IN THE COMMONWEALTH COURT OF PENNSYLVANIA

League of Women Voters of Pennsylvania,)
Carmen Febo San Miguel, James Solomon,)
John Greiner, John Capowski, Gretchen)
Brandt, Thomas Rentschler, Mary Elizabeth)
Lawn, Lisa Isaacs, Don Lancaster, Jordi)
Comas, Robert Smith, William Marx,)
Richard Mantell, Priscilla McNulty,)
Thomas Ulrich, Robert McKinstry,)
Mark Lichty, Lorraine Petrosky,)
)
                Petitioners,   )
)
           v.   ) No.
) 261 M.D. 2017
The Commonwealth of Pennsylvania;   )
The Pennsylvania General Assembly;   )
Thomas W. Wolf, In His Capacity   )
As Governor of Pennsylvania;   )
Michael J. Stack III, In His Capacity As)
Lieutenant Governor of Pennsylvania And)
President of the Pennsylvania Senate;   )
Michael C. Turzai, In His Capacity As   )
Speaker of the Pennsylvania House of   )
Representatives; Joseph B. Scarnati III,)
In His Capacity As Pennsylvania Senate   )
President Pro Tempore; Robert Torres,   )
In His Capacity As Acting Secretary of   )
the Commonwealth of Pennsylvania;   )
Jonathan M. Marks, In His Capacity   )
As the Commissioner of the Bureau of   )
Commissions, Elections, and Legislation) Pages 1 - 321
of the Pennsylvania Department of State,)
)
                Respondents.   )

        COMMONWEALTH COURT OF PENNSYLVANIA, Volume I

     BEFORE: HONORABLE JUDGE KEVIN BROBSON

     DATE: DECEMBER 11, 2017; 9:30 A.M.

     PLACE: COMMONWEALTH COURT
                      PENNSYLVANIA JUDICIAL CENTER
                      601 COMMONWEALTH AVENUE
                      HARRISBURG, PA 17106

     REPORTED BY: CINDY L. SEBO, RMR, CRR, RPR,

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VOIR DIRE

EXHIBITS

E X H I B I T S (Continued)

P R O C E E D I N G S

Harrisburg, Pennsylvania

Monday, December 11, 2017; 9:30 a.m.

THE CLERK: Good morning. Welcome to Commonwealth Court.

I want to remind everyone, please make sure all cell phones and electronics are turned off. For the audience, there will be no electronic use in the courtroom.

Thank you.

(Pause.)

THE CLERK: All rise. The Commonwealth Court is now in session, the Honorable Judge Kevin Brobson presiding.

THE COURT: Please be seated, everyone.

We are on the record in the matter of League of Women Voters of Pennsylvania, et al. versus the Commonwealth of Pennsylvania as Respondents and various Commonwealth entities. The docket number is 261 MD 2017.

This is the date and time set for

the Court to hear oral argument on motions of limine filed by the parties followed by the Hearing or trial, if you will, on the merits.

We are operating under expedited schedule, as imposed by the Pennsylvania Supreme Court. This Court is sitting in capacity as a -- what I refer to as a "hearing officer" or "presiding officer" on -- under the supervision of the Pennsylvania Supreme Court.

The role of this Court is to create the record and submit proposed findings of fact and conclusions of law for the Supreme Court to consider. Ultimately, the Pennsylvania Supreme Court will be deciding this matter, and not this Court. So we are proceeding expeditiously under that schedule.

I want to commend the parties and the lawyers for the work that they've done to get us here today. In a pretrial conference, I recommended to the counsel that they help me help them. They've taken that to heart and, I think, generally, have

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1 done a very good job of getting us to where
2 we are today despite the challenging
3 circumstances.
4 So I want to thank counsel publicly
5 for their professionalism and for the way
6 they've conducted themselves to the point of
7 the trial. I have every expectation that
8 they will continue to conduct themselves in
9 a matter befitting the profession throughout
10 this proceeding.
11 So with that, we do have some
12 pretrial motions that require some argument.
13 And I have my own order of -- of the
14 motions. Eight were filed. I think two or
15 three of them are somewhat related.
16 I will -- we will -- I don't have
17 hard-and-fast time that I'm going to be
18 allotting to each motion. Some of them are
19 a little bit more complicated than the
20 others. But I will allow everybody to be
21 heard on them.
22 The first motion that I want to
23 hear -- hear is the Petitioners' motion to
24 exclude or limit Intervenors' testimony.
25 So Petitioners want to approach.

11

1 MR. GERSCH: Your Honor, if I may
2 raise a preliminary matter -- David Gersch
3 for Petitioners.
4 THE COURT: Yes, sir.
5 MR. GERSCH: Ms. McKenzie is going
6 to argue the motion Your Honor as brought
7 up, but of great concern to us last --
8 yesterday afternoon, we received a motion in
9 limine from Legislative Respondents with --
10 which made the claim that we had obtained
11 information from the Federal Litigation in
12 violation of a Court order.
13 This was false. They cited no --
14 they didn't identify the order; they didn't
15 attach the order; they didn't identify any
16 provision of any order that had been
17 violated. And, in fact, we have attached
18 the transcript from the Federal case in
19 which they admit that no Court order was
20 violated.
21 This morning -- this morning, we
22 received another piece of paper from them
23 which stated that their argument had never
24 been that we had violated a Court order; it
25 was that only the spirit of the order had

12

1 been violated.
2 And, Your Honor, we're going to
3 argue the merits of whether or not the
4 Federal -- the information from the Federal
5 case is admissible. Ms. Theodore is
6 prepared to argue that. But I thought this
7 was a remarkable turn of events, and we're
8 going to ask, as a sanction, that --
9 separate and apart from the merits, but that
10 as a sanction, that the material from the
11 Federal Court be admitted into evidence.
12 THE COURT: Okay. You may sit down,
13 please.
14 Now I'd like to hear argument on the
15 motion to exclude or limit Intervenors'
16 testimony.
17 MS. MCKENZIE: Your Honor, would you
18 prefer --
19 THE COURT: Please approach.
20 MS. MCKENZIE: Good morning,
21 Your Honor. Mary McKenzie, the Public
22 Interest Law Center, on behalf of the
23 Petitioners' motion to exclude the
24 Intervenors' testimony.
25 The Intervenors are 36 members --

13

1 active members of the Republican Party, and
2 we are not here, at least today, to
3 relitigate their intervention in this case,
4 but what they spill their ink on and what
5 they propose to testify to are all their
6 activities -- campaigning activities,
7 political activities on behalf of
8 Congressional candidates -- and the ways in
9 which they will be harmed if this map is
10 declared unconstitutional and a new map has
11 to be put in place.
12 These are not factors which the
13 Court can or should consider in deciding
14 whether the map itself is constitutional.
15 The Court has two lines of inquiry:
16 essentially, was the map drawn with the
17 intent to discriminate against an
18 identifiable political group, and does the
19 map have a discriminatory effect.
20 The Intervenors have nothing to say
21 about those particular issues. And while
22 their activities, such as campaigning or
23 running for office or raising money, may be
24 protected, they don't have the right to
25 perpetuate those activities under an

4 (Pages 10 to 13)

14

1   unconstitutional map.
2   So, in summary, there -- the
3   testimony that they offer about all of these
4   activities and the ways that they would be
5   harmed is irrelevant to the questions that
6   the Court has to decide.
7   If it has any relevance whatsoever,
8   it's a very limited relevance that would go
9   to the issue of just how quickly the Court
10   would have to put in place a new map so as
11   to minimize disruption to elections.
12   And so if it has any purpose
13   whatsoever, it's -- it's limited and it's
14   cumulative, and so the Court should -- to
15   the extent that it's cumulative, should
16   restrict their testimony.
17   THE COURT: Thank you very much.
18   Mr. Tabas.
19   MR. TABAS: Good morning,
20   Your Honor. Lawrence Tabas on behalf of the
21   Intervenors.
22   The Intervenors, in their individual
23   capacities, are county committee chairs,
24   political party chairs. They're candidates
25   for office, they're active Republican voters

15

1   and participants in the electoral process.
2   And most importantly, they are voters. They
3   are similar to the Petitioners in this
4   particular case.
5   And contrary to what counsel has
6   said for the Petitioners, they are, in
7   fact -- they, the Petitioners, are seeking
8   to relitigate the intervention in this case.
9   This Court did recognize that the
10   Intervenors have legally protected rights,
11   constitutional rights under the Pennsylvania
12   Constitution, the right to participate in
13   the electoral process, which includes, among
14   other things, voting and participating and
15   having access, similar rights that the
16   Petitioners have said that they
17   actually have as well.
18   The issue, Your Honor, is not
19   whether or not our testimony is relevant.
20   We're not here to support the Petitioners'
21   case. We're here to establish and protect
22   our rights that would be adversely affected
23   immediately and directly if the Petitioners'
24   relief is granted.
25   Furthermore, Your Honor, they took

16

1   the quote from Albert completely out of
2   context. The Albert quote dealing with the
3   right to vote being the issue in a
4   redistricting case dealt with the claim that
5   an association cannot be an Intervenor in
6   this case. That does not apply to the
7   individual Intervenors here.
8   In fact, Your Honor, the irony is
9   if, in fact, the Petitioners claim that the
10   only right at issue here is the right to
11   vote, then their claims should be dismissed
12   this morning. Because in the deposition
13   submitted in this case, each one of the
14   Petitioners has acknowledged that they have
15   not been prevented from voting, that they
16   have not been prevented from --
17   THE COURT: I'm going to stop you
18   there. I don't want to hear about the
19   deposition testimony. I'm going to be
20   listening to live testimony. I don't want
21   to listen to deposition -- I apologize for
22   interrupting, but I want to make sure the
23   record is clear.
24   MR. TABAS: Thank you, Your Honor.
25   So as a result, Your Honor, our

17

1   witnesses -- and we've paired it down to
2   six -- witnesses will be coming in and
3   testifying about their constitutionally
4   protected rights of participating in the
5   electoral process, which will be directly
6   and immediately harmed if the Petitioners'
7   relief is granted, Number 1; Number 2, they
8   do have a right to come in and address the
9   issues of remedy should this Court believe
10   that some form of remedy is necessary
11   here --
12   THE COURT: And, again, I'm going
13   to correct you, because it's not going to be
14   this Court; it will be the Supreme Court.
15   MR. TABAS: In the Supreme Court;
16   you're correct, Your Honor.
17   -- without our ability to put our
18   evidence on the record, we can't make the
19   arguments that the Petitioners acknowledge
20   that we can make in their motion, but we
21   can't make it without the evidence to be
22   admitted here.
23   So that -- I ask this Court -- we
24   only have six of our 36 witnesses -- that we
25   be allowed to assert and protect our legally

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18

1 constitutional rights that have already been
2 recognized by our intervention.
3   Thank you, Your Honor.
4   THE COURT: Thank you.
5   Does anybody else want to be heard
6 on the motion to exclude or limit
7 Intervenors' testimony?
8   Okay. Next motion is Petitioners'
9 motion to limit or preclude Legislative
10 Respondents from presenting evidence or
11 argument about intent, motives and activity
12 in enacting the 2011 Plans.
13   I did receive a response from the
14 Legislative Respondents indicating that they
15 have no intention of presenting such
16 evidence, but I'll hear from Petitioners on
17 their motion.
18   MR. BERGMAN: Thank you, Your Honor.
19 Andrew Bergman from Arnold & Porter Kaye
20 Scholer on behalf of the Petitioners.
21   So the Parties have asked --
22   THE COURT: Mr. Bergman -- and this
23 is for all the lawyers there -- the podium
24 goes up and down with the button to your
25 right, if that's an issue. And then the

19

1 microphone can be adjusted up as well. So
2 you don't have to hunch over.
3   There you go.
4   MR. BERGMAN: Thank you, Your Honor.
5   THE COURT: You're welcome.
6   MR. BERGMAN: Your Honor,
7 Petitioners have asked for an order in
8 limine precluding the Legislative
9 Respondents from introducing evidence or
10 argument relating to subject matters that
11 were withheld from discovery under the
12 legislative privilege. And as Your Honor
13 had mentioned before, the response that was
14 filed this morning indicates that they do
15 not intend to rely on those materials.
16   Petitioners would say that that's
17 all the more reason to grant this motion.
18 But in addition, Your Honor, by all
19 appearances, it does appear that they intend
20 to introduce material within the prohibited
21 subject matter, specifically, intentions,
22 motivations and activities in creating the
23 2011 Plan.
24   For example, one of the Legislative
25 Respondents' proposed exhibits, Number 21,

20

1 is a letter regarding minimum population
2 size of the districts created by the
3 2011 Plan, which would enter into that
4 subject matter because it is necessarily
5 going to present an incomplete picture of
6 the motivations that were relied on.
7   For example, if they can present
8 evidence regarding minimum population size
9 but were withholding additional information
10 regarding other motivations creating that
11 plan or that were used in crafting it, then
12 it would necessarily invade the principle of
13 fairness which Petitioners ascribe to the
14 Court in our motion.
15   THE COURT: Thank you very much.
16   MR. BERGMAN: Thank you, Your Honor.
17   MR. TUCKER: Good morning,
18 Your Honor. Rob Tucker on behalf of the
19 Legislative Respondents in this case.
20   As Your Honor recognized, we issued
21 a short response last night indicating we
22 don't intend on submitting any other
23 extrinsic evidence of legislative intent or
24 motivations in this case based upon
25 Your Honor's holding back in November that

21

1 the Legislative Respondents hold an absolute
2 immunity in this case.
3   The only argument I heard --
4   THE COURT: Well, it's not exactly
5 what I held, but I granted your motion on
6 speech and debate immunity in the sense that
7 the Court could not compel discovery
8 responses from a colegal branch of
9 government, in this case, the legislature
10 and the speech and debate clause of the
11 Pennsylvania Constitution.
12   MR. TUCKER: Understood, Your Honor.
13 And I think that argument's going to be
14 addressed in a couple different motions in
15 limine as well. So I think we can address
16 that then.
17   And as far as the particular exhibit
18 that's being referenced, it's just the
19 population requirements. I don't know that
20 anybody here disputes that there's an equal
21 population requirement when drafting
22 districts. That doesn't go into any
23 legislative intent or motivations.
24   Thank you.
25   THE COURT: Thank you.

6 (Pages 18 to 21)

22

1 Anyone else want to be heard on that
2 motion?
3 Okay. The next motion is
4 Petitioners' motion to exclude the testimony
5 of expert Cho, critical of their expert,
6 Dr. Chen.
7 MR. JACOBSON: Thank you,
8 Your Honor. Daniel Jacobson from Arnold &
9 Porter Kaye Scholer on behalf of
10 Petitioners.
11 Your Honor, the central thrust of
12 Dr. Cho's report as it relates to Dr. Chen
13 is that he did not disclose the computer
14 algorithm that he uses for purposes of his
15 computer simulations. And we detailed in
16 our motion, that's simply not the case.
17 At Legislative Respondents' specific
18 request, Dr. Chen did disclose the computer
19 code used for purposes of his report, and
20 remarkably, they simply chose to give it to
21 their other two experts, Dr. McCarty and
22 Dr. Gimpel, but they just didn't give it to
23 Dr. Cho.
24 As we also detail in our report, not
25 only did we disclose Dr. Chen's computer

23

1 code in this case, he's published -- and
2 it's sitting online right now -- the
3 computer code he uses for his algorithms in
4 connection with two different peer-reviewed
5 journals.
6 And so as we say in our report, it
7 is not a generally accepted methodology in
8 the scientific community to simply not look
9 at information that's available and to then
10 form opinions based on the notion that it
11 wasn't disclosed, when, in fact, it was.
12 And to make matters worse, not only
13 did Dr. Cho not look at the computer code
14 that was disclosed from Dr. Chen, she
15 dedicates -- I think it's about three of the
16 10 pages of her report that deals with
17 Dr. Chen -- to analyzing an entirely
18 different algorithm that was made by a Ph.D.
19 student at Princeton that has nothing to do
20 with Dr. Chen's whatsoever. And it's
21 actually hard to tell that from reading the
22 report. I had to read it twice to realize
23 that.
24 And we would submit, Your Honor,
25 that that analysis is irrelevant and will

24

1 only confuse the record. We have enough
2 computer simulation algorithms, computer
3 codes flying around in this case. We don't
4 need testimony about an entirely different
5 algorithm that has nothing to with
6 Dr. Chen's work.
7 So we would submit that that as well
8 is not a generally accepted methodology, to
9 criticize one expert by analyzing an
10 entirely different expert's work.
11 THE COURT: Thank you.
12 MR. LEWIS: Your Honor, good
13 morning. This is Patrick Lewis on behalf of
14 the Legislative Respondents.
15 Your Honor, Dr. Cho is a research
16 scientist with decades of experience in the
17 areas of redistricting and computer
18 simulations. She has offered several
19 criticisms of the model employed by
20 Dr. Chen. It did not require review of the
21 code at all.
22 She went to the degree of academic
23 scrutiny of Dr. Chen's model, and we'll hear
24 more about that today and, hopefully, when
25 she testifies.

25

1 She's familiar generally with
2 Dr. Chen's algorithm based on his academic
3 writings -- as counsel for Petitioners has
4 conceded, it's out there -- that he employs
5 a Monte Carlo-based simulation, where
6 geographic units are merged together --
7 smaller units are merged together until a
8 required number of districts is achieved.
9 Her criticisms go to the class of
10 model that Dr. Chen employs. Her extensive
11 research, including publications in the
12 International Conference for High
13 Performance Computing, the Journal of the
14 Operational Research Society, the William &
15 Mary Law Review, Swarm and Evolutionary
16 Computing [sic], the Proceedings of the 2015
17 Annual Conference on Control Systems,
18 Computing and Engineering. Her experience
19 working on multiple NSF grants -- funded
20 grants dealing with the use of simulations
21 and redistricting more than qualify her to
22 offer an opinion regarding Dr. Chen's
23 approach to simulations and the class of
24 model that he employs.
25 Getting into the weeds of the exact

7 (Pages 22 to 25)

26

1   details of the method of the simulation is
2   not essential for her opinion. Consider,
3   for example, an analogy of trying to decide
4   whether a hammer or a drill is the better
5   tool to make a hole through a wooden beam.
6   One can offer that opinion based on general
7   knowledge of a hammer versus a drill without
8   having to get into the minutia of one model
9   of a hammer versus another.
10   We submit that she has more than
11   satisfied the requirements under Rule 702 of
12   the Pennsylvania Rules of Evidence to offer
13   specialized knowledge, degrees -- to a
14   reasonable degree of scientific certainty
15   using methodology accepted in the relevant
16   field.
17   If Petitioners wish to question
18   Dr. Cho upon cross-examination regarding the
19   depth of her analysis of Dr. Chen's model,
20   they're welcome, but we submit that it's not
21   a basis to exclude her opinion.
22   Further, Dr. Cho offers many
23   criticisms of Dr. Chen, including how he
24   structures the comparison sets that he's
25   judging Act 131 against, his approach to

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1   dealing with county and municipal splits,
2   how he addresses incumbency protection and
3   voting rights, and many other topics that
4   have nothing to do with the code underlying
5   his simulations at all.
6   And, finally, to correct the record,
7   counsel for Petitioners suggests that
8   Dr. Cho relied on -- on a model using what's
9   called a Markov chain analysis from the
10   Princeton student, Feefield (phonetic).
11   That's not true. She ran her own
12   Monte Carlo simulation and is prepared to
13   testify concerning that matter.
14   What she relied upon was a data set
15   that Feefield had prepared as part of a
16   small scale validation study. Experts in
17   the fields of simulation -- and she can get
18   into this when she testifies -- regularly
19   use data sets. That's part of what experts
20   use.
21   The fact that she relied on a
22   small-scale data set to generate an example
23   absolutely adds value to these proceedings
24   and is absolutely an accepted method of
25   validating research and is absolutely a --

28

1   you know, something that she would do
2   with -- given her expertise in political
3   science, operations research, statistics,
4   computer science and high-performance
5   computing.
6   So on that basis, Your Honor, we
7   would ask that the motion in limine be
8   denied and that Dr. Cho be permitted to
9   testify concerning all matters within the
10   scope of her report.
11   THE COURT: Thank you.
12   Would anybody else like to be heard
13   on the motion?
14   There's a motion by Plaintiffs to
15   exclude Dr. Gimpel's expert testimony
16   regarding the effect of the 2011 Plan.
17   MR. CELLA: Good morning,
18   Your Honor --
19   THE COURT: Good morning.
20   MR. CELLA: -- John Cella for the
21   Petitioners.
22   The Petitioners seek to exclude from
23   Dr. Gimpel's testimony what really are a
24   series of assertions about the intent behind
25   these particular boundaries on this

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1   particular map. They're assertions that are
2   really no more than conjecture.
3   And to be very clear about this,
4   these are not alternative explanations,
5   reasonable alternatives for why particular
6   boundaries on the map might be drawn the way
7   they are for nonpartisan reasons. That's
8   not what these are. Dr. Gimpel raises these
9   very clearly as assertions, as certainties
10   about what the legislative intent was for
11   particular boundaries and particular
12   districts.
13   And Petitioners have provided some
14   examples of this in our written briefing,
15   but just a few -- he says, for example, the
16   12th District was certainly not constructed
17   as a safe Republican seat, certainly not
18   constructed that way. He says that there
19   was no thought of a need to counterbalance
20   Democratic voters and Republican voters in
21   the Third District, or that -- and he says
22   that the decision was made because of a --
23   to -- to split your -- the decision was made
24   because of a -- particular nonpartisan
25   reasons, not that the decisions could have

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1   been made that way or that there's a
2   reasonable alternative, no.
3   This is what the intent was. That
4   is Dr. Gimpel's proffered expert testimony
5   that the Legislative Respondents intend to
6   offer here.
7   He doesn't provide in his report any
8   references for these statements. The
9   grounds for any of his assertions about the
10   intent behind his particular boundaries has
11   not been disclosed to Petitioners, as
12   required under the rule. But we do know,
13   partly from some of Dr. Gimpel's testimony
14   in the Agre trial last week -- we do know
15   that he has been provided with and relied on
16   some sources from the General Assembly in
17   this case. And we do know that
18   Mr. John Memme, the chief Republican
19   mapmaker, is an expert consultant that the
20   Legislative Respondents have -- have
21   retained.
22   Dr. Gimpel is aware of that. He
23   testified to that last week --
24   THE COURT: Counsel, let me ask you
25   on that point, because I read that in your

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1   papers.
2   Mr. Memme, was he one of the people
3   that Petitioners sought to depose in this
4   case?
5   MR. CELLA: I believe he was,
6   Your Honor.
7   THE COURT: And your contention,
8   then, is that Mr. Memme -- you specifically
9   asked for Mr. Memme's deposition as a person
10   with knowledge. There was an objection by
11   Legislative Respondents to Mr. Memme's
12   deposition, which this Court sustained. And
13   your allegation now is that Mr. Memme has
14   been feeding information to Dr. Gimpel?
15   MR. CELLA: Well, Your Honor, that's
16   certainly what it appears --
17   THE COURT: I didn't ask you that.
18   I asked you is that your allegation?
19   MR. CELLA: I think it's a
20   reasonable inference from the information
21   that -- that Dr. Gimpel testified to last
22   week. I don't -- we don't know for
23   certain -- I don't know enough to make that
24   allegation.
25   THE COURT: Well, then, do I know

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1   for certain whether it's happened, and can I
2   use it as a basis to exclude Dr. Gimpel's
3   testimony?
4   MR. CELLA: Your Honor, I believe
5   that what you do know from the record that
6   we've provided is that some information --
7   THE COURT: Well, I understand
8   that. I understand that.
9   My question is -- I find -- I think
10   it would be incredibly compelling if, as a
11   matter of fact, Legislative Respondents'
12   experts have been consulting with
13   nontestifying consultants who you sought to
14   depose but then were shielded. I think that
15   would be an incredibly compelling argument
16   to seek to preclude their experts from
17   testifying.
18   My question is, Is that the argument
19   that you're making? Are you -- are you
20   asserting and are you able to prove that the
21   Legislative Respondents' experts have been
22   consulting with individuals who were
23   shielded from your deposition efforts?
24   MR. CELLA: Your Honor, what we're
25   asserting is that through counsel --

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1   THE COURT: No, I don't want to
2   know what you're asserting. I want to say,
3   Are you asserting what I just asked you are
4   asserting?
5   MR. CELLA: Your Honor, we're not
6   asserting that. From the record, what we're
7   asserting is that through counsel,
8   Dr. Gimpel has apparently received sources
9   of information from the General Assembly.
10   And, perhaps, one of those sources is
11   Mr. Memme.
12   From the record --
13   THE COURT: So you don't know that
14   it's Mr. Memme?
15   MR. CELLA: That's correct,
16   Your Honor.
17   THE COURT: And you don't know that
18   it's any of the -- you don't have any
19   information you can offer the Court today
20   that it is any of the people that were
21   shielded from your discovery?
22   MR. CELLA: That's correct,
23   Your Honor. We don't have certain
24   information of that, but we do have some
25   record from last week.

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1   And I -- to move --
2   THE COURT: Well, the record from
3   last week is not here.
4   I will give you -- if you have proof
5   that Mr. -- that the Legislative Respondents
6   have been using experts who have received
7   information from individuals that were
8   shielded from your discovery, I will allow
9   you to put that evidence on, because that's
10   a troubling allegation, if that, in fact, is
11   an allegation that you're making.
12   MR. CELLA: Yes, Your Honor. We
13   have statements from Dr. Gimpel that, on the
14   one hand, are -- have no support. It could
15   only be conjecture unless they are somehow
16   supported by direct evidence of the intent
17   of the mapmaker, such as Mr. Memme --
18   THE COURT: But you don't have any
19   direct evidence of -- of -- of -- of a -- I
20   don't know how many times I can say it.
21   I think you understand what I'm
22   saying, right, that the Court's concern,
23   based on your filing, was an allegation that
24   the Legislative Respondents received the
25   protection of the speech and debate clause

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1   immunity to shield depositions of former --
2   current and former legislative staffers, and
3   then those current and former, one or more,
4   legislative staffers who were shielded under
5   speech and debate immunity from discovery
6   have been providing information to their
7   testifying experts?
8   If that, in fact, is the case, then
9   I am very interested in that. If you cannot
10   establish that to be the case, then it's a
11   different analysis.
12   MR. CELLA: Understood, Your Honor.
13   MR. GERSCH: Your Honor, might we
14   have a moment to consult with our colleague
15   to help answer your question?
16   THE COURT: Sure.
17   (Counsel confer.)
18   MR. CELLA: Your Honor, one source
19   of information that Petitioners have cited
20   is Exhibit C to our brief, which is that
21   exchange from the Agre trial last week,
22   but -- and we certainly intend to ask
23   Dr. Gimpel about this question on the stand,
24   if -- if we're permitted to do so.
25   But I don't think that the -- our

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1   motion to exclude his testimony does depend
2   on this question of whether, in fact,
3   Petitioners can establish as a certainty
4   that the information he's relying upon came
5   from privileged sources.
6   If it didn't come from that, then
7   it's entirely unsupported and is simply
8   conjecture and is not -- is not competent
9   expert opinion in that regard.
10   THE COURT: That -- I understand.
11   Anything else?
12   MR. CELLA: Yes, Your Honor, if I
13   may, just because of the opposition that
14   came in early this morning from Legislative
15   Respondents.
16   They -- I think it's -- it's
17   interesting that the very carefully worded
18   paragraph or couple sentences on this
19   question of where the information
20   Dr. Gimpel's relying on came from, and
21   it's -- it's very engineered and so
22   carefully -- almost as carefully as some of
23   the boundaries in these districts that we're
24   talking about in this case.
25   He -- they say --

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1   THE COURT: Well, lawyers can do
2   that.
3   MR. CELLA: Yes, Your Honor.
4   THE COURT: They're very skilled.
5   MR. CELLA: Well, these skilled
6   lawyers have said that Dr. Gimpel didn't use
7   any data from any nonpublic source or a
8   source that was not disclosed to
9   Petitioners. And that careful wording, I
10   think, leaves the question open of, Did
11   Dr. Gimpel rely on any nonpublic source, not
12   necessarily data, but some other source,
13   perhaps, of legislative intent. Did he rely
14   on that? And that hasn't been disclosed,
15   and the Legislative Respondents haven't
16   answered that question in their reply brief.
17   They also say that Dr. Gimpel did
18   not speak with any legislator or legislative
19   employee.
20   Did they include past legislators --
21   past legislative employees in that? They
22   haven't answered that question either.
23   So, Your Honor, just to conclude,
24   Dr. Gimpel has said that he's received
25   sources of information from the

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1   General Assembly through counsel. There is
2   some record --
3   THE COURT: That reference is --
4   wasn't that report amended?
5   MR. CELLA: Your Honor, there's --
6   there is an amendment to Dr. Gimpel's report
7   on a couple citations --
8   THE COURT: Right.
9   MR. CELLA: -- but in a general
10 sense, in the record that we've provided --
11   THE COURT: His current report says
12 he obtained information from the
13 General Assembly?
14   MR. CELLA: His current report
15 changes the citation from the
16 General Assembly Legislative Data Processing
17 Center to -- to a different source. It's
18 not clear to Petitioners --
19   THE COURT: It's going to be a long
20 day if we're talking past each other.
21   The question is -- the question is,
22 The current report, does it -- you had said
23 that Mr. Gimpel said in his report that he
24 received information from the General
25 Assembly.

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1   I know that there was an earlier
2   motion, which the Court denied without
3   prejudice, dealing with the assertion that
4   Mr. Gimpel's report said that he --
5   Dr. Gimpel -- it's probably Dr. Gimpel,
6   right?
7   MR. CELLA: Yes, Your Honor.
8   THE COURT: -- that Dr. Gimpel
9   received information from the
10 General Assembly or staff of the
11 General Assembly.
12   You folks lodged a motion.
13 Legislative Respondents answered and said he
14 made a mistake.
15   The report -- has that report been
16 amended, or is there still, in the current
17 report, some reference to obtaining
18 information directly from the
19 General Assembly?
20   MR. CELLA: I believe that's been
21 removed from the current report, Your Honor.
22   THE COURT: Okay.
23   MR. CELLA: But I would just ask --
24 I would encourage the Court to ask
25 Legislative Respondents have you retained

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1   Mr. Memme as an expert consultant in this
2   case, and has Dr. Gimpel relied on anything
3   provided to him, directly or indirectly,
4   from Mr. Memme.
5   We know that he testified in a case
6   last week, and he said that he was provided
7   information from counsel through sources
8   from the General Assembly that could have
9   been Mr. Memme.
10   How is he supposed to walk into this
11 courtroom this week and somehow turn off one
12 half of his mind of what he may have been --
13 what he was provided in terms of intent
14 behind these particular maps, totally put
15 that out of his mind and testify and give
16 the assertions that he intends to, according
17 to his report in this case?
18   He is tainted from these sources of
19 information he's been provided, and the
20 cleanest thing is to exclude him from this
21 trial.
22   THE COURT: He's been tainted by
23 the sources of information that he's been
24 provided, but you're not exactly sure what
25 the sources of information are?

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1   MR. CELLA: Yes, Your Honor --
2   THE COURT: But he's tainted?
3   MR. CELLA: Well, Your Honor, he's
4   been provided sources of information from
5   the General Assembly that --
6   THE COURT: Again, I'm trying to
7   understand your factual basis for that
8   allegation.
9   MR. CELLA: Your Honor, in the
10 portion of his -- of his testimony last week
11 that is before the Court as an exhibit to
12 our briefing --
13   THE COURT: I'm not dealing with
14 his testimony. His testimony isn't in front
15 of me -- his testimony in the other case is
16 not in front of this Court right now. You
17 have to imagine that that didn't happen, for
18 my purposes. We're here in a different
19 case.
20   MR. CELLA: Yes, Your Honor.
21   THE COURT: So -- so do you have a
22 witness that is going to testify that
23 Dr. Gimpel received information from the
24 General Assembly that was otherwise
25 precluded by this Court's prior order?

11 (Pages 38 to 41)

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1   MR. CELLA: No, Your Honor.
2   THE COURT: Okay. Thank you.
3   So, Counsel, this was one of the
4 motions that concerned me, because it
5 certainly would be unfair -- I'm not going
6 to say it's illegal -- there are a lot of
7 unfair things that are legal, but it would
8 certainly be unfair if the Court were to
9 grant speech and debate immunity and
10 preclude forced testimony from former and
11 current legislative staff and legislators
12 themselves only to have that information
13 back-doored to an expert.
14   So I'm very concerned about that,
15 and I'd like you to directly address my
16 concerns.
17   MR. TUCKER: Absolutely, Your Honor.
18 Let me address the 800-pound gorilla in the
19 room on this issue.
20   Let me be clear about this. The
21 only thing we're talking about in
22 Dr. Gimpel's report is one chart. I think
23 it's Table 3. And that only deals with
24 county and municipality splits under the
25 2002 plan and the current plan. And the

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1 only thing we're talking about here is
2 information that a GIS expert, consulting
3 expert, provided to Dr. Gimpel on those
4 splits. That's it.
5   THE COURT: Well, let me ask you
6 specifically.
7   The undisclosed GIS expert -- I'm
8 not going to ask you to disclose them.
9   Is that undisclosed GIS expert a
10 former employee of the Legislature?
11   MR. TUCKER: Yes, sir.
12   THE COURT: Was that GIS expert on
13 the deposition list that was the subject to
14 the Court's speech and debate immunity
15 decision?
16   MR. TUCKER: I don't believe they
17 asked for his deposition. I believe they
18 were subpoenaed documents. But I just want
19 to make that clear on the record. I believe
20 they were subpoenaed documents.
21   THE COURT: And -- okay. So I just
22 want to make sure I understand.
23   Dr. Gimpel relied on documents he
24 received from a former state legislative
25 employee who worked on the maps in question

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1 in this case in his capacity as a former
2 state legislative employee and who
3 Petitioners sought documents from, but this
4 Court shielded them under the asserted
5 speech and debate immunity.
6   MR. TUCKER: Well, the underlying
7 documents --
8   THE COURT: Am I correct?
9   MR. TUCKER: Correct, but with one
10 clarification, if I may, is that the data
11 that we're talking about is -- it's publicly
12 available data that -- all the GIS
13 consulting expert did was basically assist
14 Dr. Gimpel in -- in helping determine the
15 splits, which Dr. Gimpel then took --
16   THE COURT: The "GIS" is Geographic
17 Information --
18   MR. TUCKER: Systems.
19   THE COURT: -- Systems?
20   MR. TUCKER: Correct.
21   So what he did is basically just
22 assist --
23   THE COURT: Hold on. Hold on. Go
24 back to the table.
25   I think the request is your

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1 co-counsel would like to consult with you.
2   Why don't you go back to the table?
3   MR. TUCKER: Thank you, Your Honor.
4   THE COURT: Okay.
5   MR. TUCKER: So what I'm trying to
6 convey, Your Honor, is there's one document
7 that was provided to Dr. Gimpel. That
8 document -- that analysis has been turned
9 over to the Petitioners. And it was based
10 upon publicly available sources. It's not
11 based upon any data or documents --
12   THE COURT: I'm not sure that's the
13 point. I'm not sure that's the point.
14   If the Court were to limit
15 Dr. Gimpel's testimony and preclude
16 testimony with regard to that particular
17 exhibit, would I have to preclude all of
18 Dr. Gimpel's testimony or just limit it?
19   MR. TUCKER: You would just have to
20 limit it, because Dr. Gimpel does have other
21 opinions in his report --
22   THE COURT: Is there any other part
23 of his opinion that Dr. Gimpel relies on
24 information that he received from a witness
25 or a -- "witness" is a strong term -- of a

12 (Pages 42 to 45)

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1   current or former legislative staffer that
2   was the subject of the speech and debate
3   immunity order?
4   MR. TUCKER: No. I believe
5   everything else, including this, Your Honor,
6   was independently verified or confirmed by
7   Dr. Gimpel, himself.
8   THE COURT: I understand that.
9   But is there -- is there anything
10   else in Dr. Gimpel's report that is -- that
11   falls within the concerns that we've been
12   talking about?
13   MR. TUCKER: Not that I'm aware of,
14   Your Honor.
15   THE COURT: Okay. Do you have
16   anything else?
17   MR. TUCKER: The only thing I just
18   want to reiterate is, again, Dr. Gimpel's
19   opinions are not -- when you read his
20   report, they're couching it as he's saying
21   what the legislature's intent. That doesn't
22   appear anywhere in his opinion, nor do you
23   see language the legislature intended X or
24   the legislature intended Y --
25   THE COURT: Well, there's a lot of

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1   passive voice, and the word "intent" is used
2   a lot. And probably expect -- I don't think
3   he was a professor of grammar. But I can
4   understand Petitioners' concern by some of
5   the language used.
6   That's not my substantial concern
7   with regard to Dr. Gimpel. My concern,
8   really, based on the motion, was the
9   concerns about where -- his sources of
10   information.
11   MR. TUCKER: Understood, Your Honor.
12   Nothing further.
13   THE COURT: Thank you.
14   Legislative Respondents' motion
15   regarding the REDMAP information --
16   MR. TUCKER: Your Honor, if I may,
17   just to clarify for the record what was
18   subpoenaed and asked for by the Petitioners.
19   THE COURT: That depends.
20   Who are you?
21   MR. TUCKER: For the Petitioners,
22   Your Honor.
23   THE COURT: No. I have not been
24   allowing any kind of rebuttal arguments. So
25   have a seat. We've got to move this along.

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1   Anybody else want to be heard --
2   other than rebuttal argument -- on the
3   motion regarding Dr. Gimpel's expert
4   testimony?
5   Okay. The next motion is
6   Legislative Respondents' motion regarding
7   the REDMAP data.
8   MR. TUCKER: Good morning again,
9   Your Honor.
10   I'll be brief on this one.
11   Our position is this -- is simple,
12   that Petitioners listed in exhibits a number
13   of documents and articles related to
14   something that's referred to as
15   Project REDMAP, which is a project in a --
16   thing from the National Republican Party.
17   Petitioners, one, aren't going to
18   have any evidence that they're going to be
19   able to submit at trial that it had any
20   impact whatsoever on the drafting of the
21   2011 Congressional lines in Pennsylvania.
22   And moreover, there's no way that they can
23   authenticate these documents or lay any
24   foundation for these documents.
25   And given the expedited nature of

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1   this trial, you know, any references they're
2   trying to admit this evidence is just not
3   going to be an efficient use of the parties'
4   or the Court's time.
5   And that's our position on this.
6   THE COURT: Thank you.
7   MR. ROBINSON: Good morning,
8   Your Honor. John Robinson from Arnold &
9   Porter Kaye Scholer.
10   Your Honor, these documents are
11   relevant. They're not prejudicial, and they
12   satisfy the hearsay exception for business
13   records.
14   So first on relevance, these -- I'll
15   get to the hearsay exception last, unless
16   you'd like me to deal with it first. First
17   on relevance, these documents go directly to
18   the issue of partisan intent, meaning the
19   Republicans' effort to gerrymander
20   districts --
21   THE COURT: What Republicans?
22   MR. ROBINSON: The Republicans in
23   the Pennsylvania legislature, Your Honor.
24   Okay.
25   THE COURT: So you'll be able to

13 (Pages 46 to 49)

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1 produce evidence that ties the REDMAP data
2 to the conduct of the legislators in this
3 case?
4 MR. ROBINSON: I don't know that
5 we'll do that, Your Honor; however, the
6 documents are still relevant because it
7 shows that the Republican Party as a party
8 had a priority.
9 THE COURT: The Republican Party is
10 not a Respondent here. The General Assembly
11 of Pennsylvania and the House and the Senate
12 leaders are the party.
13 The Republican Party, for whatever
14 it is these days, has a lot of different
15 agendas, not necessarily shared by the
16 General Assembly when it enacted a piece of
17 legislation back in 2012 or 2011.
18 MR. ROBINSON: Well, Your Honor, if
19 I may, if I had to prove that
20 Ben Roethlisberger had the intent to beat
21 the Ravens --
22 THE COURT: You better be careful
23 where you're going.
24 MR. ROBINSON: -- I think it would
25 be highly probative, Your Honor, that the

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1 Pittsburgh Steelers also had the intent to
2 beat the Ravens and, in fact, the
3 Pittsburgh Steelers were training
4 Ben Roethlisberger to beat the Ravens and
5 had locker room conversations about how to
6 beat the Ravens.
7 THE COURT: Do you have proof that
8 the Republican National Party had specific
9 conversations with the General Assembly
10 members over congressional redistricting
11 plan?
12 MR. ROBINSON: We don't have direct
13 evidence, but I think we do have
14 circumstantial evidence, Your Honor.
15 Some of these REDMAP documents are
16 offers from people associated with REDMAP to
17 legislative leaders throughout the country.
18 Some of them are sent to Pennsylvania
19 officials offering help. We know that this
20 was going on in other states, in
21 North Carolina, Wisconsin. I think it would
22 be a reasonable inference; however, I don't
23 want to focus on that because I think it's
24 still relevant regardless because --
25 THE COURT: The issue isn't whether

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1 or not -- I'm not sure the issue is
2 relevancy. I think the issue is taking a
3 National Republican Party initiative and
4 just assuming that it was an issue that was
5 in place in Pennsylvania. I think that's
6 the nature of the motion.
7 MR. ROBINSON: I think that goes to
8 weight and not admissibility, Your Honor. I
9 mean, the bar for relevance, as Your Honor
10 knows, is -- is quite low. And we're not
11 saying that these documents conclusively
12 established that RSLC or REDMAP was involved
13 in drafting the 2011 Plan. That's not what
14 we're saying.
15 We're just saying that Republicans
16 had the intent to gerrymander these
17 districts to help Republicans --
18 THE COURT: Every Republican?
19 Every Republican in Pennsylvania?
20 MR. ROBINSON: I don't think we need
21 to show that to Your Honor.
22 THE COURT: Well, that's my
23 problem, is -- is the motion is you
24 have what appears to be -- everybody seems
25 to be agreeing -- was a national initiative,

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1 but the motion is, what you have is evidence
2 that it was a national initiative; what you
3 don't have is evidence that it was adopted
4 as a local initiative, and that to put it in
5 without that connection is a relevancy
6 problem.
7 MR. ROBINSON: Your Honor, I think
8 the problem is, at this point, it just seems
9 so obvious; it seems obvious that the
10 Republicans want to gerrymander these
11 districts in favor of Democrats. But Erfer
12 says we have to prove this point. They
13 haven't stipulated to it. And I think this
14 is probative evidence of the Republicans'
15 intent. Will we be able --
16 THE COURT: Again, probative
17 evidence of which Republicans' intent?
18 MR. ROBINSON: Republicans who
19 crafted -- there will be no dispute that
20 Republicans had full control over the
21 process of the development of the 2011 Plan,
22 whether it be individual legislators
23 themselves, whether it be Republican
24 staffers working for those legislators.
25 There will be no dispute about that

14 (Pages 50 to 53)

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1   and the fact that their party, the party
2   that they belong to, thought that this was a
3   priority and that Pennsylvania was a REDMAP
4   target state and that REDMAP had, as an
5   explicit goal, to solidify conservative
6   policymaking at the state level and maintain
7   a Republican stronghold in the U.S. House of
8   Representatives for the next decade.
9   That's from Petitioners'
10   Exhibit Number 131.
11   THE COURT: Does that go to
12   REDMAP's intent, or does it go to the
13   General Assembly's intent?
14   MR. ROBINSON: It goes to both,
15   Your Honor.
16   THE COURT: What evidence do you
17   have to link the two? That they just happen
18   to be Republicans?
19   MR. ROBINSON: Yes. I don't mean to
20   dismiss that. They were on the same team,
21   and their playbook said, We want to beat the
22   Democrats by gerrymandering districts.
23   THE COURT: Like I said, my concern
24   is there's a lot of things happening
25   nationally and in other states; in

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1   particular, where Republicans have an agenda
2   or Republican Party has an agenda that is
3   not necessarily shared by other Republicans.
4   MR. ROBINSON: I think that's a fair
5   argument. I think they will make the
6   argument. It doesn't mean the evidence
7   should be excluded.
8   If I could just discuss the hearsay
9   exception briefly --
10   THE COURT: Sure.
11   MR. ROBINSON: -- this goes to the
12   business records exception, 803(6).
13   We obtained declarations from the
14   RSLC and SGLF certifying that these were
15   business records, that these documents
16   satisfied all of the business records
17   requirements under Pennsylvania Rule of
18   Evidence 803(6). We've tendered those
19   certifications in our Exhibit list, so under
20   Rules 803(6) and the authenticity rule
21   902(11), they satisfy the business records
22   exception.
23   THE COURT: Okay. Thank you.
24   MR. ROBINSON: Thank you.
25   THE COURT: Anybody else want to be

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1   heard on that motion?
2   Okay. Next motion in limine is
3   Petitioners' motion to allow the use of
4   documents from the Agre case, which is the
5   Federal gerrymandering litigation that was
6   in trial last week in the Eastern District
7   of Pennsylvania, and, actually, two motions:
8   The flip side to the same coin, the
9   Legislative Respondents' motion to exclude
10   the same information.
11   So I think it probably makes sense,
12   since we would generally presume the
13   admission or presume the allowability of the
14   evidence asked in a motion to exclude, that
15   we go with the motion to exclude first,
16   again, the flip side of the same coin, but I
17   will actually allow a little more argument
18   on this issue because this one is a
19   complicated one. Not that the other ones
20   aren't, but this one is a complicated one.
21   So why don't I hear from the
22   Legislative Respondents first?
23   MR. TUCKER: Thank you, Your Honor.
24   Thank you for allowing a little more time on
25   this issue.

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1   I agree. I think this is a very,
2   very important issue, and I think it -- it
3   has broader implications than just this
4   case.
5   We have a ruling from Your Honor
6   from last November, as we've discussed
7   earlier this morning already, that found
8   that there was a absolute legislative
9   immunity. At least, if Your Honor could not
10   compel the production of any documents
11   protected by the speech or debate clause of
12   the Pennsylvania Constitution, if this Court
13   were not to allow documents into this case
14   that they wouldn't have otherwise been able
15   to obtain in this case, it would really
16   completely undermine the basis of that
17   ruling and the protections of the speech or
18   debate clause in the Pennsylvania
19   Constitution; it would really infringe upon
20   the legislature's ability to conduct its
21   affairs without the interference of the --
22   the judicial branch or the executive branch.
23   And so essentially what you would be
24   ordering, if you would allow these documents
25   to come into this case, is that the

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1   Legislative Respondents have waived their
2   privilege as to those documents. And we
3   have not.
4   In the Federal Court case, we filed
5   motions for protective order. We vigorously
6   tried to keep those documents out of
7   evidence as privilege in that case as well.
8   Unfortunately, we're dealing with a
9   different standard in the Federal Court than
10   we were dealing with here in State Court,
11   and the Federal Court found that those
12   documents could be admitted.
13   But we cited this case law in our
14   original motion for protective order on this
15   issue that a compelled production of
16   privileged materials in another case cannot
17   constitute a waiver of the privilege in this
18   case.
19   THE COURT: You agree, though,
20   there's really -- we're sort of in
21   unchartered territory here because neither
22   party has cited any case that is
23   particularly -- any opinion that is
24   particularly helpful for the Court on this
25   issue.

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1   MR. TUCKER: I think we have,
2   Your Honor, actually. In the original
3   briefing on this issue, we cited the
4   Transamerica case from the Ninth Circuit.
5   What happened there, Your Honor, was
6   the parties were -- were ordered to produce
7   a bunch of documents on a rush basis, and
8   when they did that, they inadvertently
9   turned over a bunch of privileged
10   information, and then the parties that got
11   those documents tried to use them in another
12   case, and the party that turned it over
13   said, You can't use those in the new case
14   because -- because we had to turn those over
15   so quickly, it was an inadvertent waiver of
16   the privilege --
17   THE COURT: In the Transamerica
18   case, where they -- where did they make that
19   argument?
20   MR. TUCKER: They made it in the new
21   case.
22   THE COURT: In the new case.
23   MR. TUCKER: Correct, saying that
24   you cannot -- those documents are still
25   privileged, we didn't waive the privilege.

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1   In that case, they actually turned
2   them over not even on an order to compel,
3   just under a production order that they had
4   to turn them over within such an expedited
5   time that it inadvertently resulted in them
6   turning over privileged documents.
7   Here, we have an order from
8   Your Honor saying that there's an absolute
9   privilege and I can't compel the production.
10   They went and got these documents from a
11   compelled order from the Federal Court but
12   now want to use those documents in this
13   case. Well, the only way that can be
14   allowed is if this Court finds that we've
15   waived the legislative privilege. And we do
16   not, and we've stood by that position
17   throughout this entire case.
18   But I think there's more here.
19   Petitioners argue that this evidence is
20   already in the public domain because it was
21   used in the Agre Federal case, but that's
22   incorrect for two reasons.
23   First of all -- and I want to be
24   clear on this point -- something that
25   Mr. Gersch raised at the outset of the

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1   trial. It is not our position that the
2   Petitioners in this case violated a Court
3   order by obtaining the documents. It's not
4   their obtainment of the documents that we
5   have a problem with.
6   It's the fact that now that they
7   have them, that they're trying to use them
8   in this case, despite the fact that the
9   Federal Court, at the conclusion of the Agre
10   trial, specifically held that they didn't
11   think the documents that were produced in
12   discovery in the Agre case should be used in
13   this case out of respect to this Court's
14   privileged orders.
15   But that's exactly what they
16   intended. And they knew about that order at
17   the time they filed their exhibit list and
18   submitted these as exhibits, that the
19   Federal Court didn't think they should be
20   able to be used here. But -- but yet,
21   they're trying to all the same.
22   So for that reason, one, we don't
23   think that they're in the public domain,
24   because the Federal Court, in Agre, says, We
25   don't think they are in the public domain.

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1   And I'll read specifically from --
2 from the transcript of what the Court said.
3 They said, The Panel is not insensitive to
4 the fact that there's a trial starting next
5 week, where this Court is -- is -- where
6 this Court, applying Federal law, found the
7 privilege nonapplicable. But we have -- we
8 are respectful of our colleagues in the
9 State Court who have come to a different
10 conclusion applying different law.
11   Our goal is to ensure that we are
12 being respectful of those proceedings, at
13 the same time, not limiting counsel for
14 their ability to use materials as part of
15 this case in the way that we've described.
16   What the Federal Court is saying is,
17 We want them to be able to have the evidence
18 in this case because there was only a
19 qualified privilege, but we -- we want to be
20 respectful of the fact that the State Court
21 found that there was an absolute privilege.
22   The second reason why they're not in
23 the public domain is, the documents that are
24 actually at issue that they list on their
25 exhibit list were never actually admitted

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1 into evidence in the Agre case. And, in
2 fact, the Federal Court was clear on this
3 point as well.
4   In an exchange with counsel for the
5 executive defendants in this case,
6 Judge Smith said the reference is in the
7 public domain; the underlying document is
8 not. The Federal Court was clear that any
9 documents that were actually
10 admit -- that -- not admitted into evidence
11 in that case -- and none of these were --
12 are not in the public domain.
13   And the public domain argument,
14 Your Honor, is -- again, goes back to the
15 waiver issue.
16   THE COURT: Counsel, can I
17 interrupt you for a second? I want to make
18 sure I -- because this is -- this is -- this
19 is difficult, and I'm struggling with it
20 because we did enter the order that we
21 entered.
22   I think in our order, we recognized
23 that the Federal Court could reach a
24 different conclusion, and where this Court
25 has deviated from what happened in the Agre

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1 case, the Court has attempted to explain why
2 the Court shows a different path than what
3 the Federal Court did. In this particular
4 case, it's because this Court is bound by
5 the Pennsylvania Constitution and the
6 Federal Courts are not bound by the
7 Pennsylvania Constitution.
8   That being said, we're -- I do
9 think, in reading the transcript from the
10 Third Circuit, which I'm going -- I keep
11 saying "Third District" -- it's a
12 three-judge panel -- one circuit judge, two
13 district judges, maybe one senior district
14 judge; I'm not sure -- it does seem that as
15 the trial was winding up, the Federal Judges
16 were attempting to provide some kind of
17 balanced approach in how to deal with the
18 conflicting decisions.
19   What I sort of understood they were
20 saying -- and I want to give you a chance to
21 disabuse me of it -- is they were making a
22 distinction between documents obtained in
23 discovery and used at trial or filed as the
24 public record and documents obtained in
25 discovery but that were not filed on the

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1 docket or used at the trial.
2   And that was a distinction that the
3 Court -- the Federal Judges were making, the
4 difference between discovery that had become
5 public through the litigation versus
6 discovery that wasn't public through
7 litigation but was nonetheless shared.
8   Some of the discovery information
9 was barred from being shared; some of it was
10 not. So this is my long way of saying that
11 I may be inclined to see a distinction
12 between documents that were merely shared as
13 a result of them occurring in discovery but
14 that did not see the light of day in the
15 sense that they were not made public versus
16 documents that were obtained through
17 discovery and became part of the public
18 record in the Federal case.
19   What about that distinction?
20   MR. TUCKER: Your Honor -- and I can
21 confer with my co-counsel on this, but I
22 don't believe any of the documents that
23 we're talking about were made part of that
24 public record in the Federal Court case.
25   THE COURT: Okay. So that's --

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1   that's kind of the nub of the question. All
2   of the exhibits that you are challenging in
3   your motion, you're saying were not part of
4   the public record, were not used at the
5   trial in the Federal case.
6   MR. TUCKER: Your Honor, if I may
7   just have a moment. I wasn't at the Agre
8   trial. I just want to confirm that point
9   with those who were.
10   THE COURT: Take a moment.
11   (Counsel confer.)
12   MR. TUCKER: Thank you for that
13   brief interruption, Your Honor.
14   Yes, I've conferred with our counsel
15   that none of the documents that we're
16   talking about here were -- were introduced
17   into evidence in the Agre trial. In
18   particular, the data that you see referred
19   to in Dr. Chen's report, that was never
20   introduced into evidence in the Agre trial.
21   THE COURT: Well, I know -- that's
22   the next motion -- or the motion with regard
23   to Dr. Chen and the use of the shapefiles.
24   Your motions -- your motion with
25   regard to the Agre case, was that limited to

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1   certain enumerated exhibits?
2   MR. TUCKER: Yes, Your Honor.
3   THE COURT: Okay. Your claim is
4   that all of those exhibits were obtained in
5   the Federal litigation but not filed -- in a
6   docket anywhere, attached to any kind of a
7   filing, and not used at trial?
8   MR. TUCKER: I believe that's
9   correct, Your Honor.
10   THE COURT: Okay. Do you have
11   anything else?
12   MR. TUCKER: I want to emphasize the
13   point here that it's a slippery slope if we
14   start going down this road where you allow
15   defendants to -- when they can't get
16   documents in one case, to go to another case
17   that has maybe a less stringent standard to
18   get there.
19   THE COURT: I'm very -- I'm very
20   attune to the slippery slope.
21   So I'm going to -- I'm really going
22   to be asking Petitioners the same questions.
23   This is why I thought the balance that the
24   Federal Judges were trying to strike seemed
25   like a fair balance; it would preclude a

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1   party who is prevented from obtaining
2   certain discovery in State Court from simply
3   filing a companion case in Federal Court or
4   having someone else file a companion case in
5   Federal Court and using that discovery
6   availability there to get documents, but
7   then really not to go forward with trial.
8   Maybe they dismiss the case before
9   it goes to trial, they've got all the
10   documents that they want, and now they're
11   just going to use them in the State case;
12   however, if the documents become public, are
13   actually filed of record and used in a
14   proceeding, then that's -- that's a place
15   you can potentially draw the line.
16   MR. TUCKER: My response,
17   Your Honor, is, from our perspective, we
18   don't believe that line is appropriate,
19   because in order to draw that line, you're
20   still saying that even the documents that
21   were filed in the other case, if they were
22   only obtained because they were compelled to
23   be produced, you have to be finding a waiver
24   of the privilege in this case for those
25   documents. And there's been no waiver --

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1   waiver is a voluntarily -- voluntary
2   relinquishment of a known right.
3   We didn't voluntarily relinquish any
4   right. We were compelled by the Court in
5   the Federal Court case to produce those.
6   THE COURT: But the only -- the
7   only right you have -- recognized by this
8   Court so far in this case was the right not
9   to have this Court force discovery.
10   MR. TUCKER: That's true. Although,
11   I do recognize, I think in Your Honor's
12   subsequent order on that -- reserve the
13   right to review objections and
14   admissibility --
15   THE COURT: Absolutely.
16   MR. TUCKER: -- and that's what I'm
17   saying, is there shouldn't be a distinction
18   between compelling somebody to produce it
19   and then the admissibility of those
20   documents; there really is -- you know --
21   they go hand-in-hand.
22   I mean, the privilege isn't just to
23   not being compelled to produce them; the
24   privilege is not having them be used against
25   you at trial, which is what they're

18 (Pages 66 to 69)

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1 intending to do here. And so there really
2 shouldn't be a distinction between
3 compelling production and the admissibility
4 of those documents. If they couldn't compel
5 production here, then they shouldn't also be
6 able to use them here just because they got
7 them in another case where we were compelled
8 to produce them in that case.
9   THE COURT: Thank you.
10   MR. TUCKER: Thank you.
11   THE COURT: Let's see if we can
12 start with some -- why don't you identify
13 yourself for the record?
14   MS. THEODORE: Yes, Your Honor. I'm
15 Elizabeth Theodore on behalf of the
16 Petitioners.
17   THE COURT: Okay. So let's see if
18 we can agree on something.
19   MS. THEODORE: Sure.
20   THE COURT: Can we agree that the
21 exhibits that are the subject of
22 Legislative Respondents' motion are all
23 exhibits that are not of record in the
24 Federal litigation?
25   MS. THEODORE: No. So I --

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1   THE COURT: We can't agree on that?
2   MS. THEODORE: Correct.
3   And let me just make sort of two
4 related points. If you're talking about
5 whether these documents were admitted into
6 evidence --
7   THE COURT: No, I'm not talking
8 about that. I'm taking what the
9 Federal Judges said, which is, it's not --
10 they're not on the docket, and they're
11 not -- they weren't produced as evidence in
12 the hearing.
13   MS. THEODORE: So they absolutely
14 were used as evidence in the hearing
15 repeatedly. So there are two expert reports
16 that were -- that are on the docket
17 publicly -- they were admitted as exhibits,
18 those expert reports, in the Federal
19 litigation -- that discussed extensively the
20 data calculating partisanship scores for
21 every voting tabulation district and
22 precinct and Census block in Pennsylvania.
23   So they -- those documents were
24 discussed extensively at the Federal trial.
25 They're discussed extensively in expert

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1 reports that were admitted as exhibits, as I
2 understand it.
3   THE COURT: Okay.
4   So if I were to rule on this motion
5 simply that Petitioners can only use
6 exhibits that were actually used or filed of
7 docket at the Agre matter, you would be able
8 to reach agreement with the other side as to
9 what the universe of that is?
10   MS. THEODORE: So my --
11   THE COURT: Anytime my wife starts
12 with "so" dot dot dot --
13   MS. THEODORE: -- I think -- and I
14 don't want to speak for the other side -- I
15 think we can reach agreement that the
16 documents that Dr. Chen relies on in his
17 report --
18   THE COURT: I'm not talking about
19 Dr. Chen.
20   We're going to have argument on that
21 later, or that's the next motion in the list
22 of motions.
23   MS. THEODORE: The issues, though,
24 if I may, Your Honor, are overlapping
25 because --

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1   THE COURT: I agree they're
2 overlapping. I just didn't know -- the Chen
3 motion -- the Chen report relates to the
4 shapefiles.
5   MS. THEODORE: But the shapefiles
6 are also on our exhibit list, so they're
7 actually also covered by -- it's, like,
8 Exhibit 27 to 31 of our exhibit list, which
9 is covered by their exhibit-related motion.
10 Those are the files that Dr. Chen is going
11 to testify on.
12   THE COURT: So you're saying the
13 Legislative Respondents filed a duplicative
14 motion?
15   MS. THEODORE: I wouldn't -- I
16 wouldn't say that, Your Honor.
17   THE COURT: Okay. I'll say it.
18   MS. THEODORE: Absolutely.
19   So -- so I think -- so I think we
20 can agree that those files were all
21 extensively discussed by the experts in the
22 Agre litigation publicly.
23   THE COURT: Okay. Let me ask you
24 this question: Are there exhibits that are
25 the subject of their motion that you seek to

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1 use in this case that were not -- that are
2 not on the docket in a Federal case, meaning
3 I couldn't go to the docket today and find
4 it, and that were not used at trial either
5 as an attachment to an expert report or a
6 separate exhibit?
7   Are there documents?
8   MS. THEODORE: I believe so;
9 although, I wasn't at the Agre trial. So I
10 can tell you that with respect to the other
11 documents, the documents that are, like,
12 approximately Exhibits 137 to 151 of our
13 exhibit list -- so those are a series of
14 maps with partisan scores on them and
15 PowerPoint presentations attaching maps with
16 partisan scores on them.
17   And one of the experts in the Agre
18 litigation -- I believe it was Dr. Hanna --
19 described those maps. I think she said that
20 there were 31 of them, and she talked about
21 them. I know at least one of them was
22 actually admitted, and that's a map called,
23 like, CD18 Maximized.
24   THE COURT: I think one of the
25 Federal Judges -- I can't remember which

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1 Third District was trying to -- I keep
2 saying "Third District" -- what the
3 Federal -- my clerk corrected me earlier
4 when I said "Third Circuit," too -- but what
5 the three Federal Judges, three-judge panel,
6 Federal Judges, seemed to have been trying
7 to do was -- was make a distinction.
8   MS. THEODORE: And, Your Honor, if I
9 may, what I'm suggesting, though, is that
10 later on they clarified that the distinction
11 they were making -- that that distinction
12 you're referencing, was just prospectively
13 and that they were not making that
14 distinction with respect to documents that
15 had been given by the Agre Plaintiffs to us
16 and that had already been given to us.
17   THE COURT: No, I understand that.
18 But the prospective rationale is certainly
19 something I should consider in this case, if
20 the Federal Judges felt that that rationale
21 was good enough for them to apply it
22 prospectively.
23   This is prospective right here.
24 This is a trial happening the week after
25 that trial.

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1 one -- talked about one thing, not in the
2 record, another, right?
3   MS. THEODORE: I'm sorry?
4   THE COURT: I forget the wording
5 that the Judge used.
6   There was a specific -- there was
7 a -- Judge Smith said, The reference is in
8 the public domain; the underlying document
9 is not.
10   MS. THEODORE: Right.
11   And, Your Honor, I -- if I may,
12 though, I'd just like to clarify that I
13 think that that -- so that is -- comes a
14 little bit earlier in the transcript.
15   THE COURT: I read the whole thing.
16 I -- I understand -- I understand -- I'm
17 trying to -- this is a complicated issue --
18   MS. THEODORE: Absolutely.
19   THE COURT: -- and, again, I said
20 it earlier, and you heard my concerns about
21 what happens if we just allow it as a
22 blanket rule.
23   MS. THEODORE: Right.
24   THE COURT: So what I'm trying to
25 do is I'm trying to see if what the

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1   MS. THEODORE: So with respect to
2 the PowerPoint and the maps with the
3 partisan scoring, I don't know -- I don't
4 believe that every single one of those
5 documents was admitted, but they were
6 discussed, absolutely, and Dr. Hanna, the
7 Plaintiffs' expert, described the partisan
8 scoring of those maps on the record in the
9 Agre trial.
10   And if I can just speak to some of
11 the legal issues for a moment.
12   THE COURT: The legal issues
13 associated with the motion?
14   MS. THEODORE: Yes, with the speech
15 and debate clause.
16   THE COURT: Go ahead.
17   MS. THEODORE: Sure.
18   THE COURT: Sure.
19   MS. THEODORE: So our -- our view
20 is -- our view is, we're not suggesting that
21 the Legislative Respondents somehow waived
22 their legislative privilege by producing
23 these documents. We're just suggesting --
24 and, you know, a waiver would apply, then,
25 that we could then get all sorts of other

20 (Pages 74 to 77)

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1   discovery from them. That's not what we're
2   suggesting at all.
3   What we're suggesting is that the
4   speech or debate clause simply doesn't apply
5   to documents that are now public.
6   THE COURT: That puts the rabbit in
7   the hat now, doesn't it? The question is,
8   Federal Courts, including the United States
9   Supreme Court and at least one
10   Superior Court case, have said that
11   discovery is not public; discovery is
12   private between the parties.
13   That doesn't mean that the parties
14   can't share the information with whomever
15   they wish to do in the absence of a gag
16   order or a protective order, but it doesn't
17   mean that it's public. And I think
18   that's -- I think that's what the
19   Federal Judges were saying, is -- is there's
20   a difference between use of documents that
21   are public in the sense that they are filed
22   of record or used in the trial versus
23   documents that are just obtained because
24   another party in the litigation shared them
25   with another party.

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1   Obviously, I'm assuming they were
2   shared -- I'm making this assumption, but
3   I'm assuming the reason why the Plaintiffs'
4   counsel in Agre shared them with you folks
5   is because you folks wanted them because
6   they would be helpful in this case because
7   this Court prevented you from getting that
8   discovery.
9   MS. THEODORE: I think that would be
10   a fair assumption, Your Honor.
11   THE COURT: Okay.
12   So that's the concern I have, and it
13   seemed, to me, that the three
14   Federal Judges, at least, articulated a good
15   middle ground.
16   MS. THEODORE: Well, Your Honor, I
17   would say this: So the actual privilege at
18   issue here, right, is the privilege
19   against -- against members of the
20   General Assembly being questioned. It
21   doesn't apply to -- certainly, there's --
22   the Legislative Respondents, whose burden it
23   is to substantiate a privilege, have offered
24   not a single case in their briefing -- in
25   their briefing yesterday that suggests that

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1   the Legislative -- or that the speech and
2   debate clause would apply in this
3   circumstance, and this is highly relevant,
4   probative evidence that shows directly and
5   conclusively that this map was drawn
6   intentionally to disadvantage Democratic
7   voters.
8   Much of this evidence is now on the
9   Web site of The Philadelphia Inquirer and --
10   THE COURT: How did they get it?
11   If you know, you have to answer my
12   question.
13   MS. THEODORE: I can -- I'm happy to
14   answer your question, Your Honor. So
15   some -- some of that, you know, was from, of
16   course, the fact that it was in -- used in
17   the Agre litigation. But -- it wasn't me
18   personally, but, yes, our team absolutely
19   spoke with The Philadelphia Inquirer, and we
20   had every right to do so.
21   And this evidence is of extreme
22   public importance, and we think that when we
23   have evidence that was not compelled by you,
24   it doesn't violate the separation of powers,
25   that goes directly to the issues in this

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1   case, that the Pennsylvania Supreme Court
2   should get to see it.
3   THE COURT: Thank you.
4   The last -- does anybody else want
5   to be heard on that motion?
6   The last motion is the motion to
7   exclude -- Legislative Respondents' motion
8   to exclude the testimony of Dr. Chen, which
9   is -- if it's duplicative, then we can move
10   on.
11   MR. TUCKER: Your Honor, I'll be
12   brief because I think a lot of the issues do
13   overlap.
14   I just want to clarify that what
15   we're talking about here is just data, data
16   that Dr. Chen obviously received from
17   Petitioners' counsel in this case that they
18   received from the Federal Court Agre trial.
19   But we have a few additional arguments with
20   that data.
21   One is, Dr. Chen cannot lay a
22   foundation for that data.
23   THE COURT: Well, that's -- I
24   don't -- the foundational issues, I think I
25   have to kind of wait and see if they can

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1   raise that; I'm prejudging that.
2   I'm more interested in this -- this
3   issue of where do -- where do we draw the
4   line between these documents, some of which
5   are public because they are part of public
6   litigation in Federal Court, some of them
7   which are small "p" public because they've
8   been given to the newspapers and -- and
9   preserving them nonetheless in this Court,
10   which is a state court dealing with state
11   Legislative Respondents bound by the
12   Pennsylvania Constitution, preserving some
13   semblance of protection that the framers of
14   the Constitution, which just so happened to
15   be the people of Pennsylvania, decided were
16   to appropriate to include.
17   MR. TUCKER: I just want to clarify,
18   too, with the Dr. Chen motion, what we're
19   talking about is just the data that he's
20   relying on in that section of the report
21   where he's taking a look at that data and
22   then drawing conclusions about intent from
23   it. The other documents and exhibits are
24   not part of the Dr. Chen motion. It's only
25   the data.

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1   THE COURT: But is the data part of
2   your other motion?
3   MR. TUCKER: Correct.
4   THE COURT: So this motion is
5   duplicative?
6   MR. TUCKER: It's encompassed within
7   it, Your Honor.
8   THE COURT: Okay. Great. Thank
9   you.
10   Anything else?
11   MS. THEODORE: Yeah. Thank you,
12   Your Honor.
13   I just want to make one small point
14   about the Dr. Chen motion.
15   Of course, as you're well aware, an
16   expert can testify to opinions regardless of
17   whether the underlying facts are admissible.
18   So even if the data files are not admissible
19   as exhibits -- although, of course, we
20   submit that they are -- that wouldn't
21   preclude Dr. Chen from testifying to his
22   opinions based on those files, especially
23   given that, as I said before, the experts in
24   the Federal litigation testified extensively
25   to opinions based on those files.

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1   THE COURT: I'm familiar with the
2   general rule that you can -- you can testify
3   to facts normally relied upon by experts in
4   the field. That usually doesn't
5   include -- it usually includes data sources
6   that are regularly relied upon by experts,
7   not necessarily parties' documents that were
8   obtained in discovery. So it's a
9   little -- it's a different thing.
10   MS. THEODORE: Fair enough.
11   Although, the Legislative Respondents, in
12   producing these documents, said in an e-mail
13   that these were the facts and data
14   considered in creating the 2011 Plan, their
15   counsel did.
16   And, again, just, again, with
17   respect to Dr. Chen, you know, we just think
18   it would be really remarkable for the Court
19   to ignore direct, conclusive evidence of
20   discriminatory partisan intent, when any
21   Pennsylvania citizen can look at these
22   documents.
23   THE COURT: Well, they can --
24   "remarkable" is a pretty strong word.
25   I'm sensitive to the notion that

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1   everybody should have a fair trial in this
2   proceeding. My rulings are going to be
3   considered what they are going to be
4   considered. Some people may consider them
5   remarkable. Some people may consider them
6   ridiculous. Some people may consider them
7   sound. But my decisions will be based not
8   on what particular people perceive but what
9   I think the law should be.
10   Okay?
11   MS. THEODORE: Understood,
12   Your Honor.
13   THE COURT: Thank you.
14   Anybody else on the Chen motion?
15   Have I identified and had argument
16   on all of the motions in limine, of which I
17   believe there were eight?
18   Are there any motions in limine that
19   I missed?
20   MR. GERSCH: No, Your Honor.
21   MR. TUCKER: No, Your Honor.
22   THE COURT: Okay. At this point,
23   the Court will have a recess in which we
24   will consider the argument and come back and
25   issue our rulings.

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1   THE CLERK: The Court is now in
2 recess.
3   - - -
4   (Whereupon, a recess was taken from
5   10:48 a.m. to 11:32 a.m.)
6   THE CLERK: All rise. The
7 Commonwealth Court will now resume session.
8   THE COURT: Please be seated,
9 everyone.
10   I want to thank counsel for the
11 well-argued and, for the most part, concise
12 oral arguments on the pending motions in
13 limine.
14   As lawyers know, motions in limine
15 have much greater impact in cases where
16 there's actually a jury. The theory being
17 that if you allow certain evidence in during
18 a jury trial and then -- if you allow it in,
19 period, it's kind of hard to unring the
20 bell. Use whatever analogy you want to
21 use -- put the toothpaste back in the tube,
22 put the water back over the dam -- whatever
23 you want to use.
24   But that's why motions in limine are
25 generally filed; it's to essentially stop

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1 the evidence from being presented to a jury.
2   One of my charges, as I said at the
3 outset, as the Judge in this case is to
4 create a record, create a -- as fulsome a
5 record as possible for the Supreme Court
6 Justices to review the record and review my
7 proposals on findings of fact and
8 conclusions of law, but, ultimately, for the
9 Supreme Court to decide the case based on
10 the evidence that's produced here. So many
11 of my rulings here are based with that
12 charge in mind.
13   What does that mean? It means that
14 I may be allowing things in during this
15 trial that if there were a jury sitting
16 here, I wouldn't.
17   And it also doesn't mean that just
18 because I'm allowing certain evidence in,
19 that I am -- as I write my findings of fact
20 or I do my legal analysis, that I am going
21 to consider them or weigh them one or
22 another, or what have you.
23   It simply means that I am creating
24 a -- I'm leaning in favor of creating as
25 fulsome a record as possible.

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1   Ultimately, the lawyers will have
2 the opportunity, I am assuming, to make what
3 additional arguments they want to make to
4 the Supreme Court with regard to anything
5 that happens here. But I want to put that
6 predicate out there, particularly for the
7 nonlawyers in the room.
8   So here are my rulings --
9   MR. TUCKER: Your Honor, there's two
10 brief matters that we need to address with
11 the Court before the Court rulings.
12   THE COURT: I was so excited to
13 give my rulings, though. You completely
14 ruined my flow.
15   Please approach -- approach, please.
16   MR. TUCKER: And, Your Honor, we do
17 apologize for interrupting. We are very
18 much looking forward to your rulings, but
19 these two issues, I think, impact your
20 rulings.
21   So we wanted to inform the Court
22 that, first of all, with regards to
23 Dr. Gimpel's report, we are going to go
24 ahead and withdraw Pages 17 to 29 of his
25 report. Those are the sections of his

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1 report that he -- that were -- part of it
2 that was addressed during argument on the
3 motions in limine with the chart on the
4 county splits, and the other part is the
5 district-by-district --
6   THE COURT: Counsel, you're going
7 way too fast for me, Number 1. If you could
8 move the microphone up closer to your mouth,
9 that would be really helpful.
10   Okay. There you go.
11   Now, as I understand it, you are
12 going to withdraw a portion of Dr. Gimpel's
13 report and -- and, correspondingly, I
14 assume, reduce the scope of his testimony?
15   MR. TUCKER: That's correct.
16   THE COURT: Okay. And what were
17 the pages of the report that you're going to
18 withdraw?
19   MR. TUCKER: Sure. It's Pages 17 to
20 29 of his report. And I believe withdrawing
21 those pages addresses the Petitioners'
22 motion in limine on Dr. Gimpel --
23   MR. FREEDMAN: Your Honor, it
24 doesn't --
25   THE COURT: Hold --

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1   MR. FREEDMAN: -- the Petitioners
2 would like to be heard on that matter as
3 well.
4   But I will let counsel proceed.
5   THE COURT: Thank you. That's very
6 nice of you.
7   Go ahead.
8   MR. TUCKER: That's -- that's the
9 first thing --
10   THE COURT: That's the nub of it?
11   MR. TUCKER: That's the nub of it on
12 Dr. Gimpel.
13   THE COURT: Let's do Dr. Gimpel,
14 and then we'll do whatever your next thing
15 is.
16   MR. TUCKER: Sure. No problem.
17   THE COURT: Go ahead and retreat to
18 counsel table.
19   MR. TUCKER: Thank you.
20   MR. FREEDMAN: Your Honor,
21 John Freedman from Arnold & Porter Kaye
22 Scholer.
23   Pages 17 through 29 are the
24 district-by-district analysis. We are
25 assuming they are being withdrawn because

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1 report.
2   MR. TUCKER: Thank you, Your Honor.
3   MR. FREEDMAN: We don't think it
4 goes far enough.
5   THE COURT: That's -- all I've
6 heard is -- all I've heard is their
7 withdrawal. And they've offered to
8 withdraw; you've accepted their withdrawal.
9 They withdraw it.
10   MR. FREEDMAN: Thank you.
11   THE COURT: Okay. You're welcome.
12   MR. TUCKER: Your Honor, the second
13 matter relates to the evidence that was
14 admitted into the Agre case, and there's
15 some questions from the Court about what was
16 actually admitted and what was not admitted.
17   And we went back and checked and
18 matched up all the exhibits on their exhibit
19 list to the Agre transcript and identified
20 that there was one of them that, it looks
21 like, was admitted in the Agre case, and
22 that is Petitioners' Exhibit 140.
23   We just want to make the Court --
24 correct the record and make sure the Court
25 was clear on that.

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1 there was some merit in our suggestion,
2 accusation, what you will, that it was
3 infected by materials that had been blocked
4 by legislative privilege --
5   THE COURT: Don't assume that.
6   Why don't you just assume that they
7 were trying to avoid a conflict?
8   MR. FREEDMAN: There are other
9 aspects of the report that we complained
10 about in our motion starting at Page 3,
11 Pages 10 through 17 that also contain
12 similar characterizations that appear to us
13 to be of the same ilk as the portions that
14 they have withdrawn --
15   THE COURT: Let me ask you this
16 question: Do you have any objection to them
17 withdrawing Pages 17 through 29?
18   MR. FREEDMAN: At a minimum, no.
19   THE COURT: So you have no
20 objection to their offer to withdraw
21 Pages 17 through 29?
22   MR. FREEDMAN: That's correct.
23   THE COURT: Okay. Thank you.
24   We will accept your willingness to
25 withdraw Pages 17 through 29 of the Gimpel

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1   THE COURT: Thank you.
2   MR. TUCKER: Thank you.
3   THE COURT: Okay. First is
4 Petitioners' motion to exclude or limit
5 Intervenors' testimony. I'm going to grant
6 motion.
7   As far as the witnesses that the
8 Intervenors are going to call, I'm going to
9 grant the motion and preclude the testimony
10 of a potential -- or of an existing
11 Congressional candidate.
12   The reason why is because I don't
13 think I need an existing Congressional
14 candidate to inform the Court as to how
15 prejudicial a change in the maps will be.
16   I think everybody understands that
17 if the maps change, that that will certainly
18 change who can or cannot run for office and
19 the corresponding burden associated with
20 that.
21   In reality, I'll say, anecdotally,
22 I'm not sure it changes who can or cannot
23 run, because I don't think you need to be a
24 resident of your Congressional district to
25 run for Congress. With that being said, I

24 (Pages 90 to 93)

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1   understand the practical burden associated
2   with being a carpetbagger, so to speak.
3   But, nonetheless, I don't think we need any
4   testimony on that particular inconvenience.
5   I also -- I will also limit the
6   number of witnesses that can testify as
7   party chairs and the number of witnesses
8   that can testify as so-called "Republicans
9   at large." The Intervenors can present the
10   testimony of one party chair and one
11   Republican at large, but the rest of the
12   testimony seems, to me, to be duplicative.
13   So in that regard, that motion will
14   be granted.
15   Next is Petitioners' motion to limit
16   or preclude Legislative Respondents from
17   presenting evidence or argument about
18   intent, motives and activity in enacting the
19   2011 Plans.
20   I'm going to grant that motion to
21   the extent that it seeks to bar
22   Legislative Respondents from offering
23   evidence that Petitioners could not obtain
24   in discovery due to this Court's
25   November 22nd, 2017 order regarding the

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1   Legislative Respondents' proffer to withdraw
2   Pages 17 through 29. Accordingly, the Court
3   expects that there will be no testimony on
4   that portion of that expert report; however,
5   we are otherwise going to deny the motion.
6   I would note that this ruling is
7   also subject to the order I just dictated
8   previously with regard to speech and debate
9   immunity, but I will also note that, given
10   the oral argument, I am going to give
11   Petitioners wide latitude to cross-examine
12   Dr. Gimpel.
13   Next is Legislative Respondents'
14   motion regarding REDMAP.
15   I am going to deny the motion;
16   however, I am going to note that if there
17   were a jury here, I would probably exclude
18   the evidence.
19   And I probably will not be
20   personally assigning any weight to that
21   evidence, unless, of course, there's any
22   kind of testimony tying, specifically, the
23   REDMAP data or the REDMAP evidence that's
24   going to be offered at the trial and
25   admitted as an exhibit to the particular

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1   speech and debate clause, a provision in the
2   Pennsylvania Constitution.
3   As far as the request to limit
4   argument, that's -- we'll wait to see what
5   argument they want to have. But I was
6   concerned in the motion there was some
7   suggestion that they could -- that the
8   Legislative Respondents will be precluded
9   from making any arguments about the evidence
10   that the Petitioners might produce, and that
11   seemed to be overbroad. So we'll deal with
12   that more on a case-by-case basis.
13   But as far as the speech and debate
14   immunity and sword and shield argument, I
15   think the order I just provided on the
16   record adequately addresses Petitioners'
17   concerns.
18   The next motion is Petitioners'
19   motion to exclude the testimony of
20   Dr. Wendy Cho, critical to the expert report
21   of Dr. Chen. I'm going to deny that motion.
22   Next is Plaintiffs' motion to
23   exclude Dr. Gimpel's expert testimony
24   regarding the effect of the 2011 Plans.
25   The Court has already accepted the

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1   legislators.
2   The remaining motions relate to the
3   Federal Court litigation in the Agre matter.
4   And they are Petitioners' motions to allow
5   the use of documents from the Agre case and
6   Legislative Respondents' motion to exclude
7   the same, as well as the
8   Legislative Respondents' motion to exclude
9   Dr. Chen's expert report.
10   For purposes of this case, we are
11   going to allow the use in this case of any
12   documents of record in the Federal
13   litigation.
14   So what does that mean? That means
15   to the extent that a document is -- appears
16   on the docket in the Federal litigation and
17   is, therefore, public, that document can be
18   used in this litigation, assuming it can be
19   admitted in terms of authenticity and
20   relevance and all those other objections.
21   The Court will also allow the offer
22   of documents that were actually admitted
23   into evidence at the trial in the Agre case.
24   The Court will also allow experts to
25   use the documents, so long as those experts

25 (Pages 94 to 97)

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1   used them in the Agre case, and can only use
2   those documents to the extent they were used
3   by the experts in the Agre case. This means
4   that if an expert in the Agre case relied on
5   a document or referenced the document as
6   part of the report, that the expert can rely
7   and use that document to that same extent
8   here.
9   However, if the document itself was
10 not admitted and is not part of the record
11 in the Agre case, it will not be admitted in
12 this case.
13   In terms of other documents that
14 Petitioners may have received from the
15 plaintiffs in the Agre case, unless they
16 fall into the categories I have just
17 announced, they are precluded.
18   And I think that applies to the
19 Legislative Respondents' motion to exclude
20 the expert report of Dr. Chen. We will not
21 be granting the motion to exclude the report
22 of Dr. Chen, but it is still subject to the
23 Agre court limitations that I just provided
24 on the record.
25   I think that addresses all of the

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1   motions in limine.
2   Petitioners' -- or Plaintiffs'
3   counsel, has that addressed all the motions?
4   MR. GERSCH: Yes, Your Honor.
5   THE COURT: Okay.
6   Legislative Respondents?
7   MR. TUCKER: Yes, Your Honor.
8   THE COURT: Any of the other
9   lawyers think that we haven't addressed the
10 pending motions in limine?
11   Okay.
12   So at this point in time, we are
13 going to recess for a lunch break. We will
14 begin at 1:00 with the first witness because
15 the parties have waived opening argument.
16   Thank you.
17   THE CLERK: The Court is now in
18 recess.
19   (Whereupon, at 12:13 p.m., a
20   luncheon recess was taken.)
21
22
23
24
25

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1   A F T E R N O O N   S E S S I O N
2   (12:59 p.m.)
3   THE CLERK: All rise. The
4   Commonwealth Court will now resume.
5   THE COURT: Please be seated,
6   everyone.
7   As everybody knows, we have multiple
8   parties in this proceeding. I wanted to
9   propose to the parties an order more so in
10 terms of cross-examination, since the
11 Plaintiffs have the burden of presenting
12 their case first.
13   So I was proposing to go with the
14 Legislative Respondents as the first
15 opportunity to cross-examine, followed by
16 what I refer to as the "Executive Branch
17 Respondents," sans Lieutenant Governor, so
18 they would be second; and then the
19 Lieutenant Governor; and then the
20 Intervenors.
21   Have I left out a party?
22   Does anybody have any objection to
23 that order?
24   Okay. Well, with that, let's --
25 let's start with the evidence presentation.

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1   Petitioners, please call your first
2   witness.
3   MS. MCKENZIE: Apologies,
4   Your Honor. Our first witness doesn't
5   appear to be in the Courtroom.
6   (Pause.)
7   MS. MCKENZIE: Sorry.
8   THE COURT: Boy, that's
9   embarrassing.
10   MS. MCKENZIE: Yes, it is,
11 Your Honor.
12   THE COURT: Why don't you take a
13 deep breath and sit down? It's okay.
14   We'll give you a few minutes to see
15 if you can find the witness.
16   We'll go off the record.
17   - - -
18   (Whereupon, a discussion was held off
19   the record.)
20   - - -
21   THE COURT: Okay. Let's go back on
22 the record.
23   MS. MCKENZIE: Your Honor, the
24 Petitioners call William Marx.
25   THE COURT: Mr. Marx, please

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1 approach and be sworn.
2   - - -
3   WILLIAM ANTON MARX, III,
4   after having been first duly sworn, was
5   examined and testified as follows:
6   - - -
7   - - -
8   DIRECT EXAMINATION
9   - - -
10 BY MS. MCKENZIE:
11   Q.   Good afternoon, Mr. Marx.
12   A.   Good afternoon.
13   Q.   Could you state your full name?
14   A.   It's William Anton Marx, III.
15   Q.   And where are you from, Mr. Marx?
16   A.   I currently live in Delmont,
17 Pennsylvania, in Westmoreland County.
18   Q.   Okay. And I understand you've had a
19 pretty busy weekend; is that correct?
20   A.   I -- I have. So I had my Reserve
21 training this weekend, so I spent Saturday and Sunday
22 with my Reserve unit. And as soon as I was done, I
23 grabbed my daughter, and we drove out here.
24   Q.   So you -- you have a family member in
25 the Courtroom; is that correct?

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1   A.   I do.
2   Q.   And who's that?
3   A.   My 14-year-old daughter sitting over
4 there (indicating). So she's all excited. She just
5 met Brian Sims, so we're kind of late because of
6 that. I'm sorry.
7   THE COURT: That's okay.
8   Mr. Marx, could you pull that
9   microphone a little closer so we can hear
10   you a little bit better?
11   THE WITNESS: Sure.
12 BY MS. MCKENZIE:
13   Q.   All right. So, Mr. Marx, can you give
14 us your address?
15   A.   It's 127 Abbe, A-B-B-E, Place, Delmont,
16 Pennsylvania.
17   Q.   And how long have you lived there?
18   A.   It will be almost three years next
19 month.
20   Q.   Okay. And where did you live before
21 that?
22   A.   Prior to living there, I lived just
23 down the street in Murrysville, 6921 Spring Valley
24 Lane, which was in the municipality of Murrysville.
25 I don't know the ZIP code.

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1   Q.   How long did you live there?
2   A.   About three years.
3   Q.   And before that, where did you live?
4   A.   Prior to that, I lived in the
5 North Hills of Pittsburgh in Ross Township.
6   Q.   And, Mr. Marx, what is your profession?
7   A.   I am currently a teacher at Pittsburgh
8 Allderdice High School in the City of Pittsburgh. I
9 teach social studies, grades 9 through 12, which
10 includes world history, U.S. history, civics, AP
11 U.S. Government. And I'm a military policeman.
12   Q.   And how long have you been a teacher?
13   A.   Since 2010.
14   Q.   And before you were a teacher, what did
15 you do?
16   A.   Prior to being a teacher, I joined the
17 Marine Corps in 1997. I was a military policeman
18 with the Corps until 2000, at which time I left the
19 Marines and joined the Army. And I was a helicopter
20 pilot until 2008.
21   I left that to be a single dad, raise
22 my daughter. And then in 2014, I rejoined the
23 Army Reserves.
24   Q.   Okay. So let's see. You teach.
25 You're in the Reserves.

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1   Do you have any -- you're a dad.
2   Do you have any other responsibilities?
3   A.   I -- I -- yeah, I have a couple. I
4 like to stay busy. Sorry.
5   So I just got elected to my borough
6 council, and I'll be a council member in Delmont
7 starting in January.
8   Q.   And what made you decide to run for
9 borough council?
10   A.   You can call it civic duty. I like to
11 be involved. If you're going to make a change, you
12 should get involved.
13   So I -- when I came back from
14 deployment in January, I wanted to make the town that
15 I was living in a little better place for my family.
16 I was looking around and saw that there were some
17 needs, so I decided to get on council to try to
18 change.
19   Q.   Are you registered with a political
20 party?
21   A.   I am. I'm a Democrat.
22   Q.   And how long have you been a registered
23 Democrat?
24   A.   Since I was 18.
25   Q.   So approximately how many years?

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1   A.   Twenty-two.
2   Do I have to admit that in court?
3   (Laughter.)
4   BY MS. MCKENZIE:
5   Q.   And how often do you vote?
6   A.   I pretty much try to vote in every
7   election, even the elections -- as I tell my
8   students, even the school board elections, which most
9   people skip, just because they are extremely
10 important when it comes to property taxes and what
11 affects your community.
12   So I try to vote in every election,
13 whether it be home or -- last year, I was on
14 deployment, and I still wrote my county election
15 board and requested an absentee ballot.
16   Q.   And why do you make a point of voting
17 so regularly?
18   A.   You can call it an over sense of civic
19 duty, I guess. I love my country. Serving in the
20 military is just one way that I serve my country. I
21 really feel that voting and being part of the
22 political process is another way.
23   Our founders really extolled the --
24 really, the benefits of having an engaged citizenry.
25 Throughout our history, people have died to give me

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1   the right to vote, so I really honor them by voting.
2   And it's one of those things where if I don't make my
3   voice known, how are you going to know what I want.
4   So I make it a point to go out there
5   and vote so people will pay attention to me and,
6   hopefully, will vote in areas that I also agree with.
7   Q.   So I want to direct your attention to
8   Joint Exhibit 5.
9   And I'm going to give you a laser
10 pointer.
11   A.   Giving a teacher a laser pointer.
12   (Laughter.)
13   THE COURT: Just so we're clear,
14 Counsel, Joint Exhibit 5 is part of your
15 stipulations.
16   MS. MCKENZIE: That is correct,
17 Your Honor.
18   THE COURT: So these exhibits have
19 already been entered into the record because
20 the stipulations have been filed with the
21 Court.
22   MS. MCKENZIE: Thank you,
23 Your Honor.
24 BY MS. MCKENZIE:
25   Q.   So, Mr. Marx, do you recognize

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1   Joint Exhibit 5?
2   A.   I do. It's the outline of the
3   Pennsylvania Congressional districts, the current
4   map.
5   Q.   And can you identify your current
6   Congressional district?
7   A.   Sure. I live in the 12th District,
8   which is in Southwestern PA, right here (indicating).
9   And it's the pink-colored district which stretches
10 pretty much from the Ohio line all the way through
11 the North Hills of Allegheny County into the northern
12 half of Westmoreland County, where I live now. And
13 it covers the southern half of Cambria and the
14 northern half of Somerset County out to and including
15 Johnstown.
16   Q.   Okay. And I'm now going to direct your
17 attention to Joint Exhibit 17 and ask if you
18 recognize that map.
19   A.   I do. That's a map of Southwestern
20 Pennsylvania, which includes -- that's my
21 12th District outlined.
22   Q.   Okay. And where do you live in the
23 12th District?
24   A.   So I live just north of Greensburg. So
25 Greensburg is right here (indicating). So I live

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1   about 2, 3 miles north of there. So I would just be
2   over the line right here (indicating).
3   Q.   And do you have any -- do you know
4   how -- the length of District 5?
5   A.   I believe it's about 120 miles from end
6   to end, from the Ohio line out to the easternmost
7   region.
8   THE COURT: You mean District 12?
9   MS. MCKENZIE: I'm sorry. I meant
10 District 12. Thank you, Your Honor.
11 BY MS. MCKENZIE:
12   Q.   So how long have you been in
13 Congressional District 12?
14   A.   I've been a resident of District 12
15 ever since it was created. I believe that was in
16 2011.
17   Q.   And what was your Congressional
18 district under the prior Pennsylvania Congressional
19 district map?
20   A.   Under the prior map, I lived in the
21 North Hills of Pittsburgh, and that was covered by
22 the Fourth Congressional District.
23   Q.   And how long were you in the Fourth
24 Congressional District?
25   A.   I lived in that district, barring,

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1 like, military service -- that was my home of record
2 since I was born.
3   **Q.   And how did you end up in the 12th**
4 **Congressional District?**
5   A.   That's a good question.
6   They -- after the 2010 Census, there's
7 a -- I'm sure you guys know this -- there's a process
8 called "reappointment," where they have to look at
9 population. And Pennsylvania loses population, so we
10 lose Congressional seats. So because of that, they
11 redistricted the Congressional seats from, I believe
12 it was, 20 to 18. So we lost two.
13   And the 12th was part of that
14 redistricting process. So they carved up parts of
15 the Fourth District and parts of the existing
16 12th District, and they split them and merged them.
17 And now you get the Rorschach test that you see up
18 there.
19   **Q.   And you had mentioned, though, that you**
20 **had moved.**
21   **Did that impact you being placed into**
22 **the 12th District under the new map?**
23   A.   Under this map, it did not. So I moved
24 from the North Hills of Pittsburgh, which is just
25 over the city line, out to where I live. And as you

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1 can see from this map, I went from here (indicating)
2 to here (indicating). So it still was in the
3 12th District.
4   **Q.   So who is your current Congressman in**
5 **the 12th District?**
6   A.   My Congressman is Representative
7 Keith Rothfus.
8   **Q.   And which party is he?**
9   A.   He's a Republican.
10   **Q.   You said that you vote regularly, so**
11 **that -- does that include elections for U.S. House of**
12 **Representatives?**
13   A.   Yes, it does.
14   **Q.   And who did you vote for in 2016 in the**
15 **U.S. Congressional race in your district?**
16   A.   In 2016, I voted for Erin McClelland,
17 who was the challenger to Mr. Rothfus.
18   **Q.   And which party is she affiliated with?**
19   A.   She's a Democrat.
20   **Q.   And how about in 2014? Who did you**
21 **vote for in the election for U.S. House?**
22   A.   I, again, voted for Erin McClelland.
23   **Q.   And who was the opponent in that race?**
24   A.   It was Mr. Rothfus.
25   **Q.   Okay. And did -- Mr. Rothfus won?**

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1   A.   He did.
2   **Q.   And how about in 2012? Who did you**
3 **vote for?**
4   A.   In 2012, that was the new district that
5 we have now, and I voted for -- I think it was
6 Mark Critz, because they took his district away and
7 forced him into a runoff between another Congressman.
8 And he won that primary, and then he ran against
9 Mr. Rothfus, who was running for this Congressional
10 district.
11   He ran -- Mr. Rothfus ran for the
12 Fourth District prior to this redistricting and lost.
13 And then he ran again for the 12th District against
14 an incumbent, and he won.
15   **Q.   And in 2010, you would have been in the**
16 **Fourth Congressional District?**
17   A.   I was, yes.
18   **Q.   And who did you vote for in that**
19 **election?**
20   A.   Jason Altmire.
21   **Q.   And which party is Mr. Altmire?**
22   A.   He was a Democrat.
23   **Q.   And who was he running against?**
24   A.   In 2010, he was running against
25 Melissa Hart, the previous Congresswoman that he had

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1 defeated.
2   **Q.   And who in the 2010 election?**
3   A.   Mr. Altmire.
4   **Q.   So, Mr. Marx, has the 2011**
5 **Congressional Map in Pennsylvania, the current map --**
6 **has that impacted your ability to influence the**
7 **political process?**
8   A.   I would say definitely yes, it has, in
9 that it's really taken away my ability to express my
10 vote and vote for, I guess, competitive candidates
11 that have a chance of winning.
12   The way this -- this district itself is
13 drawn, there's no chance of a Democrat winning in
14 this -- in this district. The political report has
15 it a solid Republican.
16   But overall, the entire map of the
17 State has really taken away any chance of having a
18 Democratic majority Congressional delegation.
19 Because if you look at the results of 2012, '14 and
20 '16, you get the consistently advantage 13 to 5
21 Republican to Democratic Congressional districts.
22 And it doesn't change, and it won't change.
23   And I feel that if we have districts
24 that are so -- drawn to such an advantage of one
25 party over the other, it's really taken away my

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1   voice, because I have no hope of expressing my voice
2   and making it heard.
3   Q.   So are there political issues currently
4   before the U.S. House that are important to you,
5   Mr. Marx?
6   A.   Oh, there's many.
7   Q.   Could you -- could you give us an
8   example?
9   A.   An example would be the most current
10 tax bill that's in front of the -- of the House that
11 the Senate just passed. And now they're in
12 conference committee trying to work it out. It takes
13 away deductions for teachers, deductions for student
14 loans, which I have many. So -- so that's -- those
15 are issues that are important to me --
16   Q.   And let me stop you for a moment.
17   On -- on the tax bill, is that an issue
18 where your current Congressman represents your point
19 of view?
20   A.   He does not. Mr. Rothfus
21 actually voted in favor of this tax bill that would
22 raise taxes on working families in the long run and,
23 actually, took away state and local tax deductions,
24 student loan deductions and money for programs like
25 teacher preparedness programs.

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1   Q.   And could you give us an example of
2   another issue before the U.S. House that's important
3   to you?
4   A.   Currently or just in general?
5   Q.   Currently.
6   A.   So, currently, I really favor
7   healthcare. I think it's important that we have a
8   healthy population. The House has repeatedly voted
9   to take away healthcare for members of -- or for the
10 citizens of America. That is something I disagree
11 with. That is something that my Congressman
12 consistently votes to repeal the Affordable Care Act.
13   He has voted to repeal the clean
14 streams rule. And if you know anything about Western
15 Pennsylvania, we have a problem with -- well, we had
16 a problem with mine discharges into our streams. And
17 they've stained the streams that are around us, and
18 it took decades for us to clean them up.
19   And to have somebody in our district
20 vote to repeal the rules that help keep those streams
21 clean, it's kind of like a slap in the face.
22   Q.   And maybe give us one more example of
23 an issue that's important to you.
24   A.   Mr. Rothfus has repeatedly voted
25 against the Violence Against Women Act, which is

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1   important to me because I have a daughter. He's
2   voted against any kind of equality legislation,
3   climate change legislation, antidiscriminatory
4   legislation for gays and lesbians.
5   When you look at the polling that's
6   done in our area, these are all laws and rules that
7   most people favor, and he's consistently voting
8   against them.
9   So I really don't think he represents
10 our district fairly.
11   Q.   Have you ever reached out to
12 Congressman Rothfus?
13   A.   I have.
14   Q.   And how often?
15   A.   So last week, I tried to call his
16 office in response to the tax bill, and I was -- I
17 was actually able to get through to one of his
18 offices, but his voice message was -- the system was
19 full, so I was unable to leave a message.
20   A couple of his other offices in Beaver
21 County was just a busy signal. I couldn't even get
22 through, so I'm unable to leave a message. And
23 that's not the first time; this is the most recent.
24   So, usually, what I have to do is go on
25 his Web site. And there's a form that you fill out.

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1   You put your name and you put in your ZIP code and
2   your address. And then there's a box there that you
3   can fill out and type any concerns you have. And
4   that's what I've resorted to doing.
5   But when I do that, I don't have a
6   record of knowing does anybody read it, does he read
7   it, does he see it, or does it just go to some
8   Internet cloud and sits there. So . . .
9   Q.   Have you ever attended any of his town
10 halls?
11   A.   I would like to if he would have one.
12   Q.   Now, Mr. Marx, is it your position that
13 you're entitled to a representative from your party
14 or a representative who represents you on all of your
15 viewpoints?
16   A.   No, I wouldn't say that. I'm not
17 entitled to someone who aligns with me 100 percent of
18 the time. That's not what I'm looking for in signing
19 on to this lawsuit, I guess I will say. That's not
20 what I want.
21   I want -- I want competitive districts.
22 I want a chance to be able to put somebody in there
23 who would represent me. You know, I would like a
24 chance to hold somebody who is in there accountable,
25 that if they don't represent me, then at least I

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1   could mount a challenge to have them unseated.
2   Back when it was the Fourth, we had
3   Melissa Hart; she was a Republican, but she had town
4   halls. She went to debates with people who ran
5   against her.
6   She sat down with me for an hour or two
7   and went over my background and wrote me a
8   recommendation to officer school. Like, she was very
9   willing to reach out to her constituents because she
10   knew she had to. She had to cross those lines and
11   work for all of her constituents, not just the base
12   that would put her in.
13   And then Mr. Altmire was the same way.
14   You know, I didn't always agree with everything he
15   wanted to do, but I understood why he voted the way
16   he did because he represented a lot of different
17   interests and opinions.
18   When it comes to the current
19   Congressional district, there's no benefit for
20   Mr. Rothfus to reach out to us because he doesn't
21   have to. He doesn't have to have town halls because
22   why hear people who disagree with you when you don't
23   care? You're going to be safe anyway.
24   **Q.   So you've testified a lot about your**
25   **own district.**

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1   **Are you aware of any impact that the**
2   **current Congressional Map has on the entire**
3   **Commonwealth of Pennsylvania?**
4   A.   So looking at the map you presented and
5   looking at everything that's happened since the map
6   was drawn, Pennsylvania is considered one of the most
7   gerrymandered states in the country based on our
8   districts. We're -- we're --
9   THE COURT: Hold on.
10   MR. GIANCOLA: Objection,
11   Your Honor.
12   THE COURT: Is that mic on?
13   MR. GIANCOLA: I believe so.
14   THE COURT: Okay. What's your
15   objection?
16   MR. GIANCOLA: It's calling for
17   hearsay and speculation.
18   THE COURT: I'm going say no on the
19   hearsay, and I'm going to sustain
20   speculation, but I'm going to give you a
21   chance to establish a foundation for this
22   witness.
23   BY MS. MCKENZIE:
24   **Q.   So, Mr. Marx, you said you teach high**
25   **school civics and history.**

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1   **Do you teach gerrymandering in your AP**
2   **history class?**
3   A.   So as part of the Government, we talk
4   about the legislator, the legislative process and how
5   districts are drawn. So, yes, gerrymandering does
6   come up when we talk about Article I of the
7   Constitution and how we get our Congressional
8   districts.
9   **Q.   And have you done -- in preparation for**
10   **your -- your high school seniors, have you done**
11   **research?**
12   A.   Yes, so I --
13   MR. GIANCOLA: Objection,
14   Your Honor.
15   Is the witness being offered as an
16   expert?
17   THE COURT: I haven't heard that.
18   I asked her to lay a foundation, so she's
19   trying to lay a foundation, which I think
20   she's allowed to do.
21   So the answer to your question is
22   not yet.
23   You can proceed.
24   BY MS. MCKENZIE:
25   **Q.   Do you do research in preparation for**

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1   **your AP history class?**
2   A.   I do research, and I also look at
3   articles that my students bring in, because we do
4   have a current events. And each week that we do it,
5   I pick a theme, and they have to bring in something.
6   So I -- I do research on my own. I
7   read on my own, because this is something I teach and
8   I'm interested in, yes.
9   **Q.   And based on your research and your**
10   **reading, do you have an awareness of the impact of**
11   **the Pennsylvania Congressional Map on the State as a**
12   **whole, not just your district?**
13   A.   I do --
14   MR. GIANCOLA: Same objection,
15   Your Honor. It's speculation and hearsay.
16   THE COURT: Okay. Look, laypeople
17   are entitled to offer their opinion. I
18   think what she's trying to avoid doing is
19   using the word "opinion."
20   If you want to ask him if he has an
21   opinion on what the map means for purposes
22   of his personal view of gerrymandering --
23   I'm assuming he's here because he opposes
24   gerrymandering and he doesn't like the map.
25   So I'm willing to allow you to ask him his

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1 opinion if it will move along.
2   Understand he isn't an expert. You
3 haven't offered him as an expert. You
4 haven't identified him as an expert. He's a
5 Petitioner. I'll let him offer his lay
6 viewpoint of why he signed on as a
7 Petitioner in this case, which I assume is
8 going to be because he doesn't like the map.
9   Okay?
10   So objection overruled.
11   Please get to -- get to the point.
12   MS. MCKENZIE: I'm actually not
13 asking his opinion, just his factual
14 observations of what this map does to the
15 statewide delegation.
16   THE COURT: Well, that would be
17 different. If you're going to ask him
18 factual observations, he better have a basis
19 for it. I'm -- I'm willing to let him
20 provide a lay opinion about it, but if
21 you're going to start laying factual
22 observations and ask him to issue an
23 opinion, that's getting very close to expert
24 testimony.
25   MS. MCKENZIE: No, Your Honor, I

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1 wasn't doing that. I really was just asking
2 for his observations of, under this map,
3 what does the Pennsylvania delegation to the
4 U.S. House look like.
5   He says -- sorry. He says, in his
6 district, he is --
7   THE COURT: "Look like"? What do
8 you mean? Like --
9   MS. MCKENZIE: In terms of -- in
10 terms of Republicans versus Democrats, I was
11 just --
12   THE COURT: Well, we know that,
13 right? That's in the stipulated facts,
14 right?
15   MS. MCKENZIE: Yes, Your Honor.
16   THE COURT: So you don't need him
17 to testify to that.
18   MS. MCKENZIE: Okay, Your Honor.
19 We'll move on.
20   THE COURT: Okay.
21 BY MS. MCKENZIE:
22   Q.   One last question, Mr. Marx. So you've
23 taken the time to be a Petitioner in this lawsuit, to
24 drive here last night from Pittsburgh after your
25 Reserve duty.

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1   **Why is this lawsuit important to you?**
2 **Why are you here?**
3   A.   It's important to me for many reasons.
4 You know, our country really depends on not just
5 military service but, like I said, an engaged
6 populace in the political process, right? It needs
7 people to want to get involved.
8   Now, as I said before, I teach this. I
9 teach this to seniors. Last year, I had an AP
10 U.S. Government class, and they were all seniors.
11 And I had some of the most engaging, really good
12 conversations with them until I got to the
13 legislature and how these districts were drawn and
14 what the effects have been.
15   We've read articles about
16 gerrymandering and how Pennsylvania has a 13-5
17 representation in Congress -- and it will always be
18 13-5 because of the way these districts have been
19 drawn to such safe districts -- and you just see
20 these 18-years-olds, before I send them out to the
21 world, before they even have experience -- they just
22 ask me questions, like, Well, then, why should we
23 vote? Why does this matter? I'm not going to make a
24 difference. Why should I care?
25   And as a civics teacher, as somebody

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1 who, you know, really puts my heart out there into my
2 subject, that's upsetting to me, and that's
3 depressing, you know.
4   My daughter is sitting here. You know,
5 sometimes we go back and forth. And to tell her that
6 your voice makes a difference when I know, when it
7 comes to stuff like this, it might not -- I don't
8 want to have to tell my kids that -- like, yeah, you
9 can make a change in this world, except when it comes
10 to Congress, because it won't matter.
11   That's what I'm against. I'm -- I'm
12 deeply opposed to anything that stinks of unfair, and
13 these districts are unfair. They take away
14 somebody's ability to express themselves to their
15 Government. They create apathy; they create
16 political dysfunction. And that is a safety concern
17 to our form of government --
18   MR. GIANCOLA: Objection --
19   THE COURT: Hold on, Mr. Marx.
20 You're being interrupted by counsel. Let me
21 take care of this.
22   Overruled.
23   Please continue with your answer.
24   THE WITNESS: And as somebody who,
25 you know -- and I can go back to my military

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1 service. I have raised my hand and took an
2 oath to defend our country against all
3 enemies, foreign and domestic. This is a
4 domestic enemy. This is causing people to
5 distrust our Government, pull away from the
6 political process, and just have such a
7 terrible opinion of Congress and our world
8 law. And it's wrong, and it needs to
9 change.
10   Like I said, I'm not here to say
11 give me a Democrat in my district. That's
12 not what I want. I want fairness. I want
13 you to give me a chance to at least have
14 somebody in there that if I don't agree,
15 like Congressman Hart -- or
16 Congresswoman Hart -- I didn't agree with
17 her, but at least I knew I could go to her,
18 I could petition her, and she would listen
19 to me because she had to. And I had a
20 chance that if she did a bad enough job, she
21 could be elected out.
22   And that's not the case that's
23 currently happening, not just in my district
24 but in the districts across the State. So
25 that's why I'm here.

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1   MS. MCKENZIE: Thank you, Mr. Marx.
2 I have no further questions.
3   THE WITNESS: Thank you.
4   THE COURT: Cross-examination in
5 the order that I put out.
6   Yeah. Hold on for a second.
7   Are you plan on using any exhibits,
8 Counsel?
9   MR. GIANCOLA: No, I'm not,
10 Your Honor.
11   THE COURT: Can we go off the
12 record for a minute?
13   - - -
14   (Whereupon, a discussion was held off
15   the record.)
16   - - -
17   THE COURT: Okay. Let's proceed.
18   MR. GIANCOLA: Thank you,
19 Your Honor.
20   - - -
21   CROSS-EXAMINATION
22   - - -
23 BY MR. GIANCOLA:
24   Q.   Mr. Marx, I want to thank you for
25 coming in and for your service. I understand it's

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1 been a busy weekend for you.
2   A.   It has.
3   Q.   You've talked on direct about making
4 your voice heard, correct?
5   A.   Yes, sir.
6   Q.   And voting is one of those ways that
7 you feel that you can make your voice heard, correct?
8   A.   One of the ways, yes, sir.
9   Q.   Okay. There are other ways, right?
10   A.   There are --
11   Q.   Okay.
12   A.   -- you mean, like I did running for
13 local government, getting involved, like that.
14   Q.   You've campaigned for other candidates
15 for office in the past?
16   A.   I have.
17   Q.   Have you made political contributions
18 to any candidates?
19   A.   I have.
20   Q.   No one has ever prevented you from
21 making a contribution, correct?
22   A.   No, they have not.
23   Q.   You've never been prevented from
24 campaigning for a candidate, correct?
25   A.   I'm sorry. Say that again.

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1   Q.   You've never been prevented from
2 campaigning for a candidate, correct?
3   A.   I have not.
4   Q.   And you mentioned that you've voted in
5 just about every election that you've been able to,
6 correct?
7   A.   I've tried to, yes.
8   Q.   Okay. You've never been prevented from
9 casting your vote, correct?
10   A.   I have not, no.
11   Q.   No. You -- you voted for
12 Representative Altmire under the old plan, correct,
13 back in 2010?
14   A.   I did, yes, sir.
15   Q.   And you -- you voted for him in the
16 primary in 2012, correct?
17   A.   I did. I did.
18   That was the primary he was running
19 against Mark Critz, correct?
20   Q.   Correct.
21   A.   Yes, correct.
22   Q.   Were you aware that
23 Representative Altmire had approved the form and the
24 plan that had the 12th District as it's comprised?
25   A.   I am not.

33 (Pages 126 to 129)

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1   **Q.   You mentioned on your direct exam that**
2   **you had some difficulty contacting**
3   **Representative Rothfus recently, correct?**
4   A.   Yes, sir --
5   **Q.   You contacted --**
6   A.   -- I would say it was not just
7   recently. It's been many, many times in the past
8   since he's taken over. There's no town halls.
9   There's no way to independently contact him. Quite
10   often, his voice messages in his offices are full, so
11   you can't leave a message. Everything is directed to
12   his Web site, his form, and then there's not even a
13   re -- not even a "thank you for submitting your form"
14   type of thing.
15   **Q.   You -- you did testify in a deposition,**
16   **though, that you have contacted**
17   **Representative Rothfus in the past, correct?**
18   A.   I have tried to. I've never
19   actually gotten ahold of him or his staff.
20   **Q.   You testified just a moment ago that**
21   **you felt that the 12th District isn't competitive,**
22   **correct?**
23   A.   Yes.
24   **Q.   In your opinion, is a -- if a**
25   **winning -- if a winner in a Congressional race wins**

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1   **only 51.7 percent of the vote, is that competitive?**
2   A.   Well, I mean, I'm not an expert, but
3   51 percent, I would say, yes, that's competitive.
4   **Q.   Are you aware of**
5   **Representative Rothfus's margin of victory in the**
6   **2012 election?**
7   A.   I am not.
8   **Q.   You mentioned a moment ago that most**
9   **people in your district disagree with the way that**
10   **Representative Rothfus votes.**
11   **Did I hear that correctly?**
12   A.   Yes, sir.
13   **Q.   Okay. But he's been up for reelection**
14   **multiple times, correct?**
15   A.   I think he's been up for reelection
16   twice.
17   **Q.   And he's won both of those?**
18   A.   He has.
19   **Q.   So the majority of the people who were**
20   **voting voted for him?**
21   A.   The majority of the people that are
22   voting?
23   I don't know. I don't know what his
24   final numbers were. I don't know if it was split
25   between third candidates or not. I just know that

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1   he's the one who garnered the most votes.
2   MR. GIANCOLA: That's all the
3   questions I have. Thank you.
4   MS. MCKENZIE: I have nothing
5   further.
6   MS. HANGLEY: Nothing --
7   THE COURT: I think I have to ask
8   the Defendant -- the rest of the Defendants
9   yet whether they have anything.
10   MS. MCKENZIE: I apologize,
11   Your Honor.
12   THE COURT: It's a little
13   confusing.
14   MS. MCKENZIE: They're in the back
15   row. I forgot about them.
16   THE COURT: Okay.
17   So in my order, do the Executive
18   Respondents have any cross-examination?
19   MS. HANGLEY: No, we don't,
20   Your Honor.
21   THE COURT: How about the
22   Lieutenant Governor?
23   MR. LEVINE: No, Your Honor.
24   THE COURT: Intervenors?
25   MR. TABAS: No, Your Honor.

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1   THE COURT: And you have nothing
2   further?
3   MS. MCKENZIE: Yes, Your Honor.
4   THE COURT: Sir, thank you very much
5   for your testimony and your service. I
6   think it's great that you brought your
7   daughter here today.
8   THE WITNESS: Thank you.
9   THE COURT: So you are released.
10   THE WITNESS: Thank you,
11   Your Honor.
12   (The witness is excused.)
13   THE COURT: Please call your next
14   witness.
15   MR. JACOBSON: Yes, Your Honor.
16   We call Dr. Chen.
17   (Counsel confer.)
18   MR. JACOBSON: Your Honor, I'm told
19   that the deck is working again, but they
20   need two minutes to reload the system.
21   Is that correct?
22   THE COURT: Okay. Let's go off the
23   record for a second.
24   - - -
25   (Whereupon, a discussion was held off

34 (Pages 130 to 133)

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1   the record.)
2   - - -
3   THE CLERK: Identify your witness on
4   the record for me.
5   THE COURT: My understanding -- my
6   understanding, Counsel, is you're going out
7   of order in your witness presentation, so
8   you're not calling Dr. Chen right now.
9   So please call your next witness.
10   MS. MCKENZIE: The Petitioners call
11   Mary Elizabeth Lawn.
12   - - -
13   MARY ELIZABETH LAWN,
14   after having been first duly sworn, was
15   examined and testified as follows:
16   - - -
17   - - -
18   DIRECT EXAMINATION
19   - - -
20   BY MS. MCKENZIE:
21   Q.   Please state your full name.
22   A.   It's Mary Elizabeth Lawn.
23   Q.   And where do you live, Ms. Lawn?
24   A.   I live in Chester, Pennsylvania in the
25   Seventh District.

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1   Q.   And how long have you lived in Chester?
2   A.   Since 2004.
3   Q.   Can you tell us a little bit about the
4   city of Chester?
5   A.   The city of Chester is a population of
6   about 32,000 people. It is heavily African-American.
7   And it is a poor city. It has lost its industrial
8   base in recent years, and many of the people there
9   are renters. I think the population is about 2-to-1
10   renters to homeowners.
11   So it's a depressed city, you know.
12   Q.   And, Ms. Lawn, what's your profession?
13   A.   I'm a chaplain in a retirement
14   community.
15   Q.   And how long have you been a chaplain?
16   A.   I've been a chaplain at White Horse
17   Village since 2003; and then for several years before
18   that, I worked in a hospital.
19   Q.   And can you tell us a little bit about
20   your work as a chaplain?
21   A.   Well, I offer spiritual care to people,
22   so I pray with them. I do individual visits. I do a
23   lot of listening, yeah, um-hum. I lead worship
24   services; I lead memorial services.
25   Q.   Are you registered with a political

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1   party?
2   A.   Yes. I'm a registered Democrat.
3   Q.   And how long have you been a registered
4   Democrat?
5   A.   Well, since I was 18 -- and I had to do
6   the math, since you asked the prior person that --
7   and so that is 53 years old.
8   Q.   How often do you vote, Ms. Lawn?
9   A.   I vote in every election, including the
10   primaries.
11   Q.   Why do you make it a point to vote in
12   every election?
13   A.   Well, I feel it's my duty as a citizen
14   to participate, that if I want to have an impact, if
15   I want to have a possibility of having my voice
16   heard, of having the things that are important to me,
17   the things that I value to be listened to and to have
18   some chance of -- of being enacted, that I need to
19   vote and I need to put -- or do my part, at least, in
20   putting people into office that have my values.
21   Q.   Ms. Lawn, I'm going to refer you to
22   Joint Exhibit 5, which, unfortunately, we can't put
23   up on the screen.
24   A.   There it is.
25   Q.   Oh, we can.

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1   A.   So do I have a laser?
2   Q.   Since we went out of order, we didn't
3   get to practice this, but here's (indicating) the
4   button.
5   A.   Okay.
6   Q.   Do you recognize Joint Exhibit 5,
7   Ms. Lawn?
8   A.   Yes, I do. It's the Congressional Map
9   of Pennsylvania.
10   Q.   And where is your Congressional
11   district?
12   A.   It is right here (indicating),
13   District 7. It goes over here (indicating) up and
14   down.
15   Q.   So you're District 7; is that correct?
16   I'm sorry. I couldn't hear.
17   A.   Yes, District 7.
18   Q.   And now I'm going to ask you to take a
19   look at Joint Exhibit 12.
20   A.   Yes.
21   Q.   And do you recognize Joint Exhibit 12?
22   A.   Yes. That's District 7.
23   Q.   Where in District 7 do you live?
24   Can you point to it and describe it?
25   A.   Yes. I live right here (indicating) in

35 (Pages 134 to 137)

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1 Goofy's finger, right there (indicating).
2   Q.   So you -- you said you live in Goofy's
3 finger.
4   A.   Right.
5   Q.   Can you explain that, Ms. Lawn?
6   A.   Well, this configuration has been
7 described as looking like Goofy kicking Donald Duck,
8 so I went into an interactive map and was able to --
9 to enlarge it and see exactly where I live. And
10 where I live there, in Goofy's finger, is a small
11 part of Chester. I live in the city of Chester, but
12 only a few streets, my street and a few streets
13 behind me, are in the Seventh District.
14   You can see where Chester is right
15 there (indicating), that's the rest of the city, and
16 I have been separated off from the rest of the city.
17   Q.   Okay. And how long have you been in
18 Congressional District 7?
19   A.   Since 2011, since this map was made up.
20   Q.   And prior to 2011, under the prior
21 Congressional Map for Pennsylvania, what was your
22 Congressional district?
23   A.   I was in District 1 with the rest of
24 the city.
25   Q.   And who is your current representative

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1 to the U.S. House in District 7?
2   A.   Patrick Meehan.
3   Q.   And which party is Mr. Meehan
4 affiliated with?
5   A.   He's Republican.
6   Q.   And when you lived in the
7 First Congressional District, who was your
8 Congressional representative?
9   A.   Bob Brady.
10   Q.   And which party is Mr. Brady affiliated
11 with?
12   A.   Democrat.
13   Q.   So you said you vote in every election,
14 including the primaries.
15   Does that include U.S. House races?
16   A.   Yes.
17   Q.   So in 2016, who did you vote for, for
18 U.S. House?
19   A.   I voted for the Democratic candidate.
20   Q.   And Mr. Meehan won.
21   A.   Right.
22   Q.   So how about in 2014? Who did you vote
23 for?
24   A.   The Democratic candidate.
25   Q.   And how about in 2012?

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1   A.   Democratic candidate.
2   Q.   And did your candidate win in any of
3 those three elections: 2012, 2014, 2016?
4   A.   No.
5   Q.   How has the 2011 Congressional Map, the
6 current Pennsylvania Congressional Map, impacted your
7 ability to participate in the political process?
8   A.   Well, it's impacted it, really, very
9 strongly, because I'm in a district now that is
10 largely Republican, and it's a safe district for
11 Republicans, so the Democratic candidate doesn't
12 really have a chance.
13   I think in the last several -- maybe
14 all three of those elections, the proportion was
15 something like 60 percent Republican to 40 percent
16 Democrat in terms of the voting. And so the
17 candidate of my choice really doesn't have a chance
18 of being elected.
19   Q.   Are there political issues that are
20 important to you before the U.S. House?
21   A.   Yes, many, yes.
22   Q.   Can you give us an example of one?
23   A.   Well, the tax bill -- it was already
24 talked about here today -- is the one that's right in
25 front of us right now, and I have a lot of problems

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1 with this tax bill for a lot of reasons.
2   Of course, the -- the main thrust of
3 the tax bill, or the foundation of it, being the
4 income distribution, which I think this makes worse,
5 you know, in terms of the inequality of income in our
6 country, because it favors people of wealth and
7 favors corporations, who are now people, too, and,
8 disfavors, you know, people of -- of middle and lower
9 incomes.
10   And there are other things that are
11 attached to this tax bill which I have a lot of
12 problems with, the main one being the repeal of the
13 individual mandate for the -- the Health Care Act,
14 that it really essentially guts it, guts the
15 Health Care -- the Affordable Care Act. It also
16 allows for drilling in the Arctic Preserve, which is
17 very much of a concern to me, very damaging to our
18 environment. And these are things that some of them
19 can be fixed perhaps in the future, but that is one,
20 at least, that cannot be fixed once that damage is
21 done.
22   Q.   And does Congressman Meehan represent
23 you on any of these issues that you have said are
24 important to you?
25   A.   No, he does not.

36 (Pages 138 to 141)

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1   Q.   Does he represent your point of view?
2   A.   No, he does not.
3   Q.   You mentioned the Affordable Care Act.
4   Why is that issue important to you,
5   personally?
6   A.   Well, I know many people who are very
7   much in need of the healthcare that's provided by the
8   Affordable Care Act, living in the city of Chester,
9   where many people have very low incomes, but also, it
10   impacts me very personally, because both of my sons
11   are depending on the Affordable Care Act for at least
12   part of their care.
13   My oldest son lost his job two years
14   ago. And he has a family; he has a wife and two
15   children. Part of the reason he lost his job was his
16   health. He had health problems, and he has only been
17   able to get health insurance for himself and his
18   family because of the Medicaid Expansion Act in the
19   state of Delaware, where he lives.
20   My younger son is disabled. He was
21   disabled at age 25, 15 years ago, in an accident.
22   And he has attendant care. He's in a wheelchair.
23   And he is able to work, fortunately, but he also
24   needs a lot of extra help, and part of his help comes
25   from Medicaid.

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1   And both of these things are threatened
2   by it, and my family has been under a great deal of
3   stress because of the attacks on the Affordable Care
4   Act and a great deal of worry about what's going to
5   happen to them, whether they will even be able to
6   work if they lose their health insurance. Both of
7   them could end up being totally dependent on public
8   assistance and not be able to work at all.
9   Q.   And does Congressman Meehan represent
10   your point of view on the Affordable Care Act?
11   A.   No, he does not. He voted to repeal
12   the Affordable Care Act, and he supports this tax
13   legislation which has this individual mandate. He
14   had an article in the paper last week supporting this
15   and saying that it doesn't affect the Affordable Care
16   Act, when we all know it does.
17   Q.   Now, have you ever tried to reach your
18   Congressman on these issues that are of importance to
19   you?
20   A.   Yes, I have, many times.
21   Q.   How -- approximately how often?
22   A.   Well, it's mostly been recently, in the
23   last several months, four or five or six times maybe
24   on each one of these.
25   Q.   And how do you typically reach out to

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1   your Congressman?
2   A.   I make phone calls.
3   Q.   And are you ever -- are you able to get
4   through to his office?
5   A.   I do get through to his office. I talk
6   to a staffer, who just takes basic information.
7   Last week, when I called about the tax
8   plan, since I knew it went back to conference after
9   it passed the Senate, I called to say that I was
10   opposed to it and wanted him to vote against it.
11   Well, he was one of the sponsors of it, so I didn't
12   think there was much chance of that, but I expressed
13   that opinion.
14   And I also asked if he was going to be
15   part or is part of the commission that's working to
16   iron out the differences between the House and the
17   Senate. And the staffer first told me, no, he
18   wasn't. And I said, Well, I would like to talk to
19   him about these things. I wanted to talk about the
20   issues that I mentioned earlier. And then she said,
21   Well, he may be part of it; I'm not sure. And she
22   said she would find out and call me back. And that
23   was a week ago, and I haven't heard anything.
24   Q.   Now, you've testified about the impact
25   of the 2011 Map on you, personally, and -- and on

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1   your -- on your district.
2   Does the 2011 Map have any impact
3   statewide?
4   A.   Yes, it does. Yes.
5   Q.   And what is that?
6   A.   Well, as has already been presented
7   here at different times, it favors Republicans
8   winning more Congressional districts, 13 out of the
9   18 Congressional districts. It -- it makes it very
10   frustrating, I think, for me and for many other
11   people who feel that we should have fairness in our
12   political system.
13   I've talked to many people who say,
14   Well, you know, there's nothing we can do. There's
15   just nothing we can do. Especially since the last
16   election, the last presidential election, I've heard
17   that from more and more people, feeling frustration.
18   And I think that, you know, a lot of people really
19   are disengaging from the political system, feeling
20   that they -- they can't make a difference.
21   And I know for me, personally, and for
22   people in the Seventh District, we're very
23   frustrated, because we feel that we can't make a
24   difference. We can't get the attention of our
25   representative, because he's just not available to

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1 us; he doesn't have to listen to us; there's no
2 incentive for him to do that. And I think that's a
3 feeling of many people statewide.
4 **Q. Now, Ms. Lawn, are you saying that**
5 **you're entitled to have a representative of your**
6 **choice who represents you on all of your points of**
7 **view?**
8 A. No, no, absolutely not. I feel that we
9 need to have a dialogue. I think we need to be
10 talking to each other and talking about these issues.
11 And I think if we have competitive elections, where
12 each of the candidates has the opportunity to be --
13 to be elected, that we will be able to talk to our
14 candidates; we'll have competition; we'll have
15 debates; we'll have the opportunity for people to
16 engage and for the -- the candidates and whoever is
17 elected to engage with us; and it wouldn't matter, in
18 the end, if it was Democrat or Republican if they had
19 to be accountable to us and if we could have dialogue
20 with them and present our views.
21 **Q. So, Ms. Lawn, how did you get here**
22 **today from Chester?**
23 A. By train.
24 **Q. So you took the train here today, and**
25 **you've taken this time to be a Petitioner in this**

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1 **lawsuit.**
2 **Why are these issues important to you?**
3 A. These issues are really very
4 fundamental to who I am as a person and especially as
5 a person of faith. As I said, I'm a chaplain. And
6 I'm Quaker, by the way, and, of course, I'm very much
7 attuned to the fact that Pennsylvania was founded by
8 Quakers. It was founded for religious freedom.
9 That's why William Penn came here and established it.
10 And I feel that our Constitution at
11 least and -- and the issues that we're looking at
12 here reflect those values and reflect the values of
13 fairness, of equality, of integrity, of community, of
14 care for each other and that these are essential to
15 our -- to our -- our engagement with -- with each
16 other in a democracy and that these things, I feel,
17 are being threatened.
18 I really feel that -- I feel very, very
19 strongly that our democracy is being threatened. I
20 have not been politically active for a long time, not
21 since a period of time when I was in my 30s, until
22 this past year and I finally woke up and I felt like
23 our democracy is being threatened. And I have to do
24 something about it.
25 I have children; I have grandchildren.

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1 And I feel I have an obligation to them and to the
2 future generations to do what I can to bring back a
3 sense of fairness, a sense of listening to each
4 other, a sense of dialogue, a sense of civility. And
5 we've gotten very, very apart on this. And I'm very
6 concerned about it, not just for myself but, again,
7 as I said, for future generations. It's essential.
8 **Q. And as someone who votes -- regularly**
9 **votes for Democratic candidates, are you -- do you**
10 **feel you, in particular, are harmed by the 2011 Map?**
11 A. Yes. I'm definitely harmed by it. I
12 don't have the opportunity, first of all, to elect a
13 candidate of my choice. That's been, you know, just
14 shut out for me totally in the Seventh District. I
15 cannot elect a Democrat. And I also don't access to
16 the person who is elected, to the Republican. He
17 doesn't have to be responsive to me, and he has shown
18 this.
19 I have contacted him about the
20 Affordable Care Act. I've contacted him about the
21 tax plan. I've contacted him about the budget. And
22 I got no response, no interest at all.
23 MS. MCKENZIE: Thank you very much.
24 I have no questions.
25 THE COURT: Cross-examination.

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1 - - -
2 CROSS-EXAMINATION
3 - - -
4 BY MR. GIANCOLA:
5 **Q. Good afternoon, Ms. Lawn.**
6 A. Good afternoon.
7 **Q. Before the 2011 Plan, you were in the**
8 **First Congressional District?**
9 A. That's right.
10 **Q. And Representative Brady was your**
11 **representative in Congress?**
12 A. That's right.
13 **Q. And you said he's a Democrat, correct?**
14 A. That's right.
15 **Q. He's been in office for a while?**
16 A. A long time, yeah. Yeah.
17 **Q. And so would you -- you testified that**
18 **you believe that the Seventh Congressional District**
19 **now is a safe Republican district, right?**
20 A. That is right.
21 **Q. Do you feel that the First**
22 **Congressional District for Representative Brady is a**
23 **safe Democrat district?**
24 A. Absolutely, yes. It works both ways.
25 **Q. Were you involved in any lawsuits**

38 (Pages 146 to 149)

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1 challenging the Congressional District Plan when you
2 were in the First District because you were in a safe
3 Democrat district?
4   A.   No.
5   I've never been involved in a lawsuit
6 of any kind before. This is all new to me, believe
7 me.
8   Q.   And you said, I believe, you've
9 performed your civic duty and voted in every election
10 for the past 53 years?
11   A.   That's right.
12   Q.   And you have voted for Democrats in
13 2012 and 2014 and 2016 --
14   A.   Right.
15   Q.   -- in your Congressional district?
16   A.   Right.
17   Q.   And no one stopped you from voicing --
18 using your voice and voting for that Democrat,
19 correct?
20   A.   That's right, I could cast my vote.
21   Q.   And you've donated to candidates,
22 Democratic candidates, for other election -- elected
23 offices, correct?
24   A.   That's right.
25   Q.   You've never been prevented from making

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1 contributions or campaigning for any candidate,
2 correct?
3   A.   That's right. I'm not.
4   Q.   You mentioned that you've -- it sounds
5 like recently, in the last few months -- started
6 trying to contact Representative Meehan.
7   A.   Right. Yes.
8   Q.   Did you ever contact him before or try
9 to contact him before you became a Petitioner in this
10 lawsuit?
11   A.   No, I did not.
12   As I said, I really just become
13 politically active and I'm learning how to do these
14 things.
15   Q.   Did you ever try to contact
16 Congressman Brady before, when you were in his
17 Congressional district?
18   A.   No.
19   MR. GIANCOLA: All right. That's
20 all the questions I have.
21   Thank you.
22   THE COURT: Any other Respondents
23 wish to cross-examine?
24   Any redirect?
25   MS. MCKENZIE: No, Your Honor.

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1   THE COURT: The witness is excused.
2   THE WITNESS: Thank you.
3   (The witness is excused).
4   THE COURT: I do want to say that
5 I've basically excused the first two
6 witnesses. I'm sort of assuming that the
7 Respondents have no interest in reserving
8 any ability to recall them, that they're not
9 under subpoena, or anything, correct?
10   I didn't think I saw them on the
11 witness list.
12   MR. TUCKER: Correct, Your Honor.
13   THE COURT: Okay. I just wanted to
14 make sure.
15   Next witness, please.
16   Hold on for a second.
17   Call your next witness.
18   MR. JACOBSON: I'm sorry.
19   Petitioners call Dr. Jowei Chen.
20   THE COURT: Dr. Chen, please.
21   - - -
22   JOWEI CHEN, PH.D.,
23 after having been first duly sworn, was
24   examined and testified as follows:
25   - - -

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1   - - -
2   VOIR DIRE
3   - - -
4 BY MR. JACOBSON:
5   Q.   Good afternoon, Dr. Chen.
6   A.   Good afternoon, sir.
7   Q.   Could you please state your full name
8 for the record?
9   A.   Dr. Jowei Chen.
10   Q.   What is your educational background?
11   A.   I have a Bachelor's in ethics, politics
12 and economics from Yale University in 2004; I have a
13 Master's in science, in statistics, from
14 Stanford University in 2007; and in 2009, I received
15 a Ph.D. in political science from
16 Stanford University.
17   Q.   What is your current employment?
18   A.   I am an associate professor in the
19 Department of Political Science at the University of
20 Michigan in Ann Arbor.
21   Q.   Do you hold any other academic
22 affiliations?
23   A.   Yes, sir, I do.
24   I'm also a research associate professor
25 at the Center for Political Studies, also at the

39 (Pages 150 to 153)

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1 University of Michigan; I'm a research associate at
2 the Spatial Social Science Laboratory at
3 Stanford University; and I'm also a research
4 associate, principal investigator, at the Center for
5 Governance and Public Policy at Willamette University
6 in Oregon.
7   Q.   What are your fields of academic
8 expertise?
9   A.   My areas of academic expert are
10 redistricting and political geography, sir.
11   Q.   When you say "political geography,"
12 what do you mean when you use that term?
13   A.   As "political geography" is applied in
14 my particular research, it means the study of the
15 residential patterns or the geographic patterns of
16 voters and their behaviors.
17   So that's studying things like where
18 Democrats and Republicans live in geographic space,
19 what the residential patterns look like, as well as
20 what implications that geography has for things like
21 redistricting.
22   Q.   And can you give us an example of what
23 sort of implications those would be?
24   A.   Well, if a particular state has one
25 party's voters being geographically concentrated in

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1 urban areas while the other party's voters are more
2 geographically spread out, that can have implications
3 on the number of Republican and Democratic districts
4 in any reasonable districting plan that follows
5 traditional districting criteria in that particular
6 state.
7   So those are the kinds of questions
8 and phenomena that I often study in my academic
9 research.
10   Q.   And have you published peer-reviewed
11 works on that particular phenomenon you just
12 described?
13   A.   Yes, sir, I have.
14   Q.   Dr. Chen, in your academic research,
15 what approach do you take to study questions about
16 political geography and legislative districting?
17   A.   The approach that I take, the
18 methodology I use primarily is to conduct
19 computer-simulated districting plans. So I have a
20 computer simulate a large number of districting
21 plans, generally following traditional districting
22 criteria that I specifically program into the
23 computer algorithm, and then I compare those
24 districting plans, those simulated plans, against,
25 say, an enacted state plan, a Congressional or

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1 legislative districting plan.
2   Q.   And has your research using that
3 simulation approach been published in peer-reviewed
4 journals?
5   A.   Yes, sir, four peer-reviewed articles.
6   Q.   And are those articles on your CV?
7   A.   Yes, sir, they are.
8   MR. JACOBSON: If we could pull up
9 Petitioners' Exhibit Number 2.
10 BY MR. JACOBSON:
11   Q.   Dr. Chen, can you identify this as your
12 CV?
13   A.   Yes, sir.
14   And I'm going to move this computer
15 monitor over so that I can -- I can have it closer.
16   MR. JACOBSON: If that's okay with
17 the Court.
18   THE COURT: That's fine.
19   There's also paper.
20 BY MR. JACOBSON:
21   Q.   I'm going to use the paper because I
22 can't see that far.
23   And I should say for the record,
24 Dr. Chen, do you have your complete report and the
25 exhibits derived from that report in front of you?

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1   A.   I do, yes, sir, Exhibit 1.
2   Q.   I think I just asked you this, but,
3 again, Dr. Chen, can you identify that as your CV?
4   A.   Yes, sir, it is.
5   MR. JACOBSON: Petitioners move to
6 admit Exhibit 2 into evidence.
7   THE COURT: Any objection?
8   MR. LEWIS: No.
9   THE COURT: I heard one.
10   MS. HANGLEY: No objection,
11 Your Honor.
12   MR. TUCKER: No, Your Honor.
13 BY MR. JACOBSON:
14   Q.   Dr. Chen, can you --
15   THE COURT: Hold on a second.
16   You want me to admit it, right?
17   MR. JACOBSON: Yes, I do.
18   THE COURT: Okay. Exhibit 2 will
19 be admitted without objection.
20   - - -
21   (Whereupon, Petitioners' Exhibit Number
22   2 was admitted into evidence.)
23   - - -
24   MR. JACOBSON: Thank you,
25 Your Honor.

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BY MR. JACOBSON:

Q.   Dr. Chen, can you identify the articles on your CV in which you employed a simulation methodology of the type that you just described?

And you can take these one at a time.

A.   Yes, sir.

The first one is the fourth one right in front of us in the -- in the section called Publications, and that is the 2013 article by Chen and Rodden. And the title of the article is Unintentional Gerrymandering: Political Geography and Electoral Bias in Legislatures. It was published in the Quarterly Journal of Political Science.

Q.   And that journal, who were the editors of that journal at the time this article was published?

A.   At the time the article was accepted for publication, the editors were Dr. Nolan McCarty as well as Dr. Keith Krehbiel.

Q.   In connection with this article, did you disclose your computer code containing the simulation algorithm?

A.   Yes, sir. I was required to as a condition of publication.

Q.   And whose condition was that?

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A.   Quarterly Journal of Political Science requires all authors to turn over all computer code as well as replication data used to produce the results in -- in articles that are published, so as a condition of publication, Quarterly Journal of Political Science required me to turn over all computer code as well as all data that I used.

MR. JACOBSON: If we could pull up Petitioners' Exhibit 25.

BY MR. JACOBSON:

Q.   Dr. Chen, what is this that you're looking at?

A.   That is a Web page containing all computer code and data that I used in that article that we were just talking about. This was the Web page containing all the data and all the computer code that I had to turn over as a condition of having that 2013 article published by the Quarterly Journal of Political Science.

Q.   And is this code publicly available today?

A.   It is. It's on the Internet.

MR. JACOBSON: Petitioners move to admit Exhibit Number 25 into evidence.

THE COURT: Any objection?

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MS. THEODORE: No objection.

MR. TABAS: No objection.

MR. LEVINE: No.

THE COURT: It's admitted without objection, Petitioners' Exhibit 25.

- - -

(Whereupon, Petitioners' Exhibit Number 25 was admitted into evidence.)

- - -

BY MR. JACOBSON:

Q.   Let's move back to your CV, Petitioners' Exhibit Number 2.

Dr. Chen, can you identify the other three articles you mentioned in which you employed a simulation methodology?

A.   Yes, sir.

When we go to the second page of the CV, the next article is the fourth article down from the top. It's a 2015 article, and it was published in the Election Law Journal, Volume 14, Number 4, Page 331 to 345.

So that was the second one.

The third one is the next one down on the list, and that was this Chen and Cottrell article in 2016. The title of it was Evaluating Partisan

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Gains from Congressional Gerrymandering: Using Computer Simulations to Estimate the Effect of Gerrymandering in the U.S. House. And that was published in the Electoral Studies in 2016.

The fourth one is the last article you see on the screen in front of you there, and that's the 2016 article, and that one -- the title of that article is Analysis of Computer-Simulated Districting Maps for the Wisconsin State Assembly. That is listed here on this CV as forthcoming in 2017 in Election Law Journal. It's since been published since I -- I actually wrote this CV. It was published earlier this year.

Q.   And all of those articles you just described, were they published -- are those peer-reviewed journals?

A.   All four of those were published in peer-reviewed journals, yes, sir.

Q.   And -- and going back to the Chen and Cottrell 2016 article that you just mentioned, did you publish the code containing the algorithm you used in connection with that report?

A.   Yes, sir. I not only published the code, I turned over all the data, including all of the computer-simulated maps and, obviously, the

41 (Pages 158 to 161)

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1   code -- the computer code that I used to produce and
2   to analyze those maps.
3   MR. JACOBSON: If we could pull up
4   Petitioners' Exhibit 26.
5   BY MR. JACOBSON:
6   Q.   Dr. Chen, can you tell us what this is?
7   A.   Yes, sir.
8   That is a very lengthy page on the
9   Internet. It was a very lengthy article. It had
10   lots of maps from lots of different states. So that
11   is the very lengthy replication data, as well as
12   computer code, that I used in the production of that
13   article, that 2016 Chen and Cottrell article. I
14   turned over all -- well, I just produced on the
15   Internet to make available to scholars all of the
16   data code used in that article.
17   MR. JACOBSON: Petitioners move to
18   admit Exhibit 26 into evidence.
19   THE COURT: Any objection?
20   MR. TABAS: No, Your Honor.
21   MR. LEVINE: No, Your Honor.
22   MS. HANGLEY: No, Your Honor.
23   THE COURT: It's admitted without
24   objection.
25

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1   - - -
2   (Whereupon, Petitioners' Exhibit Number
3   26 was admitted into evidence.)
4   - - -
5   BY MR. JACOBSON:
6   Q.   Dr. Chen, have you submitted expert
7   reports in litigation before?
8   A.   Yes, sir, I have.
9   Q.   And can you tell us, if you know, how
10   many expert reports you've submitted in cases
11   previously?
12   A.   In seven different cases, sir.
13   Q.   And have you testified as an expert
14   witness in any of those cases?
15   A.   Yes, sir, at three of those cases.
16   Q.   What was the most recent of those cases
17   in which you testified as an expert?
18   A.   The most recent case in which I
19   testified at trial was North Carolina case. It was
20   Common Cause versus Rucho. It was a case examining
21   North Carolina's Congressional districting plan.
22   Q.   And in your testimony in that case, did
23   you employ a computer-simulation methodology like --
24   similar to the one you employed today -- or for this
25   case, I should say?

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1   A.   Yes, sir, I did.
2   MR. JACOBSON: Your Honor, at this
3   time, we would offer Dr. Chen as an expert
4   in the fields of legislative districting and
5   political geography.
6   THE COURT: Does any Respondent
7   wish to voir dire the witness?
8   (Pause.)
9   THE COURT: Any objections to his
10   qualifications as an expert in districting
11   and political geography?
12   MR. TABAS: No, Your Honor.
13   MR. LEVINE: No, Your Honor.
14   MS. HANGLEY: No objections.
15   THE COURT: Dr. Chen will be
16   accepted as an expert witness in
17   redistricting and political geography.
18   You may proceed with your
19   examination.
20   MR. JACOBSON: Thank you,
21   Your Honor.
22   - - -
23   DIRECT EXAMINATION
24   - - -
25

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1   BY MR. JACOBSON:
2   Q.   Dr. Chen, can you briefly summarize
3   what Petitioners have asked you to evaluate in this
4   case?
5   A.   Yes, sir.
6   Petitioners asked me to evaluate three
7   questions: First, Petitioners' counsel asked me to
8   evaluate whether partisan intent was the predominant
9   factor in the drawing of the enacted Act 131
10   Congressional Districting Plan in Pennsylvania.
11   Second, I was asked to evaluate, if
12   partisan intent was the predominant factor, what was
13   the effect of the enacted Act 131 plan on the number
14   of Congressional Democrats and Republicans elected in
15   Pennsylvania's Congressional delegation.
16   And then, finally, as a separate
17   matter, I was asked to analyze the effect of the
18   enacted 131 Plan on the ability of the 18 individual
19   Petitioners in this case to elect a Democrat or
20   Republican Congressional candidate from their
21   respective Congressional districts.
22   Q.   Now, we'll dive into details -- greater
23   details in a moment, but can you give us an overview
24   of how you went about answering those three
25   questions?

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1   A.   Generally, what I did was to conduct a
2 large number of simulated -- computer-simulated
3 districting plans for Pennsylvania's Congressional
4 districts, following traditional districting
5 criteria, adhering to traditional principles, and
6 then I compared how the enacted plan looked, what
7 characteristics it had relative to those simulated
8 plans.
9   Q.   And broadly, what were your findings?
10   A.   Broadly, what I found is that partisan
11 intent predominated the drawing of the enacted
12 Act 131 Congressional Plan and that Congressional
13 Plan, the enacted Plan, was drawn with a partisan
14 intent to create a 13-5 Republican advantage and that
15 this partisan intent subordinated traditional
16 districting principles in the drawing of the enacted
17 plan.
18   Q.   Dr. Chen, I'd like to now dive into how
19 you went about creating your simulations.
20   In what you refer to as
21 Simulation Set 1 in your expert report in this case
22 and in the exhibits, can you tell us what criteria
23 did you use in creating the simulated districting
24 plans?
25   A.   In the first set of simulations, what

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1 you referred to as Simulation Set Number 1, I
2 programmed the computer to follow five traditional
3 districting principles in drawing Pennsylvania's
4 Congressional districts.
5   The first principle is absolute
6 population equality, which, specifically for
7 Pennsylvania, means that every district has to have a
8 precise population of 705,687 or -88 with no
9 deviations or zero deviations from that ideal
10 district population; second, districts had to be
11 geography contiguous; third, districts were drawn to
12 avoid the splitting of counties, except when
13 necessary to achieve equal population; fourth, that
14 the computer avoided splitting the municipality --
15 avoided splitting municipalities in Pennsylvania,
16 which includes cities, towns, townships and boroughs;
17 and, finally, the districts were drawn to be
18 geographically compact.
19   So those were traditional districting
20 principles that the computer algorithm followed.
21   Q.   And why did you choose those five
22 principles -- criteria?
23   A.   Well, those are traditional districting
24 principles in Congressional districting. And so the
25 reason that I applied those five traditional

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1 districting principles is for two -- well, there are
2 two reasons: first, as an expert who has worked on
3 redistricting cases in a wide range of jurisdictions
4 and in multiple states, I know that these are the
5 traditional districting principles applied when it
6 comes to drawing Congressional districting plans for
7 various states. And so it's on the basis of my
8 expertise in redistricting that I am using those
9 traditional districting principles.
10   Now, on top of that -- on top of my own
11 expertise on that matter, Petitioners' counsel
12 informed me that the Pennsylvania Constitution
13 enshrined those same principles into the Constitution
14 with respect to the drawing of legislative State
15 House and Senate district boundaries.
16   So Petitioners' counsel informed me of
17 that. I looked for myself. I looked at the
18 Pennsylvania Constitution, and I could see that that
19 was, in fact, the case, that those principles are, in
20 fact, mentioned in the Pennsylvania Constitution when
21 it comes to drawing State legislative districts. So
22 that confirmed my understanding of traditional
23 districting principles as applied to Pennsylvania.
24   Q.   And are these the same criteria you use
25 in running simulations in your academic work?

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1   A.   Yes, they generally are. Although I
2 just want to qualify that, obviously, some of these
3 will change from one jurisdiction to the next. If
4 we're looking at, say, a county commissioner, or a
5 school district plan, then, obviously, some of these
6 criteria, like avoiding county splits, aren't
7 necessarily going to be applicable.
8   Q.   Dr. Chen, if you had been given a list
9 of other nonpartisan criteria that this
10 General Assembly had used in drawing the 2011
11 Congressional District Plan in Pennsylvania, could
12 you have incorporated such additional criteria into
13 your computer simulations?
14   A.   Oh, absolutely. If I had been given a
15 list of other nonpartisan criteria, I would have
16 happily incorporated them into -- into my computer
17 algorithm if I had been told that those were the
18 nonpartisan principles used by the General Assembly.
19   So, certainly, I could have done so
20 from a technical standpoint.
21   Q.   And has that happened in other cases in
22 which you've served as an expert witness?
23   A.   That happens very frequently where I am
24 told here are the criteria that the state legislature
25 in this particular state used. They are nonpartisan

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1 criteria, so -- and then I would go and build those
2 criteria into my computer algorithms.
3   Q.   So why didn't you do that here? Why
4 didn't you incorporate additional nonpartisan
5 criteria into your simulations?
6   A.   Well, as I always do, I asked
7 Petitioners' counsel -- in this case, I asked
8 Petitioners' counsel whether they could tell me the
9 nonpartisan criteria used by Pennsylvania's
10 General Assembly in the drawing of the enacted
11 Act 131 Congressional Plan. I told them it was very
12 important that I have that information.
13   Petitioners' counsel told me that the
14 General Assembly refused to provide that information.
15 So that was it.
16   Q.   Now, how many simulated districting
17 plans did you create in your Simulation Set 1 using
18 the criteria that you just described?
19   A.   In Simulation Set 1, the computer
20 produced 500 independent simulated plans.
21   Q.   Why did you pick 500 as the number?
22   A.   Well, in general, in my academic work,
23 what I have found and what I've written about is
24 that, generally, we need 25 or more simulated plans,
25 as long as those simulations are conducted

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1 independently. We need 25 or more in order to
2 generally come to strong statistical conclusions
3 about the distribution of simulated plans arising
4 under traditional districting principles. And that
5 provides us enough of a base to compare those against
6 the enacted plan.
7   So we generally need 25 or more, but in
8 this case, as I often do in my expert reports, I went
9 way overboard, went way overkill. And here, I
10 produced 500.
11   So why that many? And the reason is
12 because, very frequently -- after I've conducted a
13 set of computer-simulated districting plans, very
14 frequently, I want to go back and analyze just a
15 smaller subset within all of those simulated plans,
16 say, just a subset containing a certain racial
17 characteristic, just as an example. And that's
18 something I do very frequently in my expert reports,
19 as well as in my academic work.
20   And when I do that, I want to make sure
21 that if I just isolate a subset of those plans, that
22 I'm still able to have a large-enough subset, 25 or
23 more, in order to still be able to draw strong
24 statistical conclusions about the districting plans
25 that we see in that subset.

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1   So that's why I go overboard and
2 produce 500.
3   MR. JACOBSON: If we could pull up
4 Petitioners' Exhibit 3, which is Figure 1 of
5 Dr. Chen's report.
6 BY MR. JACOBSON:
7   Q.   Dr. Chen, can you tell us what?
8   A.   Figure 1 here, Exhibit 3, is an example
9 of one of the 500 simulated districting plans
10 produced by my computer in Simulation Set Number 1.
11   Q.   And to be clear, this is just one of
12 those 500 plans?
13   A.   Yes, sir, it is just one of those
14 independent 500 simulated plans.
15   Q.   And can you briefly explain how your
16 computer algorithm created this particular simulated
17 map?
18   A.   It produced this particular simulated
19 map just like the other 499, by following the
20 traditional districting principles that we described
21 just a minute ago -- that I described just a minute
22 ago. So it produced 18 districts following those
23 traditional districting principles.
24   Q.   And are all 500 simulated maps created
25 using that same process?

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1   A.   Yes, sir. They are produced using the
2 same algorithm. Of course, the algorithm produces --
3 starts anew and produces independent plans each time.
4 And so there are 500 different plans. They look
5 different from one another. And this is just one of
6 those 500, as an example.
7   Q.   I'd like to now walk through the
8 numbers underneath the map. For the moment, I'll
9 skip over the first line in those numbers that says,
10 Expected Republican seats, and come back to that
11 later.
12   Dr. Chen, can you tell us what does the
13 line that says County Splits represent underneath the
14 map on Figure 3?
15   A.   Yes, sir. That's the second line below
16 the map here in Figure 1. And that row tells us the
17 number of counties, the number of Pennsylvania's 67
18 counties that were split into multiple districts in
19 both the simulated map as well as the enacted map.
20 And so we can see here on the second row that this
21 particular simulated map splits apart exactly 14 of
22 Pennsylvania's 67 counties.
23   Then we move to the right, and that
24 number tells us -- the second column tells us that
25 the enacted Act 131 map splits apart 28 of

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1 Pennsylvania's 67 counties. Twenty-eight counties in
2 the enacted map are split into multiple districts.
3   Q.   And moving to the next line, the line
4 that reads, Average Reock Compactness Score.
5   Can you explain what is a
6 Reock Compactness Score?
7   A.   A Reock Compactness Score is a very
8 standard and widely used measure of district
9 geographic compactness. It's very widely used by
10 scholars of redistricting as well as by courts and
11 experts in redistricting cases. So it's just a
12 measure of geographic compactness.
13   Q.   And just for the record, what is the
14 formula used to calculate a Reock Compactness Score?
15   A.   The formula used is based on a
16 district-by-district analysis. So you look at the --
17 each district, and you look at the area of each
18 individual district. And then you draw a bounding
19 circle around each district. The bounding circle is
20 just the smallest circle that will fully enclose the
21 entire area of the district.
22   So now that you've looked at the area
23 of the district as well as the bounding circle, you
24 then take the ratio of the district's area to the
25 area of that bounding circle. Obviously, higher

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1 scores are going to indicate more geographically
2 compact districts, districts that look more like a
3 circle in shape. So higher scores are going to be
4 greater in compactness.
5   Now, to calculate the Reock score of
6 the entire plan, you just take the average of all 18
7 districts' Reock score. And so, again, higher scores
8 closer to one indicate greater geographic
9 compactness, whereas lower scores closer to zero
10 indicate more noncompact districts.
11   Q.   And what do you find with respect to
12 the line relating to Reock Compactness Scores on this
13 particular figure?
14   A.   It's the third row here below the
15 figure, below Figure 1, and the third row is telling
16 us that the simulated map that we see in this figure,
17 in Figure 1, has an average Reock score of .442.
18   Look at the second column, and that
19 tells us that the enacted plan, the enacted Act 131
20 plan, has an average Reock score of .278. That tells
21 us that the enacted map is significantly less compact
22 than the simulated map that we see here in Figure 1.
23   Q.   The last row on this figure, Average
24 Popper-Polsby Compactness Score -- what is a
25 Popper-Polsby Compactness Score?

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1   A.   A Popper-Polsby Compactness Score is
2 just yet another very commonly used, very widely used
3 measure of geographic compactness, used widely both
4 by redistricting scholars, as well as by
5 practitioners of redistricting. And so it's just a
6 slightly different measure of geographic compactness,
7 but it works in much the same ways, with higher
8 scores indicating greater compactness.
9   Q.   And, again, for the record, could you
10 just briefly state the formula used to calculate that
11 score?
12   A.   To calculate the Popper-Polsby score,
13 you again look at each individual district, each of
14 the individual 18 districts. For each district,
15 you -- you measure the district's perimeter; not its
16 area, but its perimeter.
17   So you look at that perimeter, and then
18 you ask, What would be the area of a circle that has
19 the same perimeter as this district's perimeter?
20 It's sort of like taking the district's perimeter and
21 stretching it out into a circle.
22   And then to calculate the Popper-Polsby
23 score of a district, you then take the ratio of the
24 district's area to the area of that -- to the area of
25 that hypothetical circle. So that gives us the

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1 Popper-Polsby measure.
2   And intuitively, what it means is that
3 higher scores mean greater geographic compactness;
4 lower scores closer to zero mean more noncompact
5 districts. So, once again, you just take the average
6 Popper-Polsby score across all 18 districts, and
7 that's the average score for the entire plan.
8   Q.   And what do you find with respect to
9 the Popper-Polsby scores on this particular figure?
10   A.   It's listed on the bottom row, this
11 fourth row here underneath Figure 1. And what that
12 fourth row tells us is that the enacted plan -- the
13 enacted map has a Popper-Polsby score of .164. The
14 simulated map here on Figure 1 has an average
15 Popper-Polsby score of .310.
16   That tells us that the enacted map is
17 significantly far less geographically compact than
18 this simulated map.
19   MR. JACOBSON: Petitioners move to
20 admit Exhibit Number 3 into evidence.
21   THE COURT: Any objection?
22   MS. HANGLEY: No objection.
23   MR. LEVINE: No objection.
24   MR. TABAS: No objection.
25   THE COURT: Petitioners' Exhibit 3

45 (Pages 174 to 177)

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1   is admitted without objection.
2   - - -
3   (Whereupon, Petitioners' Exhibit Number
4   3 was admitted into evidence.)
5   - - -
6   BY MR. JACOBSON:
7   Q.   Dr. Chen, you said that the exhibit
8   that we just looked at was just one of your 500
9   simulated maps in Set Number 1. I'd like to now turn
10   to your findings across all 500 simulations.
11   MR. JACOBSON: If we could pull up
12   Petitioners' Exhibit Number 4, which is
13   Figure 3 of Dr. Chen's report.
14   BY MR. JACOBSON:
15   Q.   Dr. Chen, what does the red star in the
16   top right of this figure represent?
17   A.   That red star at the very far right at
18   the top -- that represents the Act 131 enacted plan.
19   Q.   And how about the black circles?
20   A.   There are 500 black circles here, and
21   they denote each of the 500 simulated districting
22   plans that my computer produced as part of Simulation
23   Set Number 1.
24   Q.   What does the horizontal axis that goes
25   from left to right represent on this figure?

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1   Q.   What about the vertical axis going from
2   bottom to top? What does that represent?
3   A.   It's very similar except that vertical
4   axis measures the number of municipalities that were
5   split. And, again, by "municipalities," I'm counting
6   cities, towns, boroughs and townships in
7   Pennsylvania.
8   So the vertical axis is telling us the
9   number of municipalities that each plan splits. And
10   we can see from this figure that most of the
11   simulated plans split anywhere from 40 up to a
12   maximum of 58 municipalities. That's the entire
13   range of municipalities that were split.
14   Then we turn to the red star once
15   again. And what do we see in the upper right corner?
16   We see that the Act 131 enacted plan splits 68
17   counties.
18   So we're able to see pretty clearly
19   from this figure that the Act 131 enacted plan splits
20   significantly more municipalities than would have
21   resulted from the simulated plans following
22   traditional districting criteria, and they also split
23   significantly more counties.
24   Q.   Dr. Chen, as a whole, what can you
25   conclude from the data in this chart?

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1   A.   That horizontal axis here in
2   Figure 3 -- that horizontal axis tells us the number
3   of counties that were split into multiple districts
4   in each one of these plans, in each one of the 500
5   simulated plans as well as in the enacted plan.
6   Q.   And what does the horizontal axis
7   show -- show here with respect to the data presented
8   on the chart?
9   A.   The horizontal axis here in Figure 3
10   shows us that the simulated plans -- the 500
11   simulated plans split apart anywhere from 11 up to 16
12   counties in each districting plan. In other words,
13   there are some simulated plans that split as few as
14   11, and there is actually one simulated plan that
15   splits as many as 16 counties.
16   The vast majority of these simulations
17   are right around 12, 13 or 14 counties being split.
18   So those are the number of county split
19   in each of the 500 simulated plans.
20   Now we turn to the red star at the
21   upper right corner. That's the enacted plan. What
22   this figure tells us is that the enacted plan splits
23   28 counties. So we can see here that the enacted
24   plan splits significantly far more than all 500 of
25   the simulated plans.

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1   A.   What this chart together shows us is
2   that the Act 131 enacted plan significantly
3   subordinated the traditional districting criteria of
4   avoiding county splits and avoiding municipal splits.
5   It shows us that the enacted plan split far more
6   counties, as well as more municipalities, than the
7   sorts of plans that would have arisen under a
8   districting process following traditional districting
9   principles in Pennsylvania.
10   MR. JACOBSON: Petitioners move to
11   admit Exhibit Number 4 into evidence.
12   THE COURT: Any objection?
13   MR. LEVINE: No objection.
14   MS. HANGLEY: No objection.
15   MR. TABAS: No.
16   THE COURT: Petitioners' Exhibit 4
17   is admitted without objection.
18   - - -
19   (Whereupon, Petitioners' Exhibit Number
20   4 was admitted into evidence.)
21   - - -
22   MR. JACOBSON: If we could pull up
23   Petitioners' Exhibit 5, which is Figure 4 of
24   Dr. Chen's report.
25

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1   BY MR. JACOBSON:
2   **Q.   Dr. Chen, again, what do the black**
3   **circles on this figure represent?**
4   A.   There are 500 black circles on this
5   figure, and they represent the 500 simulated plans,
6   once again, in Simulation Set Number 1.
7   **Q.   And how about the red star in the**
8   **bottom left of the figure?**
9   A.   Again, that red star in the bottom left
10   represents the Act 131 enacted plan.
11   **Q.   What does the horizontal axis going**
12   **from left to right represent?**
13   A.   The horizontal axis in this figure, in
14   Figure 4, tells us the average Reock score of each
15   districting plan, of each of the 500 simulated plans,
16   as well as the enacted 131 plan.
17   **Q.   And what does the data on the**
18   **horizontal axis reveal here?**
19   A.   We can see pretty clearly by looking
20   along the horizontal axis that the enacted Act 131
21   plan was significantly less geographically compact
22   than every single one of the 500 simulated plans in
23   Set Number 1. The simulated plans create Reock
24   scores ranging from about .38 to about .46. That's
25   the normal range of most of the -- of almost all of

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1   the simulated plans.
2   You can see from this figure -- from
3   the horizontal axis that the enacted Act 131 plan is
4   not only entirely outside of that range, it is far,
5   far below that entire range. In other words, the
6   enacted plan creates significantly less compact
7   districts than any sort of simulated plan that arises
8   from a districting process adhering to districting
9   principles.
10   **Q.   How about the vertical axis going from**
11   **bottom to top? What does that depict?**
12   A.   It tells us exactly the same thing,
13   except using this other measure of geographic
14   compactness, the Popper-Polsby measure.
15   But using this other measure, which
16   we -- which I discussed in some detail a few minutes
17   ago, we arrive at exactly the same conclusions. You
18   can see here that all of the simulations create a
19   Popper-Polsby score of -- in the range of about .29
20   up to about .35. But then we turn to the bottom left
21   of the figure, and we can see the Act 131 enacted
22   plan creates a Popper-Polsby score that is
23   significantly far below that entire range. It's
24   outside of and entirely far below the entire range.
25   And together, these two axes, the

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1   horizontal and the vertical measure, the Reock and
2   the Popper-Polsby measure, they're telling us that no
3   matter which measure of compactness you use, it's
4   very clear that the Act 131 enacted plan
5   significantly and completely sacrifice the
6   traditional districting principle of geographic
7   compactness compared to the sorts of plans that would
8   have emerged under traditional districting
9   principles.
10   MR. JACOBSON: Petitioners move to
11   admit Exhibit Number 5 into evidence.
12   MR. LEVINE: No objection.
13   MR. TABAS: No objection.
14   MS. HANGLEY: No objection.
15   THE COURT: Petitioners' Exhibit 5
16   is admitted without objection.
17   - - -
18   (Whereupon, Petitioners' Exhibit Number
19   5 was admitted into evidence.)
20   - - -
21   BY MR. JACOBSON:
22   **Q.   Dr. Chen, I'd like to now turn to how**
23   **you calculate the partisan breakdown of your**
24   **simulated maps.**
25   **Do you have data on election returns in**

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1   **Pennsylvania?**
2   A.   Yes, I do. I requested precinct-level
3   election results for the last several election
4   cycles. And I received those precinct-level data
5   files from the Department of State.
6   **Q.   When you say "precinct-level election**
7   **results," can you just explain what you mean by that?**
8   A.   Precincts are the administrative units
9   where elections are held or administered in
10   Pennsylvania, as they are in virtually ever other
11   state. So you go and vote at a precinct, and those
12   votes are counted and collected at the level of the
13   precinct. They roughly represent neighborhoods
14   within cities.
15   So precincts are just administrative
16   units where election data, election results are made
17   available.
18   **Q.   And so you said that you obtained data**
19   **from the Department of State showing historical**
20   **election results at the precinct level; is that**
21   **right?**
22   A.   Yes, sir, that's correct. I made a
23   request, and I received precinct-level election
24   results from the Department of State.
25   **Q.   Without going into the details, how did**

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1 you use those precinct-level election results to
2 estimate the partisan leaning of one of your
3 simulated districts?
4   A.   Well, I did what political scientists
5 normally do with this kind of data. I took those
6 precinct level vote counts and I overlaid them on top
7 of the district boundaries of each one of those
8 simulated plans, as well as the enacted plan.
9   Q.   And so to be clear, are you using
10 simulated or -- or hypothetical election results or
11 actual election results?
12   A.   No. These are actual election results.
13 They are results of the actual statewide elections --
14 of the actual elections held in the State of
15 Pennsylvania over the last several election cycles.
16   Q.   And which elections did you use to
17 measure the partisanship of each precinct in
18 Pennsylvania?
19   A.   In the main part of my report, I used
20 every of the six statewide elections that were held
21 in Pennsylvania from 2008 to 2010.
22   Q.   And, Dr. Chen, I believe you list those
23 specific elections on Page 13 of your report.
24   If you could, could you just list those
25 six statewide elections into the record?

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1   A.   Yes, sir. There were six statewide
2 elections. Four of them were in 2008. And those
3 four were the presidential election, the attorney
4 general election, the auditor for general election
5 and the state treasurer elections in 2008.
6   In 2010, there were two more elections,
7 and those were the U.S. senator election as well as
8 the gubernatorial -- the state gubernatorial election
9 in 2010.
10   So that's a total of six elections over
11 those two years.
12   THE COURT: No. 2009?
13   THE WITNESS: No statewide
14 elections.
15   THE COURT: I beg to differ.
16   (Laughter.)
17   THE COURT: Unless I can go home.
18   (Laughter.)
19 BY MR. JACOBSON:
20   Q.   Dr. Chen, could you tell us -- I
21 believe -- actually, I'll strike that question.
22   THE COURT: Counsel, can I just ask
23 a point of clarification so I understand?
24   The data, these are results, but
25 these are not per-voter results -- the

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1 Department of State doesn't -- do they give
2 you data on how registered voters voted,
3 specifically?
4   THE WITNESS: Your Honor, because we
5 have a secret ballot, no, we do not know how
6 individuals --
7   THE COURT: What do you mean by
8 "election results"? You just mean who won?
9   THE WITNESS: Your Honor, it just
10 means precinct level results. We are told,
11 for each precinct in Pennsylvania, how many
12 total Republican votes were cast for, say,
13 the Republican candidate, how many votes
14 were cast for the Democrat candidate.
15   THE COURT: So you have data that
16 says how many Republicans voted for a
17 Republican and how many Democrats voted for
18 a Democrat and how many Democrats voted for
19 a Republican and all that -- all those ways
20 around?
21   You got that data from State?
22   THE WITNESS: Not quite, Your Honor.
23 Let me just restate that, because I think I
24 misspoke, which might have misled you a
25 little bit.

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1   So let me start again.
2   What the Department of State
3 provides are precinct-level vote counts for
4 each candidate in a race. That means, for
5 example, that I know, for every precinct in
6 Pennsylvania, how many votes were cast for
7 Donald Trump and how many votes were cast
8 for Hillary Clinton.
9   I can't tell you anything about who
10 the specific individuals were who cast each
11 one of those votes, except that they lived
12 in Precinct 1, Precinct 2, Precinct 3 --
13   THE COURT: That's the
14 clarification I needed. Thank you.
15   MR. JACOBSON: Sure.
16 BY MR. JACOBSON:
17   Q.   Dr. Chen, why did you use those six
18 statewide elections to measure the partisanship of
19 each precinct in your simulated districts?
20   A.   Well, I used these six statewide
21 elections because they were the statewide elections
22 held in the two main election years, 2008 and 2010,
23 that were available to the General Assembly when it
24 drew its 2011 enacted map. So those were the
25 two years' worth of elections that were available in

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1 the most recent elections in 2008 and 2010 and were
2 available to the General Assembly.
3   Q.   And is the idea of using statewide
4 elections to project election results in legislative
5 districts -- is that accepted in the political
6 science community?
7   A.   Yes, sir, that's a standard way of
8 measuring the partisanship of districts.
9   Q.   And in your experience and based on
10 your expertise, do actual map makers drawing
11 legislative districts, such as Congressional
12 districts, use statewide election results to predict
13 partisanship in the districts they're drawing?
14   A.   Yes, sir.
15   Based on my expertise, working on
16 redistricting cases in a wide variety of
17 jurisdictions and in multiple states, it is very
18 common for partisan-motivated legislators to measure
19 the partisan performance of proposed districts using
20 past statewide elections and, specifically, using
21 recent past statewide elections, because recent
22 statewide elections are the most reliable indicator
23 of the underlying partisan tendencies of a particular
24 district.
25   Q.   And do you know examples of particular

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1 states where that happened, where map makers used
2 recent statewide elections to predict partisanship of
3 legislative districts?
4   A.   Yes, sir. In the states that I've done
5 work in, I've seen that happen both in North Carolina
6 and in Wisconsin, where state legislators
7 specifically used recent statewide elections to
8 measure the partisan performance of proposed
9 districts that they were considering.
10   Q.   Why didn't you use data from past U.S.
11 House elections, given that your model is trying to
12 measure the partisanship of simulated U.S. House
13 districts?
14   A.   I don't use data from U.S. House
15 elections because when the task at hand is to
16 measure, as I'm doing here -- is to measure and
17 compare the partisanship of an enacted plan against
18 many simulated plans, against many different
19 hypothetical districting plans, the use of U.S. House
20 elections -- of actual U.S. House elections is not
21 very useful or accurate.
22   And let me explain why. When it comes
23 to comparing an enacted map against several simulated
24 maps, all of which have slightly different district
25 boundaries, the problem we run into is that actual

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1 U.S. House elections reflect district-specific
2 characteristics, things like the presence of a
3 quality challenger, whether or not a quality
4 challenger ran against an incumbent in this district
5 but maybe not in that district. So those things
6 influence district-level U.S. House election results.
7   Now, those things, those factors, are
8 also related to the very specific ways that each
9 individual district's boundaries were drawn. And so
10 what that tells us is that we can't compare a
11 completely different simulated map using U.S. House
12 election results that arose from the enacted
13 Congressional plan in Pennsylvania.
14   If all we wanted to do was to measure
15 the partisan skew or the partisan -- or the partisan
16 performance of the actual U.S. House map, then
17 certainly, that is something that we could use actual
18 U.S. House election results to look at.
19   So, instead, what I have to do, when I
20 look at the simulated maps and want to compare them
21 directly, using the same measure, to the enacted map,
22 is to look at statewide elections, which have the
23 same candidates for all districts, obviously, because
24 they're statewide elections.
25   So that's why I don't use U.S. House

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1 elections to directly compare the simulated to the
2 enacted maps.
3   Q.   And what about party registration? Why
4 don't you just look at the party registration in a
5 particular precinct to measure the expected partisan
6 outcomes in your simulated districts?
7   A.   Well, there are two different reasons
8 why we don't use partisan registration to
9 actually measure the partisan performance of a
10 directing plan: one is that, as a political
11 scientist, what we know from decades of studies is
12 that partisan voter registration is not necessarily
13 an accurate predictor of the actual partisan behavior
14 of voters in actual elections.
15   And that's because in many states,
16 including in Pennsylvania, there are many voters that
17 may consistently vote for a Republican candidate but
18 do not necessarily register as a Republican on their
19 voter registration forms.
20   And, indeed, I looked at partisan voter
21 registration numbers in Pennsylvania and saw that
22 that mismatch exists in Pennsylvania, that mismatch
23 between partisan registration numbers and actual
24 partisan voting tendencies at the precinct level, as
25 well as at the county level.

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1   So, certainly, we know as a political
2 science matter that partisan voter registration is
3 not a reliable indicator of the partisan performance
4 of districts.
5   On top of that, on top of my knowledge
6 as a political scientist, we also know -- or I also
7 have seen from my -- from my experience working on
8 redistricting in a variety of states that legislators
9 do not commonly or exclusively rely on partisan
10 registration numbers in determining the partisanship
11 of proposed or hypothetical districts that they might
12 be considering. So it's just not commonly practiced
13 that way in addition to not being very good political
14 science.
15   Q.   Thank you.
16   I'd like to now turn to how you
17 calculate the partisan outcomes under your simulated
18 maps.
19   MR. JACOBSON: If we could pull up
20   again Petitioners' Number 3, which was
21   Figure 1 of Dr. Chen's report.
22 BY MR. JACOBSON:
23   Q.   Dr. Chen, this is the same illustrative
24 map, one of your 500 simulations that we looked at
25 earlier.

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1   **I'm going to just pick a random**
2 **district on this map. I'm going to picture**
3 **District Number 7.**
4   **And before I ask you a question,**
5 **actually, Dr. Chen, is there any special significance**
6 **to the district numbers that are assigned on your**
7 **simulated maps?**
8   A.   No, sir, there's no significance at
9 all. They're effectively random. I didn't try to
10 make sure, for example, that District 1 lines up with
11 the same District 1 on the enacted map or that
12 District 7 lines up with the same District 7 on the
13 enacted map.
14   Q.   **So looking at just this hypothetical**
15 **District Number 7, which -- if you can see, it's in**
16 **the southwest portion of the State that includes all**
17 **of Fayette County.**
18   **How did you go about estimating the**
19 **partisan leaning or partisan outcome of that**
20 **simulated district?**
21   A.   I took those precinct level -- precinct
22 level election results that we talked about a few
23 moments ago -- I took those precinct-level election
24 results and I overlaid them on top of the geographic
25 boundaries of this District 7.

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1   Q.   **And, again, those are actual**
2 **precinct -- actual precinct level election results?**
3   A.   Yes, sir, the actual precinct election
4 results from each of the Pennsylvania statewide
5 elections in 2008 and 2010.
6   Q.   **And how do you determine whether you**
7 **characterize something as a Republican district or a**
8 **Democratic district?**
9   A.   So after I overlaid those precinct
10 level actual election results from the 2008 and 2010
11 statewide elections, I then aggregated up the votes
12 for those statewide elections here in District 7,
13 here in the simulated district, and I just counted up
14 the total number of votes cast for Republican
15 candidates and the total number of votes cast for
16 Democratic candidates in those statewide elections.
17   And all of these elections were
18 contested elections. They had a Democratic as well
19 as a Republican candidate.
20   So I just totaled up the total number
21 of votes for Republican candidates and the total
22 number of votes for Democratic candidates, and I
23 asked whether this was a district with more
24 Republican votes or whether this was a district with
25 more Democratic votes over those statewide elections

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1 in 2008 and 2010.
2   Q.   **And if -- and if it's more Republican**
3 **votes, do you characterize that as a Republican**
4 **district?**
5   A.   Yes, sir. Look at the total number of
6 Republican votes and the total number of Democratic
7 votes, and I characterize it as either a district
8 with more Republicans or a district with more
9 Democratic votes.
10   Q.   **And do you do that for each of the**
11 **simulated districts on this particular simulated map?**
12   A.   Yes, sir, I do that same exact
13 calculation for all 18 districts on this simulated
14 map.
15   Q.   **And now let's look at the number on the**
16 **first row underneath -- on Figure 1 from your report,**
17 **Exhibit 3, underneath the map.**
18   **What does that row show? And by "that**
19 **row," I mean the row that says, Expected Republican**
20 **seats.**
21   A.   Yes, sir.
22   So this is the first row under
23 Figure 1. And the first row tells us the number of
24 Republican seats in the simulated map as well as the
25 number of Republican seats in the enacted Act 131

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1   map.
2   So in the left column here, what this
3   number tells us is that there are 18 total simulated
4   districts in this simulated map. Nine of those 18
5   are Republican districts. In other words, nine of
6   those are, as we just said a minute ago -- these are
7   districts in which there are more Republican votes
8   than Democratic votes in those statewide elections.
9   So there are nine Republican and nine
10   Democratic districts on this map.
11   And then I turned and looked at the
12   enacted map, which is not shown in this Figure. But
13   I looked at the enacted map and analyzed that using
14   the exact same election data, those same statewide
15   elections. And I counted up the number of Democratic
16   voters -- number of Democrat votes and the number of
17   Republican votes in those statewide elections on the
18   enacted map, and I found that the enacted map has 13
19   districts that are Republican and five districts that
20   are Democrat.
21   Q.   Thanks, Dr. Chen. And we'll return to
22   that in a moment as well.
23   MR. JACOBSON: If we could pull up
24   Petitioners' Exhibit Number 6, which is
25   Figure 2 of Dr. Chen's report.

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1   BY MR. JACOBSON:
2   Q.   Before going into the details,
3   Dr. Chen, what does this figure depict?
4   A.   This figure, Figure 2, Exhibit 6 --
5   this figure shows us the number of Republican
6   districts in each of the 500 simulated plans produced
7   in Simulation Set Number 1, and it compares that
8   against the number of Republican districts in the
9   enacted Act 131 plan.
10   Q.   And what does the tallest bar on this
11   chart show?
12   A.   This tallest bar is right at the number
13   of nine. And what that tells us is that the majority
14   of simulated plans produced by Simulation Set
15   Number 1 -- the majority of these simulated plans
16   produce exactly nine Republican districts -- nine
17   Republican and nine Democrat districts.
18   And, again, in this figure, just as we
19   were a minute ago, I'm measuring the number of
20   Republican districts using those statewide elections.
21   So I'm measuring the simulated plans as well as the
22   enacted plan using that same set of statewide
23   elections from 2008 and 2010.
24   And we see here that the majority of
25   the simulated plans produce exactly nine Republican

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1   districts and, therefore, nine Democratic districts.
2   Q.   Right. How about the other bars on the
3   chart?
4   A.   Well, there are other possible
5   outcomes, although they occur less frequently. The
6   vast majority, as in over 90 percent, of these
7   simulated plans produce either eight or nine.
8   So eight is a number -- eight
9   Republican districts is an outcome that occurs
10   36.2 percent of the time. So the vast majority of
11   the time, eight or nine Republican districts is what
12   emerges from the plans produced by Simulation Set
13   Number 1. The overall range goes from as few as
14   seven to up to 10. Ten is an outcome that occurs
15   2 percent of the time.
16   So that's the entire range, is seven,
17   eight, nine or 10 Republican districts in these
18   simulated maps.
19   Q.   Do Republicans ever win 13 districts
20   under your nonpartisan simulations?
21   A.   No, sir, not a single time.
22   Q.   Do they ever even win 11 or 12
23   districts?
24   A.   No, sir, not a single time.
25   Q.   Now, you alluded to this a moment ago,

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1   but I would like to go through it in more detail and
2   turn from your simulated plans to the enacted plan,
3   the Act 131 plan.
4   If you take the same exact 2008 to 2010
5   statewide elections data that you used to predict
6   partisanship in your simulated plans for each
7   precinct and you overlay that over the enacted map,
8   what do you find?
9   A.   I did that analysis, and I found that
10   the enacted plan has 13 districts that had more
11   Republican votes than Democratic votes in those
12   statewide elections that we talked about a
13   few minutes ago.
14   Q.   And is there any special notable
15   characteristic of those 13 districts?
16   A.   Well, I saw that there were 13
17   Republican districts and five democratic districts in
18   the enacted plan using this statewide measure, the
19   statewide elections in 2008 and 2010. I looked at
20   those enacted districts, and I saw that those 13
21   Republican districts are the same 13 districts that
22   have consistently elected Republican candidates to
23   the U.S. House, in November 2012, November 2014 and
24   November 2016.
25   So, essentially, I found that using my

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1   measure of statewide elections in 2008 and 2010, that
2   measure perfectly predicted the actual 13 districts
3   that have consistently elected Republicans to the
4   U.S. House over the last three Congressional
5   elections.
6   Q.   And what is the -- what does that tell
7   you about the accuracy of your partisanship measure?
8   A.   That tells us that it's been a
9   perfectly accurate measure of actual partisan
10 outcomes in Congressional elections over the last
11 three electoral cycles. In the last three
12 Congressional elections, there have been a total of
13 54 races, 18 in each year, because Pennsylvania has
14 18 districts. So there have been a total of 54
15 Congressional races over the last three election
16 cycles.
17   And by using the 2008 and 2010
18 statewide elections, that data -- that measure
19 perfectly predicted the outcome of all 54 of those
20 Congressional elections. It predicted the actual
21 partisan outcome of 54 out of 54 elections. That
22 tells us that it's a very statistically accurate
23 measure of the partisan performance of these
24 Congressional districts in the enacted plan.
25   Q.   And what does that tell you about the

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1   **ability to draw apples-to-apples comparisons between**
2   **the enacted plan and your 500 simulated plans?**
3   A.   That finding tells us that it's very
4   straightforward and very easy to draw a direct
5   apples-to-apples comparison between simulated plans
6   and the enacted plan.
7   When we look at statewide elections,
8   those statewide elections, as we've just discussed,
9   turn out to be very accurate predictors of whether a
10 particular district will elect a Republican or a
11 Democrat to Congress. In the enacted plan, we see
12 that it is perfectly predicted, that partisan
13 outcome, 54 out of 54 times.
14   Q.   **Overall, Dr. Chen, what conclusions can**
15 **you draw from your Simulation Set Number 1?**
16   A.   When we look at Simulation Set Number 1
17 and when we specifically look at the results here in
18 Figure 2, as well as the earlier results that we
19 looked at regarding county splits and geographic
20 compactness, we're able to conclude two important
21 things: first, I'm able to conclude with well-over
22 99.9 percent statistical certainty that the Act 131
23 plan's creation of a 13-5 Republican advantage in
24 Pennsylvania's Congressional delegation is an outcome
25 that would never have emerged from a districting

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1   process adhering to and following traditional
2   districting principles.
3   We also saw earlier how the enacted
4   plan performed relative to the simulated plans in
5   terms of traditional districting principles, like
6   county -- avoiding county splits and geographic
7   compactness.
8   What that allows me to conclude is the
9   enacted Act 131 plan was drawn with extreme partisan
10 intent where partisan intent predominated in the
11 drawing of enacted Act 131 plan and, specifically,
12 that the pursuit of that partisan 13-5 Republican
13 advantage subordinated the traditional districting
14 criteria of avoiding county splits and drawing
15 geographically compact districts.
16   Q.   **And in terms of total number of seats**
17 **won by each party, what conclusions can you draw with**
18 **respect to those effects?**
19   A.   Using the results here on Figure 2
20 describing Simulation Set Number 1 and comparing it
21 to the enacted plan, we start by looking at the fact
22 that the vast majority of simulations, over
23 90 percent of them, produced either eight or nine
24 Republican seats, whereas the enacted Act 131 plan
25 created 13 Republican seats.

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1   That allows us to conclude that the
2   enacted plan created four or five additional
3   Republican seats on top of the sort of plan that
4   would have emerged under a districting process
5   following nothing but nonpartisan traditional
6   districting criteria.
7   MR. JACOBSON: Petitioners move to
8   admit Exhibit Number 6 into evidence.
9   MS. HANGLEY: No objection.
10   MR. LEVINE: No objection.
11   MR. TABAS: No objection.
12   THE COURT: Petitioners'
13 Exhibit Number 6 is admitted without
14 objection.
15   - - -
16   (Whereupon, Petitioners' Exhibit Number
17   6 was admitted into evidence.)
18   - - -
19 BY MR. JACOBSON:
20   Q.   **Dr. Chen, I'd like to now turn to what**
21 **you describe in your report in your exhibits as**
22 **Simulation Set Number 2.**
23   **What is the difference between**
24 **Simulation Set 2 and Simulation Set 1?**
25   A.   In Simulation Set Number 2, I

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1 programmed the computer to produce another separate,
2 independent set of 500 districting plans, 500
3 Congressional plans for Pennsylvania, once again,
4 using 2010 Census data. And this time, in addition
5 to following the same set of traditional districting
6 principles, I added an additional criterion,
7 specifically on top of following those same five
8 traditional districting principles that we described
9 some time ago -- that I discussed some time ago.
10   I also instructed the computer to
11 guarantee the protection of 17 incumbents.
12   **Q.   And, Dr. Chen, is avoiding pairing**
13 **incumbents -- is that something you consider a**
14 **traditional districting criterion?**
15   A.   No, sir, it's not.
16   **Q.   So why -- why do you run the simulation**
17 **set, then?**
18   A.   I ran the second set of simulations
19 protecting 17 incumbents because Petitioners' counsel
20 asked me to address the hypothetical question of
21 whether a hypothetical goal by the General Assembly
22 of protecting incumbents in a nonpartisan manner
23 might somehow explain or account for the extreme
24 partisan bias of the enacted Act 131 plan.
25   So Petitioners' counsel asked me to

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1 evaluate whether this hypothetical goal of protecting
2 incumbents in a nonpartisan manner could have
3 affected the partisan outcomes of the plan.
4   **Q.   Do you consider Simulation Set 2 more**
5 **valid in some way than Set 1?**
6   A.   No, sir. In fact, it's a very narrow,
7 specific question. It's a hypothetical question of
8 the sort that I just laid out to you.
9   **Q.   Now, the enacted plan, Act 131, how**
10 **many incumbents did that plan avoid pairing?**
11   A.   The enacted plan avoided pairing 17 of
12 the 19 incumbents. And when I say "19," I am talking
13 about the 19 incumbents from the 112th Congress.
14 These are the incumbents that were in place just
15 before or as of the -- the November 2012
16 Congressional elections in Pennsylvania.
17   **Q.   How did you run your algorithm to avoid**
18 **pairing incumbents?**
19   A.   I specifically had the algorithm draw
20 each district so that each district, 17 districts,
21 would contain one, and exactly one, incumbent, that
22 there would be one incumbent that geographically
23 resides in each of those 17 districts.
24   Now, of course, there were 19
25 incumbents in Pennsylvania from the previous decade's

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1 plan, which had 19 districts, so, obviously, there
2 had to be an 18th district that contained two
3 incumbents. That was just a circumstance that
4 Pennsylvania happened to be in, having lost a
5 Congressional district.
6   Inevitably, there would be one district
7 with two incumbents, but other than that, there were
8 17 districts drawn by the algorithm, each with one,
9 and only one, incumbent residing within it.
10   **Q.   Did your algorithm consider the**
11 **identities or partisanship of those incumbents at all**
12 **in drawing these simulated plans?**
13   A.   No, sir, absolutely not. It completely
14 ignored the identities of those incumbents as well as
15 the partisan -- as well as the partisanship of those
16 incumbents.
17   **Q.   And did your simulations in the**
18 **Set Number 2 always pair the same two incumbents?**
19   A.   No, sir, the simulations did not pay
20 any attention to the identities, so -- the identities
21 of the incumbents, so the specific two incumbents
22 paired in any simulated plan would have differed from
23 one plan to the next, and there was no attention paid
24 to the partisan affiliations or to their actual
25 identities.

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1   **Q.   And so just to clarify, what were the**
2 **total criteria that you -- that you programmed your**
3 **algorithm to use in drawing the 500 maps in**
4 **Simulation Set 2?**
5   A.   Simulation Set 2 followed six criteria.
6   So the first five are the same
7 traditional districting principles that I described
8 in detail some time ago. And those were the
9 principles of equal population, geographic
10 continuity, avoiding county splits, avoiding
11 municipal splits, and geographic compactness.
12   And then in Simulation Set Number 2, I
13 add a sixth criterion of avoiding the pairing of
14 incumbents, or protecting 17 incumbents.
15   MR. JACOBSON: If we could pull up
16 Petitioners' Exhibit 7, which is it
17 Figure 1.A of Dr. Chen's report.
18 BY MR. JACOBSON:
19   **Q.   Dr. Chen, could you tell us what this**
20 **is?**
21   A.   Figure 1.A, Exhibit 7, shows the
22 geographic boundaries of an example of a simulated
23 districting plan from Simulation Set Number 2. So,
24 once again, my computer produced 500 independent,
25 different simulated districting plans, and what we

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1 see here in Figure 1.A is just one example among
2 those 500 different plans.
3   Q.   And before we get to the numbers
4 underneath the map, what do the red stars on the map,
5 itself, represent?
6   A.   In this map, I've added 19 red stars,
7 and those red stars denote the residential locations
8 of the 19 incumbents from Pennsylvania's
9 Congressional delegation that were in place as of the
10 112th Congress just before the November 2012
11 elections.
12   So these red stars are the residential
13 locations of the Congressional incumbents.
14   Q.   And what does this map illustrate with
15 respect to those red stars, those locations of their
16 home addresses?
17   A.   Well, this was an example of a map from
18 Simulation Set Number 2, so the computer algorithm
19 intentionally protected 17 incumbents. And we can
20 verify that going district by district and seeing
21 that in 17 districts, each of those 17 districts
22 contains one, and exactly one, incumbent and there's
23 only one district -- that's District Number 9 -- that
24 contains two incumbents. But 17 districts, fully
25 protects 17 incumbents by not double pairing them.

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1   Q.   And you clarified this from what you
2 said before, but these are not the current incumbent
3 representatives in the U.S. House from Pennsylvania,
4 are they?
5   A.   Correct, sir, we are not talking on
6 this figure about the 2016 incumbents. We are
7 talking about the incumbents in place as of the
8 General Assembly's drawing of the 2011 enacted map.
9 These are the incumbents that were up for reelection
10 or could have been up for reelection in
11 November 2012.
12   Q.   And why did you use the incumbents as
13 of that time, rather than the current incumbents, for
14 purposes of your report?
15   A.   I used the incumbents in place as of
16 the General Assembly's 2011 enacted map because,
17 again, this goes back to the question that
18 Petitioners' counsel asked of me.
19 Petitioners' counsel asked me whether or not the
20 General Assembly's -- whether or not the hypothetical
21 goal of protecting 17 incumbents in a nonpartisan
22 manner by the General Assembly might have had an
23 effect on the partisan skew of the map, so I had to
24 ask that question from the standpoint and with
25 reference to the actual 19 incumbents in place as of

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1 the General Assembly's 2011 redistricting.
2   Q.   Could you run your simulations to avoid
3 pairing the current incumbents, if you wanted to?
4   A.   Oh, sure, if I had been given that
5 data, if I had been given the identities and the
6 residential addresses of the current incumbents, but
7 that wasn't the question that I was asked to address.
8   Q.   Now, looking at this particular map in
9 Figure 1.A, which is Petitioners' Exhibit 7, which
10 two incumbents get paired under this particular map?
11   A.   The two incumbents that are paired on
12 this map in Figure 1.A are Jim Gerlach and
13 Pat Meehan.
14   Q.   Now, let's look at the numbers in the
15 rows underneath the map on -- again, on Petitioners'
16 Exhibit 7, and start with the row that reads Expected
17 Republican Seats.
18   What does that depict here?
19   A.   That's the first row beneath the map on
20 Figure 1.A, and that first row tells us -- as before,
21 it tells us the number of Republican districts on
22 this map at the -- the simulated map and compares
23 that to the number of Republican districts on the
24 enacted map.
25   And, once again, as before, I measured

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1 the number of Republican seats here with respect to
2 those 2008 and 2010 statewide elections, counting up
3 the number of votes cast for Democrats and
4 Republicans in those 2008 and 2010 statewide
5 elections, the same measure that I've been talking
6 about today.
7   So --
8   Q.   So -- I'm sorry. Go ahead.
9   A.   -- what -- what this row tells us is
10 that the enacted map, as we've already discussed
11 today, creates 13 Republican districts. This
12 particular simulated map here in Figure 1.A creates
13 nine Republican districts. So it creates nine
14 Republican and nine Democratic districts, whereas the
15 enacted map creates 13 Republican and five Democratic
16 districts.
17   Q.   And how about the second row? What
18 does that show?
19   A.   It tells us the number of counties that
20 were split in both this simulated map as well as the
21 enacted map, and it specifically tells us that this
22 simulated map splits exactly 15 of Pennsylvania's 67
23 counties, whereas the enacted map splits 28 of
24 Pennsylvania's 67 counties. So, clearly, the enacted
25 map splits significantly more counties.

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1   Q.   And how about the next row, Average
2 Reock Compactness Score?
3   A.   It's the same calculation of
4 Reock Compactness as before, and all this really
5 tells us is that the simulated map in creating a
6 Reock Compactness score of .396, clearly, the
7 simulated map is very significantly more
8 geographically compact than the enacted map, which
9 has an average Reock Compactness score of .278.
10   Q.   And the next row, Average Popper-Polsby
11 Score?
12   A.   It just tells us exactly the same
13 thing, except using the Popper-Polsby measure. It
14 tells us that simulated maps' Popper-Polsby score of
15 .273 clearly indicates that this simulated map is
16 very significantly more geographically compact than
17 the enacted map, which had a Popper-Polsby score of
18 .164.
19   MR. JACOBSON: Petitioners move to
20   admit Exhibit Number 7 into evidence.
21   THE COURT: Any objection?
22   MS. HANGLEY: No objection.
23   MR. LEVINE: No.
24   MR. TABAS: No objection.
25   THE COURT: Petitioners' Exhibit 7

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1   is admitted without objection.
2   - - -
3   (Whereupon, Petitioners' Exhibit Number
4   7 was admitted into evidence.)
5   - - -
6 BY MR. JACOBSON:
7   Q.   Again, let's move now from this
8 particular map to the 500 maps you simulated in
9 Set Number 2.
10   MR. JACOBSON: If we could pull up
11   Petitioners' Exhibit 8, which is Figure 6 of
12   Dr. Chen's report.
13 BY MR. JACOBSON:
14   Q.   Again, very briefly, Dr. Chen, what do
15 the black circles on the figure represent?
16   A.   They're 500 black circles, and they
17 represent the 500 simulated plans here in Simulation
18 Set Number 2.
19   Q.   And the red star on that top right
20 corner of the figure?
21   A.   The red star at the top right
22 represents the Act 131 enacted plan.
23   Q.   And what about the horizontal axis that
24 goes from left to right on this chart?
25   A.   The horizontal axis tells us the number

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1   of counties that were split into multiple districts
2 in each one of these simulated maps as well as the
3 enacted map.
4   Q.   What does the data -- the data on the
5 horizontal axis reveal for this figure?
6   A.   The horizontal axis reveals that all of
7 the simulated maps split somewhere between 12 to as
8 many as 19 counties, with the vast majority of these
9 simulated plans here in Set Number 2 splitting
10 somewhere from 14 to about 17 counties. So that's
11 the normal range that we see here along this
12 horizontal axis.
13   Now, once again, we see that the
14 enacted plan split 28 counties. And clearly, that is
15 far more than necessary -- than would have been
16 necessary under this districting process following
17 traditional districting criteria and protecting 17
18 incumbents.
19   Q.   What does the vertical axis going from
20 bottom to top represent?
21   A.   That vertical axis tells us the number
22 of municipalities that were split in each simulated
23 plan as well as in the enacted plan.
24   Q.   And what does the data on that axis
25 depict on this chart?

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1   A.   The data reveal that the simulated
2 plans split from about 50 to as many as 66
3 municipalities; however, we see the red star at 68.
4 That tells us that the Act 131 plan splits 68
5 counties, and that reveals to us that the Act 131
6 enacted plan split more municipalities than every
7 single one, all 500, of these simulated plans.
8   Q.   As a whole, what can you conclude from
9 this particular chart?
10   A.   We're able to conclude from this chart
11 that the enacted plan subordinated the traditional
12 districting criteria of avoiding county splits and
13 avoiding municipal splits and the subordination of
14 those criteria was not somehow justified or explained
15 or warranted by an effort to protect 17 incumbents in
16 a nonpartisan manner.
17   To put that in layman's terms, an
18 effort to protect incumbents would not have justified
19 splitting up as many counties and as many
20 municipalities as we saw split up in the enacted
21 plan.
22   MR. JACOBSON: Petitioners move to
23   admit Exhibit Number 8 into evidence.
24   THE COURT: Any objection?
25   MS. HANGLEY: No.

55 (Pages 214 to 217)

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1   MR. LEVINE: No.
2   MR. TABAS: No.
3   THE COURT: Petitioners' Exhibit 8
4   is admitted without objection.
5   - - -
6   (Whereupon, Petitioners' Exhibit Number
7   8 was admitted into evidence.)
8   - - -
9   MR. JACOBSON: If we could pull up
10   now Petitioners' Exhibit 9, which is
11   Figure 7 from Dr. Chen's report.
12   BY MR. JACOBSON:
13   Q.   Dr. Chen, again, what do the black
14   circles represent on this chart?
15   A.   These 500 black circles represent the
16   500 simulated plans in Simulation Set 2.
17   Q.   And how about the red star on the
18   bottom left of this chart?
19   A.   Again, the red star represents the
20   enacted Act 131 Plan.
21   Q.   And what about the horizontal axis
22   going from left to right?
23   A.   In describing Simulation Set Number 2,
24   this horizontal axis represents the average Reock
25   score, the mean Reock score, of all of these

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1   simulated plans as well as the enacted plan.
2   Q.   And what does the data on the
3   horizontal axis reveal?
4   A.   The data reveal that the enacted
5   Act 131 Plan is significantly less compact, has a
6   significantly less Reock score than all 500 of the
7   simulated plans in Set 2. Those simulated plans have
8   a Reock score ranging from about .34 to about .42.
9   That's normal range of the vast majority of these
10   simulated plans.
11   Clearly, the enacted plans' Reock score
12   of a little under .28 is significantly and far below
13   all 500 of those simulated plans. So that tells us
14   that the enacted plan was far less geographically
15   compact than what would have emerged from a
16   districting process following traditional districting
17   criteria and protecting 17 incumbents in a
18   nonpartisan manner.
19   Q.   And, Dr. Chen, how about the vertical
20   axis?
21   A.   It tells us exactly the same thing,
22   just using this other measure of Popper-Polsby, but
23   substantively, it tells us the exact same thing. It
24   shows us that whether you use the Popper-Polsby or
25   the Reock measure, it's very clear that the

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1   Act 131 Plan was significantly less geographically
2   compact than all 500 of these simulated plans.
3   Q.   So as a whole, what can you conclude
4   from this particular chart?
5   A.   What this chart -- what this figure
6   illustrates to us very clearly is that the
7   Act 131 Plan significantly subordinated the
8   traditional districting criteria of geographic
9   compactness and that subordination of geographic
10   compactness of districts was not somehow justified or
11   necessitated or explained by a hypothetical effort to
12   protect 17 incumbents.
13   MR. JACOBSON: Petitioners move to
14   admit Exhibit Number 9 into evidence.
15   THE COURT: Any objection?
16   MS. HANGLEY: No objection.
17   MR. LEVINE: No.
18   MR. TABAS: No.
19   THE COURT: Petitioners' Exhibit 9
20   will be admitted without objection.
21   - - -
22   (Whereupon, Petitioners' Exhibit Number
23   9 was admitted into evidence.)
24   - - -
25   MR. JACOBSON: If we can pull up

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1   Petitioners' Exhibit 10, which is Figure 8
2   of Dr. Chen's report.
3   BY MR. JACOBSON:
4   Q.   Dr. Chen, what does this figure depict?
5   A.   Figure 8, Exhibit 10, depicts the
6   number of Republican districts in each one of the 500
7   simulated plans in Simulation Set Number 2. And,
8   again, I'm measuring the number of Republican
9   districts using the same measure that we've discussed
10   at length today, counting up the Republican and
11   Democratic votes in the 2008 and 2010 statewide
12   elections, and I'm comparing the 500 simulated plans
13   against the Act 131 enacted plan.
14   Q.   And did you use the same sort of
15   overlay process that you described before with
16   Simulation Set 1?
17   A.   Yes, sir, exactly the same. I
18   calculated the number of Republican and Democratic
19   districts in exactly the same way as we described
20   before.
21   Q.   What does the tallest bar on this chart
22   show?
23   A.   The tallest bar on this chart is right
24   at the number of 10. What that tells us is that
25   41.2 percent of the simulated plans in Set 2 created

56 (Pages 218 to 221)

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1   exactly 10 Republican districts.

2   So that's a plan with 10 Republican and

3   eight Democratic districts. That was the most common

4   outcome, occurring 41 percent of the time.

5   **Q.   And how about the other bars on the**

6   **chart?**

7   A.   We see that the vast majority, over

8   98 percent, of the simulated plans in this set create

9   somewhere from 8 to 11 Republican districts, and then

10   we see that there are a small percentage, under

11   1 percent, that create seven Republican districts,

12   and then 1 percent that creates 12 Republican

13   districts. But the vast majority of the simulations

14   here are either eight, nine, 10 or 11 Republican

15   districts.

16   **Q.   Do Republicans ever win 13 districts,**

17   **under your nonpartisan simulations?**

18   A.   No, sir, not a single one.

19   **Q.   What can you conclude, then, from this**

20   **figure?**

21   A.   Well, this figure shows us that the

22   Act 131 Plan's creation of a 13-5 Republican

23   advantage is clearly not an outcome that could

24   plausibly have emerged from a districting process

25   following traditional districting criteria in

223

1   addition to protecting 17 incumbents in a nonpartisan

2   manner.

3   Clearly, this figure shows us that a

4   13-5 outcome is not reflective of such a districting

5   process, in -- rather, the Act 131 Plan reflects

6   partisan intent as a predominant factor.

7   MR. JACOBSON: Petitioners move to

8   admit Exhibit 10 into evidence.

9   THE COURT: Any objection?

10   MR. TABAS: No, Your Honor.

11   MS. HANGLEY: No, Your Honor.

12   MR. LEVINE: No, Your Honor.

13   THE COURT: Petitioners' Exhibit 10

14   is admitted without objection.

15   - - -

16   (Whereupon, Petitioners' Exhibit Number

17   10 was admitted into evidence.)

18   - - -

19   MR. JACOBSON: If we can pull up now

20   Petitioners' Exhibit 11, which is Table 3 of

21   Dr. Chen's report.

22   BY MR. JACOBSON:

23   **Q.   What does this table depict?**

24   A.   This table is describing the 500 plans

25   in Simulation Set Number 2, and specifically, it's

224

1   telling us about the specific pair of incumbents that

2   was placed together in a single district within each

3   one of the 500 simulated plans.

4   So, again, I created 500 -- or the

5   computer created 500 different simulated plans, and

6   within each plan, a different pair of incumbents was

7   put together in one district because only 17 of the

8   19 incumbents could have been protected.

9   So this table is describing the pairs

10   of incumbents that arise across those 500 simulated

11   plans and how often each pair of incumbents arises

12   among those 500 simulated plans.

13   **Q.   Under your simulations in Set 2, what**

14   **made two incumbents more likely to be paired with**

15   **each other?**

16   A.   Well, here's what we generally know

17   when you apply traditional districting principles.

18   If you apply principles like geographic compactness

19   of districts, minimizing county splits, avoiding

20   municipal splits, in general, you are more likely to

21   pair two incumbents together if they are

22   geographically close to each other, if they reside in

23   the same county, or you're even more likely to pair

24   them together if they reside in the same city.

25   Those are the sorts of factors that

225

1   would cause two incumbents to be paired together when

2   you apply traditional districting principles.

3   **Q.   Now, if you could just walk us through,**

4   **what do the top two rows on this exhibit show?**

5   A.   The top two rows show the two pairs of

6   incumbents that are most likely to occur under the

7   500 simulated plans in Simulation Set Number 2.

8   So in the first row, we can see that

9   the specific pairing of Jim Gerlach and Pat Meehan is

10   a very common outcome. It happens 40.2 percent of

11   the time. 40.2 percent of those 500 simulated plans

12   have this outcome of pairing Gerlach and Meehan.

13   The second row is another pairing that

14   also occurs quite frequently. It's Bob Brady and

15   Pat Meehan. Those two representatives are paired

16   together -- those two incumbents were paired together

17   in 34.4 percent of the 500 simulated plans in

18   Simulation Set 2.

19   **Q.   Dr. Chen, who are the two incumbents**

20   **who are actually paired together in real life under**

21   **the enacted plan?**

22   A.   In the enacted plan, it was

23   Jason Altmire and Mark Critz who were paired

24   together.

25   **Q.   Why don't they appear anywhere in this**

57 (Pages 222 to 225)

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1 chart?
2   A.   Well, they don't appear on this chart
3 because in zero out of the 500 simulations were they
4 actually paired together in any of these simulated
5 plans, so that pairing just never occurred.
6   **Q.   And do you know the partisan**
7 **affiliations of Mark Critz and Jason Altmire at the**
8 **time of the drawing of these plans -- the enacted**
9 **plan?**
10   A.   I don't know that information.
11   **Q.   Do you know the partisan -- sorry --**
12 **the party of the two representatives on the top row**
13 **there, Jim Gerlach and Mark -- and Pat Meehan?**
14   **I'm sorry.**
15   A.   I don't know that information.
16   **Q.   Now, as a whole, what can you conclude**
17 **based on this table?**
18   A.   Well, what I can conclude from this
19 table is that the enacted map's pairing of
20 Jason Altmire and Mark Critz is an outcome that is
21 statistically unlikely to occur under a districting
22 process that, Number 1, follows traditional
23 districting criteria and, 2, protects 17 of 19
24 incumbents in a nonpartisan manner.
25   Now, when I look at the geographic

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1 locations of Jason Altmire and Mark Critz on the
2 actual map, which I displayed in Figure 1.A, it's
3 pretty clear why that happens, why that was the case.
4 Jason Altmire and Mark Critz are not geographically
5 close to one another. They don't live in the same
6 county, and they don't even live in adjacent
7 counties, and they obviously don't live in the same
8 municipality.
9   So it would have been very unlikely for
10 that particular pairing to occur under a simulated
11 districting process or under a districting process
12 following traditional principles and protecting
13 incumbents -- protecting 17 incumbents in a
14 nonpartisan manner.
15   Broadly, what we're able to conclude
16 here from Table 3 is that the specific decision to
17 protect -- to pair together Jason Altmire and
18 Mark Critz is a plan that is an outcome that is
19 statistically implausible under a districting process
20 drawn with adherence to nonpartisan traditional
21 districting principles and protecting 17 incumbents
22 in a nonpartisan manner.
23   MR. JACOBSON: Petitioners move to
24   admit Exhibit 11 into evidence.
25   THE COURT: Any objection?

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1   MS. HANGLEY: No objection.
2   MR. LEVINE: No objection.
3   THE COURT: Petitioners' Exhibit 11
4 is admitted without objection.
5   - - -
6   (Whereupon, Petitioners' Exhibit Number
7   11 was admitted into evidence.)
8   - - -
9   MR. JACOBSON: If we can look now at
10 Petitioners' Exhibit 12, which is Table 1 of
11 Dr. Chen's report.
12 BY MR. JACOBSON:
13   **Q.   Dr. Chen, what does this table depict?**
14   A.   This table describes various
15 characteristics of the enacted plan in
16 Column Number 1; and in the next column, it describes
17 those same characteristics of all the 500 plans in
18 Simulation Set Number 1; and in the final column, we
19 see those same characteristics with respect to the
20 500 plans in Simulation Set Number 2.
21   **Q.   And if you could just walk us through**
22 **the numbers, let's start with the row that says**
23 **Number of Country Splits.**
24   A.   So that's the third row from the top,
25 and this third row is telling us that the Act 131

229

1 enacted plans splits apart 28 of Pennsylvania's 67
2 counties.
3   We then go to the next column,
4 describing Simulation Set Number 1, and the data here
5 tells us that all 500 of the plans in Simulation Set
6 Number 1 split apart anywhere from 11 up to as many
7 16 counties -- 11 to 16 of Pennsylvania's 67 total
8 counties.
9   And then we go to the final column, and
10 we see that the 500 plans in Simulation Set Number 2
11 split apart anywhere from 12 to as many as 19
12 counties.
13   So, clearly, we can see that the
14 enacted plan split -- in splitting apart 28 counties,
15 splits apart far more than all 1,000 of these
16 simulated plans.
17   **Q.   And how about the next row,**
18 **Municipalities?**
19   A.   This is the fourth row, and in this
20 fourth row here in Table 1, we see that the enacted
21 plan splits apart 68 of Pennsylvania's
22 municipalities. We go to the next column, and we can
23 see that Simulation Set Number 1, the 500 plans in
24 Simulation Set Number 1, split apart anywhere from 40
25 to as many as 58 municipalities. And then we go to

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1 the final column, and we can see that the 500
2 simulated plans in Simulation Set 2 split apart
3 anywhere from 50 to as many as 66 municipalities.
4 **Q. Dr. Chen, it looks like the number of**
5 **counties split and the number of municipalities split**
6 **increases slightly from Set 1 to Set 2.**
7 **Why would that be?**
8 A. Well, it was because Simulation Set
9 Number 2 is intentionally trying to protect 17
10 incumbents, and when you intentionally try and
11 protect that many incumbents, particularly with the
12 unique geographic locations of those incumbents --
13 and that could vary, depending on the geographic
14 characteristics or the degree of noncompactness from
15 the previous decade's plan -- particularly since
16 you're trying to protect those 17 incumbents or
17 maximize the number of incumbents protected, there is
18 necessarily going to be a small degree of sacrifice
19 to traditional districting principles.
20 And that's what we see here on this
21 table, that as you intentionally protect 17
22 incumbents in a nonpartisan manner, you slightly
23 increase the number of counties that were split,
24 slightly increase the number of municipalities that
25 were split; and, in later rows, you can see that

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1 there's a slight decrease in the geographic
2 compactness of these plans in Set Number 2.
3 But here's the broader point: Even
4 with that slight increase in the number of counties
5 split and that slight increase in the number of
6 municipalities split, the number of municipalities
7 split, even in the very worst of these 1,000
8 simulated plans, doesn't come close to matching, for
9 example, the enacted plan's splitting of 28 counties.
10 In other words, what we're seeing here
11 on this table is that the enacted Act 131 Plan is
12 still doing worse in terms of county splits, as well
13 as municipal splits, than every single one of the
14 simulated plans, including the plans that
15 intentionally have protected 17 incumbents.
16 **Q. And you alluded to it a second ago,**
17 **the -- skipping down to the two rows that say Average**
18 **Reock Score and Average Popper-Polsby Score.**
19 **Can you just walk us through those?**
20 A. Yes. So these are the second and third
21 rows from the bottom on Table 2 here in Exhibit 12,
22 and those rows tell us the Popper-Polsby as well as
23 the Reock scores of the Act 131 Plan as well as the
24 1,000 simulated plans.
25 So we can see on the Reock row, the

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1 third from the bottom, that the Act 131 Plan has a
2 Reock score of .278. And moving over to the next two
3 columns, we can see that Simulation Set Number 1 has
4 a significantly higher range of Reock scores, from
5 .358 to .470, and Simulation Set Number 2 also has a
6 significantly higher range of Reock scores, from .328
7 up to .426.
8 That tells us that the enacted plan is
9 significantly less compact on the Reock score than
10 both sets -- than every simulated plan in both sets
11 of simulations.
12 We see the exact same thing on the next
13 row for Popper-Polsby. Just using a slightly
14 different measure of geographic compactness, we see
15 that the enacted plan is significantly less compact
16 than all 500 plans in each of the two sets of
17 simulations.
18 **Q. And how about the final row, the row**
19 **that reads Republican Districts? Can you walk us**
20 **through that row?**
21 A. Those are numbers that we have already
22 seen earlier today, but here, it just lays out --
23 this final row here in Table 1 just lays out the
24 actual number of Republican districts, again using
25 the same 2008 to 2010 statewide election measure that

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1 I described earlier today, and this final row tells
2 us that the enacted plan creates 13 Republican
3 districts. There are 13 Republican-leaning districts
4 in the enacted plan.
5 Then we go to the next column, and we
6 can see that all of the 500 simulations in Set
7 Number 1 create from 7 to 10 Republican districts,
8 with the vast majority at either eight or nine
9 Republican districts. And then we go to the final
10 column, and we can see that the 500 simulations
11 create somewhere from 7 to 12 Republican districts,
12 with the vast majority creating either eight, nine,
13 10 or 11 Republican districts.
14 So that just shows us in numerical
15 format here what we've already seen earlier today,
16 which -- which is that the enacted plan's creation of
17 13 Republican districts is an extreme statistical
18 outlier and that extreme partisan outcome of a 13-5
19 plan is an outcome that is never observed in a single
20 one of the 1,000 simulated plans that we have looked
21 at today.
22 **Q. Now, it looks like the number of**
23 **Republican districts increases slightly from Set 1 to**
24 **Set 2.**
25 **Can you explain why that would be?**

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1   A.   Yeah, it does clearly increase by a
2 very slight amount, and that's because Simulation Set
3 Number 2 intentionally protects as many incumbents
4 from the old -- from the previous decade's map as
5 possible.
6   Now, what do we actually know about the
7 incumbents from the previous map? We know that there
8 were 19 incumbents, and we also know that 12 of them
9 were Republicans. So because there were far more
10 Republicans -- Republican incumbents on the map from
11 the previous decade, that tells us that any effort to
12 draw a map that intentionally protects as many of
13 those incumbents as possible is obviously going to
14 have somewhat of a Republican bias or a Republican
15 skew when it comes to drawing maps that intentionally
16 protect those incumbents.
17   That's just a very fancy way of saying
18 that because of the partisan skew of the previous
19 decade's map, it's just natural to expect that an
20 effort to protect incumbents is going to favor
21 Republicans.
22   **Q.   And I want you to assume for the sake**
23 **of a hypothetical that the prior districting map**
24 **preceding Act 31 was gerrymandered to favor**
25 **Republicans.**

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1   **How would that affect the number of**
2 **Republican districts expected under Simulation Set 2?**
3   A.   Okay.
4   Under the hypothetical that you've set
5 up, where I'm supposing that the previous decade's
6 map was gerrymandering in favor of Republicans, then,
7 obviously, any effort to protect the incumbents
8 arising from that previous partisan gerrymandered map
9 would, in effect, be an effort towards -- would be a
10 measure towards locking in, to some degree, the
11 partisan bias of that previous -- that previously
12 gerrymandered map.
13   In other words, if you already start
14 with the previously gerrymandered map and then you
15 take the incumbents that arise from that
16 gerrymandered map and you try to protect those same
17 incumbents in drawing a new map, obviously, there's
18 going to be some degree of bias towards whatever the
19 partisan tilt or the partisan gerrymandered direction
20 of that previous map was.
21   **Q.   Now, you said there could be some**
22 **baked-in bias based on the prior map.**
23   **Assuming that did exist, does that**
24 **explain the 13-5 outcome that Pennsylvania has seen**
25 **under the current districting plan since 2012?**

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1   A.   No, and that's what's striking --
2 that's what's so striking about the results in
3 Simulation Set Number 2, is that I did not analyze
4 anything beyond the fact that there were clearly
5 12 Republicans, that there was clearly several more
6 Republicans among those 19 incumbents than Democrat
7 incumbents, but the simulations also ignore that
8 partisan data. The simulations -- the simulation
9 algorithm protected incumbents in a nonpartisan
10 manner.
11   What's so striking is that even with a
12 maximal protection of incumbents, protecting 17
13 incumbents, the maximum number of incumbents to be
14 protected, that even then, when you protect the
15 maximum number of incumbents in the simulation
16 algorithm, you still never, not a single time,
17 explain or achieve a 13-5 outcome.
18   So what this is telling us, with
19 extremely high statistical certainty, is that even an
20 effort to protect all of the incumbents possible,
21 that is, 17 out of nine incumbents from the previous
22 decade's plan -- that even conducting that incumbency
23 protection effort in a nonpartisan manner -- even
24 such an extreme incumbency protection effort could
25 not plausibly explain the extreme 13-5 Republican

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1 advantage on the enacted map.
2   MR. JACOBSON: Petitioners move to
3 admit Exhibit 12 into evidence.
4   THE COURT: Any objection?
5   MS. HANGLEY: No objection.
6   MR. TABAS: No objection.
7   THE COURT: Petitioners' Exhibit 12
8 is admitted without objection.
9   - - -
10   (Whereupon, Petitioners' Exhibit Number
11   12 was admitted into evidence.)
12   - - -
13 BY MR. JACOBSON:
14   **Q.   Dr. Chen, did you run any analysis of**
15 **the racial characteristics of your thousand simulated**
16 **plans?**
17   A.   Well, after I had finished conducting
18 the 500 simulated plans in Set Number 1 and the 500
19 simulated plans in Set Number 2 -- after my computer
20 had completely finished simulating those plans, after
21 those maps had already been produced, I then went
22 back and I analyzed a subset of those plans, of those
23 1,000 plans.
24   **Q.   And we'll get to that subset in a**
25 **moment.**

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1   MR. JACOBSON: But if we could pull
2   up Petitioners' Exhibit 13, which is from
3   Appendix A of Dr. Chen's report.
4   BY MR. JACOBSON:
5   Q.   Dr. Chen, what does this table depict?
6   A.   This table in Appendix A in Exhibit 13
7   tells us about the racial and ethnic composition --
8   using U.S. Census data, the racial and ethnic
9   composition of the Congressional districts in the
10   current enacted Act 131 Plan.
11   Q.   And what does the column that says
12   Total Voting-Age Population, the second column --
13   what does that mean?
14   A.   That column tells us the total
15   voting-age population of each of the 18 districts in
16   the current enacted plan. And what I mean by
17   "voting-age population" is what districting scholars
18   routinely mean by that term, which is just a total
19   population, age 18 or over. That's what we call
20   "voting-age population."
21   Q.   And moving over two columns to the
22   fourth column, the column that says, Any Part
23   African-American Proportion of VAP.
24   What does that column show?
25   A.   That column tells us the percentage of

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1   the voting-age population within each district that
2   is any part African-American.
3   What I mean by "any part
4   African-American" includes both individuals who
5   identify as African-American of one race only as well
6   as multiracial African-Americans. It also includes
7   African-Americans who have identified as Hispanic.
8   Q.   And looking at the data in that column,
9   the Any Part African-American Proportion column, what
10   do you see?
11   A.   Well, when we look at this column, that
12   Any Part African-American Proportion of VAP column,
13   what we can see here is that there is one district
14   that has a majority African-American proportion of
15   the VAP.
16   Q.   And what district is that?
17   A.   That is District Number 2. It contains
18   an African-American proportion of 56.8 percent.
19   Q.   And how about District Number 1? What
20   is it the African-American proportion in that
21   district?
22   A.   District Number 1 has an
23   African-American proportion of 32.88 percent.
24   Q.   And still in District Number 1, the
25   far-right column, Non-Hispanic White Proportion, what

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1   is the white percentage of the population in
2   District 1?
3   A.   District Number 1 has a white
4   proportion of 46.9 percent.
5   MR. JACOBSON: Petitioners move to
6   admit Exhibit 13 into evidence.
7   THE COURT: Any objection?
8   MS. HANGLEY: No.
9   MR. LEVINE: No.
10   MR. TABAS: No.
11   MR. JACOBSON: If we could pull up
12   Petitioners' Exhibit 14.
13   THE COURT: Exhibit 13 is admitted
14   without objection.
15   MR. JACOBSON: Apologies,
16   Your Honor.
17   - - -
18   (Whereupon, Petitioners' Exhibit Number
19   13 was admitted into evidence.)
20   - - -
21   MR. JACOBSON: If we could pull up
22   Petitioners' Exhibit 14. That's Exhibit --
23   from Appendix B of Dr. Chen's report.
24   BY MR. JACOBSON:
25   Q.   Dr. Chen, what does this table depict?

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1   A.   This table depicts the racial and
2   ethnic composition of Congressional districts in the
3   previous decade's plan.
4   Q.   And when you say "the previous decade's
5   plan," you're referring -- I believe it says there to
6   the 2002 Congressional Plan; is that right?
7   A.   Yes, sir, for the 108th Congress.
8   Q.   Now, if we look at District Number 1,
9   what was the African-American proportion of the
10   population in District 1 under the 2002 Congressional
11   Plan?
12   A.   District 1 has an African-American
13   proportion of 43.9 percent.
14   MR. JACOBSON: Thank you.
15   Petitioners move to admit Exhibit 14
16   into evidence.
17   THE COURT: Any objection?
18   MS. HANGLEY: No objection.
19   MR. LEVINE: No objection.
20   MR. TABAS: No objection.
21   THE COURT: Petitioners' Exhibit 14
22   is admitted without objection.
23   - - -
24   (Whereupon, Petitioners' Exhibit Number
25

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1   14 was admitted into evidence.)

2   - - -

3 BY MR. JACOBSON:

4   **Q.   Turning back now to Petitioners' 13,**

5 **which we were looking at a moment ago. And this is**

6 **the exhibit we were just looking at that depicts the**

7 **proportion of -- the demographics under the current**

8 **plan.**

9   **Dr. Chen, you noted that the**

10 **African-American proportion of the VAP in District 2**

11 **is 56.8 percent under the current plan.**

12   **How did you incorporate that into your**

13 **analysis?**

14   A.   Well, as I said, I finished conducting

15 the two sets of simulations on my computer, and so my

16 computer had already produced 1,000 different plans.

17 I then went back, and I didn't change anything about

18 the algorithm, and I didn't rerun any plans. I

19 simply identified a subset of those 1,000 simulated

20 plans.

21   In Simulation Sets 1 and 2, I simply

22 identified a subset of those plans that contained at

23 least one district with any part African-American

24 proportion of the voting-age population of

25 56.8 percent or higher. I identified that subset of

243

1 plans.

2   **Q.   And, Dr. Chen, are you taking a**

3 **position that 56.8 percent African-American**

4 **population is a minimum threshold that a district**

5 **needs to create a majority-minority district under**

6 **the Voting Rights Act?**

7   A.   No, sir, not at all. That would be a

8 legal question beyond my expertise as a political

9 scientist.

10   MR. JACOBSON: If we could pull up

11   Petitioners' Exhibit 15, which is Figure 10

12   from Dr. Chen's report.

13 BY MR. JACOBSON:

14   **Q.   Dr. Chen, what does the left side of**

15 **this figure depict?**

16   A.   The left side of this figure -- you're

17 in Figure 10 in Exhibit 15 -- depicts the number of

18 Republican districts among only the subset of those

19 simulated plans in Set Number 1 that contain a

20 district with an African-American voting-age

21 population of over 56.8 percent.

22   So that subset includes only 205 of the

23 total 500 simulated plans in Set Number 1, and this

24 figure tells us about the number of Republican

25 districts in each one of those 205 simulated plans.

244

1   **Q.   And what does the data on this figure**

2 **on the left -- on the left of this exhibit show?**

3   A.   The figure on the left shows us that

4 among the subset of plans -- of those 205 plans that

5 contain such a district with an African-American VAP

6 over 56.8 percent, that the vast majority of those

7 plans cap either eight or nine Republican districts.

8   In fact, the majority of them are at

9 nine Republican districts. About one-third of them

10 are at eight Republican districts. So that comprises

11 about 95 -- a little over 95 percent of the total,

12 and the remaining 4 percent of the plans contain

13 either seven or up to 10 Republican districts. But

14 the vast majority are either eight or nine Republican

15 district plans.

16   **Q.   And turning now to the figure on the**

17 **right side of this exhibit, what is that figure**

18 **depicting?**

19   A.   The figure on the right tells us the

20 same subset, except with respect to Simulation Set

21 Number 2. So these are the 54 plans in

22 Simulation Set 2 that also contain one district with

23 an African-American voting-age population of over

24 56.8 percent. And this figure shows us that the vast

25 majority of those plans contain anywhere from

245

1 seven -- anywhere from eight, nine, 10, to 11

2 Republican districts, with under 2 percent of them

3 having 12 Republican districts.

4   **Q.   Dr. Chen, as a whole, what can you**

5 **conclude from these combined figures on**

6 **Petitioners' 15?**

7   A.   Well, as a whole, what we're looking at

8 here in front of us is a description of the 259

9 simulated plans among the entire set of simulated

10 plans that contain a district with an

11 African-American VAP of over 56.8 percent, and what

12 we're able to conclude from these two figures is that

13 even the hypothetical effort to produce a certain

14 racial threshold of having one district of over a

15 56.8 percent African-American voting-age

16 population -- even that hypothetical racial goal

17 would not have justified or explained or necessitated

18 the creation of an extreme 13-5 Republican outcome, a

19 Republican advantage in the enacted map.

20   In other words, the 13-5 Republican

21 advantage of the enacted map is an outcome that is

22 not plausible, even if one is only interested in

23 plans that create one district with over 56.8 percent

24 African-American voting-age population.

25   MR. JACOBSON: Petitioners move to

246

1   admit Exhibit 15 into evidence.
2   THE COURT: Any objection?
3   MS. HANGLEY: No.
4   MR. LEVINE: No.
5   MR. TABAS: No.
6   THE COURT: Petitioners' Exhibit 15
7   is admitted without objection.
8   - - -
9   (Whereupon, Petitioners' Exhibit Number
10   15 was admitted into evidence.)
11   - - -
12   MR. JACOBSON: If we could pull up
13   now Petitioners' Exhibit 21.
14   BY MR. JACOBSON:
15   Q.   Dr. Chen, what does this exhibit show?
16   A.   This Exhibit Number 21 tells us about
17   the subset within Simulation Set Number 1, the 231
18   plans within Simulation Set Number 1 that contain one
19   district with over a 50 percent African-American
20   voting-age population.
21   And what we can see here from this
22   figure is that the vast majority of these plans -- of
23   this subset of plans containing a district with over
24   50 percent African-American voting-age population --
25   the vast majority of these plans, once again, create

247

1   either eight or nine Republican districts with a very
2   small percentage at 7 and a very small percentage at
3   10. But the vast majority are either eight or nine
4   Republican districts.
5   MR. JACOBSON: Petitioners move to
6   admit Exhibit 21 into evidence.
7   THE COURT: Any objection?
8   MS. HANGLEY: No.
9   MR. TABAS: No.
10   MR. LEWIS: Legislative Respondents
11   object on the grounds that this was not
12   included within Dr. Chen's report, nor was
13   it produced during the discovery period.
14   THE COURT: Response?
15   MR. JACOBSON: Your Honor, this
16   exhibit was turned over to the
17   Legislative Respondents on Friday as part of
18   the exhibit exchange. It was calculated
19   using data that was turned over with
20   Dr. Chen's report on November 27th, I
21   believe was the date. It's an exhibit that
22   could be easily replicated using that data
23   that we turned over, and it's directly
24   responsive to a criticism of Dr. Chen's
25   report that was levied in some of

248

1   Legislative Respondents' experts' reports.
2   MR. LEWIS: Your Honor, our experts
3   had no chance to opine on these charts in
4   their responsive reports. That's why we
5   require these exhibits and charts to be
6   turned over with the reports.
7   MR. JACOBSON: Your Honor, if I may.
8   If their experts wanted to respond to these
9   reports, they have all of the data needed
10   to. It was turned over last Friday --
11   this -- I mean this exhibit was turned over
12   last Friday. The data itself was turned
13   over on the 27th of November.
14   THE COURT: Was the exhibit
15   identified in your pretrial memorandum?
16   MR. JACOBSON: Yes, it was.
17   THE COURT: Did you lodge an
18   objection -- a motion in limine to preclude
19   it from not being stated in the pretrial
20   memorandum -- or it was disclosed in the
21   pretrial memorandum.
22   Did you file -- or one of your
23   objections address this particular exhibit
24   because it wasn't previously identified?
25   THE WITNESS: No, I don't believe we

249

1   did.
2   THE COURT: Okay. I'm going to
3   overrule the objection, and I'm going to
4   admit the exhibit.
5   MR. JACOBSON: Thank you,
6   Your Honor.
7   - - -
8   (Whereupon, Petitioners' Exhibit Number
9   21 was admitted into evidence.)
10   - - -
11   MR. JACOBSON: If we could pull up
12   now Petitioners' Exhibit 23.
13   BY MR. JACOBSON:
14   Q.   Dr. Chen, what does this exhibit
15   depict?
16   A.   Okay.
17   The Exhibit Number 23 describes the 300
18   simulated plans within Simulation Set Number 2 that
19   contain one district -- at least one district with an
20   African-American voting-age population of over
21   50 percent.
22   And so this figure is telling us the
23   number of Republican districts within each one of
24   this subset of the simulated plans in Simulation Set
25   Number 2. And we can see from this figure that the

63 (Pages 246 to 249)

250

1 vast majority of this subset of simulations that
2 contain a majority African-American VAP district also
3 creates anywhere from eight, nine, 10 to 11
4 Republican districts. They're -- under 1 percent of
5 them create 12 Republican districts.
6 　　　　So what this is generally telling us is
7 that the entire range of such simulated plans is
8 eight to 12 with a vast majority of them from eight
9 to 11. And these are all simulated plans that, in
10 Simulation Set Number 2, create one district with an
11 African-American voting-age population of over
12 50 percent.
13 　　　　Q.　　And I believe you said this number a
14 **moment ago, but how many of your 500 simulations in**
15 **Set Number 2 produce one district with an**
16 **African-American VAP over 50 percent?**
17 　　　　A.　　There are 300 such plans. So 300 out
18 of the 500 simulations create such a district.
19 　　　　MR. JACOBSON: Petitioners move to
20 admit Exhibit 23 into evidence.
21 　　　　THE COURT: Any objection?
22 　　　　MR. LEWIS: Your Honor, we raise the
23 same objection as to the prior exhibit. It
24 was not turned over --
25 　　　　THE COURT: And, again, Counsel,

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1 the -- the data and opinion were disclosed
2 in the expert report?
3 　　　　MR. JACOBSON: The data was
4 disclosed the day we turned over the expert
5 reports. The -- this particular exhibit was
6 disclosed when we exchanged pretrial
7 exhibits in the pretrial memorandum, yes.
8 　　　　THE COURT: Objection overruled.
9 We'll admit Petitioners' Exhibit
10 Number 23.
11 　　　　- - -
12 　　　　(Whereupon, Petitioners' Exhibit Number
13 　　　　23 was admitted into evidence.)
14 　　　　- - -
15 BY MR. JACOBSON:
16 　　　　Q.　　Dr. Chen, I'd like to return now to a
17 **concept you mentioned at the beginning of your**
18 **testimony called "political geography."**
19 　　　　**Can you refresh us what that term**
20 **means, as you use it?**
21 　　　　A.　　Yes, sir. As applied in my research,
22 political geography means that I study the geographic
23 patterns of the residential locations of Democrats
24 and Republicans, as well as the geographic patterns
25 of their political behavior. So I study how

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1 Democrats or Republicans are spaced out across
2 geography and what implications that has for
3 legislative redistricting, what implications that has
4 on the Republican and Democratic control of state
5 legislatures as well as Congressional delegations.
6 　　　　Q.　　And can political geography create a
7 **natural advantage for one party over the other in**
8 **terms of winning Congressional seats?**
9 　　　　A.　　Yes, sir. That's certainly very
10 hypothetically possible.
11 　　　　Q.　　And can you give me an example of a
12 **common type of natural advantage that you have found**
13 **in your research -- academic research?**
14 　　　　A.　　Well, in my academic research, I've
15 written at length about this phenomenon in Florida.
16 I've described, for example, how Democratic voters
17 are far more geographically clustered in urban areas
18 of Florida -- Miami, Tampa, St. Petersburg and
19 Jacksonville -- than Republican voters are.
20 Republicans are much more geographically spaced out
21 in rural parts of Florida.
22 　　　　And I specifically have analyzed in my
23 academic research what implications this has for
24 legislative districting in Florida, and I have found
25 that in Florida, this certainly causes a little bit

253

1 of a Republican bump or a Republican advantage in
2 control over districts or control over legislative
3 seats in the state legislature.
4 　　　　Q.　　And would your simulations capture or
5 **reflect any natural advantage that one party has**
6 **based on political geography?**
7 　　　　A.　　Yes, sir, absolutely. That is the very
8 point that goes to the very core of why I conduct
9 simulations. I conduct simulated plans using the
10 very same Census geography, the very same demographic
11 data, as well as the very same election data that
12 legislators might use in constructing enacted plans.
13 　　　　So I start with these very same
14 geographic patterns, these same voter patterns, these
15 very same political geography when my computer
16 conducts simulated plans in order to account for or
17 bake in any sort of natural geographic advantage that
18 one party might have in districting because of voter
19 geography.
20 　　　　So that goes to the very heart of why I
21 conduct these simulations.
22 　　　　MR. JACOBSON: Now, if we could pull
23 up, again, Petitioners' Exhibit 3 --
24 BY MR. JACOBSON:
25 　　　　Q.　　-- which was Figure 1 from your report.

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1   **Dr. Chen, could you tell us -- walk us**
2   **through how would political geography -- how would**
3   **that play a role -- or how does that play a role in**
4   **the partisan breakdown of this particular simulation**
5   **plan?**
6   A.   Sure.
7   So let's go back to the first row in
8   this figure. This is Figure 1, Exhibit 3.
9   And as you and I described some time --
10   you and I discussed some time before, this is a
11   simulation plan that contains exactly nine Republican
12   districts.
13   Now, what number does that represent in
14   broader geographic context? What we know about --
15   about Pennsylvania's voters is that in 2008 and 2010
16   statewide elections -- in those elections, Democrats
17   won a slight majority of the votes. So in spite of
18   winning a majority of the votes -- in other words,
19   Republicans won a minority of the statewide votes --
20   Republicans on this particular map, this particular
21   simulated map in front of us, were still able to win
22   exactly 50 percent of the districts.
23   So how is this possible? How were
24   Republicans able to win 50 percent of the districts
25   on this simulated map, which I conducted with no

255

1   partisan intent or no partisan data fed to the
2   computer, in spite of winning only a minority of
3   the -- of the votes in Pennsylvania statewide in
4   those elections? And the answer is because of
5   political geography.
6   Republicans clearly enjoy a small
7   natural geographic advantage in Pennsylvania because
8   of the way that Democratic voters are clustered and
9   Republican voters are a bit more spread out across
10   different geographies of Pennsylvania. And that is
11   reflected in these simulation results.
12   We see in this map a good illustration
13   of that, where Republicans are able to win 50 percent
14   of the districts despite not having 50 percent of the
15   statewide vote.
16   Q.   **And just from the results we've seen so**
17   **far from across your 1,000 simulations, what can you**
18   **say about the role of that slight natural advantage,**
19   **the role of political geography in general in**
20   **producing the 13-5 Republican advantage that we've**
21   **seen under the enacted plan?**
22   A.   Well, we have seen many different
23   charts here today analyzing those 1,000 simulated
24   plans. And what I'm able to statistically conclude
25   with extremely high certainty is that, certainly,

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1   there is a small geographic advantage for the
2   Republicans, but it does not come close to explaining
3   the extreme 13-5 Republican advantage in the enacted
4   map.
5   Never, after accounting for
6   Pennsylvania's political geography, as well as its
7   demographic geography through the use of the
8   simulated plans and its reliance on Pennsylvania's
9   underlying Census geographies, and looking at the
10   various political geographic patterns in
11   Pennsylvania -- after accounting for those in the
12   simulations, it's very clear that voter geography in
13   Pennsylvania does not explain the extreme partisan
14   advantage afforded to the Republicans in the 13-5
15   enacted map.
16   That is an outcome that goes far and
17   beyond -- that goes far beyond the natural geographic
18   advantage that Republicans enjoy because of their
19   voter geography. So those are two completely
20   separate things.
21   And what the simulation results show us
22   is that the enacted 13-5 -- the enacted plan's 13-5
23   Republican advantage cannot be explained by voter
24   geography.
25   Q.   **And on this -- on the same question on**

257

1   **the role of political geography, I'd like to talk**
2   **about something called the "mean/median gap."**
3   **What is that?**
4   A.   The mean/median gap is a commonly used
5   metric -- or measurement commonly used by political
6   scientists to look at the partisan bias of a
7   districting plan. And it's commonly used by
8   political scientists to measure the partisan skew of
9   voters within a districting plan.
10   Q.   **And how do you calculate the mean for**
11   **the purpose of this calculation?**
12   A.   So what the mean refers to is the mean
13   or the average vote share for a party. And for the
14   sake of explanation, we'll just talk about the
15   Republican vote share.
16   So what the mean refers to is the
17   average Republican district level vote share in any
18   particular districting map. It could be the enacted
19   map or it could be any one of the simulated maps.
20   The mean refers to the average Republican district
21   level vote share in that map.
22   Q.   **And how about the median? What does**
23   **the median refer to?**
24   A.   The median, to put it very simply, is
25   basically telling us what is the Republican's

65 (Pages 254 to 257)

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1 performance in their middle best district. So the
2 way you actually calculate a median is you take the
3 18 districts in Pennsylvania's enacted map and you
4 line them up from least to most Republican -- from
5 lowest to highest Republican vote share, and then you
6 take the middle best district.
7   That is essentially what the median is.
8 It's telling you how the Republicans do in their
9 middle best district.
10   **Q.   And, conceptually, what does the median**
11 **district represent?**
12   A.   So, conceptually, what the median
13 district represents is this is the district that
14 either party has to win if it wants to win a majority
15 of Pennsylvania's Congressional delegation. The
16 median is the middle best for both parties.
17   So if you want to win a majority,
18 you've got to win that middle best or that median
19 district.
20   **Q.   So how do you calculate the mean/median**
21 **gap?**
22   A.   Well, we've talked about how to
23 calculate the mean Republican district level vote
24 share, and we've talked about how to calculate the
25 median district level Republican vote share.

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1   What the mean/median is is pretty
2 simple. You just take the difference between the
3 mean and the median. You subtract one from the
4 other, and that difference or that gap is what we
5 refer to as the mean/median difference or the
6 mean/median gap.
7   **Q.   So if the Republican mean vote share is**
8 **lower than their median vote share, what does that**
9 **signify for Republicans?**
10   A.   If the Republican mean vote share is
11 lower than the median Republican district level vote
12 share, then that tells us that Republican votes on
13 this particular map are spread out in a very
14 advantageous manner so as to allow -- in a way that
15 would allow the Republicans to more easily win that
16 median district.
17   That's just another way of saying that
18 it is a very advantageous skew of the districts -- of
19 voters across those districts. It allows the
20 Republicans to win that middle best district more
21 easily than if the mean were equal to the median.
22   **Q.   And on the other side of that coin, the**
23 **flip side of the coin, if the Democratic mean vote**
24 **share across the state is higher than the Democratic**
25 **vote share in their median district, what does that**

260

1 **signify?**
2   A.   If the -- if that's the case, then what
3 that tells us is that Democratic voters are packed
4 into a minority of the districts. It tells us that
5 Democratic voters are skewed across the districts in
6 a way that they are very packed into a minority of
7 the districts, which they win by probably more
8 comfortable margins.
9   But then it is much harder for
10 Democrats under that scenario to be able to win the
11 median district. So, in effect, what that means is
12 it's much harder for the Democrats to be able to win
13 a majority of the Congressional delegation.
14   MR. JACOBSON: And if we pull up
15 Petitioners' Exhibit 16, which is Figure 5
16 of Dr. Chen's report.
17 BY MR. JACOBSON:
18   **Q.   Dr. Chen, did you calculate the**
19 **mean/median gap for Pennsylvania under the enacted**
20 **plan?**
21   A.   Yes, sir, I did.
22   **Q.   And is it that right star we see -- the**
23 **red star we see on the bottom right of this figure?**
24   A.   Yes, sir, that is what that is.
25   So I calculated the mean/median

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1 difference by taking the median Republican vote share
2 in the enacted plans' districts and subtracting the
3 mean Republican vote share across those 18 districts.
4 And I found the enacted plan has a mean/median gap of
5 a little bit under 6 percent. In other words, the
6 median Republican vote share, district level vote
7 share, is very significantly higher than the mean
8 district level Republican vote share.
9   **Q.   And can political geography account for**
10 **a mean/median gap that favors Republicans?**
11   A.   Oh, yes, in theory, for the same
12 reasons that you and I just described -- just
13 discussed some time ago, that, certainly, political
14 geography can cause one party's voters to be skewed
15 in geographic space in ways that lead to a bit of a
16 skew when it comes to district level vote shares for
17 a particular party.
18   **Q.   Did you study whether the mean/median**
19 **gap that you found for Pennsylvania is caused by**
20 **natural political geography?**
21   A.   Yes, sir, I did. I studied that by
22 looking at the mean/median gaps that would have
23 emerged from districting plans arising in Simulation
24 Sets 1 and 2, in other words, simulations that arise
25 where the districting process simply consists of

66 (Pages 258 to 261)

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1 traditional districting criteria in Set 1 and, in
2 Set 2, traditional districting criteria plus the
3 incumbents -- the protection of incumbents in a
4 nonpartisan manner.
5   **Q.   And what did you find in Exhibit 16 --**
6 **Petitioners' Exhibit 16?**
7   A.   In Exhibit 16, which is Figure 5 from
8 my report -- what I show on this figure is the
9 mean/median gap of not only the enacted plan but,
10 also, the mean/median gap of all 500 of the simulated
11 plans in Simulation Set Number 1. And what we're
12 able to see here along the horizontal access is that
13 mean/median calculation.
14   So in the red star on the lower right,
15 you can see the mean/median gap of the enacted plan.
16 It's about 6 percent of the mean/median gap, meaning
17 that the Republicans' median district is
18 significantly higher in Republican vote share than
19 its mean district-level vote share.
20   So that's what I see for the enacted
21 plan. And, once again, the 500 black circles on this
22 figure represent the 500 simulated plans in
23 Simulation Set Number 1. And we can see here that
24 those 500 simulations produce a mean/median gap
25 ranging from a little over 0 percent to the vast

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1 majority of them being under 3 percent.
2   So that's a normal range, and there are
3 a few that go all the way up to 4 percent. But the
4 point is that the vast majority of them are from
5 about zero to 3 percent, with no higher -- with none
6 of them higher than 4 percent.
7   **Q.   And, Dr. Chen, you mentioned that the**
8 **black dots, which are your 500 simulated plans in**
9 **Set Number 1 -- it looks from this chart like they're**
10 **mostly in the 1 to 2 percent range.**
11   **What does that tell you?**
12   A.   That tells us that there is some
13 natural geographic bias in favor of the
14 Republicans -- a small amount of natural geographic
15 bias in favor of the Republicans in terms of the
16 mean/median skew in Pennsylvania.
17   When you have a districting process
18 that simply follows traditional districting criteria,
19 you're going to naturally end up with simulated
20 plan -- you're just going to naturally end up with
21 plans that have a small mean/median gap in the range
22 of about 1 to 2 percent, sometimes up to 3 and very
23 occasionally up to 4 percent.
24   But, certainly, we never see a single
25 plan all the way up to 6 percent.

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1   **Q.   So, Dr. Chen, as a whole, what can you**
2 **conclude from this chart?**
3   A.   We're able to conclude that the
4 partisan skew created by the enacted plan's 6 percent
5 mean/median gap is not an outcome that could
6 plausibly have emerged from Pennsylvania's natural
7 political geography. It is not an outcome that would
8 have emerged from the combination of Pennsylvania's
9 political geography and with the application of
10 traditional districting principles.
11   This chart clearly shows us that the
12 Act 131 enacted plan's partisan skew, it's 6 percent
13 mean/median gap, is a very statistically extreme
14 outcome that cannot be explained by voter geography
15 or by traditional districting principles alone.
16   So that's what I'm able to conclude
17 from this figure.
18   MR. JACOBSON: The Petitioners move
19 to admit Exhibit 16 into the evidence.
20   THE COURT: Any objection?
21   MS. HANGLEY: No objection.
22   MR. TABAS: No objection.
23   MR. LEVINE: No objection.
24   THE COURT: Petitioners' Exhibit 16
25 is admitted without objection.

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1   - - -
2   (Whereupon, Petitioners' Exhibit Number
3   16 was admitted into evidence.)
4   - - -
5   MR. JACOBSON: If we could pull up
6 Petitioners' Exhibit 17, which is Figure 9
7 of Dr. Chen's report.
8 BY MR. JACOBSON:
9   **Q.   Dr. Chen, what does this figure depict?**
10   A.   This figure shows us the mean/median
11 calculations, except this time, we're going to look
12 at Simulation Set Number 2 here in Figure 9,
13 Exhibit 17.
14   So this is the same calculation as
15 before on simulation -- but on Simulation Set
16 Number 2. So, once again, we see a red star at the
17 lower right, and that represents the Act 131 -- 131
18 plan's mean/median gap of about 6 percent. And then
19 we see, once again, 500 dark circles -- black circles
20 here representing the 500 simulated plans in
21 Simulation Set Number 2.
22   **Q.   And as a whole, what can you then**
23 **conclude from this chart?**
24   A.   We're able to conclude from this figure
25 that the Act 131 enacted plan's extreme efficient --

67 (Pages 262 to 265)

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1 extreme mean/median gap here of 6 percent is an
2 extreme outcome that is never achieved in a single
3 one of the 500 simulated plans, and that it is a
4 partisan skew -- it is a level of partisan skew that
5 goes far beyond all 500 of these simulated plans.
6   So what that broadly allows us to
7 conclude is that in the context of Simulation Set
8 Number 2, what we're able to conclude with extremely
9 high statistical certainty is that the enacted plan's
10 extreme partisan skew of voters is not an outcome
11 that naturally emerges from Pennsylvania's voter
12 geography combined with traditional districting
13 principles and an effort to protect 17 incumbents in
14 a nonpartisan manner. It's not a plausible outcome
15 given those conditions.
16   MR. JACOBSON: Petitioners move to
17 admit Exhibit 17 into evidence.
18   THE COURT: Any objection?
19   MS. HANGLEY: No objection.
20   MR. TABAS: No objection.
21   MR. LEVINE: No objection.
22   THE COURT: Petitioners' Exhibit 17
23 is admitted without objection.
24   - - -
25   (Whereupon, Petitioners' Exhibit Number

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1   17 was admitted into evidence.)
2   - - -
3   MR. JACOBSON: Your Honor, I have
4 probably about 45 minutes left in Dr. Chen's
5 direct testimony. If Your Honor is
6 amenable, we'd like to request maybe a
7 five-minute break for Dr. Chen.
8   If Your Honor would prefer, though,
9 we can keep going.
10   THE COURT: Dr. Chen, would you
11 like a break?
12   THE WITNESS: I would be very
13 grateful for that, Your Honor.
14   THE COURT: Okay. We will -- I see
15 it's about 4:05 or so. We'll promptly
16 reconvene at 4:15, because I said we're
17 going to be going until 5:00. And that's --
18 that's where we're cutting it off today.
19   Okay?
20   MR. JACOBSON: Okay. Thank you,
21 Your Honor.
22   THE CLERK: The Court is now in
23 recess.
24   - - -
25   (Whereupon, a recess was taken from

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1   4:06 p.m. to 4:20 p.m.)
2   - - -
3   THE CLERK: Ladies and gentlemen,
4 please take your seat.
5   THE COURT: Please be seated,
6 everyone, please.
7   Counsel, you may continue.
8 Please.
9   MR. JACOBSON: Your Honor, before
10 I -- I should say that I was informed by my
11 colleagues during the break that I did not
12 get the joke that you were referring to of
13 your own election in 2009. So I -- I
14 apologize to the Court for my
15 deer-in-the-headlights moment I had there.
16   THE COURT: I thought it was pretty
17 funny.
18   MR. JACOBSON: Now that I get it, it
19 was a great joke, yeah.
20 BY MR. JACOBSON:
21   Q.   Dr. Chen, you said you analyzed -- one
22 of the three questions you analyzed was the effects
23 of the 2011 plan on individual Petitioners in this
24 case.
25   Can you briefly describe how you did

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1 that?
2   A.   I went back after conducting the two
3 sets of simulations, and I analyzed what the
4 individual simulated plans did in terms of placing
5 each of the individual Petitioners into specific
6 districts.
7   So what I actually did was I, first of
8 all, analyzed the residential locations of the
9 individual Petitioners -- there were 18
10 Petitioners -- and then I analyzed which districts
11 each Petitioner lies within with respect to both the
12 enacted plan, as well as all 1,000 of my
13 computer-simulated plans.
14   MR. JACOBSON: If we could pull up
15 Petitioners' Exhibit 18, which is Table 4 of
16 Dr. Chen's report.
17 BY MR. JACOBSON:
18   Q.   Dr. Chen, what is the first column on
19 this table that starts with the words "Partisan tilt
20 of Petitioners' district"? What does that column
21 represent?
22   A.   As I just said, the first thing I did
23 was I analyzed which district in the enacted plan
24 each Petitioner resides within. So I identified the
25 actual districting plan from the enacted

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1 Congressional Plan that each Petitioner resides
2 within. And what that label is in the first column
3 is not just a district number but, also, whether or
4 not the district is a Republican-leaning or a
5 Democratic-leaning district.
6   And when I say Republican or Democratic
7 district, I am, once again, talking about the measure
8 of partisanship using the 2008 and 2010 six statewide
9 elections in Pennsylvania.
10   So just to be clear, I'm not talking
11 about whether that district -- I didn't calculate
12 that based on whether the district has
13 actually elected a Republican or actually elected
14 Democrat. That label in this first column is simply
15 my calculations using the actual statewide election
16 results from 2008 to 2010 that I've described
17 repeatedly today.
18   **Q.   And, Dr. Chen, I think, as you said as**
19 **well, your predictions for those 18 districts align**
20 **with the actual election results in terms of U.S.**
21 **House seats?**
22   A.   As it turns out, yes, sir, they do.
23 Those 13 Republican districts, as identified in
24 the -- in the first column here, are, in fact, the
25 same 13 districts that have consistently elected

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1 Republicans to the U.S. House over the last three
2 election cycles. And the five Democratic districts
3 labeled here -- Districts 1, 2, 13, 14 and 17 -- are,
4 in fact, the same five districts that have
5 consistently elected Democrats in all three
6 election -- Congressional elections this decade.
7   **Q.   And what is the third column, the one**
8 **that says, Simulation Set 1? What's in that column?**
9   A.   What this column labeled
10 Simulation Set 1 tells us is the following: I
11 analyzed where each Petitioner -- each of the 18
12 Petitioners, residentially, is located with respect
13 to each one of the 500 simulated plans in
14 Set Number 1.
15   So just to put it more concretely, I
16 looked at the first simulation plan in Set Number 1,
17 and I said, Where does Petitioner Carmen Miguel
18 reside. And I identified that, and I calculated
19 whether or not that simulated district was a
20 Republican-leaning district or a Democratic-leaning
21 district, once again, the Republican or Democratic
22 district as measured by the 2008 and 2010 statewide
23 elections.
24   So I identified which district
25 Petitioner Miguel lives within in Simulation Plan 1,

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1 Simulation Plan 2 and so on. And I did that for all
2 500 plans in Simulation Set Number 1.
3   Now, this percentage that we see in
4 this column, that tells us the percent of those
5 simulated plans in which this Petitioner is placed
6 into a Democratic-leaning district.
7   So what we can see in the first row of
8 this column is that Petitioner Carmen Miguel was
9 placed into a Democratic-leaning district 100 percent
10 of the time. I did that sort of analysis with
11 respect to the 500 simulated plans in Set 1, and I
12 did that for each one of the 18 Petitioners in this
13 case.
14   **Q.   Now, if we go down in that same column**
15 **to District 7, Petitioner Beth Lawn, who we heard**
16 **testimony from earlier today, what do you find with**
17 **respect to Petitioner Lawn in Simulation Set 1?**
18   A.   Simulation results, as described here
19 in this column, tell us that Petitioner Beth Lawn was
20 placed into a Democratic-leaning district in
21 99.8 percent of the simulated plans in Set Number 1,
22 those simulated plans that were created following
23 nothing but traditional districting criteria.
24   **Q.   And how about the column next to the**
25 **right, the column that says 100 percent for**

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1 **Beth Lawn?**
2   A.   That column to the right, the next
3 column over, that's just looking at only those
4 simulations -- only those simulated plans in Set 1
5 that also contain a district with an African-American
6 voting-age population of over 56.8 percent.
7   So if we only look at those simulated
8 plans, then we see that Petitioner Beth Lawn was
9 placed into a Democratic-leaning district 100 percent
10 of the time. That's specifically 205 out of 205
11 simulated plans.
12   THE COURT: Counsel, may I
13 interrupt for a second? I just want to make
14 sure I understand what these columns are,
15 because you probably want me to.
16   MR. JACOBSON: Yes, Your Honor.
17   THE COURT: So the first header
18 column, not -- names are all in a column --
19 the first headed column, that's the district
20 that they -- the Petitioners are located in,
21 correct?
22   THE WITNESS: Yes, Your Honor, in
23 the enacted plan.
24   THE COURT: And based -- and then
25 the parenthetical party affiliation is your

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1 expert opinion as to whether that district
2 has a plus-one Republican or Democratic
3 advantage?
4   THE WITNESS: Yes, Your Honor, my
5 calculation based on those 2008 and 2010
6 statewide votes.
7   THE COURT: Is it a plus 1 percent
8 or is it just a plus-one vote? I mean,
9 everything -- what is it?
10   THE WITNESS: Well, I literally --
11 you know, as I was explaining a while back,
12 I literally just count up the number of
13 Republican votes and the number of
14 Democratic votes in those state -- six
15 statewide elections. And what this column
16 is reporting is whether the enacted district
17 was one that had more Democratic votes or --
18   THE COURT: Just a pure more? So
19 one more or more than one?
20   THE WITNESS: Yes, Your Honor. It
21 was simply a comparison of more Democratic
22 or more Republican votes.
23   THE COURT: Explain to me what the
24 next four columns represent.
25   That would be the percentage that

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1 the Petitioner would be put under the
2 simulated plans in the district of their
3 registration affiliation?
4   THE WITNESS: I did not --
5 Your Honor, I did not analyze the
6 registration affiliation of any of these
7 Petitioners. I had no interest -- I did not
8 have access to that data.
9   THE COURT: Okay. So that's where
10 I was confused.
11   So -- so the percentage, again,
12 represents what?
13   THE WITNESS: Your Honor, I am
14 simply calculating in each of these columns
15 what percentage of the simulated plans would
16 have placed Petitioner Beth Lawn in a
17 Democratic-leaning district.
18   THE COURT: Okay.
19   Okay. So, like, for example,
20 Mr. Miguel, he's currently in a
21 Democratic-leaning district --
22   THE WITNESS: Yes, Your Honor.
23   THE COURT: -- and your simulations,
24 across the board, put him in a
25 Democratic-leaning district 100 percent of

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1 the time?
2   THE WITNESS: That's exactly right,
3 Your Honor.
4   THE COURT: Okay. I think I
5 understand now. Thank you.
6   THE WITNESS: So it's purely my
7 characterization of those simulated
8 districts as Democratic districts.
9   THE COURT: Okay. Thank you.
10   MR. JACOBSON: If it helps,
11 Your Honor, I can try to walk through it
12 with the simulated map that we used earlier.
13   THE COURT: No; he helped --
14   MR. JACOBSON: Okay --
15   THE COURT: -- thank you.
16   MR. JACOBSON: -- I'm sure he did a
17 much better job than I could've.
18 BY MR. JACOBSON:
19 **Q. Now, stepping back to the chart, the**
20 **next column over that says, Simulation Set Number 2,**
21 **could you explain to us what -- what the numbers**
22 **depicted in that column reflect?**
23 A. Exactly the same thing, except now
24 we're looking at the 500 simulated plans in
25 Simulation Set Number 2. So, once again, when we

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1 look at these percentages in this column, what this
2 table reports -- what this column reports to you is
3 what percentage of the simulated plans were ones that
4 would have placed Petitioner Beth Lawn or
5 Petitioner Carmen Miguel into a Democratic-leaning
6 district.
7 **Q. And I think you said before what**
8 **data -- personal data in terms of the Petitioners are**
9 **you using to make that calculation?**
10 A. The only personal data I had on each of
11 these Petitioners was their respective home
12 addresses. And I geolocated -- or I had information
13 on the geolocation of those home addresses, which I
14 then used to be able to identify which district in
15 the enacted plan does Petitioner Beth Lawn reside
16 within.
17 **Q. And within the simulated plans?**
18 A. Yes, within the simulated plans.
19 **Q. And if we can look down now to**
20 **Petitioner Lisa Isaacs in District Number 8.**
21 **What do we see for Ms. Isaacs for**
22 **Simulation Set 2?**
23 A. In that eighth row describing
24 Petitioner Lisa Isaacs, we see that Petitioner Isaacs
25 would have been placed into a Democratic-leaning

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1   district in 99.4 percent of the simulated plans in
2   Simulation Set Number 2.
3   **Q.   And how about the next column over for**
4   **Ms. Isaacs?**
5   A.   We see in that final column over that
6   if you only want to look at the simulated plans
7   within Simulation Set Number 2 that contain a
8   district with an African-American voting-age
9   population of over 56.8 percent, you only want to
10   look at those plans, then see that
11   Petitioner Lisa Isaacs was placed into a
12   Democratic-leaning district in 98.1 percent of those
13   simulated plans.
14   **Q.   And sticking with Petitioner Isaacs,**
15   **what do we find for her in Simulation Set 1?**
16   A.   Well, with respect to
17   Petitioner Isaacs, we can see that in Simulation Set
18   Number 1, Petitioner Isaacs -- Petitioner Lisa Isaacs
19   was placed into a Democratic-leaning district in
20   99.8 percent of the simulated plans. And if you just
21   look at those simulated plans within Set Number 1
22   that contain a district with over a 56.8 percent
23   African-American voting-age population, then that
24   number rises to 100 percent.
25   All 100 percent, 205 out of 205 plans,

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1   in Simulation Set Number 1, in that subset, would
2   have placed Petitioner Lisa Isaacs into a
3   Democratic-leaning district.
4   **Q.   And how about -- we'll just do two**
5   **more -- Petitioner Robert Smith in the 11th District?**
6   A.   We can see that -- whether we look at
7   Simulation Set Number 1 or Simulation Set Number 2,
8   Petitioner Robert Smith would have been placed into a
9   Democratic-leaning district in a majority of the
10   simulations.
11   If you look at Simulation Set Number 2,
12   that number is 94.4 percent, if you look at all the
13   plans in Simulation Set Number 2. If you look at
14   Simulation Set Number 1, that number is 68.4 percent.
15   But either way, it appears that in a
16   majority of the plans, Petitioner Robert Smith would
17   have been placed into a Democratic-leaning district.
18   **Q.   And, finally, Petitioner Thomas Ulrich**
19   **in District Number 15?**
20   A.   It appears from that 15th row that
21   Petitioner Thomas Ulrich would have been placed into
22   a Democratic-leaning district in the vast majority of
23   the simulated plans, both in Set 1 and in Set 2.
24   Specifically in Set Number 1,
25   Petitioner Thomas Ulrich would have been placed into

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1   a Democratic-leaning district in 99.6 percent of the
2   simulations -- of the simulated plans in
3   Set Number 1.
4   **Q.   And as a whole, what can you conclude**
5   **based on this chart for these four particular**
6   **Petitioners that we just identified: Ms. Lawn,**
7   **Ms. Isaacs, Mr. Smith and Mr. Ulrich?**
8   A.   Well, to analyze this chart, I looked
9   at the simulated results that I just described in the
10   last couple of minutes, and then I compared them to
11   the partisan leaning -- to the partisanship of the
12   enacted districts that each of these four Petitioners
13   has been placed into in the Act 131 enacted plan.
14   And I noted that those four Petitioners
15   that you just asked me about -- those four
16   Petitioners -- Beth Lawn, Lisa Isaacs, Robert Smith
17   and Thomas Ulrich -- all four of them were placed
18   into Republican-leaning districts in the enacted
19   plan.
20   So what we can see here is that the
21   enacted plan places these four Petitioners into
22   Republican-leaning districts.
23   In the majority -- in many cases, in
24   the vast majority of the simulated plans, each one of
25   those four Petitioners would have been placed into

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1   Democratic-leaning districts.
2   So what that tells me is that I'm able
3   to conclude with varying degrees of statistical
4   certainty -- with some of these Petitioners, with
5   strong statistical certainty -- that the -- the
6   enacted plan had the effect of treating the four
7   Petitioners differently in terms of the partisanship
8   of the districts that they were placed into --
9   "differently" meaning that they were placed into a
10   different partisan of district compared to the sort
11   of simulate -- compared to the sort of districting
12   plans that would have emerged under a districting
13   process respecting traditional districting criteria
14   and possibly even protecting 17 incumbents in a
15   nonpartisan manner.
16   **Q.   Thank you, Dr. Chen.**
17   MR. JACOBSON: Petitioners move to
18   admit Exhibit Number 18 into evidence.
19   THE COURT: Any objection?
20   MS. HANGLEY: No objection.
21   MR. TABAS: No.
22   MR. LEVINE: No.
23   THE COURT: Petitioners' Exhibit 18
24   is admitted without objection.
25

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1   - - -
2   (Whereupon, Petitioners' Exhibit Number
3   18 was admitted into evidence.)
4   - - -
5   BY MR. JACOBSON:
6   Q.   Did you perform any robustness checks
7   on your conclusions regarding the partisanship
8   composition of your simulated plans?
9   A.   Yes, sir, I conducted a robustness
10   check using a different set of elections, statewide
11   elections in Pennsylvania, to measure the
12   partisanship of districts.
13   Q.   Before we get to the details of that,
14   why did you conduct this robustness analysis?
15   A.   Well, I conducted the robustness check
16   in order to check the robustness in order to check my
17   conclusions. I wanted to see how statistically
18   certain I was in the way that I was measuring
19   partisanship.
20   So what we do as political scientists
21   is, we use different elections to measure the same
22   thing, to measure the same districts, and see how
23   much the results change or stay the same. That is
24   how we conduct robustness checks.
25   Q.   Now, what election results did you use

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1   for purposes of this robustness analysis?
2   A.   To conduct this robustness check, I
3   looked at every statewide election in 2012, 2014 and
4   2016. So just to remind you, previously, I had
5   looked at the statewide elections from 2008 to 2010,
6   the last two years prior to the 2011 redistricting.
7   And now, in this robustness check, I'm looking at all
8   the subsequent statewide elections that have been
9   held in Pennsylvania since the 2011 redistricting.
10   Q.   And I believe you list those particular
11   elections on Exhibit C -- in Exhibit C.
12   Without listing them all, how many
13   total statewide elections did you use for purposes of
14   this robustness check?
15   And I hope we don't miss anything this
16   time.
17   That was a bad joke on my part.
18   A.   In these three election cycles, there
19   were a total of 11 statewide elections in
20   Pennsylvania.
21   Q.   And very briefly, how did you use those
22   statewide election results on your simulated -- your
23   1,000 simulated maps?
24   A.   I used them in exactly the same way as
25   I described earlier today. I took precinct-level

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1   election results. So I guess first I should explain
2   by saying that I obtained the precinct-level election
3   results, once again, from the Department of State. I
4   got these precinct-level election results, and I
5   overlaid the precinct-level vote counts from each of
6   these 11 statewide elections -- I overlaid them onto
7   the boundaries of each districting map that I was
8   analyzing, both the enacted Act 131 map as well as
9   the 1,000 simulated maps that I've been describing
10   today.
11   Q.   And when you say "the 1,000 simulated
12   maps," these are the same 1,000 simulated maps that
13   we talked about before that you used, the 2008 to
14   2010 election results, to predict partisanship for?
15   A.   Exactly, sir, the same 1,000 maps. I
16   didn't conduct a whole new set of simulations with
17   these elections. I just analyzed the same 1,000 maps
18   as before, except this time I was using the 2012 to
19   '16 statewide elections.
20   Q.   And before we get to your simulated
21   maps, if you performed this overlay, if you overlay
22   these 2012 to 2016 statewide elections on the enacted
23   map, Act 131, what do you find?
24   A.   Well, I did that, and I found that the
25   enacted map has exactly 13 districts that had more

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1   Republican than Democratic votes in these -- in these
2   statewide elections. So there were, once again, 13
3   Republican districts and, therefore, five Democratic
4   districts using these 2012 to 2016 statewide
5   elections to measure partisanship.
6   Q.   And do those 13 Republican districts
7   correspond to the districts that Republican
8   candidates have won for the U.S. House under the
9   enacted plan?
10   A.   They do, sir. They were the same 13
11   districts -- those Republican-leaning districts using
12   these 2012 to 2016 statewide elections were the same
13   13 districts that have consistently elected
14   Republicans in each of the last three Congressional
15   election cycles.
16   Q.   And what does that tell you about the
17   accuracy of this alternative partisanship measure,
18   the 2012 to 2016 election results?
19   A.   That tells us that using the 2012 to
20   '16 election results has been an extremely accurate
21   predictor of the partisan outcomes of Congressional
22   elections in Pennsylvania as before. Using these
23   statewide elections from 2012 to '16 as a measure of
24   partisanship has led to a correct prediction about
25   the partisanship outcome of all 54 of Pennsylvania's

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1 Congressional elections held under the current
2 enacted map.
3   Q.   And, in fact, if you combine those
4 results, the 2012 to 2016 results, with the 2008 to
5 2010 results that you talked about earlier, what does
6 that tell you about the enacted plan?
7   A.   Well, that tells us very clearly that
8 whichever way you slice and dice the data, the
9 enacted plan is a 13-5 Republican map, it is a map
10 that has consistently favored Republicans in 13
11 districts and favored Democrats in five districts.
12 With these statewide -- with all these statewide
13 elections that we're looking at, that's the case,
14 just as it was the case for all of the Congressional
15 elections over the last three election cycles under
16 the enacted map. It tells us with very clear
17 certainty that the enacted map is a 13-5 Republican
18 map.
19   Q.   Now, turning to the robustness analysis
20 you did with the 2012 to 2016 elections.
21   MR. JACOBSON: If we could pull up
22 Petitioners' 19, which is Figure C.1 of
23 Dr. Chen's report.
24 BY MR. JACOBSON:
25   Q.   Dr. Chen, what is depicted on the left

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1 side of this figure?
2   A.   This left side tells us about the
3 number of Republican districts in the 500 simulated
4 plans in Set Number 1, except that this time we're
5 now going to use the new measure of partisanship,
6 which is the 2012 to 2016 statewide elections, but
7 all the calculations were conducted exactly the same
8 way as before, except this time I am overlaying the
9 2012 to 2016 statewide election results onto the
10 election -- onto the district boundaries.
11   Q.   And what do you find in this chart on
12 the left side?
13   A.   What the left side of this figure,
14 Figure C-1, shows us is that when you analyze
15 Simulation Set Number 1, those 500 plans, using the
16 2012 to '16 election measure, the vast majority, over
17 two-thirds of the plans, create exactly nine
18 Republican districts. That's nine Republican
19 districts and nine Democratic districts. That's, by
20 far, the most common outcome.
21   We can see that creating eight
22 Republican districts and 10 Republican districts also
23 occasionally happens; although, the vast majority are
24 right at nine Republican districts. And then very,
25 very occasionally, well under 1 percent of the time,

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1 you very occasionally get seven Republican districts,
2 as well as 11 Republican districts. But, clearly,
3 this figure shows us that the vast majority of the
4 simulated plans are at 8, 9 or 10 Republican
5 districts.
6   Q.   And if we can move now to the right
7 side -- sorry -- the right side of this exhibit.
8   What does the chart on the right side
9 depict?
10   A.   It shows us exactly the same thing,
11 except now we're just looking at those plans in
12 Set Number 1 that also contain a district with an
13 African-American voting age population of over
14 56.8 percent.
15   So, again, it's just the 205 simulated
16 plans within that larger subset -- within that larger
17 set of 500 simulations that contain such a racial
18 threshold. And if you just want to isolate and look
19 at those plans, we see exactly the same thing: the
20 vast majority of the plans creates either eight, nine
21 or 10 Republican districts, with nine being the most
22 common outcome, occurring about two-thirds of the
23 time.
24   MR. JACOBSON: Petitioners move to
25 admit Exhibit 19 into evidence.

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1   THE COURT: Any objections?
2   MR. TABAS: No.
3   MS. HANGLEY: No.
4   MR. LEVINE: No.
5   THE COURT: Petitioners' Exhibit 19
6 is admitted without objection.
7   - - -
8   (Whereupon, Petitioners' Exhibit Number
9   19 was admitted into evidence.)
10   - - -
11   MR. JACOBSON: If we could pull up
12 Petitioners' Exhibit 20, which is Figure C.2
13 of Dr. Chen's report.
14 BY MR. JACOBSON:
15   Q.   Dr. Chen, what does the left side of
16 this figure depict?
17   A.   The left side of this figure depicts
18 the 500 simulated plans in Simulation Set Number 2
19 and measures the number of Republican districts in
20 each of these 500 simulated plans, except, again,
21 this time we're going to use the 2012, '14 and '16
22 statewide elections as a measure of partisanship.
23   So what this figure shows us is that if
24 you look at those simulated plans in Set Number 2,
25 the vast majority of them create either nine or 10

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1   Republican districts. The entire range goes from
2   eight to 12, but all but over 99 percent of these
3   simulated plans create somewhere from eight to 11
4   Republican districts.
5   So the most common outcome is the
6   10-Republican district plan, and the vast majority of
7   the simulated plans are eight to 11 Republican
8   districts, with just under 1 percent creating 12
9   Republican districts, again, using this 2012 to 2016
10   election measure.
11   **Q.   And how about the figure on the right**
12 **side of this chart of Petitioners' Exhibit 20?**
13   A.   It tells us exactly the same thing as
14   the left side, except that we're only looking at, on
15   the right side, those subsets of plans within
16   Simulation Set 2 that contain a district with an
17   African-American voting age population of over
18   56.8 percent.
19   So what we see here in the results here
20   on the right side is that the vast majority of these
21   plans create either nine or 10 Republican districts,
22   and the entire range goes from eight to 11. Never do
23   we see a single plan that creates 12 or 13 Republican
24   districts here on the right side.
25   MR. JACOBSON: Petitioners move to

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1   admit Exhibit 20 into evidence.
2   THE COURT: Any objections?
3   MS. HANGLEY: No objection.
4   MR. LEVINE: No.
5   MR. TABAS: No.
6   THE COURT: Petitioners' Exhibit 20
7   is admitted without objection.
8   - - -
9   (Whereupon, Petitioners' Exhibit Number
10   20 was admitted into evidence.)
11   - - -
12   BY MR. JACOBSON:
13   **Q.   Dr. Chen, as a whole, what can you**
14 **conclude from your robustness analysis as depicted in**
15 **Petitioners' Exhibits 19 and 20 that we just walked**
16 **through?**
17   A.   We're able to conclude two things from
18   that robustness analysis.
19   First, we can see that it is pretty
20   straightforward to measure the partisanship of
21   Pennsylvania's Congressional districts using
22   statewide elections, and we arrive at the same
23   conclusions regardless of whether we use
24   post-redistricting elections, the statewide elections
25   since 2011, as well as the predistricting elections,

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1   the 2008 and 2010 elections as a measure of
2   partisanship.
3   Those two sets of elections led us to
4   exactly the same conclusions. It led us to the same
5   conclusion about the enacted map and the enacted map
6   as a 13-5 Republican advantage map, and it led us to
7   the same conclusions about the simulated maps, the
8   fact that none of the simulated maps, not a single
9   one of the 1,000 simulated maps, ever created a 13-5
10   Republican advantage outcome. Not a single one of
11   the simulated plans ever created 13 Republican
12   districts, regardless of which set of election
13   results we used to measure partisanship.
14   That tells us that these are reliable
15   measures of partisanship and that using these
16   reliable measures, these statewide elections, to
17   measure partisanship, we arrive at the same
18   conclusion regardless of which set of elections we
19   use.
20   **Q.   Thank you, Dr. Chen.**
21   MR. JACOBSON: Your Honor, I'm going
22   to move to the portion of my direct --
23   Dr. Chen's direct testimony that deals with
24   his analysis of the data files produced by
25   Speaker Turzai in the Federal litigation --

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1   THE COURT: I'm sorry. You're
2   going a little bit too fast.
3   MR. JACOBSON: Sorry, Your Honor.
4   I'm going to move to the portion of
5   Dr. Chen's testimony where he's going to
6   discuss the data files produced by
7   Speaker Turzai in the Agre, the Federal,
8   litigation.
9   Consistent with your ruling earlier,
10   the files that he analyzed for purposes of
11   his report were discussed extensively in an
12   expert report in Agre that was
13   actually admitted into evidence, the expert
14   report was. And they were also -- those
15   files were discussed by name openly at
16   trial.
17   THE COURT: They, however, were not
18   admitted?
19   MR. JACOBSON: They were not
20   admitted. So what we would propose,
21   consistent with your ruling, is we will not
22   seek to admit the data files themselves,
23   just Dr. Chen's analysis of those files as
24   reflected in his report.
25   THE COURT: That appears to be

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1   consistent with my ruling earlier today. So
2   you can proceed --
3   MR. JACOBSON: Thank you,
4   Your Honor.
5   THE COURT: -- unless there's an
6   objection.
7   MR. TUCKER: I guess, Your Honor,
8   we'll -- we'll give an opportunity to lay
9   the foundation that Dr. Chen has any reason
10 to believe what these files are, what they
11 include and -- and whatnot?
12   THE COURT: Well, that's true.
13   So you have to lay the foundation,
14 exactly.
15 BY MR. JACOBSON:
16   Q.   Dr. Chen, in preparing your report, did
17 you analyze any other data -- and I think you'll know
18 where I'm going with this now -- did you analyze any
19 other data that we have not discussed yet today?
20   A.   Yes, sir, I did.
21   Petitioners' counsel gave to me a
22 computer folder containing 13 GIS shapefiles.
23   Q.   And did Petitioners' counsel inform you
24 what that data represented?
25   A.   Yes, sir.

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1   Petitioners' counsel informed me that
2   these files were produced by Speaker Michael Turzai
3   in the pending Federal challenge to Pennsylvania's
4   Congressional district map, in which Speaker Turzai
5   represented that these files reflected the facts and
6   data considered in creating the 2011 Plan.
7   MR. LEWIS: Objection: foundation
8   and hearsay.
9   MR. TUCKER: And it's hearsay,
10 Your Honor.
11   THE COURT: I didn't understand any
12 of that.
13   So -- so if you're going to do an
14 objection, stand up and -- and articulate
15 your objection clearly for the record,
16 please.
17   MR. LEWIS: Sure.
18   Your Honor, the witness has just
19 testified to what counsel told him another
20 counsel told him the data were produced for.
21 So you have two items. We have hearsay, and
22 we have a lack of foundation.
23   He doesn't -- the witness doesn't
24 know what the documents are.
25   MR. JACOBSON: Your Honor, if it

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1   helps, we have in -- Petitioners' Exhibit 33
2   is the e-mail from counsel from
3   Legislative Respondents that transmitted the
4   files to the Agre Plaintiffs, which were
5   then shared with Petitioners. I mean, we
6   can pull it up on the screen, if you'd like.
7   THE COURT: Which was discovery in
8   documents not actually produced publicly
9   during the Agre litigation.
10   MR. JACOBSON: Correct; although,
11 the files themselves, as I mentioned, were
12 discussed by name and analyzed in an expert
13 report that was admitted into evidence and
14 in that same expert's trial testimony in
15 Agre.
16   MR. TUCKER: Your Honor --
17   MR. LEWIS: Yeah, I mean, it's the
18 same problem -- we also have an
19 authentication issue, where's the evidence
20 that certifies what these documents
21 actually are? Where's the chain of custody
22 for any of these?
23   THE COURT: Are you legitimately
24 questioning the authenticity of these
25 documents in this expert report that were

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1   admitted in Federal Court, or that were
2   talked about in Federal Court case?
3   Because if you're challenging the
4   authenticity of it, I think -- then your
5   objection is well grounded, but if you're
6   just challenging it for the sake of
7   challenging it, I'm not sure that's going to
8   work.
9   MR. LEWIS: We simply -- we -- we
10 don't know.
11   THE COURT: Well, you can
12 cross-examine him on it. Why don't you
13 cross-examine him on it?
14   If you're going to challenge -- if
15 you're going to challenge the authenticity
16 of a document he relied on in his expert
17 report, you're welcome to cross-examine him
18 on it.
19   Okay?
20   MR. LEWIS: Okay.
21   THE COURT: Objection overruled.
22   MR. JACOBSON: Thank you,
23 Your Honor.
24   Just one more thing I would note for
25 the record is that in their motion in limine

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1   yesterday, Legislative Respondents, in
2   seeking to exclude these, represented that
3   these were the files produced in the Federal
4   litigation.
5   THE COURT: Counsel, you won.
6   MR. JACOBSON: Thank you,
7   Your Honor.
8   If we can pull up Petitioners'
9   Exhibit 30. And, again, we're not going to
10   be moving this into evidence. This is
11   merely for Dr. Chen to explain his analysis.
12   And Exhibit 30 is a file titled
13   Turzai --
14   THE COURT: Wait a minute. Wait a
15   minute. Hold on for a second. Put that
16   down. Take that down.
17   MR. JACOBSON: I'm sorry,
18   Your Honor.
19   THE COURT: I thought you were
20   going to have him testify. Now you're
21   putting the exhibit up in the room.
22   Are you going to have him testify
23   about data sets that he looked at and you're
24   going to put it up in the room, but you're
25   not going to admit it?

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1   MR. JACOBSON: If Your Honor would
2   prefer that we not put it up in the room, we
3   can have him testify.
4   THE COURT: I would rather you just
5   have him testify about it.
6   MR. JACOBSON: Absolutely, Your
7   Honor, understood.
8   THE COURT: Okay.
9   BY MR. JACOBSON:
10   Q.   Dr. Chen, I believe around Page 40 of
11   your report -- I might be getting the exact page
12   number wrong -- you analyzed data files, as you
13   mentioned, produced by Speaker Turzai in the Federal
14   litigation; is that correct?
15   A.   Yes, sir, I did.
16   Q.   And did you analyze a data file titled
17   Turzai 01674?
18   A.   Yes, sir. The full name of the file
19   was Turzai-01674.DBF, yes, sir.
20   Q.   And could you tell us, what did you
21   find based on your expertise and experience in
22   analyzing that data?
23   What -- let's start, sort of, what data
24   did it contain purely from a geographic standpoint?
25   A.   Sure.

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1   I received this file from Petitioners'
2   counsel, and I opened up the DBF portion, which is
3   the file that I just read out to you, and I
4   immediately recognized the first several columns of
5   it. I immediately recognized it because they looked
6   nearly identical to a shapefile that I had already
7   downloaded from the legislative reapportionment
8   Web site, and it was a -- a shapefile on the 9,253
9   voting tabulation districts, or precincts, in
10   Pennsylvania.
11   So what this document is, it's part of
12   a larger shapefile, and this larger shapefile
13   describes the geographic boundaries of all of
14   Pennsylvania's 9,253 VTDs, or precincts. And it also
15   contained differently -- different columns that were
16   not on the shapefile that I downloaded of the VTDs
17   from the reapportionment Web site.
18   So it was clearly created from -- I
19   recognized it as being clearly created from a
20   standard VTD shapefile predicting Pennsylvania's VTD
21   boundaries; however, it also included a very large
22   number of additional columns that I had not yet seen
23   in the reapportionment Web site's version of that VTD
24   shapefile. But the broader point is, I could easily
25   recognize this as a VTD shapefile with a bunch of

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1   additional columns and data appended onto it.
2   Q.   And, Dr. Chen, I believe in your report
3   you describe 10 particular columns that you just
4   referenced.
5   What did you find in those 10 columns?
6   A.   Well, I saw 10 columns at the very end,
7   and I did describe what I saw in my expert report.
8   So I looked at the columns -- all the additional
9   columns in this VTD shapefile, this .DBF portion of
10   the shapefile that I had not recognized previously in
11   the reapportionment Web site's version, and I saw a
12   bunch of election results from various statewide, as
13   well as legislative elections.
14   But then I scrolled to the very end,
15   the very right, of this DBF file, and I saw 10
16   columns that clearly represented partisanship
17   indices.
18   So I analyzed these 10 columns at the
19   very right. I looked at them with respect to other
20   election data that was also on the same document, the
21   same DBF file. I also verified -- I also, just out
22   of curiosity, verified the accuracy and the
23   authenticity of the election file -- of the election
24   results that were depicted on this shapefile, or on
25   this DFP file, and I could see that they, in fact,

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1 were accurately reporting various election results at
2 the precinct level for Pennsylvania's precincts.
3   Now, going back to these last 10
4 columns. I saw 10 columns at the very right of this
5 file. I scrolled to the very right, and I spent a
6 little bit of time just trying to figure out how
7 these columns were calculated. They were labeled
8 things like INDEX 04. There was another column that
9 was called PREZ 08.
10   But I looked at these columns, and I
11 looked at them in relation to election results that
12 were already on this shapefile in the early columns,
13 and I could see that they were clearly partisan
14 indices, so I could see that they were 10 different
15 partisan indices constructed from various
16 precinct-level vote counts and registration numbers.
17 And I would be happy to describe exactly what I saw
18 in these partisan indices in detail, but I -- I
19 certainly described all of that in my report.
20   **Q.   If you could just walk us through what**
21 **you found in each of those 10 partisanship indices,**
22 **please, Dr. Chen.**
23   A.   Okay. So there were 10 indices at the
24 very end, and the first one was -- well, I'll just
25 describe two of them. So two of them were called

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1 INDEX 04 and INDEX 08, and I could see that these
2 particular indices -- so I'll just start with
3 INDEX 04.
4   The INDEX 04 column described -- was a
5 different number, was a different score for every
6 single precinct in Pennsylvania, and it was a score
7 ranging from negative 930, all the way up to positive
8 1,050. Just by looking at these scores and looking
9 at them in relation to actual election results, I
10 could very clearly see -- it was very obvious to me
11 that even though I didn't have in front of me the
12 precise formula used to create this index, it was
13 obviously a score such that precincts that vote more
14 heavily in favor of Republican candidates have higher
15 positive scores and precincts that vote more heavily
16 in favor of Democratic candidates in various
17 statewide elections had negative lower scores.
18   So I looked at the precise values of
19 the INDEX 04 column, and I even found that -- just by
20 doing some very basic statistical analysis on the
21 different columns, I found that that INDEX 04 column
22 had a very close-to -- a near-perfect correlation
23 with the partisan results of the 2004 Presidential
24 and U.S. Senate elections in Pennsylvania. That
25 suggested to me that this was an index that had been

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1 constructed using various election results from
2 around 2004.
3   Now, I looked at another index, called
4 INDEX 08, or another partisan column -- another
5 column in the data file, called INDEX 08, and I found
6 something very similar. I saw that these values
7 ranged from negative 1,376 all the way up to positive
8 2,957, and I saw they exhibited very similar
9 properties.
10   I saw that that particular column was a
11 measure that appeared to be very strongly correlated
12 with the precinct-level Republican votes in a wide
13 variety of very recent elections. It seemed to be
14 mostly 2008 and 2000 elections, but, in general, I
15 could see that it very strongly correlated with the
16 partisan result of those elections, once again, with
17 higher, more positive values, indicating precincts
18 that had voted more heavily in favor of Republican
19 candidates, and lower negative values, indicating
20 precincts that had voted in favor of Democratic
21 candidates.
22   So I analyzed those two indices, and
23 that's what I found with respect to -- to those two
24 columns; they were clearly measures of the partisan
25 performance of Pennsylvania's precincts in recent

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1 statewide and possibly legislative elections.
2   I also found eight other partisan
3 indices at the very right in those 10 columns, and
4 I'd be happy to describe those.
5   **Q.   Yeah, if you could just briefly**
6 **describe them. And you don't need to go into the**
7 **same level of detail, but if you could just briefly**
8 **describe what they contained.**
9   A.   Sure. So I'll just briefly describe
10 each one.
11   There was another column, called
12 PREZ 08, P-R-E-Z, 08, and that clearly was calculated
13 by taking the number of Republican -- or the number
14 of votes for the Republican candidate in the 2008
15 presidential election and subtracting the number of
16 Democrats -- the number of votes for the Democratic
17 candidate in the 2008 election. In other words, it
18 was clearly taking the number of votes for
19 John McCain and subtracting the number of votes for
20 Barack Obama, and you arrive at either a positive or
21 a negative number, depending on whether the precinct
22 favored Obama or McCain.
23   So that's what I found in the PREZ 08
24 column.
25   I found another column called SEN 10,

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1   S-E-N-T -- sorry. It was spelled SEN 10, and it was
2   clearly doing the same thing for the partisan results
3   at the precinct level for the 2010 U.S. Senate
4   elections.
5   I found another column that was labeled
6   as CNG 10, and that clearly depicted a partisan index
7   had been calculated by comparing the number of votes
8   for the Republican and Democratic candidates in the
9   2010 Congressional elections, once again, so that
10   higher values depict Republican-leaning precincts.
11   I found another column, called STHS 10,
12   which appeared to have been calculated by taking the
13   number of Republican votes -- or votes for Republican
14   candidates and Democratic candidates in the 2010
15   State House elections and comparing them or analyzing
16   them in exactly the same way.
17   I found another column, called GOV 10,
18   which appeared to be calculated based on the
19   Republican and Democratic vote counts in the 2010
20   gubernatorial elections -- in the 2010 gubernatorial
21   election.
22   I found another column, called
23   ATGEN 08, which appeared to be similarly calculated
24   from the number of Republican and Democratic votes
25   cast -- or number of votes cast for the Republican

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1   and Democratic candidates in the 2010 Attorney
2   General election, but, once again, calculated in
3   exactly the same way.
4   I found another column, called
5   P-R-E-Z 04, PREZ 04, which appear to be exactly the
6   same methodology, except that it was calculated using
7   the number of votes cast for the Republican and
8   Democratic candidates, John Kerry and George W. Bush,
9   in the 2004 presidential election, but, again,
10   calculated in a very similar way, with the partisan
11   results at the precinct level.
12   And then I found one last column,
13   called R-E-G 10, REG 10, and that appeared to have
14   been calculated by comparing the number of Republican
15   registrants and Democratic registrants such that
16   higher numbers indicated a precinct with more
17   Republicans and lower negative numbers indicated
18   precincts with more Democrats.
19   So those were all the columns in that
20   set of 10 columns that I -- I looked at, and I looked
21   at each one individually.
22   Q.   And thank you, Dr. Chen.
23   Did you analyze another file called
24   Turzai 01644?
25   A.   Yes, sir, I did.

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1   That was, once again, part of a larger
2   shapefile, except it was apparent, to me, that this
3   was a shapefile depicting not precincts, but instead,
4   the municipalities and the boundaries of
5   Pennsylvania's municipalities.
6   Q.   And did that file contain the same 10
7   partisanship indices that you just described?
8   A.   It did, yes, sir, it contained those
9   same partisan indices, except these were aggregated
10   at the level of the municipality, rather than at the
11   precinct, of course. But it contained the same
12   election data and the same 10 partisan indices
13   describing the partisan leanings of each municipality
14   in Pennsylvania.
15   Q.   Dr. Chen, did you also analyze a file
16   titled S. Turzai--01653?
17   A.   Yes, sir, I did. And that was
18   apparent -- it was apparent that that file was part
19   of a larger shapefile depicting the boundaries of
20   Pennsylvania's 67 counties.
21   Q.   And did that file contain the same 10
22   partisan indices that you just described?
23   A.   Yes, sir, it contained exactly the same
24   10 partisan indices as well as the same election
25   results as in the other two DBF files that I just

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1   described, but it had exactly the same partisan
2   indices, except these were aggregated to the level of
3   Pennsylvania's 67 counties. And, obviously, it
4   would've -- it described the partisan leaning of each
5   of Pennsylvania's counties.
6   Q.   And, finally, did you analyze a file
7   called -- titled Turzai-01-- sorry -- -01641?
8   A.   Yes, sir. That was another DBF file,
9   except this one was part of a larger shapefile, a
10   larger GIS shapefile depicting the graphic boundaries
11   of Pennsylvania's Census blocks. This would have
12   been Pennsylvania's, roughly, 420 -- 420,000, or so,
13   Census blocks. And for each Census block, this file
14   clearly contained all of the same election data as I
15   had mentioned before.
16   Q.   And just to clarify, when you say "the
17   same election data," do you mean the same indices or
18   something else?
19   A.   The same vote counts from
20   Pennsylvania's elections. It had election vote
21   counts in it.
22   Q.   But just to clarify the record, not the
23   same indices; is that right?
24   A.   That's correct, sir. In that file,
25   that Census block level file, I found only election

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1   vote counts, not the partisan indices.
2   Q.   Thank you, Dr. Chen.
3   Now, Dr. Chen, separate and apart from
4   the data in the files that we just discussed that
5   were produced in the Federal litigation, did you
6   conduct your own independent analysis of whether
7   voters who vote for Democratic candidates for
8   Congress -- or -- I'm sorry -- just Democratic
9   candidates in Pennsylvania are an identifiable group?
10   A.   Yes, sir. As I described in my report,
11   I looked at statewide elections from Pennsylvania
12   over the last 10 years, and I looked at those
13   statewide election results from the aspect of their
14   correlation from one election to another; in other
15   words, are precincts that heavily favor Democratic
16   candidates in one election also very likely to be the
17   same precincts that heavily favor Democratic
18   candidates in the next election, in the next
19   statewide election or in the next Congressional
20   election.
21   I found that the correlation was
22   extremely strong amongst statewide elections.
23   Clearly, generally, statewide elections correlate
24   with one another around the range of about .9 to .95,
25   which is just a very fancy statistical way of saying

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1   that when you see a precinct that has lots of
2   Democratic voters, they're going to vote very heavily
3   for Democrats whether in this election or next year's
4   election or the next election.
5   That's what I found in general. And
6   what that allows me to conclude with strong
7   statistical certainty is that Democrats are clearly
8   an identifiable group, which is just another way of
9   saying that when we see lots of Democrats in one
10   precinct, or one district, we can be sure that they
11   are there, they are Democrats in the next election as
12   well.
13   Q.   And, Dr. Chen, based on that
14   independent correlation analysis that you just
15   described and taking that in conjunction with your
16   analysis of the four Turzai files produced from the
17   Federal litigation that we just discussed, do you
18   have an opinion on when -- whether voters likely to
19   vote for Democratic candidates were, in fact,
20   identified as a political group as part of the
21   creation of the enacted plan?
22   A.   Well, I'm just going --
23   MR. LEWIS: Your Honor, an
24   objection: This goes beyond the scope of
25   the witness's expert report. We also move

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1   to strike the prior answer on that ground as
2   well, Your Honor.
3   His opinion goes well beyond what
4   the witness produced in his report and
5   beyond what he's been qualified for as an
6   expert.
7   THE COURT: Your response?
8   MR. JACOBSON: Your Honor, I can
9   find -- there's one or two paragraphs in the
10   report where he specifically talks about
11   this kind of correlation analysis that he
12   did in response to my prior question.
13   THE COURT: I think he's allowed to
14   do a correlation analysis. I'm not sure
15   what his expertise is in identifying -- what
16   did you call it -- an identifiable --
17   "identifiable group"?
18   Is that your objection?
19   MR. LEWIS: Principally, yes. I'm
20   looking to see for the .9. I don't recall
21   that, but . . .
22   (Whereupon, counsel reviews the
23   material.)
24   MR. LEWIS: If somebody --
25   THE COURT: I know why you're using

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1   that terminology, right.
2   What -- what I am not sure about is
3   whether that's a legal question or a factual
4   question.
5   MR. JACOBSON: I'm happy to rephrase
6   the question as more of a factual question,
7   if you prefer, Your Honor.
8   THE COURT: And I do note that,
9   Dr. Chen, you went back and forth on whether
10   Democrats were an identifiable group or
11   people who vote Democratic are an
12   identifiable group, and I think you two
13   might be talking past each other on that.
14   So to the extent he can testify as
15   to what an identifiable group is for --
16   because I'm not convinced, again, that
17   that's a factual question; you should
18   probably be clearer in -- in your
19   questioning.
20   MR. JACOBSON: Sure.
21   BY MR. JACOBSON:
22   Q.   And, Dr. Chen --
23   THE COURT: So -- so that gives
24   counsel an opportunity to look at the expert
25   report and verify, but I'm going to overrule

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1 it for now without prejudice to you, and
2 let's see if he can rephrase the question
3 and not draw that same objection.
4 Okay?
5 BY MR. JACOBSON:
6 Q. And to clarify before I ask my next
7 question, Dr. Chen, when you see "Democratic voters,"
8 are you referring to people registered as Democrats
9 or people who vote for Democratic candidates?
10 A. I'm talking, sir, about people who vote
11 for Democratic candidates.
12 Q. And in your correlation analysis, were
13 you able to determine whether in Pennsylvania there
14 is a group of people who consistently vote for
15 Democratic candidates for Congress -- not for
16 Congress, just vote for Democratic candidates?
17 A. Yes, sir, I did analyze that question,
18 and if I may, I will just point to Page 12 of my
19 expert report, in which I describe generally that
20 analysis.
21 And so what I said and what I analyzed
22 was the correlation, and I'm talking about a
23 statistical question here. And this is the only way
24 in which I understood your question, sir, about
25 identifiable. This is the only way that I, as an

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1 And I'm going to qualify my answer by
2 pointing out that all of this is on the basis of,
3 Number 1, the analysis that I did, my own expert
4 analysis, but also my -- the answer I'm about to give
5 you is also on the basis of assuming the veracity of
6 the 13 GIS shapefiles that Petitioners' counsel gave
7 to me and represented to me came from Speaker Turzai
8 in the creation of the 2011 Plan.
9 So on the basis of those two things, my
10 own expert analysis of elections generally as a
11 political scientist, but then the representation to
12 me that Petitioners' counsel gave me about the 13 GIS
13 shapefiles, I'm able to conclude the following:
14 Number 1, it clearly is very straightforward to see
15 that Democrats are a group that correlate very
16 strongly at the precinct level, at the district
17 level, at the county level, et cetera.
18 Q. And, Dr. Chen, if I could stop you
19 right there. I believe you said "Democrats."
20 When you say "Democrats," who are you
21 referring to?
22 A. I'm talking about individuals who vote
23 for Democrat candidates. I am not talking about,
24 say, partisan registrants.
25 Q. Thank you.

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1 empirical social scientist, am able to make sense of
2 that -- that term.
3 So I am analyzing the statistical
4 correlation between elections, as I described a
5 few minutes ago.
6 So what I -- I reported on in my report
7 is that past voting history and Federal and statewide
8 election is a strong predictor of future voting
9 history. In other words, what I found in my analysis
10 and what I reported on here on Page 12 is that I am
11 looking at an empirical relationship between one
12 election to the next. That's the only way in which I
13 understand that -- the -- the -- the -- the term that
14 you were asking me about.
15 Q. And -- thank you, Dr. Chen.
16 And if I could draw your attention to
17 the final paragraph of your report, or at least
18 before the appendices on Page 41, based on that
19 analysis and your analysis of the four
20 documents -- the four files produced in the Federal
21 litigation, did you reach an opinion on whether
22 people who consistently vote for Democratic
23 candidates were identified as part of the creation of
24 the 2010 Plan [sic]?
25 A. Yes, sir, I did.

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1 A. So I am just talking about Democratic
2 voters in the sense that they elect Democratic
3 candidates.
4 So that group is a group that clearly
5 correlates very strongly from one election to the
6 next, which is another way of, in empirical terms,
7 meaning that it's very easy to measure those
8 Democratic voters, to measure the concentrations of
9 Democratic voters in one precinct or one county or
10 one district versus another, so it's very easy to
11 measure and to see where they live geographically and
12 where they are concentrated and so on. That's what I
13 mean by being able to -- to look at that correlation
14 analysis and being able to say something about how
15 the measure of Democratic voters are.
16 Now, combined with Petitioners'
17 counsel's representation to me about -- about the
18 source of the 13 GIS shapefiles, it is clear, to me,
19 that not only was it possible to accurately measure
20 these Democratic voters, where they live, what
21 precincts they live in, where they're most
22 concentrated, but, in fact, that the shapefiles that
23 were given to me by Petitioners' counsel that they
24 represented came from Speaker Turzai clearly indicate
25 that the General Assembly not only was able to but

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1 clearly successfully did.
2   MR. TUCKER: Objection, Your Honor.
3   THE COURT: Sustained.
4   MR. TUCKER: Thank you.
5   MR. JACOBSON: Thank you,
6 Your Honor.
7   Your Honor, I know you said you had
8 to end at around 5:00. I apologize. I have
9 about 10 or 15 minutes left. I'm happy to
10 keep going or --
11   THE COURT: No, I can't. In fact,
12 I needed to stop about 12 minutes ago.
13   How much more direct examination do
14 you have?
15   MR. JACOBSON: About 10 to 15
16 minutes, Your Honor.
17   THE COURT: Okay. We're going to
18 pick up at 9:30.
19   Do you have a request, Counsel?
20   MR. TUCKER: Yes, Your Honor.
21   We would like to request to reserve
22 the right to review all the trial
23 transcripts from Agre to potentially move to
24 strike some of Dr. Chen's testimony on the
25 Turzai files.

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1   As I understand your order, they've
2 either got to be admitted into evidence or
3 the experts in the Agre case had to have
4 relied upon them in the same manner that
5 Dr. Chen is relying on them here, and we
6 don't necessarily believe that to be the
7 case. And I'd like the opportunity to take
8 this evening to review that and potentially
9 move to strike some of the testimony
10 tomorrow morning, if that's okay.
11   THE COURT: I thought you were
12 going to make a different motion. But I'll
13 entertain any motion you want to make
14 tomorrow morning with regard to that.
15   MR. TUCKER: Thank you, Your Honor.
16   MR. LEWIS: Thank you.
17   THE COURT: Does anybody have
18 another motion they want to make, over on
19 the Respondents' side?
20   (Pause.)
21   THE COURT: Okay. Apparently not.
22 Yes, sir.
23   MR. GERSCH: Your Honor, can I
24 inquire about how late we might go tomorrow?
25   THE COURT: It's a good question.

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1 I don't know yet. I will probably know
2 tomorrow morning, because after that, I will
3 have spoken to my wife.
4   MR. GERSCH: Very good, Your Honor.
5   THE COURT: Right now, we're going
6 to be in recess until tomorrow morning at
7 9:30.
8   THE CLERK: The Commonwealth Court
9 is now adjourned.
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12   - - -
13   (Whereupon, the trial adjourned at
14 5:14 p.m., to reconvene on Tuesday, December
15 12, 2017, at 9:30 a.m.)
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COMMONWEALTH OF PENNSYLVANIA:
    I, Cindy L. Sebo, a court reporter within
and for the Jurisdiction aforesaid, do hereby certify
that the foregoing proceeding were pursuant to notice,
at the time and place indicated; that the testimony
of said was correctly recorded in machine shorthand
by me and thereafter transcribed under my supervision
with computer-aided transcription; that the proceedings
are true record of the testimony given; and that
I am neither of counsel nor kin to any party in said
action, nor interested in the outcome thereof.

_____
    Cindy L. Sebo, RMR, CRR, RPR, CSR,
    CCR, CLR, RSA, LiveDeposition
    Authorized Reporter, and Notary Public