

MOORE, et al.

VS

LEE, et al.

JONATHAN CERVAS

December 13, 2022



Jerri L. Porter, RPR, CRR, CLR, LCR

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* * *

JONATHAN R. CERVAS,

was called as a witness, and after having been duly sworn, testified as follows:

EXAMINATION

QUESTIONS BY MR. RIEGER:

Q All right. Hi there, Mr. Cervas. My name is Alex Rieger and I'm with the Tennessee Attorney General's office. I just want to introduce myself and everyone in the room.

All the way at the far end, this is Pablo Varela. He's an assistant attorney general with our office. Next to him is Jacob Swatley, and he is with Harris Shelton in Memphis and he is our co-counsel in this case. I, again, am Alex Rieger with the attorney general's office. Next to me is Doug Himes, who is the chief ethics counsel for the General Assembly and I'm sure you've reviewed his expert reports when doing the rebuttal.

If I could, I'd like you to please introduce yourself, first and last name and address, please.

A My home address?

Q Or your office address is fine.

A Okay. Jonathan Cervas. I'm a post-doctoral fellow at Carnegie Mellon University. The address there is 5000 Forbes Avenue, Posner Hall, Office 387.

Q Thank you. Now, I understand from your CV and your expert reports that you have testified before as a witness; is that correct?

A That's not true.

Q That's not true? Okay. You've served as an expert witness in those cases.

A I have never served as an expert witness.

Q You've never served as an expert witness, okay.

Have you ever taken a deposition before?

A No.

Q No? Okay. So, I'm going to go over some ground rules just to make sure that this process goes as smoothly and as efficiently as it can.

So, I want to note, just to explain from the start, the court reporter is here. She is going to take down everything that you and I say and anyone else in the room says. There may be times where we go off the record. When that happens, she will not be transcribing.

It's very important for us to make her job as easy as possible. So, we need to try not to talk over one another. If I cut you off -- and this will happen. If I cut you off, it's not intended. Just let me know. I'll apologize and I'll let you finish your answer. Similarly, please let me try to get my question out before you start answering, just so we can make sure that her life is easy.

Is that all right?

A Yes. I think it helps that I don't feel very well, so...

Q You've been doing so thus far, but if you could please answer each question with a clear, verbal response. Nodding or shaking your head won't get picked up. This isn't a video deposition, so yeses, nos, explanations, just very, very clear and verbal response will make the court reporter's job easier as well.

Is that all right?

A Yes.

Q Okay. If you don't understand a question -- and again, this will happen. If you don't understand a question, and again this will happen, please let me know and I'll attempt to rephrase or re-ask it or explain it in a different way. But

otherwise, if you don't express that you don't understand the question, we'll all assume that you understood and that you answered the question.

Is that all right?

A I understand.

Q Okay. This is not an endurance sport. If you need to take a break at any point, please let me know and we can pause the proceeding. I may ask you -- if there's a question pending, I may ask you to answer it first. But any time that you need to take a break -- my preference is usually once an hour, just for five minutes or so, and then a little bit of a longer lunch break. But if you need a break in between that time, all you have to do is let me know.

Is that all right?

A That would be great.

Q Okay. I've got some questions that are a little bit unusual but they're routine and it's to make sure that the deposition is valid.

Have you had any alcohol or medication in the past 24 hours that would affect your ability to give accurate and truthful responses today?

A I have not.

Q Okay. Is there any other reason why you

1 might be impaired today and would not be able to
 2 truthfully or accurately respond to my questions?
 3 **A I'm fully functioning.**
 4 Q Excellent. What, if anything, did you review
 5 in preparation for today's deposition?
 6 **A I've only reviewed the set of reports that**
 7 **were filed by experts, including Mr. Himes, myself,**
 8 **and Mr. Trende.**
 9 Q And could you -- could you identify those
 10 documents one at a time for me --
 11 **A Sure.**
 12 Q -- just to make sure we get it for the
 13 record.
 14 **A Is there like a name that I should reference**
 15 **or just the titles?**
 16 Q The title would be great, thank you.
 17 **A So, affidavit of Jonathan Cervas, dated on**
 18 **March 29th, 2022; Affidavit of Doug Himes, dated**
 19 **March 31st, 2022; Report of Plaintiffs' Expert**
 20 **Regarding Tennessee State Senate Reapportionment,**
 21 **Jonathan Cervas, October 10, 2022; Report of**
 22 **Plaintiffs' Expert Regarding Tennessee State House**
 23 **Reapportionment, Jonathan Cervas, October 10th,**
 24 **2022; Expert report of Douglas Himes. I'm sorry, I**
 25 **don't see a date on this one.**

1 Q There's only been one filed in this case, so
 2 that's fine.
 3 **A Okay. Expert report of Sean Trende, again no**
 4 **date; Rebuttal Report of Plaintiffs' Expert**
 5 **Regarding Tennessee State House Reapportionment,**
 6 **Jonathan Cervas, December 2nd, 2022.**
 7 **I actually did not even open this one.**
 8 Q And that one is the transcript of Douglas
 9 Himes' deposition?
 10 **A Yes. Dated September 9th, 2022. But like**
 11 **I said, I did not even open that one.**
 12 Q Okay. Fantastic. If I could, at this time,
 13 I'm going to pass what has been premarked as
 14 Exhibit 2. So, Exhibit 2, which should be under
 15 Tab 2. Or above Tab 2. I apologize.
 16 Are you familiar with that document?
 17 **A No.**
 18 MR. RIEGER: Okay. Then, just for
 19 identification purposes only, I'd like to mark and
 20 introduce the Notice of Deposition of Jonathan
 21 Cervas as Deposition Exhibit 2.
 22 MR. TIFT: No objection.
 23 / /
 24 / /
 25 / /

1 (WHEREUPON, a document was marked as
 2 Exhibit Number 2.)
 3 BY MR. RIEGER:
 4 Q If I could get you to flip to what is above
 5 Tab 3, are you familiar with that document?
 6 **A Yes. This is one of the ones I had read to**
 7 **prepare for this deposition.**
 8 Q And what is that document?
 9 **A This is the Report of Plaintiffs' Expert**
 10 **Regarding Tennessee State Senate Reapportionment.**
 11 MR. RIEGER: At this time I would like
 12 to introduce this as Deposition Exhibit 3.
 13 MR. TIFT: No objection.
 14 (WHEREUPON, a document was marked as
 15 Exhibit Number 3.)
 16 BY MR. RIEGER:
 17 Q All right. I'd like to start here. If I
 18 could get you to flip to Appendix A of that
 19 document.
 20 **A (Witness complies.)**
 21 Q Do you recognize that?
 22 **A This is my CV, revised in October 2022.**
 23 Q Okay. Does that CV fully and accurately
 24 describe your educational background?
 25 **A It's been updated since then to include**

1 **another additional publication in the Law Review,**
 2 **but other than that, it is accurate.**
 3 Q And what is the name of that publication?
 4 **A It's still -- it's a working paper that will**
 5 **be forthcoming in the New Hampshire Law Review**
 6 **titled -- I don't -- I'm sorry, I don't know the**
 7 **exact title of the paper.**
 8 **It's something along the lines of "Can State**
 9 **Courts Police Party Gerrymandering," or some**
 10 **variation of that.**
 11 Q And could you describe the content of that
 12 working paper?
 13 **A That paper just looks at all of the court**
 14 **cases in state courts regarding partisan**
 15 **gerrymandering, starting in 2010 cycle and**
 16 **continuing on through this current cycle of**
 17 **redistricting, looking at which courts have seen**
 18 **litigation and how that litigation resulted, ending**
 19 **in November of 2022.**
 20 Q To the best of your knowledge, did that
 21 working paper include any discussion regarding the
 22 state of Tennessee or its electoral maps?
 23 **A As far as I understand, there's no court case**
 24 **involving partisan gerrymandering in Tennessee.**
 25 Q Does anything else need to be added to your

1 CV besides that working paper?

2 A Just to clarify, actually, I do have this
3 listed as in progress, that paper I just referred
4 to. But it is in progress and it will be published
5 in a forthcoming issue. And I think the name has
6 changed on that paper since then. The final name of
7 the paper may also change.

8 Q Okay.

9 A Other than that, I don't think there's
10 anything that has changed. There's several more
11 invited talks that I've added since then. My
12 current CV is always updated on my personal website.

13 Q And that personal website is the same one
14 reflected on the first page of your CV,
15 jonathancervas.com?

16 A That's right.

17 Q All right. If I could, I'd like to start
18 with your employment on the first page.

19 A Sure.

20 Q So, it starts by saying from 2020 to the
21 present that you're a post-doctoral fellow at
22 Carnegie Mellon University.

23 Is that still accurate?

24 A Yes, sir.

25 Q Can you describe that for me?

1 A I'd love to. My work at Carnegie Mellon
2 includes -- it's a post-doctoral teaching fellow. I
3 teach three classes for the Institute of Politics
4 and Strategy. I taught a class last semester, a
5 graduate class on American politics and in the
6 spring semester I'll teach two classes. One of them
7 is called voting rights and representation. That is
8 an undergraduate class. And the other class is an
9 advanced methodology class in data analysis.

10 Q Tell me a little bit about your American
11 politics class. What exactly is covered by that?

12 A It's a seminar class and the point is to
13 introduce master's students to a broad range of
14 topics involving American politics. And that ranges
15 from everything from our political institutions to
16 political polarization, political behavior,
17 political participation, and various other topics.

18 Q Does that class discuss redistricting at all?

19 A Actually, we have one class at the very end
20 of the semester on election law, and there was one
21 paper from an annual review of political science on
22 partisan gerrymandering that was assigned. Beyond
23 that, there was basically zero discussion.

24 Q What do you talk about during that one class?

25 A I don't think we actually did talk about it

1 because there were other things going on in the
2 world that were more pressing in this last class of
3 the semester. So, we talked about the 2022 midterm
4 election and other various topics. Unfortunately,
5 with classes, sometimes, especially at the end, you
6 fall behind and you can't get to all of the
7 material.

8 Q So, could you describe a little bit more the
9 paper that you referenced?

10 A The one that I assigned?

11 Q Correct.

12 A It's a paper written by Eric McGee. It's an
13 annual review of political science, which is
14 intended to be a broad overview of some subfield of
15 the discipline. And so, it talks about everything
16 from the beginning of time to whatever was the most
17 current at the time the article was written, which
18 the article is now a few years old.

19 Q Does it discuss redistricting at all in
20 detail, and if so, how?

21 A I can't recall the contents of this paper in
22 full. It's one of, you know, 40 that I read over
23 the course of the semester. And I don't think it
24 talks about redistricting, specifically
25 redistricting.

1 I know it does talk about measures of
2 partisan gerrymandering, because the article is
3 about partisan gerrymandering. So, it includes
4 references to things like the efficiency gap and
5 partisan symmetry.

6 Q Can you discuss your voting rights and
7 representation class for us?

8 A I can kind of broadly tell you what it might
9 be about since it hasn't been taught yet and I have
10 to finish the syllabus.

11 But the -- in past iterations I've talked
12 from a book called "The Right to Vote." It's a very
13 good book by Alexander Keyssar at Harvard University
14 Law School, that goes through the history of voting
15 rights in the United States.

16 And then, there will be a section about
17 representation, which is -- I'm forgetting the name
18 of the author of the textbook, but it talks about
19 what it means to be represented in America.

20 And the third part of the class is about
21 redistricting. And I'll teach from the National
22 Conference of State Legislatures' red book.

23 Q Do you an -- I know it's still early and that
24 you haven't created a syllabus yet, but do you
25 anticipate teaching on or about the Tennessee maps

1 at issue in this case?

2 A I have no plans to do that.

3 Q And could you describe the advanced
4 methodology course that, again, I believe is in
5 planning, but just what you anticipate.

6 A That one is even in a more preliminary stage.
7 I've never taught this class. I'm not even sure
8 what textbook I'll use.

9 It is intended for master's level students
10 to -- to understand methodology used by political
11 scientists beyond OLS, ordinary least squares
12 regression.

13 Q And can you explain the concept of ordinary
14 least squares for us?

15 A Regression analysis is a traditional
16 methodology that is used to make inferences about
17 various variables of interest. We can use them for
18 various purposes.

19 But ordinary least squares is just a -- it's
20 a methodology for understanding patterns and data.

21 Q And what -- so, I assume that -- am I correct
22 that each of these classes falls within a certain
23 department?

24 A I teach classes for the Institute of Politics
25 and Strategy, which is the degree granting unit at

1 Carnegie Mellon for political science. My students
2 don't necessarily come from that -- our major. They
3 may come from other departments. I often get
4 computer science students and engineering students.

5 Q How do -- do the topics covered in your
6 planned -- or do the topics that you plan to cover
7 in your advanced methodology course, do they -- are
8 they intended to be applicable to redistricting?

9 A Let me clarify. On that class, that's only
10 master's students in our department for that class.

11 Q Okay.

12 A And there will probably be little or no
13 application to redistricting in that class. The
14 students that take our master's program have no
15 interest in redistricting.

16 Q Okay. Have you ever taught any other courses
17 in your career?

18 A No.

19 Q And besides teaching those courses, what
20 else -- what else do you do as a post-doctoral
21 fellow?

22 A My -- as far as my work at Carnegie Mellon, I
23 have no service requirements for the department. I
24 do occasionally, you know, serve as mentor to
25 undergraduate or graduate students. But there's no

1 requirement for those things.

2 My time is supposed to be split between
3 teaching and doing independent research.

4 Q And what -- could you describe your -- will
5 you describe the independent research you've done at
6 Carnegie Mellon.

7 A My CV, which is part of Exhibit 3, and at
8 other places, describes my published work, which is
9 what I do in my free time that is directly related
10 to my job at Carnegie Mellon.

11 Q Is there anything that would not be -- is
12 there any facet of your independent research at
13 Carnegie Mellon that would not be reflected in
14 your CV?

15 A No. I can't think of anything.

16 Q Okay. All right. I'd like to move on to the
17 next item, which is from 2021 to present, the
18 Pennsylvania Reapportionment Committee work.

19 A Sure.

20 Q Could you describe that for us.

21 A Yes. I was -- so, the Pennsylvania
22 Reapportionment Committee happens once every
23 ten years for redistricting. And it is a committee
24 made up of the majority leader and the minority
25 leader of the Pennsylvania State Senate and the

1 majority leader and minority leader of the
2 Pennsylvania House of Representatives.

3 Collectively, those four members are to
4 select a chairperson. If they fail to choose a
5 chair, the Pennsylvania Supreme Court appoints a
6 chair.

7 That's exactly what happened in this cycle.
8 And the person appointed to that position was the
9 former chancellor of the University of Pittsburgh,
10 Mark Nordenberg. Mark Nordenberg, in his capacity
11 as chair, was tasked with hiring staff and he was
12 recommended my name and contacted me about the
13 position. I interviewed with him and ultimately was
14 hired to serve as a redistricting consultant.

15 That lasted for several months, included
16 dozens of hearings with citizens and negotiation to
17 adopt the map, which resulted in a rare bipartisan
18 vote to adopt a plan that was unanimously affirmed
19 by the state Supreme Court.

20 Q And as map consultant to the commission, what
21 were your primary job responsibilities?

22 A I had many responsibilities, including to
23 inform the chair and other members about the process
24 of redistricting, to prepare data analysis based on
25 census data, to understand where population loss

1 required significant changes to existing districts.
2 I consulted in ensuring compliance with state
3 and federal law and helped in any way I could to
4 either the chair or to legal counsel regarding
5 redistricting in Pennsylvania.

6 Q Did you draft any maps as part of your job
7 with the reapportionment committee?

8 A I was a part of drafting the maps, both for
9 the House of Representatives and for the state
10 Senate. But they, to clarify, were not my maps.
11 They're the commission's maps.

12 Q Of course, of course.

13 Did you draft any maps in that role that were
14 not ultimately adopted to become the commission's
15 maps?

16 A I never drafted a map from scratch for either
17 the House of Representatives or for the Senate. We
18 toyed with ideas in particular districts, but it was
19 a negotiation. And, of course, that work is highly
20 confidential.

21 Q So, you said you didn't draw the maps from
22 scratch. At what point would you start? Could you
23 describe the starting point, if that makes sense.

24 A So, again, as I described the Pennsylvania
25 Reapportionment Commission, it was a bipartisan

1 commission. And the teams, the majority leaders,
2 the majority leaders of both chambers had their own
3 sets of lawyers and their own sets of demographers
4 who serve as mapmakers.

5 And each of those teams presented ideas and
6 drafted maps that were delivered to the chair, which
7 I would then analyze and give feedback to the chair
8 on. And then we would give feedback on those to the
9 parties.

10 Q What sort of data analysis would you perform
11 in that role?

12 A It depends on at which point in the process.
13 Early on, it was a lot of census data, showing where
14 population loss was greatest or population gain was
15 greatest.

16 Pennsylvania had a fairly stagnant population
17 over the course of the decade, but regionally it had
18 fairly significant malapportionment. And later, it
19 involved measures of partisan bias.

20 Q Just for the record, can you describe your
21 understanding of the concept of malapportionment.

22 A Malapportionment, as I understand it, is when
23 districts have populations that are outside the
24 bounds that are legally -- legally allowed by the --
25 by the U.S. Supreme Court's decisions in cases after

1 Baker versus Carr.

2 Q When you were performing data analyses in
3 that role, did you use any specialized software?

4 A For data analysis in Pennsylvania?

5 Q Yes.

6 A I had a license from Maptitude for
7 Redistricting, with data from Pennsylvania, and we
8 used Dave's Redistricting app. And that's basically
9 it. I may have made some spreadsheets in Excel.

10 Q Did you have any staff in that role?

11 A I did not have any staff, personally.

12 Q Did you have anyone assisting you in doing
13 the data analyses?

14 A No.

15 Q Okay. Approximately how many maps did you
16 perform data analyses for?

17 A I don't think I could even estimate that. At
18 various times the parties would deliver maps to us,
19 perhaps once a day, perhaps multiple times a day.

20 Q So, would you --

21 A And oftentimes, by the way, they're small
22 changes to the maps.

23 Q So, even including -- sorry. Strike that,
24 please.

25 So, excluding any small changes, do you think

1 you reviewed and did data analyses for more than a
2 hundred maps or less?

3 A Well, we also performed some very primitive
4 types of analyses on user -- or citizen-submitted
5 maps, but we're talking very -- a relatively small
6 number of those.

7 And I would say that it was far less than a
8 hundred maps that were delivered by the parties that
9 were -- had any sufficient -- significant
10 differences.

11 Q Would you say -- and again, if you don't
12 know, it's fine to say you don't know. But would
13 you say more than ten?

14 A Different, like completely different maps?

15 Q Maps that did not have just very, very minor
16 changes.

17 A I would put it around a dozen.

18 Q Around a dozen, okay.

19 A And that might be a little bit generous. It
20 might not have been -- it depends on what you define
21 significant changes.

22 Q Did any of the maps that you did data
23 analyses for, were any of them flawed?

24 A I really don't think I can speak to the
25 private nature of the communications of the state

1 legislature's commission.

2 Q Perhaps you can give me a yes or no to avoid
3 going into that. Did any of them, between the
4 citizen maps and the legislature maps, were any of
5 them flawed as a matter of constitutional or
6 statutory law?

7 A Okay. So, hmmm. The citizen maps may have
8 had -- may not -- the citizens may not have
9 understood the law as well as, say, the demographers
10 and lawyers for the parties. So, very clearly,
11 those maps would not meet the requirements of
12 federal and state law. The maps by the parties
13 would likely, in most cases, comply with federal and
14 state law.

15 Q Were you familiar with Pennsylvania's
16 electoral landscape before you took the job or did
17 you have to learn it when you got there?

18 A I'm still not sure I'm familiar with
19 Pennsylvania's political landscape today. I was
20 born and raised in Pennsylvania. I lived there
21 for -- I've lived there for approximately 15 years.
22 So, I'm not unfamiliar with Pennsylvania.

23 Q Okay. Before -- when you were -- when you
24 were performing data analyses for maps in
25 Pennsylvania and reporting on compliance with state

1 and federal law, what precisely were you looking
2 for, both in terms of state and federal
3 requirements?

4 A Again, I'm not so sure how well I can answer
5 this question. You know, this is a vague memory,
6 the intricacies of what we looked at over a year ago
7 on plans.

8 But, you know, certainly ensuring that they
9 comply with one person, one vote is the most
10 important first step in ensuring a plan is compliant
11 with law. And then, beyond that, it probably would
12 depend on the circumstance of the plan.

13 In the analysis of the plans that were
14 submitted by citizens, there's a public portal in
15 which we submit -- we added data to that counted the
16 number of county splits, the average population
17 deviation, and some other basic descriptive
18 statistics of the plans.

19 Q Did Pennsylvania, to your recollection, did
20 it have any unusual specific state requirements?

21 A I don't know about unusual. Every state has
22 requirements about redistricting or almost every
23 state has requirements. They differ in their
24 language.

25 But the Pennsylvania requirements are quite

1 familiar to most states that are what we consider
2 traditional redistricting criteria.

3 Q I'm sorry. Did you have more?

4 A I was going to say, the one that required the
5 most focus was a requirement that no county be split
6 unless absolutely necessary.

7 Q Okay. Was there any requirement in
8 Pennsylvania or any -- strike that, please.

9 Was there any requirement in Pennsylvania to
10 maintain prior cores?

11 A No.

12 Q Okay. Was that any -- beyond requirements,
13 were there any other best practices guidelines that
14 you followed as part of your data analyses in
15 ensuring compliance in the other job
16 responsibilities of that role?

17 A I'm not sure how to answer your question.
18 I'm sorry.

19 Q Okay. Besides the -- we've talked about, you
20 know, that you did data analyses and that you worked
21 to ensure compliance with state and federal law.
22 That was one of the things you were tasked with
23 double checking, essentially.

24 Were there any other best practices or
25 informal guidelines that you attempted to make sure

1 that the draft maps reflected?

2 A Different members of the commission had
3 different priorities. Some preferred to protect
4 their members, others may have had other. But none
5 of that was officially analyzed in any capacity.

6 There's no requirement in the Pennsylvania
7 Constitution to preserve the cores. There's no
8 requirement in the Pennsylvania Constitution to
9 protect incumbents, nor are there prohibitions on
10 doing those things.

11 So, that was up to the discretion of the
12 members and their own preferences. And they
13 negotiated their own maps and I helped to, you know,
14 ensure that the maps were compliant in all
15 constitutional ways.

16 Q So, in your role with the Pennsylvania
17 Reapportionment Committee, you did not -- am I
18 correct in saying that you did not review for prior
19 cores or incumbent pairings?

20 A We do have -- we did look at whether
21 incumbents were paired.

22 Q Okay.

23 A Because it was a priority of the members who
24 represent caucuses in Pennsylvania. But the core
25 stuff is not something I've ever -- that was ever

1 brought up.

2 Q Okay.

3 A Reapportionment, by definition, is changing
4 the cores.

5 Q Okay. So, if I could -- sorry.

6 In your role with the Pennsylvania
7 Reapportionment Committee, did you utilize -- I know
8 we talked about software, but did you utilize any
9 other authoritative sources to guide your
10 performance of your job responsibilities?

11 A Can you define what you mean by that?

12 Q Any sort of treatises, books, other
13 documents, anything that would inform how you would
14 do your job.

15 A We -- I worked a lot with the NCSL's red law
16 book, which is an excellent source for information
17 on redistricting. I use it in my course, as I
18 mentioned earlier. That would be the primary guide.
19 And then, of course, state and federal law and
20 opinions in lawsuits.

21 Q Do you recall reading any specific cases or
22 decisions?

23 A Yes. We were focused a lot on League of
24 Women Voters versus Pennsylvania.

25 Q And could you describe the holding in that

1 case or what that case was about?

2 A That case was regarding the Pennsylvania
3 congressional redistricting plan developed by the
4 legislature in 2011. The holding overturned that
5 plan based on the free and equal protection clause
6 of the Pennsylvania Constitution, that it
7 violated -- that violated that protection in the
8 constitution, as interpreted by the Pennsylvania
9 Supreme Court.

10 Q And because I have not asked this question
11 yet and I want to make sure for the record. In your
12 role with the reapportionment committee, you were a
13 map consultant to the commission for a state House,
14 a state Senate, and a congressional map.

15 A No.

16 Q Okay.

17 A Our task for the commission was only to
18 develop the plan for the state Senate and the state
19 House of Representatives. The congressional map was
20 under the authority of the state Legislature.

21 Q Okay. Did you review -- even though it was
22 not part of your job responsibilities, did you ever
23 review Pennsylvania's congressional map?

24 A Yeah. I mean, I've written papers about
25 Pennsylvania congressional districting. So, the

1 2011 plan was the subject of analysis of one of the
2 papers. And we followed along while the legislature
3 was developing plans and the court cases that were
4 being held simultaneous to our own process.

5 Though the decisions from the court on the
6 congressional maps were delivered very, very late in
7 our process, I believe, though I'm not 100 percent
8 sure, that it was -- the opinion of the Court was
9 delivered after our final plan was already passed.

10 Q Okay. All right. Was there anything else of
11 note that we haven't discussed that was a job
12 responsibility that you performed with that
13 committee?

14 A It's listed under my current employment
15 because we are still -- we're still a commission and
16 we have to write a final report still.

17 And the only other thing I will note is that
18 our plan was challenged at the U.S. Supreme Court
19 and I provided assistance to our legal team in
20 writing the response -- I think that's what it's
21 called, excuse me if I'm wrong -- to the writ of
22 certiorari.

23 Q Okay. All right. If I could, I'd like to go
24 to your "Education" section, if that's all right.

25 A Sure.

1 Q Just for planning purposes, I think we're
2 going to try to get through education and then take
3 a break.

4 So, I notice first that at the University of
5 California, Irvine, you have both a master's and a
6 Ph.D. listed. Would you describe those for me?

7 A It's pretty standard that in a Ph.D. program
8 that at some point you are awarded a master's degree
9 based your coursework. So, there's no -- there's
10 nothing special about getting a master's degree if
11 you get a Ph.D. It's just a matter of filling out
12 the paperwork to receive that degree.

13 Q As part of your master's degree, did you
14 receive any education or do any sort of independent
15 research regarding redistricting?

16 A As part of the master's --

17 Q As part of your master's curriculum.

18 A Master's curriculum is no different than the
19 Ph.D curriculum. Just to be clear, it's the same
20 program. It is automatically awarded.

21 Q Okay. Then, could you describe the content
22 of your Ph.D. --

23 MR. RIEGER: Actually, let's go ahead
24 and break, if that's all right. Let's take a fiver.
25 (Recess observed.)

1 BY MR. RIEGER:

2 Q I'll ask this question frequently. You do
3 understand that you're still under oath?

4 A Yes.

5 Q And that all of the rules and guidance we
6 discussed earlier is still in effect, right?

7 A Yes, sir.

8 Q Okay, great.

9 Could you describe your Ph.D. in political
10 science from University of California, Irvine.

11 A I think it's a fairly standard Ph.D. program
12 where there's a requirement to take a certain
13 curriculum of classes that span multiple subfields.
14 You can have some choice on which classes you take.
15 There is other sort of requirements of the
16 department as far as methodology and number of
17 subfields.

18 My primary subfields were American politics,
19 comparative politics, and methods. And my Ph.D.
20 adviser was Bernard Grofman. My dissertation, as is
21 in my CV, is "A Quantitative Assessment of the U.S.
22 Electoral College from 1790 to 2020."

23 Q Where it says "Dissertation Committee," are
24 those just the names of the committee members who
25 were charged with reviewing your dissertation?

1 A That's exactly right. They have -- in order
2 to -- in order to receive your Ph.D., a committee of
3 faculty has to approve your dissertation. It's a
4 committee of three people and the three people were
5 Bernard Grofman, who was the chair; Michael Tesler;
6 and Carole Uhlaner.

7 Q Could you describe your dissertation for me.

8 A Yes. It's a three-part dissertation based on
9 three articles that are -- that I published in
10 peer-reviewed journals listed under "Publications"
11 on my CV.

12 The first one is "Why noncompetitive states
13 are so important for understanding the outcomes of
14 competitive elections: The Electoral College." The
15 point of that part of the dissertation is that
16 there's a misconception that only competitive states
17 are important, but I think that's a fundamental
18 misunderstanding, that without -- without the
19 noncompetitive states, you can't -- you cannot win
20 the Electoral College. So, they are equally
21 important, if not more important.

22 The second paper in the dissertation was "Are
23 Presidential Inversions Inevitable? Comparing Eight
24 Counterfactual Rules for Electing the U.S.
25 President."

1 This section of the dissertation is
2 quantitative analysis that shows that under various
3 rules for counting electors, besides the one that
4 we -- that is primarily used, where the plurality of
5 winner in a state receives 100 percent of the
6 electors from the state, that under almost every
7 other way of counting electors, that you still have
8 situations in which the candidate who wins the
9 popular vote may not actually win the Electoral
10 College.

11 Excuse me, but I'm not actually sure -- I
12 don't remember exactly what the final chapter of the
13 book was. I believe it was the paper titled --
14 listed as Number 5 on my CV as "Legal, political
15 science, and economic approaches to measuring
16 malapportionment."

17 Q So, for each of those three, I note that
18 Bernard Grofman was a co-author. Is that correct?

19 A That's correct.

20 Q Who -- what was his role as co-author?

21 A His role as co-author depends upon the paper.
22 On the three of those papers, I was the primary
23 author, hence why it was my dissertation.

24 On other articles, he has been the lead
25 author, meaning that he either did the first draft

1 of the paper or was primary. And so, in the
2 situations in which I'm listed as first author, I
3 wrote the first draft and did all of the data
4 analyses.

5 But we have a collaboration. As you'll see
6 throughout my CV, he and I collaborate on pretty
7 much every piece of work I do.

8 Q Okay. Why does he collaborate on every piece
9 of work that you do?

10 A Why does he?

11 Q Yes.

12 A Well, I collaborate with him because he's
13 brilliant.

14 Q How so? What are his fields?

15 A Bernard Grofman, or Bernie, as I call him, or
16 as he's often referred to, is probably the most
17 well-known expert in academia on the field of
18 redistricting.

19 He was the expert witness in a very, very
20 important court case, Gingles versus Thornburg, and
21 has probably published upwards of over a hundred
22 articles on the subject of redistricting.

23 He has served as special master in various
24 states and is regarded as a neutral academic thinker
25 in this field. Or in that field of redistricting.

1 Q And to your knowledge, is he still at
2 University of California, Irvine?

3 A I know factually that he is still at
4 University of California, Irvine, though he is in
5 his final semester as a non-retired person.

6 Q Do you have any plans to do any more
7 publications with him?

8 A We have about 30 working papers currently.

9 Q Do you recall any of the specifics of those
10 working papers?

11 A Some of them are far-along papers and some of
12 them are sort of ideas for papers we might write.
13 They're on various topics. They split, generally,
14 on the lines of either in the field of redistricting
15 or on the Electoral College, with some on just
16 American politics more generally, American
17 elections, or Congress.

18 Q Are any of these working papers reflected in
19 your CV?

20 A There are -- yeah, there are -- I have a list
21 of several papers on the CV. Some of them are under
22 review currently, so they may end up being published
23 under peer review, and some of them are, like I
24 said, still in working -- working order.

25 I mentioned one that's listed under

1 "In Progress" that has already been accepted at the
2 New Hampshire Law Review.

3 I'm sorry, was there more to the question?

4 Q No, no. Let me re-ask it.

5 To your knowledge, are any of the working
6 papers not listed in your CV?

7 A Oh, yes. I mean, we have, like I said,
8 dozens of papers that are maybe fragments of ideas,
9 maybe just single sentences that haven't elevated to
10 the point where I would list it on a CV.

11 Q Do any of those deal with redistricting?

12 A Yes. Many of our -- all of our working
13 papers are either going to be about Electoral
14 College, redistricting, or some aspect of American
15 politics.

16 Q If you recall, can you list -- sorry. Strike
17 that.

18 If you recall, can you describe any of the
19 working papers that aren't in your CV that deal with
20 redistricting?

21 A I'm actually not sure, to be honest, if there
22 are any papers that are not listed on this part of
23 the CV that I would consider a working paper on the
24 topic of redistricting.

25 Most of the ones that are not listed are

1 ideas about American elections, particularly after
2 the 2022 midterm elections and how that affects our
3 understanding of American politics.

4 Q Are there any ideas on the subject of
5 redistricting that you have that you don't include
6 in your definition of working paper?

7 A Can you ask that one more time, please?

8 Q Sure. And let me take a step back and maybe
9 the context will explain the question better.

10 So, you said -- you described that you didn't
11 have any that were about redistricting that you
12 could recall that were working papers. I just want
13 to make sure that there's nothing outside that
14 definition of working paper that deals with
15 redistricting that you can think of.

16 A Not that I can think of. We talk about --
17 well, I talk with Dr. Grofman approximately several
18 times a week, and often in those phone calls we
19 discuss ideas. As I said, I'm not sure I would call
20 those working papers.

21 What he has in his files as working papers, I
22 say -- when I said 30, I take that from his words.
23 He keeps files of -- a file system of all of our
24 ideas. I'm not sure what he includes in that 30.
25 As I prepare things, I try to list them in my CV.

1 Q Okay. If we could start with the first
2 chapter of your dissertation, which I believe is --
3 I apologize, we're going to skip around a little
4 bit -- which I believe is Item Number 1 under
5 "Publications."

6 Is that the first chapter of your
7 dissertation?

8 A I'm sorry, I don't remember the order of the
9 dissertation or the chapter numbers. I haven't
10 looked at my dissertation in approximately
11 three years and don't intend to for another 30, if I
12 can help it.

13 The dissertation is these three articles plus
14 an introduction and a conclusion, I believe. But
15 essentially it's set up as the three articles. And
16 it may be one, but it may have been ordered
17 differently. That was the first one that was
18 actually published in a peer-reviewed journal.

19 Q Okay. So, for Item Number 1, then, which, if
20 I'm understanding correctly, is part of your
21 dissertation but you don't know the order in which
22 it falls in your dissertation, did that particular
23 article discuss redistricting?

24 A No.

25 Q Moving on to the -- I believe it's Item

1 Number 3.

2 A Yes.

3 Q To the best of your recollection, is that
4 a -- is that article part of your dissertation?

5 A That is.

6 Q Okay. Does that article deal with
7 redistricting at all?

8 A It does not.

9 Q Okay. And then, I believe the last is Item
10 Number 5. Is that, to your knowledge, one of the
11 chapters in your dissertation?

12 A As I recall, that was one of the chapters.

13 Q Okay. And that is "Legal, political science,
14 and economics approaches to measuring
15 malapportionment"?

16 A Yes.

17 Q Am I correct in assuming that that has to do
18 with redistricting?

19 A Yes. Though, just to clarify, it's actually
20 about the Electoral College, but it uses the
21 measures of redistricting to analyze the Electoral
22 College.

23 Q And what are those measures of redistricting?

24 A Well, it would be the measures of
25 malapportionment and other measures of ways we might

1 think about inequality, since malapportionment is
2 type of inequality of voter power. And so, we look
3 at -- it's not actually about redistricting, the
4 paper. It's about the Electoral College, Congress,
5 both chambers of Congress.

6 And so, we analyze, say, the U.S. House of
7 Representatives in terms of overall deviation or
8 average deviation or a Gini index of equality and
9 maybe some other several different ways of thinking
10 about inequality, in looking at whether our
11 U.S. political institutions treat voters differently
12 based on where they live.

13 Q Could you describe for the record the index
14 of equality?

15 A The Gini index of equality?

16 Q Yes, please.

17 A The Gini index is a measure that comes from
18 economic literature from the early 1900s, and it is
19 measured -- it's a measurement that has an outcome
20 between zero and one, with zero -- I believe I've
21 got the scale right. It could be inverse. But zero
22 being the most equal distribution, so everybody has
23 the same amount of something, and one being the most
24 unequal, where one person has everything and
25 everybody else has nothing.

1 Usually, the Gini index is used to calculate
2 income inequality, but we use it in this paper to
3 measure political power inequality.

4 Q And can you just -- just to make sure I've
5 got a grasp on that article -- I'm sorry. Strike
6 that.

7 To your knowledge, had anyone used the Gini
8 index of equality before in measuring?

9 A In measuring redistricting?

10 Q Yes.

11 A Not to my knowledge.

12 Q Okay. Where did you get the idea?

13 A As I said, it was -- economics uses this
14 measure of equality and I thought if we're going to
15 measure equality that we might think of other ways
16 to measure equality. I don't think there's any more
17 to it than I thought it was an interesting way to
18 measure equality.

19 Q When did the -- when did you first become
20 acquainted with the index of equality?

21 A I read a lot of literatures from disciplines
22 and the Gini -- like I said, the Gini index was
23 invented sometime in the early 1900s and is widely
24 used in economics.

25 Q So, do you believe that you first learned

1 about the concept in an article?

2 A Or a book on economics or maybe a lecture on
3 economics. I can't be sure when I first learned
4 something.

5 Q Okay. Did your -- sorry.

6 Did that article that we're discussing, which
7 is Number 5 under "Publications," did that article
8 deal at all with the concepts of one person, one
9 vote, county splits, anything like that?

10 A It would not have dealt with the concept of
11 county splits because it was about malapportionment
12 and not about redistricting. So, if you're
13 talking -- it was all state level, so it would have
14 been about state boundaries mostly, Electoral
15 College, or congressional district boundaries.

16 Does that answer the question?

17 Q Yes. But I want to follow up a little bit
18 about that.

19 Did that article attempt to evaluate -- I'm
20 sorry. Strike that.

21 Did that article discuss any other state and
22 federal redistricting requirements?

23 A Beyond one person, one vote?

24 Q Yes.

25 A I don't believe so.

1 Q Okay.

2 A And just one more clarification. The title

3 of the paper is "Legal, political, and economic

4 approaches to measuring malapportionment." So, the

5 Gini is the economic approach. The legal approaches

6 would have been the overall deviation, total

7 deviation, and average deviation.

8 Q And what would have been the political

9 science portion of that?

10 A Honestly, I don't remember.

11 Q Okay. And I'd like to discuss your fields

12 that you have listed under your Ph.D. So, I'd like

13 to start with American politics. Can you just

14 describe that for us.

15 A The field of American politics?

16 Q Yes.

17 A I just did a whole semester on this and it's

18 really complicated. But American politics, as I

19 define it, is anything that relates to the American

20 political institution or behavior. It's a subfield

21 of political science that has existed for a very

22 long time.

23 Political science is divided into multiple

24 subfields. The discipline is usually thought of as

25 American politics, comparative politics,

1 international relations, and then sometimes we'll

2 include political methodology as a separate

3 subdiscipline.

4 Q So, as part of the field of American

5 politics, was there any coursework dealing with

6 redistricting?

7 A Probably -- I didn't take any classes on

8 redistricting. Nobody offered a course at the

9 University of California, Irvine. So, the only work

10 I did regarding redistricting while I was in

11 graduate school would have been my work directly

12 with Professor Grofman. Typically, that was

13 involved in federal court cases in which he was

14 named the special master and I worked for him as

15 assistant to the special master.

16 Q And are all of the times you worked as

17 assistant to the special master reflected under work

18 experience on your CV on Page 3?

19 A Yes. I served in three court cases, all of

20 which are listed on my CV.

21 Q Okay. And each time, was that during your

22 graduate education with Professor Grofman?

23 A Yes. I was still in grad school for each --

24 while each of those cases was happening.

25 Q And each was with -- each case, the special

1 master was Dr. Grofman?

2 A Dr. Grofman was the special master in each of

3 those cases, yes.

4 Q Okay. Moving on to the next item in your

5 education, University of Nevada, Las Vegas, B.A. in

6 political science. Did you receive any training or

7 education or take any classes on redistricting while

8 there?

9 A Unfortunately, I don't think most places

10 offer classes like that, which is, I think, a shame.

11 But no.

12 Q Moving on to "Additional Training," can you

13 describe the "Workshop on Research Design for Causal

14 Inference"?

15 A Sure. It was a weeklong, fairly intense

16 conference or workshop, eight hours a day for

17 five days, where leading experts from statistics

18 taught us methods of causal inference.

19 Q Was anything learned in that workshop

20 applicable to redistricting?

21 A Completely unrelated to redistricting.

22 Q Okay. The next one, "Inter-University

23 Consortium for Political and Social Research," can

24 you describe that for me.

25 A Yes. That was a monthlong program at the

1 University of Michigan that teaches either graduate

2 students or young assistant professors advanced

3 methodology skills that is hard to learn in your

4 home Ph.D. programs, because oftentimes they're not

5 offered.

6 Q Did anything that you learned at that

7 training -- sorry. Strike that.

8 Was anything that you learned at that

9 training applicable to redistricting?

10 A I would say, generally, probably yes, because

11 it was courses on things like regression techniques,

12 which, broadly speaking, might relate to

13 redistricting, but not specifically.

14 Q Okay. Was anything in that course applicable

15 or useful to determine a map's compliance with state

16 and federal requirements for redistricting?

17 A No, there was no legal training at either of

18 those workshops listed on my CV.

19 Q Okay. So, let's move on to "Publications,"

20 if we could. And let's start with Item Number 2 on

21 the second page. Can you describe that article for

22 us.

23 A Sure. I'm listed as second author on that

24 paper, as I described earlier, meaning I had a less

25 influential role in the publication.

1 That paper looks at the court case in
2 Pennsylvania, League of Women Voters versus the
3 Commonwealth, and describes the Court's findings and
4 talks about how other states might take note of what
5 Pennsylvania did in interpreting their Constitution
6 to prohibit partisan gerrymandering.

7 Q So, besides partisan gerrymandering, did that
8 article discuss any other state and federal
9 requirements such as one person, one vote or the
10 VRA?

11 A Oh, I can't remember the specifics of the
12 article. I would find it hard to believe that those
13 things would not be mentioned at all in an article
14 of this kind, but I don't remember specifically
15 whether we wrote about those concepts.

16 Q Is it accurate to say that the focus was on
17 the state constitution, whether -- the state
18 constitution as interpreted to bar partisan
19 gerrymandering?

20 A That's exactly right. The purpose of the
21 paper was to examine the Pennsylvania Supreme
22 Court's interpretation of the free and equal clause.

23 Q A couple of questions ago you said that you
24 had a less influential role as a second author. Can
25 you describe that for me.

1 A As you'll note, that this article was
2 published in 2018, two years before I finished my
3 Ph.D. I, at that point, would not call myself an
4 expert by any means in election law. And so,
5 Dr. Grofman took the primary task of drafting that
6 article and in some ways this was part of my Ph.D.
7 training.

8 Q So, you said that in 2018 you were not an
9 expert in election law. When, in your mind, did you
10 become an expert in election law?

11 A I'm not sure I would call myself an expert in
12 election law. I do not have a law degree. I have
13 taken one class, not for credit, on election law and
14 I've not taken any other law classes in my life.

15 Q Okay. Moving on to the fourth item, can you
16 describe that for me.

17 A We're talking about the paper, "Tools for
18 identifying partisan gerrymandering with an
19 application to congressional districting in
20 Pennsylvania"?

21 Q Correct.

22 A This is a follow-up paper to Item Number 2
23 that we just talked about just a moment ago, "Can
24 State Courts Cure Partisan Gerrymandering." This
25 follow-up paper is more of a quantitative analysis

1 of the effects of different districting plans.

2 We looked at -- we did quantitative measures
3 of the various plans that were introduced either to
4 the Pennsylvania legislature or the plan that was
5 adopted by the Pennsylvania Supreme Court, looked at
6 the number of county cuts, looked at the -- there
7 would have been no population deviation in any of
8 these plans because it was perfect equality, one
9 person, one vote. So, at most, a deviation of one
10 person.

11 And there -- and so, it was county cuts and
12 we also looked at measures of -- that would indicate
13 partisan gerrymandering through statistical type
14 data analysis. I believe we looked at partisan
15 symmetry, declination, and the efficiency gap.

16 Q Was the focus of that article partisan
17 gerrymandering or other state or federal
18 requirements for redistricting?

19 A Well, the title of the paper is identifying
20 partisan gerrymandering. And so, some people
21 believe that partisan -- I'm sorry. Let me add that
22 another thing that we looked at was compactness.
23 There may be other things that I'm forgetting at the
24 moment, so forgive me for that.

25 But some people think that compactness can

1 tell you whether a plan is a gerrymander, some
2 people tell you whether excessive splitting of
3 counties is a gerrymander, and other people might
4 argue that only partisan data can tell you whether
5 something is a partisan gerrymander.

6 So, we were simply comparing, I believe, four
7 different plans, one submitted by the -- the plan
8 that was adopted by the legislature and signed by
9 the governor in 2011; a plan that was proposed as a
10 remedial by the legislature after this court case;
11 one that was proposed as a remedial by the governor
12 after the court case; and the one that was finally
13 adopted by the court.

14 And, ultimately, we showed that the court
15 scores as good or better on every criteria, you
16 know, including those -- those found in the
17 constitution, including county splits, it does
18 equally better, and also including on all the
19 measures of partisan gerrymandering that are found
20 in sort of the data analysis type work on partisan
21 gerrymandering.

22 Q Okay. Going back to Page 1, could you
23 describe Item Number 6 for me.

24 A Item number 6 is the "ZIP Codes as Geographic
25 Bases of Representation."

1 Q Can you describe what that article is about?

2 A That article was a response to an article
3 that essentially criticized an article by
4 Dr. Grofman by a couple of scholars who argued that
5 districts should be built from zip codes as their
6 base as opposed to, say, census geography, like
7 census blocks or census tracts or some other
8 individual thinks that districting plans should be
9 built out of election precincts.

10 And so, they argue that the zip codes are the
11 best baseline or the base because of
12 representational concerns.

13 And that article was a response where I
14 challenged their method for analyzing representation
15 and then show the flaws in using zip codes because
16 they are often not contiguous, they have very
17 bizarre shapes, and people have no idea where the
18 lines are because they're not a legal -- there's no
19 legal basis to them.

20 Q Were you first or second author on that
21 article?

22 A I was first author on that -- no. I'm sorry.
23 I'm second author on that article.

24 As I stated, that was a response to an
25 article that was solely authored by Dr. Grofman,

1 where he asked me to join him in the response
2 because there was data analysis in which I was
3 better situated to perform.

4 Q Did that article discuss redistricting at
5 all?

6 A The article is about redistricting.

7 Q Okay. Did it discuss any of the state or
8 federal requirements for redistricting?

9 A I don't remember the contents of this article
10 specifically.

11 Q Okay. Do you recall if state or federal
12 requirements for redistricting were a focus of that
13 article, or if they were discussed, would it be
14 incidental?

15 A It would be incidental. I think that at
16 least at one point I mention that there are zip
17 codes that actually cross state boundaries that
18 would lead to a complication for using zip codes for
19 redistricting. That clearly would be a violation of
20 federal law.

21 Q Moving on to Article Number 7, "The
22 Unanticipated Effect of COVID-19 on House
23 Apportionments." Can you describe that for us?

24 A Yes. That is a really simple paper. And,
25 you know, this is not one that -- a paper that I

1 think about a lot, so forgive me if I don't remember
2 all of the details about the paper.

3 But, essentially, we have -- we were
4 delivered census data very late in 2020, partially
5 due at least to the fact that the census was unable
6 to go door to door to count individuals because of
7 the COVID pandemic.

8 And I believe that what we show is that the
9 number of deaths that happened prior to census day
10 may have been enough to affect the number of
11 congressional districts that were assigned to each
12 of the states. It's not directly related to
13 redistricting. It's more directly related to
14 apportionment, which is a separate process in the
15 U.S. Constitution.

16 Q Moving on to Item Number 8, can you describe
17 that one for us.

18 A This paper is a collaboration with multiple
19 co-authors. It stemmed from a conference in which
20 Professor Sam Wang attended on partisan polarization
21 at Princeton University. It was a conference that
22 was among natural scientists.

23 And the conference itself was tasked with
24 proposing articles that would be co-authored with --
25 the natural scientists would co-author with

1 political scientists to address issues of political
2 polarization.

3 And our article was sort of a review article
4 of sorts, thinking about U.S. democracy in the
5 institutional configurations from the framework of,
6 say, an engineer.

7 Q Did that article discuss redistricting at
8 all?

9 A I do believe that we talk about redistricting
10 in terms of who controls the process and how that
11 might affect the outcomes.

12 Q Okay. Do you recall if that article
13 discussed any state or federal requirements for
14 redistricting?

15 A I highly doubt that it would discuss any
16 state or federal requirements for redistricting.

17 Q Okay. Moving on to Item Number 9, did that
18 include any discussion regarding redistricting?

19 A No.

20 Q Okay.

21 A We can talk about it, though.

22 Q For Number 10, can you describe that one for
23 us.

24 I'm sorry. Do you need more tea?

25 A I can wait a little longer if everyone else

1 is willing to wait.

2 Q Get more tea, please.

3 A Why don't we talk about this article and
4 then --

5 Q Okay, sure.

6 A So, Item Number 10 is "Turning Communities of
7 Interest into a Rigorous Standard for Fair
8 Districting."

9 You'll notice that I'm the last author in
10 this article. That has meaning. I had very minor
11 contributions to this article, which were mostly
12 just helping to inform the content of the article to
13 ensure that we haven't -- that the main authors had
14 gotten things right. But, ultimately, my
15 contributions were enough to include me as a
16 co-author.

17 The idea is that in many state constitutions
18 there are references to communities of interest.
19 These are vague references in their provisions that
20 haven't been well defined, but because they're in
21 state constitutions, people might want to consider
22 how we could better quantitate -- quantify -- I'm
23 sorry, quantify what a community of interest might
24 be.

25 Q In your mind -- so, let me ask this. In your

1 mind, is there a distinction between the concept of
2 community of interest and core?

3 A Yes. There's a world's difference between
4 those two.

5 Q Can you describe that difference?

6 A Sure. Well, the way I understand a core,
7 which, you know, as it turns out, is actually a
8 disputed concept. There's a recently published
9 peer-review paper, you know, claiming that the
10 definition of core can be -- can be distorted to
11 achieve political ends. It's not a paper that I
12 published. I've looked at it.

13 But in the same way, communities of interest
14 are often used to achieve interests, sometimes
15 political, sometimes otherwise, of those who are
16 creating redistricting plans.

17 But they're not the same because a core is --
18 at least in one definition, is the district as it
19 exists before redistricting. So, as it existed,
20 say, in the previous cycle.

21 A community of interest may be longstanding,
22 it may be newly formed. The conception of community
23 of interest is somewhat vague. As I often ask my
24 students to think about what their community is,
25 it's not -- it's sometimes geographic, it's

1 sometimes not. But it certainly is not the same
2 thing as core.

3 Q Does Tennessee have a communities of interest
4 requirement in its constitution?

5 A My understanding is that it does not.

6 MR. RIEGER: Okay. Would you like a
7 break now before we get into the next article or do
8 you want to push? Your call.

9 THE WITNESS: Could we take a break?

10 MR. RIEGER: Yes, take a break.

11 (Recess observed.)

12 BY MR. RIEGER:

13 Q You do recall that you are -- now that we're
14 back on the record, that you are still under oath?

15 A Yes, sir.

16 Q And that the rules that we discussed at the
17 beginning of the deposition still apply?

18 A Yes, sir.

19 Q Fantastic. Let's move on to the last
20 publication, Number 11. Can you describe that one
21 for me.

22 A This is using one of the measures of partisan
23 bias that is found in the redistricting literature,
24 one of the data analysis measures that I mentioned
25 earlier, but to use it to look at the U.S. Electoral

1 College in the 2020 election.

2 And essentially, what we do is we typically,
3 starting at least as early as 1973, in an article by
4 Tufte, T-u-f-t-e, he shows two axes, one that has
5 the number of votes, percentage of votes received by
6 one of the two major parties and the percentage of
7 seats. And we fold that over the Y axis so that
8 both the democrat share and the republican share of
9 the two-party vote is on the same axis simultaneous.
10 So, you can see whether at different levels of vote
11 share the parties are receiving the same number of
12 seats.

13 In this paper we're talking about the
14 Electoral College. And seats in this instance
15 refers to the number of Electoral College votes.

16 Q Does this article discuss or concern
17 redistricting at all?

18 A Not to my recollection, other than the
19 measure.

20 Q And does the measure have anything to do with
21 state or federal requirements for redistricting?

22 A No.

23 Q If we could move on to "Other Publications"
24 on Page 2, and let's start at the bottom and work
25 our way to the most recent.

1 For "The Washington Post" article,
2 "Pennsylvania has to draw new congressional
3 districts but getting rid of gerrymandering will be
4 harder than you think," can you describe that for
5 me.

6 **A I don't recall, but I do know that that**
7 **article was prior to Item Number 1 under**
8 **"Publications" -- Item Number 2 under**
9 **"Publications." It was the predecessor article.**

10 Q Okay. And is it correct that you were second
11 author on that article?

12 **A That's correct.**

13 Q Do you recall if it concerned any state or
14 federal requirements for redistricting other than
15 the Pennsylvania Constitution's prohibition of
16 partisan gerrymandering?

17 **A I don't recall.**

18 Q Okay. Moving on to the next one up, the
19 medium.com article, can you describe that for me?

20 **A Similar to the apportionment article that**
21 **were mentioned under Publication Number 7, this**
22 **paper is a counterfactual idea that had undocumented**
23 **immigrants not been included as persons for the**
24 **purposes of the U.S. Census, how that would have**
25 **affected the number of congressional districts each**

1 **state would have received.**

2 Q And did that article have anything to do with
3 state or federal requirements for redistricting?

4 **A No.**

5 Q Okay. The next article up, which is another
6 medium.com article, did that article have anything
7 to do with state or federal requirements for
8 redistricting?

9 **A No.**

10 Q Okay. What is the "Amicus Curiae with
11 Princeton Electoral Innovation Lab"?

12 **A That was regarding ranked-choice voting in**
13 **Maine.**

14 Q Okay. Did that have anything to do with
15 federal or state requirements for redistricting?

16 **A No.**

17 Q Okay. Moving on up, the other medium.com
18 article, "Great Lobster and a More Equitable Voting
19 System Exists in Maine," can you describe that one
20 for us.

21 **A That had to do with ranked-choice voting.**

22 Q Okay. Were you first or -- sorry. Were you
23 second author on that?

24 **A That -- we ordered that alphabetically.**
25 **Those are two of my students.**

1 Q Okay. And what was your role? Who was the
2 principal drafter?

3 **A I don't remember how we drafted that. This**
4 **medium.com is a minor blog post, so it was a much**
5 **more informal type of publication. And I think we**
6 **were just commenting on the voting system used in**
7 **Maine.**

8 Q Okay. Did that have anything to do with
9 the -- did that article have anything to do with the
10 state or federal requirements for redistricting?

11 **A No.**

12 Q Did the next one up, "The Washington Post"
13 article, have anything to do with state or federal
14 requirements for redistricting?

15 **A Not that I recall. It had to do with**
16 **apportionment. Though we mentioned -- it was before**
17 **redistricting, so we mentioned that it could affect**
18 **redistricting. But not anything to do with federal**
19 **or state law beyond apportionment.**

20 Q Okay. I'll give you the next one up, if you
21 could describe that one for us.

22 **A I'm actually not sure that that ever was**
23 **published. So, I'm not sure it should be there.**

24 **But it was -- it's an idea that I've long had**
25 **and not -- have not pursued meaningfully,**

1 **unfortunately, about the rhetoric of President --**
2 **before he was president, Donald Trump, and how he**
3 **was -- is in the WWF Hall of Fame and how that might**
4 **relate to sort of the way he thinks about politics.**

5 Q Did that article discuss the Hair versus Hair
6 match?

7 **A Strike that.**

8 Q I will strike that.

9 The next article up, an Election Law Blog
10 post entitled "Fracking: A Contiguity-Related
11 Redistricting Metric," can you describe that one for
12 us.

13 **A Sure. Fracking is this idea that a district**
14 **will enter into a county that's only a part of a**
15 **county but will enter it in two different places.**

16 **This can happen accidentally if you have**
17 **computers randomly drawing districts where you might**
18 **not think that it much matters or it can happen on**
19 **purpose in ways that, say, is leading to a violation**
20 **of Shaw versus Reno, race with a prime motive by**
21 **picking up pockets of minorities, or it could be**
22 **picking up pockets of, you know, partisans or for**
23 **some other reason.**

24 **And so, we -- I had this idea that fracking**
25 **may or -- may or may not be bad. It may be**

1 incidental. We introduced that topic in the
2 Election Law Blog and that metric is actually used
3 now in Maptitude for Redistricting. So, it can
4 calculate the number of so-called fracks, f-r-a-c-k.

5 Q Did that article discuss state or federal
6 redistricting requirements other than, you know, as
7 incidental towards the fracking analysis?

8 A What do you mean, incidental towards?

9 Q So, you discussed that there could be
10 problems with picking up, for instance -- I'm sorry,
11 I'll say this wrong -- but picking up minority
12 voting population pockets. Am I correct that that
13 involved a discussion of the VRA?

14 A Honestly, I don't remember. I don't recall
15 whether we discussed any of the actual -- other
16 criteria beyond this very specific idea that
17 districts may enter into a county in two different
18 spots and be discontinuous within the county.

19 Q Okay. And then, the last one, "Report of the
20 Special Master," I noted on Page 3 that that's also
21 included in your work experience. Just to make sure
22 for the record, it's the same thing, same case?

23 A Same case, yes.

24 Q Okay. Can you describe your role and how you
25 developed your report?

1 A Describe my role as special master?

2 Q Yes.

3 A Sure. I was appointed by the Supreme Court
4 of New York to serve as special master. I was
5 initially tasked with drawing contingent
6 congressional maps in case the legislature was not
7 able to remedy their violation of state law.

8 Upon appeal, the Court of Appeals of New York
9 ordered that my job was not contingent any longer
10 and that I would draw those maps. And they added
11 the task of drawing the state Senate districts on
12 top of that.

13 And the report is my way of conveying to the
14 public the decisions that I made.

15 Q How were you appointed?

16 A I was appointed by the Supreme Court Judge in
17 the state of New York.

18 Q Do you have any idea how you -- how you were
19 chosen as the special master specifically?

20 A I don't know the details of why the Judge
21 chose me, other than that he had received the
22 recommendation that I would be the person who would
23 be best suited for that role.

24 Q Do you know who made that recommendation?

25 A I know -- I don't know if I am allowed to

1 state on record private communications with the
2 court. In my role as special master, I'm acting as
3 a judge might act, and therefore, that would give
4 the same privilege, I would believe, that any judge
5 in America would be granted. So, I don't want to
6 speak for Justice McAllister.

7 Q Okay. We'll put a pin in that for now. We
8 may come back to it, but that may be something we
9 can figure out later.

10 What was the specific challenge to the
11 New York map?

12 A Well, the -- there are various challenges.
13 And ultimately the Court opinion enunciates multiple
14 reasons on why the maps were contrary to the
15 constitution, including both substantive on the
16 congressional map and procedural on both the
17 Congressional map and the state Senate map.

18 Q Were you tasked as special master to make a
19 recommendation as to whether those maps were flawed
20 or was your role just to draw the new map?

21 A I was not involved in the litigation portion
22 or the trial portion of that case.

23 Q So, did you make any recommendation at all
24 regarding the maps that were ultimately struck down?

25 A No.

1 Q Okay. How did you start? I'm sorry. Strike
2 that.

3 How many maps -- in both the first round of
4 trial litigation and then after receiving the
5 additional responsibilities by New York's Court of
6 Appeals, how many maps did you ultimately draw for
7 New York?

8 A I only drew the Congressional map and the
9 state Senate map.

10 Q All right. Starting with the Congressional
11 map, how did you begin by drawing that map?

12 A Well, there was a process that was laid out
13 by the Court that included a hearing in Bath,
14 New York, in May, in which I traveled to Bath and
15 heard from citizens live. I also heard from the
16 parties, the lawyers to the case and from the
17 Attorney General's office.

18 That was to provide ideas, feedback of any
19 kind that people wanted to submit. Then there was a
20 period for people to, you know, give their comments
21 via email to me or via court docket.

22 And I delivered a preliminary map at one
23 point. That preliminary map was subject to comment
24 by citizens and by the lawyers to the parties, and
25 then ultimately delivered a map to the Court. It

1 was the Court's map that they delivered, I believe,
2 on May 20th on my recommendation.

3 Q How did you -- can you walk me through how
4 you drafted the preliminary map? How did you start?

5 A Again, I'm in the role of a judge here, so
6 I'm not sure what I can say beyond what you find in
7 the report of the special master.

8 But like I said, there was a large amount of
9 litigation that had preceded my being appointed as
10 special master, that I read through to understand
11 the circumstance which led to the disqualifying of
12 that plan.

13 There had been dozens or over a dozen
14 redistricting commission hearings that had been held
15 prior to a map being passed by the New York
16 Legislature.

17 I hired a staff of people to help sort
18 through the legal material and the material
19 generated by citizens. Maps had been submitted to
20 me for consideration, which I used to get a better
21 understanding of the geographic and demographic
22 dynamics of New York.

23 Q So, you were provided -- strike that.

24 So, were these maps that you were provided --
25 draft maps you were provided, rather, was that your

1 starting place, so to speak, or did you start all
2 the way back from scratch?

3 A I'm sorry. I'll ask you to repeat that
4 again.

5 Q Sure. When you received the maps you just
6 discussed, the draft maps, were those your starting
7 points or did you start from scratch?

8 A When you say draft maps, I don't know if you
9 mean the legislature's map that was ruled
10 unconstitutional, the prior decade's map, or the
11 commission's maps. There was a lot of maps.

12 Q Any of them. Were any of them your start --
13 were any of them your starting point or did you just
14 completely start from scratch with the census data
15 and the counties?

16 A You know, I don't recall what the starting
17 point of any particular map was. We -- I took ideas
18 from the many maps that had been submitted and tried
19 to find the best ideas in order to create a map that
20 was compliant with all state and federal law.

21 Q Tell me about your assistants in your role as
22 special master.

23 A I'm pleased to do that. My primary assistant
24 was, you guessed it, Bernard Grofman, who I brought
25 in to help ensure compliance with the Voting Rights

1 Act.

2 And the other help, I had help from three
3 other individuals. The first was a young lady who
4 was in her last semester of law school, actually
5 graduated from law school while we were drafting the
6 maps. She was at New York Law School and had
7 followed all of the redistricting process in
8 New York from the beginning of the commission
9 through the legislature and had attended all of the
10 hearings and had a deep, intimate knowledge of the
11 proceedings.

12 The second individual was a fellow named
13 Jason, who grew up in New York and has followed
14 redistricting nationwide this cycle, and provided,
15 you know, invaluable feedback on communities of
16 interest, but also organizing the docket for me and
17 following all of the filings, which were immense.

18 And then, finally, I had hired Zach Griggy,
19 an undergraduate at the University of California,
20 Irvine, to help with the actual drafting of the
21 maps.

22 Q And just for the record, so, we have
23 Zach Griggy. Jason, do you know Jason's last name?

24 A Jason Fierman and Marissa -- I don't know how
25 to say her last name. All of the bios for these

1 individuals are in the special master report.

2 Q Excellent.

3 A With the same details I just mentioned to
4 you.

5 Q So, Mr. Griggy, you said, assisted you in the
6 actual drafting of the map.

7 A Uh-huh.

8 Q How would that process -- how did that
9 process work? What was the breakdown between the
10 time you spent drafting and the time Mr. Griggy
11 spent drafting?

12 A To be clear, all of the members contributed
13 to the drafting of the maps.

14 Zach has the expertise in the software, so he
15 has the technical expertise. He has been hired by
16 federal courts -- or, I'm sorry, state courts to
17 help draft maps, remedial maps with Dr. Grofman and
18 has done that several times this decade. He has
19 also produced maps for -- I don't have his CV in
20 front of me, but for city councils that have been
21 put into effect. He is one of the best drafters of
22 maps that I've ever seen.

23 And you asked about the breakdown between
24 like how much I did and how much he did. A lot of
25 the work was done simultaneously. We did a lot of

1 Zooming with Dave's Redistricting app on our screens
2 shared so that we could draft maps together.

3 Q So, you used Dave's. Did you also use
4 Maptitude?

5 A I did not use Maptitude.

6 Q Okay. Did you use anything besides Dave's?

7 A No.

8 Q Okay. Would you describe in a little bit
9 more detail Dr. Grofman's role? You said that he
10 helped ensure compliance with the VRA. Is there
11 anything else that he did as part of your role as
12 special master?

13 A I wouldn't minimize anybody's role. The team
14 was equally helpful. As far as the specifics about
15 what everybody did, it's hard to define those since
16 everybody contributed at every point.

17 But the primary reason to have hired
18 Dr. Grofman was for compliance on the VRA. As I
19 mentioned to you earlier, he was the expert witness
20 in Gingles versus Thornburg.

21 Q So, when you received -- so, when you created
22 your preliminary map, did you run any data analyses
23 on that map?

24 A Absolutely. In fact, when I delivered the
25 preliminary map, I delivered it as a one-page report

1 that highlighted the number of county splits, the --
2 I can't remember the table now, unfortunately.

3 I delivered a link to the plan in DRA so the
4 public could view the plan and make comments. It
5 said the number of county splits and it, I believe,
6 had partisan bias scores on it.

7 Q About how long did it take you from
8 appointment to create the preliminary map?

9 A I want to say that the process lasted in
10 total about five weeks. To the preliminary stage
11 was approximately three weeks.

12 Q What, if anything, changed between the
13 preliminary map and the map that was ultimately
14 adopted by the Court?

15 A Well, we received about 3,000 comments from
16 the public. And there were some significant changes
17 made to address communities of interest.

18 Specifically, I don't know how to think about
19 what were the changes. I don't have a mental image
20 of all of the changes that were made, but most of
21 the comments relating to communities of interest
22 were the types of changes that we were interested in
23 making to make the map better.

24 Q Did New York have a state constitutional
25 requirement to ensure communities of interest?

1 A Yeah. The New York Constitution does have
2 that provision.

3 Q Okay. Besides communities of interest, did
4 the preliminary map have any issues concerning state
5 and federal requirements for redistricting?

6 A Can you repeat that question?

7 Q Sorry. Apart from the communities of
8 interest changes, did the preliminary map have any
9 issues regarding state and federal requirements for
10 redistricting?

11 A I don't believe that there were any changes
12 that were made to -- yeah, I don't believe there
13 were any changes that were made from preliminary to
14 final that would have made it compliant -- it was
15 already compliant with federal and state law at the
16 preliminary map stage.

17 Q Do you recall what the deviation was of the
18 preliminary map?

19 A It was a Congressional map, so --

20 Q I'm sorry. Sorry. I wanted to move on to
21 the Senate map. Sorry about that. I should have
22 said that.

23 With regard to the Senate map, do you recall
24 what the deviation of that map was?

25 A The total deviation, the absolute deviation?

1 Q Yes.

2 A I'm sorry, there are multiple ways to measure
3 these things.

4 Q Let's do each one.

5 A Well, I don't -- I actually don't recall what
6 any of them are, so we'll leave it at that.

7 Q Okay.

8 A They were all compliant with state and
9 federal law. Let me leave it at that.

10 Q Okay. In terms of deviation for state and
11 federal law, what, in your mind, is the guidepost
12 there?

13 A Sure. In New York, the state Senate map has
14 very specific provisions about deviation. When you
15 split counties, the deviation must be the same as it
16 would be in a Congressional map if a county is
17 split.

18 So, in New York City, every single district
19 within the five boroughs must have exactly the same,
20 within one person, deviation.

21 Q And what if a county is not split?

22 A If a county is not split, it can be within
23 plus or minus 5 percent, as courts regularly allow.

24 Q Was there anything different about the
25 process for -- of drafting the map between the state

1 Senate map and the Congressional map?

2 A Difference as far as process?

3 Q Yes, sir.

4 A Well, there was far more comment on the
5 Congressional map than there was the state Senate
6 map, which is not terribly surprising. So, that was
7 one of the big differences, the amount of -- the
8 number of maps that we had at our disposal to help
9 us with the process, help inform our drawing of
10 those maps. That's the biggest difference.

11 Q So, for the -- just to make sure, for the
12 state Senate map process, did you start the same
13 way, which is reviewing, you know, the library of
14 maps that, you know, had been offered and then
15 selecting the best ideas and starting from there?

16 A Yes. The difference was the library was much
17 more like one shelf of a book, or a bookshelf.
18 There was only -- there was only the plans that were
19 delivered by the parties to the case and then a
20 couple of other ones.

21 In most cases, they were not compliant with
22 the very specific block on border rules of the
23 New York Constitution, so those plans were not as
24 useful for informing our development of those plans.

25 Q Could you describe that rule for me, your

1 understanding of that rule.

2 A What I was saying earlier about how when a
3 county is split, that the district must have exactly
4 the same populations in each of the districts within
5 those counties.

6 Q So, it's the same thing we just discussed?

7 A Yes.

8 Q Okay, excellent.

9 All right. Moving on to the "In Progress"
10 section.

11 A Sure.

12 Q So, we'll go down instead of up, if that's
13 all right.

14 A Sure.

15 Q The first article for -- that's accepted
16 for -- or working paper, I believe, that's been
17 accepted by the New Hampshire Law Review, that's the
18 one we discussed earlier?

19 A It is.

20 Q The next one below, "Recent Approaches to the
21 Definition and Measurement of Compactness," does
22 that deal with or address redistricting?

23 A It does.

24 Q Does it address state or federal requirements
25 for redistricting?

1 A I'm not sure if it addresses specific state
2 or federal requirements. I think it talks more
3 generally about the types of ways in which social
4 scientists measure, or maybe practitioners of
5 redistricting measure compactness.

6 Q Okay. Can you elaborate on that article and
7 just describe it for me then, in as much detail as
8 you can.

9 A Sure. And I don't have all the specifics of
10 this article, but in general, compactness has
11 generally been measured sort of through a geometric
12 approach, a mathematical approach, which measures,
13 say, the area of a district versus its perimeter or
14 a perimeter of a circle and measures, you know, how
15 well it fits into a circle so that you can
16 measure -- it tries to measure how much the lines
17 sort of zigzag or districts have, say, tentacles or
18 whether they look more like symmetrical shapes, I
19 guess for lack of a better way to describe that.
20 That, by the way, is described in detail in at least
21 two of my reports.

22 Then we also talk about some of the newer
23 approaches to measuring compactness that are not
24 mathematical based, because the mathematical ones
25 have particular problems, such as the way you

1 project a sphere of the earth onto a flat surface
2 can distort the area of a district and then can
3 cause problems with measurement. So, depending on
4 how you project, what projection system you use, can
5 change the numbers.

6 And so, mathematicians have developed other
7 tools for measuring compactness. It's not very
8 interesting. It's kind of technical in nature.

9 Q Is compactness a state or federal requirement
10 for redistricting or is it just implicated in
11 circumstances as an indicator of partisan
12 gerrymandering or the like?

13 A My recollection is that there is no
14 requirement in federal law for compactness, but many
15 states do have provisions in their state
16 constitutions that require districts to be compact.
17 But oftentimes those are vague, and, therefore, we
18 were trying to get a better grip of the different
19 ways in which we might measure these things.

20 Q To your knowledge, does Tennessee have a
21 constitutional compactness requirement?

22 A Not to my knowledge.

23 Q Okay. The next article down, "Fracking: A
24 Contiguity-Related Redistricting Metric," is that
25 the same one that's in "Other Publications" right

1 next to 2021 on the same page? Is that the same?

2 **A Yes.**

3 Q Okay. I just didn't want to ask you again
4 about it and waste your time.

5 **A Oops.**

6 Q The next one down, "Fallacies in
7 Statistically-Based Claims about Massive Election
8 Fraud in 2020," did that deal with redistricting at
9 all?

10 **A No.**

11 Q Okay. The next one down, "The Terminology of
12 Districting," I assume that that has quite a bit to
13 do with redistricting. Am I right?

14 **A That's right.**

15 Q Okay. It says, "with Bernard Grofman."

16 **A Uh-huh.**

17 Q I understand that that is in progress. Do
18 you anticipate being first author on that?

19 **A I don't recall who was first author on that.**
20 **I'll note that that paper, we submitted it to**
21 **journals for publication. It has been rejected**
22 **multiple times and have decided not to pursue**
23 **publication. But I keep it on here because I know**
24 **that there are professors who assign this document**
25 **as part of their curriculum for their classes.**

1 Q Were you ever given any reason for the
2 rejections?

3 **A It doesn't -- it doesn't advance any kind of**
4 **political science theory. And generally, social**
5 **science journals that are peer reviewed want**
6 **something that is either methodologically, you know,**
7 **adding to some debate or theoretically adding to**
8 **some debate. This is, instead, more like a chapter**
9 **in a book, which it may become.**

10 Q Can you just elaborate on a description of
11 it, just to give us a sense of what it is?

12 **A Yeah. In some ways it's much like the NCSL's**
13 **red book, but made to be more accessible to the**
14 **general public so that they can understand the**
15 **process of redistricting without -- you know, so**
16 **words are used that are not known to the general**
17 **public. Like something like compactness, they don't**
18 **know what it is. So, we try to define what those**
19 **words are.**

20 Q In the next one down, "The Paradox of
21 Malapportionment," can you describe that one for us.

22 **A I don't recall the contents of that article.**

23 Q Okay. Do you have any idea whether or not it
24 deals with state or federal redistricting
25 requirements?

1 **A It does not. It's about apportionment**
2 **process.**

3 Q Okay. The next one down, "Is the Electoral
4 College Biased in Favor of Republicans? Yes and
5 No." Does that have anything to do with
6 redistricting or state or federal requirements for
7 redistricting?

8 **A No. The only thing that relates to it is the**
9 **way that we measure bias in the Electoral College is**
10 **using the tools that have been developed to measure**
11 **bias in redistricting plans.**

12 Q The next one down on the next page, "An
13 Experiment on Optimal Campaigning Using a Simplified
14 Seven-State Electoral College."

15 **A Uh-huh.**

16 Q Does that have anything to do with
17 redistricting?

18 **A No.**

19 Q Okay. The next one down, "Location,
20 Isolation, and Influence," does that have anything
21 to do with redistricting?

22 **A No.**

23 Q Okay. "Population-Dependence of Cabinet
24 Sizes," does that have anything to do with
25 redistricting?

1 **A Absolutely not.**

2 Q Okay. "Representation of Non-Eligible
3 Resident Populations in Legislative Bodies," does
4 that have anything to do with redistricting?

5 **A No.**

6 Q Okay. "Apportionment without non-citizens,"
7 does that have anything to do with redistricting?

8 **A No.**

9 Q Okay. "Distinguishing Between the Legacy of
10 Slavery, Racial Threat, and Density in the American
11 South," does that have anything to do with
12 redistricting?

13 **A No.**

14 Q "Nationalized Campaigns and Midterm Dropoff,"
15 does that have anything to do with redistricting?

16 **A No.**

17 Q And "Habitual Voting Under Conditions of
18 Gerrymandering," does that have anything to do with
19 redistricting?

20 **A That paper is an idea, not a paper.**

21 Q Okay. Does it have anything to do with
22 redistricting?

23 **A Gerrymandering is redistricting, yes.**

24 Q Okay. Does it have anything to do with state
25 or federal requirements for redistricting besides --

1 (Overlapping speech.)

2 **A No, the idea --**

3 THE REPORTER: One at a time, please.
4 Please restate your question.

5 MR. RIEGER: Sure.

6 BY MR. RIEGER:

7 Q Does it have anything to do with
8 redistricting besides partisan gerrymandering? I'm
9 sorry. Strike that. Let me ask it again.

10 Does it have anything to do with state or
11 federal requirements for redistricting besides
12 partisan gerrymandering?

13 **A It only has to do with the down effects of**
14 **what happens after a district has been**
15 **gerrymandered.**

16 Q Okay. Now, if I can get you to look back,
17 starting at "Publications" and going all the way
18 through "Work Experience," how many of these have
19 been peer reviewed? And if you can just identify
20 just, you know, Publications 11, Publications 10,
21 and then going through the list, how many of these
22 have been peer reviewed?

23 **A I only count the ones that have been peer**
24 **reviewed as the ones listed under the sub-header of**
25 **publications, which on here is Numbers 1 through 11.**

1 Q And all of those have been peer reviewed?

2 **A Yes.**

3 Q Okay. All right. Moving on to "Work
4 Experience," we have gone through special master, we
5 have gone through consultant.

6 Let's talk a little bit about assistant to
7 the special master.

8 **A Sure.**

9 Q I know we discussed a little bit about it
10 earlier, but I'd like to dig in.

11 So, starting with 2017, Navajo Nation versus
12 San Juan County, Utah, can you describe that for us,
13 that process for us.

14 **A Well, I should just say that as assistant to**
15 **the special master, I worked mostly as the technical**
16 **assistant, helping Dr. Grofman actually physically**
17 **draw the maps.**

18 So, these cases were all after litigation,
19 after trial, and after the plans were struck down.
20 The federal courts then appointed Dr. Grofman as
21 special master who, with permission of the Court,
22 hired me for technical assistance.

23 Q And can you describe what is involved by
24 technical assistance.

25 **A Right. So, I would consider the kind of work**

1 that I did in those three cases the same kind of
2 work that Zach Griggy does for me now, which is to
3 say that the special master ultimately is giving
4 recommendations to the Court but needs to implement
5 the Court's guidance.

6 As assistant to the special master, I took
7 direction from Dr. Grofman in developing those
8 remedial plans. On occasion, I may have given him
9 things to consider, based on my own experience and
10 my own looking at the maps. But, ultimately, his
11 decisions were what were conveyed to the Court and
12 ultimately adopted by the Court in all three of
13 those cases.

14 Q So, in all three of those cases, you weren't
15 asked to give -- sorry. Strike that.

16 In those three cases, the special master was
17 not asked to give a recommendation as to whether or
18 not the maps at issue in those cases were
19 unconstitutional.

20 **A That's right. By the time a special master**
21 **is appointed, the Court has already ruled on whether**
22 **the map is compliant with the Constitution.**

23 Q Okay. In each of those cases, did you use
24 any certain software or programs?

25 **A I actually probably used various software**

1 packages for these cases.

2 I believe in 2017 in Navajo Nation, I used
3 ArcGIS. In Bethune-Hill, I used Maptitude for
4 Redistricting. And in Wright versus Sumter County,
5 even though it was the most recent, I actually don't
6 remember what software I used.

7 Q Okay. If we could start with Navajo Nation,
8 what was the process that the special master used in
9 drawing the map?

10 **A Again, work as a special master is privileged**
11 **with the Court and I signed a confidentiality**
12 **agreement with the Court on all of these cases.**

13 Q Then let me ask you, was -- maybe more
14 generally, since we've already discussed the
15 New York case.

16 Was the process used by the special master in
17 these three cases to draft the maps similar to the
18 process used in New York?

19 **A So, in general -- well, they're different**
20 **cases, so they're not the same.**

21 In these cases that are listed here, these
22 are either violations of the Voting Rights Act or of
23 Shaw versus Reno, which required narrowly tailored
24 remedies, as opposed to New York, which ultimately
25 was a procedural violation and the whole map was

1 struck down.
 2 So, in these cases, only portions of the map,
 3 as opposed to the entire map. So, different
 4 process.
 5 Q Different process. Were any of them -- in
 6 any of these, was the special master -- in any of
 7 these, did the special master have to draft an
 8 entire map?
 9 A Yes. In Navajo Nation versus San Juan County
 10 and in Wright versus Sumter County, entire maps were
 11 redrawn.
 12 Q Okay. Do you know whether or not the special
 13 master started from scratch on those maps?
 14 A I know -- as we did in New York, we started
 15 with maps that had been given to us by various
 16 parties, though I don't remember the details of
 17 those cases. But because it was litigation, there
 18 were multiple parties that were involved with the
 19 process who had ideas.
 20 Q Do you recall whether or not there was any --
 21 in either of those three cases, if there was any
 22 opportunity for public comment on a preliminary map
 23 or was it just, here's the map, Court?
 24 A On those cases, if I remember correctly,
 25 there was no opportunity for the public on those.

1 Q Okay. So, in all three of those, there was
 2 no preliminary map; it was simply, here is the map
 3 for the Court's final approval.
 4 A Exactly. The Court approves them. It's the
 5 Court's map, just to be clear. It wasn't the map of
 6 the special master. The special master makes
 7 recommendations to the Court and the Court either
 8 says go back to the drawing board or adopts the map.
 9 The Court ultimately determines what the law says,
 10 not the special master.
 11 Q And under "Work Experience," the last item is
 12 "Expert Witness." And I note this case.
 13 A Yes.
 14 Q Has there ever been any other time in which
 15 you served as an expert witness?
 16 A No.
 17 Q All right. If we can move to "Invited
 18 Talks."
 19 A Sure.
 20 Q We'll just go down the list. So, 2021 starts
 21 with "Voting Rights and Election Law" at Hofstra Law
 22 School. Did that have anything to do with
 23 redistricting?
 24 A Yes.
 25 Q Can you describe it?

1 A He asked me to give a talk relating to my
 2 work as special master in New York primarily and
 3 more generally on the process of redistricting.
 4 This is a class of law students.
 5 Q Did you discuss state and federal
 6 requirements for redistricting?
 7 A We did.
 8 Q Did you discuss any other state -- sorry.
 9 Strike that.
 10 Did you discuss any state's specific
 11 requirements for redistricting?
 12 A I believe we talked about some of the laws in
 13 New York specifically. Hofstra is a law school in
 14 New York, and so I'm certain that we spent some time
 15 talking about state law in New York.
 16 And I want to just note for the record,
 17 there's a misspelling of the judge's name here.
 18 It's Solages, so it's missing the last part of it.
 19 Q Okay. Tennessee didn't come up during that
 20 presentation to your knowledge, did it?
 21 A It did not.
 22 Q Okay. Did you present with anybody else or
 23 were you going solo?
 24 A No. That was just me.
 25 Q Okay. The next one down, "Measuring

1 Compactness," as part of that one, did you discuss
 2 redistricting at all?
 3 A Yes.
 4 Q How so?
 5 A I believe that my remarks in that were based
 6 on the working paper that we talked about earlier,
 7 "Recent Approaches to the Definition and Measurement
 8 of Compactness."
 9 Q Okay. And just like we -- sorry. Strike
 10 that.
 11 As part of that talk, did you go into detail
 12 about state and federal requirements for
 13 redistricting or was it incidental to your thoughts
 14 on compactness?
 15 A I don't believe there was any discussion of
 16 law.
 17 Q Okay. Did you present that with anyone else
 18 or was that just you?
 19 A That was just me.
 20 Q Okay. 2021 again, "Voting Rights and
 21 Elections," University of Texas at Austin, can you
 22 describe that one?
 23 A That was -- I did that via Zoom. My remarks
 24 were very brief and in conjunction with Professor
 25 Sam Wang from Princeton University. He was invited

1 by Beto O'Rourke and asked Beto if it would be okay
2 if I came to participate as well.

3 Q Do you recall any of the substance of your
4 remarks?

5 A I had COVID at the time, so I don't recall
6 anything.

7 Q Okay. "Tools for Identifying a Partisan
8 Gerrymander" at Princeton University, winter
9 session, did that have anything to do with
10 redistricting?

11 A It did. It was a presentation on the
12 published paper that's listed in my CV under
13 Number 4.

14 Q And as part of that, did you discuss any
15 state or federal requirements for redistricting
16 besides partisan gerrymandering?

17 A It was -- only thing that I would have
18 discussed there was what was in that paper.

19 Q Okay. The next one, "2019 NCSL Capitol
20 Forum," can you describe that one for us.

21 A I was invited by the National Conference of
22 State Legislatures, NCSL, to talk about
23 redistricting and what would happen over the next
24 cycle, in a very broad way. I moderated a panel.

25 Q Who was on the panel?

1 A Oh, geez. I believe one of the panelists was
2 Kathay Feng from Common Cause and I do not remember
3 the other panelists.

4 Q Did you discuss any state or federal
5 requirements for redistricting?

6 A I did.

7 Q Can you describe how you did that.

8 A The NCSL is a bipartisan, nonpartisan
9 organization. And so, we stuck strictly to the
10 requirements that are found in federal and state
11 constitutions. I sort of gave an overview of what
12 the law requires.

13 Q Okay. Was there any focus on any one
14 particular requirement or just an overview?

15 A It was literally an overview, without any
16 specifics about any particular state. Just what
17 some states use -- or what some of the criteria are
18 found in some of the state constitutions.

19 Q Okay. The next one down, "Redrawing the
20 Virginia legislative map: the Bethune-Hill, racial
21 gerrymandering case." Can you describe that one for
22 me.

23 A I think I talked to the students there about
24 the effect of the Bethune-Hill changes, so, the map
25 that existed before the map was overturned on Shaw

1 versus Reno claims and then the map that was
2 produced by the special master, in simply looking at
3 what the effects of the plan were.

4 Q Okay. Was there any focus on any state or
5 federal requirements for redistricting other than
6 racial gerrymandering?

7 A No.

8 Q 2018, "Triple Play: Election 2018,
9 Census 2020, and Redistricting 2021" at the
10 University of Houston. Can you describe that one
11 for us.

12 A This was an invited talk in person -- this is
13 before COVID -- in person at the University of
14 Houston. It was an all-day event and I was on a
15 panel. I gave a talk that was wandering and not
16 very focused and I remember talking -- I remember
17 specifically talking about Navajo Nation.

18 Q Okay. Did you discuss in detail any state or
19 federal redistricting requirements or was it another
20 overview or something else?

21 A Yeah, I don't think that there would have
22 been any law in that talk.

23 Q Okay. The next one down, "Representation of
24 Non-Eligible Resident Populations in Legislative
25 Bodies." Can you describe that one for us.

1 A This is, again, a working paper that hasn't
2 probably been worked on since 2016, so quite a long
3 time ago. My co-author and I on that particular
4 paper, Angela Ocampo, are interested in whether
5 people who have no rights to vote can still find
6 representation in legislatures. I just think it is
7 an interesting idea. And that's basically the
8 concept.

9 Q Did it involve redistricting or state or
10 federal requirements for redistricting?

11 A No.

12 Q Okay. The last one, "Asymmetry in State
13 Grant Distribution: Why Proximity to the State
14 Capital Matters," did that deal with redistricting
15 at all?

16 A No.

17 Q Okay. Under "Service to the Discipline"
18 says, "Referee: American Journal of Political
19 Science, Political Geography, Election Law Journal,
20 Public Choice, Political Research Quarterly." Can
21 you describe what that is.

22 A Yes. The editors of those various journals,
23 including the "American Journal of Political
24 Science," which is the number one journal in
25 political science, reached out to me to serve as a

1 peer reviewer on articles.

2 Q What sorts of articles do you peer review?

3 A Typically, I'm asked to review articles
4 regarding either the Electoral College or
5 redistricting because those are my areas of
6 expertise.

7 Q How long have you been a referee?

8 A I started being a referee in graduate school.
9 It was -- I don't have years listed here, so I don't
10 recall the very first time. But it was when I was a
11 more advanced graduate student, is typically when
12 people start to referee reports.

13 Q Do you remember the year when you started, by
14 any chance?

15 A I don't, I'm sorry.

16 Q Okay. But it would have been in grad school,
17 you said?

18 A It would have been -- it probably would have
19 started after I started publishing peer-reviewed
20 journals on my own. That's when I think generally
21 you get deemed as being expert enough to qualify as
22 a peer reviewer.

23 Q All of those are different journals, correct?

24 A Uh-huh.

25 Q Okay. Do you recall which one was the first

1 you were selected as a referee for?

2 A I don't recall.

3 Q Do you recall which was the last, by any
4 chance?

5 A I turned down one this week. I get requests
6 to do these constantly.

7 Q Can you describe, if you can recall, when you
8 were brought on as a referee for the "American
9 Journal of Political Science"?

10 A It was a few years ago. I don't remember
11 when.

12 Q Okay. About how many articles have you peer
13 reviewed?

14 A I would say close to a dozen, but I don't
15 have records. You don't list those things. Peer
16 review is a blind process. We don't say which
17 papers we review.

18 Q So, when you say a dozen, that's between all
19 of these?

20 A It's double -- peer review is a double-blind
21 process, so the author of the paper does not know
22 who was the peer reviewer and the peer reviewer does
23 not know who the author of the paper was.

24 Q Okay. So, a dozen total is --

25 A Approximately.

1 Q Okay. How many of those, if any, dealt with
2 redistricting?

3 A I honestly could not give a number on that.
4 As I indicated, half of my work is on the Electoral
5 College and half is on redistricting. I would say
6 it probably breaks down pretty similar to that, with
7 maybe a little bit heavier on the redistricting
8 because -- well, basically, it's what people are
9 publishing about at this particular moment and
10 Electoral College is not going to be published until
11 next year.

12 Q Can you recall any specific ones that dealt
13 with redistricting?

14 A No. And even if I could, I couldn't say
15 because of the peer -- the double blind.

16 Q Did any of them deal with county splitting?

17 A I don't recall.

18 Q Okay. Did any of them deal with Tennessee?

19 A No.

20 Q Okay. Got to make sure on that.

21 And then "References."

22 MR. RIEGER: We can go off record.

23 (Discussion off the record.)

24 (Luncheon recess observed.)

25 / /

1 BY MR. RIEGER:

2 Q Welcome back. You do understand that you're
3 still under oath.

4 A Yes.

5 Q And that the previous rules that we discussed
6 earlier still apply.

7 A Yes.

8 Q Okay, great. Can you describe what you are
9 being asked to provide -- the subject of your expert
10 testimony?

11 A Yes. And I can refer to my reports?

12 Q Certainly. We're still on expert report,
13 Exhibit Number 3, for now, in the binder, just in
14 the start of it.

15 A Thank you for clarifying it.

16 So, are we talking only about the Senate
17 plan?

18 Q We're talking generally. What do you purport
19 to be an expert in?

20 A My expertise is in redistricting,
21 specifically. I have expertise in other areas of
22 American politics. I have a Ph.D. in American
23 politics. And I am an expert when it comes to
24 redistricting and the process of districting more
25 generally.

1 Q Okay. Have you ever written a peer-reviewed
2 paper that is not reflected in your CV on any topic
3 relevant to that expertise? And it's only ones that
4 aren't on your CV.

5 A I do not believe so.

6 Q Okay. Have you ever performed any type of
7 peer-reviewed research on any topic relevant to that
8 expertise that isn't reflected in your CV?

9 A Have I ever -- can you repeat one more time?

10 Q Have you ever performed any peer-reviewed
11 research on any topic relevant to your expertise
12 that is not reflected in your CV?

13 A I don't believe so.

14 Q Okay. That is fantastic.

15 Okay. So, let's start with the same exhibit
16 that we're on, which is the Senate reapportionment
17 expert report you prepared, which is marked as
18 Deposition Exhibit 3.

19 (WHEREUPON, a document was presented,
20 previously marked as Exhibit Number 3.)

21 BY MR. RIEGER:

22 Q When were you first contacted to provide
23 expert testimony?

24 A I believe it was April of 2022. 2022, yes,
25 the year we are in.

1 Q What specifically were you asked to do?

2 A Regarding this report?

3 Q Yes.

4 A This report, I was asked to create a
5 demonstrative plan that adhered to all state and
6 federal statutory law, specifically ensuring that
7 all districts that are within a county are numbered
8 sequentially.

9 Q Have you previously opined, either in writing
10 or in any sort of presentation or talk, about the
11 subject matter in the Senate reapportionment expert
12 report?

13 A The provision of the Tennessee Constitution
14 about sequentially numbered districts is fairly
15 unique. I'm not sure of any other state that has
16 that requirement. So, I have not prepared a report
17 on that specific topic before.

18 Q Okay. Were you aware of that particular
19 constitutional provision before you were engaged as
20 an expert witness?

21 A I am not -- I was not specifically aware of
22 any particular provisions of the Tennessee
23 Constitution before engaging on this project.

24 Q Okay. Did you do any work regarding the
25 Senate plan that isn't contained in your report?

1 A No.

2 Q Are you being paid for your expert testimony?

3 A I am.

4 Q What's the rate?

5 A \$200 an hour.

6 Q How many hours have you worked on -- have you
7 worked on all -- sorry. Strike that.

8 How many hours in total have you worked on
9 this case, not just this report, but the case as a
10 whole?

11 MR. TIFT: You can answer it if you
12 know.

13 THE WITNESS: I don't know the answer.
14 I would say we have records, but I don't know.

15 BY MR. RIEGER:

16 Q Okay. Would you say it's more than 20 hours?

17 A Oh, yes.

18 Q More than, say, 50 hours?

19 A Oh, Jesus. I don't know.

20 Q Okay. Is there any sort of ballpark you can
21 give? It could be a huge range. I'm just trying to
22 get a ballpark.

23 A I have no idea.

24 Q Let me ask you this. Was there any
25 limitation on the number of hours that you could

1 spend on these expert reports?

2 A I was not given a limitation.

3 Q Okay. Were you given any limitations on the
4 reports or their content by anyone?

5 A No.

6 Q Okay. Who wrote the first draft of the
7 Senate reapportionment expert report?

8 A I wrote the draft.

9 Q Okay. Were there any edits to the draft made
10 by anyone else?

11 A Referring to like word changes or content
12 changes?

13 Q Yes, any changes.

14 A I worked with counsel to make sure that
15 everything was worded correctly and for formatting
16 and for ensuring that I included proper
17 qualifications and things like that.

18 Q Were there any substantive changes at all?

19 A No.

20 Q Okay. Were you provided anything by anyone
21 when you were in the process of making this expert
22 report?

23 A Provided?

24 Q Any documents, any information.

25 A On the Senate report?

1 Q Yes.

2 A I don't believe I was provided anything,
3 including I'm not sure that I was given even draft
4 maps. I think I found everything -- no. There was
5 one map that was delivered that I call the Senate
6 constitutional numbering map on Page 9 of this
7 report.

8 Q The Senate constitutional numbering map?

9 A Yes.

10 Q And who was that provided by?

11 A As I say in the paper on the first line,
12 "I was sent, by counsel, a map that was proposed
13 that sequentially numbers districts in all counties
14 as required by Tennessee Constitution."

15 Q Okay. Did you speak with anyone about this
16 expert report besides counsel when you were drafting
17 it?

18 A No. Just for clarification, I did work with
19 Zach Griggy on these reports. Not on the content of
20 the reports, but on the maps.

21 Though, on this particular one, I'm not sure
22 that I actually did. I'd have to check. But I do
23 indicate in the reports who I worked with.

24 Q Did you work with anyone who is not
25 referenced in the reports?

1 A No.

2 Q Moving to Page 6 of the Senate report, did
3 you look at any data or any information besides that
4 which is set forth in "III. Data"?

5 A I wrote this data section as I went,
6 referring to anything that I took off the internet
7 or was delivered to me. So, my recollection is
8 everything that is in here is everything that I
9 used.

10 Q Okay. For your expert conclusion on Page 16,
11 is there anything that you would change or add to
12 your final conclusion?

13 A The one-sentence conclusion that I give in
14 the first paragraph under Roman VI, "Given my
15 experience and expertise in redistricting, it is
16 easy to conclude that the Legislature could have
17 numbered all districts within a single county
18 sequentially," I stand by that.

19 Q Your expert -- does your expert report
20 contain any discussion of why the Tennessee
21 Constitution may require that all districts within a
22 single county be consecutively numbered?

23 A I'm not a lawyer, so I don't usually get into
24 issues of the law. I was asked by counsel to
25 provide conceptual maps in which all districts were

1 numbered sequentially, and that's what I did.

2 Q So, you are not giving any other expert
3 opinion, other than that sentence in Paragraph VI in
4 your expert report?

5 A This is a very narrow report, yes.

6 Q All right. And you are not providing an
7 expert opinion on the effect or the rationale of the
8 Tennessee Constitution's requirement that all
9 districts within a single county be numbered
10 consecutively?

11 A Are you asking me for like a question about
12 the law or my opinion on why it's in there?

13 Q Are you making an opinion as to either of
14 those two things in your expert report?

15 A In this report, all I'm saying is that it was
16 possible for the Legislature to number all of the
17 districts sequentially.

18 Q Okay. So, in this report, you are not making
19 an expert opinion regarding either the law or an
20 opinion about why that provision may exist?

21 A Yeah. I don't believe I reference the law at
22 all in this report.

23 Q Okay. All right. If we can move on to what
24 has been marked as Deposition Exhibit 4, which --
25 are you familiar with that document?

1 A Yes.

2 Q What is it?

3 A This is the Report of Plaintiffs' Expert
4 Regarding Tennessee State House Reapportionment.
5 It's my report delivered on October 10th, 2022.

6 Q Okay. Let me go back just a second to
7 Deposition Exhibit 3. I think I know the answer to
8 this but I want to make sure.

9 How many hours do you think -- how much time
10 do you think you put in to the Senate
11 reapportionment expert report?

12 A It was relatively few compared to this other
13 report.

14 Q Okay. So, who wrote the first draft of this
15 report?

16 A I wrote this draft.

17 MR. TIFT: Alex, should we admit it?

18 MR. RIEGER: Oh, certainly. If we can
19 admit that as Deposition Exhibit 4.

20 MR. TIFT: No objection.

21 MR. RIEGER: Thanks, Scott.

22 (WHEREUPON, a document was marked as
23 Exhibit Number 4.)

24 BY MR. RIEGER:

25 Q Could you describe the process of writing

1 this draft for me.

2 A This was -- these two drafts collectively
3 were the first drafts I've ever written as an expert
4 witness. So, I -- for my preparation, I found other
5 expert witness reports in redistricting to help
6 model the sort of flow of the report to ensure that
7 I make clear for a court how things should be
8 ordered.

9 So, starting with an introduction, moving on
10 to my qualifications, and then presenting the data,
11 background. That kind of organization was -- I
12 figured out how to do that by looking at other
13 expert witness reports.

14 Q Which other expert opinion reports did you
15 look at? Can you remember any of them?

16 A I don't remember specifically. It would have
17 been whatever I was looking at at the time. It may
18 have been the reports from New York. In fact, it
19 may have been the report of Sean Trende in which I
20 got the layout from.

21 Q Okay.

22 A That would have been the report that he
23 delivered in New York, just for clarification.

24 Q Okay. After you drafted it, were there any
25 changes before it got into its final form?

1 A I worked with counsel to ensure that
2 formatting made sense, that there were no spelling
3 errors, and that the flow of the document made
4 sense.

5 Q Did anyone besides counsel provide input into
6 this expert report or its subject matter?

7 A No.

8 Q Okay. Were there any substantive changes in
9 the content between the first draft and the final
10 draft?

11 A No, I don't believe so.

12 Q Were any documents provided to you to assist
13 you in writing this expert report?

14 A There was one map that was given to me by
15 plaintiffs' counsel that I refer to as House
16 Democratic Concept Map that you can find on Page 12
17 of this document.

18 Q Okay. Anything else? Was anything else
19 provided to you besides that?

20 A No, I don't believe so.

21 Q Had you previously rendered an opinion,
22 either in writing or in any sort of presentation or
23 talk, about the subject matter contained in this
24 expert report?

25 A No, I had never considered this -- the map in

1 Tennessee, either -- for either body, either chamber
2 of the Legislature.

3 Q Okay. When you say map, can you elaborate on
4 what you're talking about?

5 A Or plan or whatever word you want to use.
6 I've never considered these -- the Tennessee
7 Legislative plans in any of my other work.

8 Q Had you ever -- had you ever considered
9 Tennessee at all with regards to redistricting
10 before you were engaged as an expert witness?

11 A No.

12 Q Okay. Were you aware or -- were you aware of
13 Tennessee's constitutional provisions on
14 redistricting prior to your engagement as an expert
15 witness?

16 A No. Upon accepting this retainer, I looked
17 up the constitutional rules referenced in the NCSL
18 book and on the Tennessee website pertaining to
19 constitution.

20 Q Okay. In terms of those guidelines, besides
21 the -- sorry. Can you just -- strike all of that,
22 please.

23 Which website are you referring to, just to
24 make sure?

25 A Are we only talking about the House?

1 Q Yes.

2 A There's a website set up by the legislature
3 committee on redistricting. I reference this on
4 Page 6 of this report in its -- a website that was
5 set up by the Tennessee House.

6 Q And that is the website that is
7 [https://www.capitol.tn.gov/House/committees/](https://www.capitol.tn.gov/House/committees/Redistricting.aspx)
8 [Redistricting.aspx](https://www.capitol.tn.gov/House/committees/Redistricting.aspx)?

9 A Yes.

10 Q Okay. Did you look at anything else besides
11 that website and the NCSL red book for -- to
12 determine what the guidelines for redistricting
13 would be in Tennessee?

14 A Well, and the State Constitution.

15 Q Okay. Anything besides -- anything else?

16 A No.

17 Q Okay. In terms of the Roman III Data, did
18 you look -- in writing this expert report, did you
19 look at anything besides this information that's
20 listed under Roman III data in forming your expert
21 opinion?

22 A No.

23 Q So, as part of this expert report, you have
24 included under Roman V a list of illustrative plans.
25 Can you walk us through the process of how you

1 attempted to create these maps?

2 A Yes. I -- in basically the order that they
3 appear in this document, I started by -- counsel
4 initially asked me to draw a plan that kept Shelby
5 County whole so that the county line was not split.
6 That county should include 13 total districts as the
7 same as the enacted plan. And I was to draw a plan
8 that split as few counties as possible in the
9 process.

10 And so, the first plan I started with was
11 Plan 13a. That's a baseline plan. I drew it with
12 basically no regard for data besides population.

13 And that plan, upon finalizing it, which had
14 a low total number of county splits, I also noticed
15 that it eliminated one of the majority-minority
16 districts, which led me to produce Plan 13b. But I
17 didn't want to exclude this plan from the expert
18 report since I had created it.

19 13b attempts to correct the problem of
20 retrogression of the District 80 from Map 13a. And
21 that plan was what I called 13b.

22 I then created a Plan 14a, which created
23 14 districts inside of Shelby County and then
24 created as few county splits as possible.

25 Then I created two additional plans that I

1 call 13.5a, 13.5b. Those plans do split the Shelby
2 County border.

3 Q Did anyone assist you in drawing these maps?
4 A Yes. I had able assistance from Zach Griggy.

5 Q What was his role?

6 A I asked him to -- I gave him the instructions
7 to draw maps with as few county splits as possible,
8 the same instructions given me by counsel.

9 Q Did he provide any input about the lines
10 themselves or was he just charged with an
11 administrative function of using the technology?

12 A He is capable to find combinations of
13 counties that would provide whole districts so as to
14 minimize the number of county splits. And so, he
15 did provide substantive, as well as technical,
16 assistance.

17 Q Okay. What is his background?

18 A Zach is currently an undergraduate student at
19 the University of California, Irvine. He has drawn
20 maps that have been adopted by legal political
21 entities, and has served as assistant to Dr. Bernard
22 Grofman, who served as special master. And he
23 worked on congressional districts in the 2022 cycle
24 in Virginia and he worked as assistant to
25 Dr. Grofman working on congressional districts in

1 North Carolina. And he worked as my assistant in
2 New York drawing congressional districts in the
3 state Senate districts.

4 Q Of each of these maps, what percentage of the
5 line drawing can you estimate was his versus yours?

6 A I don't know that I could estimate that
7 percentage. Ultimately, I was responsible for
8 ensuring that these plans met the legal
9 requirements. And I don't know that there's a
10 percentage on the work that can be defined that way.

11 Q So, your goal in drafting this expert report
12 was for the -- was to create illustrative plans that
13 comply with the relevant federal and state
14 requirements for redistricting while minimizing
15 county splits?

16 A Can you repeat just one more time to make
17 sure I got that right?

18 Q Sure. So, your goal when drafting this
19 expert report was to create illustrative plans that
20 comply with state and federal requirements for
21 redistricting while also seeking to minimize county
22 splits?

23 A That's right.

24 MR. TIFT: Object to the form.
25 You can answer.

1 THE WITNESS: Yes.

2 BY MR. RIEGER:

3 Q Thank you. Did each of these plans -- you've
4 listed five illustrative plans here. Were all of
5 them compliant with all of the federal and state
6 requirements for redistricting?

7 A Map 13a, as I state, took a district that was
8 performing for a protected minority group and made
9 it no longer performing. Therefore, that map would
10 not be compliant with current guidelines by the
11 U.S. Supreme Court.

12 The rest of the maps, as I understand them,
13 meet all of the criteria under federal and state
14 law.

15 Q Talk to me about the one person, one vote
16 requirement for state maps and how -- what is the
17 deviation? What's the range?

18 A My understanding of the law is that the
19 U.S. Supreme Court requires that these districts be
20 substantially equal in population and have -- define
21 that as a plus or minus 5 percent deviation,
22 sometimes called an overall deviation of 10 percent.

23 Q Is that a hard line or is that something that
24 you can cross?

25 A It's a bright-line test.

1 Q Okay. Does being under 10 percent or the
2 5 percent either way -- strike that.

3 How are you most comfortable discussing the
4 concept? Would you prefer plus or minus 5 percent,
5 or if I say 10 percent deviation, will you know what
6 that means?

7 A Well, this is a disputed fact here, so I
8 prefer plus or minus 5 percent. In the courts that
9 I've worked with, that's what they require, is plus
10 or minus 5 percent.

11 Q Okay. We can talk about it in terms of plus
12 or minus 5 percent.

13 Does being within plus or minus 5 percent
14 insulate you from challenges under one person, one
15 vote?

16 A I am not a law scholar and so I don't know
17 what the law says about that, but I do not believe
18 that it is -- and I'm forgetting the legal term, but
19 it is not a safe harbor, that your plan could still
20 be challenged, even if it is within those bounds.

21 Q So, when you were doing -- when you were
22 drafting these illustrative plans, your goal was to
23 stay under that plus or minus 5 percent but not get
24 that deviation or range as low as possible?

25 A I actually would really have liked to get the

1 deviation range much lower, but one of the goals of
2 these maps was to keep as much of the legislative
3 prerogative in place as possible. And that was
4 constraining, because the Legislature had districts
5 that were quite close to the edge of a plus or minus
6 5 percent, including three districts all within one
7 county that were over 5 percent.

8 Q When you were drafting these illustrative
9 plans, were you operating as if there were a
10 guideline against splitting a major urban county
11 like Shelby, Davidson, Knox, or Hamilton?

12 A Are you asking me what I was asked to do by
13 counsel or what my understanding is?

14 Q I'm just asking your understanding and what
15 you used when you were making these plans or if you
16 used different guidelines for different ones. I
17 just want to make sure.

18 A Well, in all -- I believe in every single
19 plan, almost every urban county is held identical to
20 the plan that was in the enacted plan.

21 Only Shelby County is changed in Plans 14a
22 and the 13.5a and 13.5b. In 13a and 13b, Shelby
23 County is identical to the enacted plan, which means
24 that they were not -- the counties themselves were
25 not split.

1 In 13.5b -- I'm sorry. In 13.5a and 13.5b, I
2 do cross the Shelby County boundary because there
3 are population pressures, especially in western
4 Tennessee, that can be alleviated by splitting that
5 county boundary, and in doing so, actually further
6 decreases the total number of county splits. So, by
7 increasing by one, you decrease the entire state's
8 by two.

9 Q Do you know whether or not it is a
10 requirement not to split an urban metropolitan
11 county in Tennessee?

12 A That is a matter of law. It isn't in the
13 constitution.

14 Q Do you think there is one, one way or
15 another?

16 A Do I think there's a prohibition on
17 splitting --

18 Q Yes.

19 A I don't read it in the law, no.

20 Q Okay. When you were making these five
21 illustrative reports, did you pay any attention to
22 incumbent pairings?

23 A I was not provided incumbent pairings until
24 about two weeks ago.

25 Q Okay. When you were drawing these

1 illustrative maps, were you also considering black
2 voting age population and other minority groups?

3 A Well, I did not consider that in my initial
4 draw of Map 13a, as I said earlier. After 13a, I
5 did consider that one of the majority-minority
6 districts had been retrogressed so that it was no
7 longer a minority opportunity district and likely in
8 conflict with the Voting Rights Act and ensured that
9 that was no longer the case in Map 13b.

10 Q How close were you willing to get to the line
11 in terms of minority population in terms of a
12 percentage? Were your maps -- you know, were you
13 willing to let your maps go as low as 50.01 or was
14 there some other minimum that you were comfortable
15 with?

16 A There's no requirement in federal law that
17 districts have to have some minimum percentage of
18 African Americans or any other racial group in them.
19 My understanding of the law is setting targets like
20 that would be unconstitutional.

21 Q Okay. Then, explain to me how your plan --
22 how you evaluated these five illustrative plans for
23 compliance with the VRA.

24 A I did not perform VRA analysis on these
25 plans. I was tasked with drawing plans that

1 complied with federal and state law. And the way we
2 ensured -- I want to be careful how I say that. Not
3 ensured compliance.

4 I made sure that there was as many minority
5 districts in my plans, minority opportunity
6 districts, as there was in the enacted plan. So,
7 that's taking at face value that the enacted plan is
8 not a violation of the Voting Rights Act.

9 Q Is there a distinction in your mind between
10 minority districts and majority -- and minority
11 opportunity districts?

12 A I think there are some distinctions
13 linguistically. There are people who will kind of
14 colloquially say a majority-minority district, where
15 a majority of the citizens in the district are of
16 minority status.

17 There are opportunity districts, which is
18 more of a legal idea, the idea that the Voting
19 Rights Act is -- Section 2 of the Voting Rights Act
20 is talking about, which is that minorities are not
21 denied the opportunity to elect candidates of their
22 choice.

23 That does not necessarily mean that a
24 district has to be a majority. There's no
25 requirement that they are. It's just that the

1 districts must perform for minorities.

2 Q When you do that Voting Rights Act
3 analysis -- which I understand you did not do in the
4 five illustrative plans. When you do that analysis,
5 are you allowed to combine different minority groups
6 into a coalition to comply with any VRA requirements
7 or is that something that you can't do?

8 A This is a question of the law --

9 MR. TIFT: Let me just object. I'm just
10 going to give a standing objection. To the extent
11 that a question is calling for a legal decision on a
12 disputed legal question, I'm just going to object
13 that, you know, ultimately, the disputed legal
14 questions are going to be for the courts to decide.

15 MR. RIEGER: Of course.

16 MR. TIFT: But he can certainly answer
17 to his experience and knowledge. I'm just going to
18 say that once and not say it every time.

19 MR. RIEGER: Sure, that's fine.

20 THE WITNESS: So, the question is --

21 BY MR. RIEGER:

22 Q When you do your -- when you analyze maps for
23 Voting Rights Act compliance, do you -- is it
24 possible to use a coalition of different minority
25 groups or do you just look at each minority group in

1 isolation?

2 A So, this is a legal question and right now
3 the circuit courts are split on this issue. So,
4 there's no clear guidance on whether you should use
5 coalition or not coalition. And the circumstances
6 of the state might dictate that answer.

7 In Tennessee, there's -- coalition districts
8 are not needed because the African American
9 population is sufficient to draw majorities in these
10 areas in which they live.

11 Q So, did you perform VRA analyses in
12 Pennsylvania and New York?

13 A I didn't -- I did not perform the VRA
14 analysis in Pennsylvania. An expert was hired for
15 that.

16 Q Okay.

17 A In New York, I hired Bernard Grofman to help
18 with the VRA analysis.

19 Q What did they use? Did they allow for the --
20 for the use of coalitions or did they adhere
21 strictly to each minority population in isolation?

22 A I think -- I don't want to speak to how
23 people do their analyses. I've seen it done both
24 ways. Oftentimes, doing it either way gives you the
25 same answer, as it likely would in Tennessee.

1 Q Well, in both cases you were in charge of --
2 at least in New York, you were the special master in
3 charge of ensuring compliance, right?

4 A Uh-huh.

5 Q So, how do you know that the map would comply
6 with constitutional requirements without reviewing
7 the analyses of the VRA compliance?

8 A Well, first of all, we did not draw with race
9 as a motive in those districts. So, complying with
10 the VRA is -- we're confusing concepts here, right?
11 We don't draw with race in motivation. We draw
12 districts naturally and then you ensure that you
13 haven't failed to comply with the Voting Rights Act.

14 And so, in these areas that we're talking
15 about, we're usually talking at the congressional
16 district level about very sufficiently large
17 populations. In these cases we're usually talking
18 about African Americans.

19 Q So, in New York, which was it? I mean, it
20 had to be one or the other analysis or maybe even
21 both analyses. Which was selected?

22 A Basically, in New York, there's no reason to
23 suggest there was a violation of the Voting Rights
24 Act because we drew districts naturally, and by
25 drawing those districts naturally, we automatically

1 drew the Voting Rights Act.

2 So, we were ensuring that we hadn't
3 retrogressed, that we hadn't eliminated districts
4 that previously existed.

5 Q How do you determine whether or not a
6 district is majority-minority?

7 A How do I determine?

8 Q Uh-huh.

9 A Well, using demographic data collected by the
10 U.S. Census. If you're using the term
11 majority-minority to mean that the majority of the
12 population, whether voting age or citizen is
13 non-white, you can simply, you know, take a
14 percentage of the population that is -- that
15 identifies as any category other than non-white and
16 that's your minority population. If it's greater
17 than half of the total population, then you have a
18 majority-minority district.

19 Q Okay. Is that a -- is that a coalition
20 approach?

21 A When you're talking about the VRA analysis,
22 it's much more complicated than just simply saying
23 is something a majority-minority.

24 There are three prongs to the Gingles test.
25 All three of them need to be met to prove that

1 there's been a violation of Section 2. And when it
2 comes -- and one of those prongs is racially
3 polarized voting.

4 In the circuit courts that have indicated
5 that coalition districts are acceptable, you must
6 also show that the coalition votes as a block and
7 has routinely voted by whites against their
8 interest. So, there are multiple prongs to that
9 approach.

10 It needs to be stated that the approach to
11 proving a Section 2 violation is different than
12 drawing a district that complies with the Voting
13 Rights Act.

14 Q And you did not perform a VRA analysis in
15 your five illustrative maps.

16 A That's right.

17 Q Okay.

18 A And just to further clarify, I held the VRA
19 districts the same as in the enacted plan. So, it's
20 making the assumption that the Legislature performed
21 the proper analysis to determine that they've
22 complied with the Voting Rights Act. If they failed
23 to do that, then not only is -- are my plans not
24 legal, but neither is the enacted plan.

25 Q Did you -- in your illustrative maps, did the

1 result of any of those maps result in a decrease in
2 minority population in districts?

3 A In the maps where -- well, I don't know how
4 to answer that. I'm sorry.

5 Q In your five illustrative maps, in any of
6 them, did you reduce the minority population of any
7 district below that which the legislature did?

8 A You know, again, I'm not sure how to answer.
9 There's 99 districts in Tennessee and the minority
10 population of any one of those may have gone up or
11 down.

12 But there are the same number of effective
13 minority districts in all of my plans, aside from
14 Map 13a, which I've already said is not one that I
15 would suggest to the Court for the purposes of
16 adopting. But the rest of them have the same number
17 of opportunity districts compliant with the VRA. At
18 least as many, if not more.

19 Q Did any of your illustrative maps have a
20 greater deviation than the map that was enacted by
21 the General Assembly?

22 A On overall deviation or average deviation?

23 Q Overall.

24 A Overall deviation, yes.

25 Q Okay. When you drew these five illustrative

1 plans, did you attempt to preserve prior cores? Was
2 that a factor in drawing these maps?

3 A Well, we -- as I state on Page 13,
4 51 districts, so 51 out of 99, were identical to the
5 enacted plan. So, every one of those cores was
6 precisely preserved to the enacted map of 2022.

7 Q So, you believe that you have appropriately
8 attempted to preserve prior cores because you
9 started with the general framework of the adopted
10 map and how it attempted to preserve prior cores?

11 A That's one way --

12 MR. TIFT: Object to the form.

13 Go ahead.

14 THE WITNESS: That's one way to think
15 about preserving prior cores. In a later report, it
16 was suggested that the core preservation should have
17 been to the 2012 map, and I have produced a map
18 subsequent that preserves the cores to the same
19 extent that the Legislature did to the 2012 map in
20 total.

21 BY MR. RIEGER:

22 Q How long did it take you to do this
23 particular expert report?

24 A This one took a considerable amount of time
25 more than the previous report on the Senate. Again,

1 I'm not sure I can estimate the hours. I just don't
2 have the numbers in front of me.

3 Q When did you -- when did you -- let me ask it
4 this way. When did you start working on it? Was it
5 really close to when you were engaged in April or,
6 you know, was it -- was it later than that?

7 MR. TIFT: Object to the form.

8 Go ahead.

9 THE WITNESS: So, I started this
10 engagement in April before I was appointed special
11 master in New York. That was not this report we're
12 talking about today.

13 I didn't do this report until October
14 and the work that I did on this would have only
15 lasted maybe -- or started maybe several weeks
16 before, at most, and it was far after I had
17 concluded my work in New York.

18 BY MR. RIEGER:

19 Q Okay. And in drawing these maps and drafting
20 these expert reports, it's your belief that a
21 guideline is to create the absolute smallest number
22 of county splits while complying with all of the
23 other federal and state requirements for
24 redistricting; is that right?

25 A Can you restate the question?

1 Q So, along with compliance with state and
2 federal requirements for redistricting, it is your
3 belief that it is a Tennessee constitutional
4 requirement that as few counties can be split,
5 that's the most you can split?

6 A Yeah.

7 MR. TIFT: Object to the form.

8 Go ahead.

9 THE WITNESS: Let me see. Page 7
10 of this report, I have a line quoting from
11 State ex rel. Lockert versus Crowell, quote, cross
12 as few county lines as is necessary to comply with
13 the federal Constitution.

14 BY MR. RIEGER:

15 Q So, is it your belief that six years from
16 now, if someone came up with a map that split even
17 less counties than yours, your map would be subject
18 to challenge and would be unconstitutional?

19 A I can't speak to what the law requires in
20 Tennessee, only as I read it. That needs to be
21 interpreted by the state Supreme Court what its
22 Constitution requires, whether it requires an
23 absolute minimum.

24 Q Or?

25 A I have nothing else to add.

1 Q Okay. If I could flip to Page 18, which has
2 your conclusion on it.

3 A Uh-huh.

4 Q If I could point you to, on Page 19, the
5 first full paragraph there, "It is possible that
6 even fewer counties need to be split..."

7 A Uh-huh.

8 Q "...but given the time constraints of this
9 report, I have not found a plan that does better."

10 If that plan did exist and were discovered
11 later, would that plan be your recommendation?

12 A I don't know that I would recommend a plan
13 that necessarily splits more. There are many
14 trade-offs in redistricting.

15 It depends on whether the state Supreme Court
16 requires the absolute minimum to be found. There is
17 no analytical solution, as far as I understand. I
18 say that earlier in the report, that there is no
19 analytical way to find the minimum.

20 My conclusion is that the 30 splits found in
21 the enacted plan, which is, sort of, the maximum
22 amount allowed by the guidelines given by the
23 redistricting committee, was not a good faith effort
24 to find less. Because with relatively little work,
25 I could find five plans on a very tight time

1 constraint that had far fewer splits, including as
2 many as only 22, which is significantly different
3 than 30 county splits.

4 Q Let's talk about that, that sentence towards
5 the bottom there. "In overpopulating each district
6 in Shelby County, the Legislature has not given a
7 good faith effort to balance the constitutional
8 criteria in state and federal law."

9 What, in your expert report, do you rely on
10 for determining that the Legislature did not act in
11 good faith?

12 A Can you point me to the line you're referring
13 to?

14 Q Sure. So, it's the first line in that
15 sentence is "533."

16 A Yes.

17 Q Then "(1964)," then "In overpopulating each
18 district..."

19 A Okay. (Reviewing document.)

20 Well, so, the first part of the sentence,
21 overpopulating each district in Shelby County, by
22 sealing in the county and limiting it to only
23 13 districts, it means every single district in
24 Shelby County has a population that's greater than
25 ideal, meaning they get less representation in

1 Legislature. Every single citizen of Shelby County
2 gets less representation in the Legislature than on
3 average across the state.

4 Q And do you attribute that to the fact --

5 A And --

6 Q I'm sorry. I apologize. I didn't realize
7 you weren't done. Please go ahead.

8 A I do want to say one more thing.

9 Q Sure, of course.

10 A And the -- it's not good faith because I have
11 shown in this report that by splitting the Shelby
12 County border, you can actually further reduce the
13 number of county splits.

14 So, if the reason for not splitting Shelby
15 County was to reduce the number of county splits to
16 keep it within a range, that's not good faith.

17 Q So, let me -- I want to make sure that I have
18 this. So, your expert opinion is that Shelby County
19 is overpopulated?

20 A Yes.

21 Q And --

22 A Well, the districts in Shelby County are
23 overpopulated.

24 Q Okay. The districts in Shelby County are
25 overpopulated and that's caused by not breaking open

1 the Shelby County border.

2 A That's right.

3 Q Okay.

4 A By limiting it to only 13 districts, every
5 district in Shelby County, by definition, is
6 overpopulated.

7 Q Okay. Are you familiar with any maps that
8 the Legislature had before it at the time it enacted
9 its chosen House map?

10 A I had not seen any of those maps. On the
11 website we referenced earlier, there were one-page
12 documents referring to different plans that were
13 submitted. But if I remember correctly, there were
14 no plans that were legally compliant that were
15 presented to the committee -- the committee for the
16 Legislature for their -- for their ability to look.

17 So, I had no other plans besides the enacted
18 plan, what I refer to as the 2022 enacted plan, and
19 then the Democratic Concept Map that was provided to
20 me by counsel.

21 Q Do you believe that the House Democratic
22 Concept Map was constitutionally compliant?

23 A I have analyzed that plan and it has far
24 fewer county splits than the enacted plan, I
25 believe 23.

1 And it does split the Shelby County border,
2 so there's a question of law about whether that's
3 allowed. I believe that it is good policy to split
4 the Shelby County border because, as shown between
5 this map and 13.5b, that by splitting Shelby County,
6 you can continually -- continue to reduce the number
7 of other counties that are affected. So, fewer
8 other counties are split in order to do that.

9 And it also has the added benefit of reducing
10 the average deviation of each of these districts.
11 The Shelby County districts are more equally
12 allocated representatives in the House.

13 Q The -- despite opening Shelby County, the
14 House Democratic Concept Map had a higher deviation
15 than the enacted map. Is that right?

16 A A higher overall deviation?

17 Q Yes.

18 A I tend -- in my personal work, I've never
19 used overall deviation because it's a bright-line
20 test that the courts have established to ensure that
21 they aren't inequitably distributing representation.
22 It's a bright-line test. It only speaks to two
23 poles, the largest and the smallest district, and it
24 says nothing about the 97 other districts.

25 So, I tend to use mean deviation or average

1 deviation. I explain that in my dissertation in one
2 of those published papers, why that's the better --
3 the better measure. And lots of courts agree that
4 the average deviation says a lot more about a plan
5 than the overall deviation. As long as you're
6 within 10 percent, the overall deviation is fine.

7 In Mr. Himes' response report, he lists the
8 previous decade's overall deviation of plans enacted
9 by the Legislature and they're all between 9 and
10 10 percent, sometimes reaching very close to
11 10 percent, which is right around the -- where it is
12 for all of the plans that I develop and the
13 Democratic Concept Map.

14 And the overall deviation on the Democratic
15 Concept Map is actually slightly lower than the
16 enacted map for the 2022 House.

17 MR. TIFT: I'm just going to briefly
18 say, you're talking faster and faster.

19 THE WITNESS: I know. Can we take a
20 break?

21 MR. RIEGER: Yes.

22 (Recess observed.)

23 BY MR. RIEGER:

24 Q You understand that you are still under oath?

25 A Yes.

1 Q And you understand that the rules we
2 discussed at the start of the day still apply?
3 **A That's right.**
4 Q Okay, excellent.
5 I have a couple more questions about this
6 exhibit, which we're still on, Deposition Exhibit 4,
7 which is the state House reapportionment Expert
8 report.
9 On Page 19, I want to go back to that good
10 faith language. What, in your expert opinion,
11 constitutes good faith versus bad faith?
12 **A The only thing I'm saying in that statement**
13 **is that it was relatively easy for me to develop**
14 **conceptual plans that had far number of counties**
15 **affected. And given that it was that easy, that it**
16 **seems to me that a good faith effort would have, you**
17 **know, done the same thing.**
18 Q So, are you trying to convey that the
19 legislative -- that the Legislature was a bad actor
20 when it drafted its maps or did so with a malicious
21 intent or are you trying to convey something else?
22 **A No, I don't use any of that language in here.**
23 **All I say is that they did not make a good faith**
24 **effort to reduce the splits.**
25 **So, whether they didn't try, because in the**

1 **criteria that was listed by the Legislature that**
2 **said that you could have up to 30 splits, that they**
3 **tried just to get to that and that's the result that**
4 **they got, shows me that there was no effort made to**
5 **reduce them, that there was no affirmative -- it**
6 **doesn't mean that they were acting in bad faith. It**
7 **just means that they weren't acting in good faith to**
8 **try to reduce those according to the Tennessee**
9 **Constitution.**
10 Q Is there anything else that you're pointing
11 at for that conclusion that the Legislature has not
12 given a good faith effort besides your illustrative
13 maps and your process in drawing them?
14 **A No, I don't know anything about the**
15 **Legislature or members of the Legislature or what**
16 **their actions were.**
17 **All I know is that it was relatively easy to**
18 **draw maps that actually reduced the number of county**
19 **splits, while still holding other criteria at**
20 **similar levels, similar -- the different trade-offs**
21 **like compactness and deviation, holding those**
22 **steady, you could still reduce the number of county**
23 **splits.**
24 Q Is there anything that you would change in --
25 on Pages 18 and 19, in your conclusions? Is there

1 anything that you would like to change or amend?
2 **A No. I have filed a rebuttal report where I**
3 **talk about these plans once more.**
4 Q Okay. All right. If we could turn to that,
5 which is under Tab 4. Do you recognize that
6 document?
7 **A Yes. What is listed as Exhibit 5 is the**
8 **Rebuttal Report of Plaintiffs' Expert Regarding**
9 **Tennessee State House Reapportionment,**
10 **December 2nd, 2022.**
11 MR. RIEGER: And I would like to
12 introduce that as Deposition Exhibit 5, please.
13 MR. TIFT: No objection.
14 (WHEREUPON, a document was marked as
15 Exhibit Number 5.)
16 BY MR. RIEGER:
17 Q All right. When did you begin working on
18 this rebuttal expert report?
19 **A This report would have come after I was**
20 **delivered the response reports of Mr. Himes and --**
21 **or expert reports of Mr. Himes and Mr. Sean Trende,**
22 **which don't have dates on them.**
23 Q Would you say that you started work on these
24 in November?
25 **A Yeah. I think it was mid-November.**

1 Q Okay. Who wrote the first draft of this
2 report?
3 **A I wrote this draft.**
4 Q Okay. Did anyone provide input into this
5 rebuttal report?
6 **A Yes.**
7 Q Who?
8 **A Bernard Grofman.**
9 Q Okay. What input did he provide?
10 **A He helped me to shape the language to be a**
11 **rebuttal of the reports that it's responding to. As**
12 **I mentioned earlier, I've never served as an expert**
13 **witness and wasn't sure how to answer the questions**
14 **found in those documents.**
15 Q What specifically did -- what portions of
16 this expert report were impacted by Dr. Grofman's
17 suggestions?
18 **A Mostly the formatting, the idea of ordering**
19 **these things with numbers so that it would be easy**
20 **for the judges to refer to the points made.**
21 Q And is there anything else that Dr. Grofman
22 did or suggested regarding this rebuttal report?
23 **A He suggested that I separate out the**
24 **undisputed facts with the facts -- with the --**
25 **sorry.**

1 The undisputed facts with the legal claims
2 that are made because I am an expert on the facts
3 and not on the law.

4 Q Did Dr. Grofman make any suggestions
5 regarding the content as opposed to form?

6 A Not other than simply, as I said, to list out
7 each of the undisputed facts, but not -- I mean, he
8 had not read any of the previous reports, so there
9 was no way for him to provide any substantive
10 feedback because he had -- I had not shared with him
11 the reports of this case.

12 Q Did anybody besides Dr. Grofman provide input
13 into this report?

14 A Just counsel.

15 Q Did they provide any substantive changes to
16 the content?

17 A I don't believe any substantive changes, and
18 actually very little input at all in this report.

19 Q Okay. Were you provided any documents or
20 information from anyone that was used to draft this
21 rebuttal report?

22 A This is a response to Mr. Trende and
23 Mr. Himes. So, those reports were provided.

24 Q Anything else?

25 A No.

1 Q Okay.

2 A Excuse me. Clarification. I was also
3 provided the incumbent information that I used for
4 this report. I had not had that prior to this
5 report.

6 Q Did you look at -- besides the incumbent data
7 and the expert reports of Doug Himes and Sean
8 Trende, did you use any additional data besides what
9 I've just mentioned and that data that was listed in
10 Roman III of your House expert report?

11 A There's no new data in these reports.

12 Q Okay.

13 A Other than the incumbent.

14 Q So, walk me through drafting this rebuttal
15 report, if you could.

16 A I drafted a first draft, called Dr. Grofman
17 and asked him if he had a chance to read it. Spent
18 about an hour on the phone with him and realized it
19 was actually his birthday, felt very embarrassed
20 that I had asked him to help me draft a report on
21 his birthday.

22 And as I said, he helped me rearrange things
23 in a way that would make more sense for judges.

24 Q This plan includes two additional maps; is
25 that correct?

1 A That is right.

2 Q Okay. How did you draw Cervas House Map 13c
3 on Page 3?

4 A Cervas House Map 13c starts with my previous
5 13b and then reconfigures District 80 to be
6 identical to what the House Legislature had passed
7 in the enacted bill.

8 And then made changes in the districts
9 surrounding that, such that we could -- continued to
10 keep the number of county splits as low as possible,
11 while now maintaining the configurations of two
12 additional districts.

13 Q Could you walk me through Cervas House
14 Map 13d, starting on Page 4 and going to Page 5.

15 A Sure. So, Cervas d starts from -- I'm sorry.
16 Cervas 13d starts from 13c and attempts to address
17 the critiques found in the reports of Mr. Himes and
18 Mr. Trende, that I had failed to account for
19 considerations of not pairing incumbents and core
20 retention, preserving the cores of the prior
21 districts.

22 And so, I took Cervas Map 13c, and where I
23 could, I adjusted the lines such that they more
24 closely approximated the 2012 map. In some cases,
25 it required more significant changes to match --

1 there are several instances in Mr. Himes' report
2 where he says that districts from 2012 had been
3 carried over to the 2022 map that I had changed.
4 And so, I would move those back so that they were
5 the same and then draw the rest of the surrounding
6 districts as approximate as I could to the 2012 map.

7 And the result was that I created a map with
8 still having only 24 county splits, now having a
9 lower overall deviation than the enacted plan,
10 having a lower average deviation than the enacted
11 plan, having a higher compactness score than the
12 enacted plan, having the exact same core retention
13 as the enacted plan, and having the same number of
14 incumbents paired as the enacted plan.

15 Q And is it your belief that both -- sorry.
16 Strike that.

17 Is it your opinion that both Cervas House
18 Maps 13c and 13d comply with state and federal
19 requirements for redistricting?

20 A Subject to what I said earlier about the
21 Voting Rights Act, contingent on the enacted plan
22 not violating the Voting Rights Act, then I believe
23 that these maps do comply with all state and federal
24 law. And that includes even if it is interpreted
25 that the urban counties are not allowed to be split.

1 So, Shelby County contains exactly 13 districts.
 2 Q So, for 13c and 13d, just like the ones in
 3 the earlier report, you did not do a Voting Rights
 4 Act analysis?

5 A I did not -- I was not charged -- I was not
 6 hired to do a Voting Rights Act analysis. As far as
 7 I understand -- I have not read the court documents,
 8 but my understanding is that there's no challenge on
 9 the grounds of the Voting Rights Act, so I did not
 10 perform that analysis.

11 In every area in which there is a district
 12 sufficient -- with sufficient populations to draw,
 13 there are the same number of majority and minority
 14 districts found in Maps 13c and 13d as in the
 15 enacted plan. So, as long as the enacted plan is
 16 compliant with the Voting Rights Act, so are both of
 17 these illustrative plans.

18 Q Going to Page 5 and Page 6, is there anything
 19 that you want to add or change?

20 A I know there was a line -- let me see if I
 21 can find it. (Reviewing document.)

22 It's actually not in the conclusion. It's on
 23 Page 4, where I say that it has an identical overall
 24 deviation in Map 13d, but actually, it has an
 25 improved overall deviation. It's lower than the

1 enacted plan.

2 Q And how would you compare the -- instead of
 3 overall deviation, how did the two maps compare?
 4 The enacted map and 13d, how do they compare in
 5 terms of average deviation?

6 A On the enacted plan, the average deviation is
 7 3.28 percent and on my 13d plan, it's 3.16 percent.

8 Q Okay.

9 A Which I will note were both relatively high,
 10 but I preserved so much of the enacted plan -- in
 11 fact, I preserved 90 percent of the enacted plan
 12 in 13d. So, it's very hard to improve on many of
 13 the traditional redistricting criteria when you
 14 preserve that much. Yet, I still eliminated six
 15 county cuts in the process.

16 Q So, I want to make sure that we've -- I want
 17 to make sure I understand your understanding, if
 18 that makes sense, of the guidelines that you use,
 19 without getting into the issues where there is some
 20 uncertainty.

21 So, in terms of requirements that you looked
 22 at -- if I could direct you to what has been
 23 previously marked as Deposition Exhibit 6 under
 24 Tab 5. Are you familiar with that document?

25 A This is the expert report of Mr. Himes that

1 was prior to the report that -- it was delivered to
 2 me prior to my writing of that other report.

3 MR. RIEGER: Okay. I would like to
 4 introduce this as Deposition Exhibit 6.

5 MR. TIFT: No objection.

6 (WHEREUPON, a document was marked as
 7 Exhibit Number 6.)

8 BY MR. RIEGER:

9 Q If I could get you to flip to Page 16.
 10 Do you see the list of what is described as "six
 11 guidelines and two practices"?

12 A I do see this list.

13 Q Okay. Ignoring the final two bullet points,
 14 are those the six guidelines that you followed?
 15 Sorry. Strike that.

16 Are those guidelines that you followed?

17 A (Reviewing document.)

18 With the noted exceptions of whether the plan
 19 complies with the Voting Rights Act, again, that's
 20 subject to whether the enacted plan is compliant
 21 with the Voting Rights Act. But other than that,
 22 yes.

23 Q Okay. Thank you.

24 So, if I could get you to flip back to
 25 Deposition Exhibit 5. On Page 2, Item Number 1, you

1 acknowledge that your initial maps from your report
 2 had non-contiguous census blocks.

3 A Uh-huh, yes.

4 Q Was that an error or was that done not in
 5 good faith?

6 A I certainly would never submit a map that had
 7 noticeable errors in them. And I'd like to, if I
 8 could, report -- go back, if we could, to Exhibit
 9 Number 6 on Page 38 and just showcase the language
 10 of Mr. Himes on this issue. It's continuing on from
 11 Page 37.

12 It says, "While an over-reliance on computers
 13 can be detrimental in the redistricting process,
 14 computer programs can be useful tools to find
 15 non-contiguous areas within plans." I a hundred
 16 percent agree with that.

17 I was using Dave's Redistricting app, and
 18 unfortunately the precincts in Tennessee are a bit
 19 bizarre. And when we split some of the precincts, I
 20 think, unfortunately, there were zero population,
 21 what I would call slivers, individual census blocks,
 22 that were assigned to the wrong districts.

23 They had no meaningful impact on the plans.
 24 They had -- not one of them had even one single
 25 individual living in them, so it affected none of

1 the numbers in the plans. The only thing it
2 affected was the compactness. And those errors
3 actually reduced the compactness.

4 So, in fixing those errors, it had the effect
5 of actually increase the compactness of the plans.

6 Q If I could point you to what has been
7 previously marked as Deposition Exhibit -- or what
8 has been marked, not previously, as Deposition
9 Exhibit 8 under Tab 7.

10 Do you recognize this document?

11 A This is a document that I submitted, I guess
12 in March of 2022. So, my engagement was earlier
13 than what I said earlier when I said April.

14 MR. RIEGER: Okay. If I could get this
15 introduced as Deposition Exhibit 8.

16 MR. TIFT: No objection.

17 (WHEREUPON, a document was marked as
18 Exhibit Number 8.)

19 BY MR. RIEGER:

20 Q You drew several maps as part of this
21 affidavit; is that right?

22 A The maps that were developed in this plan, I
23 drew two seed maps. Seed maps were maps that were
24 to be fed to a computer program.

25 These maps were -- they're basically just

1 compliant with contiguity in equal population and
2 have no other objective. They are random plans.
3 They just -- they have zero objectives.

4 Q If I could get you to draw your attention to
5 Deposition Exhibit 1, which is underneath Tab 9. Or
6 maybe it's at the front of your book.

7 Are you familiar with this document?

8 A Yes. This is a response to that -- the -- my
9 initial report for this (indicating).

10 MR. RIEGER: If I could get it admitted
11 as Deposition Exhibit 1.

12 MR. TIFT: No objection.

13 MR. RIEGER: Thank you.

14 (WHEREUPON, a document was marked as
15 Exhibit Number 1.)

16 BY MR. RIEGER:

17 Q In this affidavit, this affidavit sets forth
18 several instances where the seed maps referenced in
19 your affidavit, which is Depo Exhibit 8, has issues
20 in a couple of places with contiguity.

21 Do you agree with that?

22 A I'm not sure I remember that there was
23 contiguity issues.

24 Q If I could point you to Page 3.

25 A Ah. So, these, as I just stated a minute

1 ago, the precinct boundaries in Tennessee can be
2 quite bizarre. All of the plans that were developed
3 under this report were only built out of Tennessee
4 precincts. And so, some of the precincts themselves
5 are not contiguous. And that's -- the precincts are
6 a product of the election boards.

7 Q So, even for someone who has drawn maps for
8 New York, served as a special master, served as an
9 assistant to special master, redistricting and map
10 drawing is still an incredibly complicated process?

11 A Redistricting is an incredibly complicated
12 process.

13 Q Okay. Is it -- and would you agree that
14 sometimes errors can just happen, especially in
15 terms of contiguity with a state as complicated as
16 Tennessee?

17 A I agree.

18 Q Okay. And when you had certain contiguity
19 errors in your affidavit and the expert reports,
20 would you characterize those as errors rather than
21 bad faith?

22 A Yes. Given time, I would have been able to
23 clean this up to ensure that there were not these
24 problems. Again, these were generated by a computer
25 out of the precinct boundaries. And technical

1 errors do sometimes crop up in redistricting.

2 Technical corrections were given in the maps
3 in New York after they were finalized by the Court.
4 Technical corrections were given in Virginia in
5 Bethune-Hill. Technical corrections were given in
6 Navajo Nation. States often have to issue technical
7 corrections after the fact.

8 MR. RIEGER: Okay. If we could take a
9 break, just a quick five-minute one, I want to
10 confer with my folks, but I think we may be getting
11 near the end. I just want to make sure there's
12 nothing else that I need to think about.

13 (Recess observed.)

14 BY MR. RIEGER:

15 Q You understand you're still under oath?

16 A Still under oath, yes.

17 Q And you still understand that the rules we
18 discussed at the start of the day still apply?

19 A Yes, sir.

20 Q Okay, fantastic.

21 A follow-up question about your rebuttal
22 report maps. Did Zach Griggy help you at all with
23 the rebuttal report?

24 A Only with the drawing of the maps.

25 Q Okay. So, he did the -- he worked the

1 software?

2 **A Yes.**

3 Q Okay. Did he do anything else besides work

4 the software?

5 **A No.**

6 Q Okay. Did he make any decisions about where

7 the lines should be?

8 **A He helped -- he helped to figure out what are**

9 **some of the better configurations.**

10 Q Okay. I just want to make sure, since we had

11 an April and then we had a March in terms of when

12 you were engaged, I just want to be clear for the

13 record. When were you first contacted about being

14 an expert?

15 **A I really should consult my files that would**

16 **say when that happened. I have an engagement**

17 **letter. I don't know the dates on these things.**

18 **Scott should have brought them with him.**

19 Q Well, let me ask it a little bit differently.

20 Not engagement. When were you first contacted about

21 the possibility?

22 **A It would have been -- the engagement and the**

23 **possibility were at the same time.**

24 Q Okay.

25 **A I don't think there were very many**

1 **conversations. I don't think there were any**

2 **conversations, actually.**

3 Q Who contacted you? Was it counsel or was it

4 somebody else?

5 **A It was counsel.**

6 Q Okay. And then, one last question I wanted

7 to ask because I don't think we got there. If I can

8 point you to -- well, if I refer to the House

9 Democratic Concept Map that's referenced in your

10 initial expert report, will you know what I'm

11 talking about?

12 **A Can you say that one more time? The House --**

13 Q The House Democratic Concept Map.

14 **A Yes.**

15 Q Okay. Do you know who drew that?

16 **A I do not.**

17 MR. RIEGER: Okay. I have no further

18 questions.

19 MR. TIFT: I don't have any questions

20 either.

21 One housekeeping thing, what's behind

22 Tab 9 is really the second half of Tab 8, so why

23 don't we admit it? His affidavit was in two PDFs.

24 MR. RIEGER: I think my paralegal did

25 that.

1 **THE WITNESS: I've got nothing under**

2 **Tab 9.**

3 MR. RIEGER: Let's combine -- okay.

4 Let's go through the exhibits and just get that

5 knocked out. I know one of y'all has been jotting

6 this down.

7 So, Deposition Exhibit 2 --

8 MR. TIFT: Let's start with Exhibit 1.

9 MR. RIEGER: Exhibit 1 is the Affidavit

10 of Doug Himes.

11 Exhibit 2 is the Notice of Deposition.

12 Exhibit 3 is the Report of Plaintiffs'

13 Expert Regarding Tennessee State Senate

14 Reapportionment.

15 Exhibit 4 is Report of Plaintiffs'

16 Expert Regarding Tennessee State House

17 Reapportionment.

18 Exhibit 5 is Rebuttal Report of

19 Plaintiffs' Expert Regarding Tennessee State House

20 Reapportionment.

21 Exhibit 6 is the Expert Report of

22 Douglas Himes.

23 We did not admit 7.

24 We did admit 8, which is the Affidavit

25 of Jonathan Cervas.

1 MR. TIFT: That's the issue. It's

2 really the first 12 pages of the like 20-page

3 affidavit.

4 MR. RIEGER: And we will -- can we go

5 ahead and admit as Depo Exhibit 9 the second half?

6 MR. TIFT: Yes.

7 MR. RIEGER: Okay. Just to make clear,

8 because it's already marked.

9 MR. TIFT: It's already labeled that

10 way, so yes.

11 MR. RIEGER: Okay. So, Deposition 8 --

12 Deposition Exhibit 8 is the document titled

13 Affidavit of Jonathan Cervas, and Deposition

14 Exhibit 9 is the second half of that report, which

15 begins with Page Number 13 and at the top says

16 "TN_Apple_Test_3_0288."

17 MR. TIFT: Agreed.

18 (WHEREUPON, a document was marked as

19 Exhibit Number 9.)

20 MR. RIEGER: And I think that's

21 housekeeping.

22 MR. TIFT: That's it. I'm done. I

23 don't have anything.

24 MR. RIEGER: Okay. Off the record.

25 THE REPORTER: Do you want him to read

1 and sign?

2 MR. TIFT: Yes.

3 THE REPORTER: And a copy?

4 MR. TIFT: Yes, we'll take a copy.

5 MR. RIEGER: Regular turnaround is fine.

6 FURTHER DEPONENT SAITH NOT

7 (Proceedings concluded 3:30 p.m.)

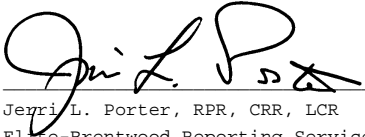
REPORTER'S CERTIFICATE

3 STATE OF TENNESSEE

4 COUNTY OF Davidson

6 I, Jerri L. Porter, RPR, CRR, Licensed
7 Court Reporter, with offices in Nashville,
8 Tennessee, hereby certify that I reported the
9 foregoing deposition of JONATHAN R. CERVAS by
10 machine shorthand to the best of my skills and
11 abilities, and thereafter the same was reduced to
12 typewritten form by me. I am not related to any of
13 the parties named herein, nor their counsel, and
14 have no interest, financial or otherwise, in the
15 outcome of the proceedings.

16 I further certify that in order for this
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18 it must bear my original signature, and that any
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22 violation of Tennessee Code Annotated 39-14-104,
23 Theft of Services.

21 

23 Jerri L. Porter, RPR, CRR, LCR
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24 Notary Public State of Tennessee

25 My Notary Public Commission Expires: 3/3/2026

LCR 335 - Expires: 6/30/2024



ERRATA PAGE

2 I, JONATHAN R. CERVAS, having read the foregoing
3 deposition, Pages 1 through 157, do hereby certify
4 said testimony is a true and accurate transcript,
5 with the following changes (if any):

5 PAGE LINE SHOULD HAVE BEEN

6	_____	_____	_____
7	_____	_____	_____
8	_____	_____	_____
9	_____	_____	_____
10	_____	_____	_____
11	_____	_____	_____
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16	_____	_____	_____
17	_____	_____	_____
18	_____	_____	_____

20 _____
JONATHAN R. CERVAS

23 Notary Public:

24 My Commission Expires: _____

25 Reported by: Jerri L. Porter, RPR, CRR, LCR

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