	5,226
Cobb GA	Baker 01	35	1,996
Cobb GA	Bells Ferry 03	22	4,918
Cobb GA	Bells Ferry 03	44	3,763



**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Cobb GA	Dobbins 01	42	11,055
Cobb GA	Dobbins 01	43	2,346
Cobb GA	Elizabeth 01	34	700
Cobb GA	Elizabeth 01	37	5,170
Cobb GA	Elizabeth 04	37	2,031
Cobb GA	Elizabeth 04	43	2,387
Cobb GA	Kennesaw 1A	22	599
Cobb GA	Kennesaw 1A	35	3,844
Cobb GA	Kennesaw 3A	22	0
Cobb GA	Kennesaw 3A	34	871
Cobb GA	Kennesaw 3A	35	8,631
Cobb GA	Lassiter 01	44	2,121
Cobb GA	Lassiter 01	46	2,600
Cobb GA	Lindley 01	39	5,678
Cobb GA	Lindley 01	40	582
Cobb GA	Mableton 01	38	1,589
Cobb GA	Mableton 01	39	5,513
Cobb GA	Mableton 02	38	256
Cobb GA	Mableton 02	39	5,427
Cobb GA	Marietta 1A	37	3,349
Cobb GA	Marietta 1A	43	6,645
Cobb GA	Marietta 2A	34	1,664
Cobb GA	Marietta 2A	37	811
Cobb GA	Marietta 5A	37	2,877
Cobb GA	Marietta 5A	43	1,457
Cobb GA	Marietta 6A	37	1,532
Cobb GA	Marietta 6A	43	3,022
Cobb GA	Marietta 7A	42	1,494
Cobb GA	Marietta 7A	43	5,417
Cobb GA	North Cobb 01	35	2,611
Cobb GA	North Cobb 01	36	559
Cobb GA	Norton Park 01	41	1,955
Cobb GA	Norton Park 01	42	5,846
Cobb GA	Oregon 03	37	6,683
Cobb GA	Oregon 03	41	6,305
Cobb GA	Pine Mountain 02	34	3,976
Cobb GA	Pine Mountain 02	35	0
Cobb GA	Smyrna 1A	40	1,292
Cobb GA	Smyrna 1A	42	5,341
Cobb GA	Smyrna 4A	40	6,599
Cobb GA	Smyrna 4A	42	1,609
Cobb GA	Smyrna 7A	39	905
Cobb GA	Smyrna 7A	40	7,690
Coffee GA	DOUGLAS	169	19,642
Coffee GA	DOUGLAS	176	8,929
Columbia GA	PATRIOTS PARK	125	326
Columbia GA	PATRIOTS PARK	131	5,958
Coweta GA	JEFFERSON PARKWAY	70	12,590
Coweta GA	JEFFERSON PARKWAY	73	1,521
DeKalb GA	Cedar Grove Middle	89	2,204
DeKalb GA	Cedar Grove Middle	90	316

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

DeKalb GA	Clarkston	85	5,454
DeKalb GA	Clarkston	86	9,300
DeKalb GA	Dresden Elem (CHA)	81	5,398
DeKalb GA	Dresden Elem (CHA)	83	7,691
DeKalb GA	Freedom Middle	86	1,002
DeKalb GA	Freedom Middle	87	3,088
DeKalb GA	Glennwood (DEC)	82	2,059
DeKalb GA	Glennwood (DEC)	84	1,221
DeKalb GA	Glenwood Road	85	1,698
DeKalb GA	Glenwood Road	86	1,064
DeKalb GA	Memorial South	86	2,226
DeKalb GA	Memorial South	87	2,547
DeKalb GA	Panola Road	86	3,296
DeKalb GA	Panola Road	94	460
DeKalb GA	Redan Middle	87	1,419
DeKalb GA	Redan Middle	88	1,633
DeKalb GA	Rockbridge Road	94	3,736
DeKalb GA	Rockbridge Road	95	1,104
DeKalb GA	Snapfinger Road South	84	920
DeKalb GA	Snapfinger Road South	91	1,271
DeKalb GA	Stone Mill Elem	87	1,863
DeKalb GA	Stone Mill Elem	88	4,069
DeKalb GA	Stone Mountain Champion (STO)	87	1,338
DeKalb GA	Stone Mountain Champion (STO)	88	2,865
DeKalb GA	Stone Mountain Middle (TUC)	87	656
DeKalb GA	Stone Mountain Middle (TUC)	88	3,960
DeKalb GA	Tucker Library (TUC)	81	2,394
DeKalb GA	Tucker Library (TUC)	88	1,635
Dougherty GA	DARTON COLLEGE	151	4,018
Dougherty GA	DARTON COLLEGE	153	2,465
Dougherty GA	MT ZION CENTER	153	1,245
Dougherty GA	MT ZION CENTER	154	3,972
Douglas GA	MIRROR LAKE ELEMENTA	61	5,093
Douglas GA	MIRROR LAKE ELEMENTA	66	3,661
Effingham GA	4B	159	1,960
Effingham GA	4B	161	959
Fayette GA	ABERDEEN	68	983
Fayette GA	ABERDEEN	73	1,392
Fayette GA	BANKS	69	1,812
Fayette GA	BANKS	74	247
Fayette GA	BRAELINN	73	605
Fayette GA	BRAELINN	74	1,646
Fayette GA	MURPHY	69	146
Fayette GA	MURPHY	74	3,848
Fayette GA	STARRSMILL	73	1,932
Fayette GA	STARRSMILL	74	2,452
Floyd GA	ALTO PARK	12	1,576

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Floyd GA	ALTO PARK	13	3,847
Floyd GA	MT ALTO NORTH	12	1,080
Floyd GA	MT ALTO NORTH	13	4,509
Forsyth GA	BROWNS BRIDGE	26	10,116
Forsyth GA	BROWNS BRIDGE	28	2,801
Forsyth GA	CONCORD	11	7,687
Forsyth GA	CONCORD	28	7,982
Forsyth GA	CUMMING	26	4,666
Forsyth GA	CUMMING	28	2,410
Forsyth GA	HEARDSVILLE	11	11,332
Forsyth GA	HEARDSVILLE	24	1,335
Forsyth GA	HEARDSVILLE	28	333
Forsyth GA	OTWELL	24	3,988
Forsyth GA	OTWELL	26	6,597
Forsyth GA	OTWELL	28	7,875
Forsyth GA	POLO	24	9,868
Forsyth GA	POLO	25	0
Forsyth GA	POLO	26	15,990
Forsyth GA	SOUTH FORSYTH	25	10,064
Forsyth GA	SOUTH FORSYTH	100	11,887
Forsyth GA	WINDERMERE	26	11,718
Forsyth GA	WINDERMERE	100	5,120
Fulton GA	08C	53	1,524
Fulton GA	08C	60	335
Fulton GA	09K	55	3,033
Fulton GA	09K	60	4,105
Fulton GA	10D	55	1,756
Fulton GA	10D	60	4,311
Fulton GA	11C	55	340
Fulton GA	11C	60	3,418
Fulton GA	AP022	48	862
Fulton GA	AP022	49	2,505
Fulton GA	AP07B	47	1,250
Fulton GA	AP07B	49	1,304
Fulton GA	AP14	48	4,109
Fulton GA	AP14	49	281
Fulton GA	EP01B	59	2,393
Fulton GA	EP01B	62	2,049
Fulton GA	JC19	48	3,608
Fulton GA	JC19	51	1,792
Fulton GA	ML012	47	501
Fulton GA	ML012	49	123
Fulton GA	ML01B	47	284
Fulton GA	ML01B	49	61
Fulton GA	RW03	51	1,292
Fulton GA	RW03	53	6,066
Fulton GA	RW09	47	2,971
Fulton GA	RW09	49	4,750
Fulton GA	SC02	60	220
Fulton GA	SC02	65	773
Fulton GA	SC07A	65	1,028



**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Fulton GA	SC07A	67	7,728
Fulton GA	SC08B	62	92
Fulton GA	SC08B	68	5,255
Fulton GA	SC13	61	589
Fulton GA	SC13	65	2,269
Fulton GA	SC13	67	1,176
Fulton GA	UC02A	65	1,070
Fulton GA	UC02A	67	13,013
Gwinnett GA	BAYCREEK A	106	934
Gwinnett GA	BAYCREEK A	110	2,651
Gwinnett GA	BAYCREEK D	102	3,729
Gwinnett GA	BAYCREEK D	110	2,597
Gwinnett GA	BERKSHIRE H	98	2,475
Gwinnett GA	BERKSHIRE H	108	1,991
Gwinnett GA	CATES J	94	955
Gwinnett GA	CATES J	108	4,255
Gwinnett GA	DULUTH F	96	7,245
Gwinnett GA	DULUTH F	107	5,149
Gwinnett GA	DULUTH G	96	1,426
Gwinnett GA	DULUTH G	99	3,389
Gwinnett GA	DUNCANS D	30	8,620
Gwinnett GA	DUNCANS D	104	1,575
Gwinnett GA	LAWRENCEVILLE F	102	2,073
Gwinnett GA	LAWRENCEVILLE F	105	3,924
Gwinnett GA	LAWRENCEVILLE M	102	4,231
Gwinnett GA	LAWRENCEVILLE M	105	7,770
Gwinnett GA	MARTINS H	107	8,164
Gwinnett GA	MARTINS H	109	892
Gwinnett GA	PINCKNEYVILLE W	96	5,745
Gwinnett GA	PINCKNEYVILLE W	97	2,561
Gwinnett GA	PUCKETTS E	103	1,506
Gwinnett GA	PUCKETTS E	105	7,421
Gwinnett GA	SUGAR HILL D	100	2,158
Gwinnett GA	SUGAR HILL D	103	6,421
Gwinnett GA	SUWANEE F	99	3,224
Gwinnett GA	SUWANEE F	103	2,836
Habersham GA	HABERSHAM SOUTH	10	8,687
Habersham GA	HABERSHAM SOUTH	32	1,972
Hall GA	WILSON	28	3,803
Hall GA	WILSON	29	4,979
Henry GA	LAKE HAVEN	116	4,546
Henry GA	LAKE HAVEN	117	1,242
Henry GA	LOCUST GROVE	116	4,436
Henry GA	LOCUST GROVE	117	5,352
Henry GA	RED OAK	75	3,847
Henry GA	RED OAK	116	3,999
Henry GA	SWAN LAKE	91	1,951
Henry GA	SWAN LAKE	115	2,807
Houston GA	CENT	145	315
Houston GA	CENT	147	11,569
Houston GA	MCMS	144	11,859

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Houston GA	MCMS	147	1,635
Houston GA	ROZR	144	13,202
Houston GA	ROZR	146	7,640
Jackson GA	North Jackson	31	4,513
Jackson GA	North Jackson	32	10,931
Jackson GA	North Jackson	120	3,803
Jackson GA	West Jackson	31	16,656
Jackson GA	West Jackson	119	4,211
Liberty GA	BUTTON GWINNETT	167	5,109
Liberty GA	BUTTON GWINNETT	168	4,344
Lowndes GA	NORTHSIDE	175	8,373
Lowndes GA	NORTHSIDE	177	37,217
Lowndes GA	RAINWATER	175	6,400
Lowndes GA	RAINWATER	177	8,754
Lowndes GA	S LOWNDES	174	1,951
Lowndes GA	S LOWNDES	175	3,755
Lowndes GA	TRINITY	175	9,620
Lowndes GA	TRINITY	176	4,797
Lowndes GA	TRINITY	177	6,930
Lumpkin GA	DAHLONEGA	9	29,201
Lumpkin GA	DAHLONEGA	27	4,287
Muscogee GA	CUSSETA RD	140	5,391
Muscogee GA	CUSSETA RD	141	5,010
Muscogee GA	EPWORTH UMC	139	3,363
Muscogee GA	EPWORTH UMC	140	4,560
Muscogee GA	FORT/WADDELL	137	5,599
Muscogee GA	FORT/WADDELL	141	6,645
Muscogee GA	OUR LADY OF LOURDES	140	13,744
Muscogee GA	OUR LADY OF LOURDES	141	32
Muscogee GA	ROTHSCHILD	137	8,327
Muscogee GA	ROTHSCHILD	141	3,143
Muscogee GA	ST ANDREWS/MIDLAND	139	5,899
Muscogee GA	ST ANDREWS/MIDLAND	141	5,582
Newton GA	CEDAR SHOALS	93	1,206
Newton GA	CEDAR SHOALS	113	3,687
Newton GA	FAIRVIEW	93	856
Newton GA	FAIRVIEW	113	3,443
Newton GA	TOWN	93	1,668
Newton GA	TOWN	113	5,075
Paulding GA	AUSTIN MIDDLE SCHOOL	18	916
Paulding GA	AUSTIN MIDDLE SCHOOL	64	9,977
Paulding GA	BURNT HICKORY PARK	16	8,392
Paulding GA	BURNT HICKORY PARK	17	16
Paulding GA	CARL SCOGGINS MID SC	17	517
Paulding GA	CARL SCOGGINS MID SC	18	7,991
Paulding GA	CARL SCOGGINS MID SC	19	1,240
Paulding GA	HIRAM HIGH SCHOOL	17	0
Paulding GA	HIRAM HIGH SCHOOL	19	16,110
Paulding GA	SARA RAGSDALE ELM SC	17	5,972
Paulding GA	SARA RAGSDALE ELM SC	18	1,720

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Paulding GA	SHELTON ELEMENTARY SCHOOL	16	8,152
Paulding GA	SHELTON ELEMENTARY SCHOOL	17	12,810
Paulding GA	SHELTON ELEMENTARY SCHOOL	19	5,455
Paulding GA	WATSON GOVERNMENT COMPLEX	16	5
Paulding GA	WATSON GOVERNMENT COMPLEX	17	17,525
Richmond GA	109	129	954
Richmond GA	109	130	886
Richmond GA	301	127	2,362
Richmond GA	301	129	894
Richmond GA	402	126	0
Richmond GA	402	132	9,711
Richmond GA	503	129	3,260
Richmond GA	503	132	2,535
Richmond GA	702	127	586
Richmond GA	702	129	2,007
Richmond GA	703	127	1,164
Richmond GA	703	129	6,148
Richmond GA	803	126	0
Richmond GA	803	132	2,432
Richmond GA	807	126	2,403
Richmond GA	807	132	0
Rockdale GA	MILSTEAD	93	6,444
Rockdale GA	MILSTEAD	95	0
Rockdale GA	OLD TOWNE	93	10,095
Rockdale GA	OLD TOWNE	95	872
Rockdale GA	ROCKDALE	92	6,218
Rockdale GA	ROCKDALE	93	79
Spalding GA	CARVER FIRE STATION	78	235
Spalding GA	CARVER FIRE STATION	134	2,835
Spalding GA	GARY REID FIRE STATION	78	2,075
Spalding GA	GARY REID FIRE STATION	134	4,817
Spalding GA	UGA CAMPUS	78	787
Spalding GA	UGA CAMPUS	134	5,290
Sumter GA	GSW CONF CENTER	150	4,568
Sumter GA	GSW CONF CENTER	151	1,549
Sumter GA	REES PARK	150	5,179
Sumter GA	REES PARK	151	447
Troup GA	MOUNTVILLE	136	2,068
Troup GA	MOUNTVILLE	137	497
Walton GA	BROKEN ARROW	111	2,993
Walton GA	BROKEN ARROW	112	3,003
Ware GA	100	174	2,672
Ware GA	100	176	3,692
Ware GA	200A	174	0
Ware GA	200A	176	4,133
Ware GA	304	174	0
Ware GA	304	176	2,107

**Political Subdivision Splits Between Districts**

Grant\_Esselstyn\_Hse\_illus\_12\_05

Ware GA	400	174	2,506
Ware GA	400	176	2,526
Wayne GA	OGLETHORPE	167	1,928
Wayne GA	OGLETHORPE	178	637
Whitfield GA	2A	2	3,864
Whitfield GA	2A	4	1,000
Whitfield GA	PLEASANT GROVE	2	6,210
Whitfield GA	PLEASANT GROVE	6	2,122

## **EXHIBIT 13**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illus\_12\_05

Plan Type:

## Plan Components with Population Detail

### Plan Components with Population Detail

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Total Population	AP_Bl
<b>District 1</b>		
<b>County: Dade GA</b>		
Total:	16,251	228
		1.40%
Voting Age	12,987	140
		1.08%
<b>County: Walker GA</b>		
Total:	43,415	2,806
		6.46%
Voting Age	33,814	1,826
		5.40%
<b>District 1 Total</b>		
Total:	59,666	3,034
		5.08%
Voting Age	46,801	1,966
		4.20%
<b>District 2</b>		
<b>County: Catoosa GA</b>		
Total:	7,673	179
		2.33%
Voting Age	5,732	119
		2.08%
<b>County: Walker GA</b>		
Total:	24,239	858
		3.54%
Voting Age	18,980	628
		3.31%
<b>County: Whitfield GA</b>		
Total:	27,861	1,136
		4.08%
Voting Age	21,447	709
		3.31%
<b>District 2 Total</b>		
Total:	59,773	2,173
		3.64%
Voting Age	46,159	1,456
		3.15%
<b>District 3</b>		
<b>County: Catoosa GA</b>		
Total:	60,199	2,463
		4.09%
Voting Age	46,716	1,565
		3.35%
<b>District 3 Total</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	60,199	2,463 4.09%
Voting Age	46,716	1,565 3.35%
<b>District 4</b>		
<b>County: Whitfield GA</b>		
Total:	59,070	3,264 5.53%
Voting Age	42,798	2,303 5.38%
<b>District 4 Total</b>		
Total:	59,070	3,264 5.53%
Voting Age	42,798	2,303 5.38%
<b>District 5</b>		
<b>County: Floyd GA</b>		
Total:	5,099	213 4.18%
Voting Age	4,048	136 3.36%
<b>County: Gordon GA</b>		
Total:	53,738	2,869 5.34%
Voting Age	40,575	1,915 4.72%
<b>District 5 Total</b>		
Total:	58,837	3,082 5.24%
Voting Age	44,623	2,051 4.60%
<b>District 6</b>		
<b>County: Gordon GA</b>		
Total:	3,806	50 1.31%
Voting Age	2,925	24 0.82%
<b>County: Murray GA</b>		
Total:	39,973	556 1.39%
Voting Age	30,210	321 1.06%
<b>County: Whitfield GA</b>		
Total:	15,933	519 3.26%
Voting Age	12,017	337 2.80%
<b>District 6 Total</b>		
Total:	59,712	1,125 1.88%
Voting Age	45,152	682

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Total Population	AP_Bl
		1.51%
<b>District 7</b>		
<b>County: Dawson GA</b>		
Total:	2,409	18
		0.75%
Voting Age	2,166	8
		0.37%
<b>County: Fannin GA</b>		
Total:	25,319	199
		0.79%
Voting Age	21,188	133
		0.63%
<b>County: Gilmer GA</b>		
Total:	31,353	296
		0.94%
Voting Age	25,417	161
		0.63%
<b>District 7 Total</b>		
Total:	59,081	513
		0.87%
Voting Age	48,771	302
		0.62%
<b>District 8</b>		
<b>County: Towns GA</b>		
Total:	12,493	168
		1.34%
Voting Age	10,923	137
		1.25%
<b>County: Union GA</b>		
Total:	24,632	228
		0.93%
Voting Age	20,808	147
		0.71%
<b>County: White GA</b>		
Total:	22,119	629
		2.84%
Voting Age	17,881	424
		2.37%
<b>District 8 Total</b>		
Total:	59,244	1,025
		1.73%
Voting Age	49,612	708
		1.43%
<b>District 9</b>		
<b>County: Dawson GA</b>		
Total:	24,389	374
		1.53%
Voting Age	19,275	241
		1.25%
<b>County: Lumpkin GA</b>		
Total:	29,201	600



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	24,397	2.05% 458 1.88%
<b>County: White GA</b>		
Total:	5,884	92 1.56%
Voting Age	4,601	60 1.30%
<b>District 9 Total</b>		
Total:	59,474	1,066 1.79%
Voting Age	48,273	759 1.57%
<b>District 10</b>		
<b>County: Habersham GA</b>		
Total:	42,636	2,077 4.87%
Voting Age	33,397	1,628 4.87%
<b>County: Rabun GA</b>		
Total:	16,883	210 1.24%
Voting Age	13,767	129 0.94%
<b>District 10 Total</b>		
Total:	59,519	2,287 3.84%
Voting Age	47,164	1,757 3.73%
<b>District 11</b>		
<b>County: Cherokee GA</b>		
Total:	6,557	118 1.80%
Voting Age	5,004	66 1.32%
<b>County: Forsyth GA</b>		
Total:	19,019	750 3.94%
Voting Age	13,593	454 3.34%
<b>County: Pickens GA</b>		
Total:	33,216	512 1.54%
Voting Age	26,799	319 1.19%
<b>District 11 Total</b>		
Total:	58,792	1,380 2.35%
Voting Age	45,396	839 1.85%
<b>District 12</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Chattooga GA</b>		
Total:	24,965	2,865
		11.48%
Voting Age	19,416	2,235
		11.51%
<b>County: Floyd GA</b>		
Total:	34,335	3,181
		9.26%
Voting Age	27,071	2,263
		8.36%
<b>District 12 Total</b>		
Total:	59,300	6,046
		10.20%
Voting Age	46,487	4,498
		9.68%
<b>District 13</b>		
<b>County: Floyd GA</b>		
Total:	59,150	12,212
		20.65%
Voting Age	45,176	8,665
		19.18%
<b>District 13 Total</b>		
Total:	59,150	12,212
		20.65%
Voting Age	45,176	8,665
		19.18%
<b>District 14</b>		
<b>County: Bartow GA</b>		
Total:	49,688	4,043
		8.14%
Voting Age	37,779	2,877
		7.62%
<b>County: Cherokee GA</b>		
Total:	9,447	295
		3.12%
Voting Age	7,732	240
		3.10%
<b>District 14 Total</b>		
Total:	59,135	4,338
		7.34%
Voting Age	45,511	3,117
		6.85%
<b>District 15</b>		
<b>County: Bartow GA</b>		
Total:	59,213	9,352
		15.79%
Voting Age	45,791	6,500
		14.19%
<b>District 15 Total</b>		
Total:	59,213	9,352
		15.79%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	45,791	6,500 14.19%
<b>District 16</b>		
<b>County: Paulding GA</b>		
Total:	16,549	1,765 10.67%
Voting Age	11,771	1,155 9.81%
<b>County: Polk GA</b>		
Total:	42,853	5,816 13.57%
Voting Age	32,238	3,991 12.38%
<b>District 16 Total</b>		
Total:	59,402	7,581 12.76%
Voting Age	44,009	5,146 11.69%
<b>District 17</b>		
<b>County: Paulding GA</b>		
Total:	59,120	14,783 25.01%
Voting Age	42,761	9,843 23.02%
<b>District 17 Total</b>		
Total:	59,120	14,783 25.01%
Voting Age	42,761	9,843 23.02%
<b>District 18</b>		
<b>County: Carroll GA</b>		
Total:	18,789	2,344 12.48%
Voting Age	14,467	1,660 11.47%
<b>County: Haralson GA</b>		
Total:	29,919	1,541 5.15%
Voting Age	22,854	1,106 4.84%
<b>County: Paulding GA</b>		
Total:	10,627	1,233 11.60%
Voting Age	7,838	838 10.69%
<b>District 18 Total</b>		
Total:	59,335	5,118 8.63%
Voting Age	45,159	3,604 7.98%
<b>District 19</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Paulding GA</b>		
Total:	58,955	15,550
		26.38%
Voting Age	44,299	10,697
		24.15%
<b>District 19 Total</b>		
Total:	58,955	15,550
		26.38%
Voting Age	44,299	10,697
		24.15%
<b>District 20</b>		
<b>County: Cherokee GA</b>		
Total:	60,107	5,973
		9.94%
Voting Age	45,725	4,230
		9.25%
<b>District 20 Total</b>		
Total:	60,107	5,973
		9.94%
Voting Age	45,725	4,230
		9.25%
<b>District 21</b>		
<b>County: Cherokee GA</b>		
Total:	59,529	3,350
		5.63%
Voting Age	44,931	2,272
		5.06%
<b>District 21 Total</b>		
Total:	59,529	3,350
		5.63%
Voting Age	44,931	2,272
		5.06%
<b>District 22</b>		
<b>County: Cherokee GA</b>		
Total:	30,874	3,488
		11.30%
Voting Age	23,465	2,341
		9.98%
<b>County: Cobb GA</b>		
Total:	28,586	6,402
		22.40%
Voting Age	22,350	4,577
		20.48%
<b>District 22 Total</b>		
Total:	59,460	9,890
		16.63%
Voting Age	45,815	6,918
		15.10%
<b>District 23</b>		
<b>County: Cherokee GA</b>		
Total:	59,048	4,250

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	44,254	7.20% 2,878 6.50%
<b>District 23 Total</b>		
Total:	59,048	4,250 7.20%
Voting Age	44,254	2,878 6.50%
<b>District 24</b>		
<b>County: Forsyth GA</b>		
Total:	59,011	4,313 7.31%
Voting Age	41,814	2,926 7.00%
<b>District 24 Total</b>		
Total:	59,011	4,313 7.31%
Voting Age	41,814	2,926 7.00%
<b>District 25</b>		
<b>County: Forsyth GA</b>		
Total:	46,134	2,200 4.77%
Voting Age	32,692	1,482 4.53%
<b>County: Fulton GA</b>		
Total:	13,280	1,406 10.59%
Voting Age	9,828	1,025 10.43%
<b>District 25 Total</b>		
Total:	59,414	3,606 6.07%
Voting Age	42,520	2,507 5.90%
<b>District 26</b>		
<b>County: Forsyth GA</b>		
Total:	59,248	2,646 4.47%
Voting Age	44,081	1,767 4.01%
<b>District 26 Total</b>		
Total:	59,248	2,646 4.47%
Voting Age	44,081	1,767 4.01%
<b>District 27</b>		
<b>County: Hall GA</b>		
Total:	54,508	2,504 4.59%
Voting Age	42,712	1,649

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		3.86%
<b>County: Lumpkin GA</b>		
Total:	4,287	85
		1.98%
Voting Age	3,292	49
		1.49%
<b>District 27 Total</b>		
Total:	58,795	2,589
		4.40%
Voting Age	46,004	1,698
		3.69%
<b>District 28</b>		
<b>County: Forsyth GA</b>		
Total:	50,864	2,427
		4.77%
Voting Age	37,645	1,554
		4.13%
<b>County: Hall GA</b>		
Total:	8,108	259
		3.19%
Voting Age	6,799	193
		2.84%
<b>District 28 Total</b>		
Total:	58,972	2,686
		4.55%
Voting Age	44,444	1,747
		3.93%
<b>District 29</b>		
<b>County: Hall GA</b>		
Total:	59,200	8,132
		13.74%
Voting Age	43,131	5,861
		13.59%
<b>District 29 Total</b>		
Total:	59,200	8,132
		13.74%
Voting Age	43,131	5,861
		13.59%
<b>District 30</b>		
<b>County: Gwinnett GA</b>		
Total:	8,620	1,529
		17.74%
Voting Age	6,301	998
		15.84%
<b>County: Hall GA</b>		
Total:	50,646	3,657
		7.22%
Voting Age	39,113	2,680
		6.85%
<b>District 30 Total</b>		
Total:	59,266	5,186

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	45,414	8.75% 3,678 8.10%
<b>District 31</b>		
<b>County: Hall GA</b>		
Total:	14,349	1,404 9.78%
Voting Age	9,789	1,014 10.36%
<b>County: Jackson GA</b>		
Total:	45,552	3,366 7.39%
Voting Age	33,331	2,251 6.75%
<b>District 31 Total</b>		
Total:	59,901	4,770 7.96%
Voting Age	43,120	3,265 7.57%
<b>District 32</b>		
<b>County: Banks GA</b>		
Total:	18,035	589 3.27%
Voting Age	13,900	365 2.63%
<b>County: Habersham GA</b>		
Total:	3,395	88 2.59%
Voting Age	2,481	47 1.89%
<b>County: Jackson GA</b>		
Total:	10,931	1,048 9.59%
Voting Age	8,398	780 9.29%
<b>County: Stephens GA</b>		
Total:	26,784	3,527 13.17%
Voting Age	21,163	2,467 11.66%
<b>District 32 Total</b>		
Total:	59,145	5,252 8.88%
Voting Age	45,942	3,659 7.96%
<b>District 33</b>		
<b>County: Franklin GA</b>		
Total:	23,424	2,207 9.42%
Voting Age	18,307	1,523 8.32%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Hart GA</b>		
Total:	25,828	4,732
		18.32%
Voting Age	20,436	3,447
		16.87%
<b>County: Madison GA</b>		
Total:	9,935	383
		3.86%
Voting Age	7,755	237
		3.06%
<b>District 33 Total</b>		
Total:	59,187	7,322
		12.37%
Voting Age	46,498	5,207
		11.20%
<b>District 34</b>		
<b>County: Cobb GA</b>		
Total:	59,875	10,102
		16.87%
Voting Age	45,758	7,169
		15.67%
<b>District 34 Total</b>		
Total:	59,875	10,102
		16.87%
Voting Age	45,758	7,169
		15.67%
<b>District 35</b>		
<b>County: Cobb GA</b>		
Total:	59,889	18,210
		30.41%
Voting Age	48,312	13,722
		28.40%
<b>District 35 Total</b>		
Total:	59,889	18,210
		30.41%
Voting Age	48,312	13,722
		28.40%
<b>District 36</b>		
<b>County: Cobb GA</b>		
Total:	59,994	11,055
		18.43%
Voting Age	44,911	7,626
		16.98%
<b>District 36 Total</b>		
Total:	59,994	11,055
		18.43%
Voting Age	44,911	7,626
		16.98%
<b>District 37</b>		
<b>County: Cobb GA</b>		
Total:	59,176	17,171



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	46,223	29.02% 13,027 28.18%
<b>District 37 Total</b>		
Total:	59,176	17,171 29.02%
Voting Age	46,223	13,027 28.18%
<b>District 38</b>		
<b>County: Cobb GA</b>		
Total:	59,317	33,760 56.91%
Voting Age	44,839	24,318 54.23%
<b>District 38 Total</b>		
Total:	59,317	33,760 56.91%
Voting Age	44,839	24,318 54.23%
<b>District 39</b>		
<b>County: Cobb GA</b>		
Total:	59,381	33,016 55.60%
Voting Age	44,436	24,569 55.29%
<b>District 39 Total</b>		
Total:	59,381	33,016 55.60%
Voting Age	44,436	24,569 55.29%
<b>District 40</b>		
<b>County: Cobb GA</b>		
Total:	59,044	20,179 34.18%
Voting Age	47,976	15,821 32.98%
<b>District 40 Total</b>		
Total:	59,044	20,179 34.18%
Voting Age	47,976	15,821 32.98%
<b>District 41</b>		
<b>County: Cobb GA</b>		
Total:	60,122	23,846 39.66%
Voting Age	45,271	17,816 39.35%
<b>District 41 Total</b>		
Total:	60,122	23,846 39.66%
Voting Age	45,271	17,816

## Plan Components with Population Detail

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Total Population	AP_Bl
		39.35%
<b>District 42</b>		
County: Cobb GA		
Total:	59,620	20,726
		34.76%
Voting Age	48,525	16,353
		33.70%
<b>District 42 Total</b>		
Total:	59,620	20,726
		34.76%
Voting Age	48,525	16,353
		33.70%
<b>District 43</b>		
County: Cobb GA		
Total:	59,464	16,346
		27.49%
Voting Age	47,033	12,476
		26.53%
<b>District 43 Total</b>		
Total:	59,464	16,346
		27.49%
Voting Age	47,033	12,476
		26.53%
<b>District 44</b>		
County: Cherokee GA		
Total:	21,989	2,616
		11.90%
Voting Age	17,142	1,838
		10.72%
County: Cobb GA		
Total:	38,013	5,374
		14.14%
Voting Age	29,631	3,797
		12.81%
<b>District 44 Total</b>		
Total:	60,002	7,990
		13.32%
Voting Age	46,773	5,635
		12.05%
<b>District 45</b>		
County: Cobb GA		
Total:	59,738	3,303
		5.53%
Voting Age	44,023	2,324
		5.28%
<b>District 45 Total</b>		
Total:	59,738	3,303
		5.53%
Voting Age	44,023	2,324
		5.28%
<b>District 46</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Cherokee GA</b>		
Total:	15,178	1,451 9.56%
Voting Age	11,572	1,014 8.76%
<b>County: Cobb GA</b>		
Total:	43,930	3,626 8.25%
Voting Age	32,560	2,546 7.82%
<b>District 46 Total</b>		
Total:	59,108	5,077 8.59%
Voting Age	44,132	3,560 8.07%
<b>District 47</b>		
<b>County: Cherokee GA</b>		
Total:	3,891	146 3.75%
Voting Age	3,103	97 3.13%
<b>County: Fulton GA</b>		
Total:	55,235	6,444 11.67%
Voting Age	40,829	4,612 11.30%
<b>District 47 Total</b>		
Total:	59,126	6,590 11.15%
Voting Age	43,932	4,709 10.72%
<b>District 48</b>		
<b>County: Fulton GA</b>		
Total:	43,976	5,589 12.71%
Voting Age	33,385	4,110 12.31%
<b>County: Gwinnett GA</b>		
Total:	15,027	1,627 10.83%
Voting Age	11,394	1,169 10.26%
<b>District 48 Total</b>		
Total:	59,003	7,216 12.23%
Voting Age	44,779	5,279 11.79%
<b>District 49</b>		
<b>County: Fulton GA</b>		
Total:	59,153	5,234 8.85%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	45,263	3,813 8.42%
<b>District 49 Total</b>		
Total:	59,153	5,234 8.85%
Voting Age	45,263	3,813 8.42%
<b>District 50</b>		
<b>County: Fulton GA</b>		
Total:	59,523	7,763 13.04%
Voting Age	43,940	5,450 12.40%
<b>District 50 Total</b>		
Total:	59,523	7,763 13.04%
Voting Age	43,940	5,450 12.40%
<b>District 51</b>		
<b>County: Fulton GA</b>		
Total:	58,952	14,766 25.05%
Voting Age	47,262	11,193 23.68%
<b>District 51 Total</b>		
Total:	58,952	14,766 25.05%
Voting Age	47,262	11,193 23.68%
<b>District 52</b>		
<b>County: DeKalb GA</b>		
Total:	28,300	3,815 13.48%
Voting Age	21,991	3,074 13.98%
<b>County: Fulton GA</b>		
Total:	31,511	5,646 17.92%
Voting Age	26,534	4,684 17.65%
<b>District 52 Total</b>		
Total:	59,811	9,461 15.82%
Voting Age	48,525	7,758 15.99%
<b>District 53</b>		
<b>County: Fulton GA</b>		
Total:	59,953	8,685 14.49%
Voting Age	46,944	6,819 14.53%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 53 Total</b>		
Total:	59,953	8,685 14.49%
Voting Age	46,944	6,819 14.53%
<b>District 54</b>		
<b>County: Fulton GA</b>		
Total:	60,083	9,048 15.06%
Voting Age	50,338	7,789 15.47%
<b>District 54 Total</b>		
Total:	60,083	9,048 15.06%
Voting Age	50,338	7,789 15.47%
<b>District 55</b>		
<b>County: Fulton GA</b>		
Total:	59,971	34,374 57.32%
Voting Age	49,255	27,279 55.38%
<b>District 55 Total</b>		
Total:	59,971	34,374 57.32%
Voting Age	49,255	27,279 55.38%
<b>District 56</b>		
<b>County: Fulton GA</b>		
Total:	58,929	29,016 49.24%
Voting Age	52,757	23,993 45.48%
<b>District 56 Total</b>		
Total:	58,929	29,016 49.24%
Voting Age	52,757	23,993 45.48%
<b>District 57</b>		
<b>County: Fulton GA</b>		
Total:	59,969	10,691 17.83%
Voting Age	52,097	9,411 18.06%
<b>District 57 Total</b>		
Total:	59,969	10,691 17.83%
Voting Age	52,097	9,411 18.06%
<b>District 58</b>		
<b>County: Fulton GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	59,057	39,036
		66.10%
Voting Age	50,514	31,845
		63.04%
<b>District 58 Total</b>		
Total:	59,057	39,036
		66.10%
Voting Age	50,514	31,845
		63.04%
<b>District 59</b>		
<b>County: Fulton GA</b>		
Total:	59,434	43,468
		73.14%
Voting Age	49,179	34,470
		70.09%
<b>District 59 Total</b>		
Total:	59,434	43,468
		73.14%
Voting Age	49,179	34,470
		70.09%
<b>District 60</b>		
<b>County: Fulton GA</b>		
Total:	59,709	38,562
		64.58%
Voting Age	45,490	29,061
		63.88%
<b>District 60 Total</b>		
Total:	59,709	38,562
		64.58%
Voting Age	45,490	29,061
		63.88%
<b>District 61</b>		
<b>County: Douglas GA</b>		
Total:	48,764	23,030
		47.23%
Voting Age	36,596	16,441
		44.93%
<b>County: Fulton GA</b>		
Total:	10,186	9,691
		95.14%
Voting Age	7,616	7,210
		94.67%
<b>District 61 Total</b>		
Total:	58,950	32,721
		55.51%
Voting Age	44,212	23,651
		53.49%
<b>District 62</b>		
<b>County: Fulton GA</b>		
Total:	59,450	43,732
		73.56%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	46,426	33,548 72.26%
<b>District 62 Total</b>		
Total:	59,450	43,732 73.56%
Voting Age	46,426	33,548 72.26%
<b>District 63</b>		
<b>County: Fulton GA</b>		
Total:	59,381	42,146 70.98%
Voting Age	45,043	31,229 69.33%
<b>District 63 Total</b>		
Total:	59,381	42,146 70.98%
Voting Age	45,043	31,229 69.33%
<b>District 64</b>		
<b>County: Douglas GA</b>		
Total:	30,206	16,654 55.13%
Voting Age	23,160	12,498 53.96%
<b>County: Fulton GA</b>		
Total:	6,032	5,832 96.68%
Voting Age	4,790	4,619 96.43%
<b>County: Paulding GA</b>		
Total:	23,410	7,965 34.02%
Voting Age	17,329	5,631 32.49%
<b>District 64 Total</b>		
Total:	59,648	30,451 51.05%
Voting Age	45,279	22,748 50.24%
<b>District 65</b>		
<b>County: Coweta GA</b>		
Total:	13,008	1,621 12.46%
Voting Age	9,714	1,190 12.25%
<b>County: Douglas GA</b>		
Total:	6,306	1,076 17.06%
Voting Age	4,765	781 16.39%
<b>County: Fulton GA</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	39,926	35,278
Voting Age	30,423	88.36% 26,470 87.01%
<b>District 65 Total</b>		
Total:	59,240	37,975
Voting Age	44,902	64.10% 28,441 63.34%
<b>District 66</b>		
<b>County: Douglas GA</b>		
Total:	58,961	33,500
Voting Age	43,907	56.82% 23,657 53.88%
<b>District 66 Total</b>		
Total:	58,961	33,500
Voting Age	43,907	56.82% 23,657 53.88%
<b>District 67</b>		
<b>County: Coweta GA</b>		
Total:	17,272	1,374
Voting Age	13,061	7.96% 996 7.63%
<b>County: Fulton GA</b>		
Total:	41,863	34,064
Voting Age	31,238	81.37% 25,103 80.36%
<b>District 67 Total</b>		
Total:	59,135	35,438
Voting Age	44,299	59.93% 26,099 58.92%
<b>District 68</b>		
<b>County: Fayette GA</b>		
Total:	29,719	7,094
Voting Age	22,798	23.87% 5,151 22.59%
<b>County: Fulton GA</b>		
Total:	29,758	27,095
Voting Age	22,037	91.05% 19,843 90.04%
<b>District 68 Total</b>		
Total:	59,477	34,189
Voting Age	44,835	57.48% 24,994



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		55.75%
<b>District 69</b>		
<b>County: Fayette GA</b>		
Total:	36,979	17,619
		47.65%
Voting Age	29,316	13,365
		45.59%
<b>County: Fulton GA</b>		
Total:	21,379	20,058
		93.82%
Voting Age	15,994	15,059
		94.15%
<b>District 69 Total</b>		
Total:	58,358	37,677
		64.56%
Voting Age	45,310	28,424
		62.73%
<b>District 70</b>		
<b>County: Carroll GA</b>		
Total:	2,854	148
		5.19%
Voting Age	2,259	106
		4.69%
<b>County: Coweta GA</b>		
Total:	56,267	17,602
		31.28%
Voting Age	42,990	12,485
		29.04%
<b>District 70 Total</b>		
Total:	59,121	17,750
		30.02%
Voting Age	45,249	12,591
		27.83%
<b>District 71</b>		
<b>County: Carroll GA</b>		
Total:	59,538	12,792
		21.49%
Voting Age	44,582	8,879
		19.92%
<b>District 71 Total</b>		
Total:	59,538	12,792
		21.49%
Voting Age	44,582	8,879
		19.92%
<b>District 72</b>		
<b>County: Carroll GA</b>		
Total:	37,967	9,334
		24.58%
Voting Age	29,688	7,182
		24.19%
<b>County: Heard GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	11,412	1,142
		10.01%
Voting Age	8,698	832
		9.57%
<b>County: Troup GA</b>		
Total:	10,281	2,312
		22.49%
Voting Age	7,843	1,628
		20.76%
<b>District 72 Total</b>		
Total:	59,660	12,788
		21.43%
Voting Age	46,229	9,642
		20.86%
<b>District 73</b>		
<b>County: Coweta GA</b>		
Total:	31,608	4,579
		14.49%
Voting Age	24,269	3,242
		13.36%
<b>County: Fayette GA</b>		
Total:	28,428	3,286
		11.56%
Voting Age	21,467	2,296
		10.70%
<b>District 73 Total</b>		
Total:	60,036	7,865
		13.10%
Voting Age	45,736	5,538
		12.11%
<b>District 74</b>		
<b>County: Clayton GA</b>		
Total:	34,350	28,002
		81.52%
Voting Age	25,385	20,605
		81.17%
<b>County: Fayette GA</b>		
Total:	24,068	4,077
		16.94%
Voting Age	18,217	2,916
		16.01%
<b>District 74 Total</b>		
Total:	58,418	32,079
		54.91%
Voting Age	43,602	23,521
		53.94%
<b>District 75</b>		
<b>County: Clayton GA</b>		
Total:	55,912	38,202
		68.33%
Voting Age	42,018	28,038

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		66.73%
<b>County: Henry GA</b>		
Total:	3,847	2,694
		70.03%
Voting Age	2,965	2,052
		69.21%
<b>District 75 Total</b>		
Total:	59,759	40,896
		68.43%
Voting Age	44,983	30,090
		66.89%
<b>District 76</b>		
<b>County: Clayton GA</b>		
Total:	59,759	40,461
		67.71%
Voting Age	44,371	29,832
		67.23%
<b>District 76 Total</b>		
Total:	59,759	40,461
		67.71%
Voting Age	44,371	29,832
		67.23%
<b>District 77</b>		
<b>County: Clayton GA</b>		
Total:	59,242	44,963
		75.90%
Voting Age	44,207	33,655
		76.13%
<b>District 77 Total</b>		
Total:	59,242	44,963
		75.90%
Voting Age	44,207	33,655
		76.13%
<b>District 78</b>		
<b>County: Clayton GA</b>		
Total:	24,678	19,469
		78.89%
Voting Age	18,054	13,832
		76.61%
<b>County: Henry GA</b>		
Total:	18,397	9,234
		50.19%
Voting Age	13,441	6,374
		47.42%
<b>County: Spalding GA</b>		
Total:	16,815	3,645
		21.68%
Voting Age	13,276	2,642
		19.90%
<b>District 78 Total</b>		
Total:	59,890	32,348

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	44,771	54.01% 22,848 51.03%
<b>District 79</b>		
<b>County: Clayton GA</b>		
Total:	59,500	42,713 71.79%
Voting Age	43,223	30,942 71.59%
<b>District 79 Total</b>		
Total:	59,500	42,713 71.79%
Voting Age	43,223	30,942 71.59%
<b>District 80</b>		
<b>County: DeKalb GA</b>		
Total:	59,461	8,128 13.67%
Voting Age	44,784	6,350 14.18%
<b>District 80 Total</b>		
Total:	59,461	8,128 13.67%
Voting Age	44,784	6,350 14.18%
<b>District 81</b>		
<b>County: DeKalb GA</b>		
Total:	59,007	12,487 21.16%
Voting Age	46,259	10,099 21.83%
<b>District 81 Total</b>		
Total:	59,007	12,487 21.16%
Voting Age	46,259	10,099 21.83%
<b>District 82</b>		
<b>County: DeKalb GA</b>		
Total:	59,724	9,763 16.35%
Voting Age	50,238	8,455 16.83%
<b>District 82 Total</b>		
Total:	59,724	9,763 16.35%
Voting Age	50,238	8,455 16.83%
<b>District 83</b>		
<b>County: DeKalb GA</b>		
Total:	59,416	8,327 14.01%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	46,581	7,044 15.12%
<b>District 83 Total</b>		
Total:	59,416	8,327 14.01%
Voting Age	46,581	7,044 15.12%
<b>District 84</b>		
<b>County: DeKalb GA</b>		
Total:	59,862	43,909 73.35%
Voting Age	47,350	34,877 73.66%
<b>District 84 Total</b>		
Total:	59,862	43,909 73.35%
Voting Age	47,350	34,877 73.66%
<b>District 85</b>		
<b>County: DeKalb GA</b>		
Total:	59,373	37,650 63.41%
Voting Age	46,308	29,041 62.71%
<b>District 85 Total</b>		
Total:	59,373	37,650 63.41%
Voting Age	46,308	29,041 62.71%
<b>District 86</b>		
<b>County: DeKalb GA</b>		
Total:	59,205	44,458 75.09%
Voting Age	44,614	33,485 75.05%
<b>District 86 Total</b>		
Total:	59,205	44,458 75.09%
Voting Age	44,614	33,485 75.05%
<b>District 87</b>		
<b>County: DeKalb GA</b>		
Total:	59,709	44,195 74.02%
Voting Age	45,615	33,336 73.08%
<b>District 87 Total</b>		
Total:	59,709	44,195 74.02%
Voting Age	45,615	33,336 73.08%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 88</b>		
<b>County: DeKalb GA</b>		
Total:	47,844	34,877 72.90%
Voting Age	37,310	26,554 71.17%
<b>County: Gwinnett GA</b>		
Total:	11,845	3,638 30.71%
Voting Age	8,763	2,633 30.05%
<b>District 88 Total</b>		
Total:	59,689	38,515 64.53%
Voting Age	46,073	29,187 63.35%
<b>District 89</b>		
<b>County: DeKalb GA</b>		
Total:	59,866	37,494 62.63%
Voting Age	46,198	28,890 62.54%
<b>District 89 Total</b>		
Total:	59,866	37,494 62.63%
Voting Age	46,198	28,890 62.54%
<b>District 90</b>		
<b>County: DeKalb GA</b>		
Total:	59,812	35,965 60.13%
Voting Age	48,015	28,082 58.49%
<b>District 90 Total</b>		
Total:	59,812	35,965 60.13%
Voting Age	48,015	28,082 58.49%
<b>District 91</b>		
<b>County: DeKalb GA</b>		
Total:	19,700	18,867 95.77%
Voting Age	14,941	14,323 95.86%
<b>County: Henry GA</b>		
Total:	35,475	15,389 43.38%
Voting Age	27,241	11,402 41.86%
<b>County: Rockdale GA</b>		
Total:	4,781	2,458

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	3,817	51.41% 1,879 49.23%
<b>District 91 Total</b>		
Total:	59,956	36,714 61.23%
Voting Age	45,999	27,604 60.01%
<b>District 92</b>		
<b>County: DeKalb GA</b>		
Total:	15,607	14,612 93.62%
Voting Age	11,794	10,979 93.09%
<b>County: Rockdale GA</b>		
Total:	44,666	28,366 63.51%
Voting Age	34,757	21,043 60.54%
<b>District 92 Total</b>		
Total:	60,273	42,978 71.31%
Voting Age	46,551	32,022 68.79%
<b>District 93</b>		
<b>County: DeKalb GA</b>		
Total:	11,690	10,625 90.89%
Voting Age	8,476	7,662 90.40%
<b>County: Newton GA</b>		
Total:	15,515	8,194 52.81%
Voting Age	12,080	6,153 50.94%
<b>County: Rockdale GA</b>		
Total:	32,913	21,430 65.11%
Voting Age	24,178	15,424 63.79%
<b>District 93 Total</b>		
Total:	60,118	40,249 66.95%
Voting Age	44,734	29,239 65.36%
<b>District 94</b>		
<b>County: DeKalb GA</b>		
Total:	31,207	29,080 93.18%
Voting Age	23,817	22,124 92.89%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Gwinnett GA</b>		
Total:	28,004	12,317 43.98%
Voting Age	20,992	8,811 41.97%
<b>District 94 Total</b>		
Total:	59,211	41,397 69.91%
Voting Age	44,809	30,935 69.04%
<b>District 95</b>		
<b>County: DeKalb GA</b>		
Total:	14,599	13,199 90.41%
Voting Age	10,985	9,855 89.71%
<b>County: Gwinnett GA</b>		
Total:	34,221	23,533 68.77%
Voting Age	25,212	16,739 66.39%
<b>County: Rockdale GA</b>		
Total:	11,210	4,950 44.16%
Voting Age	8,751	3,589 41.01%
<b>District 95 Total</b>		
Total:	60,030	41,682 69.44%
Voting Age	44,948	30,183 67.15%
<b>District 96</b>		
<b>County: Gwinnett GA</b>		
Total:	59,515	13,970 23.47%
Voting Age	44,671	10,273 23.00%
<b>District 96 Total</b>		
Total:	59,515	13,970 23.47%
Voting Age	44,671	10,273 23.00%
<b>District 97</b>		
<b>County: Gwinnett GA</b>		
Total:	59,072	16,869 28.56%
Voting Age	46,339	12,405 26.77%
<b>District 97 Total</b>		
Total:	59,072	16,869 28.56%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	46,339	12,405 26.77%
<b>District 98</b>		
<b>County: Gwinnett GA</b>		
Total:	59,998	13,286 22.14%
Voting Age	42,734	9,934 23.25%
<b>District 98 Total</b>		
Total:	59,998	13,286 22.14%
Voting Age	42,734	9,934 23.25%
<b>District 99</b>		
<b>County: Gwinnett GA</b>		
Total:	59,850	9,514 15.90%
Voting Age	45,004	6,622 14.71%
<b>District 99 Total</b>		
Total:	59,850	9,514 15.90%
Voting Age	45,004	6,622 14.71%
<b>District 100</b>		
<b>County: Forsyth GA</b>		
Total:	17,007	886 5.21%
Voting Age	11,368	568 5.00%
<b>County: Gwinnett GA</b>		
Total:	35,204	4,889 13.89%
Voting Age	25,378	3,318 13.07%
<b>County: Hall GA</b>		
Total:	7,819	623 7.97%
Voting Age	5,923	387 6.53%
<b>District 100 Total</b>		
Total:	60,030	6,398 10.66%
Voting Age	42,669	4,273 10.01%
<b>District 101</b>		
<b>County: Gwinnett GA</b>		
Total:	59,938	15,380 25.66%
Voting Age	46,584	11,269 24.19%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 101 Total</b>		
Total:	59,938	15,380
		25.66%
Voting Age	46,584	11,269
		24.19%
<b>District 102</b>		
<b>County: Gwinnett GA</b>		
Total:	58,959	23,702
		40.20%
Voting Age	42,968	16,164
		37.62%
<b>District 102 Total</b>		
Total:	58,959	23,702
		40.20%
Voting Age	42,968	16,164
		37.62%
<b>District 103</b>		
<b>County: Gwinnett GA</b>		
Total:	51,691	10,201
		19.73%
Voting Age	38,022	7,144
		18.79%
<b>County: Hall GA</b>		
Total:	8,506	427
		5.02%
Voting Age	6,377	310
		4.86%
<b>District 103 Total</b>		
Total:	60,197	10,628
		17.66%
Voting Age	44,399	7,454
		16.79%
<b>District 104</b>		
<b>County: Barrow GA</b>		
Total:	24,245	3,059
		12.62%
Voting Age	17,849	2,036
		11.41%
<b>County: Gwinnett GA</b>		
Total:	35,117	7,684
		21.88%
Voting Age	25,457	5,337
		20.96%
<b>District 104 Total</b>		
Total:	59,362	10,743
		18.10%
Voting Age	43,306	7,373
		17.03%
<b>District 105</b>		
<b>County: Gwinnett GA</b>		
Total:	59,344	18,444

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	43,474	31.08% 12,628 29.05%
<b>District 105 Total</b>		
Total:	59,344	18,444 31.08%
Voting Age	43,474	12,628 29.05%
<b>District 106</b>		
<b>County: Gwinnett GA</b>		
Total:	59,112	23,221 39.28%
Voting Age	43,890	15,918 36.27%
<b>District 106 Total</b>		
Total:	59,112	23,221 39.28%
Voting Age	43,890	15,918 36.27%
<b>District 107</b>		
<b>County: Gwinnett GA</b>		
Total:	59,702	18,372 30.77%
Voting Age	44,509	13,186 29.63%
<b>District 107 Total</b>		
Total:	59,702	18,372 30.77%
Voting Age	44,509	13,186 29.63%
<b>District 108</b>		
<b>County: Gwinnett GA</b>		
Total:	59,577	11,946 20.05%
Voting Age	44,308	8,132 18.35%
<b>District 108 Total</b>		
Total:	59,577	11,946 20.05%
Voting Age	44,308	8,132 18.35%
<b>District 109</b>		
<b>County: Gwinnett GA</b>		
Total:	59,630	19,592 32.86%
Voting Age	44,140	14,352 32.51%
<b>District 109 Total</b>		
Total:	59,630	19,592 32.86%
Voting Age	44,140	14,352

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		32.51%
<b>District 110</b>		
<b>County: Gwinnett GA</b>		
Total:	59,951	30,042
		50.11%
Voting Age	43,226	20,400
		47.19%
<b>District 110 Total</b>		
Total:	59,951	30,042
		50.11%
Voting Age	43,226	20,400
		47.19%
<b>District 111</b>		
<b>County: Gwinnett GA</b>		
Total:	22,685	7,931
		34.96%
Voting Age	16,118	5,330
		33.07%
<b>County: Walton GA</b>		
Total:	37,324	6,641
		17.79%
Voting Age	27,978	4,498
		16.08%
<b>District 111 Total</b>		
Total:	60,009	14,572
		24.28%
Voting Age	44,096	9,828
		22.29%
<b>District 112</b>		
<b>County: Walton GA</b>		
Total:	59,349	12,163
		20.49%
Voting Age	45,120	8,667
		19.21%
<b>District 112 Total</b>		
Total:	59,349	12,163
		20.49%
Voting Age	45,120	8,667
		19.21%
<b>District 113</b>		
<b>County: Newton GA</b>		
Total:	60,053	37,002
		61.62%
Voting Age	44,538	26,515
		59.53%
<b>District 113 Total</b>		
Total:	60,053	37,002
		61.62%
Voting Age	44,538	26,515
		59.53%
<b>District 114</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Jasper GA</b>		
Total:	2,855	394
		13.80%
Voting Age	2,168	302
		13.93%
<b>County: Morgan GA</b>		
Total:	20,097	4,339
		21.59%
Voting Age	15,574	3,280
		21.06%
<b>County: Newton GA</b>		
Total:	36,915	10,705
		29.00%
Voting Age	28,130	7,765
		27.60%
<b>District 114 Total</b>		
Total:	59,867	15,438
		25.79%
Voting Age	45,872	11,347
		24.74%
<b>District 115</b>		
<b>County: Henry GA</b>		
Total:	59,789	33,618
		56.23%
Voting Age	45,207	24,310
		53.77%
<b>District 115 Total</b>		
Total:	59,789	33,618
		56.23%
Voting Age	45,207	24,310
		53.77%
<b>District 116</b>		
<b>County: Clayton GA</b>		
Total:	4,154	2,541
		61.17%
Voting Age	3,320	1,950
		58.73%
<b>County: Henry GA</b>		
Total:	50,833	29,507
		58.05%
Voting Age	38,402	21,175
		55.14%
<b>County: Spalding GA</b>		
Total:	5,393	1,188
		22.03%
Voting Age	4,727	1,006
		21.28%
<b>District 116 Total</b>		
Total:	60,380	33,236
		55.04%
Voting Age	46,449	24,131

## Plan Components with Population Detail

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Total Population	AP_Bl
		51.95%
<b>District 117</b>		
<b>County: Henry GA</b>		
Total:	60,142	32,458
		53.97%
Voting Age	44,089	22,732
		51.56%
<b>District 117 Total</b>		
Total:	60,142	32,458
		53.97%
Voting Age	44,089	22,732
		51.56%
<b>District 118</b>		
<b>County: Butts GA</b>		
Total:	25,434	7,212
		28.36%
Voting Age	20,360	5,660
		27.80%
<b>County: Henry GA</b>		
Total:	12,229	2,311
		18.90%
Voting Age	8,628	1,612
		18.68%
<b>County: Jasper GA</b>		
Total:	11,733	2,282
		19.45%
Voting Age	8,950	1,664
		18.59%
<b>County: Putnam GA</b>		
Total:	10,591	2,690
		25.40%
Voting Age	8,404	2,001
		23.81%
<b>District 118 Total</b>		
Total:	59,987	14,495
		24.16%
Voting Age	46,342	10,937
		23.60%
<b>District 119</b>		
<b>County: Barrow GA</b>		
Total:	54,736	8,054
		14.71%
Voting Age	40,949	5,601
		13.68%
<b>County: Jackson GA</b>		
Total:	4,211	476
		11.30%
Voting Age	3,056	334
		10.93%
<b>District 119 Total</b>		
Total:	58,947	8,530

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	44,005	14.47% 5,935 13.49%
<b>District 120</b>		
<b>County: Barrow GA</b>		
Total:	4,524	794 17.55%
Voting Age	3,397	585 17.22%
<b>County: Clarke GA</b>		
Total:	30,095	6,316 20.99%
Voting Age	25,090	4,861 19.37%
<b>County: Jackson GA</b>		
Total:	15,213	1,258 8.27%
Voting Age	11,666	903 7.74%
<b>County: Oconee GA</b>		
Total:	9,150	500 5.46%
Voting Age	6,614	330 4.99%
<b>District 120 Total</b>		
Total:	58,982	8,868 15.04%
Voting Age	46,767	6,679 14.28%
<b>District 121</b>		
<b>County: Clarke GA</b>		
Total:	26,478	4,108 15.51%
Voting Age	22,991	3,124 13.59%
<b>County: Oconee GA</b>		
Total:	32,649	1,780 5.45%
Voting Age	23,607	1,330 5.63%
<b>District 121 Total</b>		
Total:	59,127	5,888 9.96%
Voting Age	46,598	4,454 9.56%
<b>District 122</b>		
<b>County: Clarke GA</b>		
Total:	59,632	19,281 32.33%
Voting Age	48,840	13,878 28.42%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 122 Total</b>		
Total:	59,632	19,281
		32.33%
Voting Age	48,840	13,878
		28.42%
<b>District 123</b>		
<b>County: Columbia GA</b>		
Total:	2,205	478
		21.68%
Voting Age	1,801	398
		22.10%
<b>County: Elbert GA</b>		
Total:	19,637	5,520
		28.11%
Voting Age	15,493	4,122
		26.61%
<b>County: Lincoln GA</b>		
Total:	7,690	2,212
		28.76%
Voting Age	6,270	1,728
		27.56%
<b>County: Madison GA</b>		
Total:	20,185	2,813
		13.94%
Voting Age	15,357	1,988
		12.95%
<b>County: Wilkes GA</b>		
Total:	9,565	3,989
		41.70%
Voting Age	7,651	3,071
		40.14%
<b>District 123 Total</b>		
Total:	59,282	15,012
		25.32%
Voting Age	46,572	11,307
		24.28%
<b>District 124</b>		
<b>County: Clarke GA</b>		
Total:	12,466	3,967
		31.82%
Voting Age	9,909	2,913
		29.40%
<b>County: Greene GA</b>		
Total:	18,915	6,027
		31.86%
Voting Age	15,358	4,470
		29.11%
<b>County: Oglethorpe GA</b>		
Total:	14,825	2,468
		16.65%
Voting Age	11,639	1,853



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		15.92%
<b>County: Putnam GA</b>		
Total:	11,456	3,011
		26.28%
Voting Age	9,443	2,228
		23.59%
<b>County: Taliaferro GA</b>		
Total:	1,559	876
		56.19%
Voting Age	1,289	722
		56.01%
<b>District 124 Total</b>		
Total:	59,221	16,349
		27.61%
Voting Age	47,638	12,186
		25.58%
<b>District 125</b>		
<b>County: Columbia GA</b>		
Total:	55,389	14,661
		26.47%
Voting Age	40,007	9,920
		24.80%
<b>County: McDuffie GA</b>		
Total:	4,748	594
		12.51%
Voting Age	3,805	456
		11.98%
<b>District 125 Total</b>		
Total:	60,137	15,255
		25.37%
Voting Age	43,812	10,376
		23.68%
<b>District 126</b>		
<b>County: Burke GA</b>		
Total:	24,596	11,430
		46.47%
Voting Age	18,778	8,362
		44.53%
<b>County: Jenkins GA</b>		
Total:	8,674	3,638
		41.94%
Voting Age	7,005	2,843
		40.59%
<b>County: Richmond GA</b>		
Total:	25,990	18,384
		70.73%
Voting Age	19,714	13,577
		68.87%
<b>District 126 Total</b>		
Total:	59,260	33,452
		56.45%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	45,497	24,782 54.47%
<b>District 127</b>		
<b>County: Columbia GA</b>		
Total:	39,526	6,235 15.77%
Voting Age	30,047	4,383 14.59%
<b>County: Richmond GA</b>		
Total:	19,152	5,305 27.70%
Voting Age	15,842	4,117 25.99%
<b>District 127 Total</b>		
Total:	58,678	11,540 19.67%
Voting Age	45,889	8,500 18.52%
<b>District 128</b>		
<b>County: Baldwin GA</b>		
Total:	5,158	1,999 38.76%
Voting Age	4,087	1,497 36.63%
<b>County: Glascock GA</b>		
Total:	2,884	226 7.84%
Voting Age	2,236	167 7.47%
<b>County: Hancock GA</b>		
Total:	8,735	6,131 70.19%
Voting Age	7,487	5,108 68.22%
<b>County: McDuffie GA</b>		
Total:	16,884	8,451 50.05%
Voting Age	12,810	5,969 46.60%
<b>County: Warren GA</b>		
Total:	5,215	3,128 59.98%
Voting Age	4,159	2,360 56.74%
<b>County: Washington GA</b>		
Total:	19,988	10,969 54.88%
Voting Age	15,709	8,333 53.05%
<b>District 128 Total</b>		
Total:	58,864	30,904

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	46,488	52.50% 23,434 50.41%
<b>District 129</b>		
<b>County: Richmond GA</b>		
Total:	58,829	34,245 58.21%
Voting Age	46,873	25,717 54.87%
<b>District 129 Total</b>		
Total:	58,829	34,245 58.21%
Voting Age	46,873	25,717 54.87%
<b>District 130</b>		
<b>County: Richmond GA</b>		
Total:	59,203	37,564 63.45%
Voting Age	44,019	26,372 59.91%
<b>District 130 Total</b>		
Total:	59,203	37,564 63.45%
Voting Age	44,019	26,372 59.91%
<b>District 131</b>		
<b>County: Columbia GA</b>		
Total:	58,890	11,142 18.92%
Voting Age	42,968	7,572 17.62%
<b>District 131 Total</b>		
Total:	58,890	11,142 18.92%
Voting Age	42,968	7,572 17.62%
<b>District 132</b>		
<b>County: Jefferson GA</b>		
Total:	15,709	8,208 52.25%
Voting Age	12,301	6,324 51.41%
<b>County: Richmond GA</b>		
Total:	43,433	24,472 56.34%
Voting Age	34,451	18,147 52.67%
<b>District 132 Total</b>		
Total:	59,142	32,680 55.26%
Voting Age	46,752	24,471

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		52.34%
<b>District 133</b>		
<b>County: Baldwin GA</b>		
Total:	12,336	3,533
		28.64%
Voting Age	9,995	2,704
		27.05%
<b>County: Jones GA</b>		
Total:	28,347	7,114
		25.10%
Voting Age	21,575	5,341
		24.76%
<b>County: Monroe GA</b>		
Total:	19,085	5,241
		27.46%
Voting Age	14,826	4,069
		27.45%
<b>District 133 Total</b>		
Total:	59,768	15,888
		26.58%
Voting Age	46,396	12,114
		26.11%
<b>District 134</b>		
<b>County: Lamar GA</b>		
Total:	13,948	3,951
		28.33%
Voting Age	10,728	2,916
		27.18%
<b>County: Spalding GA</b>		
Total:	45,098	19,689
		43.66%
Voting Age	34,120	13,863
		40.63%
<b>District 134 Total</b>		
Total:	59,046	23,640
		40.04%
Voting Age	44,848	16,779
		37.41%
<b>District 135</b>		
<b>County: Lamar GA</b>		
Total:	4,552	1,269
		27.88%
Voting Age	3,813	1,101
		28.87%
<b>County: Monroe GA</b>		
Total:	8,872	1,203
		13.56%
Voting Age	7,087	999
		14.10%
<b>County: Pike GA</b>		
Total:	18,889	1,613

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	14,337	8.54% 1,254 8.75%
<b>County: Upson GA</b>		
Total:	27,700	8,324 30.05%
Voting Age	21,711	6,202 28.57%
<b>District 135 Total</b>		
Total:	60,013	12,409 20.68%
Voting Age	46,948	9,556 20.35%
<b>District 136</b>		
<b>County: Coweta GA</b>		
Total:	28,003	3,113 11.12%
Voting Age	21,121	2,283 10.81%
<b>County: Meriwether GA</b>		
Total:	13,382	4,842 36.18%
Voting Age	10,832	3,828 35.34%
<b>County: Troup GA</b>		
Total:	17,913	9,575 53.45%
Voting Age	13,414	6,894 51.39%
<b>District 136 Total</b>		
Total:	59,298	17,530 29.56%
Voting Age	45,367	13,005 28.67%
<b>District 137</b>		
<b>County: Meriwether GA</b>		
Total:	7,231	2,705 37.41%
Voting Age	5,694	2,017 35.42%
<b>County: Muscogee GA</b>		
Total:	30,443	19,637 64.50%
Voting Age	22,797	14,291 62.69%
<b>County: Talbot GA</b>		
Total:	5,733	3,145 54.86%
Voting Age	4,783	2,537 53.04%
<b>County: Troup GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	16,144	6,765 41.90%
Voting Age	12,084	4,802 39.74%
<b>District 137 Total</b>		
Total:	59,551	32,252 54.16%
Voting Age	45,358	23,647 52.13%
<b>District 138</b>		
<b>County: Harris GA</b>		
Total:	21,634	3,615 16.71%
Voting Age	16,816	2,768 16.46%
<b>County: Muscogee GA</b>		
Total:	12,190	1,636 13.42%
Voting Age	9,628	1,178 12.24%
<b>County: Troup GA</b>		
Total:	25,088	6,821 27.19%
Voting Age	19,240	4,878 25.35%
<b>District 138 Total</b>		
Total:	58,912	12,072 20.49%
Voting Age	45,684	8,824 19.32%
<b>District 139</b>		
<b>County: Harris GA</b>		
Total:	13,034	2,127 16.32%
Voting Age	9,983	1,663 16.66%
<b>County: Muscogee GA</b>		
Total:	45,976	10,719 23.31%
Voting Age	35,539	7,564 21.28%
<b>District 139 Total</b>		
Total:	59,010	12,846 21.77%
Voting Age	45,522	9,227 20.27%
<b>District 140</b>		
<b>County: Muscogee GA</b>		
Total:	59,294	35,460 59.80%
Voting Age	44,411	25,596

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		57.63%
<b>District 140 Total</b>		
Total:	59,294	35,460 59.80%
Voting Age	44,411	25,596 57.63%
<b>District 141</b>		
<b>County: Muscogee GA</b>		
Total:	59,019	34,760 58.90%
Voting Age	44,677	25,672 57.46%
<b>District 141 Total</b>		
Total:	59,019	34,760 58.90%
Voting Age	44,677	25,672 57.46%
<b>District 142</b>		
<b>County: Bibb GA</b>		
Total:	59,320	31,749 53.52%
Voting Age	45,212	22,669 50.14%
<b>District 142 Total</b>		
Total:	59,320	31,749 53.52%
Voting Age	45,212	22,669 50.14%
<b>District 143</b>		
<b>County: Bibb GA</b>		
Total:	59,122	32,016 54.15%
Voting Age	45,811	23,200 50.64%
<b>District 143 Total</b>		
Total:	59,122	32,016 54.15%
Voting Age	45,811	23,200 50.64%
<b>District 144</b>		
<b>County: Crawford GA</b>		
Total:	12,130	2,455 20.24%
Voting Age	9,606	1,938 20.17%
<b>County: Houston GA</b>		
Total:	32,310	9,506 29.42%
Voting Age	24,049	6,774 28.17%
<b>County: Peach GA</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	14,093	3,312
		23.50%
Voting Age	11,209	2,478
		22.11%
<b>District 144 Total</b>		
Total:	58,533	15,273
		26.09%
Voting Age	44,864	11,190
		24.94%
<b>District 145</b>		
<b>County: Bibb GA</b>		
Total:	22,716	12,851
		56.57%
Voting Age	17,174	9,172
		53.41%
<b>County: Houston GA</b>		
Total:	36,952	19,227
		52.03%
Voting Age	27,373	13,271
		48.48%
<b>District 145 Total</b>		
Total:	59,668	32,078
		53.76%
Voting Age	44,547	22,443
		50.38%
<b>District 146</b>		
<b>County: Bleckley GA</b>		
Total:	12,583	2,951
		23.45%
Voting Age	9,613	2,036
		21.18%
<b>County: Houston GA</b>		
Total:	35,804	8,390
		23.43%
Voting Age	26,273	5,991
		22.80%
<b>County: Pulaski GA</b>		
Total:	9,855	3,250
		32.98%
Voting Age	8,012	2,564
		32.00%
<b>County: Wilcox GA</b>		
Total:	955	365
		38.22%
Voting Age	779	300
		38.51%
<b>District 146 Total</b>		
Total:	59,197	14,956
		25.26%
Voting Age	44,677	10,891
		24.38%



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 147</b>		
<b>County: Houston GA</b>		
Total:	58,567	19,397 33.12%
Voting Age	44,423	13,569 30.54%
<b>District 147 Total</b>		
Total:	58,567	19,397 33.12%
Voting Age	44,423	13,569 30.54%
<b>District 148</b>		
<b>County: Ben Hill GA</b>		
Total:	5,115	1,601 31.30%
Voting Age	3,873	1,069 27.60%
<b>County: Crisp GA</b>		
Total:	20,128	9,194 45.68%
Voting Age	15,570	6,603 42.41%
<b>County: Dodge GA</b>		
Total:	18,550	6,010 32.40%
Voting Age	14,621	4,625 31.63%
<b>County: Telfair GA</b>		
Total:	8,283	3,698 44.65%
Voting Age	6,955	3,013 43.32%
<b>County: Wilcox GA</b>		
Total:	7,811	2,796 35.80%
Voting Age	6,439	2,393 37.16%
<b>District 148 Total</b>		
Total:	59,887	23,299 38.90%
Voting Age	47,458	17,703 37.30%
<b>District 149</b>		
<b>County: Baldwin GA</b>		
Total:	26,305	13,453 51.14%
Voting Age	21,650	10,314 47.64%
<b>County: Bibb GA</b>		
Total:	16,188	12,249 75.67%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	12,705	9,229 72.64%
<b>County: Twiggs GA</b>		
Total:	8,022	3,226 40.21%
Voting Age	6,589	2,627 39.87%
<b>County: Wilkinson GA</b>		
Total:	8,877	3,330 37.51%
Voting Age	7,026	2,549 36.28%
<b>District 149 Total</b>		
Total:	59,392	32,258 54.31%
Voting Age	47,970	24,719 51.53%
<b>District 150</b>		
<b>County: Dooly GA</b>		
Total:	11,208	5,652 50.43%
Voting Age	9,187	4,526 49.27%
<b>County: Macon GA</b>		
Total:	12,082	7,296 60.39%
Voting Age	9,938	6,021 60.59%
<b>County: Peach GA</b>		
Total:	13,888	9,333 67.20%
Voting Age	10,902	7,242 66.43%
<b>County: Sumter GA</b>		
Total:	14,282	7,237 50.67%
Voting Age	10,903	5,178 47.49%
<b>County: Taylor GA</b>		
Total:	7,816	2,946 37.69%
Voting Age	6,120	2,235 36.52%
<b>District 150 Total</b>		
Total:	59,276	32,464 54.77%
Voting Age	47,050	25,202 53.56%
<b>District 151</b>		
<b>County: Chattahoochee GA</b>		
Total:	9,565	1,825

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	7,199	19.08% 1,287 17.88%
<b>County: Dougherty GA</b>		
Total:	6,268	3,885 61.98%
Voting Age	4,791	2,835 59.17%
<b>County: Marion GA</b>		
Total:	7,498	2,223 29.65%
Voting Age	5,854	1,687 28.82%
<b>County: Schley GA</b>		
Total:	4,547	933 20.52%
Voting Age	3,328	644 19.35%
<b>County: Stewart GA</b>		
Total:	5,314	2,538 47.76%
Voting Age	4,617	2,048 44.36%
<b>County: Sumter GA</b>		
Total:	15,334	8,309 54.19%
Voting Age	12,133	6,301 51.93%
<b>County: Terrell GA</b>		
Total:	9,185	5,707 62.13%
Voting Age	7,204	4,274 59.33%
<b>County: Webster GA</b>		
Total:	2,348	1,107 47.15%
Voting Age	1,847	844 45.70%
<b>District 151 Total</b>		
Total:	60,059	26,527 44.17%
Voting Age	46,973	19,920 42.41%
<b>District 152</b>		
<b>County: Dougherty GA</b>		
Total:	6,187	3,082 49.81%
Voting Age	4,906	2,382 48.55%
<b>County: Lee GA</b>		
Total:	33,163	7,755

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	24,676	23.38% 5,503 22.30%
<b>County: Worth GA</b>		
Total:	20,784	5,517 26.54%
Voting Age	16,444	4,108 24.98%
<b>District 152 Total</b>		
Total:	60,134	16,354 27.20%
Voting Age	46,026	11,993 26.06%
<b>District 153</b>		
<b>County: Dougherty GA</b>		
Total:	59,299	42,183 71.14%
Voting Age	45,692	31,047 67.95%
<b>District 153 Total</b>		
Total:	59,299	42,183 71.14%
Voting Age	45,692	31,047 67.95%
<b>District 154</b>		
<b>County: Baker GA</b>		
Total:	2,876	1,178 40.96%
Voting Age	2,275	932 40.97%
<b>County: Calhoun GA</b>		
Total:	5,573	3,629 65.12%
Voting Age	4,687	2,998 63.96%
<b>County: Clay GA</b>		
Total:	2,848	1,634 57.37%
Voting Age	2,246	1,231 54.81%
<b>County: Dougherty GA</b>		
Total:	14,036	12,307 87.68%
Voting Age	10,877	9,367 86.12%
<b>County: Early GA</b>		
Total:	10,854	5,688 52.40%
Voting Age	8,315	4,075 49.01%
<b>County: Miller GA</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	6,000	1,831 30.52%
Voting Age	4,749	1,358 28.60%
<b>County: Quitman GA</b>		
Total:	2,235	965 43.18%
Voting Age	1,870	765 40.91%
<b>County: Randolph GA</b>		
Total:	6,425	3,947 61.43%
Voting Age	4,977	2,913 58.53%
<b>County: Seminole GA</b>		
Total:	9,147	3,093 33.81%
Voting Age	7,277	2,275 31.26%
<b>District 154 Total</b>		
Total:	59,994	34,272 57.13%
Voting Age	47,273	25,914 54.82%
<b>District 155</b>		
<b>County: Dodge GA</b>		
Total:	1,375	138 10.04%
Voting Age	1,088	100 9.19%
<b>County: Johnson GA</b>		
Total:	9,189	3,124 34.00%
Voting Age	7,474	2,513 33.62%
<b>County: Laurens GA</b>		
Total:	49,570	19,132 38.60%
Voting Age	37,734	13,695 36.29%
<b>District 155 Total</b>		
Total:	60,134	22,394 37.24%
Voting Age	46,296	16,308 35.23%
<b>District 156</b>		
<b>County: Ben Hill GA</b>		
Total:	12,079	4,936 40.86%
Voting Age	9,292	3,676 39.56%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>County: Montgomery GA</b>		
Total:	8,610	2,224
		25.83%
Voting Age	6,792	1,781
		26.22%
<b>County: Tattnall GA</b>		
Total:	1,263	168
		13.30%
Voting Age	999	129
		12.91%
<b>County: Telfair GA</b>		
Total:	4,194	1,056
		25.18%
Voting Age	3,235	793
		24.51%
<b>County: Toombs GA</b>		
Total:	27,030	7,402
		27.38%
Voting Age	20,261	5,036
		24.86%
<b>County: Wheeler GA</b>		
Total:	7,471	2,949
		39.47%
Voting Age	6,217	2,561
		41.19%
<b>District 156 Total</b>		
Total:	60,647	18,735
		30.89%
Voting Age	46,796	13,976
		29.87%
<b>District 157</b>		
<b>County: Appling GA</b>		
Total:	12,825	3,189
		24.87%
Voting Age	9,673	2,257
		23.33%
<b>County: Evans GA</b>		
Total:	10,774	3,273
		30.38%
Voting Age	8,127	2,410
		29.65%
<b>County: Jeff Davis GA</b>		
Total:	14,779	2,493
		16.87%
Voting Age	10,856	1,752
		16.14%
<b>County: Tattnall GA</b>		
Total:	21,579	6,163
		28.56%
Voting Age	16,655	4,757
		28.56%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
<b>District 157 Total</b>		
Total:	59,957	15,118
		25.21%
Voting Age	45,311	11,176
		24.67%
<b>District 158</b>		
<b>County: Bulloch GA</b>		
Total:	19,285	7,179
		37.23%
Voting Age	15,054	5,282
		35.09%
<b>County: Candler GA</b>		
Total:	10,981	2,807
		25.56%
Voting Age	8,241	2,009
		24.38%
<b>County: Emanuel GA</b>		
Total:	22,768	7,556
		33.19%
Voting Age	17,320	5,404
		31.20%
<b>County: Treutlen GA</b>		
Total:	6,406	2,114
		33.00%
Voting Age	4,934	1,514
		30.69%
<b>District 158 Total</b>		
Total:	59,440	19,656
		33.07%
Voting Age	45,549	14,209
		31.19%
<b>District 159</b>		
<b>County: Bulloch GA</b>		
Total:	12,887	5,071
		39.35%
Voting Age	9,695	3,543
		36.54%
<b>County: Effingham GA</b>		
Total:	32,941	4,709
		14.30%
Voting Age	24,283	3,308
		13.62%
<b>County: Screven GA</b>		
Total:	14,067	5,527
		39.29%
Voting Age	10,893	4,144
		38.04%
<b>District 159 Total</b>		
Total:	59,895	15,307
		25.56%
Voting Age	44,871	10,995



## Plan Components with Population Detail

Grant\_Esselstyn\_Hse\_illus\_12\_05

	Total Population	AP_Bl 24.50%
<b>District 160</b>		
<b>County: Bryan GA</b>		
Total:	11,008	2,045 18.58%
Voting Age	8,312	1,464 17.61%
<b>County: Bulloch GA</b>		
Total:	48,927	12,125 24.78%
Voting Age	39,745	9,395 23.64%
<b>District 160 Total</b>		
Total:	59,935	14,170 23.64%
Voting Age	48,057	10,859 22.60%
<b>District 161</b>		
<b>County: Chatham GA</b>		
Total:	28,269	12,024 42.53%
Voting Age	21,359	8,519 39.88%
<b>County: Effingham GA</b>		
Total:	31,828	5,326 16.73%
Voting Age	23,012	3,523 15.31%
<b>District 161 Total</b>		
Total:	60,097	17,350 28.87%
Voting Age	44,371	12,042 27.14%
<b>District 162</b>		
<b>County: Chatham GA</b>		
Total:	60,308	28,142 46.66%
Voting Age	46,733	20,435 43.73%
<b>District 162 Total</b>		
Total:	60,308	28,142 46.66%
Voting Age	46,733	20,435 43.73%
<b>District 163</b>		
<b>County: Chatham GA</b>		
Total:	60,123	29,099 48.40%
Voting Age	48,461	22,045 45.49%
<b>District 163 Total</b>		



**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	60,123	29,099
		48.40%
Voting Age	48,461	22,045
		45.49%
<b>District 164</b>		
<b>County: Bryan GA</b>		
Total:	21,420	4,209
		19.65%
Voting Age	15,119	2,747
		18.17%
<b>County: Chatham GA</b>		
Total:	38,681	10,858
		28.07%
Voting Age	30,732	8,013
		26.07%
<b>District 164 Total</b>		
Total:	60,101	15,067
		25.07%
Voting Age	45,851	10,760
		23.47%
<b>District 165</b>		
<b>County: Chatham GA</b>		
Total:	59,978	32,897
		54.85%
Voting Age	48,247	24,282
		50.33%
<b>District 165 Total</b>		
Total:	59,978	32,897
		54.85%
Voting Age	48,247	24,282
		50.33%
<b>District 166</b>		
<b>County: Bryan GA</b>		
Total:	12,310	1,209
		9.82%
Voting Age	8,397	814
		9.69%
<b>County: Chatham GA</b>		
Total:	47,932	2,438
		5.09%
Voting Age	39,183	1,884
		4.81%
<b>District 166 Total</b>		
Total:	60,242	3,647
		6.05%
Voting Age	47,580	2,698
		5.67%
<b>District 167</b>		
<b>County: Glynn GA</b>		
Total:	20,499	3,402
		16.60%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	15,758	2,442 15.50%
<b>County: Liberty GA</b>		
Total:	5,109	1,606 31.43%
Voting Age	3,147	943 29.97%
<b>County: Long GA</b>		
Total:	16,168	4,734 29.28%
Voting Age	11,234	3,107 27.66%
<b>County: McIntosh GA</b>		
Total:	10,975	3,400 30.98%
Voting Age	9,040	2,641 29.21%
<b>County: Wayne GA</b>		
Total:	6,742	1,094 16.23%
Voting Age	4,961	702 14.15%
<b>District 167 Total</b>		
Total:	59,493	14,236 23.93%
Voting Age	44,140	9,835 22.28%
<b>District 168</b>		
<b>County: Liberty GA</b>		
Total:	60,147	29,540 49.11%
Voting Age	44,867	20,757 46.26%
<b>District 168 Total</b>		
Total:	60,147	29,540 49.11%
Voting Age	44,867	20,757 46.26%
<b>District 169</b>		
<b>County: Coffee GA</b>		
Total:	33,736	11,051 32.76%
Voting Age	25,541	8,086 31.66%
<b>County: Irwin GA</b>		
Total:	9,666	2,333 24.14%
Voting Age	7,547	1,720 22.79%
<b>County: Tift GA</b>		
Total:	6,730	767

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	5,219	11.40% 589 11.29%
<b>County: Turner GA</b>		
Total:	9,006	3,813 42.34%
Voting Age	6,960	2,752 39.54%
<b>District 169 Total</b>		
Total:	59,138	17,964 30.38%
Voting Age	45,267	13,147 29.04%
<b>District 170</b>		
<b>County: Berrien GA</b>		
Total:	18,160	2,198 12.10%
Voting Age	13,690	1,499 10.95%
<b>County: Cook GA</b>		
Total:	7,342	1,493 20.34%
Voting Age	5,621	1,103 19.62%
<b>County: Tift GA</b>		
Total:	34,614	11,967 34.57%
Voting Age	26,005	8,374 32.20%
<b>District 170 Total</b>		
Total:	60,116	15,658 26.05%
Voting Age	45,316	10,976 24.22%
<b>District 171</b>		
<b>County: Decatur GA</b>		
Total:	29,367	12,583 42.85%
Voting Age	22,443	9,189 40.94%
<b>County: Grady GA</b>		
Total:	8,115	1,434 17.67%
Voting Age	6,461	1,096 16.96%
<b>County: Mitchell GA</b>		
Total:	21,755	10,394 47.78%
Voting Age	17,065	7,917 46.39%
<b>District 171 Total</b>		

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Total:	59,237	24,411
		41.21%
Voting Age	45,969	18,202
		39.60%
<b>District 172</b>		
<b>County: Colquitt GA</b>		
Total:	45,898	10,648
		23.20%
Voting Age	34,193	7,461
		21.82%
<b>County: Cook GA</b>		
Total:	9,887	3,521
		35.61%
Voting Age	7,317	2,492
		34.06%
<b>County: Thomas GA</b>		
Total:	4,176	625
		14.97%
Voting Age	3,246	486
		14.97%
<b>District 172 Total</b>		
Total:	59,961	14,794
		24.67%
Voting Age	44,756	10,439
		23.32%
<b>District 173</b>		
<b>County: Grady GA</b>		
Total:	18,121	6,259
		34.54%
Voting Age	13,501	4,582
		33.94%
<b>County: Thomas GA</b>		
Total:	41,622	16,350
		39.28%
Voting Age	31,791	11,846
		37.26%
<b>District 173 Total</b>		
Total:	59,743	22,609
		37.84%
Voting Age	45,292	16,428
		36.27%
<b>District 174</b>		
<b>County: Brantley GA</b>		
Total:	18,021	733
		4.07%
Voting Age	13,692	470
		3.43%
<b>County: Charlton GA</b>		
Total:	12,518	2,798
		22.35%
Voting Age	10,135	2,147

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
		21.18%
<b>County: Clinch GA</b>		
Total:	6,749	2,096 31.06%
Voting Age	5,034	1,406 27.93%
<b>County: Echols GA</b>		
Total:	3,697	193 5.22%
Voting Age	2,709	121 4.47%
<b>County: Lowndes GA</b>		
Total:	9,770	1,486 15.21%
Voting Age	7,472	1,086 14.53%
<b>County: Ware GA</b>		
Total:	9,097	3,954 43.46%
Voting Age	6,718	2,720 40.49%
<b>District 174 Total</b>		
Total:	59,852	11,260 18.81%
Voting Age	45,760	7,950 17.37%
<b>District 175</b>		
<b>County: Brooks GA</b>		
Total:	16,301	5,958 36.55%
Voting Age	12,747	4,357 34.18%
<b>County: Lowndes GA</b>		
Total:	43,692	9,375 21.46%
Voting Age	31,957	6,448 20.18%
<b>District 175 Total</b>		
Total:	59,993	15,333 25.56%
Voting Age	44,704	10,805 24.17%
<b>District 176</b>		
<b>County: Atkinson GA</b>		
Total:	8,286	1,284 15.50%
Voting Age	6,129	937 15.29%
<b>County: Coffee GA</b>		
Total:	9,356	1,524 16.29%

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	6,878	1,105 16.07%
<b>County: Lanier GA</b>		
Total:	9,877	2,369 23.99%
Voting Age	7,326	1,683 22.97%
<b>County: Lowndes GA</b>		
Total:	4,797	1,387 28.91%
Voting Age	3,588	975 27.17%
<b>County: Ware GA</b>		
Total:	27,154	7,467 27.50%
Voting Age	21,070	5,506 26.13%
<b>District 176 Total</b>		
Total:	59,470	14,031 23.59%
Voting Age	44,991	10,206 22.68%
<b>District 177</b>		
<b>County: Lowndes GA</b>		
Total:	59,992	34,510 57.52%
Voting Age	46,014	24,793 53.88%
<b>District 177 Total</b>		
Total:	59,992	34,510 57.52%
Voting Age	46,014	24,793 53.88%
<b>District 178</b>		
<b>County: Appling GA</b>		
Total:	5,619	458 8.15%
Voting Age	4,285	283 6.60%
<b>County: Bacon GA</b>		
Total:	11,140	1,970 17.68%
Voting Age	8,310	1,245 14.98%
<b>County: Pierce GA</b>		
Total:	19,716	1,801 9.13%
Voting Age	14,899	1,262 8.47%
<b>County: Wayne GA</b>		
Total:	23,402	5,296

**Plan Components with Population Detail**

Grant\_Esselstyn\_Hse\_illus\_12\_05

	<b>Total Population</b>	<b>AP_Bl</b>
Voting Age	18,144	22.63% 3,960 21.83%
<b>District 178 Total</b>		
Total:	59,877	9,525 15.91%
Voting Age	45,638	6,750 14.79%
<b>District 179</b>		
<b>County: Glynn GA</b>		
Total:	59,356	18,047 30.40%
Voting Age	47,156	12,745 27.03%
<b>District 179 Total</b>		
Total:	59,356	18,047 30.40%
Voting Age	47,156	12,745 27.03%
<b>District 180</b>		
<b>County: Camden GA</b>		
Total:	54,768	11,072 20.22%
Voting Age	41,808	7,828 18.72%
<b>County: Glynn GA</b>		
Total:	4,644	649 13.98%
Voting Age	3,554	433 12.18%
<b>District 180 Total</b>		
Total:	59,412	11,721 19.73%
Voting Age	45,362	8,261 18.21%

## **EXHIBIT 14**



User:

Plan Name: Grant\_Esselstyn\_Hse\_illustrative12\_05

Plan Type:

## Core Constituencies

### Core Constituencies

Grant\_Esselstyn\_Hse\_illustrative12\_05

From Plan: GA\_House illus-Grant

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

1 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 1	59,666 (100.00%)	2,350 (100.00%)	46,801 (100.00%)	1,966 (100.00%)
Total and % Population		2,350 (3.94%)	46,801 (78.44%)	1,966 (3.30%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

10 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 10	59,519 (100.00%)	1,804 (100.00%)	47,164 (100.00%)	1,757 (100.00%)
Total and % Population		1,804 (3.03%)	47,164 (79.24%)	1,757 (2.95%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

100 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 100	60,030 (100.00%)	5,517 (100.00%)	42,669 (100.00%)	4,273 (100.00%)
Total and % Population		5,517 (9.19%)	42,669 (71.08%)	4,273 (7.12%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

101 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 101	59,938 (100.00%)	13,724 (100.00%)	46,584 (100.00%)	11,269 (100.00%)
Total and % Population		13,724 (22.90%)	46,584 (77.72%)	11,269 (18.80%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

102 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 102	58,959 (100.00%)	21,911 (100.00%)	42,968 (100.00%)	16,164 (100.00%)
Total and % Population		21,911 (37.16%)	42,968 (72.88%)	16,164 (27.42%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

103 --

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 103	60,197 (100.00%)	9,341 (100.00%)	44,399 (100.00%)	7,454 (100.00%)
Total and % Population		9,341 (15.52%)	44,399 (73.76%)	7,454 (12.38%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 104 -- 59,362 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 104	59,362 (100.00%)	9,477 (100.00%)	43,306 (100.00%)	7,373 (100.00%)
Total and % Population		9,477 (15.96%)	43,306 (72.95%)	7,373 (12.42%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 105 -- 59,344 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 105	59,344 (100.00%)	16,883 (100.00%)	43,474 (100.00%)	12,628 (100.00%)
Total and % Population		16,883 (28.45%)	43,474 (73.26%)	12,628 (21.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 106 -- 59,112 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 106	59,112 (100.00%)	21,440 (100.00%)	43,890 (100.00%)	15,918 (100.00%)
Total and % Population		21,440 (36.27%)	43,890 (74.25%)	15,918 (26.93%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 107 -- 59,702 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 107	59,702 (100.00%)	16,810 (100.00%)	44,509 (100.00%)	13,186 (100.00%)
Total and % Population		16,810 (28.16%)	44,509 (74.55%)	13,186 (22.09%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 108 -- 59,577 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 108	59,577 (100.00%)	10,549 (100.00%)	44,308 (100.00%)	8,132 (100.00%)
Total and % Population		10,549 (17.71%)	44,308 (74.37%)	8,132 (13.65%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 109 -- 59,630 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 109	59,630 (100.00%)	17,986 (100.00%)	44,140 (100.00%)	14,352 (100.00%)
Total and % Population		17,986 (30.16%)	44,140 (74.02%)	14,352 (24.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 11 -- 58,792 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 11	58,792 (100.00%)	949 (100.00%)	45,396 (100.00%)	839 (100.00%)
Total and % Population		949 (1.61%)	45,396 (77.21%)	839 (1.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 110 -- 59,951 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 110	59,951 (100.00%)	27,925 (100.00%)	43,226 (100.00%)	20,400 (100.00%)
Total and % Population		27,925 (46.58%)	43,226 (72.10%)	20,400 (34.03%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 111 --** **60,009 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 111	60,009 (100.00%)	13,248 (100.00%)	44,096 (100.00%)	9,828 (100.00%)
Total and % Population		13,248 (22.08%)	44,096 (73.48%)	9,828 (16.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 112 --** **59,349 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 112	59,349 (100.00%)	11,312 (100.00%)	45,120 (100.00%)	8,667 (100.00%)
Total and % Population		11,312 (19.06%)	45,120 (76.02%)	8,667 (14.60%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 113 --** **60,053 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 113	60,053 (100.00%)	35,006 (100.00%)	44,538 (100.00%)	26,515 (100.00%)
Total and % Population		35,006 (58.29%)	44,538 (74.16%)	26,515 (44.15%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 114 --** **59,867 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 114	59,867 (100.00%)	14,465 (100.00%)	45,872 (100.00%)	11,347 (100.00%)
Total and % Population		14,465 (24.16%)	45,872 (76.62%)	11,347 (18.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 115 --** **59,789 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 115	59,789 (100.00%)	31,769 (100.00%)	45,207 (100.00%)	24,310 (100.00%)
Total and % Population		31,769 (53.14%)	45,207 (75.61%)	24,310 (40.66%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 116 --** **60,380 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 116	60,380 (100.00%)	31,410 (100.00%)	46,449 (100.00%)	24,131 (100.00%)
Total and % Population		31,410 (52.02%)	46,449 (76.93%)	24,131 (39.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 117 --** **60,142 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 117	60,142 (100.00%)	30,626 (100.00%)	44,089 (100.00%)	22,732 (100.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	30,626 (50.92%)	44,089 (73.31%)	22,732 (37.80%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 118 --** **59,987 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 118	59,987 (100.00%)	13,629 (100.00%)	46,342 (100.00%)	10,937 (100.00%)
Total and % Population		13,629 (22.72%)	46,342 (77.25%)	10,937 (18.23%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 119 --** **58,947 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 119	58,947 (100.00%)	7,502 (100.00%)	44,005 (100.00%)	5,935 (100.00%)
Total and % Population		7,502 (12.73%)	44,005 (74.65%)	5,935 (10.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 12 --** **59,300 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 12	59,300 (100.00%)	5,148 (100.00%)	46,487 (100.00%)	4,498 (100.00%)
Total and % Population		5,148 (8.68%)	46,487 (78.39%)	4,498 (7.59%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 120 --** **58,982 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 120	58,982 (100.00%)	8,053 (100.00%)	46,767 (100.00%)	6,679 (100.00%)
Total and % Population		8,053 (13.65%)	46,767 (79.29%)	6,679 (11.32%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 121 --** **59,127 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 121	59,127 (100.00%)	5,205 (100.00%)	46,598 (100.00%)	4,454 (100.00%)
Total and % Population		5,205 (8.80%)	46,598 (78.81%)	4,454 (7.53%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 122 --** **59,632 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 122	59,632 (100.00%)	18,394 (100.00%)	48,840 (100.00%)	13,878 (100.00%)
Total and % Population		18,394 (30.85%)	48,840 (81.90%)	13,878 (23.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 123 --** **59,282 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 123	59,282 (100.00%)	14,175 (100.00%)	46,572 (100.00%)	11,307 (100.00%)
Total and % Population		14,175 (23.91%)	46,572 (78.56%)	11,307 (19.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,221 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**124 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 124	59,221 (100.00%)	15,507 (100.00%)	47,638 (100.00%)	12,186 (100.00%)
Total and % Population		15,507 (26.18%)	47,638 (80.44%)	12,186 (20.58%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****60,137 Total Population****125 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 125	60,137 (100.00%)	13,377 (100.00%)	43,812 (100.00%)	10,376 (100.00%)
Total and % Population		13,377 (22.24%)	43,812 (72.85%)	10,376 (17.25%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,260 Total Population****126 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 126	59,260 (100.00%)	32,178 (100.00%)	45,497 (100.00%)	24,782 (100.00%)
Total and % Population		32,178 (54.30%)	45,497 (76.78%)	24,782 (41.82%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,678 Total Population****127 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 127	58,678 (100.00%)	10,247 (100.00%)	45,889 (100.00%)	8,500 (100.00%)
Total and % Population		10,247 (17.46%)	45,889 (78.20%)	8,500 (14.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,864 Total Population****128 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 128	58,864 (100.00%)	30,088 (100.00%)	46,488 (100.00%)	23,434 (100.00%)
Total and % Population		30,088 (51.11%)	46,488 (78.98%)	23,434 (39.81%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,829 Total Population****129 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 129	58,829 (100.00%)	32,650 (100.00%)	46,873 (100.00%)	25,717 (100.00%)
Total and % Population		32,650 (55.50%)	46,873 (79.68%)	25,717 (43.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,150 Total Population****13 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 13	59,150 (100.00%)	11,189 (100.00%)	45,176 (100.00%)	8,665 (100.00%)
Total and % Population		11,189 (18.92%)	45,176 (76.38%)	8,665 (14.65%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,203 Total Population****130 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 130	59,203 (100.00%)	36,019 (100.00%)	44,019 (100.00%)	26,372 (100.00%)
Total and % Population		36,019 (60.84%)	44,019 (74.35%)	26,372 (44.55%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 131 --** **58,890 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 131	58,890 (100.00%)	9,645 (100.00%)	42,968 (100.00%)	7,572 (100.00%)
Total and % Population		9,645 (16.38%)	42,968 (72.96%)	7,572 (12.86%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 132 --** **59,142 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 132	59,142 (100.00%)	31,039 (100.00%)	46,752 (100.00%)	24,471 (100.00%)
Total and % Population		31,039 (52.48%)	46,752 (79.05%)	24,471 (41.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 133 --** **59,768 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 133	53,043 (88.75%)	13,816 (91.30%)	41,023 (88.42%)	11,119 (91.79%)
Dist. 149	6,725 (11.25%)	1,316 (8.70%)	5,373 (11.58%)	995 (8.21%)
Total and % Population		15,132 (25.32%)	46,396 (77.63%)	12,114 (20.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 134 --** **59,046 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 134	59,046 (100.00%)	22,556 (100.00%)	44,848 (100.00%)	16,779 (100.00%)
Total and % Population		22,556 (38.20%)	44,848 (75.95%)	16,779 (28.42%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 135 --** **60,013 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 135	60,013 (100.00%)	11,671 (100.00%)	46,948 (100.00%)	9,556 (100.00%)
Total and % Population		11,671 (19.45%)	46,948 (78.23%)	9,556 (15.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 136 --** **59,298 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 136	59,298 (100.00%)	16,690 (100.00%)	45,367 (100.00%)	13,005 (100.00%)
Total and % Population		16,690 (28.15%)	45,367 (76.51%)	13,005 (21.93%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 137 --** **59,551 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 137	59,551 (100.00%)	30,916 (100.00%)	45,358 (100.00%)	23,647 (100.00%)
Total and % Population		30,916 (51.92%)	45,358 (76.17%)	23,647 (39.71%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 138 -- 58,912 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 138	58,912 (100.00%)	11,148 (100.00%)	45,684 (100.00%)	8,824 (100.00%)
Total and % Population		11,148 (18.92%)	45,684 (77.55%)	8,824 (14.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 139 -- 59,010 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 139	59,010 (100.00%)	11,584 (100.00%)	45,522 (100.00%)	9,227 (100.00%)
Total and % Population		11,584 (19.63%)	45,522 (77.14%)	9,227 (15.64%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 14 -- 59,135 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 14	59,135 (100.00%)	3,534 (100.00%)	45,511 (100.00%)	3,117 (100.00%)
Total and % Population		3,534 (5.98%)	45,511 (76.96%)	3,117 (5.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 140 -- 59,294 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 140	59,294 (100.00%)	33,539 (100.00%)	44,411 (100.00%)	25,596 (100.00%)
Total and % Population		33,539 (56.56%)	44,411 (74.90%)	25,596 (43.17%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 141 -- 59,019 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 141	59,019 (100.00%)	32,812 (100.00%)	44,677 (100.00%)	25,672 (100.00%)
Total and % Population		32,812 (55.60%)	44,677 (75.70%)	25,672 (43.50%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 142 -- 59,320 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 142	59,320 (100.00%)	30,779 (100.00%)	45,212 (100.00%)	22,669 (100.00%)
Total and % Population		30,779 (51.89%)	45,212 (76.22%)	22,669 (38.21%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 143 -- 59,122 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 143	59,122 (100.00%)	30,792 (100.00%)	45,811 (100.00%)	23,200 (100.00%)
Total and % Population		30,792 (52.08%)	45,811 (77.49%)	23,200 (39.24%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 144 -- 58,533 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 144	58,367 (99.72%)	14,210 (99.67%)	44,754 (99.75%)	11,162 (99.75%)
Dist. 147	166 (0.28%)	47 (0.33%)	110 (0.25%)	28 (0.25%)
Total and % Population		14,257 (24.36%)	44,864 (76.65%)	11,190 (19.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 145 --**

**59,668 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 145	59,668 (100.00%)	30,525 (100.00%)	44,547 (100.00%)	22,443 (100.00%)
Total and % Population		30,525 (51.16%)	44,547 (74.66%)	22,443 (37.61%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 146 --**

**59,197 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 146	59,197 (100.00%)	14,039 (100.00%)	44,677 (100.00%)	10,891 (100.00%)
Total and % Population		14,039 (23.72%)	44,677 (75.47%)	10,891 (18.40%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 147 --**

**58,567 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 144	275 (0.47%)	89 (0.50%)	206 (0.46%)	77 (0.57%)
Dist. 147	58,292 (99.53%)	17,853 (99.50%)	44,217 (99.54%)	13,492 (99.43%)
Total and % Population		17,942 (30.64%)	44,423 (75.85%)	13,569 (23.17%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 148 --**

**59,887 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 148	59,887 (100.00%)	22,518 (100.00%)	47,458 (100.00%)	17,703 (100.00%)
Total and % Population		22,518 (37.60%)	47,458 (79.25%)	17,703 (29.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 149 --**

**59,392 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 128	5 (0.01%)	0 (0.00%)	5 (0.01%)	(0.00%)
Dist. 133	6,652 (11.20%)	2,247 (7.19%)	5,303 (11.05%)	1,686 (6.82%)
Dist. 149	52,735 (88.79%)	29,015 (92.81%)	42,662 (88.93%)	23,033 (93.18%)
Total and % Population		31,262 (52.64%)	47,970 (80.77%)	24,719 (41.62%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 15 --**

**59,213 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 15	59,213 (100.00%)	8,202 (100.00%)	45,791 (100.00%)	6,500 (100.00%)
Total and % Population		8,202 (13.85%)	45,791 (77.33%)	6,500 (10.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 150 --**

**59,276 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 150	59,276 (100.00%)	31,715 (100.00%)	47,050 (100.00%)	25,202 (100.00%)
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Total and % Population		31,715 (53.50%)	47,050 (79.37%)	25,202 (42.52%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 151 --** **60,059 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 151	60,059 (100.00%)	25,497 (100.00%)	46,973 (100.00%)	19,920 (100.00%)

Total and % Population		25,497 (42.45%)	46,973 (78.21%)	19,920 (33.17%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 152 --** **60,134 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 152	60,134 (100.00%)	15,624 (100.00%)	46,026 (100.00%)	11,993 (100.00%)

Total and % Population		15,624 (25.98%)	46,026 (76.54%)	11,993 (19.94%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 153 --** **59,299 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 153	59,299 (100.00%)	41,175 (100.00%)	45,692 (100.00%)	31,047 (100.00%)

Total and % Population		41,175 (69.44%)	45,692 (77.05%)	31,047 (52.36%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 154 --** **59,994 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 154	59,994 (100.00%)	33,457 (100.00%)	47,273 (100.00%)	25,914 (100.00%)

Total and % Population		33,457 (55.77%)	47,273 (78.80%)	25,914 (43.19%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 155 --** **60,134 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 155	60,134 (100.00%)	21,488 (100.00%)	46,296 (100.00%)	16,308 (100.00%)

Total and % Population		21,488 (35.73%)	46,296 (76.99%)	16,308 (27.12%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 156 --** **60,647 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 156	60,647 (100.00%)	17,931 (100.00%)	46,796 (100.00%)	13,976 (100.00%)

Total and % Population		17,931 (29.57%)	46,796 (77.16%)	13,976 (23.04%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 157 --** **59,957 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 157	59,957 (100.00%)	14,283 (100.00%)	45,311 (100.00%)	11,176 (100.00%)

Total and % Population		14,283 (23.82%)	45,311 (75.57%)	11,176 (18.64%)
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 158 -- 59,440 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 158	59,440 (100.00%)	18,823 (100.00%)	45,549 (100.00%)	14,209 (100.00%)
Total and % Population		18,823 (31.67%)	45,549 (76.63%)	14,209 (23.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 159 -- 59,895 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 159	59,895 (100.00%)	14,389 (100.00%)	44,871 (100.00%)	10,995 (100.00%)
Total and % Population		14,389 (24.02%)	44,871 (74.92%)	10,995 (18.36%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 16 -- 59,402 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 16	59,402 (100.00%)	6,746 (100.00%)	44,009 (100.00%)	5,146 (100.00%)
Total and % Population		6,746 (11.36%)	44,009 (74.09%)	5,146 (8.66%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 160 -- 59,935 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 160	59,935 (100.00%)	13,210 (100.00%)	48,057 (100.00%)	10,859 (100.00%)
Total and % Population		13,210 (22.04%)	48,057 (80.18%)	10,859 (18.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 161 -- 60,097 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 161	60,097 (100.00%)	15,788 (100.00%)	44,371 (100.00%)	12,042 (100.00%)
Total and % Population		15,788 (26.27%)	44,371 (73.83%)	12,042 (20.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 162 -- 60,308 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 162	60,308 (100.00%)	26,504 (100.00%)	46,733 (100.00%)	20,435 (100.00%)
Total and % Population		26,504 (43.95%)	46,733 (77.49%)	20,435 (33.88%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 163 -- 60,123 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 163	60,123 (100.00%)	27,983 (100.00%)	48,461 (100.00%)	22,045 (100.00%)
Total and % Population		27,983 (46.54%)	48,461 (80.60%)	22,045 (36.67%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 164 -- 60,101 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 164	60,101 (100.00%)	13,550 (100.00%)	45,851 (100.00%)	10,760 (100.00%)
Total and % Population		13,550 (22.55%)	45,851 (76.29%)	10,760 (17.90%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 165 --</b>			<b>59,978 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 165	59,978 (100.00%)	31,706 (100.00%)	48,247 (100.00%)	24,282 (100.00%)
Total and % Population		31,706 (52.86%)	48,247 (80.44%)	24,282 (40.48%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 166 --</b>			<b>60,242 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 166	60,242 (100.00%)	3,034 (100.00%)	47,580 (100.00%)	2,698 (100.00%)
Total and % Population		3,034 (5.04%)	47,580 (78.98%)	2,698 (4.48%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 167 --</b>			<b>59,493 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 167	59,493 (100.00%)	12,729 (100.00%)	44,140 (100.00%)	9,835 (100.00%)
Total and % Population		12,729 (21.40%)	44,140 (74.19%)	9,835 (16.53%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 168 --</b>			<b>60,147 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 168	60,147 (100.00%)	26,762 (100.00%)	44,867 (100.00%)	20,757 (100.00%)
Total and % Population		26,762 (44.49%)	44,867 (74.60%)	20,757 (34.51%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 169 --</b>			<b>59,138 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 169	59,138 (100.00%)	17,176 (100.00%)	45,267 (100.00%)	13,147 (100.00%)
Total and % Population		17,176 (29.04%)	45,267 (76.54%)	13,147 (22.23%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 17 --</b>			<b>59,120 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 17	59,120 (100.00%)	13,323 (100.00%)	42,761 (100.00%)	9,843 (100.00%)
Total and % Population		13,323 (22.54%)	42,761 (72.33%)	9,843 (16.65%)
<b>Plan: Grant_Esselstyn_Hse_illustrative12_05, District 170 --</b>			<b>60,116 Total Population</b>	
	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 170	60,116 (100.00%)	14,767 (100.00%)	45,316 (100.00%)	10,976 (100.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	14,767 (24.56%)	45,316 (75.38%)	10,976 (18.26%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 171 --**
**59,237 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 171	59,237 (100.00%)	23,696 (100.00%)	45,969 (100.00%)	18,202 (100.00%)
Total and % Population		23,696 (40.00%)	45,969 (77.60%)	18,202 (30.73%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 172 --**
**59,961 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 172	59,961 (100.00%)	14,034 (100.00%)	44,756 (100.00%)	10,439 (100.00%)
Total and % Population		14,034 (23.41%)	44,756 (74.64%)	10,439 (17.41%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 173 --**
**59,743 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 173	59,743 (100.00%)	21,746 (100.00%)	45,292 (100.00%)	16,428 (100.00%)
Total and % Population		21,746 (36.40%)	45,292 (75.81%)	16,428 (27.50%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 174 --**
**59,852 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 174	59,852 (100.00%)	10,428 (100.00%)	45,760 (100.00%)	7,950 (100.00%)
Total and % Population		10,428 (17.42%)	45,760 (76.46%)	7,950 (13.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 175 --**
**59,993 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 175	59,993 (100.00%)	14,386 (100.00%)	44,704 (100.00%)	10,805 (100.00%)
Total and % Population		14,386 (23.98%)	44,704 (74.52%)	10,805 (18.01%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 176 --**
**59,470 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 176	59,470 (100.00%)	13,059 (100.00%)	44,991 (100.00%)	10,206 (100.00%)
Total and % Population		13,059 (21.96%)	44,991 (75.65%)	10,206 (17.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 177 --**
**59,992 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 177	59,992 (100.00%)	33,153 (100.00%)	46,014 (100.00%)	24,793 (100.00%)
Total and % Population		33,153 (55.26%)	46,014 (76.70%)	24,793 (41.33%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District**
**59,877 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**178 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 178	59,877 (100.00%)	8,736 (100.00%)	45,638 (100.00%)	6,750 (100.00%)
Total and % Population		8,736 (14.59%)	45,638 (76.22%)	6,750 (11.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,356 Total Population****179 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 179	59,356 (100.00%)	17,013 (100.00%)	47,156 (100.00%)	12,745 (100.00%)
Total and % Population		17,013 (28.66%)	47,156 (79.45%)	12,745 (21.47%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,335 Total Population****18 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 18	59,335 (100.00%)	4,265 (100.00%)	45,159 (100.00%)	3,604 (100.00%)
Total and % Population		4,265 (7.19%)	45,159 (76.11%)	3,604 (6.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,412 Total Population****180 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 180	59,412 (100.00%)	10,284 (100.00%)	45,362 (100.00%)	8,261 (100.00%)
Total and % Population		10,284 (17.31%)	45,362 (76.35%)	8,261 (13.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,955 Total Population****19 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 19	58,955 (100.00%)	14,117 (100.00%)	44,299 (100.00%)	10,697 (100.00%)
Total and % Population		14,117 (23.95%)	44,299 (75.14%)	10,697 (18.14%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,773 Total Population****2 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 2	59,773 (100.00%)	1,601 (100.00%)	46,159 (100.00%)	1,456 (100.00%)
Total and % Population		1,601 (2.68%)	46,159 (77.22%)	1,456 (2.44%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****60,107 Total Population****20 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 20	60,107 (100.00%)	5,011 (100.00%)	45,725 (100.00%)	4,230 (100.00%)
Total and % Population		5,011 (8.34%)	45,725 (76.07%)	4,230 (7.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,529 Total Population****21 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 21	59,529 (100.00%)	2,603 (100.00%)	44,931 (100.00%)	2,272 (100.00%)
Total and % Population		2,603 (4.37%)	44,931 (75.48%)	2,272 (3.82%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 22 --** **59,460 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 22	59,460 (100.00%)	8,506 (100.00%)	45,815 (100.00%)	6,918 (100.00%)
Total and % Population		8,506 (14.31%)	45,815 (77.05%)	6,918 (11.63%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 23 --** **59,048 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 23	59,048 (100.00%)	3,432 (100.00%)	44,254 (100.00%)	2,878 (100.00%)
Total and % Population		3,432 (5.81%)	44,254 (74.95%)	2,878 (4.87%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 24 --** **59,011 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 24	59,011 (100.00%)	3,624 (100.00%)	41,814 (100.00%)	2,926 (100.00%)
Total and % Population		3,624 (6.14%)	41,814 (70.86%)	2,926 (4.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 25 --** **59,414 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 25	59,414 (100.00%)	3,004 (100.00%)	42,520 (100.00%)	2,507 (100.00%)
Total and % Population		3,004 (5.06%)	42,520 (71.57%)	2,507 (4.22%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 26 --** **59,248 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 26	59,248 (100.00%)	2,022 (100.00%)	44,081 (100.00%)	1,767 (100.00%)
Total and % Population		2,022 (3.41%)	44,081 (74.40%)	1,767 (2.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 27 --** **58,795 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 27	58,795 (100.00%)	1,946 (100.00%)	46,004 (100.00%)	1,698 (100.00%)
Total and % Population		1,946 (3.31%)	46,004 (78.24%)	1,698 (2.89%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 28 --** **58,972 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 28	58,972 (100.00%)	2,060 (100.00%)	44,444 (100.00%)	1,747 (100.00%)
Total and % Population		2,060 (3.49%)	44,444 (75.36%)	1,747 (2.96%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 29 --** **59,200 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 29	59,200 (100.00%)	7,373 (100.00%)	43,131 (100.00%)	5,861 (100.00%)
Total and % Population		7,373 (12.45%)	43,131 (72.86%)	5,861 (9.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 3 --** **60,199 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 3	60,199 (100.00%)	1,744 (100.00%)	46,716 (100.00%)	1,565 (100.00%)
Total and % Population		1,744 (2.90%)	46,716 (77.60%)	1,565 (2.60%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 30 --** **59,266 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 30	59,266 (100.00%)	4,478 (100.00%)	45,414 (100.00%)	3,678 (100.00%)
Total and % Population		4,478 (7.56%)	45,414 (76.63%)	3,678 (6.21%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 31 --** **59,901 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 31	59,901 (100.00%)	4,092 (100.00%)	43,120 (100.00%)	3,265 (100.00%)
Total and % Population		4,092 (6.83%)	43,120 (71.99%)	3,265 (5.45%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 32 --** **59,145 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 32	59,145 (100.00%)	4,337 (100.00%)	45,942 (100.00%)	3,659 (100.00%)
Total and % Population		4,337 (7.33%)	45,942 (77.68%)	3,659 (6.19%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 33 --** **59,187 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 33	59,187 (100.00%)	6,524 (100.00%)	46,498 (100.00%)	5,207 (100.00%)
Total and % Population		6,524 (11.02%)	46,498 (78.56%)	5,207 (8.80%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 34 --** **59,875 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 34	59,875 (100.00%)	8,817 (100.00%)	45,758 (100.00%)	7,169 (100.00%)
Total and % Population		8,817 (14.73%)	45,758 (76.42%)	7,169 (11.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 35 --** **59,889 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 35	59,889 (100.00%)	16,250 (100.00%)	48,312 (100.00%)	13,722 (100.00%)
Total and % Population		16,250 (27.13%)	48,312 (80.67%)	13,722 (22.91%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 36 --****59,994 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 36	59,994 (100.00%)	9,753 (100.00%)	44,911 (100.00%)	7,626 (100.00%)
Total and % Population		9,753 (16.26%)	44,911 (74.86%)	7,626 (12.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 37 --****59,176 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 37	59,176 (100.00%)	15,723 (100.00%)	46,223 (100.00%)	13,027 (100.00%)
Total and % Population		15,723 (26.57%)	46,223 (78.11%)	13,027 (22.01%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 38 --****59,317 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 38	59,317 (100.00%)	31,840 (100.00%)	44,839 (100.00%)	24,318 (100.00%)
Total and % Population		31,840 (53.68%)	44,839 (75.59%)	24,318 (41.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 39 --****59,381 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 39	59,381 (100.00%)	31,375 (100.00%)	44,436 (100.00%)	24,569 (100.00%)
Total and % Population		31,375 (52.84%)	44,436 (74.83%)	24,569 (41.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 4 --****59,070 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 4	59,070 (100.00%)	2,606 (100.00%)	42,798 (100.00%)	2,303 (100.00%)
Total and % Population		2,606 (4.41%)	42,798 (72.45%)	2,303 (3.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 40 --****59,044 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 40	59,044 (100.00%)	18,536 (100.00%)	47,976 (100.00%)	15,821 (100.00%)
Total and % Population		18,536 (31.39%)	47,976 (81.25%)	15,821 (26.80%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 41 --****60,122 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 41	60,122 (100.00%)	22,247 (100.00%)	45,271 (100.00%)	17,816 (100.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	22,247 (37.00%)	45,271 (75.30%)	17,816 (29.63%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 42 --** **59,620 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 42	59,620 (100.00%)	19,001 (100.00%)	48,525 (100.00%)	16,353 (100.00%)
Total and % Population		19,001 (31.87%)	48,525 (81.39%)	16,353 (27.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 43 --** **59,464 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 43	59,464 (100.00%)	14,766 (100.00%)	47,033 (100.00%)	12,476 (100.00%)
Total and % Population		14,766 (24.83%)	47,033 (79.09%)	12,476 (20.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 44 --** **60,002 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 44	60,002 (100.00%)	6,740 (100.00%)	46,773 (100.00%)	5,635 (100.00%)
Total and % Population		6,740 (11.23%)	46,773 (77.95%)	5,635 (9.39%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 45 --** **59,738 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 45	59,738 (100.00%)	2,532 (100.00%)	44,023 (100.00%)	2,324 (100.00%)
Total and % Population		2,532 (4.24%)	44,023 (73.69%)	2,324 (3.89%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 46 --** **59,108 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 46	59,108 (100.00%)	4,096 (100.00%)	44,132 (100.00%)	3,560 (100.00%)
Total and % Population		4,096 (6.93%)	44,132 (74.66%)	3,560 (6.02%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 47 --** **59,126 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 47	59,126 (100.00%)	5,672 (100.00%)	43,932 (100.00%)	4,709 (100.00%)
Total and % Population		5,672 (9.59%)	43,932 (74.30%)	4,709 (7.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 48 --** **59,003 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 48	59,003 (100.00%)	6,124 (100.00%)	44,779 (100.00%)	5,279 (100.00%)
Total and % Population		6,124 (10.38%)	44,779 (75.89%)	5,279 (8.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,153 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**49 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 49	59,153 (100.00%)	4,333 (100.00%)	45,263 (100.00%)	3,813 (100.00%)
Total and % Population		4,333 (7.33%)	45,263 (76.52%)	3,813 (6.45%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,837 Total Population****5 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 5	58,837 (100.00%)	2,281 (100.00%)	44,623 (100.00%)	2,051 (100.00%)
Total and % Population		2,281 (3.88%)	44,623 (75.84%)	2,051 (3.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,523 Total Population****50 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 50	59,523 (100.00%)	6,726 (100.00%)	43,940 (100.00%)	5,450 (100.00%)
Total and % Population		6,726 (11.30%)	43,940 (73.82%)	5,450 (9.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,952 Total Population****51 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 51	58,952 (100.00%)	13,218 (100.00%)	47,262 (100.00%)	11,193 (100.00%)
Total and % Population		13,218 (22.42%)	47,262 (80.17%)	11,193 (18.99%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,811 Total Population****52 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 52	59,811 (100.00%)	8,339 (100.00%)	48,525 (100.00%)	7,758 (100.00%)
Total and % Population		8,339 (13.94%)	48,525 (81.13%)	7,758 (12.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,953 Total Population****53 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 53	59,953 (100.00%)	7,548 (100.00%)	46,944 (100.00%)	6,819 (100.00%)
Total and % Population		7,548 (12.59%)	46,944 (78.30%)	6,819 (11.37%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****60,083 Total Population****54 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 54	60,083 (100.00%)	7,959 (100.00%)	50,338 (100.00%)	7,789 (100.00%)
Total and % Population		7,959 (13.25%)	50,338 (83.78%)	7,789 (12.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,971 Total Population****55 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 55	59,971 (100.00%)	33,004 (100.00%)	49,255 (100.00%)	27,279 (100.00%)
Total and % Population		33,004 (55.03%)	49,255 (82.13%)	27,279 (45.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 56 --** **58,929 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 56	58,929 (100.00%)	27,608 (100.00%)	52,757 (100.00%)	23,993 (100.00%)
Total and % Population		27,608 (46.85%)	52,757 (89.53%)	23,993 (40.72%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 57 --** **59,969 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 57	59,969 (100.00%)	9,529 (100.00%)	52,097 (100.00%)	9,411 (100.00%)
Total and % Population		9,529 (15.89%)	52,097 (86.87%)	9,411 (15.69%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 58 --** **59,057 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 58	59,057 (100.00%)	37,623 (100.00%)	50,514 (100.00%)	31,845 (100.00%)
Total and % Population		37,623 (63.71%)	50,514 (85.53%)	31,845 (53.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59 --** **59,434 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 59	59,434 (100.00%)	41,763 (100.00%)	49,179 (100.00%)	34,470 (100.00%)
Total and % Population		41,763 (70.27%)	49,179 (82.75%)	34,470 (58.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 6 --** **59,712 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 6	59,712 (100.00%)	641 (100.00%)	45,152 (100.00%)	682 (100.00%)
Total and % Population		641 (1.07%)	45,152 (75.62%)	682 (1.14%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 60 --** **59,709 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 60	59,709 (100.00%)	37,176 (100.00%)	45,490 (100.00%)	29,061 (100.00%)
Total and % Population		37,176 (62.26%)	45,490 (76.19%)	29,061 (48.67%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 61 --** **58,950 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 61	35,273 (59.84%)	17,608 (56.93%)	26,456 (59.84%)	13,464 (56.93%)
Dist. 65	18,084 (30.68%)	11,790 (38.12%)	13,448 (30.42%)	9,005 (38.07%)
Dist. 66	5,593 (9.49%)	1,531 (4.95%)	4,308 (9.74%)	1,182 (5.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	30,929 (52.47%)	44,212 (75.00%)	23,651 (40.12%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 62 --** **59,450 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 62	59,450 (100.00%)	42,125 (100.00%)	46,426 (100.00%)	33,548 (100.00%)
Total and % Population		42,125 (70.86%)	46,426 (78.09%)	33,548 (56.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 63 --** **59,381 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 63	59,381 (100.00%)	40,762 (100.00%)	45,043 (100.00%)	31,229 (100.00%)
Total and % Population		40,762 (68.64%)	45,043 (75.85%)	31,229 (52.59%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 64 --** **59,648 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 64	59,648 (100.00%)	28,870 (100.00%)	45,279 (100.00%)	22,748 (100.00%)
Total and % Population		28,870 (48.40%)	45,279 (75.91%)	22,748 (38.14%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 65 --** **59,240 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 61	18,248 (30.80%)	16,410 (44.92%)	13,883 (30.92%)	12,845 (45.16%)
Dist. 65	40,992 (69.20%)	20,124 (55.08%)	31,019 (69.08%)	15,596 (54.84%)
Total and % Population		36,534 (61.67%)	44,902 (75.80%)	28,441 (48.01%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 66 --** **58,961 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 61	5,407 (9.17%)	3,267 (10.37%)	3,980 (9.06%)	2,440 (10.31%)
Dist. 66	53,554 (90.83%)	28,252 (89.63%)	39,927 (90.94%)	21,217 (89.69%)
Total and % Population		31,519 (53.46%)	43,907 (74.47%)	23,657 (40.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 67 --** **59,135 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 67	59,135 (100.00%)	34,126 (100.00%)	44,299 (100.00%)	26,099 (100.00%)
Total and % Population		34,126 (57.71%)	44,299 (74.91%)	26,099 (44.13%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 68 --** **59,477 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 68	59,477 (100.00%)	32,830 (100.00%)	44,835 (100.00%)	24,994 (100.00%)
Total and % Population		32,830 (55.20%)	44,835 (75.38%)	24,994 (42.02%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **58,358 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**69 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 69	58,358 (100.00%)	36,035 (100.00%)	45,310 (100.00%)	28,424 (100.00%)
Total and % Population		36,035 (61.75%)	45,310 (77.64%)	28,424 (48.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,081 Total Population****7 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 7	59,081 (100.00%)	239 (100.00%)	48,771 (100.00%)	302 (100.00%)
Total and % Population		239 (0.40%)	48,771 (82.55%)	302 (0.51%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,121 Total Population****70 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 70	59,121 (100.00%)	16,546 (100.00%)	45,249 (100.00%)	12,591 (100.00%)
Total and % Population		16,546 (27.99%)	45,249 (76.54%)	12,591 (21.30%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,538 Total Population****71 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 71	59,538 (100.00%)	11,406 (100.00%)	44,582 (100.00%)	8,879 (100.00%)
Total and % Population		11,406 (19.16%)	44,582 (74.88%)	8,879 (14.91%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,660 Total Population****72 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 72	59,660 (100.00%)	11,715 (100.00%)	46,229 (100.00%)	9,642 (100.00%)
Total and % Population		11,715 (19.64%)	46,229 (77.49%)	9,642 (16.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****60,036 Total Population****73 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 73	60,036 (100.00%)	6,889 (100.00%)	45,736 (100.00%)	5,538 (100.00%)
Total and % Population		6,889 (11.47%)	45,736 (76.18%)	5,538 (9.22%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****58,418 Total Population****74 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 74	58,418 (100.00%)	30,562 (100.00%)	43,602 (100.00%)	23,521 (100.00%)
Total and % Population		30,562 (52.32%)	43,602 (74.64%)	23,521 (40.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District****59,759 Total Population****75 --**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 75	59,759 (100.00%)	39,105 (100.00%)	44,983 (100.00%)	30,090 (100.00%)
Total and % Population		39,105 (65.44%)	44,983 (75.27%)	30,090 (50.35%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 76 --** **59,759 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 76	59,759 (100.00%)	38,838 (100.00%)	44,371 (100.00%)	29,832 (100.00%)
Total and % Population		38,838 (64.99%)	44,371 (74.25%)	29,832 (49.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 77 --** **59,242 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 77	59,242 (100.00%)	43,478 (100.00%)	44,207 (100.00%)	33,655 (100.00%)
Total and % Population		43,478 (73.39%)	44,207 (74.62%)	33,655 (56.81%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 78 --** **59,890 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 78	59,890 (100.00%)	30,741 (100.00%)	44,771 (100.00%)	22,848 (100.00%)
Total and % Population		30,741 (51.33%)	44,771 (74.76%)	22,848 (38.15%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 79 --** **59,500 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 79	59,500 (100.00%)	41,105 (100.00%)	43,223 (100.00%)	30,942 (100.00%)
Total and % Population		41,105 (69.08%)	43,223 (72.64%)	30,942 (52.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 8 --** **59,244 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 8	59,244 (100.00%)	687 (100.00%)	49,612 (100.00%)	708 (100.00%)
Total and % Population		687 (1.16%)	49,612 (83.74%)	708 (1.20%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 80 --** **59,461 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 80	59,461 (100.00%)	7,136 (100.00%)	44,784 (100.00%)	6,350 (100.00%)
Total and % Population		7,136 (12.00%)	44,784 (75.32%)	6,350 (10.68%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 81 --** **59,007 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 81	59,007 (100.00%)	11,262 (100.00%)	46,259 (100.00%)	10,099 (100.00%)
Total and % Population		11,262 (19.09%)	46,259 (78.40%)	10,099 (17.11%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 82 --** **59,724 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 82	59,724 (100.00%)	8,754 (100.00%)	50,238 (100.00%)	8,455 (100.00%)
Total and % Population		8,754 (14.66%)	50,238 (84.12%)	8,455 (14.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 83 --** **59,416 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 83	59,416 (100.00%)	7,395 (100.00%)	46,581 (100.00%)	7,044 (100.00%)
Total and % Population		7,395 (12.45%)	46,581 (78.40%)	7,044 (11.86%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 84 --** **59,862 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 84	59,862 (100.00%)	42,177 (100.00%)	47,350 (100.00%)	34,877 (100.00%)
Total and % Population		42,177 (70.46%)	47,350 (79.10%)	34,877 (58.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 85 --** **59,373 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 85	59,373 (100.00%)	36,156 (100.00%)	46,308 (100.00%)	29,041 (100.00%)
Total and % Population		36,156 (60.90%)	46,308 (78.00%)	29,041 (48.91%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 86 --** **59,205 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 86	59,205 (100.00%)	42,888 (100.00%)	44,614 (100.00%)	33,485 (100.00%)
Total and % Population		42,888 (72.44%)	44,614 (75.36%)	33,485 (56.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 87 --** **59,709 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 87	59,709 (100.00%)	42,343 (100.00%)	45,615 (100.00%)	33,336 (100.00%)
Total and % Population		42,343 (70.92%)	45,615 (76.40%)	33,336 (55.83%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 88 --** **59,689 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 88	59,689 (100.00%)	36,654 (100.00%)	46,073 (100.00%)	29,187 (100.00%)
Total and % Population		36,654 (61.41%)	46,073 (77.19%)	29,187 (48.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 89 --** **59,866 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 89	59,866 (100.00%)	36,081 (100.00%)	46,198 (100.00%)	28,890 (100.00%)
Total and % Population		36,081 (60.27%)	46,198 (77.17%)	28,890 (48.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 9 --** **59,474 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 9	59,474 (100.00%)	626 (100.00%)	48,273 (100.00%)	759 (100.00%)
Total and % Population		626 (1.05%)	48,273 (81.17%)	759 (1.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 90 --** **59,812 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 90	59,812 (100.00%)	34,506 (100.00%)	48,015 (100.00%)	28,082 (100.00%)
Total and % Population		34,506 (57.69%)	48,015 (80.28%)	28,082 (46.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 91 --** **59,956 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 91	59,956 (100.00%)	35,179 (100.00%)	45,999 (100.00%)	27,604 (100.00%)
Total and % Population		35,179 (58.67%)	45,999 (76.72%)	27,604 (46.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 92 --** **60,273 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 92	60,273 (100.00%)	41,170 (100.00%)	46,551 (100.00%)	32,022 (100.00%)
Total and % Population		41,170 (68.31%)	46,551 (77.23%)	32,022 (53.13%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 93 --** **60,118 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 93	60,118 (100.00%)	38,497 (100.00%)	44,734 (100.00%)	29,239 (100.00%)
Total and % Population		38,497 (64.04%)	44,734 (74.41%)	29,239 (48.64%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 94 --** **59,211 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 94	59,211 (100.00%)	39,560 (100.00%)	44,809 (100.00%)	30,935 (100.00%)
Total and % Population		39,560 (66.81%)	44,809 (75.68%)	30,935 (52.25%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 95 --** **60,030 Total Population**

	<b>Population</b>	<b>Black</b>	<b>[18+_Pop]</b>	<b>[18+_AP_Bl]</b>
Dist. 95	60,030 (100.00%)	39,566 (100.00%)	44,948 (100.00%)	30,183 (100.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	39,566 (65.91%)	44,948 (74.88%)	30,183 (50.28%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 96 --** **59,515 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 96	59,515 (100.00%)	12,683 (100.00%)	44,671 (100.00%)	10,273 (100.00%)
Total and % Population		12,683 (21.31%)	44,671 (75.06%)	10,273 (17.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 97 --** **59,072 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 97	59,072 (100.00%)	15,237 (100.00%)	46,339 (100.00%)	12,405 (100.00%)
Total and % Population		15,237 (25.79%)	46,339 (78.44%)	12,405 (21.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 98 --** **59,998 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 98	59,998 (100.00%)	12,140 (100.00%)	42,734 (100.00%)	9,934 (100.00%)
Total and % Population		12,140 (20.23%)	42,734 (71.23%)	9,934 (16.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 99 --** **59,850 Total Population**

	Population	Black	[18+_Pop]	[18+_AP_Bl]
Dist. 99	59,850 (100.00%)	8,257 (100.00%)	45,004 (100.00%)	6,622 (100.00%)
Total and % Population		8,257 (13.80%)	45,004 (75.19%)	6,622 (11.06%)

## **EXHIBIT 15**

User:

Plan Name: Grant\_Esselstyn\_Hse\_illustrative12\_05

Plan Type:

## Core Constituencies

### Core Constituencies

Grant\_Esselstyn\_Hse\_illustrative12\_05

From Plan: GA\_House2021

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

1 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 001	59,666 (100.00%)	3,034 (100.00%)	46,801 (100.00%)	1,966 (100.00%)
Total and % Population		3,034 (5.08%)	46,801 (78.44%)	1,966 (3.30%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

10 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 010	59,519 (100.00%)	2,287 (100.00%)	47,164 (100.00%)	1,757 (100.00%)
Total and % Population		2,287 (3.84%)	47,164 (79.24%)	1,757 (2.95%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

100 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 100	60,030 (100.00%)	6,398 (100.00%)	42,669 (100.00%)	4,273 (100.00%)
Total and % Population		6,398 (10.66%)	42,669 (71.08%)	4,273 (7.12%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

101 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 101	59,938 (100.00%)	15,380 (100.00%)	46,584 (100.00%)	11,269 (100.00%)
Total and % Population		15,380 (25.66%)	46,584 (77.72%)	11,269 (18.80%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

102 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 102	58,959 (100.00%)	23,702 (100.00%)	42,968 (100.00%)	16,164 (100.00%)
Total and % Population		23,702 (40.20%)	42,968 (72.88%)	16,164 (27.42%)

Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District

103 --

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 103	60,197 (100.00%)	10,628 (100.00%)	44,399 (100.00%)	7,454 (100.00%)
Total and % Population		10,628 (17.66%)	44,399 (73.76%)	7,454 (12.38%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 104 --** **59,362 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 104	59,362 (100.00%)	10,743 (100.00%)	43,306 (100.00%)	7,373 (100.00%)
Total and % Population		10,743 (18.10%)	43,306 (72.95%)	7,373 (12.42%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 105 --** **59,344 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 105	59,344 (100.00%)	18,444 (100.00%)	43,474 (100.00%)	12,628 (100.00%)
Total and % Population		18,444 (31.08%)	43,474 (73.26%)	12,628 (21.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 106 --** **59,112 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 106	59,112 (100.00%)	23,221 (100.00%)	43,890 (100.00%)	15,918 (100.00%)
Total and % Population		23,221 (39.28%)	43,890 (74.25%)	15,918 (26.93%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 107 --** **59,702 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 107	59,702 (100.00%)	18,372 (100.00%)	44,509 (100.00%)	13,186 (100.00%)
Total and % Population		18,372 (30.77%)	44,509 (74.55%)	13,186 (22.09%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 108 --** **59,577 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 108	59,577 (100.00%)	11,946 (100.00%)	44,308 (100.00%)	8,132 (100.00%)
Total and % Population		11,946 (20.05%)	44,308 (74.37%)	8,132 (13.65%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 109 --** **59,630 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 109	59,630 (100.00%)	19,592 (100.00%)	44,140 (100.00%)	14,352 (100.00%)
Total and % Population		19,592 (32.86%)	44,140 (74.02%)	14,352 (24.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 11 --** **58,792 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 011	58,792 (100.00%)	1,380 (100.00%)	45,396 (100.00%)	839 (100.00%)
Total and % Population		1,380 (2.35%)	45,396 (77.21%)	839 (1.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 110 --** **59,951 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 110	59,951 (100.00%)	30,042 (100.00%)	43,226 (100.00%)	20,400 (100.00%)
Total and % Population		30,042 (50.11%)	43,226 (72.10%)	20,400 (34.03%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 111 --** **60,009 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 111	60,009 (100.00%)	14,572 (100.00%)	44,096 (100.00%)	9,828 (100.00%)
Total and % Population		14,572 (24.28%)	44,096 (73.48%)	9,828 (16.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 112 --** **59,349 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 112	59,349 (100.00%)	12,163 (100.00%)	45,120 (100.00%)	8,667 (100.00%)
Total and % Population		12,163 (20.49%)	45,120 (76.02%)	8,667 (14.60%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 113 --** **60,053 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 113	60,053 (100.00%)	37,002 (100.00%)	44,538 (100.00%)	26,515 (100.00%)
Total and % Population		37,002 (61.62%)	44,538 (74.16%)	26,515 (44.15%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 114 --** **59,867 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 114	59,867 (100.00%)	15,438 (100.00%)	45,872 (100.00%)	11,347 (100.00%)
Total and % Population		15,438 (25.79%)	45,872 (76.62%)	11,347 (18.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 115 --** **59,789 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 078	0 (0.00%)	0 (0.00%)	(0.00%)	(0.00%)
Dist. 091	24,083 (40.28%)	14,148 (42.08%)	18,236 (40.34%)	10,357 (42.60%)
Dist. 115	13,110 (21.93%)	5,752 (17.11%)	9,710 (21.48%)	3,916 (16.11%)
Dist. 116	22,596 (37.79%)	13,718 (40.81%)	17,261 (38.18%)	10,037 (41.29%)
Total and % Population		33,618 (56.23%)	45,207 (75.61%)	24,310 (40.66%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 116 --** **60,380 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 115	4,546 (7.53%)	1,729 (5.20%)	3,472 (7.47%)	1,186 (4.91%)
Dist. 116	37,317 (61.80%)	22,748 (68.44%)	28,530 (61.42%)	16,579 (68.70%)
Dist. 117	18,517 (30.67%)	8,759 (26.35%)	14,447 (31.10%)	6,366 (26.38%)
Total and % Population		33,236 (55.04%)	46,449 (76.93%)	24,131 (39.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 117 --** **60,142 Total Population**



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 115	32,945 (54.78%)	22,227 (68.48%)	24,279 (55.07%)	15,691 (69.03%)
Dist. 117	27,197 (45.22%)	10,231 (31.52%)	19,810 (44.93%)	7,041 (30.97%)
Total and % Population		32,458 (53.97%)	44,089 (73.31%)	22,732 (37.80%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 118 --** **59,987 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 118	59,987 (100.00%)	14,495 (100.00%)	46,342 (100.00%)	10,937 (100.00%)
Total and % Population		14,495 (24.16%)	46,342 (77.25%)	10,937 (18.23%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 119 --** **58,947 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 119	58,947 (100.00%)	8,530 (100.00%)	44,005 (100.00%)	5,935 (100.00%)
Total and % Population		8,530 (14.47%)	44,005 (74.65%)	5,935 (10.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 12 --** **59,300 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 012	59,300 (100.00%)	6,046 (100.00%)	46,487 (100.00%)	4,498 (100.00%)
Total and % Population		6,046 (10.20%)	46,487 (78.39%)	4,498 (7.59%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 120 --** **58,982 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 120	58,982 (100.00%)	8,868 (100.00%)	46,767 (100.00%)	6,679 (100.00%)
Total and % Population		8,868 (15.04%)	46,767 (79.29%)	6,679 (11.32%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 121 --** **59,127 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 121	59,127 (100.00%)	5,888 (100.00%)	46,598 (100.00%)	4,454 (100.00%)
Total and % Population		5,888 (9.96%)	46,598 (78.81%)	4,454 (7.53%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 122 --** **59,632 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 122	59,632 (100.00%)	19,281 (100.00%)	48,840 (100.00%)	13,878 (100.00%)
Total and % Population		19,281 (32.33%)	48,840 (81.90%)	13,878 (23.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 123 --** **59,282 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 123	59,282 (100.00%)	15,012 (100.00%)	46,572 (100.00%)	11,307 (100.00%)
Total and % Population		15,012 (25.32%)	46,572 (78.56%)	11,307 (19.07%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 124 -- 59,221 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 124	59,221 (100.00%)	16,349 (100.00%)	47,638 (100.00%)	12,186 (100.00%)
Total and % Population		16,349 (27.61%)	47,638 (80.44%)	12,186 (20.58%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 125 -- 60,137 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 125	60,137 (100.00%)	15,255 (100.00%)	43,812 (100.00%)	10,376 (100.00%)
Total and % Population		15,255 (25.37%)	43,812 (72.85%)	10,376 (17.25%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 126 -- 59,260 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 126	59,260 (100.00%)	33,452 (100.00%)	45,497 (100.00%)	24,782 (100.00%)
Total and % Population		33,452 (56.45%)	45,497 (76.78%)	24,782 (41.82%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 127 -- 58,678 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 127	58,678 (100.00%)	11,540 (100.00%)	45,889 (100.00%)	8,500 (100.00%)
Total and % Population		11,540 (19.67%)	45,889 (78.20%)	8,500 (14.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 128 -- 58,864 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 128	58,864 (100.00%)	30,904 (100.00%)	46,488 (100.00%)	23,434 (100.00%)
Total and % Population		30,904 (52.50%)	46,488 (78.98%)	23,434 (39.81%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 129 -- 58,829 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 129	58,829 (100.00%)	34,245 (100.00%)	46,873 (100.00%)	25,717 (100.00%)
Total and % Population		34,245 (58.21%)	46,873 (79.68%)	25,717 (43.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 13 -- 59,150 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 013	59,150 (100.00%)	12,212 (100.00%)	45,176 (100.00%)	8,665 (100.00%)
Total and % Population		12,212 (20.65%)	45,176 (76.38%)	8,665 (14.65%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 130 --** **59,203 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 130	59,203 (100.00%)	37,564 (100.00%)	44,019 (100.00%)	26,372 (100.00%)
Total and % Population		37,564 (63.45%)	44,019 (74.35%)	26,372 (44.55%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 131 --** **58,890 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 131	58,890 (100.00%)	11,142 (100.00%)	42,968 (100.00%)	7,572 (100.00%)
Total and % Population		11,142 (18.92%)	42,968 (72.96%)	7,572 (12.86%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 132 --** **59,142 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 132	59,142 (100.00%)	32,680 (100.00%)	46,752 (100.00%)	24,471 (100.00%)
Total and % Population		32,680 (55.26%)	46,752 (79.05%)	24,471 (41.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 133 --** **59,768 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 133	32,897 (55.04%)	9,360 (58.91%)	25,572 (55.12%)	7,044 (58.15%)
Dist. 134	9,272 (15.51%)	1,222 (7.69%)	7,126 (15.36%)	905 (7.47%)
Dist. 144	17,599 (29.45%)	5,306 (33.40%)	13,698 (29.52%)	4,165 (34.38%)
Total and % Population		15,888 (26.58%)	46,396 (77.63%)	12,114 (20.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 134 --** **59,046 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 134	50,124 (84.89%)	20,212 (85.50%)	37,984 (84.69%)	14,238 (84.86%)
Dist. 135	8,922 (15.11%)	3,428 (14.50%)	6,864 (15.31%)	2,541 (15.14%)
Total and % Population		23,640 (40.04%)	44,848 (75.95%)	16,779 (28.42%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 135 --** **60,013 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 135	51,141 (85.22%)	11,206 (90.31%)	39,861 (84.90%)	8,557 (89.55%)
Dist. 144	7,685 (12.81%)	930 (7.49%)	6,125 (13.05%)	771 (8.07%)
Dist. 145	1,187 (1.98%)	273 (2.20%)	962 (2.05%)	228 (2.39%)
Total and % Population		12,409 (20.68%)	46,948 (78.23%)	9,556 (15.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 136 --** **59,298 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 136	59,298 (100.00%)	17,530 (100.00%)	45,367 (100.00%)	13,005 (100.00%)
Total and % Population		17,530 (29.56%)	45,367 (76.51%)	13,005 (21.93%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 137 --** **59,551 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 137	59,551 (100.00%)	32,252 (100.00%)	45,358 (100.00%)	23,647 (100.00%)
Total and % Population		32,252 (54.16%)	45,358 (76.17%)	23,647 (39.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 138 --** **58,912 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 138	58,912 (100.00%)	12,072 (100.00%)	45,684 (100.00%)	8,824 (100.00%)
Total and % Population		12,072 (20.49%)	45,684 (77.55%)	8,824 (14.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 139 --** **59,010 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 139	59,010 (100.00%)	12,846 (100.00%)	45,522 (100.00%)	9,227 (100.00%)
Total and % Population		12,846 (21.77%)	45,522 (77.14%)	9,227 (15.64%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 14 --** **59,135 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 014	59,135 (100.00%)	4,338 (100.00%)	45,511 (100.00%)	3,117 (100.00%)
Total and % Population		4,338 (7.34%)	45,511 (76.96%)	3,117 (5.27%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 140 --** **59,294 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 140	59,294 (100.00%)	35,460 (100.00%)	44,411 (100.00%)	25,596 (100.00%)
Total and % Population		35,460 (59.80%)	44,411 (74.90%)	25,596 (43.17%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 141 --** **59,019 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 141	59,019 (100.00%)	34,760 (100.00%)	44,677 (100.00%)	25,672 (100.00%)
Total and % Population		34,760 (58.90%)	44,677 (75.70%)	25,672 (43.50%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 142 --** **59,320 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 142	31,394 (52.92%)	19,847 (62.51%)	23,393 (51.74%)	13,910 (61.36%)
Dist. 143	6,131 (10.34%)	4,549 (14.33%)	4,681 (10.35%)	3,405 (15.02%)
Dist. 144	17,474 (29.46%)	6,231 (19.63%)	13,757 (30.43%)	4,483 (19.78%)
Dist. 145	4,321 (7.28%)	1,122 (3.53%)	3,381 (7.48%)	871 (3.84%)
Total and % Population		31,749 (53.52%)	45,212 (76.22%)	22,669 (38.21%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 143 --** **59,122 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 142	23,599 (39.92%)	13,835 (43.21%)	17,877 (39.02%)	9,850 (42.46%)
Dist. 143	19,049 (32.22%)	12,329 (38.51%)	15,144 (33.06%)	9,171 (39.53%)
Dist. 144	16,474 (27.86%)	5,852 (18.28%)	12,790 (27.92%)	4,179 (18.01%)
Total and % Population		32,016 (54.15%)	45,811 (77.49%)	23,200 (39.24%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 144 --** **58,533 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 145	26,223 (44.80%)	5,767 (37.76%)	20,815 (46.40%)	4,416 (39.46%)
Dist. 146	24,398 (41.68%)	7,604 (49.79%)	18,486 (41.20%)	5,419 (48.43%)
Dist. 147	7,912 (13.52%)	1,902 (12.45%)	5,563 (12.40%)	1,355 (12.11%)
Total and % Population		15,273 (26.09%)	44,864 (76.65%)	11,190 (19.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 145 --** **59,668 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 142	4,615 (7.73%)	3,933 (12.26%)	3,314 (7.44%)	2,776 (12.37%)
Dist. 143	18,101 (30.34%)	8,918 (27.80%)	13,860 (31.11%)	6,396 (28.50%)
Dist. 145	28,132 (47.15%)	15,749 (49.10%)	20,686 (46.44%)	10,838 (48.29%)
Dist. 146	0 (0.00%)	0 (0.00%)	(0.00%)	(0.00%)
Dist. 147	8,820 (14.78%)	3,478 (10.84%)	6,687 (15.01%)	2,433 (10.84%)
Total and % Population		32,078 (53.76%)	44,547 (74.66%)	22,443 (37.61%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 146 --** **59,197 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 146	19,684 (33.25%)	4,395 (29.39%)	14,332 (32.08%)	3,062 (28.11%)
Dist. 148	26,930 (45.49%)	7,610 (50.88%)	20,732 (46.40%)	5,793 (53.19%)
Dist. 149	12,583 (21.26%)	2,951 (19.73%)	9,613 (21.52%)	2,036 (18.69%)
Total and % Population		14,956 (25.26%)	44,677 (75.47%)	10,891 (18.40%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 147 --** **58,567 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 146	16,121 (27.53%)	5,691 (29.34%)	11,771 (26.50%)	3,831 (28.23%)
Dist. 147	42,446 (72.47%)	13,706 (70.66%)	32,652 (73.50%)	9,738 (71.77%)
Total and % Population		19,397 (33.12%)	44,423 (75.85%)	13,569 (23.17%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 148 --** **59,887 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 148	33,054 (55.19%)	13,591 (58.33%)	25,882 (54.54%)	10,065 (56.85%)
Dist. 149	26,833 (44.81%)	9,708 (41.67%)	21,576 (45.46%)	7,638 (43.15%)
Total and % Population		23,299 (38.90%)	47,458 (79.25%)	17,703 (29.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 149 --** **59,392 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 133	26,305 (44.29%)	13,453 (41.70%)	21,650 (45.13%)	10,314 (41.72%)
Dist. 143	16,188 (27.26%)	12,249 (37.97%)	12,705 (26.49%)	9,229 (37.34%)
Dist. 149	16,899 (28.45%)	6,556 (20.32%)	13,615 (28.38%)	5,176 (20.94%)
Total and % Population		32,258 (54.31%)	47,970 (80.77%)	24,719 (41.62%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 15 --** **59,213 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 015	59,213 (100.00%)	9,352 (100.00%)	45,791 (100.00%)	6,500 (100.00%)
Total and % Population		9,352 (15.79%)	45,791 (77.33%)	6,500 (10.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 150 --** **59,276 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 150	59,276 (100.00%)	32,464 (100.00%)	47,050 (100.00%)	25,202 (100.00%)
Total and % Population		32,464 (54.77%)	47,050 (79.37%)	25,202 (42.52%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 151 --** **60,059 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 151	60,059 (100.00%)	26,527 (100.00%)	46,973 (100.00%)	19,920 (100.00%)
Total and % Population		26,527 (44.17%)	46,973 (78.21%)	19,920 (33.17%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 152 --** **60,134 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 152	60,134 (100.00%)	16,354 (100.00%)	46,026 (100.00%)	11,993 (100.00%)
Total and % Population		16,354 (27.20%)	46,026 (76.54%)	11,993 (19.94%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 153 --** **59,299 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 153	59,299 (100.00%)	42,183 (100.00%)	45,692 (100.00%)	31,047 (100.00%)
Total and % Population		42,183 (71.14%)	45,692 (77.05%)	31,047 (52.36%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 154 --** **59,994 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 154	59,994 (100.00%)	34,272 (100.00%)	47,273 (100.00%)	25,914 (100.00%)
Total and % Population		34,272 (57.13%)	47,273 (78.80%)	25,914 (43.19%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 155 --** **60,134 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 149	1,375 (2.29%)	138 (0.62%)	1,088 (2.35%)	100 (0.61%)
Dist. 155	58,759 (97.71%)	22,256 (99.38%)	45,208 (97.65%)	16,208 (99.39%)
Total and % Population		22,394 (37.24%)	46,296 (76.99%)	16,308 (27.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 156 --** **60,647 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 149	1,203 (1.98%)	135 (0.72%)	929 (1.99%)	101 (0.72%)
Dist. 156	59,444 (98.02%)	18,600 (99.28%)	45,867 (98.01%)	13,875 (99.28%)
Total and % Population		18,735 (30.89%)	46,796 (77.16%)	13,976 (23.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 157 --** **59,957 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 157	59,957 (100.00%)	15,118 (100.00%)	45,311 (100.00%)	11,176 (100.00%)
Total and % Population		15,118 (25.21%)	45,311 (75.57%)	11,176 (18.64%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 158 --** **59,440 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 158	59,440 (100.00%)	19,656 (100.00%)	45,549 (100.00%)	14,209 (100.00%)
Total and % Population		19,656 (33.07%)	45,549 (76.63%)	14,209 (23.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 159 --** **59,895 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 159	59,895 (100.00%)	15,307 (100.00%)	44,871 (100.00%)	10,995 (100.00%)
Total and % Population		15,307 (25.56%)	44,871 (74.92%)	10,995 (18.36%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 16 --** **59,402 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 016	59,402 (100.00%)	7,581 (100.00%)	44,009 (100.00%)	5,146 (100.00%)
Total and % Population		7,581 (12.76%)	44,009 (74.09%)	5,146 (8.66%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 160 --** **59,935 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 160	59,935 (100.00%)	14,170 (100.00%)	48,057 (100.00%)	10,859 (100.00%)
Total and % Population		14,170 (23.64%)	48,057 (80.18%)	10,859 (18.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 161 --** **60,097 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 161	60,097 (100.00%)	17,350 (100.00%)	44,371 (100.00%)	12,042 (100.00%)
Total and % Population		17,350 (28.87%)	44,371 (73.83%)	12,042 (20.04%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 162 --** **60,308 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 162	60,308 (100.00%)	28,142 (100.00%)	46,733 (100.00%)	20,435 (100.00%)
Total and % Population		28,142 (46.66%)	46,733 (77.49%)	20,435 (33.88%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 163 --** **60,123 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 163	60,123 (100.00%)	29,099 (100.00%)	48,461 (100.00%)	22,045 (100.00%)
Total and % Population		29,099 (48.40%)	48,461 (80.60%)	22,045 (36.67%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 164 --** **60,101 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 164	60,101 (100.00%)	15,067 (100.00%)	45,851 (100.00%)	10,760 (100.00%)
Total and % Population		15,067 (25.07%)	45,851 (76.29%)	10,760 (17.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 165 --** **59,978 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 165	59,978 (100.00%)	32,897 (100.00%)	48,247 (100.00%)	24,282 (100.00%)
Total and % Population		32,897 (54.85%)	48,247 (80.44%)	24,282 (40.48%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 166 --** **60,242 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 166	60,242 (100.00%)	3,647 (100.00%)	47,580 (100.00%)	2,698 (100.00%)
Total and % Population		3,647 (6.05%)	47,580 (78.98%)	2,698 (4.48%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 167 --** **59,493 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 167	59,493 (100.00%)	14,236 (100.00%)	44,140 (100.00%)	9,835 (100.00%)
Total and % Population		14,236 (23.93%)	44,140 (74.19%)	9,835 (16.53%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 168 --** **60,147 Total Population**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 168	60,147 (100.00%)	29,540 (100.00%)	44,867 (100.00%)	20,757 (100.00%)
Total and % Population		29,540 (49.11%)	44,867 (74.60%)	20,757 (34.51%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 169 --** **59,138 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 169	59,138 (100.00%)	17,964 (100.00%)	45,267 (100.00%)	13,147 (100.00%)
Total and % Population		17,964 (30.38%)	45,267 (76.54%)	13,147 (22.23%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 17 --** **59,120 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 017	59,120 (100.00%)	14,783 (100.00%)	42,761 (100.00%)	9,843 (100.00%)
Total and % Population		14,783 (25.01%)	42,761 (72.33%)	9,843 (16.65%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 170 --** **60,116 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 170	60,116 (100.00%)	15,658 (100.00%)	45,316 (100.00%)	10,976 (100.00%)
Total and % Population		15,658 (26.05%)	45,316 (75.38%)	10,976 (18.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 171 --** **59,237 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 171	59,237 (100.00%)	24,411 (100.00%)	45,969 (100.00%)	18,202 (100.00%)
Total and % Population		24,411 (41.21%)	45,969 (77.60%)	18,202 (30.73%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 172 --** **59,961 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 172	59,961 (100.00%)	14,794 (100.00%)	44,756 (100.00%)	10,439 (100.00%)
Total and % Population		14,794 (24.67%)	44,756 (74.64%)	10,439 (17.41%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 173 --** **59,743 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 173	59,743 (100.00%)	22,609 (100.00%)	45,292 (100.00%)	16,428 (100.00%)
Total and % Population		22,609 (37.84%)	45,292 (75.81%)	16,428 (27.50%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 174 --** **59,852 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 174	59,852 (100.00%)	11,260 (100.00%)	45,760 (100.00%)	7,950 (100.00%)
Total and % Population		11,260 (18.81%)	45,760 (76.46%)	7,950 (13.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 175 --** **59,993 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 175	59,993 (100.00%)	15,333 (100.00%)	44,704 (100.00%)	10,805 (100.00%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	15,333 (25.56%)	44,704 (74.52%)	10,805 (18.01%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 176 --** **59,470 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 176	59,470 (100.00%)	14,031 (100.00%)	44,991 (100.00%)	10,206 (100.00%)

Total and % Population	14,031 (23.59%)	44,991 (75.65%)	10,206 (17.16%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 177 --** **59,992 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 177	59,992 (100.00%)	34,510 (100.00%)	46,014 (100.00%)	24,793 (100.00%)

Total and % Population	34,510 (57.52%)	46,014 (76.70%)	24,793 (41.33%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 178 --** **59,877 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 178	59,877 (100.00%)	9,525 (100.00%)	45,638 (100.00%)	6,750 (100.00%)

Total and % Population	9,525 (15.91%)	45,638 (76.22%)	6,750 (11.27%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 179 --** **59,356 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 179	59,356 (100.00%)	18,047 (100.00%)	47,156 (100.00%)	12,745 (100.00%)

Total and % Population	18,047 (30.40%)	47,156 (79.45%)	12,745 (21.47%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 18 --** **59,335 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 018	59,335 (100.00%)	5,118 (100.00%)	45,159 (100.00%)	3,604 (100.00%)

Total and % Population	5,118 (8.63%)	45,159 (76.11%)	3,604 (6.07%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 180 --** **59,412 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 180	59,412 (100.00%)	11,721 (100.00%)	45,362 (100.00%)	8,261 (100.00%)

Total and % Population	11,721 (19.73%)	45,362 (76.35%)	8,261 (13.90%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 19 --** **58,955 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 019	58,955 (100.00%)	15,550 (100.00%)	44,299 (100.00%)	10,697 (100.00%)

Total and % Population	15,550 (26.38%)	44,299 (75.14%)	10,697 (18.14%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,773 Total Population**



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**2 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 002	59,773 (100.00%)	2,173 (100.00%)	46,159 (100.00%)	1,456 (100.00%)
Total and % Population		2,173 (3.64%)	46,159 (77.22%)	1,456 (2.44%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 20 -- 60,107 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 020	60,107 (100.00%)	5,973 (100.00%)	45,725 (100.00%)	4,230 (100.00%)
Total and % Population		5,973 (9.94%)	45,725 (76.07%)	4,230 (7.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 21 -- 59,529 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 021	59,529 (100.00%)	3,350 (100.00%)	44,931 (100.00%)	2,272 (100.00%)
Total and % Population		3,350 (5.63%)	44,931 (75.48%)	2,272 (3.82%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 22 -- 59,460 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 022	59,460 (100.00%)	9,890 (100.00%)	45,815 (100.00%)	6,918 (100.00%)
Total and % Population		9,890 (16.63%)	45,815 (77.05%)	6,918 (11.63%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 23 -- 59,048 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 023	59,048 (100.00%)	4,250 (100.00%)	44,254 (100.00%)	2,878 (100.00%)
Total and % Population		4,250 (7.20%)	44,254 (74.95%)	2,878 (4.87%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 24 -- 59,011 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 024	59,011 (100.00%)	4,313 (100.00%)	41,814 (100.00%)	2,926 (100.00%)
Total and % Population		4,313 (7.31%)	41,814 (70.86%)	2,926 (4.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 25 -- 59,414 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 025	59,414 (100.00%)	3,606 (100.00%)	42,520 (100.00%)	2,507 (100.00%)
Total and % Population		3,606 (6.07%)	42,520 (71.57%)	2,507 (4.22%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 26 -- 59,248 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 026	59,248 (100.00%)	2,646 (100.00%)	44,081 (100.00%)	1,767 (100.00%)
Total and % Population		2,646 (4.47%)	44,081 (74.40%)	1,767 (2.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 27 --** **58,795 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 027	58,795 (100.00%)	2,589 (100.00%)	46,004 (100.00%)	1,698 (100.00%)
Total and % Population		2,589 (4.40%)	46,004 (78.24%)	1,698 (2.89%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 28 --** **58,972 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 028	58,972 (100.00%)	2,686 (100.00%)	44,444 (100.00%)	1,747 (100.00%)
Total and % Population		2,686 (4.55%)	44,444 (75.36%)	1,747 (2.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 29 --** **59,200 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 029	59,200 (100.00%)	8,132 (100.00%)	43,131 (100.00%)	5,861 (100.00%)
Total and % Population		8,132 (13.74%)	43,131 (72.86%)	5,861 (9.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 3 --** **60,199 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 003	60,199 (100.00%)	2,463 (100.00%)	46,716 (100.00%)	1,565 (100.00%)
Total and % Population		2,463 (4.09%)	46,716 (77.60%)	1,565 (2.60%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 30 --** **59,266 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 030	59,266 (100.00%)	5,186 (100.00%)	45,414 (100.00%)	3,678 (100.00%)
Total and % Population		5,186 (8.75%)	45,414 (76.63%)	3,678 (6.21%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 31 --** **59,901 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 031	59,901 (100.00%)	4,770 (100.00%)	43,120 (100.00%)	3,265 (100.00%)
Total and % Population		4,770 (7.96%)	43,120 (71.99%)	3,265 (5.45%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 32 --** **59,145 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 032	59,145 (100.00%)	5,252 (100.00%)	45,942 (100.00%)	3,659 (100.00%)
Total and % Population		5,252 (8.88%)	45,942 (77.68%)	3,659 (6.19%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 33 --** **59,187 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 033	59,187 (100.00%)	7,322 (100.00%)	46,498 (100.00%)	5,207 (100.00%)
Total and % Population		7,322 (12.37%)	46,498 (78.56%)	5,207 (8.80%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 34 --** **59,875 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 034	59,875 (100.00%)	10,102 (100.00%)	45,758 (100.00%)	7,169 (100.00%)
Total and % Population		10,102 (16.87%)	45,758 (76.42%)	7,169 (11.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 35 --** **59,889 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 035	59,889 (100.00%)	18,210 (100.00%)	48,312 (100.00%)	13,722 (100.00%)
Total and % Population		18,210 (30.41%)	48,312 (80.67%)	13,722 (22.91%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 36 --** **59,994 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 036	59,994 (100.00%)	11,055 (100.00%)	44,911 (100.00%)	7,626 (100.00%)
Total and % Population		11,055 (18.43%)	44,911 (74.86%)	7,626 (12.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 37 --** **59,176 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 037	59,176 (100.00%)	17,171 (100.00%)	46,223 (100.00%)	13,027 (100.00%)
Total and % Population		17,171 (29.02%)	46,223 (78.11%)	13,027 (22.01%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 38 --** **59,317 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 038	59,317 (100.00%)	33,760 (100.00%)	44,839 (100.00%)	24,318 (100.00%)
Total and % Population		33,760 (56.91%)	44,839 (75.59%)	24,318 (41.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 39 --** **59,381 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 039	59,381 (100.00%)	33,016 (100.00%)	44,436 (100.00%)	24,569 (100.00%)
Total and % Population		33,016 (55.60%)	44,436 (74.83%)	24,569 (41.38%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 4 --** **59,070 Total Population**



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 004	59,070 (100.00%)	3,264 (100.00%)	42,798 (100.00%)	2,303 (100.00%)
Total and % Population		3,264 (5.53%)	42,798 (72.45%)	2,303 (3.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 40 --** **59,044 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 040	59,044 (100.00%)	20,179 (100.00%)	47,976 (100.00%)	15,821 (100.00%)
Total and % Population		20,179 (34.18%)	47,976 (81.25%)	15,821 (26.80%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 41 --** **60,122 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 041	60,122 (100.00%)	23,846 (100.00%)	45,271 (100.00%)	17,816 (100.00%)
Total and % Population		23,846 (39.66%)	45,271 (75.30%)	17,816 (29.63%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 42 --** **59,620 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 042	59,620 (100.00%)	20,726 (100.00%)	48,525 (100.00%)	16,353 (100.00%)
Total and % Population		20,726 (34.76%)	48,525 (81.39%)	16,353 (27.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 43 --** **59,464 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 043	59,464 (100.00%)	16,346 (100.00%)	47,033 (100.00%)	12,476 (100.00%)
Total and % Population		16,346 (27.49%)	47,033 (79.09%)	12,476 (20.98%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 44 --** **60,002 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 044	60,002 (100.00%)	7,990 (100.00%)	46,773 (100.00%)	5,635 (100.00%)
Total and % Population		7,990 (13.32%)	46,773 (77.95%)	5,635 (9.39%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 45 --** **59,738 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 045	59,738 (100.00%)	3,303 (100.00%)	44,023 (100.00%)	2,324 (100.00%)
Total and % Population		3,303 (5.53%)	44,023 (73.69%)	2,324 (3.89%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 46 --** **59,108 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 046	59,108 (100.00%)	5,077 (100.00%)	44,132 (100.00%)	3,560 (100.00%)

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Total and % Population	5,077 (8.59%)	44,132 (74.66%)	3,560 (6.02%)
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**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 47 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 047	59,126 (100.00%)	6,590 (100.00%)	43,932 (100.00%)	4,709 (100.00%)
Total and % Population		6,590 (11.15%)	43,932 (74.30%)	4,709 (7.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 48 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 048	59,003 (100.00%)	7,216 (100.00%)	44,779 (100.00%)	5,279 (100.00%)
Total and % Population		7,216 (12.23%)	44,779 (75.89%)	5,279 (8.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 49 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 049	59,153 (100.00%)	5,234 (100.00%)	45,263 (100.00%)	3,813 (100.00%)
Total and % Population		5,234 (8.85%)	45,263 (76.52%)	3,813 (6.45%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 5 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 005	58,837 (100.00%)	3,082 (100.00%)	44,623 (100.00%)	2,051 (100.00%)
Total and % Population		3,082 (5.24%)	44,623 (75.84%)	2,051 (3.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 50 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 050	59,523 (100.00%)	7,763 (100.00%)	43,940 (100.00%)	5,450 (100.00%)
Total and % Population		7,763 (13.04%)	43,940 (73.82%)	5,450 (9.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 51 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 051	58,952 (100.00%)	14,766 (100.00%)	47,262 (100.00%)	11,193 (100.00%)
Total and % Population		14,766 (25.05%)	47,262 (80.17%)	11,193 (18.99%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 52 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 052	59,811 (100.00%)	9,461 (100.00%)	48,525 (100.00%)	7,758 (100.00%)
Total and % Population		9,461 (15.82%)	48,525 (81.13%)	7,758 (12.97%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District**

**59,953 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**53 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 053	59,953 (100.00%)	8,685 (100.00%)	46,944 (100.00%)	6,819 (100.00%)
Total and % Population		8,685 (14.49%)	46,944 (78.30%)	6,819 (11.37%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 60,083 Total Population****54 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 054	60,083 (100.00%)	9,048 (100.00%)	50,338 (100.00%)	7,789 (100.00%)
Total and % Population		9,048 (15.06%)	50,338 (83.78%)	7,789 (12.96%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,971 Total Population****55 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 055	59,971 (100.00%)	34,374 (100.00%)	49,255 (100.00%)	27,279 (100.00%)
Total and % Population		34,374 (57.32%)	49,255 (82.13%)	27,279 (45.49%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 58,929 Total Population****56 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 056	58,929 (100.00%)	29,016 (100.00%)	52,757 (100.00%)	23,993 (100.00%)
Total and % Population		29,016 (49.24%)	52,757 (89.53%)	23,993 (40.72%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,969 Total Population****57 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 057	59,969 (100.00%)	10,691 (100.00%)	52,097 (100.00%)	9,411 (100.00%)
Total and % Population		10,691 (17.83%)	52,097 (86.87%)	9,411 (15.69%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,057 Total Population****58 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 058	59,057 (100.00%)	39,036 (100.00%)	50,514 (100.00%)	31,845 (100.00%)
Total and % Population		39,036 (66.10%)	50,514 (85.53%)	31,845 (53.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,434 Total Population****59 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 059	59,434 (100.00%)	43,468 (100.00%)	49,179 (100.00%)	34,470 (100.00%)
Total and % Population		43,468 (73.14%)	49,179 (82.75%)	34,470 (58.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,712 Total Population****6 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 006	59,712 (100.00%)	1,125 (100.00%)	45,152 (100.00%)	682 (100.00%)
Total and % Population		1,125 (1.88%)	45,152 (75.62%)	682 (1.14%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 60 --** **59,709 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 060	59,709 (100.00%)	38,562 (100.00%)	45,490 (100.00%)	29,061 (100.00%)
Total and % Population		38,562 (64.58%)	45,490 (76.19%)	29,061 (48.67%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 61 --** **58,950 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 061	535 (0.91%)	524 (1.60%)	427 (0.97%)	419 (1.77%)
Dist. 064	19,083 (32.37%)	6,415 (19.61%)	14,390 (32.55%)	4,491 (18.99%)
Dist. 065	23,652 (40.12%)	18,848 (57.60%)	17,339 (39.22%)	13,637 (57.66%)
Dist. 066	15,680 (26.60%)	6,934 (21.19%)	12,056 (27.27%)	5,104 (21.58%)
Total and % Population		32,721 (55.51%)	44,212 (75.00%)	23,651 (40.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 62 --** **59,450 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 062	59,450 (100.00%)	43,732 (100.00%)	46,426 (100.00%)	33,548 (100.00%)
Total and % Population		43,732 (73.56%)	46,426 (78.09%)	33,548 (56.43%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 63 --** **59,381 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 063	59,381 (100.00%)	42,146 (100.00%)	45,043 (100.00%)	31,229 (100.00%)
Total and % Population		42,146 (70.98%)	45,043 (75.85%)	31,229 (52.59%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 64 --** **59,648 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 061	36,238 (60.75%)	22,486 (73.84%)	27,950 (61.73%)	17,117 (75.25%)
Dist. 064	23,410 (39.25%)	7,965 (26.16%)	17,329 (38.27%)	5,631 (24.75%)
Total and % Population		30,451 (51.05%)	45,279 (75.91%)	22,748 (38.14%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 65 --** **59,240 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 061	22,529 (38.03%)	21,525 (56.68%)	17,070 (38.02%)	16,226 (57.05%)
Dist. 064	6,306 (10.64%)	1,076 (2.83%)	4,765 (10.61%)	781 (2.75%)
Dist. 065	30,405 (51.33%)	15,374 (40.48%)	23,067 (51.37%)	11,434 (40.20%)
Total and % Population		37,975 (64.10%)	44,902 (75.80%)	28,441 (48.01%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 66 --** **58,961 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 064	10,187 (17.28%)	3,744 (11.18%)	7,705 (17.55%)	2,674 (11.30%)
Dist. 065	5,407 (9.17%)	3,480 (10.39%)	3,980 (9.06%)	2,440 (10.31%)
Dist. 066	43,367 (73.55%)	26,276 (78.44%)	32,222 (73.39%)	18,543 (78.38%)
Total and % Population		33,500 (56.82%)	43,907 (74.47%)	23,657 (40.12%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,135 Total Population****67 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 067	59,135 (100.00%)	35,438 (100.00%)	44,299 (100.00%)	26,099 (100.00%)
Total and % Population		35,438 (59.93%)	44,299 (74.91%)	26,099 (44.13%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,477 Total Population****68 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 068	59,477 (100.00%)	34,189 (100.00%)	44,835 (100.00%)	24,994 (100.00%)
Total and % Population		34,189 (57.48%)	44,835 (75.38%)	24,994 (42.02%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **58,358 Total Population****69 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 069	56,280 (96.44%)	37,167 (98.65%)	43,665 (96.37%)	28,030 (98.61%)
Dist. 074	2,078 (3.56%)	510 (1.35%)	1,645 (3.63%)	394 (1.39%)
Total and % Population		37,677 (64.56%)	45,310 (77.64%)	28,424 (48.71%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,081 Total Population****7 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 007	59,081 (100.00%)	513 (100.00%)	48,771 (100.00%)	302 (100.00%)
Total and % Population		513 (0.87%)	48,771 (82.55%)	302 (0.51%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,121 Total Population****70 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 070	59,121 (100.00%)	17,750 (100.00%)	45,249 (100.00%)	12,591 (100.00%)
Total and % Population		17,750 (30.02%)	45,249 (76.54%)	12,591 (21.30%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,538 Total Population****71 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 071	59,538 (100.00%)	12,792 (100.00%)	44,582 (100.00%)	8,879 (100.00%)
Total and % Population		12,792 (21.49%)	44,582 (74.88%)	8,879 (14.91%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **59,660 Total Population****72 --**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 072	59,660 (100.00%)	12,788 (100.00%)	46,229 (100.00%)	9,642 (100.00%)
Total and % Population		12,788 (21.43%)	46,229 (77.49%)	9,642 (16.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 73 --** **60,036 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 073	60,036 (100.00%)	7,865 (100.00%)	45,736 (100.00%)	5,538 (100.00%)
Total and % Population		7,865 (13.10%)	45,736 (76.18%)	5,538 (9.22%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 74 --** **58,418 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 069	2,402 (4.11%)	1,225 (3.82%)	1,883 (4.32%)	920 (3.91%)
Dist. 074	21,666 (37.09%)	2,852 (8.89%)	16,334 (37.46%)	1,996 (8.49%)
Dist. 075	25,599 (43.82%)	20,590 (64.19%)	18,685 (42.85%)	14,984 (63.70%)
Dist. 078	8,751 (14.98%)	7,412 (23.11%)	6,700 (15.37%)	5,621 (23.90%)
Total and % Population		32,079 (54.91%)	43,602 (74.64%)	23,521 (40.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 75 --** **59,759 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 075	34,144 (57.14%)	24,426 (59.73%)	25,165 (55.94%)	17,639 (58.62%)
Dist. 078	25,615 (42.86%)	16,470 (40.27%)	19,818 (44.06%)	12,451 (41.38%)
Total and % Population		40,896 (68.43%)	44,983 (75.27%)	30,090 (50.35%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 76 --** **59,759 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 076	59,759 (100.00%)	40,461 (100.00%)	44,371 (100.00%)	29,832 (100.00%)
Total and % Population		40,461 (67.71%)	44,371 (74.25%)	29,832 (49.92%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 77 --** **59,242 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 077	59,242 (100.00%)	44,963 (100.00%)	44,207 (100.00%)	33,655 (100.00%)
Total and % Population		44,963 (75.90%)	44,207 (74.62%)	33,655 (56.81%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 78 --** **59,890 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 074	35,212 (58.79%)	12,879 (39.81%)	26,717 (59.67%)	9,016 (39.46%)
Dist. 078	24,678 (41.21%)	19,469 (60.19%)	18,054 (40.33%)	13,832 (60.54%)
Total and % Population		32,348 (54.01%)	44,771 (74.76%)	22,848 (38.15%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 79 --** **59,500 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 079	59,500 (100.00%)	42,713 (100.00%)	43,223 (100.00%)	30,942 (100.00%)
Total and % Population		42,713 (71.79%)	43,223 (72.64%)	30,942 (52.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 8 --** **59,244 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 008	59,244 (100.00%)	1,025 (100.00%)	49,612 (100.00%)	708 (100.00%)
Total and % Population		1,025 (1.73%)	49,612 (83.74%)	708 (1.20%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 80 --** **59,461 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 080	59,461 (100.00%)	8,128 (100.00%)	44,784 (100.00%)	6,350 (100.00%)
Total and % Population		8,128 (13.67%)	44,784 (75.32%)	6,350 (10.68%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 81 --** **59,007 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 081	59,007 (100.00%)	12,487 (100.00%)	46,259 (100.00%)	10,099 (100.00%)
Total and % Population		12,487 (21.16%)	46,259 (78.40%)	10,099 (17.11%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 82 --** **59,724 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 082	59,724 (100.00%)	9,763 (100.00%)	50,238 (100.00%)	8,455 (100.00%)
Total and % Population		9,763 (16.35%)	50,238 (84.12%)	8,455 (14.16%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 83 --** **59,416 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 083	59,416 (100.00%)	8,327 (100.00%)	46,581 (100.00%)	7,044 (100.00%)
Total and % Population		8,327 (14.01%)	46,581 (78.40%)	7,044 (11.86%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 84 --** **59,862 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 084	59,862 (100.00%)	43,909 (100.00%)	47,350 (100.00%)	34,877 (100.00%)
Total and % Population		43,909 (73.35%)	47,350 (79.10%)	34,877 (58.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 85 --** **59,373 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 085	59,373 (100.00%)	37,650 (100.00%)	46,308 (100.00%)	29,041 (100.00%)
Total and % Population		37,650 (63.41%)	46,308 (78.00%)	29,041 (48.91%)



**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 86 --** **59,205 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 086	59,205 (100.00%)	44,458 (100.00%)	44,614 (100.00%)	33,485 (100.00%)
Total and % Population		44,458 (75.09%)	44,614 (75.36%)	33,485 (56.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 87 --** **59,709 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 087	59,709 (100.00%)	44,195 (100.00%)	45,615 (100.00%)	33,336 (100.00%)
Total and % Population		44,195 (74.02%)	45,615 (76.40%)	33,336 (55.83%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 88 --** **59,689 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 088	59,689 (100.00%)	38,515 (100.00%)	46,073 (100.00%)	29,187 (100.00%)
Total and % Population		38,515 (64.53%)	46,073 (77.19%)	29,187 (48.90%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 89 --** **59,866 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 089	59,866 (100.00%)	37,494 (100.00%)	46,198 (100.00%)	28,890 (100.00%)
Total and % Population		37,494 (62.63%)	46,198 (77.17%)	28,890 (48.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 9 --** **59,474 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 009	59,474 (100.00%)	1,066 (100.00%)	48,273 (100.00%)	759 (100.00%)
Total and % Population		1,066 (1.79%)	48,273 (81.17%)	759 (1.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 90 --** **59,812 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 090	59,812 (100.00%)	35,965 (100.00%)	48,015 (100.00%)	28,082 (100.00%)
Total and % Population		35,965 (60.13%)	48,015 (80.28%)	28,082 (46.95%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 91 --** **59,956 Total Population**

	Population	AP_Bl	[18+_Pop]	[18+_AP_Bl]
Dist. 091	35,967 (59.99%)	28,749 (78.31%)	27,937 (60.73%)	21,984 (79.64%)
Dist. 115	9,573 (15.97%)	3,588 (9.77%)	7,346 (15.97%)	2,564 (9.29%)
Dist. 117	14,416 (24.04%)	4,377 (11.92%)	10,716 (23.30%)	3,056 (11.07%)
Total and % Population		36,714 (61.23%)	45,999 (76.72%)	27,604 (46.04%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District** **60,273 Total Population**

**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

**92 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 092	60,273 (100.00%)	42,978 (100.00%)	46,551 (100.00%)	32,022 (100.00%)
Total and % Population		42,978 (71.31%)	46,551 (77.23%)	32,022 (53.13%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 60,118 Total Population****93 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 093	60,118 (100.00%)	40,249 (100.00%)	44,734 (100.00%)	29,239 (100.00%)
Total and % Population		40,249 (66.95%)	44,734 (74.41%)	29,239 (48.64%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,211 Total Population****94 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 094	59,211 (100.00%)	41,397 (100.00%)	44,809 (100.00%)	30,935 (100.00%)
Total and % Population		41,397 (69.91%)	44,809 (75.68%)	30,935 (52.25%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 60,030 Total Population****95 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 095	60,030 (100.00%)	41,682 (100.00%)	44,948 (100.00%)	30,183 (100.00%)
Total and % Population		41,682 (69.44%)	44,948 (74.88%)	30,183 (50.28%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,515 Total Population****96 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 096	59,515 (100.00%)	13,970 (100.00%)	44,671 (100.00%)	10,273 (100.00%)
Total and % Population		13,970 (23.47%)	44,671 (75.06%)	10,273 (17.26%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,072 Total Population****97 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 097	59,072 (100.00%)	16,869 (100.00%)	46,339 (100.00%)	12,405 (100.00%)
Total and % Population		16,869 (28.56%)	46,339 (78.44%)	12,405 (21.00%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,998 Total Population****98 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
Dist. 098	59,998 (100.00%)	13,286 (100.00%)	42,734 (100.00%)	9,934 (100.00%)
Total and % Population		13,286 (22.14%)	42,734 (71.23%)	9,934 (16.56%)

**Plan: Grant\_Esselstyn\_Hse\_illustrative12\_05, District 59,850 Total Population****99 --**

	Population	AP_Blkg	[18+_Pop]	[18+_AP_Blkg]
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**Core Constituencies**

Grant\_Esselstyn\_Hse\_illustrative12\_05

Dist. 099	59,850 (100.00%)	9,514 (100.00%)	45,004 (100.00%)	6,622 (100.00%)
Total and % Population		9,514 (15.90%)	45,004 (75.19%)	6,622 (11.06%)