IN THE UNITED STATES DISTRICT COURT FOR THE
NORTHERN DISTRICT OF GEORGIA
ATLANTA DIVISION

GEORGIA STATE CONFERENCE OF THE NAACP; GEORGIA COALITION FOR THE PEOPLE'S AGENDA, INC.; GALEO LATINO COMMUNITY DEVELOPMENT FUND, INC.,

Plaintiffs,

vs.

STATE OF GEORGIA; BRIAN KEMP, in his official capacity as the Governor of the State of Georgia; BRAD RAFFENSPERGER, in his official capacity as the Secretary of State of Georgia,

Defendants.

CIVIL ACTION NO. 1:21-CV-5338-ELB-SCJ-SDG

VIDEOTAPED DEPOSITION OF ROBERT (ROB) STRANGIA
APPEARING REMOTE FROM
ATLANTA, GEORGIA
FEBRUARY 24, 2023
11:01 A.M. EASTERN

Reported Remotely By:
Judith L. Leitz Moran,
RPR, RSA, CCR-B-2312
APPEARING REMOTELY

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WITNESS APPEARED REMOTELY FROM ATLANTA, GEORGIA
FEBRUARY 24, 2023 - 11:01 A.M. EASTERN

VIDEO TECHNICIAN: We are on the record February 24th, 2023, at approximately 11:01 a.m. Eastern Time.

This will be the videotaped deposition of Rob Strangia.

Appearances today will be noted on the transcript.

Would the court reporter please swear in the witness.

THE COURT REPORTER: Would the witness please raise his right hand.

ROBERT (ROB) STRANGIA,
being first duly sworn, was examined as follows:

MR. STRANGIA: Yes.

THE COURT REPORTER: Thank you.

Mr. Davis.

MR. DAVIS: Okay, we're good to get started?

THE COURT REPORTER: Uh-huh.

EXAMINATION

BY MR. DAVIS:

Q Thanks for being here, Mr. Strangia. My

name is Alex Davis. I'm with the Lawyers' Committee for Civil Rights. We represent the Georgia NAACP Plaintiff group in this case.

Before we get started, I just want to go through a few ground rules for the deposition.

The first is, and this can be kind of hard over Zoom sometimes, but, you know, I'm going to do my best to let you finish your answer to any of my questions.

And then, in return, I just ask that you let me finish my question before you answer it for the court reporter's benefit as well as for our own benefit.

I'm going to try to speak slowly and clearly. If I ever say -- speak too fast or you can't understand me, just let me know and I'll -- I can always repeat the question.

If you ever want a break, just let us know and we'll -- we'll do our best to accommodate. I would just ask that, you know, you finish whatever question we're talking on and then we can -- we can go on a break.

And then, finally, if you -- your attorney might object to some questions, but unless he instructs you not to answer, you can still go

ahead and finish the question -- your answer to the question.

And so -- so with that, we can -- if you have any questions, please let me know, otherwise, we can -- we can jump right in.

Does that sound okay with you?

A Yes, I'm ready to go.

Q Great. So have you ever been deposed before?

A Yes.

Q How many times?

A Once.

Q And what was that about?

A It was about a redistricting case. I guess it was a couple of years ago.

Q Okay. And did -- did you testify in that case in court?

A No, just deposed.

Q Have you ever personally been the plaintiff or a defendant in -- in a lawsuit?

A No.

Q Okay. Thank you.

Are you -- you're represented by counsel today?

A Yes.

Q And who is that?
A Patrick.
Q And is anyone else representing you or have you spoken with any other attorneys in preparation for this deposition?
A No.
Q How -- how -- how many times did you communicate with Patrick in preparation for this deposition?
A Once.
Q For approximately -- without revealing the contents of that communication, how many -- about how long was that -- was that meeting?
A Less than an hour.
Q Did you review any documents in preparation for this deposition?
A No.
Q Did you do anything to prepare for this deposition besides the approximately one-hour conversation with Patrick?
A No.
Q Did you speak with anyone about this -- you know, in preparation for this deposition besides Patrick?
A No.

Q Does anyone know that you're -- you're being deposed today?
A Yes.
Q And who is that?
A My wife.
Q Great. Anyone else?
A Yes, I have two friends that are visiting, so they know that this is going on as well.
Q Okay, great. Is there anyone else in the room with you today?
A Yes.
Q Can I -- who's in the room?
A My wife and our two visitors.
Q And they're in the actual living room with you?
A They're in the next room over, but they can probably hear what's going on.
Q Okay. All right. Do you have any notes with you?
A Nope, I have a blank piece of paper.
Q Okay. Great. I think -- I think we can jump into your background a little bit.
Could -- could you describe briefly your -- your educational background?

A Sure. I'm a geography major. I graduated with a degree in geography from the University of North Carolina, Wilmington, and GISP certified, GIS professional.

Q Okay. Great. Just for the record, could you describe what GIS is and what it stands for?

A Yes, Geographical Information Systems. Relating databases to physical map features.

Q And that's a computer program?

A It's a -- it's a type of database. GIS is general. There's lots of different computer programs that use GIS.

Q Okay. And -- and it's -- it's, you know, colloquial known as a map -- mapping software; is that right?

A Not with -- not just mapping. The difference between GIS and a mapping software is GIS can actually use -- relate to databases and pull databases into physical map features.

That's the difference between GIS and just a mapping software.

Q Okay. So GIS kind of links up with other softwares and --

A And it links up with other databases.

Q Other databases. And when you say

"databases," what do you mean by that?
A Any kind of database, any data you have about any -- any physical feature you can draw a map and bring that data in and do analysis with it.
Q Okay. And you said you have a -- I think you have a certification in GIS, is that -- is that what you said?
A That's correct.
Q And -- and when did you get that?
A It's -- it's -- over a decade ago. As soon as it actually became available. It's -- it was relatively new at the time. I've been a GIS professional for 30 years.
Q And is that a -- is that a certification that you have to do continuing education with or get recertified or is it just --
A You need to do continuing education.
Q And have you been doing those continuing education programs?
A I have been, yes.
Q And did you ever get recertified after the first time?
A I've been recertified twice.
Q Okay. And do you know approximately when -- when you were recertified?

A I don't -- I don't recall offhand.
Q Was the most recent one, you know, a few years ago or do you have any --
A It's been a few years.
Q By a few years, maybe two?
A No, probably -- it's probably been more like -- probably been over five.
Q Okay. Great. And so I think you -- you graduated -- well, do you recall when you graduated from college?
A 1992.
Q 1992. And so you graduated in 1992 and did you -- where did you go work after you graduated from college?
A I worked for the State of North Carolina, Center for Geographical Information and Analysis as a GIS technician.
Q Okay. And is that part of the governor's office?
A It was -- it was -- yeah, under the governor's office of state planning.
Q Do you recall who the governor was at the time?
A I think it was Governor Hunt was the governor of North Carolina at the time.

Q And in your work there, did you do any work with political or demographic data?

A Political, yes. Or political -- I'm sorry. Political, no. Demographics, yes. But no political -- nothing political over there.

Q What kind of demographic data did you work with?

A Well, most -- most of the work over there was work -- we did a lot of work for the State Department of Transportation, and a lot of it was digitizing maps and just building databases for them.

Q Okay. And -- and how long were you at the Center for Geographical Information and Analysis?

A About two and a half years.

Q And where did you go after you left?

A I worked for Beaufort County, South Carolina, first as a GIS analyst and then as a -- the GIS administrator there.

Q And what was your responsibility as a GIS analyst for Beaufort County's planning board?

A I was -- I was responsible for putting GIS in all of the county departments and in -- and maintaining the GIS databases for the planning

department, sheriff's department, tax assessor's office. Any -- any county agency that used GIS, I was their support.

Q Okay. So -- so what kind of support would you provide, for example, if you can think of anything?

A I'd create maps for zoning meetings.

I would -- you know, hurricanes were a big deal over there, so we had -- we created evacuation routes.

We would create -- for the sheriff's department, did projects that -- for -- for drug-free school zones where I could use GIS and determine what areas were within those drug-free school zones. So if it went to court, they would know whether the fines doubled for those areas.

Q Did you do any work with political data?

A No.

Q Did you do any work with political data -- sorry, just for the record.

Did you do any work with the political data when you worked at the Beaufort County Planning Board?

A No.

Q Did you do any work with demographic data

at the Beaufort County Planning Board?
A Yes, we had TIGER data there.
Q What is TIGER data?
A It's census data.
Q Census data. So -- but what -- does TIGER stand for something?
A It -- there is an acronym for it. I don't even know what that is, but it's -- it's census data. It's -- it's a digital form of a census data.
Q Is it a specific -- particular kind of digitized form or is it just census data in the -- like the -- the common census data in digital form?
A It's common senses data in digital form.
Q Okay. And so how long approximately were you at the Beaufort County Planning Board?
A About two years.
Q Okay. And when you left Beaufort County, where -- what did you do next?
A I was hired at my current position. At the time it was by the University of Georgia.
Q It was at the University of Georgia.
So -- so when you say your current position, you mean the Legislative Congressional Reapportionment Office?

A It's the same position that I hold now, except at the time our office was run by the University of Georgia.

Q And when -- do you know when it was -- when it stopped being run by the University of Georgia and became part of the general assembly?

A Around 2011.

Q Okay. So -- and you started there in 1996?

A That's correct.

Q And you've worked there ever since?

A Yes.

(Deposition Exhibit 1 marked.)

BY MR. DAVIS:

Q Okay. I'd like to introduce an exhibit. I'm putting this into Marked Exhibits in Exhibit Share and this will be Exhibit 1.

I'm going to screen share this. Give me one second.

Can you see the exhibit on the screen?

A Yes, I can.

Q Okay. I'm going to slowly scroll through this. If you want me to pause at any point, let me know just so you can get a sense of what -- what the exhibit is.

This is your LinkedIn profile, right?
A Yes.
Q And you created this?
A Yes.
Q And -- and is it up-to-date?
A I haven't looked at it in a while.
Q Okay. Approximately when was the last time you updated your LinkedIn if you recall?
A It may have been as much as 10 years ago, 5 or 10 years ago.
Q Okay. Well, let's -- maybe we can take a look at the -- the GIS Manager description.
A Uh-huh.
Q Here it says you -- you worked from February 1996 to the present as the GIS Manager for the Georgia General Assembly; isn't that -- that's right?
A That is correct.
Q And here kind of under the first bullet it says that you "Provide the primary technical support for all aspects of the legislative & Congressional Redistricting GIS System." Do you see that?
A Yes.
Q And it says, "Including database design &

management, application development, hardware, software, & Windows Sever System Administration"?

A Yes. That's -- yes.

Q So when you say you provide the primary technical support for all aspects of the Legislative & Congressional Redistricting GIS system, could you -- could you describe what that means?

A Yes. So software, I -- well, I build the databases and then I've installed the software, I've recommended what software to use, I've trained the staff on the software.

Everything from software to, like, my printer won't print, can you help me, for our office.

Q Okay. And you said you build databases; is that right?

A Yes.

Q What databases do you build?

A Well, we bring in the cen- -- you know, the census data. We import the census data into data that can be used for -- for the legislature.

I've also built election and precinct databases for the state legislature.

Q Okay. Let's start with the first part

there. You said you import census data? What do you input --

A Yes, that's correct.

Q Sorry. What do you input census data to?

A In short, GIS program. So our Maptitude GIS program.

Q Okay. So Maptitude is the -- is a -- is a GIS program?

A Yes.

Q And is that licensed by a company or how does it work?

A Caliper Corporation.

Q Did you say Caliper Corporation?

A Yes.

Q So you -- so you license a software called Maptitude, and could you -- could you describe what Maptitude is?

A It's -- it's a GIS program.

Q And when you say "it's a GIS program," I mean, could you -- could you describe a little more? What exactly -- how exactly does Maptitude work?

A I'm not really sure what you're asking me. It's -- it's a program that -- that you can use GIS data with. It's very raw, you know, and

you have to go and know how to use it.
Q So, okay, let me try this.
When you -- when you first get Maptitude and you open it up, you know, what's on the screen?
A There's a blank screen.
Q Blank screen?
A I mean, literally blank. There's tabs and there's -- there's nothing else there.
Q And then you --
A If you get it out of the box --
Q I'm sorry?
A I said, if you get it out of the box, you know, you'll -- you'll basically have a blank screen other than all the tabs and -- that -- you know, all the tabs. But you basically have a blank screen until you put data in there.
Q And so -- and so you put census data into that software?
A Yes.
Q And do you put maps into that software?
A No, you -- you take maps -- you create maps from the software, you don't put maps in.
Q How do you create maps from Maptitude?
A You -- you -- if you have a GIS database that has geographical features, you can print it to

a map.
Q Okay. So GIS has, you know, certain maps. Say -- say as an example the congressional map for --
A No, GIS does not have maps. GIS can create a map, but GIS does not have maps.
Q Okay. When you say GIS can create a map, could you -- could you explain that?
A Yes. If you have -- if you have the -- if you have the data in there and you have the physical features in there, you can print a map from it. You can create a map, but it will only print what you put in there.
Q So you say when you have the physical features, what do you mean by "the physical features"?
A Well, you have the actual GIS data.
Q Okay.
A GIS census data.
Q And is that the TIGER data or is that something else?
A That's the TIGER data.
Q Okay. So the TIGER data has geographical data that can be turned into a map?
A Yes, it has the coordinates of the

boundaries, the lines. And once you bring that into the GIS software, you can -- you know, you can create maps from it.

Q Okay. And for example, if you were trying to create a congressional map and -- and kind of put that into Maptitude, how would that work?

A You would need -- you would need the census data, you would need the census blocks, VTD, census VTDs, and census county layer.

And you could piece those together. Those are the building blocks of legislative districts. And you can piece those together into -- into a district.

And then you could run the analysis on it to make sure that it meets the one person/one vote. And you can look at the demographics of it once you build the district. Once you build the physical district.

Q For the record, I want to go through a few of those terms there. You said VTDs?

A Yes.

Q What does that stand for?

A That is a -- that is a census feature. So census TIGER data. The lowest level data is

census blocks.
Q Uh-huh.
A The next level date is vote -- is the VTDs, which is voting district, but those are as they existed at the time of the census.
And then the counties. Counties is the next level of geography.
Q Is there -- is precinct -- is there precinct level data as well?
A No, the closest would be VTDs, but that's not accurate because in Georgia and other states the precincts can change almost daily.
Q Okay. So -- so you have -- so you have these kind of building blocks for a map, the VTDs, the blocks and -- and the boundaries for districts. And -- and so -- and Maptitude, you know, after you input all this data, you have a -- you know, the congressional maps say, you know, at the time that you're -- you're inputting it, right?
So it kind of builds the congressional map with all the boundaries; is that right?
A No, someone has to do that.
Q And do you do that?
A No, I do not.
Q Do you know who does?

A The legislature.
Q Well, the legislature -- I understand the legislature draw -- but who draws the -- you know, comes up with the districts, but who puts that into Maptitude?
A The legis -- the state legislatures do, but I do not work with them.
Q So it's legislators who actually build the districts into Maptitude?
A Yes.
Q Okay. So you -- so you work for the LC -- the Legislative Congressional Reapportionment Office, right?
A That's correct.
Q If I say the LCRO, will you know what I mean?
A Yes.
Q Okay. So the LCRO gets the districts in Maptitude from the legislature, is that what you're saying?
A To my understanding, yes.
Q Okay.
A It's not what I do, but yes, from my understanding.
Q Okay. And you said you -- you build

databases as part of your responsibilities for the LCRO. What do you mean by building databases?

A Well, I import the cen- -- I import the census data and I put it in a usable form. So when you get it from the Census Bureau, it's not in a usable form for anybody to use. So I put it in a usable form.

Q And how does the usable -- when you say you put it in usable form, how does that manifest itself in Maptitude?

A I put it in the form that -- a form that it can be used in Maptitude.

Q And how can it be used in Maptitude?

A Once it's in -- once it's in the GIS software, you can pick your geographical features that you want to build districts with.

Q And what -- what are some of those features?

A Blocks, VTDs, or counties.

Q But the legislature provides you with the blocks and VTDs, is that what you were saying earlier?

A No, the Census Bureau provides us with the blocks and VTDs.

Q So when you said the legislature provides

you with the districts, what did you mean?
A No, I -- I build -- I build the database and then it gets passed off to the legislature to go and determine what the districts are going to be.
Q And -- and it gets passed -- in terms of it gets sent to legislature in Maptitude?
A No, they use Maptitude.
Q So do individual legislators have access to Maptitude?
A They'd have come through our office, but they don't go through me.
Q Okay. So -- so the legislature -- so you build the database in Maptitude?
A Yes.
Q And then, based on what legislatures tell you?
A No.
Q Well, who provides you guidance on -- on how to do that?
A I mean, I've done this for a long time. I'm just -- I'm bringing in just raw data.
Q Okay. So you bring in the raw data and you put it into a usable format in Maptitude?
A Yes.

Q At that the point when you open up Maptitude, for example, and you want to pull up -- suppose you're talking about a congressional map, okay? You pull up the congressional map, you build in the data, and then what happens next?

A Okay. So there's no congressional map from what I put in. I just put in -- I just put in the raw data. It's -- there's no map. There's no maps in there. There's no district maps. There's nothing in there. I just put in the -- I just put in the raw data.

Q And do you know how that raw data can get put into map format?

A Sure, yes. I mean, you'd have to go and pick and choose and create -- you know, you'd have to use those physical features, blocks, VTDs and counties to create the districts that you want.

Q And could you --

A That's after -- that's after -- that's after it's in my hands that happens.

Q Okay. So -- so you just put in the data?

A That's correct.

Q And then the map drawing is done after the data is input?

A That is correct.

Q Okay. We're going to get -- we'll get back to how the actual maps are drawn, but I -- let's talk -- I want to talk a little bit about the data that you use. What data are you inputting into Maptitude?

A The -- the two -- the two databases that I put in are the census TIGER data, so it's the demographic data, all the available census demographic data. And I -- we also bring in from the Secretary of State's office, we bring election data in.

Q Okay. I think -- we're going to get back to -- to those databases. I just want to go through your resume a little bit more first and then -- and then turn back to that if that's okay with you.

A Uh-huh.

Q So you see where it says on the screen "Designated Georgia State liaison for the U.S. Census Bureau"?

A Yes, that was in 2010, yes.

Q Can you -- can you describe what your role was as that liaison?

A Alls that means is that you are a contact. The state has two con -- or -- that just

means you were the contact in the state for the cen- -- for the delivery of the census data.

Q So the -- when you say you were the contact, what does that mean?

A That means I was -- I was one of the people, one of the first people that the data was sent to.

Q Okay. And were you the liaison for the recent -- the most recent census?

A No.

Q Do you know who was?

A I believe Gina, Gina Wright was.

Q And do you know why it changed from you to Gina?

A There was -- she's the director of our office, so she's -- was the contact.

Q Okay. If we -- if we could turn back to the -- your LinkedIn page. You see here it says you "Trained legislative staff to perform GIS data analysis & produce maps and statistical reports"?

A Yes.

Q What kind of things do you train legislative staff in doing?

A I'm -- I'm actually using the GIS program on how to use it.

Q Okay. So you train them how to use GIS. You see here it says and how to produce maps?

A Yes.

Q And is that the process that you were talking about earlier, you know, building a map from VTDs and blocks?

A Yes. And then also physical maps. Also, actually, cartography, actually how to, you know, color code and cartography as well.

Q Okay. So cartography, GIS training. And then it says here "Statistical reports using Maptitude's Redistricting GIS Application."

What -- what types of statistical reports can be created with Maptitude's GIS application?

A I mean, there's -- there's -- you know, there's several dozen reports that -- that are in Maptitude that you can create reports of.

I can't name them all offhand, but there's -- there's a whole tab with like -- you know, you can pull up the software, there's a whole tab of reports.

Q Can you think of any report?

A Sure, there's a community of interest report.

Q And can you describe --
A Which would basically -- which would basically you pick a few fields and you can say, okay, I want to know what -- each county in the state, I want to know what -- what districts are in each county and what population.
So if a county is split, you can say, okay, 40 percent of this county is in District 1, 60 percent is in District 2. So it will give you, you know, a list of counties.
You can do the same thing for cities or really any geographical feature, but, you know, counties is a pretty common one because county want know what -- what legislative districts are in their counties.
Q Are there any other community of interest fields that you can think of besides counties and cities?
A Anything that you have physical features for.
Q Okay. Can you think of any?
A Counties, cities, you can do what congressional -- what legislative districts are within congressional districts.
Q Uh-huh. Is there anything, you know, in

terms of churches or -- or businesses or anything like that that you can kind of develop fields for?

A Probably not with the reports that come with Maptitude. You'd have to probably -- you'd have to -- you'd have to get a little more in-depth and do it manually. That wouldn't be just something you can just push a button and do.

Q Do you know if that was done?

A I -- no, I do not.

Q Have you ever manually created any community of interest fields besides the ones that were already in Maptitude?

A Yes, I've done schools, for instance. I've had -- we've had legislatures come and they want to know what schools are in their districts.

So I've created a report where I've gotten schools -- a school -- a database of schools from the Department of Education and I've put that into -- I geo coded it, which means you code the database and actually -- to where they physically are, where the schools are physically located.

And then I can go and use that community of interest report to go and show what schools are in what districts.

And that was -- that's usually -- that's

usually pretty common after -- you know, after redistricting, they want to know what schools are in their districts.

Q Do you recall when you -- when you did the -- when you created the school community of interest layer?

A That's -- that's usually done every couple of years. I don't remember -- recall the last time, but it's usually every couple of years that's done.

Q Okay. So it's -- it's something that you create -- that you create and then continue to update; is that -- is that right?

A If we get -- if -- yes, we have a request for it, yes, I'll get new data. And like I said, it's usually about every couple of years I've done it. It's probably been at least a couple of years since it's been done last.

Q So did you do a community -- did you do a school community of interest field for this round of redistricting, say, starting in January 2021?

A Not that I can recall.

Q What about --

A Usually that's done after the redistricting.

Q It's usually done after redistricting.
So -- so you don't recall if you created any community of interest fields for this round of redistricting besides schools?
A No. And I don't even know if that was done before this last round of redistricting.
Q Okay. So we talked about schools. Are there any other fields that you've built for community of interests -- for the community of interest layer?
A Not that I can recall.
Q So you -- so you just -- so -- so just to -- just to be clear, you remembered -- you can do counties, you can -- you can create a layer for cities?
A Uh-huh.
Q You can -- you can create a layer for what, you know, legislative districts are in congressional districts or vice versa, and you've created one for schools but you don't recall any others?
A No, I'd have to go through my email to see if there are any others, but not that I can recall.
Q Okay. What other databases are there

besides community of interest, for example? Can you recall any others that you had to build?

A Well, databases in what?

Q Sorry. So -- so we were talking about what fields and what databases you created that were not originally in Maptitude.

A Oh, correct, yes.

Q Are there any others besides communities of interests that can you recall?

A The only other one I can recall is economic opportunity zones. If I remember -- I recall I've had a request from -- from legislatures in the -- legislators in the past to do economic -- they want to know what economic opportunity zones are in their districts. I guess that helps them with funding.

Q Do you -- do you recall who asked you for that?

A I don't.

Q Do you recall --

A It's been requested a few times, but I -- I don't recall. I'd have to go through my emails.

Q Do you recall when that occurred?

A It's occurred several times. I think it's -- it's probably been a year or so, but it's

-- it's a fairly common request.

Q So was there an economic opportunity zone request, you know, in the last year that you can recall?

A Not specifically, but it's possible it was in the last year, but I don't -- I don't know if it's been more or less than a year.

Q Okay. Are there any other fields that you edit or databases that you create in Maptitude besides, you know, one for economic opportunity zones and -- and -- and, you know, custom community of interest fields?

A We keep up-to-date with precincts from -- from all counties. We update that every two years where we get -- where we go to all the counties to get their precinct boundaries.

Q Okay. Do you know how the counties create those precinct boundaries?

A I do not know how they create. Each -- each county does it on their own.

Q And they send you a file and you update that in the system or how does that work?

A Well, it's great when they do send us a file but they don't always. You know, being in the past they've sent us a paper maps. And some

counties still do that. Some counties just send us a paper map that we have to go and put into the GIS system.

Some of the larger metro counties -- actually, a good chunk of the counties now will actually send us a GIS layer, but we still have to go merge that into our database. And then we'll compare that with the Secretary of State's precinct list to see if we're missing any county -- any precincts.

Q Okay. And -- and is that in connection with redistricting or is that just something that happens every two years?

A It's just -- it's just something that I do every two years is keep up-to-date, try to match the precincts with the state-wide elections that occur every two years.

Q So it seems like Maptitude is a program that, you know, you've had for a while.

Do you recall when you first started using Maptitude in the LCRO?

A Prior to the 2001 redistricting.

Q Okay. And then -- so you have kind of built in -- you know, you have kind of the -- the original data layers or whatever features that

Maptitude has and then you build some.

So is it fair to say that you kind of -- you use what's there and you update it every -- you know, every year, every few years --

A Well --

Q For use?

A -- the census data only gets updated every 10 years.

Q Right.

A A precinct we update every two years.

Q Okay. And so you mentioned that -- that you use -- you started using Maptitude prior to the -- the turn of the -- the 2000 redistricting cycle.

Is that the first -- you started working at the Georgia General Assembly in 1996, right?

A That's correct.

Q So the first redistricting cycle -- do you recall what the first redistricting cycle you worked on was?

A Yeah, 2001.

Q 2001. And what was your role in the redistricting cycle in 2001?

A The same as it is today.

Q So what is that?

A You got my resume. Primary technical

support for all aspects of the Legislative & Congressional Redistricting System.

Q So you basically -- so you could -- so in -- starting in 2001, you created databases and assisted with using GIS for -- for redistricting?

A Actually, I started in 1996.

Q Right, but the first redistricting that you worked on was 2001?

A That is correct.

Q Did you communicate with legislators in 2001?

A Yes, I'm sure I did, yes.

Q And would they -- and would they -- would they ask for bespoke requests?

A Ask for what requests, excuse me?

Q Bespoke requests or custom requests for -- for Maptitude?

A Yes.

Q Can you recall any of them?

A That was a long time ago.

Q Okay. And were those requests coming from members of both parties?

A Yes. We've always worked for both parties.

Q Okay. And so, what was the next

redistricting cycle after the 2001 cycle that you worked on?

A 2011.

Q 2011.

A Well, hold on, there was also -- we had -- we had court redistricting -- court drawn -- or the court redistricting in 2003 or -- I'm not sure, but, like, not too long after the 2001 cycle there was a federal court redistricting where the special master just came in our office and we did redistricting.

Q And what -- and your -- what was your role for that redistricting process?

A The same as -- the same as it is today, but, you know, I provided that support also for the federal -- federal court.

Q Okay. So after the -- after the court redistricting, what was the next one? I think you said it was 2011; is that right?

A Yes, I said the next state-wide redistricting.

Q And you're working on local -- you work on local redistricting as well; is that right?

A I don't work on it, I -- but the same databases that I built for the state redistricting

are also used for -- for the local redistricting that comes through the legislature.

Q When you say the same -- the same, you know, databases are used, what do you mean? Who's using them to start?

A The state legislature. The state legislature and also county -- you know, county officials that come -- that, you know, either come through our office to draw their districts or -- or any of the -- any of theirs that are going through the legislature, they're using -- they're using the same data that I'm building.

Q Okay. So that brings us to 2011. You said it was a state wide. Do you -- do you recall what was being redistricted in 2011?

A Yeah, state, house, senate and congressional.

Q And again, what was your role during the state, house, senate and congressional redistricting?

A Provide the primary technical support for all aspects of Legislative & Congressional Redistricting System.

Q And did you build any databases for the 2011 redistricting?

A Yes, the same precinct and census databases that I did for the 2021 redistricting.

Q What about political data, did you -- did you do any work with political data with regards to the 2011 redistricting?

A Yes. And as well as the 2001 redistricting.

Q What did you do?

A Built, updated the precinct -- updated the precinct databases every two years.

Q When you say -- so I asked you about political data. When you say --

A Yes.

Q -- you updated the precinct data, what do you mean?

A So when we -- so once the geography of the precincts is built, we will bring -- at the -- after the state-wide elections every two years, I'll bring in the election and registration data for each precinct. So election results and registration data for each precinct.

Q And that's at the precinct level?

A That is correct.

Q And that data comes from the Secretary of State's office; is that right?

A Yes, yes.
Q Okay. We're going to get back to that, I assure you, but I want to ask another question quickly.
I guess I should say, so after 2011, what was the next redistricting cycle you worked on, I'm sorry?
A State-wide 2021.
Q What about -- and then so you were working on local redistricting in between or --
A I don't work on any of the redistricting, I'm just building the database. That's just -- you know, it's -- you know, the local goes on, you know, fairly continuously.
Q Okay.
A But I don't -- I don't -- I'm not working on plans for the state-wide ones or the local ones, I'm just building the databases.
Q Right. So any work that's related to or in connection with redistricting is -- is what I meant.
So -- so 2011, and then the next cycle you worked on was -- was this one in 2021; is that right?
A For state-wide, yes.

Q State-wide, okay.

We're going to get back to that in a little bit, but I do want to go down to the final bullet here. You see how it says: "Provide Legislative Leadership with GIS analysis and presentations of election and demographic trends"?

A Yes.

Q You know, what -- what kind of GIS analysis do you provide legislative leadership?

A Mostly just reports. You know, like -- like the example I gave with schools or if they -- or demographics, they want to know demographics in their district.

Schools, opportunity zones, so just, you know, basically any -- any types of special requests. They want to know what's -- after their districts are drawn, like they want to know what -- what's in their district.

Q So what -- what's an example of a demographic request you've received from legislative leadership?

A The voting age population, total population, the socioeconomic data, racial breakdowns of the district.

Q Did you do any reports during the 2021

redistricting cycle for legislative leadership?
A Yes.
Q What reports did you do?
A I don't recall them all. They're -- all -- if you go to our website, all the -- you know, most of the reports on the website are ones that were -- I produced or our redistricting system produced.
Q Do you recall any?
A I'm trying -- I'd have to look at the website. There's -- you know, what's called the county reports, for instance, that's one.
The communities of interest with counties and cities, so I can recall those.
Q Okay. So -- so there -- there are a series of reports you did that are on the website, the -- the LCRO's website; is that right?
A Yes. And then -- and you know, they -- most of them are done by me or they were done using our GIS system by somebody else in our office.
Q Are there any reports you did that were not published on the website?
A Yeah, I'm sure there were, yes, uh-huh.
Q Can you recall any?
A This -- I don't know that the schools

one's have ever been put on the website. That's been a more special request. I know the economic opportunity zones was never on the website.

Q Why -- why -- do you know why the community of interest report, for example, wasn't put on the website?

A It was -- well, the community of interest one may very well be on there. I think the counties that -- the county community interest and cities may be on there. I'm not -- I'm not sure if it's currently on there, but that may not be on there.

Q Is there a reason why some of your reports go on the website and some do not?

A Some -- some may be custom requests. You know, we can't put everything -- I say can't put everything. If you put everything on the website, people can't find anything. So we put the stuff that's most commonly requested on the website.

Q What school district -- do -- do any school district reports exist?

A School district reports, no.

Q Okay.

A Yeah, yeah. Well, rephrase -- by put -- rephrase what you mean by school districts.

Q Well, what -- you said earlier that there was a school -- I thought you said earlier that there was some kind of school district report you -- you did?

A Well, yeah, I said there were schools, location of schools.

Q Okay. Let me get back to the custom reports really quickly.

So -- so do you recall any custom reports you did for legislators besides the ones that were put on the website in 2020 -- for the 2021 redistricting cycle?

A No, I don't recall.

Q Did you ever receive any custom -- a request for a custom racial report, for example?

A A custom report, not that I can recall. I mean, I -- we do reports that show the racial makeup of the district. That's a standard report.

Q Do you recall any legislators asking you for the racial makeup of districts in the time leading up to the 2021 redistricting cycle?

A I don't recall any specific ones, no.

Q What do you recall?

A I don't really recall any offhand.

Q Have you done -- you say here election --

"presentations of election and demographic trends."
What kind of election trends do you provide reports on to legislative leadership?
A When you -- well, I -- I put it into the system. So I'm not actually giving them reports, but the data is there for them to use.
When I put in the precinct and election data every two years, if you look at 2022 versus 2020 versus 2018, you'd be able to see trends in districts.
Q Have you ever -- so have you ever put together a report outlining those trends?
A I put the data into the system to be used.
Q But have you ever put together a report outlining those trends?
A At some point in my 30 years I'm sure that I have, but I do not recall a specific one.
Q You don't recall any -- any reports outlining those trends that you've done?
A Any specific ones, no.
Q I guess, what -- what do you recall about --
A So -- well, maybe this will help you.
One, when a redistricting plan is drawn

in our redistricting system, the user is able to pull any of that data that -- demographic data, any election data that's in there, and create their own custom report. So I wouldn't see it, I'm just putting the data in for them to use.

Q All right. Maybe -- maybe it would be helpful if we -- if we kind of go on to the screen, for example.

So suppose you're -- you're on Maptitude and you want to create a custom demographic report or a custom political report, how would you do that?

A Well, the data -- so with the data being in there, you would just select those fields and you could print out an Excel database per -- of -- of per district or whatever geographic feature that you want, county level or -- or whatever you want. Or a district.

So that's the Ross form is -- is the -- you could just literally push a button and export an Excel database or there's also some like those custom reports in Maptitude that, you know, would, you know, print out if you asked it for those.

Q Okay. We've been talking about -- you mentioned there were other people in the

Legislative Congressional Reapportionment Office. Who else works at the LCRO?

A Gina Wright, our director. Brian Knight, director of local redistricting. Dan O'Conner. I think he's -- and I'm not sure what his exact title is. And then we have what's called -- Tanya -- Tanya, who is our administrator.

Q Okay. And so -- and all of those -- so Gina Wright is the director. So is she your supervisor?

A Yes, she is.

Q And is she the -- she's the ultimate supervisor in the office for all the staff?

A Yes, yes.

Q So you mentioned Gina Wright. So she has access to Maptitude, right?

A Yes.

Q And that would be on her personal laptop, or -- it's not her personal laptop, her whatever -- you know, her computer at -- at -- at her office or whatever?

A Yes.

Q Did you -- do you download Maptitude onto all of the staff's computers?

A Yes.

Q So -- so Gina Wright has access to Maptitude. Does Brian Knight have access to Maptitude?

A Yes. Everyone that's in our office has access to Maptitude.

Q So Dan O'Conner as well?

A Yes.

Q And I think you said Tanya?

A Yeah.

Q I don't know if you can get her last name.

A Yeah. Yeah, she does not. She's our administrator. She does not.

Q Okay. And did -- has Dan O'Conner ever asked you for a custom demographic report?

A No.

Q Has Dan O'Conner ever worked with you to put together a demographic report or a political data report?

A No. He's -- let me -- let me rephrase that. No, I've -- I've had him proof some of the Secretary of State's data that we've received. When we received Secretary of State's -- the raw data base from Secretary of State, often we find mistakes in it.

And I've -- I have let him preview the stuff that we get from the Secretary of State's office to make sure that there are no -- no mistakes in the data. He's really good at finding mistakes.

Q Okay. And we'll get back to the Secretary of State data. And by the way, is that called the reapportionment data or re -- the Reapp Report?

A It has been in the past, yes.

Q Okay. We'll -- we'll get back to that.

So has anyone at the Legislative Congressional Reapportionment Office ever worked with you to create a report in Maptitude?

A Yes.

Q Let -- I'll be a little more specific.

In the 2021 cycle, did you work with anyone in the LCRO's office to create databases or reports in Maptitude?

A Yes.

Q Who -- who did you work with?

A Gina. Gina Wright.

Q What -- what reports or databases did you work with Gina on?

A She's my supervisor, so every report that

I do goes through her.

Q Did she ever request that you do a specific report in the 2021 cycle?

A Yes. She's my supervisor, so every report that I did was requested -- you know, has -- has her -- you know, comes through her and her approval.

Q What -- can you think of a report that she requested?

A The schools report.

Q Any others?

A The -- I know county reports. I've done county -- county demographic reports for her. House and congressional district reports that show demographics of house and congressional districts.

Q Can -- can you describe a little bit more about that report, those reports?

A Yes, it would show what -- what state legislative districts are in what -- are in what congressional districts. What state senate districts in what congressional districts.

It would show what -- that's -- that's just one style of report.

Another would be, you know, just basically show the population in each county of

what's in each district. So if a county is split between districts, you can see what percentage of the county is in what district or another.

Q Okay. So all the members of LCRO staff have access to Maptitude. Do the individual legislators have access to Maptitude?

A They don't have it on -- they don't -- no, they'd have to come -- they'd have to come through our office and make an appointment with somebody in our office.

Q Okay. So they would go to your office to use Maptitude?

A Yes. I mean, I know -- I think -- you know, to use our Maptitude system, yes.

Q Do -- do you know whether any legislators have Maptitude on their computers or could use Maptitude anywhere but your office? Anyone?

A No. No legislators have access to the Maptitude -- our Maptitude system outside of our office.

Q Do you know if they had access to any Maptitude system?

A They may have their own, but I -- that wouldn't be done by our office or done by me.

Q Do you know anyone who has their own?

A No, I do not.
Q Have you heard of anyone having their own Maptitude software?
A Well, sure, it's a software. I mean, lots of people have Maptitude software.
Q I mean, have you heard of any legislators have their own Maptitude software?
A No, not that I know of. None specifically that I would know of. And if -- and if they did, it would not be our Maptitude redistricting because ours we -- you know, they would not have access to our databases.
Q Right. I was asking if you had ever heard of a -- of a legislator having access to Maptitude, even if it isn't your database?
A I mean, if they're -- if they're requesting data from us, it's possible they -- they had their own and they're putting it in their own system. But I mean, I wouldn't know. I don't ask -- when someone makes a request, I don't ask do you have Maptitude.
Q So -- so if -- so if a legislator might ask you for a specific report, you know, or a database and you would send it to them, then what they do after that you don't know.

But would they be able to use that report if they didn't have Maptitude?

A It would just depend on what specifically they asked for. They may have another GIS software that -- that they're using or they may just want the data.

Q Do you recall sending any data like that to any legislator in the runup to the 2021 redistricting?

A I get lots of custom requests for -- for data, state files, which is another GIS format.

It's -- more commonly, it's a request for a local file for local county commission, local school board districts. That's about the most common request.

All the state-wide ones are already on the website, so that's not really a very common request.

Q Okay. My question was, do you recall any legislators who asked for that kind of -- for a -- for such a report or --

A What -- what kind of report?

I mean, I have legislators that have asked for economic opportunity zone reports.

Some ask for some that we -- maybe like

the county report that maybe before it was posted and I -- you know, they might have asked for that.

Some may have asked for just a copy of our precinct layer, but usually that we put on the website as soon as it's finished.

Q Why -- why don't we start with the precinct layer.

Do you recall any legislators asking you for the precinct layer in the runup to the 2021 redistricting?

A I don't recall any legislators, but I do recall a lot of custom requests for it. And my answer is always it will be on the website when it's ready.

Q So if it wasn't a legislator, who else could be a customer?

A You know, it's -- it's public data. So if they request it, if they request the data, you know, they're -- they're welcome to have it. It's -- we put -- you know, I'll put -- but the answer is always it's on the -- it will be on the website when it's ready.

So, you know, it's -- the elect -- the election -- the election's in November, but we typically don't get the data from the Secretary of

State's office until January. And then -- and then it takes me some time to -- what you call QC the data and bring it into our systems. And typically that might not be until the end of January or February after an election before it's ready.

So there's -- a lot of times there's lots of people requesting that data. And you know, my answer was simply, it will be on the website when it's ready, and if I can, I'll give them an estimate of when it might be ready.

Q So the public can -- the public can ask you -- can request things from you; is that right?

A That -- that is correct. If it's not something that's on our website that's a custom request, there's -- you know, there's -- there's usually a charge for it. But anything that's on our website is free.

Q But do you recall any legislators or their staff asking you for any custom reports in the runup to the 2021 redistricting?

A Not a specific one, but I'm sure there were.

Q Okay. Do you know who Bryan Tyson is?

A Yes, I know -- I know -- I know Bryan.

Q Who is Bryan Tyson?
A I believe he represented the legislature in the past for...
Q Do you know if he represented the Legislative Congressional Reapportionment Office in -- in 2021?
A I don't know if it was 2021, but, I believe, yes, he -- he was -- he -- he's represented our office before.
Q Do you know if -- if he has access to Maptitude?
A I believe he does.
Q And that's separate from your computer, from your offices?
A Yes.
Q Why do you think he does?
A I have no idea.
Q Well, you said you believed that he does. So what's the basis for that belief?
A He's a really smart guy. He's worked at the legislature back in -- during the 2001 redistricting. And I know back then he had his own Maptitude, so.
Q How do you know he had Maptitude back in 2001?

A Because in 2001, he requested data from me. He was actually learning Maptitude. So I know he had -- his office was right down the hall from ours in 2001.

Q Did he ever request any data from you in 2021?

A Yes.

Q What data did he --

A Oh, 2021?

Q Or let me -- let me -- in the runup to the -- to the most recent redistricting, did he ever request any data from you?

A I'm sure he did. I -- I can't recall specifics, but I'm sure he did.

Q What did he request?

A I just said I can't recall specifics.

Q Did he ever request any political data from you?

A I don't recall. It's very possible, though, but I don't recall.

Q Did he ever tell you that he had access to Maptitude and -- recently in the -- in the runup to the 2021 redistricting?

A Not recently, but I know he did in the past.

Q Okay. And -- and you think he did this time as -- this cycle as well?

A Subjective -- deductive reasoning, yes, but I don't know for sure.

Q Okay. Did you ever see Bryan Tyson work on Maptitude in the LCRO office?

A No. I've seen him in the office but never working on data.

MR. DAVIS: Can we take a -- it's been about an hour. Is now an okay time for a quick break?

THE WITNESS: That would be great.

MR. DAVIS: So why don't we come back at 12:15. Does that work for everybody?

MR. JAUGSTETTER: 12:15, that works for me.

MR. DAVIS: Thank you.

VIDEO TECHNICIAN: The time is 11:58. We're off the record.

(Recess taken.)

VIDEO TECHNICIAN: The time is 12:15. We're back on the record.

BY MR. DAVIS:

Q I wanted to go back to custom reports for a little bit and -- and ask a few questions.

So earlier you testified that you created custom reports on communities of interest, that you created custom reports on economic opportunity zones, and that you created a custom report that shows schools.

Are there -- for the record, are there any other custom reports you can remember creating in the runup to the 2021 redistricting?

A I don't recall any more specifics.

Q Okay. And when you receive a request for a custom report, how do you -- where do you receive it? Is it an email, for example?

A Usually -- usually an email.

Q Do you ever receive emails --

A Or -- or -- I'm sorry. Yeah, email or it might come from my director.

Q So from Gina Wright?

A Yes.

Q And do you ever receive text messages with requests?

A No, not text requests, but she might ask -- she might call me or walk in my office if I'm on site and -- and ask.

Q Have you ever received a request for a custom report via text message?

A No.
Q What about phone?
A Office phone -- the office phone, yes.
Q Okay. And then -- and then you mentioned, you know, some of your reports go on the website and some of them are these custom reports that go to legislators or other clients.
Are there -- are there any records of reports that aren't put on the website that are sent to other clients?
A It would just be what's in my email.
Q Okay. So there's -- you know, there's no folder that has, you know -- did you keep your custom reports in a -- in a folder?
A I mean -- I mean, there's fold -- there's folders on our -- on our network that have, you know, reports from the past, you know, historic reports.
Q And are those reports generally date stamped or time stamped?
A They would -- yeah, they would be able to look at the network and see when they're created.
Q What about -- so when you print a Maptitude report, does that have a time stamp on it?

A Yes, it usually -- I -- I think it can. It can.
Q So --
A It can, but not always.
Q What do you mean by "it can"?
A I think it creates it. I think it will create a time stamp, but I think you can also select for it not to be there.
Q Did you select for time stamps not to be on Maptitude reports in the runup to the 2021 redistricting?
A It's possible, yes.
Q You said it's possible, yes. Is -- is that a, yes, you did?
A I don't recall specific -- specifically not having a time stamp on there, but I know that there are times where it's not relevant to have a time stamp on a report.
Q Did anyone at the LCRO ask you to remove time stamps from Maptitude reports in lead up to the 2021 redistricting cycle?
A It's possible, yes.
Q When you say "it's possible," did someone ask you to remove time stamps?
A Gina has asked me to remove time stamps

in the past.

Q Do you --

A I don't know when the last time was, but she has -- she has asked me to remove time stamps just because it wasn't necessarily relevant with the data of the report.

It confuses -- confuses people sometimes having a date stamp on a report.

Q Do you recall any specific report that she asked you to remove a time stamp on?

A Not specific, no.

Q And so, did she ever tell you why she wanted the time stamp removed?

A Just because it -- yes, just because it's -- yes.

Q And why is that?

A Just because it's confusing. If you're creating a report from data that may be a couple of years old to have the current date time stamp on it. So she thought that it would confuse people by having that on there.

Q Where are the reports --

A If it's a report from data that's -- if it's a report -- if it's a report from data that's, say, from 2018 and the request came in 2021, you

have a 2021 time stamp on there, that confuses people that that report is current data and not data from 2018.

Q Would you say it was common practice in lead up to the 2021 redistricting to -- to not include time stamps on reports?

A Yes.

Q Are there any shading tools in Maptitude?

A I'm not sure what you're asking.

Q For example, can you shade districts a certain color?

A Of course.

Q Can you create a -- a map that has shading for a political preference, for example?

A Yes.

Q What about -- can you create a report that has shading for different racial or demographic makeups of districts?

A Yes.

Q And that's available to -- and that's -- and that's something you just -- you would just click on and create?

A You'd have to know how to do that.

Q Who knows how to do that?

A Any -- someone -- anyone that's trained

in Maptitude that would -- to a certain level would know how to do it.

It's not always super intuitive, but if you have some basic training in Maptitude, you could do that.

Q So you would know how to do that, right?

A Yes.

Q What about Gina Wright, do you think she knows how to do that?

A Yes, I think she knows how to do that.

Q How do you know she knows how to do that?

A Because I taught her.

Q Okay. So you specifically taught Gina how to use shading in Maptitude?

A Gina's been in our office for 20-something years, so she was there as a newbie and I helped train her.

Q So just to -- just to be clear, my question was, you personally trained Gina Wright to use shading tools in Maptitude?

A Yes.

Q What about Brian Knight?

A Yes. I mean, I train everybody -- I've trained everybody that's in our office on how to use Maptitude.

Q Have you -- so you've trained -- so just to be clear, you've trained Brian Knight how to use shading in Maptitude?

A Yes. I don't know how good he is at it, but yes.

Q Well, what about Dan O'Conner, have you trained Dan O'Conner how to -- on how to use shading in Maptitude?

A No, I did not.

Q No. Did you -- did you train anyone else that you can recall on how to use shading in Maptitude?

A Anyone that's currently in our office, only Gina and Brian, I believe, I've ever showed them how to use the shading tools. If anyone else has used it, they've learned it on their own, not from me.

Q Have you -- have you ever seen Gina Wright or Brian Knight use shading on Maptitude?

A Well, yeah, she's shaded districts. Just color coded districts, so yes.

Q And any other shading that you've seen Gina Wright do?

A Not that I can recall.

Q So you can't recall if she ever did use

political shading?

A I mean, she very -- may very well have. I wouldn't have seen it. I just taught her how to do that.

Q What about racial shading?

A I mean, it's the same process as political shading. And the same process as color coding your district.

So I mean, I've taught her how to do all of that. I just -- what she -- what she does is after I've seen it.

Q Did you ever -- has there ever been a request from a client for a report that includes racial shading?

A Over my time here, yes. I don't recall when last time that was -- that request came through. And I don't even know if it has come through since the 2021 redistricting.

Q Can you recall any time?

A Not a specific time, no.

Q But you -- but you do -- but you do recall that that has been requested before?

A Yes, for sure.

Q What about political shading, has -- can you recall a time when there's been political -- a

request for political shading?
A I don't recall a specific time, but that's been requested before and I -- I -- that's actually probably been a while since I've had a request for that.
Q So if you wanted -- so if you were on Maptitude and you wanted to shade, for example, Black voters in a particular district and white voters different colors, you could do that?
A Yes.
Q And the same for Hispanic voters and any racial group that's in the census?
A Yes.
Q Do you have any knowledge or have you heard of racial shading being used in the lead-up to the 2021 redistricting cycle?
A No.
Q Have you heard the term "data layer" with regards to Maptitude?
A Yes.
Q Actually, one more question: Do you know if Bryan Tyson knew how to use racial shading in Maptitude?
A I don't know.
Q Okay. Going back to data layer. So you

heard of the term "data layer" before, right?
A Yes.
Q What is a data layer in Maptitude?
A It's a data layer.
Q Could you describe that a little bit for someone like me who has --
A A data layer? Census blocks is a data layer, VTDs is a data layer, counties is a data layer.
Q Okay.
A Cities is a data layer, State of Georgia is a data layer.
Q So basically data layer means a layer of data for a particular geographic unit, is -- would that be fair?
A Think of it like a sandwich, like a hamburger.
Q Okay, this I might be able to understand.
A The bun -- you have -- you have the bun as one layer, your burger's another layer, the lettuce is another layer, and then your top bun is another layer.
Q Okay. That's the kind of analogy that I -- I can really understand, so thank you for that.

So let's start with -- you're talking about census blocks. Could you describe what a census block is?

A Sure. It's the smallest unit of geographic data that the census provides demographic data for.

Q And -- and do you know -- like what level of geography is -- is a -- is a census block?

A It's the lowest level of geography.

Q Okay.

A It's the lowest -- smallest piece that you can have geography and have demographic census data from.

Q And are all the -- all census blocks the same size?

A No.

Q No. So how is a census block like created by the census, do you -- do you know that?

A You'd have to talk to the Census Bureau.

Q Fair enough. Fair enough.

And so -- and the next layer up from a block is a VTD; is that right?

A That is correct.

Q And could you describe what a VTD is?

A A VTD is -- they -- they were at

precincts that we provided to the Census Bureau when they were -- at the time they requested it.

So, for instance, for the 2021 redistricting -- or 2020 census, they would have requested it sometime in 20 -- probably 2019.

So they would -- it's basically an older -- it doesn't match our precincts exactly, it matches how they were when they requested it. And then each VTD has -- is made up of census blocks.

Q Okay. So just -- just so I understand, VDTs are actually not created by census, they reach out to states to create VTDs and sent to them?

A No. It is --

Q Okay. So --

A It is -- it is created by them and produced by them, but they do ask for information from the states to create them.

Q Okay. So they collect information from the states and turn that into VTDs for the census?

A Yes.

Q And so then the level above a VTD is a -- what's the next level up?

A County.

Q Okay. And then -- all right, that makes sense. And then precincts, so voting precincts,

those are not in -- are those in census data, those contained in census data?

A The voting precincts is -- yeah, voting precincts is not -- is not -- that's not census data. And it does not contain census data.

Q Okay. Great.

I'm going to introduce another exhibit. This will be Exhibit 2. Just a second.

(Deposition Exhibit 2 marked.)

BY MR. DAVIS:

Q All right. Let's get the Screen Share here.

All right. Can you see Screen Share?

A Yes. A little blurry, but yes.

Q Let me try to --

A Make it a little bigger.

Q Let's see here if I can.

Is that -- is that any better or how is -- how is that?

A Yes, I can make it out. Yes, that's good.

Q Great. So -- so what is this document?

A Let me read it.

Q Actually, I forgot to give you the time. I forgot you can't scroll, so I'll scroll quickly

through it.

A Yeah, yeah, so I'm reading the first part. I only see one question.

Can you keep it still for me.

Q Yeah, tell -- tell me when you want me to scroll, how about that?

A Yeah, yeah, yeah. So just -- can you go back to the top? I just want to read -- it looks like that email's from Gina forwarded to me. "Can't import your old Redistricting Plans."

Yeah, so what's the date on that or -- so that's -- all right, yes, so -- yes, okay, I'm -- I'm familiar with this.

Q Okay. I'm just going to scroll down just to -- so -- so this -- this first email is an email from, you know, Caliper to you dated Monday, August 23?

A Yes.

Q And this is an email -- I'm going to let you see what they say here.

A Uh-huh.

Q Let me know if you want to -- if you want to read this.

A Yeah, no, that's okay, I've seen enough to know what...

Q Okay. And -- and so this -- is this an email with Maptitude, you know, saying, you know, the newest Maptitude with the recent census data is available for use?

A Yes, that -- that's what this looks like, yes.

Q Okay. And here it says that, you know, the -- the "data set contains block level information" --

A Uh-huh.

Q -- "on the U.S. population from the 2020 census."

A Uh-huh.

Q "Included are data on people's race and whether they are from Hispanic origin, for both the total and the voting age population. The Maptitude data set is exhaustive and includes the combinations of the six racial categories."

So this is data that is preset into Maptitude; is that right?

A It's not preset, no. This is the -- this is Maptitude sending us the -- the data -- sending us the data. They've processed the data and they've sent it to us.

Q Okay. And so -- and so for all different

kind of racial categories, there are two -- there seem to be two different types of data. There's voting age population, right?

A Well, voting -- it's included in that, yes.

Q And then there's total population, right?

A Yes.

Q And so vote -- and just for the record, voting age population is people 18 or older, right?

A Yes.

Q And here -- and here the email says it comes with, quote: "All the demographics for all geographic areas relevant for redistricting, allowing organizations to start line drawing immediately. These areas include."

And then you can see here a variety of bullets?

A Right.

Q And -- all right, so these -- are these all -- all of these bullets data layers in Maptitude?

A They are, but we don't use all of them.

Q Okay. So -- so the first is 116th Congressional Districts. You use that data layer, right?

A No, we don't use that data layer.
That's -- that's historical -- that's just historical reference to what the -- the 116th Congressional Districts look like.
Q Okay. And so the second bullet is Census Blocks. You use that -- you do use that layer?
A You've asked that question many times.
Q Yeah. And then this -- the third -- the third bullet is Census Block Groups?
A Yes, we do not use that.
Q What about Census Tracts?
A We do not use that.
Q Census Places?
A We don't use that for redistricting. It's -- it's available -- these are all available for people to look at, but it's not used for redistricting.
Q Okay. And we talked about Counties.
County Subdivisions?
A Uh-huh.
Q Do you use that?
A No, we don't -- we don't -- we -- we -- we only use the Voting Districts --
Q Uh-huh.
A -- the -- the Census Blocks and the

Counties.

Q Okay. Did you use any data about streets or rivers?

A It's there for mapping, but there's no -- there's no demographic in a street or in the middle of a river.

Q Right, but that data's available in there.

A Well, it's not really data, it's just physical features because --

Q Yeah, the geographical, however you want to call it, the geographical feature is available to -- to see if you wanted to see rivers or streets?

A Yes.

Q Okay. Did you create any custom layers?

A Precincts.

Q Precincts. How did you create a layer for precincts?

A We reached out to each of the 159 counties and asked them what their precincts were.

Q Okay. Right. So when you were saying that the -- that the county sends you precincts earlier in the deposition, you then take those and you make them a layer from Maptitude?

A We -- we join them together and create a state-wide precinct layer. It's not quite that simple but it's a very complicated process to get all of them in there. But yes, we create -- we create -- every two years we create a state-wide precinct layer.

Q And the end result is that when you're in Maptitude, you can see every precinct if you so choose?

A You can see them, yes. You can't build a district with it, but you can see the precincts.

Q And just -- just for the record, how -- how do precincts differ from VTDs?

A The precincts are current, the VTDs are from -- are historic. That's from -- you know, that's from what was given to the Census Bureau prior to 2020. So they would not be up-to-date.

Q Okay. So -- so the precincts are basically up-to-date VTDs, would that be fair?

A Not really because a VTD is a census unit and a precinct is not a census unit?

Q Fair enough. Fair enough.

Is there -- okay, great.

And then for each of these layers, blocks, VTDs, counties, that -- those demographic

data that corresponds to those data layers, right?
A Yes.
Q Okay. And that is, you know, voting age population, for example, Black voting age population, and so on and so forth, for all of the races that -- that demographic data is provided from the census?
A Yes.
Q Okay. I'm going to stop screen sharing this. Hold on. I lost my -- there we go.
Okay. I'd like to talk a little bit about your time in the office in the runup to the 2021 redistricting.
Did you ever communicate with anyone in the LCRO about the redistricting plans for the state house, the state senate or Congress?
A In what respect?
Q In any way.
A When -- what's called after they were drawn, after they were drawn, I, you know, produced reports to put them on the website.
Q Okay. And did you ever hear or communicate with anyone at the LCRO about the actual map drawing as it was going on?
A No.

Q Do you -- so suppose -- suppose, you know, Gina's in a room and she's doing map drawing and something's wrong with her computer or her Maptitude program, she would call you to help, right?

A If there -- yeah, if there was a technical issue, yes.

Q Did she ever call you into the room to help while you were doing any map -- while any map drawing was going on?

A I was -- I've been primarily remote since 2020. Even during redistricting I was only in the office about once a week.

Q So did you receive a Zoom call or a phone call asking for help?

A Yes. I'm sure that I did. That's pretty -- you know, that's not uncommon for someone in our office to say, "Oh, I can't print something, our printer doesn't work" or, you know, "I can't open a plan, it's locked out" or "I lost something, I need something off a backup." That's not -- that's pretty common, especially when the office is busy.

Q Did you ever see anyone in the office either remotely or in person with Gina Wright drawing maps?

A No.
Q Did you ever -- you know, presumably redistricting was an important priority for the office, right?
A Yes.
Q So did you ever hear any of your colleagues talking about map drawing?
A No.
Q It wasn't common to communicate with, you know, your fellow colleagues about redistricting?
A I mean, not the -- not the process of it, no.
Q Why not?
A Because I -- I keep myself out of that process. That's -- I've been with the legislature for 30 years. I was hired under Democratic administration. I've worked on a Republican administration.
And the best advice that I got when I was hired was that if nobody in the office or none of the legislators know whether you're Democrat or Republican, you're doing your job.
And that's how I've been able to keep my job technically and, you know, I've been in the office longer than anybody else.

Q So you purposefully did not want to hear about anything going on with redistricting, is that your testimony?
A That -- that is correct.
Q Do you know if there was any kind of formal or informal guidance about sending emails about redistricting?
A I don't recall.
Q Was there any formal/informal guidance about, you know, having discussions about redistricting amongst staff?
A Not that I recall. Not that I recall, no.
Q Okay. You know, when map drawing is going on, you know, do you -- do you typically know, you know, the setup in the room in the LCRO?
You mentioned there was a room where people can go and work on Maptitude, right?
A Well, our whole office, everyone has Maptitude in their office except for -- except for -- except for our admin.
Q So if legislators wanted to use Maptitude at the LCRO's office, would they just go into the office of the person who they're working with or is there a kind of a conference room they would go

into?
A There's both.
Q So in the conference room, I'm curious, what is the setup? There's a desktop computer --
A Yes.
Q -- or a laptop?
A Desktop computer.
Q A desktop computer and that computer has Maptitude on it?
A Yes.
Q And then is there any kind of screen?
A There -- there's a -- there's a big screen in the room, yes.
Q Like a projector?
A It's a TV monitor.
Q And so if you --
A Flat screen.
Q I'm sorry?
A There's a flat screen, flat screen TV monitor in there.
Q And so, you know, if you opened up Maptitude, it would go up on that big screen TV.
Do -- do any data fields automatically populate when people are working in Maptitude?
A It's -- it's what would be selected.

Q So suppose you wanted to know, for example, the Black voting age population in District A, what would you do in Maptitude to -- to find that out?

A You would go to your summary fields and turn on the Black population and it would -- it would show it to you.

Q And so --

A You can make it a label.

Q A label. What -- what do you mean by "a label"?

A That would tell you what the population is of -- of whatever data layer that you're using.

Q So, you know, suppose you have the map up and you click on, you know, a district and you'd click on the custom field.

And, you know, where would the -- the number pop up? Would it be, you know, below the district or is -- is there a typical --

A You -- you can choose. You can have it go in the upper right corner, lower left corner, middle. You can pick the size of it. You can -- it's -- it's up to the user.

Q So you can pick however many fields you want and customize what they look like and where

they're showing up?
A Well, if you put too many fields, you're not going to be able to read it.
Q Fair enough.
But you could if you wanted to, that's how the process works?
A Yeah, but you wouldn't be able to read it.
Q And so how do you move lines? So, for example, suppose you're trying to move one district -- change a district, how -- how would that work in Maptitude?
A You select the unit of the geography you want to move from one district to another. So you select the block or the VTD or a whole county and you can move it from one district to another.
Q Okay. So it's fair to say that you can amend maps in Maptitude at any of the data layers that we discussed?
A Yes.
Q And the lowest is the block, right?
A Yes.
Q Could you amend in Maptitude based on precincts?
A No, only if the precinct actually

followed block boundaries.

Q Well, can you -- could you explain that?

A Sure. Since precincts are not created by the Census Bureau, they don't always follow block boundaries.

So you can try to match it, but if -- if it doesn't follow a block boundary, you cannot -- so, in other words, you select all the blocks in a precinct and try to have that whole precinct moved over, but you're not actually selecting the precinct.

There's no demographics associated. Other than -- other than the rep voting and registration data, there's no census data associated out of that precinct.

Now, you can certainly try to -- to match that by just picking all the individual blocks that are in it, but you cannot --

Q I see what you're saying.

So if you had a precinct and it was full -- and it -- and it fully contained, you know, three blocks and that was the whole precinct --

A Uh-huh.

Q -- you can select those three blocks and move it and that would, you know, be one way to try

to recreate moving a precinct?
A Yes.
Q But if the blocks were -- if there was a block that was in Precinct A and Precinct B, it would be more difficult, is that -- is that what you're saying?
A Well, you couldn't use it because you have to -- we only -- redistricting is only done by block boundaries, so you cannot do that.
Q And am I right that there are -- are there any other blocks that are in multiple precincts?
A Yeah, it's -- it's possible there. The counties are supposed to follow census geography, but some of them fault in the particular. But there's a lot of counties that don't always follow the guidance.
Q Okay. But -- would it be fair to say that usually blocks are only at one precinct?
A I don't even think that would be fair to say that because there's -- there's -- there's several areas where it's -- they're not. They should be. They're supposed to follow them but they don't.
And we'll try to -- on our end, you know,

sometimes if we can't match that geography -- so our precincts were just trying to do a best match -- we'll -- our precincts will try to follow the -- the precinct -- or the block geography as much as possible. But the actual ones that the county had may not. So ours are -- so ours are, you know, at times can be just an approximation of the -- of the precinct.

Q But suppose -- so suppose there's a -- but you can see precincts, we talked about it earlier, you can see the precincts in Maptitude, right? You said you --

A You can see physically where the boundaries are from -- well, to the -- to the best of how we've been able to recreate them from the counties.

Q So if you wanted to move a block from one precinct to another, you could click on that block and move it from one of the precincts that's shown in Maptitude to another precinct that's shown in Maptitude?

A No, you can't -- you're not changing the precincts.

Q I'm talking about if you're drawing a map, right, and you want to change the map where

you want to take a block that is in Precinct A that's in District A and move it to Precinct B that's in District B, you could do that?

A No. You can move it from District A to District B but you couldn't --

Q Right.

A -- move it from one precinct to another.

Q Right. But you can move a block from a district in one -- sorry. You can move a block from a precinct in one district into a precinct in another district?

A No. That block is always going to be in that precinct. You cannot move blocks around. You can move -- you can say what -- you can move district boundaries around, but you cannot move blocks around.

Q That's what I'm saying. You can change a district boundary so that a block that was previously included in -- in one precinct is now in a different district -- that is now in a different district? You see what I'm saying?

A No. Well, the way you're saying it is impossible.

Q That's fair. That's very fair. Let me try to do this again.

If you wanted to draw a district and you wanted to take a block that was in another district -- if there was a precinct that was wholly in one district and you wanted to make it so that precinct was now split between two districts, you could do that, right?

A You could split a precinct by the blocks that are in it. In other words, if you have -- if there's six blocks in a district or in a district -- six blocks in the precinct, and you wanted three of the -- half of that precinct to be in one district, half in the other, you could do it but you'd have to follow the block boundaries.

Q Okay. Great. That's a much better way of saying what I was trying to say, so thank you.

And I -- just for the record, were you ever present when legislators reviewed maps with LCRO employees or anyone else in person or by Zoom or any other conferencing application?

A No.

Q Okay. All right. I -- I want to move on to another topic.

You create -- is it true that you create a custom -- you have a formula that translates precinct level election results and voter

registration to block level election -- to the block level for Maptitude?

A Well, it's not really -- it's not a -- it's not a formula, but there is a method to do that, yes.

Q Okay. I'm going to -- I'm going to introduce another exhibit.

A Sure.

(Deposition Exhibit 3 marked.)

BY MR. DAVIS:

Q Okay. Screen Share.

Can you see this document? I'm going to make it a little bit bigger for you.

A Yeah, please make it bigger.

Q Is this okay or should I zoom in some more?

A That's okay, but give me a minute to see what this is.

Q Okay. Let me know when you want me to scroll, okay?

A Okay. Yeah, I'm familiar with this document. Yep, okay.

Q Okay. This is -- so this reflects an email that you sent. This -- this first -- this bottom part here reflects an email that you sent to

Gina Wright and Brian Knight titled Job Responsibilities, right?

A Yes.

Q And you sent that on Wednesday, April 28th, 2021?

A Yes.

Q And do you see the middle paragraph here that states "My GIS" -- starts with "My GIS Database Administration"?

A Yes.

Q You see the sentence -- you say: "much of this, especially the building and merging of our Election Database with Census Data, would be extremely difficult to teach to anyone."

Do you see that?

A Yes.

Q When you say the building and merging of our election database with census data, what -- what do you mean by that?

A So we get election data from the Secretary of State at the precinct level or for precinct layer of geography. So we're consistent here.

And it -- what's called -- through Maptitude can allocate election and registration

data to blocks based on the voting age population of those blocks.

So it's an estimate, it's not -- it's -- you know, it's not -- you know, it's not true data, it's just -- it's just an estimate.

Q So -- so how does -- how does -- how does the allocation work?

A Okay. So you have the precinct, which is not a census unit of geography, but you can only build legislative districts by using census geography.

And the -- keep in mind that election results are captured by precinct level. So a precinct can have -- you know, you can have a dozen blocks in it.

Q Uh-huh.

A So with the blocks you would have no way of knowing, any of those blocks, you would have no way of knowing the registration data or election results for any of those blocks in there because the data was not collected at those.

So at the process in Maptitude and I think it might have been referring to with formula, it's more of a process.

But when it's allocated through Maptitude

you can choose how to allocate that data to the block.

So, for instance, let's just make it simple, let's say a block has -- or let's say a precinct only has two blocks in it, but 60 percent of the population -- of the voting age population is in one of the blocks but only 40 percent of the voting age population is in the other blocks.

So the voting and registration data will be allocated to those blocks based on the voting age population.

So it's a guess. You don't know if -- you don't know if the 40 -- the people that all live in the 40 percent, you don't know if -- you really don't know if all the Republicans would live on one side and all the Democrats would live on other side, you wouldn't know that. This is just doing it based on voting age population.

Q Okay. So just so I understand, the precinct has an overall partisan break -- breakdown, right? So let's say it's 50/50.

A Yes.

Q And what -- and what Maptitude would do is it would assume that each of the blocks has that same breakdown, right?

A No, it's -- it's going to -- well, first of all, it's not going to assume anything. You have to tell it how to allocate it.

Q Okay.

A So we choose to allocate it by using the voting age population. So it's going to allocate it based on the voting age population.

In other words, overall if 60 percent of the one -- the block that's 60 percent of the population, of voting age population, and the block that's 40 percent, it's going to allocate 60 percent of the overall votes or registration data, whatever data you're bringing down from the precinct. It's going to allocate 60 percent to the side that has 60 percent population and 40 percent of the votes to the side that has 40 percent.

Q Right. So I think I understand that.

A Okay.

Q Maybe I didn't formulate my question well. So take -- take a precinct that's 60 percent Democratic and 40 percent --

A Uh-huh.

Q -- Republican, okay?

A Yep.

Q Would each of the blocks in that precinct

also be -- would Maptitude show each of the blocks in that precinct as also having 60 percent Democratic and 40 percent Republican?

A Yes, it would.

Q Okay. That's -- that's what I was trying to understand.

A It may not be accurate, but -- but yes, that's what it would show.

Q Okay. So if you have a -- let's say you have a precinct with two blocks, okay?

A Uh-huh.

Q The one block has a hundred Black voters of voting age population, and the other block has a hundred white voters of voting age population --

A Uh-huh.

Q -- and suppose all of the Black voters are Democrats and all of the white voters are Republicans, okay, just for -- just for this.

If you move the block -- overall it's 50/50 Democratic/Republican, okay? Do you get that?

A All precincts 50/50 Democrat/Republican.

Q Right.

A Okay.

Q If you move one of those blocks from that

district to another district in Maptitude --
A Uh-huh.
Q -- would Maptitude show that block as being 50 percent Republican and 50 percent Democratic even though it's a hundred percent Democratic, for example, and 0 percent Republican?
A All right, I lost you. I'm sorry, I lost you there.
Q That's fair. I'm -- let me try to do this. Let's start -- I'll start from the beginning.
Two blocks in a precinct, you have that, right?
A Two blocks, yes.
Q Each of them have a hundred people in them, so 200 people total. Block A has a hundred Black Democrats, okay?
A Okay. So -- so half of the one is -- is -- well, I mean, how would you know they're Black Democrats, we wouldn't know that, we wouldn't anything that says that.
Q Right. I'm just saying, assume that there's a hundred Black Democrats in that precinct.
A Well, we could assume --
Q Sorry, in that -- in that block.

A Yeah, I mean, you would not be -- you wouldn't be -- there was -- there was no way that we could tell that with our database.

Q Exactly. I understand that, but just hear me out here, okay?

A All right.

Q That -- the way your database works is that that block would show 50 percent Republican and 50 percent Democratic, right?

A If -- if the -- if the -- if the overall precinct was 50/50, yes.

Q Right. So -- so -- and if you -- so then if you move that block out of that district, it would be showing, you know, in terms of political data 50 percent Republican, 50 percent Democratic?

A The data's not going to change when you move it out.

Q Right. So --

A So it's -- you know, it's going to be the same.

Q So it would show 50 percent Democratic and 50 percent Republican, right?

A Yes.

Q And the same would be true for the other block that's, you know, a hundred -- a hundred

Republicans?

A Uh-huh.

Q So if you were trying to maximize a Republican district, for example, you wouldn't be able to do that by moving a block from a precinct into another district at -- because you wouldn't be -- you know, accurately it would be hard to tell what the actual political makeup of that block is, right?

A Yeah. If you're trying to move an individual block, that's really not accurate -- it's not accurate trying to move an individual block.

You know, larger levels of geography, yes, but not at the block level is not -- it's not -- it's -- it's an estimate.

Q And you have -- but if you were trying to move people based on race, that exists at the block level, right?

A Yes, it does.

Q So you would know exactly how many people of a particular race are in -- are in the block?

A Yes, you would.

MR. DAVIS: Okay. We've been going for another hour. It's about 45 minutes. Can we take

another 15-minute break, so come back at 1:10, would that work for everyone? Or Rob, do you want some lunch or...

THE WITNESS: I'd rather get this over with, you know --

MR. DAVIS: Okay.

THE WITNESS: -- but I'm happy for a break, so.

MR. DAVIS: Yeah, let's -- why don't we come back in 15 minutes. Does that -- does that make sense for everyone?

THE WITNESS: That sounds good.

MR. DAVIS: Is the court reporter okay with that? I don't think this is going to go on too much longer, so -- for your perspective.

THE WITNESS: Sounds good.

VIDEO TECHNICIAN: Ready to go off the record?

The time is 12:56. We're off the record.

(Recess taken.)

VIDEO TECHNICIAN: The time is 1:24. We're back on the record.

BY MR. DAVIS:

Q Mr. Strangia, I forgot to ask this during our last break, but have you spoken to anyone

during the breaks of this deposition?
A I -- I spoke with Patrick during the first break.
Q Did you speak about the contents of the deposition?
A No.
Q What did you speak about?
A He just said what's called -- just we're doing -- you know, doing good, so.
Q Okay. Did you speak to Patrick during the most recent break?
A Yes. And we spoke about my audio. I could not turn the audio and video off during the last break. That's why I left the session and that's what I asked him about that.
Q And did you speak about anything else?
A No.
Q Okay. I'd like to introduce another exhibit.
(Deposition Exhibit 4 marked.)
BY MR. DAVIS:
Q Can you see this?
A Yes.
Q I'm going to scroll slowly through it, but let me know if you want me to go slower or --

or to stop. And just let me know when you're ready.

A Yeah, I'm ready to scroll through it. I mean, there's -- I don't really see any content in here yet.

Q Okay. That's all there is. So if you're ready, I can -- I can ask about it.

A "Attached is the report we discussed." I don't see the report.

Q Well, we'll show you the report soon. I just want to talk about the -- the actual email.

A Uh-huh.

Q So -- so do you know what this is, this email?

A Not yet, no, because I don't see what the content is.

Q This is an email between -- this first part here is an email between Blake Evans and Gina Wright; is that right?

A I can see that, yes, but that's all I can see.

Q And then it says: "attached is the report we discussed."

A Yes, I don't know what that report is.

Q And then the next email in the chain is

from Gina to you forwarding the report with an attachment called "Reapportionment Report"; is that right?

A Yes, but I still can't see the report.

Q And do you recall receiving this email?

A I don't know what the report is, so not yet, no.

Q Okay. I'm going to show you the report now. I'm going to Screen Share that.

A That's -- I'm looking at it. It's August 2021, okay.

Q Yep. Okay.

Okay. But you -- you -- you received this email, right? I mean --

A Clearly.

Q Okay. Oops, let me get off Screen Share.

I'm going to introduce the attachment now as the next exhibit.

(Deposition Exhibit 5 marked.)

BY MR. DAVIS:

Q I'm looking for -- can you see this?

A I can see that, yes.

Q And -- and is this doc- -- this is the email -- this is the attachment to the email that I just showed you which was called Reapportionment

Report?
A Yes.
Q Have you seen this before?
A Yes.
Q What is this document?
A This is the -- that's the raw election data as we get it from the Secretary of State's office.
Q So this is the political data that exists at the precinct layer that you inputted --
A Well, it's --
Q Sorry.
A It's not at the precinct layer yet. This is just the report.
Q Right. But this -- I -- sorry, I meant to say precinct level.
This is -- this is political data for specific precincts; isn't that right?
A Yes.
Q So here we have in column B it's -- it's county, do you see that?
A Yep.
Q And -- and I just want to make sure -- so -- and so you have election -- and so you have -- this -- these are results for the president's

presidency, the Donald Trump versus Joseph -- Joseph Biden election?

A Yes.

Q For each precinct. And then here you have elections for Senator?

A Uh-huh.

Q And so, you have Perdue and Ossoff.

Are -- are these broken up by separate -- by race or -- I mean, by the political race or how -- do you know how these -- what these each indicate?

A Well, you can see the labels on top. It, says it's President of the United States, U.S. Senate, et cetera.

Q Right. So this -- and this says "United States Senator, Perdue." So this the Perdue election?

A Yes.

Q And then you have the Kelly Loeffler election where it says "United States Senator, Loeffler"?

A Yeah, that looks like what's in there. This is -- these kind of reports are produced by the Secretary of State's office, not our office.

Q Right. And then you have these local

elections for Public Service Commission?
A Oh, well, that's state-wide, but yes.
Q State-wide. And district. You have the District Attorney race. Then there seems to be here a Republican and Democratic state representative race.
So I guess --
A Yes.
Q -- these would each correspond to whoever was the Republican candidate and whoever was the Democratic candidate for state representative in the county?
A That's -- that's correct.
Q Or, sorry, in the precinct, I should say?
A Yeah, but -- yeah, in the precinct, yes.
Q Okay. And then, finally, we have same for state senator in column AQ and AR?
A Yes.
Q And then here we have the U.S. House of Representatives election results based on who voted for the Republican and who voted for the Democrat by precinct, right?
A Yes.
Q Okay. And then starting with AU, this is voter registration data, right?

A Yes.
Q And so you have the voter registration data for Black male voters in each precinct?
A Yes.
Q And the percent that they voted.
Then the same for Black female voters, right?
A Yes.
Q And then you have white males and white females?
A Yes.
Q And then here it says "Asia-PI Male." Do you know what Asia-PI Male means?
A I believe that's Pacific Islander.
Q Asia Pacific Islander male.
Asia -- and then starting in BP to BR, you have Asia-Pacific Islander Female. And then Asia-Pacific Islander Unknown, right?
A Yes.
Q And then we have Hispanic by males and female and unknowns. And Native -- and Native-AM Male, that's Native American male, right?
A I believe so.
Q And -- and female.
And we have Native American Unknown as

well?
A Yes.
Q And finally, we have unknown males and unknown females --
A Yes.
Q -- and other unknowns.
And then this last column here is just the total voters who voted, right?
A Yes.
Q And did you have any role, meaning by you, I mean, either you or the LCRO, have any role in selecting what elections to use for political data?
A We -- we -- yes.
Q What -- what was your role?
A We make the request for all state-wide elections and contested house senate and congressional elections.
Q Do you recall if you had -- why do you choose those elections?
A That's -- that's -- that's what I've been asked to -- to produce.
Q And who asked you that?
A Gina Wright.
Q Okay. And so, Gina selected the data

that would then be input into Maptitude, and it was your role to input it into Maptitude and, you know, assign precinct data to block data, et cetera?

A Yes. Well --

Q Okay. I'm going to stop sharing this screen. I'm going to introduce another exhibit. Give me one second.

(Deposition Exhibit 6 marked.)

BY MR. DAVIS:

Q Okay. Zoom in for you here. Is this okay? Can you see the -- the document?

A I can see it, yep. Let me -- let me read it and see what it is.

Q Okay. Just let me know when you want me to scroll, okay?

A Okay. Good for now. Just give me a minute.

Q Uh-huh.

A Okay.

Q I'm going to scroll down.

A Scroll a little bit.

Q Here we go. Whoops. Let me know when you want me to keep scrolling.

Actually, would it be helpful if I start at the bottom?

A No, no, no. No, this is good. Keep scrolling down.

Yep, okay, I'm -- I'm familiar with this chain.

Q Okay.

A I can answer questions.

Q So then -- so let's start with this original email. This is from Chris Harvey to Gina Wright and Blake Evans. Do you know who Chris Harvey is?

A I haven't met him, no, but I know -- I have not met him, no, but it's someone that works in the Secretary of State's office.

Q And what about Blake Evans?

A Same. And I think at this point he was our contact over there for the data.

Q Okay. And so the subject here is Reapportionment Report, right?

A Yes.

Q And this -- is the document we were just looking at the Reapportionment Report?

A Yes.

Q Okay. And so this is Chris Harvey sending -- or it doesn't look like there's an attachment, but, you know, discussing the

reapportionment report with Gina Wright and she forwards it to you; is that right?

A That's -- yes.

Q And you provide some feedback here that they did not zero out the noncontested elections?

A Yes, there was -- there was some issues with that, yes.

Q And you don't want -- why is it you don't want noncontested elections in the data?

A Because if you were -- you know, it would show a hundred -- it would show a hundred -- it would skew the data because there's no -- if you have one candidate and he's got all the votes, it's going to show that as a hundred percent for that candidate, which, you know, I guess it would be accurate, but it wouldn't be -- it wouldn't be helpful.

Q Okay. And can we go to this February 4th, 2021 email here?

A Uh-huh.

Q You say you're going to respond to Chris. I'm assuming that's Chris Harvey?

A Uh-huh.

Q And your original contact. Would that be Blake Evans, your original contact?

A I don't recall.
Q Okay. And you say: "They clearly didn't pay attention to my requests"?
A Right.
Q You say: "I also see the 'jungle' U.S. Senate Election and DA elections in the data."
A Yes.
Q What request did you send to the Secretary of State's office when it comes to the political data?
A Requested all state-wide elections and all contested and house, senate and congressional elections.
Q And that's because Gina Wright told you to do that?
A Yes.
Q And you said it's no big deal because you'll just leave them out?
A Yeah, they -- they provided more data than we asked for. So it's not something that we included like that -- you know, there was the -- the special election, you know, with all the candidates in there. You know, they -- we didn't ask for that, but they -- they sent that anyway, so.

Q And what is the Jungle U.S. Senate Election?

A That was the special -- the special senate election that was held during the general election. That's where it was no -- there was no political party candidate, it was just the -- the special election.

Q And what do you mean by "we would need them to fix the Congress, House, and Senate data"?

A That they didn't -- they didn't zero out the data like we had requested for the noncontested house, senate and congressional races.

Q Okay. I'm going to get off this for a second. Whoops, that didn't work.

(Deposition Exhibit 7 marked.)

BY MR. DAVIS:

Q I'm going to introduce another document. Can you see this document?

A Yes.

Q I'll give you a little bit of time to read it. Let me know when you're ready.

A Yep.

Okay. Yep, I got it.

Q Okay. Great. So this is an email dated August 25th, 2021, right?

A Yes.
Q From you to Gina Wright, Brian Knight, Dan O'Conner, Maggie Wigton and Gabe Mesriah?
A Yeah, that's -- that's our entire office.
Q So all those -- all those people work for the Legislative Congressional Reapportionment Office?
A At that time, yes.
Q At the time. And here you state that you've "attached the list of formula fields that I used to allocate the 2020 Election Data into the TIGER2020 Geography"?
A Yes.
Q Is that allocation process the allocation process we were talking about earlier from --
A Yes, it is.
Q And you say so all of the Election Data Fields were allocated using 2020 VAP data?
A Yes.
Q What do you mean -- do you see this last sentence here when you say: "For example, BLREG20 (Black Registration) was allocated by BLACK VAP, and HREG20 (Hispanic Registration) was allocated by HISPANIC VAP."
What do you mean by that?

A So -- well, as we discussed earlier, when we're allocating the data down we're using voting age population.

For those fields, it's more accurate to allocate it by -- the Black registration by -- by the BLACK VAP, and the Hispanic by the HISPANIC VAP and, you know, so forth, so.

Q What do you mean by "allocate it by BLACK VAP," I guess, is my question?

A Well, because we -- well, as we discussed earlier, the precinct -- the voter registration data is at the precinct level.

Q Uh-huh.

A And we're -- we're trying to estimate what this is at the block level.

So when you're allocating the election data using the voting age population with the registration data, it's the same thing except with the -- the different races you can allocate it -- you know, I'm trying to be as accurate as possible.

So it's more accurate to allocate Black registration by BLACK VAP and Hispanic by HISPANIC VAP when you're trying to allocate from the precinct geography down to the block level geography.

Q Okay. I'm going to stop sharing this. I'm going to share the attachment as the next exhibit, which I believe would be Exhibit 7 -- Exhibit 8, I'm sorry.

(Deposition Exhibit 8 marked.)

BY MR. DAVIS:

Q Can you see this document?

A Yep.

Q And is it zoomed in enough for you?

A Yes.

Q Do you know what this document is? And I can scroll if you would like to take a look at the whole thing.

A Yep, this -- I know what this is.

Q So what is this document?

A This is the list of fields that we put in our system for the 2020 election data.

Q So -- and by -- by "this," you mean the fields under 2020 Base Election and Formula Data Fields?

A It's the fields that were put into the -- that were put into the -- it's the fields from the precincts -- from the precinct's data that went into -- the precinct's data fields.

Q And that's the precinct fields that we

talked about earlier that the Secretary of State sent?

A Yes.

Q But you did -- you did a few additions, for example, if you see, you know, TPRES20?

A That -- that's just for technical things because that way you have to create -- that way you have a total of all the votes for President.

That's not listed in the Secretary of State's data, but by adding all the candidates together you know how many votes were cast in the presidential election.

Q Okay. So these -- and you could populate all of these fields if you wanted to?

A Populate them where?

Q I -- strike that, I guess.

I'd like to -- you see here where it says "Registration Formula Fields"?

A Uh-huh.

Q This is -- BLREG is Black Registration 20, right?

A Yes.

Q And so, you add Black male registration 20 to Black female registration 20 to Black unknown registration 20, right?

A Those added together create that Black Registration 20.

If you saw -- when -- when you looked at Secretary of State's report, you saw that they didn't actually have just Black registration listed, they had it all broken down, only broken down. So I added those together to create a Black Registration 2020 field.

Q And so these are -- and so the same is true for white registration, Asian registration, Hispanic registration, Native American registration, other registration and unknown registration, right?

A Yes.

Q So these are just totals, total number of people who are registered of that particular race or identifier?

A Yes, yes.

Q Okay. And you could see all of this in Maptitude?

A Yes.

Q And you could see it at the precinct level?

A You could see it at the precinct level, yes.

Q And then here are -- here it says "Base Registration Data Fields from SOS"?
A Yes.
Q These are all of the fields that we talked about earlier that were in that spreadsheet that you --
A So yeah -- yes, those are the raw fields as -- as they came in from the Secretary of State's office. They're not as useful as the combinations that I put together.
Q Right, but if you wanted to, would you be able to see, for example, the percentage of Black males who voted in 2020 in a certain precinct?
A If someone knew how to do that with the data, yes. It wouldn't -- it wouldn't necessarily be -- it wouldn't be obvious. Someone would have to know how to do that.
Q Would you know how to do that?
A I would, yes.
Q Would Gina Wright know how to do that?
A Maybe. I don't know.
Q Would Maggie Wigton know how to do that?
A I don't -- I don't -- I don't know if she would be able to figure that out or not.
Q Would Bryan Tyson know how to do that?

A I have no idea.

MS. LAROSS: Yeah, I object to the form of the question, though, asking for what's in the mind of -- of Mr. Tyson.

BY MR. DAVIS:

Q Okay. Did you -- did anyone ever ask you how to populate any of these fields?

A No.

Q Okay. I'm going to stop sharing the screen.

Did anyone ask you to create a custom data field that was not related to registration by race that was not in the Secretary of State's spreadsheet?

A Well, all of those registration fields that you see there were not in the Secretary of State's sheets, so yes.

Q So the total -- but those total fields -- the total --

A Yes.

Q Any others?

A Well, pretty much every field on there. If you go back to the document, pretty much every field on there we've created new -- created new fields. The total fields were not on there.

There's several fields on there that were not as they were represented from the Secretary of State's spreadsheet.

Q Right. I assess -- is there any -- are there any race or registration-related fields that you created at the request of -- that's not on this list?

A That's not on that list, no. That list is everything that I created.

Q Were there any other fields available in Maptitude that you didn't create?

A Well, if I didn't create them, I wouldn't know about them, so, but...

Q Did you have access to like the Maptitude file or the Maptitude -- you know, the loaded Maptitude program with all of the databases?

A I created all the databases, so, yes.

Q So you would know if someone added something to the Maptitude program in the LCRO office?

A Yes.

Q Did anyone add any fields to --

A No. I'm the only one that -- I'm the only one that updates that database.

Q Okay. Okay. I'm going to move off the

political data formula.

I just have a few more questions.

You mentioned earlier that, you know, you -- you did some -- that part of your job was putting together reports for legislators and leadership; do you recall that?

A I -- yes, I put them together for the -- for our website and for the public and so forth.

Q Have you ever put together a report that examined what numbers of Black voters, for instance, would be needed in a district in order for that district to elect the candidate -- the Black candidate -- the Black voter's candidates of choice?

A No.

Q Do you know if anyone in the office has ever created such a report?

A I do not know.

Q Are you aware of any analysis done by anyone in the LCRO office about what level -- what numbers of voters of colors would be needed in a specific district for those voters to elect their candidates of choice?

A No, that's not -- that's not my -- that's not in my wheelhouse at all.

Q It may not be in your wheelhouse, but are you aware of any report being done?
A No.
Q Do you know if Brian Knight ever created such a report?
A I do not know if he created one or not.
Q What about Dan O'Conner?
A I do not know. No, I don't -- have no idea.
Q Do you know if any legislator has ever requested such a report?
A Not that I know of.
Q What about legislator staff, have they ever requested such a report?
A Not from me.
Q Not from you, but do you know if they ever requested such --
A Not that I know of.
Q Has anyone requested such a report from you or anyone from the LCRO's office that you're aware of?
A No.
Q Would you be able to see any information about competitiveness in Maptitude?
A I believe there's a way, but I've never

used it.
Q Let me back up a second. When I say -- when I said "competitive," what did you understand me to say -- to mean?
A I know that in Maptitude there's -- and I've never used a report, but there are some -- there are some reports that -- that can do that, but I've never used it and I don't know how to use it.
Q Is there anything else you -- you know about that report, that that -- that feature?
A No. I mean, you can pull up the Maptitude manual online and take a look at it.
Q When you -- and when someone is working in Maptitude and they want to see any race data or any of the race registration data we are talking about, they would have to select that for it to be put on the screen, right?
A Yes. I mean, there's some -- you know, defaults. The -- the list of fields that you saw before, that's -- those are the default fields, the ones on the top of that last document are the defaults. Anything else other than that, they'd have to go and figure out how to do themselves.
Q So those fields automatically populate?

A In -- in -- they would populate, yes, in the -- in what they call a data view.

Q Would you have to -- so if you clicked on a district, you know, what would you be able to see automatic -- what would automatically pop up? What data would automatically pop up?

A As a default as it's built, those fields that you see, that you listed there on the top of that screen.

Q Okay. I'm going to -- I'm going to -- sorry. I'm going to share the screen just so I can --

A Yeah, yeah, yeah.

Q -- talk about this.

A Helpful for both of us.

So they would see -- starting where it says "Election Data," they would see those fields --

Q Sorry, where --

A -- as listed.

Q Where it says -- so I'm looking at where it says 2020 Base Election and Formula Data Fields.

A Yes.

Q Okay. So --

A Now, keep in mind, these are the precinct

level fields.

Q Right. And so if you clicked on a precinct, you would automatically see the fields that's, you know, starting with ID --

A Right.

Q -- ending with -- with what? With this TCAST?

A Keep going. Yeah, keep going. Keep going. All the way down to the bottom of the -- to the left. Stop, stop, stop. To the -- to the -- under the registration formula fields, that last one, the UK --

Q Okay.

A -- Unknown Registration 2020, that would be the last one.

Q Okay.

A And this is at the precinct level geography.

Q Right.

Okay, I'm going to introduce one more document. Exhibit, I should say.

(Deposition Exhibit 9 marked.)

BY MR. DAVIS:

Q Just a second here. Sorry, my screen was going slow here.

Can you see the -- anything on your screen?

A Yes.

Q It's not showing on mine, so let me try -- sorry, let me try this one more time.

Okay. Let me zoom this in for you.

A Uh-huh.

Q Let me know when it's -- is this zoomed enough for you or would you like me to --

A I can see it.

Q Okay. Let me know when you would like me to scroll. I'll -- I'll let you read.

A I don't need to see anymore, I know what this is.

Q Okay. So what is -- what is this document?

A It looks like it was an invite to a dinner that I didn't -- that I did not attend.

Q Okay. So you did not go to the dinner that was hosted by Chairman Bonnie Rich?

A Nope, that's -- I stay -- I stay out of the politics.

Q Fair enough.

MR. DAVIS: Okay. Could we take a, like, five-minute break? I think I'm done, but I just

want to make sure I've -- we've -- I've touched everything that I want to touch on. Is that okay?

THE WITNESS: If that's okay with Patrick, it's okay with me.

MR. JAUGSTETTER: Yeah, that's okay.

VIDEO TECHNICIAN: The time is 1:55. We're off the record.

(Recess taken.)

VIDEO TECHNICIAN: The time is 2:00 p.m. We're back on the record.

MR. DAVIS: I know this might disappoint you greatly, Mr. Strangia, but I have no further questions and I will pass the witness.

MS. LAROSS: Mr. Strangia, my name is Diane LaRoss and I represent the State Defendants in this case and I have no questions for you.

THE WITNESS: Thank you.

MS. LAROSS: Thank you for your time. We appreciate your time today.

MR. JAUGSTETTER: All right. So are we finished for the day?

MR. DAVIS: I think so.

VIDEO TECHNICIAN: Ready to go off the record?

MR. JAUGSTETTER: All right.

VIDEO TECHNICIAN: This concludes the videotape deposition. The time is 2:01 p.m. We are off the record.

(Deposition concluded at 2:01 p.m.)

(Signature reserved.)

* * * * *

The following reporter and firm disclosures were presented by me at this proceeding for review by counsel:

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C E R T I F I C A T E

Deposition of: ROBERT (ROB) STRANGIA

Date of Deposition: FEBRUARY 24, 2023

STATE OF GEORGIA:

I hereby certify that the foregoing transcript was stenographically recorded by me via Zoom as stated in the caption. The deponent was duly sworn to tell the truth, the whole truth, and nothing but the truth. And the colloquies, statements, questions and answers thereto were reduced to typewriting under my direction and supervision and the deposition is a true and correct record, to the best of my ability, of the testimony/evidence given by the deponent.

I further certify that I am not a relative or employee or attorney or counsel to any of the parties in the case, nor am I a relative or employee of such attorney or counsel, nor am I financially interested in the action.

This, the 14th day of March 2023.

Judith L. Leitz Moran, CCR-B-2312
Registered Professional Reporter

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Re: Signature of Deponent Robert (Rob) Strangia
Date Errata due back at our offices:

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The Deponent has reserved the right to read and sign. Please have the deponent review the attached PDF transcript, noting any changes or corrections on the attached PDF Errata. The deponent may fill out the Errata electronically or print and fill out manually.

Once the Errata is signed by the Deponent and notarized, please mail it to the offices of Veritext (below).

When the signed Errata is returned to us, we will seal and forward to the taking attorney to file with the original transcript. We will also send copies of the Errata to all ordering parties.
If the signed Errata is not returned within the time above, the original transcript may be filed with the court without the signature of the Deponent.

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ERRATA FOR ASSIGNMENT NO. 5780823

I, the undersigned, do hereby certify that I have read the transcript of my testimony, and that

_____ There are no changes noted.

_____ The following changes are noted:

Pursuant to Rule 30(7)(e) of the Federal Rules of Civil Procedure and/or OCGA 9-11-30(e), any changes in form or substance which you desire to make to your deposition testimony shall be entered upon the deposition with a statement of the reasons given for making them. To assist you in making any such corrections, please use the form below. If supplemental or additional pages are necessary, please finish same and attach them to this errata sheet.

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ROBERT (ROB) STRANGIA

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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Robert (Rob) Strangia - GISP

GIS Manager - Georgia Legislative and Congressional Reapportionment

Atlanta, Georgia, United States

256 followers · 256 connections

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Georgia General Assembly

University of North Carolina Wilmington

Company Website

About

In my current role as the GIS Manager at the Georgia General Assembly, I Provide the primary technical support for all aspects of the Legislative & Congressional Redistricting GIS System. I have been with the office since 1996 and have 30 years of Geographic Information Systems work experience. This includes over 25 years in GIS Management.

Specialties: Political Performance & Demographic Database Design, Development & Implementation for the Redistricting Process.

EXHIBIT 1

Voter Geocoding and cross checking, Technical Support, & Staff GIS training.

Building Election Results and Census Tiger Databases using Maptitude for Redistricting & other GIS and database software.

Activity

I got an updated voter file on Monday. The counties were supposed to have redistricting done by the 18th, but many STILL aren't done, so I'm having...

Liked by Robert (Rob) Strangia - GISP

I'm open for business

Reach out to me for Coaching & Mentoring services

Excited to announce I'm #OpenForBusiness. Reach out to me for Life Coaching, Public Speaking, and Career Development Coaching services.

Christy Cifreo is recruiting for a GIS DBA for her Fortune 500 client in downtown Atlanta. The details are in the link below. Please let her know...

Shared by Robert (Rob) Strangia - GISP

Join now to see all activity

Experience

GIS Manager

Georgia General Assembly

Feb 1996 - Present · 27 years 1 month

Greater Atlanta Area

Provide the primary technical support for all aspects of the Legislative & Congressional Redistricting GIS System; including database design & management, application development, hardware, software, & WINDOWS Sever System Administration.

Designated Georgia State liaison for the U.S. Census Bureau's 2010 Census Redistricting Data Development Program

Train Legislative Staff to perform GIS data analysis & produce maps & statistical reports using Maptitdue Redistricting GIS Application.

precincts GIS layer & election result database.

Provide Legislative Leadership with GIS analysis and presentations of election and demographic trends.

Show less

GIS Administrator

Beaufort County Planning Board

Nov 1994 - Feb 1996 · 1 year 4 months

Responsible for all administrative & technical aspects of county's GIS operations.

Responsible for providing user need analysis, technical support, & training for the implementation of GIS to other county departments.

Responsible for base data collection, quality control, application enhancement, & UNIX system administration.

Customized ARCINFO software for system enhancement of GIS data analysis, data entry/editing, mapping, & statistical reports

Special...

Show more

GIS Analyst

North Carolina Governor's Office - Center for Geographical Information and Analysis

Sep 1992 - Nov 1994 · 2 years 3 months

Coordinated the National Wetlands Inventory for N.C. by serving as the liaison between CGIA & the U.S. Fish & Wildlife Service for data development, quality control, & release of all incoming & outgoing wetlands data.

Supervised production of USGS DLG layers for the USGS/State of North Carolina cooperative mapping partnership.

Lead Technician in the development of the N.C. Statewide Prohibited Shell fishing Area's Data Layer.

Show more

Education

University of North Carolina Wilmington
Bachelor of Arts · Geography
1988 - 1992

University of North Carolina Wilmington
Bachelor's degree · Geography
1988 - 1992

Licenses & Certifications

Issued Aug 2004

Credential ID 00043827

Recommendations received

Bryan Tyson

"Rob is extremely knowledgeable about the GIS systems he works with, and is always able to turn data and projects around quickly. He has the commitment to work hard and the ability to manage projects and get them done."

1 person has recommended Robert (Rob)

Join now to view

More activity by Robert (Rob)

CELEBRATING SUCCESS. Our agency is honored to achieve the "Award of Excellence" from Safeco Insurance for the 11th year. This award distinguishes a...

Liked by Robert (Rob) Strangia - GISP

View Robert (Rob)'s full profile

Contact Robert (Rob) directly

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Budget and Policy Analyst at Georgia House of Representatives
Atlanta Metropolitan Area

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.
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Douglas Hall
GIS Software Developer
Atlanta, GA

Erica Lyons
Auditor
Atlanta Metropolitan Area

Hunter Mortensen
Mayor for the Town of Frisco at Town of Frisco
Frisco, CO

Deena Strangia
Senior Client Service Manager
Atlanta, GA

Steven D. Giap, CPA
Associate Director, US Tax at Galderma
San Diego, CA

Sara Reyes Arroyo
Marketing Associate | Communications Specialist, Photoshop, Social Media
Lawrenceville, GA

Ralph Harper
Investigator, Office of the Attorney General, State of Georgia
Atlanta, GA

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Robert (Rob) Strangia - GISP

GIS Manager - Georgia Legislative and Congressional Reapportionment

GIS Manager at Georgia General Assembly

University of North Carolina Wilmington

View profile

LinkedIn

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Message

From: Strangia, Rob [Rob.Strangia@legis.ga.gov]
Sent: 8/23/2021 7:23:52 PM
To: Wright, Gina [Gina.Wright@legis.ga.gov]
Subject: FW: Census Data Released for Maptitude for Redistricting 2021 *** External Email ***

Except you can't import your old Redistricting Plans! How did the talk with David go?

From: Maptitude Redistricting Software <mtinfo@caliper.com>
Sent: Monday, August 23, 2021 2:54 PM
To: Strangia, Rob <Rob.Strangia@legis.ga.gov>
Subject: Census Data Released for Maptitude for Redistricting 2021 *** External Email ***

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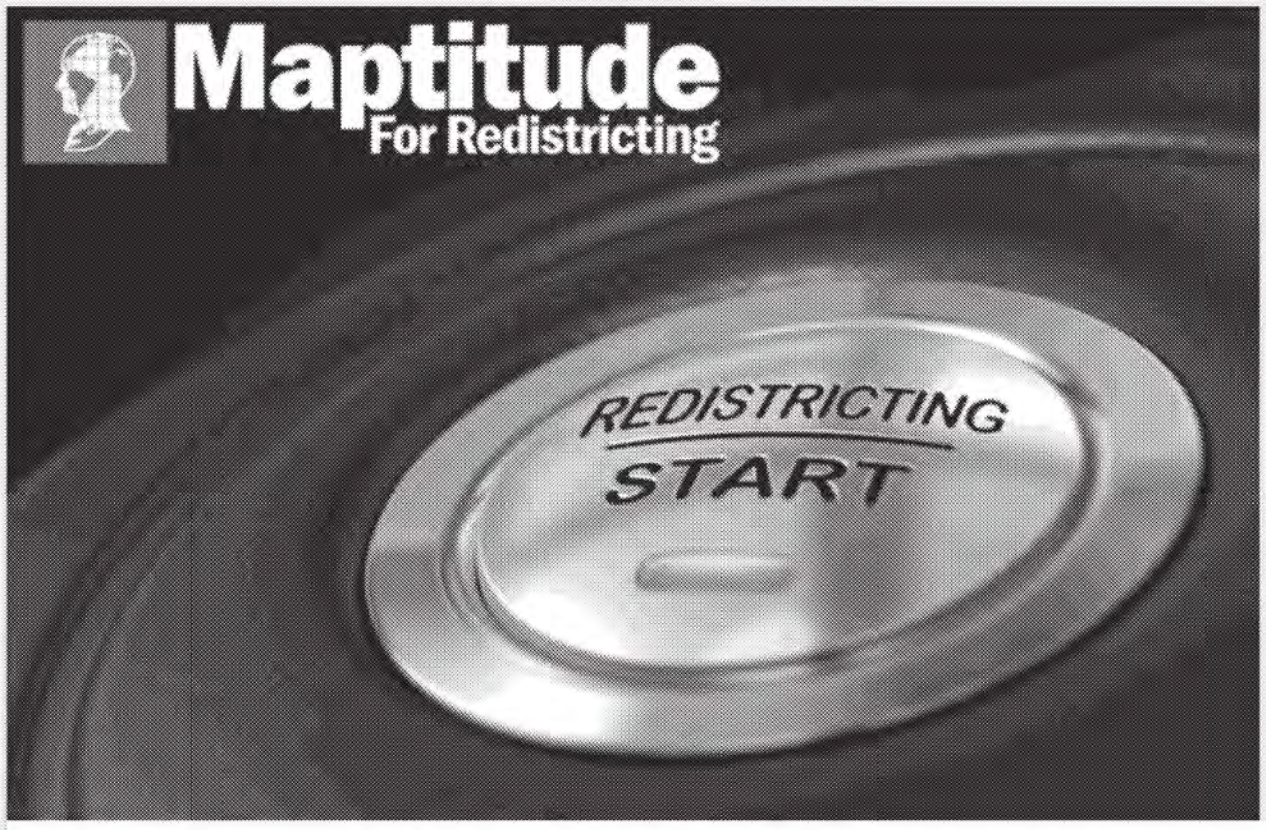

Official Census 2020 P.L. 94-171 Redistricting Data Released for Use with Maptitude for Redistricting 2021

EXHIBIT
2

Caliper Corporation has made the first 2020 Census data available for download to its Maptitude for Redistricting users.

Maptitude for Redistricting users are the first in the country to receive the official redistricting Census data in a form that they can use directly without considerable further processing. The data have been made available to Maptitude for Redistricting users within just a few days of the release by the Census Bureau.

The data provided are from the early release in legacy format from the Census Bureau. A second release will come in late September in what the Census Bureau has said will be an easier format to use. However, Caliper customers can start redrawing the lines right away using the August 12th PL94-171 data release because the Census Bureau has stated that:

"The data included in the August and September deliveries will be identical. States can use either the August delivery or the September delivery as appropriate, taking their own statutes and constitutional requirements into account. The Census Bureau considers both releases to be official and fit for use."

The full PL94-171 data set contains block level information on the U.S. population from the 2020 Census. Included are data on people's race and whether they are of Hispanic origin, for both the total and the voting age (18+) population. The Maptitude for Redistricting PL94-171 dataset is exhaustive and includes the combinations of the six racial categories.

Uniquely, the data provided for Maptitude for Redistricting includes additional fields derived from the PL94-171 data, so that it is straightforward to follow the OMB "Guidance on Aggregation and Allocation of Data on Race for Use in Civil Rights Monitoring and Enforcement" regarding multiracial identity.

Maptitude for Redistricting comes with all of the demographics for all geographic areas relevant for redistricting, allowing organizations to start line drawing immediately. The areas include:

- 116th Congressional Districts
- Census Blocks
- Census Block Groups
- Census Tracts

- Census Places
- Counties
- County Subdivisions
- Elementary School Districts
- Indian Reservations
- Secondary School Districts
- State Legislative Districts (Lower and Upper Chambers)
- Unified School Districts
- Voting Districts (precincts, wards, etc.)

Additional commercial and government data are also provided for use in Maptitude for Redistricting. These data include landmarks, railroads, rivers, streets, and water from Census TIGER geography and nationwide streets and landmarks from HERE.

The combination of comprehensive data, maps, and tools, all available immediately, in a ready-to-use package, makes Maptitude for Redistricting the most effective application for redistricting.

For more information, please visit www.redistricting.com or contact Caliper (+1 617-527-4700; sales@caliper.com).

About Maptitude for Redistricting

Used by a majority of state legislatures, expert redistricting consultants, independent commissions, public interest and civil rights groups, both major political parties, and court-appointed masters, Maptitude for Redistricting is the leading software for political redistricting. Maptitude for Redistricting together with its online companion, Maptitude for Online Redistricting, provide unique measures and tools that support the creation of fair districts and facilitate public participation in the redistricting process.

Caliper

Caliper, headquartered in Newton, MA, is a privately-held corporation and is a leading developer of mapping, redistricting, transportation, and GIS software.

www.Caliper.com

This email was sent to: Rob.Strangia@legis.ga.gov
This email was sent by: Caliper Corporation

Caliper Corporation, 1172 Beacon Street, Suite 300, Newton MA 02461, USA
Email: Sales@caliper.com

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Message

Sent: 4/28/2021 2:38:50 PM
To: Strangia, Rob [Rob.Strangia@legis.ga.gov]
Subject: RE: Job Responsibilities

T

Gina Harbin Wright
Executive Director

Legislative and Congressional Reapportionment Office
Georgia General Assembly
18 Capitol Square, Suite 407
Coverdell Legislative Office Building
Atlanta, Georgia 30334
(404)656-5063
www.legis.ga.gov/joint/reapportionment

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From: Strangia, Rob <Rob.Strangia@legis.ga.gov>
Sent: Wednesday, April 28, 2021 9:35 AM
To: Wright, Gina <Gina.Wright@legis.ga.gov>; Knight, Brian <Brian.Knight@legis.ga.gov>
Subject: Job Responsibilities

I've started to put a list together of my job responsibilities. I know that I'll be adding more as we go along, but please also look at it and see what else that you all can think of as well. Some of these responsibilities have already been transferred over to IT and others can be transferred to IT and existing staff(Brian!). I can probably teach many of the GIS Technical & Analysis Roles to Brian &/or someone with an entry level GIS background. However, the custom requests for Maps and Reports really can't be taught because each request is so different. These really just take someone with good knowledge of the various softwares(Maptitude, Excel, Access, etc.) to make them happen.

My GIS Database Administration roles will be by far the hardest to fill. Much of this, especially the building and merging of our Election Data Base w/Census Data, would be extremely difficult to teach to anyone. However once set up, it's done and doesn't need to be updated for 2 years. So, one option with that would be to just hire me as a consultant to update that every 2 years. If I stay around thru next Fall(2022), you wouldn't have to even worry about that until 2024.

My plan is to stay around until at least August 2022, but am open to stay until March 2023 to get us thru the next election cycle and Legislative Session. That gives us plenty of time to prepare for my retirement. I don't think that we have to worry too much about transferring my responsibilities until after we get thru the Redistricting Cycle this Fall and Winter. However, new &/or existing staff considerations for this Redistricting Cycle with this in mind might be prudent.

Rob Strangia

Robert M. Strangia, GISP

EXHIBIT
3

GIS Administrator

Georgia Legislative Redistricting Services Office
18 Capitol Sq. SW, Suite 407 COB
Atlanta, GA 30334

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Message

From: Wright, Gina [/O=GEORGIA GENERAL ASSEMBLY/OU=FIRST ADMINISTRATIVE GROUP/CN=RECIPIENTS/CN=GINA.WRIGHT]
Sent: 8/2/2021 6:02:27 PM
To: Robert Strangia [Rob.Strangia@legis.ga.gov]
Subject: FW: Report *** External Email ***
Attachments: Reapportionment Report 07302021.xlsx

Gina Harbin Wright
Executive Director

Legislative and Congressional Reapportionment Office
Georgia General Assembly
18 Capitol Square, Suite 407
Coverdell Legislative Office Building
Atlanta, Georgia 30334
(404)656-5063
https://www.legis.ga.gov/joint-office/reapportionment

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From: Evans, Blake <bevans@sos.ga.gov>
Sent: Friday, July 30, 2021 10:19 AM
To: Wright, Gina <Gina.Wright@legis.ga.gov>
Cc: Bryan Tyson <btyson@taylorenglish.com>; Germany, Ryan <rgermany@sos.ga.gov>
Subject: Report *** External Email ***

EXTERNAL EMAIL: Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Gina,

Attached is the report we discussed.

Blake Evans
Elections Director
Georgia Secretary of State
Direct: 470-312-2745
Cell: 470-701-6901

EXHIBIT
4

Message

From: Wright, Gina [Gina.Wright@legis.ga.gov]
Sent: 2/4/2021 3:49:13 PM
To: Strangia, Rob [Rob.Strangia@legis.ga.gov]
Subject: Re: Reapportionment Report

Let me thank him and see if he wants to send to anyone else other than Brian. Hold off a sec.

Gina Harbin Wright
Executive Director

Legislative & Congressional Reapportionment Office
18 Capitol Square
Suite 407 CLOB
Atlanta, Georgia 30334
Phone 404-656-5063
Fax 404-463-4103

On Feb 4, 2021, at 10:48 AM, Strangia, Rob <Rob.Strangia@legis.ga.gov> wrote:

I'm going to respond to both Chris & my original contact. They clearly didn't pay attention to my requests. I also see the "Jungle" US Senate Election and DA elections in the data. No big deal with those since I'll just leave them out. However, we will need them to fix the Congress, House, & Senate Data.

From: Wright, Gina <Gina.Wright@legis.ga.gov>
Sent: Thursday, February 4, 2021 10:11 AM
To: Strangia, Rob <Rob.Strangia@legis.ga.gov>
Subject: Re: Reapportionment Report

I'm assuming you'd told him we needed it that way. I can respond to Chris about it or you can reach out to the other guy, but he never responded before.

Maybe I can ask Chris who we should communicate with about it?

Let me know if you see other stuff too.

Thanks!

Gina Harbin Wright
Executive Director

Legislative & Congressional Reapportionment Office
18 Capitol Square
Suite 407 CLOB
Atlanta, Georgia 30334
Phone 404-656-5063
Fax 404-463-4103

EXHIBIT
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On Feb 4, 2021, at 10:05 AM, Strangia, Rob <Rob.Strangia@legis.ga.gov> wrote:

It also appears that they did not zero out the non-contested elections.

From: Wright, Gina <Gina.Wright@legis.ga.gov>
Sent: Thursday, February 4, 2021 9:23 AM
To: Strangia, Rob <Rob.Strangia@legis.ga.gov>
Subject: Fwd: Reapportionment Report

See if this is it!

G

Gina Harbin Wright
Executive Director

Legislative & Congressional Reapportionment Office
18 Capitol Square
Suite 407 CLOB
Atlanta, Georgia 30334
Phone 404-656-5063
Fax 404-463-4103

Begin forwarded message:

From: "Harvey, Chris" <wharvey@sos.ga.gov>
Date: February 4, 2021 at 8:50:15 AM EST
To: "Wright, Gina" <Gina.Wright@legis.ga.gov>
Cc: "Evans, Blake" <bevans@sos.ga.gov>
Subject: Reapportionment Report

Gina,
I don't know I we got this to you or not.
Is this what you were looking for?

Chris Harvey
Elections Director
Georgia Secretary of State

Main 470-312-2777
Cell 404-985-6351

Message

From: Strangia, Rob [Rob.Strangia@legis.ga.gov]
Sent: 8/25/2021 1:49:17 PM
To: Wright, Gina [Gina.Wright@legis.ga.gov]; Knight, Brian [Brian.Knight@legis.ga.gov]; O'Connor, Dan [Dan.O'Connor@legis.ga.gov]; Wigton, Maggie [Maggie.Wigton@legis.ga.gov]; Mesriah, Gabe [Gabe.Mesriah@legis.ga.gov]
Subject: Metadata for 2020 Election & Registration Data Allocation...
Attachments: FORMULAS-FIELDS-final.docx

For your reference, I've attached the list of formula fields that I used to allocate the 2020 Election Data into the TIGER2020 Geography. All of the Election Data Fields were allocated using the 2020 VAP. The Registration Data was allocated by the VAP of the respective race. For example BLREG20(Black Registration) was allocated by BLACK VAP, HREG20(Hispanic Registration) was allocated by HISPANIC VAP.

Keep this for reference should members have any question on the data fields.

Rob Strangia

Robert M. Strangia, GISP
GIS Administrator

Georgia Legislative Redistricting Services Office
18 Capitol Sq. SW, Suite 407 COB
Atlanta, GA 30334

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EXHIBIT
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2020 Base Election and Formula Data Fields...

ID
AREA
DATA
District
CTYSOSID
PRECINCT ID
PRECINCT NAME
CNTY#
FIPS2
CTYNAME
REG20
TURNOUT20 (Ballots Cast)
VOTED20 (Credit for Voting?)
%VOTED20

TPRES20
TRUMP20 + BIDEN20 + JORGENSON20

TSENATE20
PERDUE20 + OSSOFF20 + HAZEL20

* SPECIAL SENATE ELECTION NOT INCLUDED IN TOTALS OR PERF(Ref Only)

TPSC4-20
MCDONALD20 + BLACKMAN20 + WILSON20

TPSC1-20
SHAW20 + BRYANT20 + MELTON20

TSTH20
STHREP20 + STHDEM20 + STHIND20

TSTS20
STSREP20 + STSDEM20

TCONG20
CONGREP20 + CONGDEM20

TREP20 (House, Senate, & Congress no longer included)
TRUMP20 + PERDUE20 + MCDONALD20 + SHAW20

TDEM20 (House, Senate, & Congress no longer included)
BIDEN20 + OSSOFF20 + BLACKMAN20 + BRYANT20

TCAST20 (House, Senate, & Congress no longer included)
TRUMP20 + PERDUE20 + MCDONALD20 + SHAW20 + BIDEN20 + OSSOFF20 + BLACKMAN20 + BRYANT20 + JORGENSON20 + HAZEL20 + WILSON20 + MELTON20

EXHIBIT
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TREPVOTES20(Republican Overall Performance):
(TREP20/TCAST20) * TURNOUT20

TDEMVOTES20(Democratic Overall Performance):
(TDEM20/TCAST20) * TURNOUT20

REGISTRATION Formula Fields…
BLREG20 – BLMREG20 + BLFREG20 + BLUKNREG20
WREG20 – WMREG20 + WFMREG20 + WUKNREG20
AREG20 – ASIANFMREG20 + ASIANFMREG20 + ASIANUKNREG20
HREG20 – HISPMREG20 + HISPFMREG20 + HSPUKNREG20
NAREG20 – NATIVEMREG20 + NATIVEFMREG20 + NATIVEUKNREG20
OREG20 – OTHERMREG20 + OTHERFMREG20 + OTHERUKNREG20
UKNREG20 – UKNMALEREG20 + UKNFMREG20 + UKNOWNREG20

Base Registration Data Fields from SOS…
BLMREG20
BLMVOTED20
BLM%VOTED20
BLFREG20
BLFVOTED20
BLF%VOTED20
BLUKNREG20
BLKUKNVOTED20
BLUKN%VOTED20
WMREG20
WMVOTED20
WM%VOTED20
WFMREG20
WFMVOTED20
WFM%VOTED20
WUKNREG20
WUKNVOTED20
WUKN%VOTED20
ASIANMREG20
ASIANMVOTED20
ASIANM%VOTE20
ASIANFMREG20
ASIANFMVOTED20
ASIANFM%VOTED20
ASIANUKNREG20
ASIANUKNVOTED20
ASIANUKN%VOTED20
HISPMREG20
HISPMVOTED20

HISPM%VOTED20
HISPFMREG20
HSPFMVOTED20
HSPFM%VOTED20
HSPUKNREG20
HSPUKNVOTED20
HSPUKN%VOTED20
NATIVEMREG20
NATIVEMVOTED20
NATIVEM%VOTED20
NATIVEFMREG20
NATIVEFMVOTED20
NATIVEFM%VOTED20
NATIVEUKNREG20
NATIVEUKNVOTED20
NATIVEUKN%VOTED20
OTHERMREG20
OTHERMVOTED20
OTHERM%VOTED20
OTHERFMREG20
OTHERFMVOTED20
OTHERFM%VOTED20
OTHERUKNREG20
OTHERUKNVOTED20
OTHERUKN%VOTED20
UKNMALEREG20
UKNMALEVOTED20
UNKMALE%VOTED20
UKNFMREG20
UKNFMVOTED20
UKNFM%VOTED20
UKNOWNREG20
UKNOWNVOTED20
UKNOW%VOTED20