

ALPHA PHI ALPHA FRATERNITY, )DAY 2 - P.M. SESSION INC., ET AL.,
-VS-
BRAD RAFFENSPERGER,
DEFENDANT.
COAKLEY PENDERGRASS, ET AL.,
-VS-
BRAD RAFFENSPERGER, ET AL.,
DEFENDANTS.
ANNIE LOIS GRANT, ET AL.,
PLAINTIFFS,
-VS-
BRAD RAFFENSPERGER, ET AL.,
DEFENDANTS.

TRANSCRIPT OF BENCH TRIAL
beFORE THE HONORABLE STEVE C. JONES
UNITED STATES DISTRICT JUDGE
WEDNESDAY, SEPTEMBER 6, 2023

STENOGRAPHICALLY RECORDED BY:
PENNY PRITTY COUDRIET, RPR, RMR, CRR
OFFICIAL COURT REPORTER
UNITED STATES DISTRICT COURT ATLANTA, GEORGIA

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ON BEHALF OF THE DEFENDANT:
BRYAN P. TYSON, ESQ.
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(PROCEEDINGS HELD IN OPEN COURT AT 1:36 P.M.,
ATLANTA, GEORGIA)
THE COURT: You all can be seated.
I hope everyone had a good lunch.
And, Ms. Khanna, are you ready to call your next witness?

MS. KHANNA: We're calling Mr. Jones, Your Honor.
THE COURT: Call your next witness, sir.
MR. JONES: Good afternoon, Your Honor.
THE COURT: Good afternoon, sir.
MR. JONES: I'm Michael Jones for the Grant plaintiffs.

THE COURT: Jones. Jones. That's a good last name.
MR. JONES: Delighted to be in good company as
always.
THE COURT: Good to have you here, sir.
MR. JONES: On behalf of the Grant plaintiffs, I'd like to call Mr. Blake Esselstyn to the stand to testify on Gingles 1.

THE COURT: Come on up.

## BLAKEMAN ESSELSTYN

a witness herein, being first duly sworn, was examined and testified as follows:

DEPUTY CLERK: Have a seat.
Please state and spell your name for the record. THE WITNESS: Certainly. Can you hear me.

My first name is Blakeman, B-L-A-K-E-M-A-N. My middle name is Bingham, B-I-N-G-H-A-M. My last name is Esselstyn, E-S-S-E-L-S-T-Y-N.

DEPUTY CLERK: Thank you.
direct examination
BY MR. JONES:
Q. Good afternoon, Mr. Esselstyn. How are you?
A. I'm good. Thank you. How are you?
Q. I'm doing great, too.

You've been retained as an expert by the plaintiffs in Grant v. Raffensperger?
A. Correct.
Q. And you've prepared five expert reports in this case; is that correct?
A. That's correct.

MR. JONES: I'd like to pull up on the screen Grant
Exhibit 1.
BY MR. JONES:
Q. Mr. Esselstyn, can you please identify this exhibit.
A. Yes. This is the exhibit that I prepared for this phase of the trial. I believe it was submitted in early December
of 2022, the -- my initial report.
MR. JONES: And now let's please pull up Grant
Exhibit 6.
BY MR. JONES:
Q. And, Mr. Esselstyn, can you please identify this exhibit?
A. Yes. This is the rebuttal report that I prepared for, again, this phase of the trial. This was submitted some time in early 2023.

MR. JONES: All right. Your Honor, I'd like to move Grant Exhibit 1 and Grant Exhibit 2 into evidence.

THE COURT: Any objections?
MR. TYSON: No objection, Your Honor -- no objection.
THE COURT: All right. They'11 be admitted without objection.

THE WITNESS: I did hear something. You said Grant Exhibit 2. I believe this is Grant Exhibit 6--

MR. JONES: I misspoke. I misspoke.
THE COURT: 6 was Tyson.
MR. TYSON: No objection, Your Honor.
MR. JONES: Thank you.
THE COURT: All right. It's admitted without objection.

BY MR. JONES:
Q. Mr. Esselstyn, do you have both of those exhibits in front of you now?
A. Yes, I do.

MR. JONES: Now, let's please pull up Grant
Exhibit 1, page 37.
BY MR. JONES:
Q. Mr. Esselstyn, this was included as Attachment A in your December 2022 report. Is this your current CV?
A. It is. Since this CV was prepared, I have made one presentation at a conference, but other than that, everything is the same.
Q. And so in all other respects, is this a complete and accurate summary of your background and professional experience?
A. Yes, it is.
Q. Has anything in your CV changed since you last testified in this case, other than what you just mentioned?
A. Yes. I think, most significantly, I have worked as a consulting expert in two additional redistricting cases.
Q. I'll ask just a few questions now about your background and expertise.

Mr. Esselstyn, what is your profession?
A. I'm a geographic information systems consultant specializing in redistricting and demography.
Q. And what does geographic information systems entail?
A. Geographic information systems, often referred to as GIS, is the practice of working with geographic data, usually using
some kind of software, but it also involves working with other humans and analyzing data. Often those data will then get presently in maps, but sometimes the analysis of the geographic data is independent of the creation of maps.

And so it's -- it involves a number of things, but essentially analysis of geographic data and then presentation of that data.
Q. And, Mr. Esselstyn, how long have you been a geographic information systems consultant?
A. So I started working with GIS the summer of the Atlanta O1ympics, so I realized that was 27 years ago. I think my first job title that actually had consultant in the title would have been the following year, 1997. So 26 years ago.

Between then and now I've had a number of GIS consultant positions. From 2004 to early 2015 I worked in the public sector. But I've been working in my current capacity in the business that I work for now I believe for eight-and-a-half years.
Q. Now, do you also provide map drawing consultation for jurisdictions outside of litigation?
A. I do.
Q. And can you describe some of that work?
A. Sure. Most significantly, I think, in North Carolina in 2021, I teamed with a group of attorneys and one other demographer/geographer, and we provided nonpartisan
redistricting services to local government in North Carolina. MR. JONES: Your Honor, pursuant to Federal Rule of Evidence 702, the Grant plaintiffs would like to proffer Mr. Esselstyn as an expert in redistricting, demography and geographic information systems.

THE COURT: Do you wish to voir dire?
MR. TYSON: I do, Your Honor.
VOIR DIRE EXAMINATION
BY MR. TYSON:
Q. Good afternoon, Mr. Esselstyn.
A. Good afternoon.
Q. I think we last spoke on Zoom, but I'm Bryan Tyson representing the defendants in this case. And I have a few questions for you.

This is the first time where you've ever testified at trial as an expert in a Section 2 case; correct?
A. That's correct.
Q. And this is also the first time you've ever testified as an expert witness at trial in a federal court; correct?
A. That's correct.
Q. And so no federal court has ever had the chance to hear or credit your testimony; right? At trial?
A. At trial; correct.
Q. And I know you mentioned your role as a GIS consultant over time, but the first time you ever used any software to
draw electoral districts was in 2016; correct?
A. That's correct.
Q. And that was also the first time that you used Maptitude for Redistricting?
A. Yes. I actually used Maptitude back in 1996 or 1997. So Maptitude for Redistricting is sort of an extension for the Maptitude software. So I've -- I've worked with Maptitude long, long ago, but Maptitude for Redistricting, the first time was in 2016.
Q. So while you have a lot of experience in the GIS field, your experience with redistricting encompasses essentially one census cycle, the 2021 cycle; right?
A. If you think of it in terms of cycles, yes. In North Carolina, where I happen to live, people say that redistricting never ends. So there have been, as you're probably aware, a number of re-drawings of maps at the state level in North Carolina. And so I did work related to those. Q. Redistricting never ending seems to be a new theme in a lot of ways.

And you've never drawn a statewide redistricting plan that was actually used in an election; correct?
A. That's correct.
Q. And besides the maps you presented in this case, you've never drawn statewide legislative plans for any state; right? A. That's correct.
Q. And a few years ago you participated in a conference called Reason, Reform \& Redistricting Conference that was sponsored by Common Cause; right?
A. A few years ago. I would need to check my CV to say exactly when, but I do recall presenting at that conference. Q. And you're aware that Common Cause is a plaintiff suing the State of Georgia in a different proceeding regarding redistricting?
A. You mentioned that during the deposition. I will take your word for it.

MR. TYSON: Your Honor, we don't have any objection to Mr. Esselstyn being qualified in redistricting and GIS systems.

Mr. Jones also mentioned demographics. I think that to the extent those are derived from GIS systems, we don't have an objection there either.

THE COURT: All right. Thank you, Mr. Tyson.
MR. TYSON: Thank you.
THE COURT: This witness will be allowed to testify, Mr. Jones, in the requested areas.

MR. JONES: And, Your Honor, I just missed the trail (sic) end of your last sentence. Would you mind just restating it for me, please?

THE COURT: This witness will be allowed to testify as an expert in the areas you requested.

MR. JONES: Thank you very much for restating that.
Ms. Wright, would you be able to enable the annotation feature?

DEPUTY CLERK: Sure.
MR. JONES: Thank you so much.
DIRECT EXAMINATION (CONTINUED)
BY MR. JONES:
Q. Now, Mr. Esselstyn, while that's happening, will you please tell the Court what you were asked to do in this case?
A. Certainly. There were sort of two aspects. The first was that I was asked to ascertain whether the Black population in Georgia is sufficiently large and geographically compact to allow for the creation of additional majority Black districts in the legislative maps relative to the enacted maps while adhering to traditional redistricting principles.
Q. And did you mention that there was another thing you were asked to do?
A. Yes. Thank you.

The second piece was to respond to a report created by John Morgan.
Q. And as to the first topic, did you reach any conclusions regarding whether the Black population in Georgia is sufficiently large and geographically compact to allow for the creation of additional majority-minority districts?
A. I did.
Q. And what are your conclusions as to that issue?
A. I concluded that in Senate plan, it is possible to draw at least three additional majority Black districts while still adhering to traditional redistricting criteria.
Q. And as to the House plan?
A. In the House plan I concluded that it is possible to draw at least five additional majority Black districts while still adhering to traditional redistricting criteria.
Q. Mr. Esselstyn, can you describe at a high level the population growth patterns among the different racial groups in Georgia between 2010 and 2020?
A. I can.

So the State of Georgia experienced pretty remarkable population growth from 2010 to 2020 , more than a million people, additional people. But that growth was not distributed equally in the white population and the Black population.

In the Black population, total population, the -- I should say that as a percentage that 1 million-person increase represents a percentage growth of more than 10 percent, a little over 10 percent. But in the Black total population, the growth rate was more like 15 -- I think 15.8 percent. Between 15 and 16 percent. And in the voting age Black population I believe it was 21.8 percent. So that's a substantial increase, outpacing the increase in the population
as a whole.
In the white population, however, there was actually a decrease. I believe in the total population the decrease was 1.0 percent. And in the white -- and by "white," I mean single race, non-Hispanic white population. In the white voting age population, the decrease was in the neighborhood of 6 percent.
Q. Mr. Esselstyn, let's move on to the geographic distribution of the Black population in Georgia.

MR. JONES: Could we please pull up Figure 1, on page 6, of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, when you find that, can you please describe what this figure shows?
A. Certainly. This figure shows -- it's a map of Georgia broken down by counties. And each of the 159 counties is shaded based on the proportion or the percentage of the population in that county, which is Black. And so the shading gets darker based on -- for higher percentages of the Black population.

And -- I'11 leave it at that for what this -- the basics of what the map represents.
Q. Where in the State of Georgia is the Black population the highest?
A. There are two significant areas that have a high
concentration of Black population -- or I should say high percentage of Black population, speaking generally.

And the first would be the Metro Atlanta area. I believe that almost half of the Black population is located in just six counties in the Metro Atlanta area.

The other area would be the -- what is called the Black Belt. And that's visible on the map here. And that is a broad swath of the state extending from the southwest corner up toward the Augusta-Richmond area.
Q. And I think you just began to touch on sort of the geographic position of the Black Belt, but can you tell the Court what you understand the term "Black Belt" to mean more generally?
A. Sure. So the -- I would say more generally -- there are some scholars that say that the term might have originated based on the quality of the soil, in places where the soil was more dark. But there are also folks who base their description of what the Black Belt is very much more so on demographics and specifically areas of the state.

And I should say, it's not just limited to the State of Georgia. This is something that is talked about in other states in the southeast as well.

And it is an area that has a high percentage of Black population.
Q. Mr. Esselstyn, your December 2022 report, Exhibit 1,
describes the illustrative plans that you drew for each chamber of the Georgia Legislature; is that correct?
A. I'm sorry, could you repeat the question?
Q. Sure. Sure. I'll try to even out my drawl a little bit.

Your December 2022 report describes the illustrative plans that you drew for each chamber of the Georgia Legislature; correct?
A. That's correct.
Q. When you draw an illustrative plan for the purposes of the Gingles 1 inquiry, is it necessary to consider race?
A. It is.
Q. Why?
A. Well, the Gingles 1 process -- or the Gingles 1 precondition is looking at whether majority Black districts can be created. And in order to understand whether districts are majority Black, one has to be able to look at statistics for those districts.
Q. Did you consult the redistricting principles adopted by the Georgia State Senate and House to guide their redistricting efforts?
A. I did.
Q. Was compliance with the Voting Rights Act included as one of their adopted criteria?
A. Yes, in both chambers.
Q. When drawing your illustrative plans did you also
consider other considerations?
A. Absolutely, yes.
Q. And what were some of those?
A. I had mentioned the traditional redistricting criteria before: Population equality, political subdivisions, communities of interest, compactness, not pairing incumbents.

One that was not included in the criteria specifically adopted by the chambers in the General Assembly, but one that I did consider, is sometimes called continuity, which is basically where you try to change -- limit the changes to the existing districts or the previous districts.

So my illustrative plans used the enacted plans as a starting point and tried to avoid changing districts unless necessary.
Q. Mr. Esselstyn, did any one of these factors predominate over others when you drew your illustrative maps?
A. No.
Q. Did race predominate when you drew your illustrative maps?
A. No.
Q. Let's talk about some of the traditional redistricting principles that you just discussed.

You mentioned population equality, I believe?
A. Yes.
Q. How is this principle reflected in your illustrative
plans?
A. So population equality, very simply, if you take the total population of the state, you divide by the number of districts, that gives you an ideal population. And in legislative redistricting, the district populations are supposed to be substantially equal to that.

In the case of the enacted plans, most -- the vast majority of the districts' populations are within plus or minus 1 percent of that ideal population, with a small number that are between plus or minus 1 percent, plus or minus 2 percent.

And I -- this is true of my illustrative plans as well, that the vast majority of the districts' populations are within plus or minus 1 percent of the ideal population, and there are a small number that are within plus or minus 1 percent, plus or minus 2 percent.
Q. And you also considered political subdivision boundaries? A. I did.
Q. How is this principle reflected in your illustrative plans?
A. Well, the criteria adopted by the General Assembly specifically mentioned counties and precincts. So there might be other instances where people talk about political subdivisions and they're thinking about other things. But because the General Assembly specifically mentioned counties
and precincts -- and I may sometimes refer to precincts as VTDs. It's a term that the census uses for precincts, and they're essentially interchangeable.

So what I did was try to keep the divisions of counties and VTDs to a number that was comparable to what the adopted plans had, what the legislature had adopted.
Q. Did you sometimes split counties in drawing maps?
A. Yes.
Q. Why is that?
A. It can't be avoided. I mean, if you look at Fulton County, for example, and, you know, that's got a population in the seven figures and you've got to create House districts that are in the neighborhood of 60,000 people, you're going to have to divide the county. And there are many counties in Georgia that have a population of more than 60,000 people. And more than 190,000 , which is the -- roughly, the ideal population for a Senate district.
Q. Pardon me for interrupting you.

When you did have to split a county, what was your approach?
A. Well, I would have to -- it's -- there are a multitude of things that I considered. So as we've talked about political subdivisions and precincts and trying to keep precincts whole, so essentially if I'm trying to draw a line through a county because I need to divide it, I'm going to try and draw that
line in such a way that it follows precinct boundaries.
And then I may also be looking at municipalities or other communities of interest, something like a military base or an institutional campus or things like that.

I'm also considering compactness. So, you know, if including one precinct or not including it means that the line is going to be more or less squiggly, that's part of my decision as well.

Population equality, too. I mean, if one precinct has 4,000 people and one has 2,000 people, that makes a significant difference in population equality, especially when you're looking at House districts in terms of percentage. That absolute change is the same, but you have to be a little more careful with the House districts because the percentage of 60,000 is a smaller number.
Q. Do you also consider geographic compactness?
A. I did.
Q. What are some of the most common compactness metrics?
A. I would say probably the most common are the Reock and Polsby-Popper. I also included in my report the Schwartzberg and area divided by convex hull measures for each district in my report. And those scores I provided for each district.

There's one additional measure called the number of cut edges. And that is a measure that can measure the compactness of an entire plan, but not individual districts. And that's a
newer -- newer measure.
Q. And for those of us who are not professional
statisticians, including myself, can you please just describe what those terms mean in layman's terms?
A. Yes. So essentially what the first four that I mentioned do is compare the area of a -- or the shape of a district, I should say, to an idealized shape.

So for Reock, Polsby-Popper and Schwartzberg, that's comparing the shape to a circle.

In the area divided by convex hull it's as if you were to take the shape and stretch a rubber band around it. So if you imagine a five-pointed star and you stretched a rubber band around that, the resulting shape would be a pentagon, a five-sided polygon.

And there are different mathematical comparisons basically looking at perimeter or area in coming up with some sort of ratio. And for all four of those, the closer that the number is to one, that means it's more compact.
Q. Mr. Esselstyn, how is the compactness principle reflected in your illustrative plans?
A. Well, I consider this, it's something that -- when I'm drawing the maps, it's mostly visual analysis, but then at certain times during -- not specified times, but multiple times during the process, and certainly at the end, I will run a report that generates summary statistics for the whole plan,
as well as, as I mentioned, for each individual district.
And those summary statistics, the average measures for each of -- well, all five of the -- well, the average measures for the first four measures are close to identical, if not to identical, if not identical to the enacted plans. And it's the same for the cut edges metric. But, technically, that's not an average, which is why I'm mentioning it separately. Q. And why is that not an average technically, just so we all understand?
A. So the number of cut edges is looking comprehensively at the whole state. And it's basically looking at how many -when it's talking about cut edges, the number of instances where precincts are divided from each other, or units of geography are divided by each other that the -- I believe Maptitude does it based on precincts.

But what the number of cut edges metric does nicely is it takes into account, if you've got something like a very squiggly river and you want to use that river as a dividing line, which is a sensible thing to do, often these are -- for example, a county boundary might often be a river, you are then choosing a boundary that's going to have a funny-looking shape to it. But because it's a county boundary, you shouldn't -- that shouldn't necessarily be considered a defect of the plan.

So the number of cut edges metric takes that into account
and understands that that squiggly line, if it's not -- if it's a squiggly line that's between units of geography, then it won't be penalized the way that it might be in some other metrics.

I hope that -- it's kind of a complicated thing. There's a diagram in my report that tries to make it a little clearer.
Q. Mr. Esselstyn, you also considered contiguity; correct?
A. Yes.
Q. What is contiguity?
A. Contiguity basically means that the areas of a district are all connected and you don't have parts of a district that are separate.
Q. And are your illustrative plans contiguous?
A. Yes. Or the districts in them are contiguous, yes.
Q. Did you consider communities of interest?
A. Yes.
Q. And can you describe what you understand that term to mean?
A. Yes. It's a somewhat complicated question. There's not a simple definition for communities of interest in my mind because they can vary a lot. They can be made up of a large number of counties. Like the Black Belt could be considered a community of interest. Or counties that are along the coast in a given state or mountain counties or something like that. But it can also be as small as an institutional campus, like a
college campus.
So they can vary widely in size. And they generally, I would say, are areas that are termed to share either common interests, common cultural history, or other common characteristics. And in many cases individuals might have different, more subjective opinions about what would be included in a community of interest or not.
Q. Mr. Esselstyn, how did you incorporate respect for communities of interest when drawing your illustrative plans?
A. I focused primarily on communities of interest that have a delineated boundary. I mentioned just a moment ago that sometimes people might disagree about, you know, the boundaries of a neighborhood or something like that. But I focused on the communities of interest that are visible in the mapping software.

And Maptitude for Redistricting provides layers that include things such as municipal boundaries, also landmark areas and things like many institutional campuses, military bases, national historic sites, things of that nature.

So what I did was I would try to keep those communities of interest intact and not divide them if I could avoid doing so.
Q. And you also considered incumbent pairings?
A. I did.
Q. And what was your approach to pairing incumbents?
A. So I should specify that in the preliminary injunction phase I did not have access to address information for incumbents. So when I first drew these plans, I was not able to take incumbent pairing into account.

For this process I was given, after the November 2022 general election, information on where the elected members of the General Assembly lived. And I was able to import them into the software and see where there were pairings in the plan that I had created previously.

And there weren't that many, but there were some. And in all but four cases, this is looking at both plans total, I was able to prevent the pairing of incumbents by moving borders around.

So maybe you're about to ask a question about the numbers, but those numbers are similar to the -- I believe they're identical, according to my analysis, to the number of pairings in the plan that was enacted.
Q. And is that true for both the Senate and the House plan ? A. That they're comparable to what was in the enacted, yes. In the Senate plan, there were no pairings. And in the House plan, there were four pairings.
Q. Mr. Esselstyn, in your opinion as someone who draws electoral districts for a living, did both of your illustrative plans comply with the traditional redistricting criteria that you've been discussing?
A. Yes.
Q. Now we're going to turn to your State Senate plan. If we could please pull up Figure 2 on page 7 of Grant Exhibit 1.

Mr. Esselstyn, once you've found it, can you please describe for the Court what this map shows?
A. I can. This is the enacted State Senate plan. So this is a map of the State of Georgia showing the enacted districts in different colors.
Q. Are any of the districts in this plan majority Black?
A. Yes.
Q. How many?
A. Fourteen.
Q. And did you refer to this plan when you drew the illustrative Senate plan?
A. Yes. As I believe I mentioned earlier, this is the plan that I used as the starting point.
Q. Okay. And now we're going to turn to the illustrative plan.

MR. JONES: Could we please pull up Figure 4 on page 10 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, can you describe what this map shows? A. Yes. This map shows a section of the State of Georgia. And it's the section that includes all of the majority Black districts in the illustrative plan. The districts that were
majority Black in the enacted plan are in the darker green. And the districts in the lighter green are districts that are additional majority Black districts in the illustrative plan. Q. How many additional majority Black Senate districts are included in your illustrative plan?
A. Three.
Q. And where are these three districts roughly located?
A. Two of them are in the Atlanta Metro area, and one of them is in the Eastern Black Belt area.
Q. Now let's look at each district one by one.

MR. JONES: Could we please pull up Figure 5 on page 12 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, can you please describe what this map shows?
A. Yes. This shows Senate -- well, it shows a number of things, but kind of in the middle, highlighted, this is meant to focus on Senate District 23 in the illustrative plan, which is one of the additional majority Black districts in the illustrative plan.
Q. And can you please briefly describe the location of illustrative Senate District 23 ?
A. Yes. This is in the Eastern Black Belt area. The eastern part of the district is along the South Carolina border. It includes part of Augusta-Richmond County and areas
kind of south and east and a little -- sorry -- south and west and a little northwest of there.
Q. Mr. Esselstyn, does the Black voting age percentage in your illustrative Senate District 23 exceed 50 percent?
A. It does.
Q. Could you tell me how, if at all, this district compares to the version of the district that you discussed when you testified during the preliminary injunction phase?
A. Yes. So there -- the changes that happened -- or the changes that I put in place in Senate District 23 between the preliminary injunction phase and this phase are all in Baldwin County.

And there were a couple of things that I was keeping in mind or that prompted me to do that. One of them was that there were incumbents paired. When I learned about where the incumbents lived, I noticed that my earlier plan would have paired two incumbents. So I changed the district in Baldwin County to prevent that from happening.

Also during the preliminary injunction phase I was made aware that my previous plan had split Georgia College's campus. And the campus is actually in two -- there are two parts of the campus that are about a mile away from each, so I had not realized that that was one community. But after having been made aware of this, I redrew the line so that it unites that campus in one district. And it also does a better
job of keeping the core of Milledgeville intact.
MR. JONES: Could we please now pull up Figure 6 on page 13 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, is this your illustrative Senate District 25?
A. It is.
Q. Can you briefly describe its location?
A. Yes. It's in the Southern Metro Atlanta area.
Q. And does the Black voting age percentage in your illustrative Senate District 25 exceed 50 percent?
A. It does.

MR. JONES: Could we now please pull up Figure 7 of page 14 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, is this your illustrative Senate District 28 ?
A. It is, yes.
Q. Can you briefly describe its location?
A. Yes. This is in the Southwestern Metro Atlanta area.
Q. And does the Black voting age percentage in your illustrative Senate District 28 exceed 50 percent?
A. It does.
Q. So these are the three new majority Black Senate districts in your illustrative plan: Districts 23, 25 and 28;
is that correct?
A. In the illustrative Senate plan, yes.
Q. And out of 56 State Senate districts, how many did you alter when drawing your illustrative Senate plan?
A. Twenty-two.
Q. Let's now discuss some of the traditional redistricting principles that you described earlier.

How does your illustrative State Senate plan compare to the enacted plan in terms of population equality?
A. I described this earlier, so I'11 try to keep it brief. But the deviation numbers from my plan are very similar to those in the enacted plan. Shall I go on about -- I'll say some more. It's pretty repetitive from what I said before.

But the vast majority of those population numbers are within plus or minus 1 percent of the ideal population for each district. And there are a small number that are within plus or minus 2 percent. And that's consistent with the deviations in the enacted plan.
Q. How does your illustrative Senate plan compare to the enacted plan in terms of compactness?
A. The numbers are almost identical.

MR. JONES: Could we now please pull up Figure 8 on page 17 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, can you please describe for the Court what
this figure shows?
A. Yes. This is a figure that was not in my PI report. And what it is is a series of bar charts, four of them, one for each of the four compactness measures that I provided a measure for for each district. And my report also includes the compactness measures for all of the enacted Senate districts as well.

And the gray lines represent all of the compactness measures for the enacted Senate districts sorted from left to right in order going from more compact to least compact. So those are the gray lines.

And then the lines that are in various colors are lines that represent the compactness score for each of my additional majority Black districts so that you can see where those fall in the distribution of the compactness measures for the enacted plans.
Q. And I think you touched on this, but can you just elaborate briefly on how your new majority Black Senate districts individually compare to the enacted districts?
A. Yes. So if you look at the three colored lines in each of the graphs, you can see that those lines fall well within the range of the distribution of the compactness measures for the enacted plans. In every case they are above the least compact district in those plans and there are no outliers. Q. Is there a place in your report where we can see the
compactness scores for each of the illustrative districts? A. Yes. In the attachments. I believe it is Attachment H for the Senate. Yes, Attachment H for the Senate. And I think it is Attachment $L$ for the House. Let me confirm that while we're here.

Yes, Attachment L for the House. And Attachment H for the Senate.
Q. Mr. Esselstyn, how does your illustrative Senate plan compare to the enacted plan in terms of political subdivision splits?
A. Sorry, I had moved to the attachments. I just want to have that part of the report in front of me.

But the short answer is they're very similar. The numbers are close and the differences are marginal.
Q. And in terms of political subdivision splits, how does your illustrative Senate plan compare to the Senate map drawn by the legislature for use from 2014 to 2020?
A. So the number of splits for counties in the illustrative plan that I created is lower than it was in the plan that was used in the years you describe, the years leading up to 2020. And that's on the footnote on page 19.
Q. Now let's turn to the Georgia House of Representatives.

MR. JONES: Could we please pull up Figure 11 on page
22 of Grant Exhibit 1.
BY MR. JONES:
Q. Mr. Esselstyn, what does this map show?
A. This map shows the State of Georgia and all of the enacted House districts that were enacted in 2021 and used in the elections in 2022.
Q. And are any of the districts in this plan majority Black?
A. Yes.
Q. Do you happen to know how many?
A. I -- yes. Forty-nine.

MR. JONES: Can we now please pull up Figure 13 on page 24 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, when you've found it, can you please describe what this map shows?
A. Yes. This is similar to a map that we looked at before for the Senate. It shows an area of the State of Georgia. And it's an area that includes all of the majority Black districts in the illustrative House plan. The districts that were majority Black in the enacted House plan are shown in the darker green. And the additional majority Black districts in the illustrative plan are shown in the lighter green.
Q. And how many additional majority Black House districts are in your illustrative plan?
A. Five.
Q. And can you briefly describe where they're located?
A. Yes. So two of them are in the Central Black Belt area,
including parts of Macon-Bibb County. And the other three are in the Metro Atlanta area.
Q. Let's look at each district one by one, if we could. MR. JONES: Please pull up Figure 14 on page 26 of Grant Exhibit 1. BY MR. JONES:
Q. Mr. Esselstyn, is this your illustrative House District 64?
A. Yes, it is.
Q. Can you please describe its location?
A. Yes. It's in the Western Metro Atlanta area.
Q. Does the Black voting age percentage in your illustrative House District 64 exceed 50 percent?
A. Yes, it does.

MR. JONES: Can we please pull up Figure 15 on page 27 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, are these your illustrative House Districts 74 and 117?
A. Yes, they are.
Q. Can you briefly describe their locations?
A. I can. They're both in the Southern Metro Atlanta area.
Q. And which counties are located in each district?
A. I might say which districts are -- so there are three counties, each of which has a portion in one of these two
districts.
So House District 117 is located entirely within Henry County. Actually, the enacted House District 117 is partly in Henry County and partly in another county.

And District 74 is in -- partly in Clayton County and partly in Fayette County.
Q. Did the Black voting age percentages in these illustrative districts exceed 50 percent?
A. Yes.

MR. JONES: And if we could please pull up Figure 16 on page 29 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, are these your illustrative House Districts 145 and $149 ?$
A. Yes, they are.
Q. Can you please briefly describe their locations?
A. Yes. These are in the Central Black Belt area, close to -- well, partly each of them has a portion in Macon-Bibb County.
Q. And to confirm, do the Black voting age percentages in these two illustrative majority Black House districts exceed 50 percent?
A. Yes.
Q. Let's talk about House District 149 specifically.

Could you tell me how, if at all, this district compares
to the version of the district that you discussed when you testified during the preliminary injunction phase?
A. Yes. Again, the changes were entirely in Baldwin County.

And I mentioned before the situation with Georgia College being split. I wanted to make sure that the campus of Georgia College, that community of interest, was made intact. So in this district the Georgia College campus is intact.

It also does a better job of preserving the core of Milledgeville intact, like the Senate district we discussed earlier. And there's also an incumbent in the Milledgeville area close to the district boundary. So another consideration was making sure that incumbents were not -- were not paired in the creation of this or the changes to it.
Q. And I believe you testified earlier that you attempted to minimize changes to the enacted Senate map. What was your approach to the House map?
A. The same.
Q. And out of 180 districts how many did you alter when drawing your illustrative House plan?
A. Twenty-five in this version. So in the previous version, the version that I prepared for the PI phase, there were 26. But -- thank you for reminding me. That was another change that I made in Baldwin County in this version, was I realized that I did not need to change District 128 at all. So it was a very minor change; it was, I think, five people.

But that -- now I can say that District 128 is unchanged from the enacted plan. So that means there are 25 out of 180 House districts that are changed. Meaning I believe 155 out of 180 that are the same. That is about 86 percent unchanged. Q. Let's, again, return to the traditional redistricting principles that we discussed.

How does your illustrative House plan compare to the enacted plan in terms of population equality?
A. Very similar. And my answer would be very similar to the answer I gave for the Senate plan. Again, the vast majority of the districts' populations are within plus or minus 1 percent -- sorry, I'll slow down -- within plus or minus 1 percent of the ideal district population. And there are a small number that are between plus and minus 1 percent and plus and minus 2 percent. And that's true in the illustrative plan as well as the enacted plan.
Q. Mr. Esselstyn, how did your illustrative House plan compare to the enacted plan in terms of compactness?
A. In many cases the scores are actually identical for the illustrative House plan. And if they're not identical, they're very close to identical. And -- yeah, I'll leave it at that.

MR. JONES: And could we now please pull up Figure 17 on page 32 of Grant Exhibit 1.

BY MR. JONES:
Q. Mr. Esselstyn, can you describe what this figure shows? A. I can. And, again, it's very similar to Figure 8, I believe, that we were looking at before for the Senate.

We have four bar charts for each of the four compactness -- the first four compactness measures I've talked about previously. And for each of those measures, the compactness scores for all of the districts in the enacted plan are shown in gray bars that are sorted from left to right in order of decreasing compactness.

And then on top of those gray lines, I have inserted lines that are shown in various colors, five lines in each of the four charts. And those five lines represent the compactness scores for the illustrative -- the additional majority Black districts in the illustrative plan.

And as with the -- with Figure 8, you can see from this visualization that all of the five majority Black districts' compactness measures fall well within the range of the compactness measures for the enacted plans. They're all over the -- above the least compact score -- I should say above the Schwartzberg measure.

I think I just mentioned when I was going through this before, I said that the Schwartzberg measure -- I said that the closer the number is to one, that represents a more compact score.

Most -- well, the Reock, the Polsby-Popper and the area
divided by convex hull, the higher the number is, the more compact.

In the case of Schwartzberg, it's still true that if the number is closer to one, that means more compact. But a lower number actually means more compact in the case of Schwartzberg.

So when I say that a -- none of the majority Black districts -- additional majority Black districts in the illustrative plan have compactness scores that are on or worse than the least compact district in the enacted plan, the other values fall well within the range and there are not outliers. Q. Mr. Esselstyn, how does your illustrative House plan compare to the enacted plan in terms of political subdivision splits?
A. Very similar.
Q. And, Mr. Esselstyn, how does this number of -- or how does the number of political subdivision splits in this illustrative House plan compare to the number of splits in the report that you submitted during the preliminary injunction phase?
A. Thank you for pointing that out.

The number has gotten lower, particularly -- or in the case of the VTDs. So the enacted plan split 69 counties. The illustrative plan splits 70. And the enacted plan splits 185 VTDs. And the illustrative plan splits 186.

But that number is, I believe, six -- yeah, six fewer VTDs than the version that was submitted for the preliminary injunction phase.

MR. JONES: Thank you, Mr. Esselstyn.
THE COURT: Your witness.
THE WITNESS: I might need to use the restroom before too long. I don't know if now would be a good time.

THE COURT: Let's do it now.
THE WITNESS: Okay. And I can be quick.
THE COURT: We'11 take a 15-minute break right here. (After a recess, the proceedings continued at 2:33 p.m. as follows:)

THE COURT: Mr. Tyson, soon as he's seated, you may proceed.

MR. TYSON: Thank you, Your Honor.
I thank Mr. Esselstyn for a well-timed break.
THE COURT: Yeah.
CROSS-EXAMINATION
BY MR. TYSON:
Q. Good afternoon again, Mr. Esselstyn.
A. Good afternoon.
Q. So I'd like to begin today by talking about the process that you used to draw the redistricting plans that you've submitted for the House and Senate in this case.

And you drew those plans in Maptitude for Redistricting;
right?
A. That's right.
Q. And like we did with Mr. Cooper, I'm going to put a picture of Maptitude for Redistricting on the screen. Again, not for moving into evidence, but just to observe.

Do you use a pending changes box when you're drawing redistricting plans?
A. I do.
Q. And do you display various layers of geography, such as county lines, highway lines, incumbents, when you're drawing redistricting plans?
A. I do.
Q. And we talked earlier with Mr. Cooper. Can you just describe for the Court what a redistricting layer -- or what a layer file includes in Maptitude for Redistricting?
A. Yes. Typically, a layer would show some sort of geography that can be polygons or lines or points. So a polygon might be a county. A line might be a road. A point might be an incumbent address. And those are all included in the map.

And the order in the far left of the screen indicates the order in which they're drawn. And you can toggle on and off whether specific layers are visible.

I think it's important to note that in addition to the geography piece, in other words, the shape of counties,
there's almost always some sort of data associated with those features.

So, for example, in the case of counties, you would be able to bring up a table that says the name of the county. And depending on the source and how that table is configured, it might include demographic information or other information. It could include the -- you know, the number of Waffle Houses.

But I think it's important to note that a layer is not just the visual information that you see on the screen, but there is usually other information associated with each feature.
Q. And then whoever is utilizing the software can then take any of the data that's included in the layer and display it as part of a label on that particular piece of geography; right?
A. The only part I'm hesitating about is the word "any."

I know in some other GIS softwares you can actually have something like an image that is associated with -- or a URL, for example, that would link you to something. And it might be hard to put that as a label.

But I would say in most cases, yes, that information can be displayed as a label.
Q. And then in Maptitude -- I'm taking a look at the screen here -- there's a process by which you select particular pieces of geography. And then in the pending changes box Maptitude for Redistricting will display for you the
demographic or other information you select about the geography you've selected; right?
A. I'm sorry, could you repeat the question?
Q. Sure.

So in this situation, Maptitude for Redistricting allows you to select particular pieces of geography and basically highlight them; correct?
A. Yes.
Q. And then when you do that, the pending change box then shows information about what is included in the potential new district that you've selected; right?
A. The potential new district that I select?

I would say in this case it appears, for example, that -I thought you were talking about selecting something like a county or a VTD. So that's the thing that's selected. But the information in the pending changes box is about a district, not one of the selected features, be it a county or a VTD.
Q. Certainly.

When you're creating a district you select certain pieces of geography; right?
A. Yes.
Q. And then you hit the green checkmark to have that be captured essentially as a district in Maptitude for Redistricting?
A. Yes. So those changes get, yes, committed.
Q. And before you commit those changes, the pending change box shows information about the particular geography you've selected; correct?
A. I would not say that it shows information about the geography that's been selected.
Q. What would --
A. So, for example, if I'm making changes, I'm considering moving a county from one district to another, I would select that county. And then you can see -- this will give me a chance to try the annotation feature.

Here -- is that showing up on other screens?
Q. Yes. Yeah.

THE COURT: No. Hold on one second.
BY MR. TYSON:
Q. Now we can see the annotation. There we go.
A. Yes.

So here you specify the target. And you can also specify -- and, I'm sorry, I'm not speaking into the microphone.

You can specify a target and specify other things, but -so if I were contemplating putting a county into the target district, and I had selected that county, the pending changes window would show me numbers about what that would mean for the district that that county could go into, as well as the
changes to the district that that county would be coming out of if that county was already in another district.

But I think you said something about how this is showing information about the selected geography.
Q. You've answered my question. Thank you.

I just wanted to understand, in the pending change box, if you were looking to change a district, you said it would show information about the impact of adding a county into a district that is the target you've selected; right?
A. If I were choosing a county, yes. If I was choosing some other geography, it would reflect that, too. It also, as I said -- here, it's showing a new district and it's also showing how that affects the unassigned population.

Sorry, I touched the screen inadvertently.
So -- but, yes. Had that county been in another district, it would also show what the potential effect would be on the district that that county was coming out of. Q. And I don't want us to get too lost in the technical process here, but just I want to make sure we're clear that as a map drawer you're able to see information about what a particular change you're considering would do to a district you're considering changing before you commit those changes in Maptitude; right?
A. Yes. That I agree with. The earlier statement I had a small misgiving.
Q. Thank you.

So, Mr. Esselstyn, let's, again, just confirm a couple of different terms that we'll be using today.
A. Okay.
Q. In your report when you refer to "majority Black," you're referring to districts where the any part Black population is 50 percent -- well, greater than 50 percent; right?
A. Of the voting age population.
Q. Thank you. Yes.

If the Black -- any part Black voting age population is greater than 50 percent, you categorize that as a majority Black district; right?
A. Correct.
Q. And a majority-minority district is not necessarily the same definition as a majority Black district in the way that you use that term; right?
A. Correct.
Q. And all majority Black districts are majority-minority districts, but not all majority-minority districts are majority Black districts; right?
A. That's correct.

And in your previous question, one question earlier than that one you just asked, you said -- you included the word "necessarily"; right?
Q. I don't remember if I did. What were you needing the
word "necessarily" --
A. Theoretically, a majority Black district could be a majority-minority district and there would be no difference between what the statistics would be if you were considering all the demographic information.

I just -- I think you used the word "necessarily," and I stand by my earlier answer.
Q. Thank you.

And you're also familiar with the term we've heard a lot called "packing"; correct?
A. Yes.
Q. And you'd agree that there's no particular percentage threshold where you can know if a district is packed or not; right?
A. Correct.
Q. And in this case you were not offering an opinion that the legislature packed Black voters into districts on the enacted House or Senate plans; right?
A. Could you repeat that question, please?
Q. In this case you are not offering an opinion that the legislature packed Black voters into districts on the enacted House and enacted Senate plans; right?
A. That's correct.
Q. And turning to pages 10 and 11 of your report, up at the Table 1 and Figure 1 on the screen for your convenience, but
you're welcome to turn to those in your report as well, you have a map and a chart with all the majority Black districts on the illustrative Senate plan; is that correct?
A. Yes. I'd -- I prefer to have it in front of me so I don't have to look over my shoulder and keep turning my neck. Q. Certainly.

District 44 on the illustrative plan has a Black voting age population of 71.52 percent; correct?
A. That's correct.
Q. And you don't consider that district to be packed as you've drawn it; correct?

MR. JONES: Objection. Your Honor, it calls for a legal conclusion.

THE COURT: Well, I don't think necessarily. He knows what packing and unpacking is. He doesn't have to be a lawyer to know that. I'll overrule. I'll allow that question, if he can answer.

THE WITNESS: Could you repeat the question, please? BY MR. TYSON:
Q. Mr. Esselstyn, do you consider District 44 to be packed as you've drawn it?
A. I think -- I mentioned I'm familiar with the word "packing." And I think in some ways it's a legal term of art. And, you know, people spend hours and hours to try and establish whether something is or is not.

I am not opining that District 44 is packed in the illustrative plan that I created.
Q. Mr. Esselstyn, do you recall giving a deposition on February 16th, 2023?
A. I do.
Q. And was a court reporter present at that deposition?
A. Yes.
Q. And were you under oath at that time in your deposition?
A. Yes.
Q. And to be clear, your answer to my question, do you consider that District 44 to be packed as you've drawn it, is that you can't --

THE COURT: Let him take a look at it.
MR. TYSON: Okay. Certainly, Your Honor.
Mr. Jones, do you need a copy as well?
MR. JONES: I would like a copy.
THE COURT: What line? What page? What page? What line?

MR. TYSON: Your Honor, referring to page 128, line 20, through 129, line 3.

THE COURT: Mr. Esselstyn, don't -- Mr. Tyson is going to let you take a look at it. And after you look at it, he's going to ask you another question. Wait until he asks the question.

THE WITNESS: Thank you.

And I may also want to take a moment -- I recall from that conversation that there was some extensive discussion about the term. And --

THE COURT: Right now let's just do one thing at a time. Take a look at the answer you gave to that question. And once you've finished reading your answer, let Mr. Tyson know, and he's going to ask you another question.

THE WITNESS: Okay.
Could you specify the lines again, please?
BY MR. TYSON:
Q. Yes. The portion I'd like for you to review is page 128, line 20 , through page 129 , 1 ine 3.
A. I have read that. Thank you.
Q. So, Mr. Esselstyn, you don't consider District 44 to be packed as you've drawn it; correct?
A. This is where I think it would be --

THE COURT: Whoa, whoa, whoa. First of all, you have
to answer his question and then you can explain your answer.
THE WITNESS: Okay.
Can you repeat the question?
BY MR. TYSON:
Q. You don't consider District 44 to be packed as you've drawn it; correct?
A. I'11 say no.

THE COURT: Now you can explain your answer.

THE WITNESS: Okay. Thank you, Your Honor.
There was an extensive discussion earlier in the deposition about the term "packing" and how, in many cases, it is associated with some nefarious intent or efforts to disadvantage a community or a political party.

And I think my answer was given in the context of that discussion, that I certainly did not want to imply that anything that I had created was done with nefarious intent or to disadvantage a particular community or political party.

So given that description of the term "packing," as I said today, I think it has evolved in this legal term of art. It's -- there's a lot of associations and complicated measurements that go into people trying to ascertain whether something is packed or not. And it depends on performance and all kinds of things.

BY MR. TYSON:
Q. So, Mr. Esselstyn, it's correct, then, that you don't -again, your definition of packing, not the legal term of art you're referring to, but when you use the term "packed," you would consider an intent element necessary to know if a district was packed or not; right?

MR. JONES: Objection, Your Honor. This calls for a legal conclusion as to the intent element.

THE COURT: That might be going into the legal aspect, Mr. Tyson. I'11 sustain that.

MR. TYSON: I'11 rephrase, Your Honor.
BY MR. TYSON:
Q. Mr. Esselstyn, do you believe a map drawer must overpopulate a minority group on purpose for a district to be packed in your definition?

MR. JONES: Objection, Your Honor. Same objection. "On purpose" is the same as an intent element.

THE COURT: That's a closer call, Mr. Jones.
Repeat that question, Mr. Tyson.
MR. TYSON: The question was, Do you believe that a map drawer must overpopulate the minority population on purpose in a district for it to be considered packed?

THE COURT: Mr. Jones, the witness can answer that question because he says a "map drawer," and that's what he is, a map drawer. So he can answer that question.

The other question did call for a legal conclusion. But the way he's rephrased it, he can answer this, if he can. I don't know if he can or not, but he can attempt to.

THE WITNESS: I have heard people use a term called "accidental packing." And that would imply that there are instances when mapmakers have created a district that someone might consider -- I mean, anyone can call something packed, or, you know, people can call something whatever they want.

So the fact that there is a, I would say, somewhat widely-used term in the redistricting literature about
accidental packing, would imply that some people distinguish between something that appears -- that could be -- arguably was done as an accident versus something that was done on purpose, as you say. BY MR. TYSON:
Q. So, Mr. Esselstyn, in terms of accidental packing, you are not offering any opinion in this case whether the legislature engaged in accidental packing, are you?
A. I am not.
Q. Let's turn to page 24 and 25 of your report. And Table 5 lists the Black voting age population for various districts.

And looking with me at those, you'd agree that District 77 and District 86 both have an AP Black VAP greater than 75 percent; correct?
A. You said District 77 and 86 ?
Q. Yes.
A. That's correct.

THE COURT: Why is it that they have such high VAPs? And maybe you can't answer that, I'm just asking.

THE WITNESS: Let me look at the numbers again, 77 and 86 .

So in Figure 15, if it's possible to bring up
Figure 15 on page 27 , you can see --
THE COURT: Hold on.
MR. TYSON: And, Your Honor, I don't have, I believe,

Figure 15 in my slides.
THE COURT: You don't have it.
MR. TYSON: We do have a book there. Mr. Esselstyn's report, I believe, is included in there.

And Figure 15 is on which page, Mr. Esselstyn?
THE WITNESS: So I'm looking at the plaintiffs' exhibits. And it is on page 27 of my -- well, the page number should be the same, I suppose. It's page 27 of my report.

THE COURT: It's this one, Mr. Tyson (indicating).
MR. TYSON: Yes, Your Honor. The page number will be the same for Mr. Esselstyn's report.

THE COURT: What page?
MR. TYSON: Page 27.
If it's easier, Your Honor, I can hand you the page if that's --

THE COURT: Hand me the page. I don't have page 27.
Thank you.
A11 right. Is everybody looking at it?
THE WITNESS: Do you have it in front of you?
THE COURT: Yes.
THE WITNESS: Okay.
So House District 86 in the illustrative plan is right near the top of the map in the center. Kind of under the first letters of the word "indicated" you can see the number 86. And you can see that that district is in Southern

DeKalb County. And Southern DeKalb County has very high concentrations of Black population.

District 77 is in the northwest corner of Clayton County, I believe. So this, if you can -- let me know if you can see that.

THE COURT: I'm looking right at it.
THE WITNESS: Yeah. So that northwest corner of Clayton County is -- also has significantly high population -or high percentages of Black population.

Does that answer your question sort of about why a district like that --

THE COURT: Yes.
THE WITNESS: Okay.
THE COURT: Thank you.
THE WITNESS: You're welcome, Your Honor.
MR. TYSON: Your Honor, just so we're all on the same page, there is a defendant's exhibit binder that we had handed up as well. We'll need that here in a few minutes.

THE COURT: Right here?
MR. TYSON: Yes, sir. Just wanted to make sure you were aware.

THE COURT: Thank you.
BY MR. TYSON:
Q. Mr. Esselstyn, you'd agree as a map drawer that one way to lower the Black VAP of a district is to take a district,
for example, in South DeKalb County and lengthen that district into a white area; is that correct?
A. Into a white area? I'm pausing a little bit because white meaning --
Q. Majority white area --
A. Majority white, not -- not entirely white.
Q. Let me finish my question.

I'm referring to one way to lower the Black voting age population in a particular district is to extend the district from a heavily Black area into an adjoining heavily white area if such an area exists; right?
A. Doing that would indeed lower the population -- the Black -- percentage of the Black population in that district as a whole.
Q. Now, we -- you spoke with Mr. Jones about the Black Belt. And we put Figure 1 of your report up from page 6.

Do you recall that?
A. Yes. I'm going to find it in the -- yes, page 6. I have it in front of me. Thank you.
Q. And it's correct that you can't identify specifically which counties are part of the Black Belt and which ones are not; correct?
A. I wouldn't say that I can't. I haven't. There are -different scholars have created various characterizations and listings of which counties are in and out, but I did not try
to select one of those particular characterizations.
Q. Would you agree that the Black Belt is kind of a general swath of Georgia, that you can't identify specifically whether particular counties are in or out of the Black Belt region?
A. That seems like a similar question to your previous question.

I wouldn't say that one can't. Many scholars -- or a number of scholars have endeavored to do exactly that. But their definitions, their conclusions are different. And I did not try to determine on my own which of those made the most sense to me.

So does that answer your question?
Q. It does.

Mr. Esselstyn, could you take the copy of your deposition, please, and turn to page 110.

THE COURT: Hold on.
(Pause in proceedings.)
BY MR. TYSON:
Q. Mr. Esselstyn, if you could review page 110, lines 14 through 20 of your deposition, please.
A. Yes, I just did.
Q. So I'll ask again, is the Black Belt a kind of a general swath of Georgia but you can't identify specifically whether particular counties are in or out of the Black Belt region?
A. I see that. And this is a good reminder that I need to
parse the questions you ask me very carefully, because, yes, I see the word "can't." And I believe when I was answering this I took that to mean I have not come up with such an identification here today. I've tried to elaborate a little bit and say that it's not that I'm incapable, but I can't refer to some definition --

THE COURT: Well, what did you say was your position? You can't --

THE WITNESS: I said -- in response to his answer, I said, "Yes, that's correct."

And did I say in response to his answer? In response to his --

THE COURT: I think you answered his question.
THE WITNESS: Okay.
MR. TYSON: Yes. Thank you.
BY MR. TYSON:
Q. And, Mr. Esselstyn, you didn't rely on counties being in the Black Belt as part of your process for drawing the illustrative plans in this case; correct?
A. Could you repeat the question?
Q. You didn't rely on counties being in the Black Belt as part of your process for drawing the illustrative plans in this case; right?
A. I would say I considered a general Black Belt area, but as for whether one specific county lies in or out of that, I
did not.
Q. So the answer to my question is, yes, you did not rely on counties being in the Black Belt as part of the drawing process for the illustrative plans in this case; right?
A. I think that's right.
Q. In your report you cited an article in Southeastern Geographer when you refer to the Black Belt in paragraph 19.

Do you recall that?
A. I do.
Q. If you could take the defendant's exhibit notebook and turn to tab 4, please.

This is Defendant's Trial Exhibit 89.
A. I have it, yes.
Q. If you can turn to the second page there with the title "Information."

Is this the article that you reviewed while preparing your report?
A. It is.

MR. TYSON: So, Your Honor, I would move the admission of Defendant's Exhibit 89.

THE COURT: Any objection, Mr. Jones?
MR. JONES: No, Your Honor. I apologize.
THE COURT: 89 is admitted without objection.
BY MR. TYSON:
Q. Mr. Esselstyn, looking at this issue, if you turn to
page 11 of this report, there's a map at the top, Figure 2, that references Georgia.

Do you see that?
A. Page 11. Yes, I do.
Q. And the second full paragraph on that page says, "Notably, the Georgia swath of counties is not as continuous as that identified in Alabama, the counties falling into all three intervals in the generalized geographic belt."

Did I read that correctly?
A. I think so, yes.
Q. And over at the end before -- on the next column, before the Alabama and Georgia joint analysis, the authors say, "Thus, it seems clear that the uniformity of the Georgia Black Belt is far less than that found for the region in Alabama." Did I read that right?
A. Yes. This is something we covered in the deposition. Let me read the phrase that -- the footnote that cites this article. This is the phrase that precedes that footnote on -this is on page 5 -- sorry. This is page 5 of my report, paragraph 19.

THE COURT: Which book are you in?
THE WITNESS: Either book I think the -- as long as you can find my report, it should be on page 5 of my report.

MR. TYSON: Your Honor, in tab 1 of the defendant's notebook where tab 4 is, Mr. Esselstyn's report is the first
tab. So you could flip back to page 5 on that.
THE COURT: Page 5, tab 1?
THE WITNESS: Yes. I think in both notebooks it should be tab 1.

THE COURT: Go ahead. Go ahead.
THE WITNESS: Okay.
So I'm going to read the phrase that precedes that footnote.
"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 in this region can hinge on the percentage of the population that is B7ack."

The idea I was trying to express in this sentence is that the term can reflect on soil quality as well as demographic information.

And in -- on the first page of -- so this is now the article in the abstract in the first paragraph in italics. So this would be tab 4 of defendant's notebook. I'm reading from sort of the -- maybe a third of the way into that paragraph.
"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."

And the second -- sorry -- the second sentence in that paragraph says, "In the 19th Century, settlement focused
upon the region's rich dark soils for which it was originally named."

If you look at the very last sentence on that page, this is the bottom of the right-hand column, it says, "Other authors, including Cleland in 1920, point out the confusion over the region's label in Alabama but state clearly 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."

Those were the elements of this report that I -- I was looking for supportive evidence about the kind of dual meanings of the term. And those are the sections of this report that I felt were relevant to that statement.

I'11 stop there.
BY MR. TYSON:
Q. And so, Mr. Esselstyn, in your report you discussed a modern classification of which counties are in the region, but as I understand what you're saying now, the reliance on this report was not on what these authors classified as the region, it was on the quotes you've just read about the color of the soil versus history of slavery?
A. That was a very long question, and I'm not sure if I agree with the very first part of what you said.
Q. Certainly.
A. So before I -- if you could repeat that.
Q. Mr. Esselstyn, in your report you reference modern classifications of which counties are in the Black Belt region; is that correct?
A. Yes.
Q. And you cite to this Southeastern Geographer article; correct?
A. You're pulling out a very limited phrase there. My intent in citing this article was not to give credence to any one classification scheme. My intent for citing this article, as I mentioned before, was to point out that Black Belt has been used as an area that is defined more by the soil quality, and that it also has been used based on demographic characteristics.

So there is a portion of the sentence that says that modern classifications of which counties are in this region can hinge on the percentage, but I did not cite to the article, as I said, in order to bless that article's classification.
Q. So in citing to an article titled "Quantitatively Delineating the Black Belt Geographic Region," you were not relying on that to delineate the Black Belt region?
A. Absolutely not.
Q. Thank you.

THE COURT: Well, let me make sure. When you said "Black Belt region," what are you talking about?

THE WITNESS: I can read what I have in my report, but -- and I'11 try and --

THE COURT: I don't care about the soil.
THE WITNESS: Okay. I would say it's a broad swath of counties extending from generally the southwestern corner of the state in a more or less straight line, but it's a broad swath that extends up through the Augusta-Richmond area. And many of the counties in that -- in that swath are -- have high percentages of Black population.

THE COURT: From Richmond County, from the South Carolina line, cutting across the middle of the State of Georgia, hitting parts of Mitchell and Dougherty County, all the way over to Alabama?

THE WITNESS: Yes, sir. Yes, Your Honor. BY MR. TYSON:
Q. Mr. Esselstyn, you didn't rely on the Black Belt being a community of interest for purposes of assembling any of the illustrative districts in your plans, did you?
A. I would say no. I mean, I might have avoided -- I'm thinking about specific districts that I drew. It might have been in the back of my mind when I was -- if I was thinking, you know, okay, this district wouldn't make sense to have a very long district north to south. The -- or northwest to southeast. The band going from southwest to northeast has more historic shared characteristics, more shared demographic
characteristics, but -- so it may have been in my mind.
But your question was whether I relied on it? I suppose not.
Q. So you spoke with Mr. Jones about your assignment in this case. And you were trying to ascertain with your illustrative plans whether you could draw more majority Black districts than were drawn by the General Assembly; is that correct? A. That's correct.
Q. And in a hypothetical scenario where a map drawer was asked to draw the most majority Black districts that are humanly possible while still equalizing population, that's not enough information for you to say whether race predominated in the creation of that plan; right?
A. I'm pausing. I just -- I know we discussed this in the deposition as well. And since you have pointed out that my answers today, at least in one case, did not correspond exactly, I think I've agreed -- I would agree with what you said.
Q. And you'd agree that race could predominate in a redistricting plan that complies with the traditional redistricting principle of population equality; right? A. Yes.

MR. JONES: Objection. Your Honor, that calls for a legal conclusion as to whether race ultimately predominated in a given district. It also calls for speculation in that we're
not discussing any particular district.
THE COURT: I agree with Mr. Jones, Mr. Tyson, on whether or not race was predominated. And the second part, as to whether that calls for a legal conclusion, it's really up to me to decide that.

What's the other part of your --
MR. JONES: That this hypothetical district we're referring to calls for speculation.

THE COURT: Well, I'11 sustain on the first part, Mr. Tyson.

MR. TYSON: Thank you, Your Honor.
BY MR. TYSON:
Q. When you were drawing the illustrative plans, you utilized features of Maptitude for Redistricting to display the AP Black VAP percentage of the various pieces of geography on your screen while you were drawing the illustrative plans; right?
A. At times. Not all the time that I was drawing. It was sometimes on, sometimes off.
Q. And you utilized the racial information that you sometimes displayed on the screen while you were drawing the illustrative plans to inform the decisions you made about which parts of districts went in and out of particular districts; right?
A. At times, yes, I would have used those to inform
decisions.
Q. And you focused on areas where there were higher concentrations of Black voters when you were looking for where new districts could be drawn; correct?
A. I would like to append just a clarification to the answer I gave previously, which is that that was one consideration. If I was looking at that information, that was one piece that I was considering. It's not the only piece.

As we -- as I mentioned to Mr. Jones before, I'm constantly looking at the shape of the district, what it does for population equality, population -- sorry -- political subdivisions, communities of interest, incumbents, all that.

So while, yes, at times that would have been used to inform a decision, it was one of a number of factors.
Q. Mr. Esselstyn, could you grab your deposition and turn to page 77, please. And review lines 10 through 15.
A. I'm just backing up a little bit to see the context.

Okay.
Q. So I'11 ask you, did you utilize any of the racial information that you displayed on the screen while you were drawing the illustrative plans to inform the decisions you made about which parts of districts went in and out of a particular district?
A. At times I did. And that would have been one factor that I was considering in addition to other factors.

MR. TYSON: Your Honor, may I have permission to read Mr. Esselstyn's question and answer from the deposition?

THE COURT: Yes.
BY MR. TYSON:
Q. Page 77, beginning at line 10.
"Question: Did you utilize any of the racial information that you displayed on the screen" --
A. I'm sorry, that's not line 10. You said page 77, line 10?
Q. Yes. Is that not the right page?
A. On my page 77, line 10 begins, "I think so. I think that -- I think that I may have."

MR. TYSON: Do you mind if I --
THE COURT: Yeah.
Do you have it, Mr. Jones.
MR. JONES: Your Honor, I believe Mr. Tyson is reading from a different line on page 77 than what he quoted. But, yes, I do have a copy of the transcript.

THE COURT: Okay. They're saying it's a different line, Mr. Tyson.

MR. JONES: I believe you were reading from line 20, Mr. Tyson.

MR. TYSON: Thank you, Mr. Jones. Yes.
I apologize, Your Honor.
THE COURT: Al1 right.

BY MR. TYSON:
Q. Lines 20 through 25, Mr. Esselstyn.

MR. TYSON: I apologize. I had a typo in my notes on
that point.
THE COURT: No problem. We've got it straight.
THE WITNESS: Okay. I see it.
MR. TYSON: So, Your Honor, may I read lines 20
through 25?
THE COURT: Yes.
BY MR. TYSON:
Q. "Did you utilize any of the racial information that you displayed on the screen while you were drawing the illustrative plans to inform the decisions you made about which parts of districts went in and out of a particular district?
"Answer: Yes."
A. Yes. I think that's consistent with the answer I just gave you prior to looking at this as well.
Q. Mr. Esselstyn, you didn't have any political data to use in deciding where to place lines on the illustrative plans; correct?
A. Only if you consider incumbent addresses to be political data.
Q. You didn't have any election return information; correct?
A. Correct.
Q. And while you were drawing the plans, you kept some notes on incumbent addresses but on no other topics; correct? A. Just to clarify, when I was drawing the plans, the majority of these plans were drawn for the PI phase. So between the PI phase and the report that was created for this process, the report that was submitted in December, I changed a small fraction of the districts.

So I would say for the vast majority of the drawing process, I did not have incumbents information.
Q. And I was asking specifically about notes, not about incumbent information.

You had notes on incumbent information when you were drawing the illustrative plans in your December 5th report; correct?
A. I believe I did, yes.
Q. And you did not have notes on other decisions you made about how to configure the illustrative plan districts; right? A. Correct.
Q. And you spoke with Mr. Jones about balancing considerations as you're drawing districts; right?
A. Yes.
Q. And you'd agree that the process for deciding which factor would control if two were in conflict is more of a question of art than of science; right?
A. Yes.
Q. And you'd agree that in creating any statewide redistricting plan especially, there are a lot of judgment calls to make; right?
A. Absolutely. Yeah.
Q. So let's take a look at your Senate plan.

And I believe you testified earlier you changed 22 of the 56 districts on the enacted plan; right?
A. That's right.
Q. And that's roughly 40 percent of the State Senate seats in Georgia?
A. 39, I think.
Q. So I've put the chart from Mr. Morgan's report on the screen, and I want to just work through from bottom to top here.

You'd agree that the deviation range --
A. I'm sorry, this is --
Q. On the screen only, yes.
A. Is it --
Q. The report's here if you'd like to look at it. It's tab 2, page 8.
A. Okay. I don't have strong faith in the accuracy of the information on Mr. Morgan's report. I have found inaccuracies, in fact, including in this table. So I'm hesitant to rely on it for any kind of conclusions or answers to questions.
Q. Then can you locate the portion of your report that has population summaries and deviation ranges?
A. Absolutely. For Senate?
Q. For the Senate plan, yes.
A. It's either -- enacted and illustrative are in different sections. Which would you like me to look at first? Or you're wanting to compare deviation --
Q. Correct. I want to compare the deviation range that you used versus the deviation range that the legislature used.
A. Okay.
Q. Mr. Esselstyn, I may be able to short-circuit this by asking, is the deviation range you used in the illustrative plan higher than the deviation range used by the legislature in the enacted Senate plan?
A. It is.
Q. And you would agree that the over -- there are three more majority Black districts, as we've discussed, in the enacted plan; correct?
A. Three more majority Black districts in the illustrative plan; correct.
Q. And in your report when you report on compactness scores, you're including on an average compactness score for the plan also districts that were unchanged in the illustrative plan; correct?
A. That's correct, yes.
Q. And you would agree that you split more counties on the illustrative plan than the enacted plan does; right?
A. That's correct, yes.
Q. And do you split more precincts as well?
A. Yes, I believe one more.
Q. And you testified with Mr. Jones that -- as I recall, in terms of communities of interest you relied primarily on visible features in Maptitude like city boundaries; correct? A. Yes.

And I mischaracterized something in the previous answer. It's actually two more VTD split in the illustrative plan than the enacted plan. I had said it was one. Keeping in mind that this is out of 2,698 VTDs in the state. So it is close to negligible, I would say.
Q. You wrote --
A. And I -- I had a hesitation about whether my previous answer was correct when I said one, so I wanted to make sure that I got that right. But I was not paying full attention to your -- the following question.

THE COURT: Repeat the question.
MR. TYSON: Certainly.
BY MR. TYSON:
Q. In terms of communities of interest when you were creating the illustrative plans, you primarily relied on visible features on Maptitude like city boundaries or other
visible boundary lines?
A. That's correct, yes.
Q. And you mentioned a type of geography called a landmark area.
A. Uh-huh (affirmative).
Q. Can you describe what a landmark area is?
A. I think it's, as the name suggests, it's an area which is a landmark and is kind of -- would be noteworthy or something that most folks would consider noteworthy. Maybe the Ocmulgee Mounds, historic -- a Native American historic site in Macon-Bibb County would be an example.
Q. And in terms of other communities of interest, if it was not a visible Maptitude feature did you rely on any other communities of interest that were not visible Maptitude features in creating the illustrative plans?
A. A little bit.
Q. What were some of those?
A. Well, we talked in the PI phase about the Fall Line, the Georgia Fall Line. And there's a Fall Line in other parts of the southeast as well. I think the Metro Atlanta area might be another one that -- actually, that one is -- can be delineated on a map.

I had -- let me think for a moment because I know -- I think that there's -- I know that there's another one that was not delineated on a map that I considered. And I'm struggling
to recall what that would be.
Q. And you didn't review any public comments until after you drew your preliminary injunction plans; right?
A. That's right.
Q. And you'd agree that the changes from your preliminary injunction plans to the current illustrative plans are relatively minor; right?
A. Yes.
Q. So in paragraph 41 of your report, on page 20 , you also reference areas and communities I've heard described by Georgians. And one of those ways was in personal conversations.

Do you see that?
A. I do.
Q. And you can't remember what those personal conversations were that you relied on in drafting these plans; right? A. I wish I could. You asked this question in the deposition and I racked my brain then, and I've racked my brain since. And I am convinced there was something that -or some things that fit that definition. And for the life of me, I've not been able to say what that is, I'm sorry to say. Q. And you didn't produce a statewide image of your Senate plan anywhere in this report; is that correct?
A. In this report, no. It is in -- you can see something that essentially shows it in one of the supplemental reports
to the -- in the -- from the PI phase.
Q. If you could turn to tab 7 in the notebook in front of you.
A. Yes.
Q. Is this the second supplemental report you submitted in the preliminary injunction proceeding?
A. It is.

MR. TYSON: And, Your Honor, I know we're trying to get a clean record. I know this may be part of the record, but we would move formally to admit this. It's marked as Defendant's Exhibit 92.

THE COURT: Any objection, Mr. Jones?
MR. JONES: No, Your Honor.
THE COURT: It's admitted without objection.
MR. TYSON: Thank you, Your Honor.
BY MR. TYSON:
Q. And so, Mr. Esselstyn, on the -- you reference that you had statewide images. Is this the report you were referring to?
A. Yes.
Q. And so this report, then, and I'm starting with Figure 3, shows in white all the districts you changed to add the three majority Black districts and in gray districts that remained unchanged; is that right?
A. Yes.
Q. And I know you had some slight modifications on the House side, but for the Senate 22 districts was the minimum number of districts you had to change to add the three new majority Black districts; right?
A. I'm hesitating on the word "minimum." In the plan that I ended up completing and deciding would be the plan that I'm -would submit, that is the number of districts that I changed. I didn't, you know, strive or really work hard to see if there was an absolute minimum.

As I said, I tried to avoid changing districts unless it was necessary. And if I felt it was necessary to balance with other redistricting criteria, I did. But I'm -- I'm not sure I would agree with characterizing this as a minimum number.
Q. And in this proceeding, you've not submitted a plan that changes fewer districts; correct?
A. Correct.
Q. Mr. Esselstyn, is it correct that you didn't focus on any community of interest considerations for districts that were not the new majority Black districts that you created?
A. I don't know that I would say that's correct.
Q. And we looked earlier at the Figure 8 that showed compactness scores for various districts.

Do you recall that?
A. Yes.
Q. And there were gray lines for the enacted $p l a n$ and
colored lines for the three new majority Black districts; right?
A. Yes.
Q. And any other district you changed, like on this plan District 17 or District 20, would not be included in Figure 8; right?
A. That's correct.
Q. So let's work our way through some of the specific districts that we've drawn -- or that you've drawn, I'm sorry.

I'm going to be using the images of these maps from Mr. Morgan's report, but you can feel free to refer to your report to look at the various boundaries to be sure you agree. A. Okay. If I wanted to indicate something, is it possible to pull up the maps from my report on the screen?
Q. I don't have those in a format I can pull them up right offhand but happy to discuss specific features as we go.
A. Okay. I feel much more confident referring to the maps that I created that I can vouch for --

THE COURT: Do you-all have those maps?
MR. JONES: We do.
THE COURT: Can you-all pull them up if he needs them?

MR. JONES: We can, Your Honor.
THE COURT: All right. We'11 do it that way.
BY MR. TYSON:
Q. Mr. Esselstyn, do you have any reason to disagree that Mr. Morgan did not -- did not properly import the plans into Maptitude that you created?

MR. JONES: Objection, Your Honor, lack of foundation.

THE COURT: I think he's said -- he's already indicated he doesn't have any confidence in Mr. Morgan, so I think he can answer that question. He's probably already answered it, but...

Why don't you have any confidence in Mr. Morgan's?
THE WITNESS: As I mentioned, I've found inaccuracies in his report. I found flawed logic. I have found statements I believe to be false.

I know that Mr. Morgan has worked with -- or he has asserted that he has worked with Maptitude for Redistricting software, but I was not given any shape -- there was not -the files that he used to create that map were not provided to me so that I could verify. And what I provided was the boundary -- the shape files that would show the boundaries of the districts that I created.

THE COURT: I think he's answered clearly why he didn't have confidence in Mr. Morgan.

MR. TYSON: Fine.
THE WITNESS: You had said Senate District 23, which I have in my report a map, Figure 5 on page 12.

BY MR. TYSON:
Q. And let's begin with enacted Senate District 23 if we could, please.
A. Okay. They're in attachment -- this is attachment -- I have more confidence in the maps produced by the General Assembly for the enacted plan. And that is Attachment D to my report. And on the first map you can see enacted District 23 pretty well.
Q. So, Mr. Esselstyn, you would agree that you reduced -- in creating District 23, you took more of Richmond County into District 23 than the enacted plan had in that district; right? A. That's correct.
Q. And in making changes you then took precincts along the border of Columbia County into District 22; is that correct? A. That's correct.
Q. And those changes were part of your process for drawing District 23; right?
A. I -- maybe there's something in my deposition where I heard that question and carelessly answered yes.

Parsing your language very carefully, I don't know that I would say it was part of my process for drawing District 23. It was part of the process of drawing the plan that includes District 23. But I may have -- I may have drawn District 23 -- and when I say "draw," I don't actually just draw a district on a blank map. I'm moving things. So I may
have moved the parts of District 23 that are in Augusta-Richmond County that had been in the enacted plan District 22, and then moved on and sort of polished District 23 before I then decided to see where I would need to add population to District 22.

So it's a fine point of distinction. I just want to emphasize that I don't know that I would agree with your characterization that it was part of drawing District 23, per se.
Q. You would agree that District 23 as you've drawn it, at least on page 10 and 11 of your report, District 23 is 51.06 percent Black VAP; right?
A. That's correct.
Q. And you report that District 22 is 50.84 percent Black VAP; is that correct?
A. That's correct.
Q. Now, in looking at the configuration of District 23, you would agree that it split --
A. I'm sorry, illustrative or enacted District 23?
Q. I apologize. Illustrative District 23.
A. Sorry to interrupt.
Q. You would agree that illustrative District 23 splits McDuffie County; right?
A. Yes.
Q. And you'd agree it splits Wilkes County; right?
A. Yes.
Q. You'd agree it splits Greene County?
A. Yes.
Q. And you would agree it splits Baldwin County?
A. Yes.
Q. You've reviewed Mr. Morgan's report and the nature of the population of each of those splits, haven't you?
A. Yes. And I know we've discussed it in the deposition.
Q. So, Mr. Esselstyn, looking at the chart from Mr. Morgan's report, the portion of Baldwin County that is in District 23 is 46 percent Black, and the portion that is outside District 23 is 31 percent Black VAP; right?

MR. JONES: Objection, Your Honor. This assumes facts not in evidence. This report has not been introduced into evidence yet.

MR. TYSON: So, Your Honor, with Mr. Cooper yesterday we discussed through a number of the statistics and demographics. I'm happy to go ahead and -- we can make this case, I guess, in our case as well if the plaintiffs are going to object to considering Mr. Morgan's analysis. I think the numbers are what they are. But if we need to wait until our case to do that, we can do that.

MR. JONES: Your Honor, we're not waiving the objection, so I think --

THE COURT: I guess what he's saying is that if you
start doing it this way, he's going to start doing it this way.

You're right, it's not in, but I think the first part he says, Judge, we have been doing it this way, but if they want to do it this way, we'll do it this way also.

MR. TYSON: And, Your Honor, my understanding of our kind of operation was that we were going to at the beginning of each expert's testimony admit all of their respective reports. That was my understanding of our agreement. But, like you said, if we want to handle things differently, we can do that.

MR. JONES: Your Honor, actually, to be clear, we proposed to Mr. Tyson that we agree to admit all expert reports. And Mr. Tyson's response was that he would agree to admit all expert reports only when those experts took the stand. And, to be clear, Mr. Morgan has yet to take the stand.

MR. TYSON: Okay.
THE COURT: All right. Well, then, I'll sustain the objection, and we'11 proceed.

MR. TYSON: We'11 proceed accordingly, Your Honor. BY MR. TYSON:
Q. Mr. Esselstyn, do you know the racial makeup of the county splits of the four counties we just listed in District 23 on the illustrative plan?
A. Not off the top of my head.
Q. Do you know if higher Black VAP percentages were included in District 23 and lower Black VAP percentages of those counties were excluded from District 23?
A. I have not researched that or verified that information myself.
Q. In the creation of District 23, you'd agree it includes both all of Screven County and a portion of Greene County; right?
A. Yes.
Q. And you can't identify any community of interest that's shared by Screven and Greene Counties; correct?
A. We had talked about this in the PI phase. We talked about this in the deposition. I don't subscribe to the view that a community of interest needs to span an entire district, and that the far-flung -- any far-flung corners of any given district have to have some unifying characteristic or the districts somehow need to be homogeneous.

I mean, we're looking at a district of 190,000 in a relatively sparsely populated area. This is -- by necessity, this has to span a large area. And there are going to be -there's going to be diversity. And I think that's an inevitable thing and that's a good thing.
Q. Can you identify any reason why you've connected Screven County and the portion of Greene you've included in

District 23 aside from the racial makeup of the people involved?
A. I'm hesitating because you're asking for a single reason. And I know I'm repeating myself, but the process of drawing maps is a multilayered iterative process. It's trial and error. There are steps where I'm testing something out, looking, how does this look, what are the effects of this on neighboring districts.

So in considering population equality, population -political subdivisions, compactness, communities of interest, in the case of Senate District 23 I specifically considered incumbents I know, trying to keep much of the district similar to the enacted version, this is the arrangement that I came up with.
Q. Would you agree that there are separate geographically compact Black populations included in illustrative District 23?
A. Separate populations? That suggests that there's like a boundary around populations. I mean, would I say that the Black population of Milledgeville is a separate population from the Black population of Augusta-Richmond? Yes. But I'm pausing over the wording of "compact Black populations." Q. Would you agree that the Black population in McDuffie County is separate from the Black population in Milledgeville? A. Geographically separate, certainly.
Q. And you'd agree that's also true of the Black population in Wilkes County, geographically separate from the Black population in Milledgeville?
A. Yes.
Q. And --
A. Well, I mean, there's not again -- well, there are county boundaries, but there is -- there's Black population throughout this district. I mean, actually Glascock County has quite limited. I believe that the Black population in Glascock County is in the neighborhood of 7 percent. But, still, it's not like there are areas of -- there may be blocs that have zero Black population but -- the wording seems a little awkward to me, but -- I'm sorry. Go ahead.
Q. So, ultimately, you can't identify one reason, a single reason for connecting the geography you've connected in Districts 23 because there are too many factors involved; is that right?
A. I don't feel comfortable identifying a single reason for the way that any of my districts look. I know in the deposition you asked often about a reason or what was the reason. And, no. There are a multitude of considerations. And -- yeah.
Q. And you haven't conducted an exercise that you recall of removing any of the county splits that are included in District 23 and replacing that population with some other
population and seeing if the district would stay majority
Black; right?
A. I do not recall doing such an exercise.
Q. Let's move to District 25.

And you testified earlier --
A. So just so you're aware, I'm going to refer to Figure 6 in my report, which is page 13.
Q. Certainly.
A. And you said -- we're talking about illustrative District 25; correct?
Q. Correct. Illustrative District 25.

MR. JONES: Your Honor, we're just going to object to the continued use of these demonstratives from the Morgan report that we have now acknowledged are not in evidence and that Mr. Esselstyn has repeatedly made clear he is not addressing in his testimony.

THE COURT: Well, I sat here and went through the whole time with Mr. Cooper and nobody said a word. Mr. Cooper is Alpha's.

MR. JONES: And, pardon me, Your Honor, for interrupting you, but that is our position, that these are separate cases.

THE COURT: I'm going to allow him to do this. I can't understand -- I thought you-all coordinated this. So your position is Alpha does Alpha's way and Grant and

Pendergrass does it this way?
MR. JONES: Certainly for those examinations of witnesses who are not on our list and for which we have no involvement in their examinations.

THE COURT: Okay. If you want -- if this is the hole you want to go with. If that's the way you want to ride, we'11 ride this way.

MR. JONES: Thank you, Your Honor.
THE COURT: Be careful what you ask for.
MR. TYSON: I'11 just unplug this right here and we'11 do it this way.

BY MR. TYSON:
Q. Al1 right. Mr. Esselstyn, District 25 includes portions of Clayton and portions of Henry Counties; correct?
A. That's correct.
Q. And are you aware of the racial makeup of the Clayton and Henry portions that you've included in District 25 ?
A. In a no more than a very general way.
Q. What is the general way in which you understand those pieces?
A. That they have a combination, I believe, of some areas that are majority Black and some areas that aren't. Perhaps the little fragment of Clayton County.

Yeah. I -- off the top of my head, I -- I can't say anything more specific than that.
Q. And you don't recall any specific reasons why you put Clayton and Henry Counties together in District 25; correct? A. I mean, they're adjacent to each other.

And saying I put them together is suggesting like I have jigsaw puzzle pieces that I -- are in different places and I'm, oh, let me put Clayton and Henry next to each other. They're adjacent counties.

And I know that I -- in Henry County illustrative District 25 keeps McDonough almost entirely intact, Locust Grove almost entirely intact, Hampton. I think Locust Grove and Hampton are entirely intact. And in Clayton County I think the communities of Bonanza and Lovejoy are kept intact.

So that -- that might have informed -- you know, keeping those communities intact might have informed -- been one factor about why I included the portions of the counties that I did.
Q. But you can't say for certain that keeping those jurisdictions whole was the reason for the configuration; right?
A. Again, you're asking me about "the reason." And I'm not going to be able to -- I may -- I may fail to parse your question carefully enough and mistakenly answer a question that asserts that there's a reason or the reason for the way one of my districts is drawn, but it's a -- there's a multitude of reasons.
Q. And you described in your deposition a process of trial and error related to this district.

Do you recall that?
A. Uh-huh (affirmative). I recall talking about trial and error. I don't specifically recall talking about it in relation to this district.
Q. In the process of trial and error, would it be accurate to say it's connecting different parts of geography to see if they work as a district?
A. To see how they address certain criteria, sure.

Well, I'm saying "sure" based on the wording that I just offered. I don't know that I would agree with how -- if a district works I think is maybe how you said it, so...
Q. Would an error in your trial and error process be having a district that's below 50 percent Black voting age population?
A. I'm considering trial and error as sort of a recognized idiom in the English language that means seeing if something works, you know, trying various things, iterating, hmm, how does this look, how does this look. I'm not using the term "trial and error" to suggest that some of the things I made were mistakes.

So I'm not trying to -- your use of the word "error" made it sound like I was considering some things to be mistakes. This is -- like many creative processes, as I said, there's
part of it that's art rather than science.
So if I -- let me just provide that answer to the question as a -- a -- I'm looking for a word. I'm quibbling with your use of the term "error." But, please, maybe you can rephrase the question about -- because I know it was something about whether the Black population was below 50 percent.
Q. One of the considerations you had while you were trying different configurations was looking to see if you could make a district that was greater than 50 percent Black voting age population; right?
A. That was one of the considerations, indeed.
Q. And if that wasn't possible in a particular configuration, you could try a different configuration to see if it was possible in a different configuration; right?
A. Indeed.
Q. Are you aware of any community of interest that connects South Clayton County with Locust Grove and Henry County? A. I'm not, but I would repeat what I said about illustrative District 23 , that $I$ don't subscribe to the view that a district of 190,000 people has to have communities of interest that unite the disparate parts of it.
Q. In creating District 25 as a majority Black district you made changes to the existing majority Black districts to do that; right.
A. Yes.
Q. Let's look at on your plan Figure 7 of your report on page 14, District 28.

Do you see that district?
A. I do.
Q. And in order to create District 28 as a majority Black district, you had to make changes to enacted District 34 ; right?
A. I don't know that I had to. In this instance I believe I did. I think that's one of the districts that I changed. But I would not agree with the assertion that it was -- that it was something I had to do.
Q. You have not submitted a plan to this Court that makes -that creates District 28 without making changes to enacted 34 ; correct?
A. That's correct.
Q. District 28 includes pieces of four counties; right?
A. That's correct.
Q. Are you aware of the relative populations of each of the counties you included in District 28 ?
A. The relative populations, yes. I mean, I -- it would be in one of the attachments. I could see how much -- what the population of each county is in each district. I don't know it off the top of my head.
Q. Okay. That's all I was asking.

You'd agree that Coweta County is more rural than Fulton
and Clayton Counties; right?
A. I mean, they're all Metro Atlanta. And I -- I -- I think -- I think Coweta is less developed than the other counties that you mentioned.
Q. And you would agree that Coweta County is more rural than Fulton, Clayton and Fayette; right?
A. I believe so, yes.
Q. And Clayton County is a fairly urban county; correct?
A. Fairly --

MR. JONES: I'm going to -- pardon me for my delay.
I'm just going to object to that question as vague in terms of "fairly urban."

THE COURT: I'11 overrule that objection.
Go ahead.
THE WITNESS: I also was hesitating because of the term "fairly urban" could mean a lot of different things.

I'11 say that Clayton County could be characterized as fairly urban.

BY MR. TYSON:
Q. Can you identify anything about the population of Newnan in Coweta County that is in common with the portions of Fulton and Clayton that you've included in District 28 ?
A. No. Again, my focus with communities of interest was keeping the communities of interest that I could identify intact, not trying to compose districts that could all be
described as having a shared community of interest.
I know in Fulton County there are two other municipalities that I did keep whole. So Newnan I was able to keep mostly, I think, you know, in the neighborhood of 90 percent all in the district.

There are two -- in Southern Fulton County there are two municipalities that are cheek by jowl with Atlanta, and I want to say one of them starts with F-R. Anyway, I'm blanking on the names.

But -- so I was focused -- my communities of interest concerns were more about trying to keep communities of interest like that intact.
Q. So the way you approached the drawing of District 28 as to communities of interest was trying to take existing municipalities that were in the same vicinity and keep those whole in the district?
A. I think that's fair. The only thing I would question -you focus on municipalities. I'm not recalling any other, you know, military bases or other kind of institutional communities of interest, campuses, things like that.

So I'm not recalling if there were other communities of interest. The ones that are coming to mind are municipalities. But beyond that little clarification, I think I agree with your statement.
Q. And you agree that you split the City of Newnan; right?
A. It is -- yes, it's split. I kept it almost entirely intact.

In Georgia a lot of the municipal boundaries look like, you know, a bug splattered on a windshield, including satellite areas, you know, that are disconnected. So it can be -- trying to draw a district that takes in every last piece, it can compromise things like compactness.
Q. And enacted Senate District 28 kept the City of Newnan whole; correct?
A. It did. I would point out that the configuration of illustrative Senate District 28 and the adjacent illustrative district -- Senate District 35 keeps Douglas County whole. So Douglas County was split three ways in the enacted plan, but the configuration in the illustrative plan keeps Douglas County intact.
Q. And can you identify any reason for community of interest considerations for keeping Douglas intact?
A. So I think a lot of people would argue that Douglas County is -- would be described as a community of interest. In this discussion today we've more been focusing on counties as political subdivisions. But I think the answer to your question is an obvious yes, that keeping Douglas County intact is, by definition, keeping a community of interest intact. But maybe I misunderstood the question.
Q. But you've added a county split over the enacted plan in

Coweta County; correct?
A. That's correct. Well, I have added a county split over the enacted plan. The enacted plan does not split Coweta County and my plan does.
Q. And you split Coweta County as part of the process of drawing District 28 as a majority Black district; right? A. I would say I split Coweta County as a process of drawing the entire plan, which included drawing District 28 as a majority Black district.
Q. And, Mr. Esselstyn, the methodology -- well, I'm sorry.

You determined that the illustrative Senate plan complied with the traditional principle of population equality; right? A. That's correct.
Q. And the methodology you used to determine that is because the plan was within the 5 percent plus or minus range. It was not that different in your estimation from the average percentages of the General Assembly. And the vast majority of districts on the illustrative plan are within plus or minus 1 percent. Is that right?
A. If you could repeat that. That was a long question.
Q. Sure.

The methodology you used to determine that the plan that you drew complied with the principle of population equality included at least three things:

Number one, the plan was within plus or minus 5 percent
of the ideal population size.

Number two, the deviations are not that different in your estimation than the average percentages drawn by the General Assembly.

And, three, the vast majority of the districts are within plus or minus 1 percent of the ideal district size.

Did I correctly state the methodology you used to determine you complied with the principle of population equality?
A. I want to check one thing in my report, just your use of the word "average."

The only thing I would add is that I wasn't focused solely on the deviations that were within plus or minus 1 percent. But as I mentioned to Mr. Jones, Mr. Michae1 Jones, though the districts that had deviations that were more or less than plus or minus 1 percent were all between plus or minus 1 percent and plus or minus 2 percent, which is similar to the deviations in the General Assembly's plans.

So I don't think you mentioned that plus or minus 1 percent to plus or minus 2 percent.
Q. Could you turn to Attachment E of your report, please. A. Yes. I'm there.
Q. Looking at the population summary report of this, the table that's here in Attachment E, you would agree that Senate District 23 in the illustrative plan has a deviation of
minus 1.67 percent; correct?
A. That's correct, yes.
Q. And that's greater than 1.5; right?
A. That's true. Well, no. It's negative 1.67 percent. So it is less than negative 1.5.
Q. It is a higher deviation than a plan that's drawn plus or minus 1 percent from the ideal district size; right? A greater deviation than a plan that's drawn more than plus or minus 1 percent of the district size?
A. Okay. Earlier you'd said 1.5 and now you're saying -Q. Yes.
A. It is, yes, indeed.
Q. Okay. And the General Assembly used a plus or minus 1 percent deviation standard; correct?
A. I don't think that's correct. And I think I can -- well, I'11 just say I don't think that's correct.

Would you like me to -- let me see it because if I'm wrong, I want to correct myself.
Q. Let me ask it this way, Mr. Esselstyn. You'd agree that the General Assembly used a total deviation of 2.01 percent from the ideal size; right?
A. Let me just confirm that.

I want to -- I am fairly -- when I look at the deviation statistics for the enacted plan, it'11 show the -- the absolute mean deviation.

There were -- there was at least one district in the Senate enacted plan with a deviation of negative 1.03. So -and the -- on the higher end, it's .98. So if you add those together, that's 2.01, but I don't think that's consistent with your earlier statement that it's plus or minus 1 percent. Q. My question was, was the relative overall range of the enacted Senate plan from deviation 2.01 percent?
A. I know. And the -- but the question before that you asked if it was -- if all -- if the deviation was plus or minus 1 percent.

THE COURT: Well, the question he's asking now, is it 2.0 percent?

THE WITNESS: 2.01. But, to me, it's a meaningful distinction. If you say that the -- plus or minus 1 percent is not even the same as a relative -- sorry -- an absolute mean deviation of 2 percent, because you could have, you know, plus . 5 and minus 1.5 --

THE COURT: Okay.
THE WITNESS: -- as the maximum values.
THE COURT: One more time, ask the question.
BY MR. TYSON:
Q. Does the enacted State Senate use a relative overall range of deviation of 2.01 percent?
A. Yes, it does.
Q. Thank you.

Did you report the relative overall range of the illustrative plans' deviation?
A. It's in the -- of the illustrative? It looks like there's an alignment issue. Yes.
Q. And where is that in your report?
A. In Attachment H.
Q. And you would agree that the illustrative plans' relative range -- I'm sorry, the line, you're right, is incorrect.

But you would agree that 3.57 percent is the relative overall range of the deviation used on the illustrative plans; is that right?
A. Yes.
Q. That's higher than 2.01; right?
A. It is.
Q. Okay.

MR. TYSON: Your Honor, I'm at a point to switch to the House. I don't know if you want to take a break.

THE COURT: Let's take a break right here. We'11 start back at 4:35.
(After a recess, the proceedings continued at
4:43 p.m. as follows:)
THE COURT: You-all may be seated.
Mr. Tyson, you can proceed.
MR. TYSON: Thank you, Your Honor.
BY MR. TYSON:
Q. Mr. Esselstyn, we're going to move now to the illustrative House plan. So if you could begin by turning to Attachment L of your report, please.
A. Got it.
Q. And on Attachment L you report statistics for the enacted plan and the illustrative plan House; correct?
A. That's correct.
Q. And the relative overall range of deviation on the enacted plan you report is 2.74 percent; right?
A. That's right.
Q. And the relative overall range on the illustrative plan is 3.85 percent; correct?
A. That's correct.
Q. And you would agree that you used a higher overall range of deviation on the illustrative plan than was used on the enacted plan for the House; right?
A. Could you repeat the question? I'm not sure I understood.
Q. Is 3.85 greater than 2.74?
A. Yes. I thought you were comparing it to the Senate. I'm sorry. I misunderstood.
Q. Okay. And you increased the number of majority Black districts on the illustrative House plan by five over the enacted plan; correct?
A. That's correct.
Q. And you changed, I believe you testified, 25 out of the 180 districts; is that right?
A. That's right.
Q. And so when you report overall compactness scores for the illustrative plan, that includes the 155 districts that are the same on both the illustrative plan and the enacted plan; right?
A. Yep.
Q. And you followed a similar process for drawing the House illustrative plan that you did for the Senate illustrative plan; correct?
A. Yeah. It's -- yes, similar.
Q. And the illustrative plan you're offering now for the House changes the fewest number of enacted House districts to add the five majority Black districts of any plan you've submitted in this litigation; right?
A. That's correct.
Q. And like with the Senate plan, there's not a statewide view of the House plan with your report; correct?
A. Not in the current report, but there is a similar -- or there is one in the supplemental report we looked at before.
Q. So referring to tab 7, which has been admitted as Defendant's Exhibit 92, if you could turn to Figure 4.
A. Got it.
Q. And this shows the changed and unchanged districts in the
illustrative House plan; correct?
A. The previous illustrative House plan.
Q. Right.
A. And I should point out that 128 , which is shown in white in this exhibit, was changed in the PI plan and is not changed in the plan for the more current report.
Q. And you've anticipated my question. I know you had one fewer district change.

So District 128 is the district that was changed in the PI plan but is not changed on the plan you're currently offering; correct?
A. Correct.
Q. And like the Senate plan, when you reported on Figure 17, the bar chart with various compactness scores --
A. Going back to my current report?
Q. If you want to look at it. It's a more general question about the particular figure. But if you'd like to pull it up, that's fine.
A. Got it.
Q. So Figure 17 doesn't report the compactness of other districts that you changed. It only reports the compactness scores for the five new majority Black districts compared with the enacted plan; correct?
A. Correct. But the -- all of the compactness scores for all of the districts in the illustrative plan are in
attachments.
Q. And so let's go to that next.
A. Attachment L?
Q. Actually, I believe it's the one right after L.

So it's attachment -- the compactness report for illustrative plan, which I guess is part of Attachment L, as I'm looking at this.
A. Yes.
Q. Okay. So in this report you reported all of the compactness scores for the entirety of the illustrative plan; correct?
A. Yes. As well as the enacted plan.
Q. So looking again at Figure 13 of your report now, if we can go back to your primary report.
A. Got it.
Q. You'd agree with me that you didn't add any new majority Black districts in Southwest Georgia; correct?
A. Correct.
Q. And you didn't add any new majority Black districts in East Georgia farther east than District 149; correct? A. Correct.
Q. The only new majority Black districts on this plan are two anchored in Macon and three in Metro Atlanta; correct?
A. Correct. I hesitate -- yeah, anchored in Macon, that's -- I'11 -- I can accept that.
Q. So let's look at these particular districts, beginning with District 64 in Western Metro Atlanta.
A. Yep.
Q. Actually I'm just going to leave this on the screen so we can talk about it a little more easily.

District 64 is difficult to see on Figure 13, but in Figure 14 you can see that it includes portions of Fulton, portions of Douglas and portions of Paulding County; is that correct?
A. That's correct.
Q. What led you to conclude that there was a geographically compact Black community in the area encompassed in District 64?
A. My understanding the Gingles 1 examination is that you're looking to see if there is a Black population that is sufficiently large and geographically compact to allow for the creation of a district. And I think I've shown that by creating a district which is compact and reasonably shaped -in fact, this district is quite similar to House District 61. I was just flipping through here to see -- I believe in one of the attachments there's a -- that's the Senate.

Anyway, the arrangement, the kind of alignment of District 64 is quite similar to enacted House District 61. And I think I based it on that.

And so I think by creating that compact, reasonably
shaped district similar to one of the districts in the enacted plan, which has a Black population that is over 50 percent, that demonstrates that there is a sufficiently compact and numerous Black population.
Q. And for your statement about District 61, you're relying on the attachments to your report, not the text of your report; right?
A. I mean, I can see -- I don't think -- you can -- so if you look at Figure 12 or Figure 11, yeah, it would be hard to make it out. So I am relying on the General Assembly's map, so that the -- I should have held on to the page.

So like the second map in Attachment I I think shows District 61 pretty well. District 61 reaches farther as it's sort of a longer piece that reaches into Fulton County. And District 64 -- and -- sort of takes a part of Paulding County that was already in enacted District 64. I should say illustrative District 64 takes a part of Paulding County that was in enacted District 64.
Q. And you refigured District 61 as part of the creation of District 64; correct?
A. As part of the creation of the whole plan, yes.
Q. Are you aware whether each portion of Fulton, Douglas and Paulding has a majority Black voting age population within the portion you've included?
A. I could -- I can't say with absolute confidence, no.
Q. And aside from being in Metro Atlanta, can you identify any connection between Fulton, Douglas and Paulding Counties? A. Again, I'll say this, I've said it before, my approach is not trying to create districts where every part of the district has a connection to every other part of the district.

I do know that in terms of looking at communities of interest, there's a community called Lithia Springs. It looked big enough to be a municipality.

And this is interesting. Lithia Springs is a census-designated place, so it shows up on the maps. We talked about Irondale in previous conversations. Lithia Springs, I guess, was incorporated. And then in 2000 they voted to unincorporate. So it's in the census maps, but it is not officially a municipality.
Q. But you can identify District 64 as a new majority Black district; right?
A. I'm sorry, you said can or can't?
Q. Can.
A. I can identify District 64 as an additional majority Black district in my plan, yeah.
Q. And District 64 is only about a quarter of a point above majority status. It's -- according to Table 5 of your report, its Black voting age population is 50.24 percent; correct?
A. Correct.
Q. Are you aware of whether the configuration that is shown
on District -- on Figure 14 of your report begins with districts in heavily Black areas moving to districts -- areas with a more heavily white population?
A. You've made it abundantly clear that every word in your questions count, so I'11 ask you to repeat that.
Q. Are you aware whether the configuration of districts shown on Figure 14 -- and I'm referring particularly to 61 that you referenced and 64 -- begins in heavily Black areas and moves into more heavily white areas?
A. I guess saying it begins in some area and moves into some other areas, I -- I would not characterize a district as beginning in one area and -- so maybe if you were to rephrase that I would agree but --

THE COURT: Well, how would you phrase it?
THE WITNESS: I would say that there are parts of the district that have higher populations -- higher percentages of Black population and parts that have less high percentages of Black population. And that the -- generally from west to east those population percentages will get higher.

BY MR. TYSON:
Q. And several of the areas on the western side of 61 and 64 are not majority Black at all; correct?
A. Like precincts or something?
Q. Yes.
A. If -- I can't say with certainty. I -- yeah.
Q. And your configuration you discussed of 61 and 64 was required for you to make 64 a new majority Black district on this plan; right?
A. No. You asked a similar question, I think, on one of the Senate districts. I wouldn't say that this configuration was required. And it's -- it's not limited to those two districts either.
Q. You reconfigured Districts 61, 66 and 65 and 64 , and made 64 a majority Black district; right?
A. I reconfigured 25 districts in the plan. And, yes, the resulting configuration has District 64 with a majority Black population.
Q. But you can't identify which districts in this area you reconfigured to make District 64 a majority Black district? A. I mean, I could look at that exhibit we looked at in -on tab 7 in my supplemental report.

As I'm looking this up -- ah, I'm glad I referred to this.

So this isn't something you can show on the screen that I can annotate?

THE COURT: Do you want to mark on the screen?
THE WITNESS: Okay. Yes, please. Am I okay to --
THE COURT: Go ahead.
THE WITNESS: So you can see in this area here that -- and maybe the line I've drawn sort of obscures this,
but there's a gap between the white districts and -- the kind of southern group of white districts and the northwestern group of white districts. And it appears that that northwestern group does -- is limited to four districts. So the changes in this area, I will accept what you said earlier, that in this instance the changes that resulted in the configuration that we show here was -- I'm pretty sure it's four districts, those four districts you mentioned. BY MR. TYSON:
Q. Looking at Figure 15 in District 74. You've identified District 74 as a new majority Black district; correct? A. That's correct.
Q. And that district connects portions of Clayton County with portions of Fayette County; correct?
A. Yes.
Q. Are you aware if the Fayette portion of the district is majority Black VAP?
A. I am not. I don't know one way or the other. For -- no, I don't.
Q. And you don't have an opinion about whether the southern part of Fayette County is a rural part of the county; right?
A. I think that's right.
Q. And so you don't know if you've connected rural population to suburban or urban population in the configuration of District 74 as you've drawn it; right?
A. I mean, I would have had a better sense of the level of development, generally the size of precincts, since precincts tend to have similar populations. The precincts are smaller, that indicates higher population density.

So at the time I was drawing, if I had a map showing precinct boundaries in front of me, I would have had a better idea of population density, which can be used as a proxy for level of development. It could, of course, be heavily commercially developed or industrially developed, but...

So I don't want to say that my inability to make an assertion right here from memory means that I was totally ignorant of those things as I was drawing the plan.
Q. But sitting here today you can't identify whether the southern portion of Fayette County is rural and you can't identify whether it's connected to different kinds of population in District 74; right?
A. Different kinds of population?
Q. My prior question referenced suburban and urban population. You can't say, sitting here today, whether the southern portion of Fayette is rural; correct?
A. Not with certainty.
Q. And you can't say whether District 74 connects rural, urban and suburban voters in a single district; right?
A. Correct. And I'm sorry to repeat myself, but my approach is not to try and make districts homogeneous in terms of
communities of interest. I know that I did keep the census-designated place of Irondale, if not entirely intact, almost entirely intact, in Clayton County. And in Fayette County, I believe it's Brooks, the community of Brooks and Woolsey.
Q. Do you know if you split Peachtree City in this configuration of District 74?
A. I think I did. I think I did.
Q. So it's your testimony that you kept Irondale and Brooks whole and split Peachtree City in this configuration of District 74?
A. Woolsey I believe is another community that was kept whole in District 74.
Q. And you don't know if Brooks, Woolsey and Irondale are actually incorporated cities; right?
A. I believe -- I'm pretty sure that Brooks and Woolsey are incorporated. Whether they're -- I know sometimes it's -- you can't rely on population to know if something is a city or a town, but they are incorporated municipalities. However, Irondale is not incorporated.
Q. And Peachtree City is incorporated too; right?
A. I believe so, yes.
Q. And is it correct to say that District 74 is one of the most underpopulated districts on the House plan?
A. Underpopulated? That's an interesting choice of words.
Let me look.
Q. If you turn to Attachment J, would you agree with me that District 74 has a deviation --
A. Just one moment, please. Okay. Yes.
Q. -- of minus 1.84 percent; correct?
A. Correct.
Q. And on the illustrative plan range of deviations in Attachment $L$, your relative range shows the lowest deviation district on the illustrative plan is minus 1.94 percent; right?
A. Yes.
Q. And in configuring District 74 as a majority Black district, the Black voting age population of District 78 drops to 51.03 percent; is that right?
A. I can quickly confirm that number. As far as whether it's a drop from the enacted plan, and I want to make sure I'm paying attention to every word, I would need to look at those statistics for the --
Q. If we're doing this all from your plan, we'11 have to compare those two -- I mean, all from your report.
A. Yes. So you said District 78?
Q. District 78 .
A. Uh-huh (affirmative). So I'm looking at Attachment D to look in the -- oh, shoot. I am looking at the Senate. I apologize.
Q. I believe it's Attachment I.
A. Yeah.

So 78 was minus .78 in the enacted plan, deviation of negative .78.
Q. And, Mr. Cooper (sic), I was looking at the Black voting age population percentage --
A. Oh. Oh, okay.
Q. I'm sorry, Mr. Esselstyn. Apologies. Sorry. It's been a long day.
A. I'll take it as a compliment.

All right. So just -- and one thing to point out. In referring to my report, the statistics provided by the General Assembly do not include the -- the metric that is usually used in Gingles 1, so I added that afterwards. So I'm referring to the final pages of Attachment K.

So 78 was 71.58. And in the illustrative plan 78 is -there are a lot of rows here, I want to make sure I'm getting it right, so this is the sixth row -- 51.03 percent.
Q. So you'd agree District 78 drops by more than 20 points on its Black VAP percentage; correct?
A. That's correct.
Q. Looking at the enacted plan for South Metro Atlanta on the House --
A. Okay. Got it.
Q. -- you'd agree that on the enacted plan there's no
district that crosses from Clayton County into Fayette County on the House plan; correct?
A. That appears to be correct.
Q. And District 74 on the enacted plan connects portions of Fayette, Spalding and Henry Counties, without including Clayton County; correct?
A. You said Fayette, Spalding and Henry?
Q. Yes.
A. Yes; correct.
Q. Let's go to your Henry County district, District 117. It's also in Figure 15 of your report.

District 117 is wholly within Henry County; correct?
A. That's correct.
Q. And to use your terminology, are there areas of District 117 that contain more heavily Black areas in the north and more heavily white areas in the south of the borders of District 117?
A. I think so, but I can't say with certainty.
Q. And you can't identify any community that's being kept whole in the configuration of District 117 on the illustrative plan; right?
A. Entirely whole, no. It does try to keep kind of the core of McDonough, which is the county seat of Henry, mostly in the district. But there are some areas in the fringes of McDonough that are outside of District 117.

Locust Grove is also primarily in District 117.
I will say that the dividing line on that west side of District 117 is I-75. So it's an interstate. So this is, I guess -- it's not one of the principles that the General Assembly adopted, but often in redistricting, if you're going to have to make a division, sometimes people try to make a division that follows something that's already a divider, like an interstate or river.

So you are indeed correct that the communities like McDonough and Locust Grove are not entirely in the district, but I did make decisions -- and I will point out -- well, never mind, never mind. Go ahead.
Q. So just to recap, McDonough is split, it's not wholly within 117; right?
A. That's right.
Q. And Locust Grove is split, it's not wholly within $117 ?$
A. That's right.
Q. And the border on one side of 117 is I-75; correct?
A. That's correct.
Q. But in 116 you crossed I-75 at the top; right?
A. Yes.
Q. So you didn't consistently follow I-75 in Henry County as a border?
A. That's correct.
Q. Let's move to your Macon districts next on Figure 16.

You've created Districts 145 and 149 as new majority Black districts; correct?
A. Correct.
Q. And would you agree that the illustrative plan connects Twiggs and Wilkinson Counties with Bibb County in District 149?
A. That's correct.
Q. On your Senate plan, though, you separated and put Bibbs, Twiggs and Wilkinson all in different districts, didn't you? A. I will have to double-check.
Q. I put Figure 5 on the map -- on the screen for you to compare if you'd like to.
A. Okay. Yes.

But I'm glad you brought this up. If you look at the Senate plan -- and I'm trying to think -- the enacted Senate plan, and I believe this is visible in Figure 13, if -- I don't know if you can put Figure 13 on the screen. Actually, the better map would be from the -- I think Figure 13 will work.

No, no. I take that back. Sorry. Not Figure 13. Figure -- I'm looking at the Senate, not the House. Figure 3.

No, I'm sorry. Figure 3 is the enacted Senate plan.
Q. I apologize, I don't have Figure 3 queued up to show you.
A. Okay.

THE WITNESS: It's on page 8 of my report --

THE COURT: 8?
THE WITNESS: -- Your Honor, if you'd like to look at
it.
Basically what Figure 3 shows is that in the enacted plan, Senate District 26 combines a portion of Bibb County, all of Twiggs County and all of Wilkinson County in a single district, similar to the arrangement you were just talking about in my illustrative House District 149.

BY MR. TYSON:
Q. Just so I understand, the enacted plan connects Bibb, Twiggs and Wilkinson in a Senate District.
A. Yes.
Q. The illustrative Senate plan puts Bibb in one district, Twiggs in a different district, and Wilkinson in a third district?
A. Yes.
Q. And your House plan places a portion of Bibb in the same district with Twiggs and Wilkinson; right?
A. Yes. And I think it's important to point out that in my illustrative Senate plan, part of the reason that the configuration is different is that $I$, in the illustrative Senate plan -- I'm sorry -- in the enacted Senate plan, Macon-Bibb County is split three ways, including one district that actually goes up into Metro Atlanta.

So one of the things that I endeavored to do in the
illustrative Senate plan was to not divide Macon-Bibb County at all. So it went from being divided three ways to having all of Macon-Bibb County in a single Senate district.

And because of the size of that county, you know, most of the population in that district I created, I believe it's Senate District 26, is in Macon-Bibb County, so I wouldn't -I don't -- I'll leave it at that.
Q. And to be clear, you split Baldwin County and placed Black population in Baldwin County in District 23 on the Senate plan; right?
A. That's right.
Q. And in the House plan --
A. There is Black population in Baldwin County that is, I believe, in District 17 as well. It's not like all the Black people in Baldwin County are in District 23.
Q. So it's your belief that there is -- is there an equal percentage of Black voting age population in District 23 and District 17 in Baldwin County?
A. That's not what I'm saying, no. I'm just saying -- the way you phrased the question, one might have thought that I was agreeing to saying that I put the Black people in Baldwin County into District 23.
Q. Do you know if the percentage of Black voting age population in Baldwin County in District 23 is higher or lower than the percentage of Black voting age population from

Baldwin County in District 17?
A. I suspect that it is, but I can't say with certainty.
Q. You suspect more -- a higher percentage of Black voting age population in Baldwin County is included in District 23? I'm sorry.

You suspect that a higher percentage of Black voting age population from Baldwin County is included in Senate District 23; is that right?
A. As opposed to in District 17?
Q. Yes.
A. I suspect that is true. I cannot say with absolute certainty.
Q. And on the House plan, you have split Baldwin County and placed at least some Black population from Milledgeville into a House district that connects back to Macon; is that right?
A. Yes. And here -- again, since -- I've still got Figure 3 up on my page here, this is showing the enacted --

THE WITNESS: So I don't know, Your Honor, do you still have --

THE COURT: I've got it right here.
THE WITNESS: Okay.
In the Senate -- enacted Senate plan there's a district that includes a portion of Bibb County and Milledgeville. So maybe I subconsciously had observed these -- I don't remember thinking about this, but maybe
subconsciously observing these Senate arrangements might have influenced how -- my thought process in creating House District 149.

BY MR. TYSON:
Q. But sitting here today, you can't say what your thought process was for how you configured House District 149; right? A. Not with respect to what I was just mentioning.
Q. And looking at the districts in Macon on Table 5 of your report, you'd agree that all of the districts that touch Macon are very close to 50 percent; correct?
A. So this I can -- they are all within 1.53 percent of 50 percent.
Q. And you'd agree that if districts are close to 50 percent and you're working with a 50 percent threshold, you have to look much more closely at each population move you make; right?
A. I would not agree with that.
Q. Okay. And so it's your testimony that when a district is close to 50 percent -- well, let me ask it this way.

When a district is very close to 50 percent, every precinct you move in or out of that district could affect the racial makeup of that district; right?
A. Every precinct that I move could affect the racial makeup of the district? It could, yes.
Q. You'd agree that under the illustrative plan, the
majority -- or the heavily Black population in Downtown Macon is split into four different districts; right?
A. I know that the central part of the county is indeed.

There are parts of each of those four districts in the central part of the county.
Q. So is that a yes?
A. What I said is different than the question you asked.
Q. You'd agree that they --
A. I don't have a mental image of where in downtown -- I believe you referenced Downtown Macon, where the highest percentage of the Black population in Downtown Macon is to be able to say with certainty that some of it is in each of the four districts.
Q. So you don't know sitting here today?
A. Correct.
Q. And you included in Districts 142 and 143 more heavily white population in North Bibb County; is that correct? A. I think that's correct.

THE COURT: I didn't hear you. You think that's what?

THE WITNESS: I think that's correct.
BY MR. TYSON:
Q. And you configured Districts 142, 143, 145 and 149 the way you did, at least in part, because you were adding two majority Black districts in the Macon area; right?
A. That was one piece of a multitude of considerations and multitude of factors that would have been part of the process, yes.
Q. And District 145 connects portions of Bibb County with the Air Force base in Houston County; is that right?
A. Yes. And it preserves, it keeps the Air Force base intact.
Q. And you looked for some public comments that advocated for that kind of connection between Macon and Warner Robins and didn't find any; is that right?
A. I would say I looked at the written public comments. I watched the public hearings where they invited public comment. There was one in the Macon-Bibb area. And I do not recall reading or hearing specific testimony about combining. I think in my deposition I might have said that I had some vague recollection of comments related to that, but I can't say with certainty now.
Q. And to be clear, you didn't look at any or listen to any public comments until after you drew the preliminary injunction plans; right?
A. That's right.
Q. Is it correct that the only connection you can identify between Macon and Warner Robins is that they're both heavily developed?
A. I mean, they're adjacent, so there are going to be all
kinds of connections. And I'm sure there are people that, you know, live in one and work in the other. But as far as -- I don't know, something more common sense than that, I don't know what to tell you.
Q. So you can't identify any specific reason that explains connecting Macon and Warner Robins in this way; right?
A. I mean, I think it allows for the creation of a reasonably compact district. And those areas are adjacent. And as I said -- or as you mentioned, actually, they're both quite developed.

I know when you have adjacent communities like Macon and Warner Robins, they typically share characteristics, as I mentioned.
Q. District 145 is one of the new majority Black districts; right?
A. Yes.
Q. So let's get to District 149, the last of this group. And you'd agree it runs from Downtown Macon to Milledgeville; is that right, or do you not know where Downtown Macon is specifically enough to say?
A. It -- no. I believe that 149 does include -- and, by the way, I didn't mention this, but in configuring this, some of the considerations between 149 and 145 were, for example, trying to keep Mercer University's campus whole. I think I did that.

Again, there was a trade-off. There's one block, I think, where the precinct line -- one corner of a precinct basically cuts into the Mercer University campus. And I decided to leave the precinct whole, even though that meant the Mercer University campus was not entirely intact. And I know -- or my recollection is that that area was near the Downtown Macon area.

The -- also, just to mention another community of interest that was part of this decision, the Ocmulgee Mounds Native American historic site, was in this area and I tried to keep -- I did -- I was able to keep that intact as well.

My hesitation was not about the downtown in this case. My hesitation was you're saying that the district sort of extends from Eastern Bibb County to Milledgeville. That's like the northern part of it. But there are -- you know, a substantial part of it is Twiggs and Wilkinson Counties. Q. So to be clear, Mercer University is split; correct? A. That's correct.
Q. And the Indian Mounds you referenced are whole; correct? A. The -- that entire site, yes.

And I'll just clarify. Mercer University is just barely split. It's kind of like the situation we talked about with municipalities, sometimes you have a trade-off, do I try to keep this intact and divide a precinct, or keep that precinct intact and make it less compact. So I did decide to keep

Mercer University almost entirely intact.
Q. And you'd agree that illustrative District 149 connects more urban population in Macon with more rural population in Twiggs and Wilkinson Counties; right?
A. Yes. Like Senate -- enacted Senate District 26 we talked about earlier.
Q. And you modified the split at Milledgeville on this version from what was submitted with the preliminary injunction plan; correct?
A. That's correct.
Q. And that change -- one of the results of that change was the Black voting age population of District 149 is higher on this plan than on the preliminary injunction plan; right?
A. I believe that's right, yes.
Q. Mr. Esselstyn, when you're drawing a plan, every piece of geography that you either take into a district or remove from a district into another district affects the racial makeup of all the districts that you're working on; right?
A. No. We discussed this in the deposition. I'll start by saying no. If you'd like me to elaborate why I disagree, I'm happy to.
Q. Does it usually affect the racial makeup of all the districts you're working on?
A. In most cases, yes. "Working on" meaning the ones that are affected by that, yes, change.
Q. So you mentioned the connection to Milledgeville and Macon and you mentioned the Fall Line; is that correct? A. I did mention that. When I mentioned it today, in this context, I'm not sure if I mentioned it specifically in connection to the Fall Line cities of Macon and Milledgeville, but I did mention it earlier. And in the past I've mentioned it in connection with those two.
Q. Can you identify any other basis besides the Fall Line for the connection of Macon and Milledgeville in District 149?
A. So we talked about in addition to the Fall Line cities, they are pretty close. I think it's -- as I said, I think it's interesting and perhaps instructive that that Senate district, I believe it's Senate District 25, includes part of Macon-Bibb with Milledgeville. So that's something that the General Assembly opted to do in one of the districts that they designed.
Q. But you did not opt to do that in your Senate plan; right?
A. In the Senate plan, that's correct.
Q. And you didn't do any research on the Georgia Fall Line until after you drew District 149 for the preliminary injunction; right?
A. I was a geology major in college. I've lived in North Carolina for almost half my life. The relationship of the Piedmont and the central plain is quite similar in North

Carolina and South Carolina and Georgia. The concept of a Fall Line and the historical patterns that emerge from that were familiar to me prior to this case.

Did I ever do research on the Fall Line in Georgia prior to drawing this plan? I think the answer would be no. But I want to emphasize that I had knowledge. It's not like the concept was new to me.
Q. And your understanding of a Fall Line is it's the farthest point river-based trade could go inland; right?
A. Where did you get that?

THE COURT: Well --
THE WITNESS: Oh, I'm sorry, I'm not supposed to ask questions.

I would not characterize that as my understanding at all.

BY MR. TYSON:
Q. Okay. Are you aware that a Fall Line is related to rivers?
A. Is it related to rivers? That is one thing it's related to, sure.
Q. Are you aware that Macon and Milledgeville are situated on different rivers in different river basins?
A. Yes. The whole point of the Fall Line is that it's a line that is kind of perpendicular to rivers. The unifying features are going to cross rivers. And South Carolina is
like a Fall Line road that connected to how people transport stuff that was, you know, getting to the Fall Line cities from one Fall Line city to another.
Q. And to be clear, your understanding of the Fall Line was a basis for connecting Macon and Milledgeville; right?
A. Please repeat that question.
Q. Your understanding of the Fall Line in Georgia was a basis for connecting Milledgeville and Macon in District 149; right?
A. Did you say was "a" basis or was "the" basis?
Q. Was a basis.
A. Okay. Sure.

MR. TYSON: Your Honor, if I could consult with my co-counsel briefly?

THE COURT: Yes.
MR. TYSON: Thank you, Mr. Esselstyn. I know it's been a long afternoon. I appreciate your time.

And that's all the questions I have, Your Honor.
THE COURT: Thank you, Mr. Tyson.
Mr. Jones, do you plan on doing redirect on this witness?

MR. JONES: I do, but I also plan to be brief.
THE COURT: Come on, let's see how brief you are.
REDIRECT EXAMINATION
BY MR. JONES:
Q. Mr. Esselstyn, in drawing your illustrative plans, did you attempt to maximize the number of majority Black districts that could be drawn?
A. I did not.
Q. Could another map drawer who sought to create additional majority Black state legislative districts make different individual line drawing decisions than you did while still balancing traditional redistricting principles?

MR. TYSON: Your Honor, I'11 just object that I think this calls for speculation on Mr. Esselstyn's part.

THE COURT: He can't say what someone else is going to do. He can -- so I'11 sustain the objection. BY MR. JONES:
Q. Mr. Esselstyn, if you attempted to create different additional majority Black districts, could you have done so? A. Yes.
Q. Why is that?
A. There are infinitesimal -- well, not -- I shouldn't -strike that word, please. That's the wrong word.

There are a colossal number of possible ways to draw redistricting plans. Mathematicians compare it to the number of particles in the universe or something. So even with a relatively simple plan, there are so many possible ways to configure it and still achieve plans that may meet certain goals.
Q. And, Mr. Esselstyn, I believe you mentioned earlier that you made changes to House District 128 between the preliminary injunction phase and your December report?
A. Yes.
Q. How would you characterize those changes?
A. I would say that they were -- it was a very small change, because I believe there were five people in District 128 that I had moved out and I moved them back in. And that was the only thing that needed to be changed.

But in doing so, that made the -- reduced by one the number of districts that I had to -- or that I ended up changing in the illustrative House plan.
Q. If you attempted to do so, could you also make -- could you make improvements to additional districts in your illustrative plan that are not the new additional majority Black districts?

THE COURT: We have an objection.
MR. TYSON: And, Your Honor, I'11 just object to beyond the scope of his report. He hasn't provided an example map that does any of those things. So him talking about what he might be able to do is not --

THE COURT: I think he can state what he's done.
Rephrase your question.
MR. JONES: Sure.
BY MR. JONES:
Q. Is it possible to make improvements to districts other than the additional majority Black districts that you're proposing as part of your illustrative plan?

MR. TYSON: Your Honor, I have the same objection. I think it's speculative and not part of his report. We're asking about a theoretical plan that he hasn't presented.

MR. JONES: If I may respond.
THE COURT: I think he's already answered that question. The first question you asked him is it possible to draw different plans. And he said yeah. So I'm going to also assume it's possible to make better plans.

MR. JONES: That works for me, Your Honor.
BY MR. JONES:
Q. Mr. Esselstyn, do you recall that Mr. Tyson asked you about Maptitude's ability to shade racial demographic information while you're drawing maps?
A. I do.
Q. Do you always have that shading function on while you draw maps in Maptitude?
A. No.
Q. Did you always have that shading function on while you were drawing the illustrative plans that you submitted in this case?
A. No.
Q. When you had the shading function on, did the information
provided by the shading function predominate in the drawing of any of your illustrative districts?
A. No.
Q. Mr. Tyson asked you a couple of times, more than a couple perhaps, as to why you combined two different cities or two different counties in the House or Senate districts.

Which, if any, traditional redistricting principle forbids combining political subdivisions into a single district?
A. There is none.
Q. Mr. Tyson also asked you about personal conversations that you had -- that you may have had about Georgia geography.

Where have you resided for most of your adult life?
A. North Carolina, in Western North Carolina. Specifically about 50 miles from the Georgia border.
Q. Have you had -- back up.

As a resident of Asheville or Western North Carolina, did you have conversations with different folks about Georgia from time to time?
A. Oh, sure. And it's not like I only lived there. We -- I also lived in Northern Florida for a portion of my life earlier in adulthood and -- so close to Georgia. And we have friends from Georgia, friends in Asheville who are from Georgia, as well as friends in Georgia that we came to visit. And I would come here for dance performances with my daughter
or weddings and conferences and all kinds of things, so...
And as a geography-minded person, I would make observations about geography and have conversations with folks about geography as well.
Q. Did any of those conversations inform your knowledge of Georgia geography as a general matter?
A. I think so, yeah. I mean, I just absorbed stuff as a student of geography over the decades, yes.
Q. And, Mr. Esselstyn, I know there was some discussion of packing and cracking today. Are you offering any opinions in this case about the intent of the Georgia Legislature in drawing the illustrative maps at issue -- excuse me -- drawing the enacted maps at issue?

THE COURT: Hold on.
MR. TYSON: Actually, I'll withdraw that, Your Honor. Sorry.

THE COURT: Okay. You can answer that question.
THE WITNESS: I am not.
MR. JONES: Thank you, Mr. Esselstyn.
THE COURT: Recross?
MR. TYSON: Very briefly.
THE COURT: So far. Mr. Jones said he was brief. He was brief. Let's see about the second one.

RECROSS-EXAMINATION
BY MR. TYSON:
Q. Mr. Esselstyn, Mr. Jones asked you about conversations you had with Georgians.
A. Yes.
Q. Do you recall that?
A. Yes.
Q. It's correct that you can't identify any specific conversation that informed any feature of the map that you presented to the Court in the House or Senate; right?
A. Unfortunately, yes. I wish that weren't the case, but I -- because I put something in writing about it, but that's correct.

MR. TYSON: Nothing further, Your Honor.
THE COURT: Thank you, Mr. Tyson.
Do any of you-all plan on calling this witness back again?

MR. JONES: We have not yet made a determination that we will.

THE COURT: Then I will not excuse you then, Doctor, until they tell me you can be excused. So stay in contact with the lawyers. They'11 tell you where you need to be and when you need to be there. Thank you, sir.

THE WITNESS: Will do. Thank you.
(Witness excused from the stand)
THE COURT: All right. Is there anything else from the Grant, Pendergrass plaintiffs before we adjourn for today?

MS. KHANNA: I don't believe we'11 be calling any more witnesses this afternoon, Your Honor.

THE COURT: I can guarantee you that.
MS. KHANNA: We have them if you want them, but I'm guessing you're al1 ready to take a break.

THE COURT: Anything else from the Alpha plaintiffs?
MR. SAVITZKY: I believe Grant's next step, so no more witnesses for us today. Nothing else.

THE COURT: And then State?
MR. TYSON: Nothing further from the State, Your Honor.

THE COURT: Thank you. We'11 start back tomorrow morning at 9:00. Thank you.
(Proceedings adjourned at 5:38 p.m.)
C ERTIFICATE
UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF GEORGIA
I do hereby certify that the foregoing pages are a true and correct transcript of the proceedings taken down by me in the case aforesaid.
This the 7th Day of September, 2023.

PENNY PRITTY COUDRIET, RMR, CRR OFFICIAL COURT REPORTER


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## IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF GEORGIA



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