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IN THE DISTRICT COURT OF WYANDOTTE COUNTY, KANSAS
IN THE TWENTY-NINTH JUDICIAL DISTRICT
CIVIL DEPARTMENT

FAITH RIVERA, et al.,)
)
Plaintiffs,))
)
vs.) Case No. 2022-CV-89
)
SCOTT SCHWAB, et al.,)
)
Defendants.)

TRANSCRIPT OF BENCH TRIAL
VOLUME 1

PROCEEDINGS had before the HONORABLE BILL
KLAPPER, Judge of Division 6 of the District Court
of Wyandotte County, Kansas, at Kansas City, Kansas,
on the 5th day of April, 2022.

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The plaintiffs, FAITH RIVERA, ET AL., appeared in
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25

INDEX

PAGE

WITNESSES

PLAINTIFFS' WITNESS: TOM BURROUGHS

Direct Examination by Ms. Brett.....	7
Cross-Examination by Mr. Rupp.....	23
Redirect Examination by Ms. Brett.....	36

PLAINTIFFS' WITNESS: MILDRED EDWARDS

Direct Examination by Mr. Hawley.....	40
Cross-Examination by Mr. Rupp.....	54
Redirect Examination by Mr. Hawley.....	58

PLAINTIFFS' WITNESS: CHRISTOPHER WARSHAW

Direct Examination by Mr. Freedman.....	63
Cross-Examination by Mr. Kaiser.....	130
Redirect Examination by Mr. Freedman.....	207

EXHIBITS

<u>Exhibits:</u>	<u>Offered</u>	<u>Received</u>
Exhibit No. 1066-D	60	61
Exhibit No. 746	208	208

1 THE COURT: On the record in Rivera,
2 Alonzo, and Frick versus Schwab. The appearances of
3 the parties this morning are relatively the same,
4 perhaps identical.

5 The Court wishes to take up a motion before
6 we start trial. The plaintiffs have filed a joint
7 motion in limine to exclude the testimony of Bryan
8 Caskey and Jordan Milholland; and, Tony, can you
9 give us the gist of the testimony of those folks?

10 MR. RUPP: Sure. Jordan is with the Kansas
11 Legislative Research Department, and he will largely
12 describe what the Kansas Legislative Research
13 Department does, and the services it provides to the
14 Legislature in a nonpartisan basis associated with
15 the creation of Congressional maps.

16 And Mr. Caskey is the Director of Elections
17 for the Secretary of State's Office, and, if he is
18 called, he will largely describe the role of the
19 Secretary of State with regard to the operation of
20 the elections in the State of Kansas.

21 That's the basis of the lawsuit against the
22 Secretary of State.

23 THE COURT: Thank you, Tony. Stanton, what
24 does the plaintiff say about that?

25 MR. JONES: Yes. On the basis of the

1 representations about the subject matter of their
2 testimony, the plaintiffs withdraw the motion to
3 exclude them. We'll cross-examine them, but we
4 withdraw the motion.

5 THE COURT: Thank you. All right. Let get
6 started. Call your first witness, please.

7 MS. BRETT: Plaintiffs are going to call
8 Representative Tom Burroughs, please.

9 THE COURT: Good morning, Representative
10 Tom Burroughs.

11 MR. BURROUGHS: Your Honor.

12 THE COURT: Get close enough where you and
13 I can eyeball each other the way we normally do.
14 That's perfect, Tom. Raise your right hand for me,
15 please.

16 TOM BURROUGHS,
17 called as a witness, having been first
18 duly sworn, testified as follows:

19 THE WITNESS: I do.

20 THE COURT: Please have a seat. I've
21 discussed with counsel that it's been my pleasure to
22 know Representative Burroughs for 30 years.

23 THE WITNESS: Your Honor, that's true.

24 THE COURT: Okay. And counsel has all
25 indicated to me that that would not be a problem.

1 But so that all the rest of you know that I have
2 known Mr. Burroughs for a long, long time. When
3 you're ready, Sharon.

4 MS. BRETT: Thank you, Your Honor.

5 DIRECT EXAMINATION

6 BY MS. BRETT:

7 Q. Good morning, Mr. Burroughs. Please state your name
8 for the record.

9 A. Tom Burroughs.

10 Q. Where do you live?

11 A. In Kansas City, Kansas, Wyandotte County.

12 Q. Where do you work?

13 A. I'm an elected official.

14 Q. Where are you an elected official?

15 A. In Wyandotte County, Kansas City, Kansas.

16 Q. Okay. Are you a member of the Kansas State House of
17 Representatives?

18 A. I am.

19 Q. Do you hold another government position?

20 A. I do. I'm Commisioner At-Large District 2 for
21 Wyandotte County.

22 Q. How long have you served in the Kansas House?

23 A. Twenty-six years.

24 Q. What area of Kansas do you represent?

25 A. South central part of Wyandotte County.

1 Q. Okay. And how long have you been a Commissioner for
2 the Unified Government?

3 A. Beginning my fifth year.

4 Q. So, as a member of the House, how many redistricting
5 processes have you been involved in?

6 A. This is my third process.

7 Q. Okay. So, you were in the House for 2002, 2012, and
8 then 2022?

9 A. Correct.

10 Q. Okay. Have you had any leadership role in past
11 redistricting cycles?

12 A. No, just as -- not on the committee, but as the
13 chairman of the Wyandotte County delegation.

14 Q. Did you have a leadership role in this year's
15 redistricting cycle?

16 A. I did.

17 Q. What was that leadership role?

18 A. The ranking member, which is the highest democrat on
19 the committee.

20 Q. So, we heard testimony yesterday that there were
21 redistricting town halls held in the summer of 2021;
22 is that right?

23 A. Correct.

24 Q. Can you tell me about those town halls? I believe
25 they were in August; is that right?

1 A. Yes. I believe they started August 9th, I believe,
2 something like that.

3 Q. Okay. How many were there?

4 A. There were 14 town halls and a very compressed
5 schedule over five days.

6 Q. Did you attend all of those town halls?

7 A. I did.

8 Q. Were you consulted about the scheduling of those
9 town halls before they were set?

10 A. No.

11 Q. Did you have the 2010 census data before those
12 August 20-21 town halls?

13 A. The 2010 census data?

14 Q. The most recent census date before those town halls?

15 A. No, not officially. No. Not officially.

16 Q. Okay. Did you know before those town halls that it
17 would be impossible to keep all of Wyandotte County
18 and all of Johnson County together?

19 A. It would be a challenge.

20 Q. Okay. Did you know that it would be impossible or
21 exactly how the numbers would break down at that
22 point?

23 A. No.

24 Q. Okay. So, you said you were at all of the town
25 halls. What were your main takeaways from those

1 town halls?

2 A. There was a tremendous amount of testimony given
3 about transparency and fairness in the process to
4 keep communities of interest collectively together,
5 to keep our district as compact and contiguous as
6 possible.

7 Q. What about any testimony specific to the Kansas City
8 Metro Area? What did you hear about that?

9 A. A large majority of the testimony stated to keep the
10 Johnson County and Wyandotte County metropolitan
11 area collectively together.

12 Q. There was a second set of town halls just before
13 Thanksgiving that was on Zoom; is that right?

14 A. Correct.

15 Q. At that point did you have the specific census data?

16 A. We had a little more data but still the data was
17 late in getting to us due to the COVID, and there
18 was concern about the census numbers, but we had
19 more data, yes.

20 Q. You had more data then. Was the testimony at those
21 virtual town halls different in any way from the
22 testimony at the August 2021 town halls?

23 A. Not much, no.

24 Q. I want to move now, talk a little bit about the
25 Legislative session itself. So, you were ranking

1 minority member of the House Committee you said,
2 right?

3 A. Correct.

4 Q. And your committee first met in January; is that
5 right?

6 A. Yes.

7 Q. What did you do at that first meeting?

8 A. Adopted the rules, went over the process.

9 Q. By the rules, what do you mean by that?

10 A. The guidelines set forth by the Redistricting
11 Advisory Committee.

12 Q. Okay. Did you understand that the guidelines were
13 something legislators should follow in drawing up
14 maps?

15 A. Yes. I anticipated them being quite similar to what
16 they were in the past. So, I anticipated that they
17 would be followed.

18 Q. Okay. Did you ever hear anyone on either side of
19 the aisle say that legislators were free to
20 disregard the guidelines?

21 A. No.

22 Q. And what sorts of things were listed in the
23 guidelines?

24 A. As I stated earlier, compactness and contiguousness,
25 the transparency and fairness, communities of

1 interest.

2 Q. Okay. And I would like to call up what's previously
3 been admitted as Plaintiffs' Exhibit 137. Okay.

4 Can we go to the second page, please. Okay. And
5 Representative Burroughs, what do you understand
6 this to be?

7 A. These are the Congressional Redistricting
8 Guidelines.

9 Q. Okay. And can we take a look at Congressional
10 Redistricting Guideline No. 3. What does that
11 guideline say?

12 A. Redistricting plans will have neither the purpose
13 nor the effect of diluting minority voting strength.

14 Q. So, that was one of the guidelines that you
15 understood the legislators to be following when
16 drawing up the maps?

17 A. Yes.

18 Q. So, at that first meeting you went over the
19 guidelines, then what happened next at the next
20 meeting?

21 A. Next meeting we -- was introductions about maps. I
22 did ask for clarifications in reference to the
23 process, but we started going with maps.

24 Q. Okay. And was that Ad Astra 2 map introduced at
25 that meeting?

1 A. Yes.

2 Q. Had you seen the Ad Astra 2 map before it was
3 introduced?

4 A. No.

5 Q. Did you know who drew it?

6 A. No. There was speculation anyone but, no.

7 Q. Did you receive public testimony on the maps that
8 were introduced to your committee?

9 A. I don't recall exact testimony.

10 Q. At that first meeting?

11 A. No.

12 Q. Okay. At a subsequent meeting did you receive
13 public testimony on the map?

14 A. Yes.

15 Q. Okay. And maps were also introduced in the Senate;
16 is that right?

17 A. Yes.

18 Q. Can you speak at all to the timing of when the House
19 and the Senate Committees on redistricting each
20 received public testimony on the introduced map?

21 A. They were scheduled at the same time, because we had
22 conferees bouncing between the two chambers, if they
23 were fortunate enough to be able to testify in one
24 before they could get to the other, but they were
25 going on simultaneously.

1 Q. What was your impression of the general content of
2 the public testimony before your committee?

3 A. It was pretty consistent all the way through. Even
4 the town halls that we attended during the five day
5 compressed schedule that even the Zoom comments were
6 pretty consistent. Wyandotte Johnson County metro
7 area collectively whole, be fair and transparent,
8 contiguous, ensure that the fair, equitable, and
9 transparent.

10 Q. And the testimony on the maps that were introduced
11 in your committee, was it consistent with everything
12 you just talked about?

13 A. No.

14 Q. Okay. So, did you receive public comment on the Ad
15 Astra 2 map?

16 A. Yes.

17 Q. And, what was the commentary? What was your general
18 impression of the commentary on the Ad Astra 2 map
19 from members of the public who testified before your
20 committee?

21 A. A large majority were opposed.

22 Q. Okay. What did you think of the Ad Astra 2 map when
23 you first saw it?

24 A. I was extremely disappointed but not surprised.

25 Q. When you say you were disappointed, can you tell me

1 why?

2 A. Because it split my community that I value and hold
3 very dear. It split us right down a main artery of
4 our community and split heavy minority districts.

5 Q. And, in your view, how did the Ad Astra 2 map affect
6 your constituent's voice in the the political voice?

7 A. It mutes their voice. When you collectively take a
8 community that is largely diverse, we, in Wyandotte
9 County, embrace our diversity, and when -- it pains
10 me greatly when I see deliberate actions taken to
11 mute those voices or disenfranchise members of my
12 community.

13 Q. And, Representative Burroughs, did you introduce a
14 map in your committee?

15 A. I did.

16 Q. What was the name of that map?

17 A. Buffalo 2.

18 Q. How did you create the Buffalo 2 map?

19 A. The League of Women Voters had asked me to sponsor
20 their map and that map was also sponsored by the
21 chairman, but the deviations were wrong and were off
22 in the League of Women Voters' map, and I believe it
23 was Bluestem; and what I chose to do was take the
24 League of Women Voters' map, have my staff review
25 it, get those deviations down to near zero.

1 It was -- two of them were at zero
2 deviation and two of them were at one more and one
3 less. So, the deviations were as close to zero as
4 possible.

5 Q. Did your Buffalo 2 maps split Wyandotte County at
6 all?

7 A. No.

8 Q. Why not?

9 A. As I stated, I truly believe that Wyandotte County
10 and the metropolitan area with joining with northern
11 Johnson County were what the people had asked us to
12 do.

13 Q. Did the Buffalo 2 map split Wyandotte County from
14 northern Johnson County communities?

15 A. No.

16 Q. Why not?

17 A. We are a major economic corridor in Wyandotte and
18 Johnson County in the metropolitan area. We share
19 major hospitals. We have economic expansion in
20 Wyandotte County in joint partnership with Johnson
21 County. We share major transportation corridors.

22 We have a sundown community where we
23 provide some of the best paying jobs and watch our
24 workers go to the south. It's not uncommon. I live
25 right on the county line. My backyard bumps right

1 up against Johnson County property lines.

2 There's a lot of transverse between
3 populations through that corridor. It's a major
4 artery of economic opportunity.

5 Q. And do you believe that your Buffalo 2 map dilutes
6 the minority votes in Kansas City, Kansas?

7 A. Absolutely not.

8 Q. Do you believe that the committee spent much time
9 considering your Buffalo 2 map?

10 A. No.

11 Q. And that Ad Astra 2 map eventually is the one that
12 passed out of your committee, right?

13 A. Correct.

14 Q. How quickly did it pass out of your committee?

15 A. Pretty quick. It was -- I'll just state I felt it
16 was greased to go.

17 Q. When you say, "greased to go," what you do mean by
18 that?

19 A. Well, they were ready to pass it on. The Senate was
20 doing it at the same time. When you take the optics
21 of what was occurring within the Legislative
22 process, it's quite clear to me that those
23 legislators have been around a while, the bill was
24 set to hit the floor in a very short amount of time.

25 Q. And, in fact, when the Ad Astra 2 map got to the

1 House floor, it had already passed the Senate; is
2 that right?

3 A. Correct.

4 Q. On the floor of the House, did anyone put forth any
5 amendments?

6 A. Yes.

7 Q. Did you put forth an amendment?

8 A. I did.

9 Q. What was that amendment?

10 A. The Buffalo 2 map.

11 Q. Did that amendment fail?

12 A. It did.

13 Q. Were there any other amendments put forward?

14 A. I believe there was an amendment put forward by a
15 Johnson County representative, and I believe it was
16 Mushroom Rock.

17 Q. Okay. Was that Representative Clayton that offered
18 that map?

19 A. Yes.

20 Q. Okay. I want to call up a demonstrative what I
21 guess is now D-4, demonstrative D-4. Can you tell
22 me what this is?

23 A. It looks like the Mushroom Rock.

24 Q. So, this is a picture of the Mushroom Rock map that
25 Representative Clayton offered?

- 1 A. Yes.
- 2 Q. Okay. Can we zoom in a little bit on that corner?
- 3 Thank you. Does the Mushroom Rock map offered by
- 4 Representative Clayton on the House floor keep
- 5 Johnson County whole?
- 6 A. It does.
- 7 Q. Did republican leadership vote for this map?
- 8 A. No.
- 9 Q. Even though this map kept Johnson County whole,
- 10 republican leadership didn't vote for it?
- 11 A. Correct.
- 12 Q. Do you recall Representative Clayton -- we can take
- 13 that demonstrative down. Thank you. Do you recall
- 14 Representative Clayton speaking at all about her
- 15 proposed map on the House floor?
- 16 A. I do.
- 17 Q. Do you recall that during her speech she talked
- 18 about republicans wanting to keep Johnson County
- 19 whole?
- 20 A. Correct.
- 21 Q. Was your impression of her comments that she was
- 22 being serious about her map or that she was being
- 23 sarcastic about her map?
- 24 A. I would lean more towards sarcastic.
- 25 Q. And Representative Clayton's map failed, correct?

1 A. It did.

2 Q. So, then you were back to the Ad Astra 2 map debate?

3 A. Correct.

4 Q. Did you object to Ad Astra 2 on the House floor?

5 A. I did.

6 Q. On what grounds?

7 A. That it split my community and muted minority
8 voices.

9 Q. Did you feel like it met the redistricting
10 guidelines that your committee had agreed to follow?

11 A. Absolutely not.

12 Q. How would you -- strike that. The Ad Astra 2 map
13 eventually passed out of the House; is that right?

14 A. It did.

15 Q. How would you describe the overall way that the Ad
16 Astra 2 map passed out of the House?

17 A. Party line vote.

18 Q. Okay. What about the speed with which it passed?

19 A. It was quite a compressed schedule. That's why I
20 stated it was greased to go. In a short amount of
21 time, I believe less than 10 days, we had -- it had
22 maps. We adopted the rules, had maps introduced,
23 had public comment in both House and Senate. Senate
24 had passed it in their chamber. It had come through
25 the House in a small amount of time, and we were

1 having the discussion, and then it passed.

2 Q. Is that consistent with how the House normally
3 passes important legislation?

4 A. No.

5 Q. And the Governor vetoed the map; is that right?

6 A. Correct.

7 Q. And what happened -- what was the vote at the
8 override session? Was it a party line vote or --

9 A. Yes, party line vote.

10 Q. Looking back at the overall process, was there any
11 attempt at bipartisanship or collaboration of a map
12 that would work for both parties?

13 A. No.

14 Q. Would you say that -- no, strike that. What about
15 with past redistricting cycles? Let's think back to
16 the 2012 cycle. Overall, how did this process work
17 in comparison to the 2012 process, in terms of
18 debate on the maps?

19 A. In 2012, we came up with no maps. So, we had the
20 entire session in which to had discussions where the
21 Legislature failed to come forward with maps of
22 their own. The Courts drew those maps.

23 Q. Okay. But is it safe to say there was robust debate
24 about different options during 2012?

25 A. I would say that's correct.

1 Q. From your experience as the ranking minority member
2 of the House Redistricting Committee, and you
3 watched this whole process go down, what did you
4 believe the intent of the majority party was in
5 enacting that?

6 MR. RUPP: Well, I object. What he
7 believes as to the intent of the majority party is
8 speculation.

9 MS. BRETT: As somebody who was involved in
10 the process from start to finish, I'm just asking
11 for his impressions of how it all felt to him as a
12 member of the committee.

13 THE COURT: Keep your questions as to what
14 he thought, but your objection is sustained unless
15 you want to add to it and talk me out of it.

16 MS. BRETT: It's sustained.

17 MR. RUPP: My objection is sustained. I'm
18 good.

19 Q. (By Ms. Brett) I will rephrase, but now I need to
20 think about the way I want to rephrase.

21 THE COURT: That's okay. Take your time.

22 Q. (By Ms. Brett) What did the process as a whole
23 signal to you?

24 A. This was going to be a very partisan process.

25 Q. And what do you believe is the affect of the Ad

1 Astra 2 map particularly on the minority community
2 that you represent?

3 A. It will have a palling effect. In my community
4 specifically, in the majority minority community, it
5 would be very difficult for a minority member of our
6 community to ever run for state or federal office
7 and have their voices muted when it comes to having
8 interest of theirs presented on either federal,
9 state level. It's very concerning to me.

10 MS. BRETT: Okay. I'm going to leave it at
11 that for now, Your Honor. No further questions at
12 the moment.

13 THE COURT: Thank you, Sharon.

14 CROSS-EXAMINATION

15 BY MR. RUPP:

16 Q. Good morning, Representative Burroughs.

17 A. Morning.

18 Q. Thank you for your service, public service. It's --
19 that's a wonderful thing and much appreciated.

20 You've described, I believe, that your work in the
21 House as the people's work; is that correct?

22 A. I like to think of myself as a public servant.

23 Q. And as a public servant and as a representative of
24 the people and the Legislature, you are representing
25 the voters, correct?

- 1 A. Correct.
- 2 Q. You're close to the voters, correct?
- 3 A. Correct.
- 4 Q. I'm certain you've walked the neighborhoods,
5 correct?
- 6 A. I have.
- 7 Q. And that's true for the republicans in their
8 districts as well, correct?
- 9 A. I'm assuming so.
- 10 Q. And so appreciate the fact that you're passionate
11 for your district. I imagine most of the republican
12 members of the House are passionate for theirs as
13 well; is that correct?
- 14 A. I can only assume that they may be.
- 15 Q. All right. Now, in terms of the folks on the
16 committee from the House, you worked with
17 Representative Croft from Overland Park who was the
18 chair of the House Redistricting Committee, correct?
- 19 A. He was my chairman, yes, sir.
- 20 Q. Yes. And my sense just from reading transcripts is
21 that you and Representative Croft got along pretty
22 well; is that fair?
- 23 A. I like to think that we can.
- 24 Q. And, in terms of his views, his views differed from
25 yours ultimately at the end of the day in that he

1 considered the core of the map Johnson County and
2 everything else would have to work out from there;
3 is that correct?

4 A. I can only state what I know. I don't know what
5 Chairman Croft what he chose to do.

6 Q. Well, you've heard his public comments in committee,
7 and I kind of read them, and that's more or less
8 what he said, isn't it?

9 A. I don't know.

10 Q. All right. In terms of you described what's called
11 the Buffalo 2 map. Could we call up 1066-D? And
12 this is your Buffalo 2 map with the old district
13 superimposed over them. So, the red lines on that
14 would be the old Legislative or the old
15 Congressional District, the 2012 map, okay?

16 A. Okay.

17 Q. I'll just represent that to you, because you will
18 recognize it differs from Buffalo 2 in that there
19 are some red lines on it; is that correct?

20 A. Correct.

21 Q. So, if I understand your First District in the
22 Buffalo 2 map, it goes -- the First District in this
23 map would go diagonally from the complete northwest
24 corner of the state to the southeast corner; am I
25 reading that correctly?

1 A. I don't believe so.

2 Q. So the First District is in the light blue, correct?

3 The Second District is in the purple. So, the

4 Fourth District is in white, correct? Disregard the

5 red lines, which reflect the old -- the prior plan,

6 okay?

7 A. Okay.

8 Q. So, if I'm reading the map correctly, and it has a

9 legend down here, map layers, light blue is the

10 First District, dark blue, which is up in the

11 northwest corner is the Second District. The Third

12 District is over here in the corner. I don't know

13 how best to describe the color.

14 A. Okay.

15 Q. And the Fourth District is this white area contained

16 within what used to be the Fourth District?

17 A. Okay.

18 Q. Am I reading it correctly?

19 A. I believe you're reading it by the legend, yes, sir.

20 Q. All right. And by the legend where the light blue

21 is the First District, it covers from the northwest

22 corner of the state to the southeast corner of the

23 state, all in the First District, correct?

24 A. Correct.

25 Q. And we've heard some complaints from Douglas County

1 about how Douglas County would be tied to all the
2 way to the Colorado border.

3 Your proposed Buffalo map would pass all --
4 the First District would be all of the way
5 diagonally across the state, correct?

6 A. Correct.

7 Q. And it would pass through a narrow corridor, and I'm
8 apologizing. I should know without legend my Kansas
9 map well enough, but it would have a narrow legend
10 of a part of a county here right there.

11 So, the First District would, in essence,
12 be have this very tiny half a county corridor that
13 it would pass through to get down to the southeast
14 corner of the state, correct?

15 A. Correct.

16 Q. Southeast corner of the state has never been in the
17 First District, correct?

18 A. Correct.

19 Q. Do you know how many miles it would be from the
20 northwest corner to the southeast corner?

21 A. No, I don't.

22 Q. All right. So, if I basically understand this and
23 you'd agree with me that or you've heard the term
24 packing, haven't you?

25 A. I'm sorry. The word?

- 1 Q. Packing.
- 2 A. Packing?
- 3 Q. The concept of packing in a gerrymandering concept
4 would be to overload one district with all members
5 of one party.
- 6 A. Okay.
- 7 Q. Can you accept that as a rough concept here?
- 8 A. If that's what you're telling me, I'll accept your
9 word.
- 10 Q. All right. And, you know, the concept of cracking
11 is to dilute a vote and the concept of packing is to
12 overload a vote.
- 13 A. Okay.
- 14 Q. If we could look at that map again, so, in your
15 proposed Buffalo district, it would appear to me
16 that virtually every rural county in the state,
17 which you'd agree with me are heavily republican; is
18 that correct?
- 19 A. Correct.
- 20 Q. Are kind of overloaded into one big oddly shaped
21 district, First District, correct?
- 22 A. Most the rural communities are heavily republican.
- 23 Q. And they're all -- in your map, they would all be
24 just kind of thrown there into the first, The Big
25 First, correct?

- 1 A. As I stated this was the League of Women Voters
2 event that I sponsored. What I chose to do was
3 change the deviation, the 180 some votes different
4 or members different, and went with the map that you
5 see here with the deviation to zero.
- 6 Q. Now, people have to -- to create a new map, you'd
7 agree with me that the First District does have to
8 expand to the east, correct?
- 9 A. Correct.
- 10 Q. And the Third District had to contract?
- 11 A. Correct.
- 12 Q. In terms of of population anyway, correct?
- 13 A. Correct.
- 14 Q. And so there are several possibilities to create an
15 expanded First District, correct? Several ways of
16 going about it, true?
- 17 A. There could be numerous ways, yes.
- 18 Q. That's why we have with the ability to use so the
19 KLRD is the Kansas Legislative Research Department,
20 correct?
- 21 A. Correct.
- 22 Q. And as a legislator -- that's a nonpartisan
23 organization, correct?
- 24 A. It is.
- 25 Q. And every legislator like yourself can use the

- 1 resources of the KLRD to help create maps, correct?
- 2 A. We can.
- 3 Q. And I'm assuming you did, correct?
- 4 A. To get to the deviation of zero with Buffalo 2, yes.
- 5 Q. And that's a process that they provide for
- 6 legislators, correct?
- 7 A. Correct.
- 8 Q. And so more or less you tell them how you want it
- 9 designed and they help get it to the deviations,
- 10 correct?
- 11 A. That's correct.
- 12 Q. All right. And so, one of the possibilities, if you
- 13 have to add population to the first, would be to
- 14 move Shawnee County in the first. You could get
- 15 population by doing that, correct?
- 16 A. There's a number of ways in which to address the
- 17 population exodus of rural Kansas.
- 18 Q. And, but one way or the other, you have to move
- 19 population from east into west?
- 20 A. That's not the only way, but that's one way.
- 21 Q. Other than moving population from the east into the
- 22 west, what would it be?
- 23 A. You also have -- you could move the south north,
- 24 southeast back towards the middle.
- 25 Q. Okay. In any case, it would -- would it be fair to

1 say that the Buffalo map that you've created
2 carefully avoids moving any democratic votes into
3 the First District?

4 A. As I stated, that is the League of Women Voters' map
5 that was shared with the chairman and myself and was
6 sponsored by both. The map that you have before you
7 was the one that just changed the deviation of 180
8 voters, I believe, in one district and another one.

9 Q. Would it be fair to say that in the Buffalo 2 map,
10 if you are a republican, your vote doesn't -- is
11 wasted, because there's no chance in this that
12 anybody other than a republican is going to win the
13 First District?

14 A. I say that's probably a fair analogy.

15 Q. And, likewise, if you are a democrat in the First
16 District, you're just kind of being thrown to the
17 wolves. There's no chance that a democrat could
18 ever win in this First District?

19 A. In today's climate, it would be hard, but in the
20 past we have. It's been a number of decades.

21 Q. I grew up in the First District in the Big First in
22 Hays, and there was never a democratic Congressman.
23 I'm not sure if there's ever been a democratic
24 Congressman in the Big First, has there, do you
25 know?

1 A. Not that I'm aware of.

2 Q. It's not -- I mean, within Legislative judgment, I
3 mean, you either have to move some democrats into
4 the First District or you have to move only
5 republicans into the First District, correct?

6 A. You could collapse districts in western Kansas to
7 make those numbers work, but those of us that worked
8 on maps, I chose to follow the guidelines that were
9 set forth. It would be very remiss of me to ignore
10 the rules and collapse districts.

11 Q. And do you have, I mean, is the Big First in this
12 concept compact?

13 A. It would be awful hard to get First District compact
14 without collapsing districts.

15 Q. In your -- and so, just to be clear, I mean, your
16 map does split the Third District, correct? The
17 Buffalo map splits -- let me rephrase that. I
18 phrased it very poorly.

19 In the Buffalo map, there are one, two,
20 three, three counties that I can see as split, one
21 of which is Johnson County, correct?

22 A. Correct.

23 Q. Now, in terms of Johnson County, and you did, and I
24 -- there are tremendous synergies everybody would
25 agree it would be great to have Johnson County and

1 Wyandotte County together. Nobody is arguing about
2 that, but the realty of it is that the fourth
3 guideline indicates to respect county lines,
4 correct?

5 A. I didn't see that guideline. You'll have to pull
6 that back up.

7 Q. Sure.

8 A. I don't remember the guideline respecting -- I
9 remember boundaries.

10 Q. All right. Well, let's -- I can -- all right. Here
11 we go. Go to the the second page. 4-D whole
12 counties should be in the same Congressional
13 District to the extent possible while still meeting
14 Guideline No. 2 above. And we recognize -- so do
15 you see that, first of all?

16 A. I do.

17 Q. Yeah. And the point -- I don't think anybody has
18 made the suggestion that these guidelines should be
19 ignored. The point is that these -- so, let me go
20 back to that just for a second because I don't want
21 there to be any confusion. The guidelines are not
22 part of the Kansas Constitution, correct?

23 A. That's correct.

24 Q. They're not a statute, correct?

25 A. Right.

1 Q. And legislators are free to exercise their own
2 judgment and interpretation, correct?

3 A. Correct.

4 Q. And you do that, correct?

5 A. (No response.)

6 Q. Let me rephrase it. In designing the Buffalo 2 map
7 that goes from the northwest corner to the southeast
8 corner, it was your legislative judgment that you
9 thought that map complied with the guidelines,
10 correct?

11 A. It did.

12 Q. And, you know, that's a matter of legislative --
13 well, strike that. You didn't have any political
14 scientists do any testing on it, correct?

15 A. Correct.

16 Q. You were able to exercise your own judgment as to
17 what the guidelines suggested, and how you thought
18 this complied with the guidelines, correct?

19 A. Correct.

20 Q. Now, this concept of whole counties should be in the
21 same Congressional District to the extent possible
22 is a challenging one, because everybody would like
23 to keep Wyandotte County together and everybody
24 would like to keep Johnson County together, right?

25 A. I would assume that would be the case.

1 Q. And they have been together in the past?

2 A. They have.

3 Q. And you're left with a very challenging choice as a
4 legislator, if you want to keep the metropolitan
5 area together, you have to divide one of those two
6 counties, correct?

7 A. You do.

8 Q. And the majority made the decision in the democratic
9 process to keep Johnson County together, correct?

10 A. They did.

11 Q. There's no guideline in the guidelines that says
12 only majority republican counties can be moved, is
13 there?

14 A. No.

15 Q. It is completely fair under the guidelines to
16 relocate within districts counties that have
17 democrats in them, correct?

18 A. Could you rephrase your question? I want to make
19 sure I follow.

20 Q. Certainly. In terms of redistricting moving
21 counties from one district to another, it's fair to
22 move counties that have majority republican, and
23 it's fair to move counties that are majority
24 democrat, correct?

25 A. I don't know if it's fair. It's part of the

1 process.

2 Q. It is part of the process, correct?

3 A. Correct.

4 MR. RUPP: All right. I have nothing
5 further. Thank you very much for your time and your
6 service.

7 THE COURT: Thank you, Tony. I'll take
8 standing up means following up.

9 MS. BRETT: Just a short bit, Your Honor.

10 THE COURT: Take your time.

11 REDIRECT EXAMINATION

12 BY MS. BRETT:

13 Q. Representative Burroughs, you were asked by Mr. Rupp
14 about the communities in that southeast corner of
15 Kansas and communities in the western part of
16 Kansas?

17 A. Correct.

18 Q. Correct. And under the Buffalo 2 map some of those
19 counties would be connected into a single
20 Congressional District?

21 A. I believe I followed your question.

22 Q. I can rephrase it.

23 A. Please.

24 Q. So, under the Buffalo 2 map, which you just walked
25 through on the screen with Mr. Rupp, there were some

1 counties in southeast Kansas and western Kansas in a
2 single Congressional District?

3 A. Correct.

4 Q. Okay. Are the counties in southeast Kansas rural?

5 A. Yes.

6 Q. Are the counties in western Kansas predominantly
7 rural?

8 A. Heavily rural.

9 Q. Is the City of Lawrence rural?

10 A. No.

11 Q. Is it an agricultural community?

12 A. No.

13 Q. Does it have anything in common with counties in the
14 western part of the state?

15 A. No.

16 MS. BRETT: That's it, Your Honor.

17 MR. RUPP: Nothing further.

18 THE COURT: All right. I don't know if
19 Representative Burroughs is here pursuant to a
20 subpoena? Nonetheless is he free to go if he
21 wishes.

22 MS. BRETT: He sure is.

23 MR. RUPP: He is.

24 THE COURT: Now, knowing Tom, he may want
25 to stay. Neither of you anticipate calling him

1 again as a witness, I'm assuming, and no one has
2 asked that the rule be enforced anyway. Thank you
3 for your testimony, Tom, and you are free to go or
4 stay as you might choose.

5 THE WITNESS: Thank you, Your Honor.

6 (Witness excused.)

7 MR. HAWLEY: Thank you, Your Honor. Our
8 next witness is going to be Dr. Mildred Edwards.
9 Dr. Edwards is just across the hallway, if we could
10 have a minute to fetch her and bring her on in.

11 THE COURT: Let's discuss that just for a
12 moment, counsel. This would be much earlier than I
13 would normally take a break, but do you want to take
14 a break at this point in time for about 10 minutes
15 and just hope to work until noon?

16 MR. HAWLEY: Certainly. I think that would
17 be fine with us, Your Honor. Thank you.

18 THE COURT: Tony, does that work for
19 defense?

20 MR. RUPP: I'm anticipating -- maybe I'm
21 wrong -- but she'll be really short, so --

22 MR. HAWLEY: That is true. We're not
23 anticipating direct lasting more than 20, 25
24 minutes, if, Your Honor, would prefer to wait on the
25 break.

1 THE COURT: If you think that we can do at
2 least direct examination in thirty minutes, I don't
3 feel the need to unless someone needs to take a
4 break, and I made previous arrangements with other
5 counsel. So all right. Let's call her.

6 MR. HAWLEY: Okay. Thank you.

7 THE COURT: Good morning, ma'am. If you
8 would walk just close enough where you and I can see
9 each other well, and that's a good spot, and then
10 raise your right hand for me, if you would, please.

11 MILDRED EDWARDS,

12 called as a witness, having been first
13 duly sworn, testified as follows:

14 THE WITNESS: Yes.

15 THE COURT: All right. And please be
16 seated right here. Please be careful getting up
17 there. We make that as inconvenient as we can for
18 some reason. All right.

19 MR. HAWLEY: Jonathan Hawley for the Rivera
20 plaintiffs.

21 THE COURT: Off the record, Rose.

22 (Recess.)

23 THE COURT: All right. Rose back on the
24 record, and let's go.

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DIRECT EXAMINATION

BY MR. HAWLEY:

Q. All right. Good morning, Dr. Edwards. How are you?

A. I'm well. Thank you.

Q. Thank you so much for joining us today. Would you please go ahead and state your full name for the record.

A. Mildred Edwards.

Q. What is your current title?

A. I am chief of staff to Mayor Tyrone Garner here at the Unified Government of Wyandotte County in Kansas City, Kansas.

Q. And how long have you held that position?

A. We came on board in December of '21.

Q. And what did you do before becoming Mayor Garner's chief of staff?

A. A number of things. I worked in state government. I've served two governors at the state level. I worked in corporate America following that stint, and then became self-employed for awhile as an executive coach and consultant most recently.

Q. And how long have you lived in Kansas?

A. All my life.

Q. All right. Dr. Edwards, I'd like to ask you some questions first about how Wyandotte County is

1 structured. Can you describe the county's
2 government?

3 A. Yes. Since 1997 Wyandotte County has merged into a
4 unified government structure. Kansas City, Kansas,
5 merged with the county at that time, and we have a
6 board of commissioners that governs the county.

7 We have a mayor who serves as the mayor and
8 CEO and a county administrator along with assistant
9 county administrators that serve in the
10 administrative role.

11 Q. Now, is that structure unique in Kansas?

12 A. Yes, it is. It's the only unified government in
13 Kansas.

14 Q. And what are some of the benefits of the Unified
15 Government?

16 A. Well, in terms of our population it allows us to
17 better take advantage of the economies of scale.
18 The Unified Government consists of Kansas City,
19 Kansas, proper, Bonner strings, and Edwardsville.

20 So, it allows those surrounding communities
21 to have economies of scale that they otherwise would
22 not be able to have had they not been a part of
23 Wyandotte County, and it allows us to have more
24 geographical area to do the things that we need to
25 do to better serve the residents here in the Kansas

1 City, Kansas, area extending throughout the county.

2 Q. Would you say there's a distinction between the
3 northern part of Wyandotte County and the southern
4 part?

5 A. Oh, absolutely.

6 Q. Could you describe that, please.

7 A. The northern part of Wyandotte County is an area
8 that historically has been disinvested. It's an
9 area of -- well, we're only 152 square miles as a
10 county.

11 We're the smallest county in the State of
12 Kansas, but that area particularly has lots of
13 needs. About 68 percent of the residents in that
14 geographical area are people of color. We have
15 about a \$15,000 difference in median income of the
16 residents that live there.

17 We have a lot of land and opportunity for
18 growth in northern Wyandotte County with the
19 exception of our pet projects that are on the west
20 side to include Legends, Schlitterbahn projects, the
21 home builders coming, Sporting KC, and all of the
22 things that are there on the western side.

23 When you think about the northeast side of
24 Wyandotte, there's a lot of need there, a lot of
25 poverty, a lot of aging in terms of the

1 infrastructure as well as our population.

2 On the southern side, we have some very
3 robust communities. Our medical school is there.
4 We have, again, the higher income levels, and we
5 have a greater emphasis on the metropolitan aspect
6 of Wyandotte, because of the proximity to downtown
7 KCMO and a lot of that exchange in terms of how we
8 have recreation, exposure to different
9 entertainment, and all of those types of activities.

10 Their incomes allow them that level of
11 access as well as that proximity to downtown KCMO.
12 So they have a lot more at their disposal compared
13 to the northern part of Wyandotte.

14 Q. And how do northern and southern Wyandotte support
15 each other?

16 A. Well, it's critical when you think about the county
17 as a whole and tax base that supports every area of
18 the community. What one area of the county lacks
19 another area helps to support.

20 So, we look at balancing how we provide
21 resources to our residents and those in need in a
22 way that we rely heavily on the southern side of
23 Wyandotte County and their economic ability to
24 support some of the areas of need that are
25 identified in the northern part.

1 Q. How about in terms of healthcare?

2 A. Healthcare. We have one hospital that is in the
3 northern area. Most of the healthcare is provided,
4 again, by KU Medical Center and the medical complex
5 there.

6 A number of residents receive their
7 healthcare there, but we have on the smaller scale,
8 you know, one facility north of 70, but most people
9 receive their healthcare, and it has a regional
10 draw, the KU Med.

11 Q. Let's shift now to talk about Wyandotte County's
12 minority communities. Can you describe the county's
13 diversity?

14 A. Well, that's one of the things that we're most proud
15 of. Wyandotte is the most diverse community in the
16 State of Kansas. So, when we think about our
17 population, we have a large percentage of our
18 residents are Hispanic, so over 30 percent.

19 We have second in that population group are
20 African-Americans. So, over 50 percent of our
21 population are people of color and not to include
22 our Asian communities, our Hmong, our Croatian, and
23 all other residents that live there that may
24 identify as white.

25 So, we think about the culture that exists

1 in Wyandotte, and that's something that we
2 celebrate.

3 And it's something that we really hope to
4 preserve in terms of how we offer access to various
5 cultural, entertainment, recreational, and/or
6 restaurant and other types of activities in
7 Wyandotte.

8 Q. And how does this Unified Government structure in
9 the county serve these diverse communities?

10 A. Well, when we think about how we govern, you know,
11 we are governed by a board of County Commissioners.
12 They each represent different areas of our county,
13 and so they are intimately aware of the needs of the
14 residents on a block-by-block basis.

15 Their job is to bring to the table the
16 needs of our diverse communities, and to be able to
17 negotiate, rationalize, and assign budget and/or
18 prioritize in a way that helps to meet those needs.

19 So, we hope to serve them more accurately
20 through the work that we do on a commission level.

21 Q. And would you say that the unity of Wyandotte County
22 allows you to better serve these minority
23 communities?

24 A. Oh, absolutely. Absolutely.

25 Q. Could you explain why?

1 A. So, when we think about that joint decision-making
2 and how we rank our priorities, the mayor is the
3 individual that sets the agenda, right? And he
4 determines what comes before the County
5 Commissioners for consideration, and given his
6 emphasis on our looking at the needs on a community
7 basis, we have been really working with the
8 commissioners and really strategizing and develop
9 programs to better look at those needs in many areas
10 of need, be it the unhoused residents, our business
11 and economic development strategies, our safety and
12 justice issues.

13 We're looking at our government
14 efficiencies, and how we're better serving our
15 constituents and our local residents.

16 We're looking at ways in which we could
17 bring our arts and culture and economic development,
18 again, to its original intention and to the levels
19 of notoriety that we are capable of.

20 So lots of ways we're looking at
21 celebrating Wyandotte and bringing the needs of the
22 local residents to our priority discussions.

23 Q. And do you anticipate Wyandotte County's diversity
24 increasing in the future?

25 A. Well, I tell you when we think about the

1 demographics that I shared with you compared to the
2 demographics in USD 500, I would have to say yes.

3 We have -- of our School District, we have
4 about 22,000 students in USD 500 alone, and so in
5 Kansas City, Kansas, public schools 55 percent of
6 the students in the KCK public schools are Hispanic.
7 About 28 percent are African-American.

8 And, when we think about that number in
9 Hispanic community, absolutely our future is
10 becoming more populated by people of color than it
11 is now based on that.

12 Q. Now, let's look at the Kansas City area a bit more
13 broadly. Is Wyandotte County linked with its
14 surrounding areas?

15 A. Absolutely. We're heavily reliant upon many of the
16 recreational, entertainment, and/or, you know, just
17 basic household needs. We don't have a grocery
18 store chain in Wyandotte. We have big box stores.
19 Some have grocery capabilities.

20 We have a co-op downtown, but when we think
21 about how we are able to access groceries on a
22 day-to-day basis, we're reliant upon our surrounding
23 communities when we have investments that are being
24 considered to grow our transportation to afford our
25 incomes, lower level income communities

1 transportation to go out to the resources that they
2 need to survive and sustain their families on a
3 day-to-day basis.

4 So, a lot of work needs to be done, but,
5 yeah, we're considering all of those things and
6 hoping that we'll be able the continue to make
7 progress.

8 Q. Would these links include between Wyandotte County
9 and northern Johnson County?

10 A. Oh, absolutely. I think the most pressing data that
11 we have to prove the importance of that is 80
12 percent of the educators in the KCK public schools
13 reside in Johnson County and without that influx of
14 support and professionals that are serving our
15 students in that way, we would not be able to
16 provide what we need to provide to cover the number
17 of facilities and/or students that we serve on a
18 day-to-day basis.

19 Q. So, Wyandotte County residents benefit from these
20 ties to northern Johnson County and vice versa; is
21 that fair?

22 A. Greatly.

23 Q. Now, Dr. Edwards, let's turn to the new
24 Congressional map. Just in terms of the new
25 district lines, what happened to Wyandotte County

1 under Ad Astra 2?

2 A. Well, it really divided our county at 70. So above
3 Highway 70, again, that is the community that is the
4 most disinvested that has the \$35,000 median income,
5 that has the highest number of people of color, and
6 it has the greatest need identified. It really puts
7 us in a challenging position.

8 We have promises. We have commitments that
9 have been made at the Congressional level to really
10 provide support that is greatly needed and much of
11 that in the northern part of Wyandotte.

12 This Congressional map of the \$15.5 million
13 that are slated to support Wyandotte County and its
14 infrastructure needs along with some of its
15 recreation and just outdoor community development
16 types of supports, we'll stand to lose \$9.5 million
17 of that should we have to begin conversations, begin
18 establishing a relationship, begin justifying the
19 need of the community there, and starting from
20 scratch with a new representative.

21 Q. So, it's safe to say that the split of Wyandotte
22 County will make it more difficult for you the
23 secure those federal funds?

24 A. I think it would be almost impossible, and we
25 already are talking about the part of Wyandotte that

1 most needs it, and I think it would be the straw
2 that breaks the camel's back for the northern part
3 of Wyandotte County.

4 Q. Do you feel that Wyandotte County has historically
5 benefitted from having a single member of Congress?

6 A. Especially given their understanding of Wyandotte's
7 needs and the diversity that exists and all of the
8 ways in which our infrastructure, and they spent
9 time really recognizing those areas of need, and
10 gaining a very keen understanding at those
11 negotiation tables of the Congressional level of
12 where Wyandotte needs its support. So, indeed, we
13 benefitted greatly and stand to.

14 Q. And what effect do you think we'll have separating
15 northern Wyandotte County not only from southern
16 Wyandotte County but from northern Johnson County as
17 well? Do you expect that will have an affect?

18 A. Well, I think when you have the interest split and,
19 you know, the disinvestment that persists in a
20 community, the odds that we have individuals that
21 are wanting to, number one, invest there, number
22 two, spend time there, and I think that would
23 diminish even more so than it presently has.

24 So, I would imagine that it would have a
25 tremendous negative impact.

1 Q. Now, diverse northern part of Wyandotte County has
2 now been placed in the Second Congressional
3 District, correct?

4 A. That's correct.

5 Q. What does northern Wyandotte County have in common
6 with the other communities in the Second
7 Congressional District?

8 A. Nothing. We are an urban community in a
9 metropolitan statistical area. We see ourselves
10 that way. Our residents benefit from that
11 recognition in that way, and we really rely heavily
12 on our representatives to understand the needs of an
13 urban community as diverse as Wyandotte in an effort
14 to meet the needs of our local residents.

15 Q. Overall, Dr. Edwards, what would you say is the
16 affect of the new Congressional map on Wyandotte
17 County?

18 A. I think it would devastate the northern part of
19 Wyandotte County. I believe the people of color
20 there that, again, represent 68 percent of the
21 people of color in Wyandotte would not receive the
22 attention that they need in order to improve and to
23 have access to the resources that are most important
24 to sustaining and drawing development and all of the
25 things that they need to sustain themselves on a

1 day-to-day basis, ways in which we have been working
2 and have in play that they would lose out on.

3 We want to make sure that, you know, each
4 resident in Wyandotte is valued, given their
5 differences that we have, and more so celebrated;
6 and I can't imagine that this population of minority
7 individuals in northern Kansas City would have much
8 in common with their rural neighboring counties that
9 are being considered.

10 Q. I'd like to finish up now with a few questions about
11 the redistricting process. Did you testify during
12 this latest round of redistricting?

13 A. I did.

14 Q. Where did you testify?

15 A. There in Topeka at the State Capitol.

16 Q. And what was the message that you delivered?

17 A. Please don't split up Wyandotte County, don't split
18 Wyandotte County from Johnson County, that we were
19 reliant upon one another to sustain the needs of our
20 residents, that we have established a good working
21 and collaborative relationship in each of those
22 areas; and, if we needed to do anything, please keep
23 Wyandotte County whole.

24 Q. And do you feel you were listened to?

25 A. Absolutely not.

1 Q. Did the Legislature and specifically the Legislature
2 Redistricting Committees hold community hearings in
3 Wyandotte County?

4 A. Yes, they did.

5 Q. And what was the message delivered by Wyandotte
6 County's residents?

7 A. Keep Wyandotte County whole.

8 Q. To your knowledge, were there any public calls for
9 Wyandotte County to be divided in the new map?

10 A. No.

11 Q. And were you surprised when you learned that
12 Wyandotte County would be split?

13 A. Extremely.

14 Q. And what did you do?

15 A. We began to mobilize with the support of leaders at
16 the community level to try to make sure that our
17 voice was heard, to make sure that the Mayor's
18 Office was involved in this process in a way.

19 We were invited initially to have
20 conversations, and then found it to be of extreme
21 importance to be here in this conversation, and to
22 represent the Unified Government on behalf of our
23 residents in this way. So that's why I'm here, and
24 we want to continue to represent Wyandotte County as
25 best we can.

1 Q. Overall, Dr. Edwards, what do you want from
2 Wyandotte County out of the Congressional
3 redistricting process?

4 A. I want Wyandotte County to remain whole. I would
5 like Johnson County to stay as much of a contributor
6 to Wyandotte's growth. We do understand that
7 population numbers determine this. We have
8 experienced growth, and we do understand that, but
9 we need Wyandotte County as the smallest county in
10 the State of Kansas covering only 152 square feet to
11 remain whole.

12 MR. HAWLEY: Thank you much for your time,
13 Dr. Edwards. Your Honor, no further questions at
14 this time.

15 THE COURT: Thank you.

16 CROSS-EXAMINATION

17 BY MR. RUPP:

18 Q. Dr. Edwards, how are you today?

19 A. I'm well. Thank you.

20 Q. Thank you so much for your public service and for
21 your time today. I have just a few questions. One
22 is you testified that you certainly went before the
23 Legislature and told them that you didn't want
24 Wyandotte County divided, correct?

25 A. That's correct.

1 Q. And did you hear any Johnson Countians ask to have
2 Johnson County divided?

3 A. Not -- we've had conversations with Johnson County
4 residents, particularly those that are closest to
5 the southern part of Wyandotte, and they certainly
6 better identify with Wyandotte than they do their
7 rural partners as well to the south of Johnson.

8 Q. But they didn't ask for Johnson County to be split
9 up? They didn't necessarily maybe want Anderson
10 County added, but --

11 A. I was speaking on behalf of Wyandotte, so I can't
12 respond to that.

13 Q. All right, very good. You did submit -- and in
14 terms of the process, we've heard some criticisms of
15 the process. You had an opportunity to speak at a
16 listening tour; is that correct?

17 A. No.

18 Q. Oh, all right. You did speak before the
19 Legislature?

20 A. I did.

21 Q. And you did write to the Legislature?

22 A. Correct.

23 Q. All right. And that would be your letter dated or
24 that is marked as Plaintiffs' Exhibit 199, and you
25 wrote -- and I guess I don't see a date on this.

1 So, do you know when you wrote this?

2 A. Okay. It's a blur.

3 Q. I understand that.

4 A. I believe that our first hearing we had the
5 opportunity to appear before the Legislature on
6 several issues this term, but I believe our first
7 hearing was in the latter part of February.

8 Q. Okay. And you said in there, Our major concern is
9 that Wyandotte and Johnson Counties be kept together
10 in the Third Congressional District as much as
11 possible?

12 A. Uh-huh.

13 Q. And you said, Wyandotte and Johnson Counties are an
14 engine of economic growth and innovations for
15 Kansas, correct?

16 A. That is correct.

17 Q. It is critical that our communities can advocate for
18 one region to attract federal attention and
19 investment, correct?

20 A. Yes. That's written there.

21 Q. Wyandotte and Johnson Counties share deep economic
22 and cultural connections, which contribute to our
23 growth and success, correct?

24 A. Yes.

25 Q. Our work forces -- work force, businesses, local

1 governments, and educational institutions are
2 closely connected, correct?

3 A. That's correct.

4 Q. If the two counties, which comprise the Kansas City
5 Metro Area were split into separate Congressional
6 Districts, it will weaken the representation our
7 citizens deserve in Washington DC, correct?

8 A. That is written there, yes.

9 Q. And you do recognize that the math problem? The two
10 counties can't be kept in the same Congressional
11 District unless one is divided, correct?

12 A. Yes, and this was written in several iterations
13 before Ad Astra 2. So, when we think about the
14 number of changes that have occurred, that certainly
15 was prevalent at the time.

16 Q. Absolutely.

17 A. Certainly before Ad Astra 2.

18 Q. So, the fact of growth in both Wyandotte County and
19 Johnson County unfortunately left the Legislature
20 with a very difficult policy decision, correct?

21 A. Could you repeat the question?

22 Q. Wyandotte County and Johnson County simply couldn't
23 be held together completely in one Congressional
24 District, correct?

25 A. Per the numbers.

1 MR. RUPP: All right. Thank you. I have
2 no further questions. Thank you very much for your
3 service.

4 THE WITNESS: Thank you.

5 THE COURT: Thank you, Tony. Any
6 follow-up, counsel?

7 MR. HAWLEY: Very briefly, Your Honor.
8 Thank you.

9 REDIRECT EXAMINATION

10 BY MR. HAWLEY:

11 Q. Dr. Edwards, in the testimonial letter that we just
12 put up you said, I believe advocated to keep
13 Wyandotte County and Johnson County together as much
14 as possible, correct?

15 A. That's correct.

16 Q. Is there a way to do that, to keep Wyandotte County
17 and Johnson County together as much as possible in a
18 single district without splitting Wyandotte County?

19 A. Yes. Wyandotte County has a population of 166,000
20 people; and so, when we think about the numbers that
21 were utilized to form each of those Congressional
22 Districts, absolutely parts of Johnson could be
23 incorporated with the whole of Wyandotte County in
24 order to keep that metropolitan area and that
25 business and economic thriving community together.

1 Certainly it could.

2 Q. And, in addition to that testimonial letter that was
3 submitted, you also testified in person in Topeka;
4 is that correct?

5 A. That's correct.

6 Q. And, again, do you feel that after giving your
7 testimony that you were listened to by the
8 legislatures in the Redistricting Committees?

9 A. No, I do not.

10 MR. HAWLEY: Thank you again, Dr. Edwards.
11 I have no further questions.

12 MR. RUPP: Nothing further.

13 THE COURT: All right. Again, I don't know
14 if Dr. Edwards is here pursuant to subpoena, but is
15 she free to go or to stay if she chooses? No one
16 will recall her.

17 MR. HAWLEY: She's free to go. I would
18 leave it to her if she's wants to join the rest of
19 the festivities, but she is free to go.

20 THE COURT: Tony.

21 MR. RUPP: She can join any of the three
22 courtrooms if she wishes to.

23 THE COURT: Dr. Edwards, we appreciate your
24 testimony and please you're released to go if you
25 wish, but you're free to stay if you choose.

1 THE WITNESS: Thank you, Judge.

2 THE COURT: Yes, ma'am.

3 (Witness excused.)

4 THE COURT: Seems like a good time for a
5 break, counsel, everybody 15 minutes good?

6 MS. BRETT: Yes.

7 THE COURT: See you all back here again at
8 10:40.

9 (Recess.)

10 THE COURT: Back on the record in Frick --
11 notice I changed the order, gentlemen, to give you
12 some importance today, Frick, Alonzo, and Rivera
13 verses Schwab.

14 The appearances of the parties, again, are
15 necessarily not identical but very similar to what
16 they were before.

17 So before I start in, we're going to take
18 care of some housekeeping matters. Tony, let's
19 start with your exhibit, please.

20 MR. RUPP: Yes, Your Honor, thank you.
21 Exhibit 1066-D, the Buffalo 2 map, was used as an
22 demonstrative, and we would ask that it be admitted
23 for that purpose.

24 MR. FREEDMAN: No objection, Your Honor.

25 THE COURT: Good, counsel, I didn't know if

1 you were handling that or not.

2 MR. FREEDMAN: I got the clue from the
3 back.

4 THE COURT: 1066-D is admitted without
5 objection. And then we probably should identify the
6 witness though, because I assume that would make
7 much more sense. Sir, would you raise your right
8 hand for me, please.

9 CHRISTOPHER WARSHAW,

10 called as a witness, having been first
11 duly sworn, testified as follows:

12 THE WITNESS: I do.

13 THE COURT: All right. And tell me your
14 name.

15 THE WITNESS: Christopher Warshaw.

16 THE COURT: Thank you, Christopher.

17 THE WITNESS: Chris is fine.

18 THE COURT: I like you experts.

19 THE WITNESS: Thank you, Your Honor.

20 THE COURT: All right. Counsel.

21 MR. KAISER: Yes, Your Honor. We would
22 just like to renew our Daubert motion in addition to
23 citing K.S.A. 60-456. We would also object on the
24 grounds of relevance, foundation, and
25 speculativeness.

1 And with that said, we'd also raise the
2 additional objection that we raised in our briefing
3 related to his specific methodology and context of
4 the State of Kansas.

5 THE COURT: Is this efficiency gap issue?

6 MR. KAISER: Yes, Your Honor.

7 THE COURT: All right. And we will discuss
8 that I am sure during the course of direct and
9 cross-examination.

10 So the Court still believes having reviewed
11 his report as well that he is a qualified expert
12 under 456(b), that what he has to say is relevant,
13 that it is reliable in the respect that he has taken
14 scientific methods and he has applied them properly
15 in this case, and those methods and principles that
16 he relies on are generally accepted.

17 Now, the Court notes for the record that
18 there can be some difference of opinion about
19 whether the efficiency gap is a legitimate measure
20 of a Congressional District of less than six seats.

21 The Court takes judicial notice Kansas is
22 four.

23 The Court also feels that it is important
24 to hear Chris's testimony and then, counsel, I'm
25 sure that you will effectively cross-examine, so --

1 MR. KAISER: I hope to, Your Honor.

2 THE COURT: All right then. Thank you very
3 much. So the ruling is the same as far as Chris is
4 concerned as the other experts. And are we ready?

5 MR. FREEDMAN: We are, Your Honor.

6 THE COURT: All right. Let's get started.

7 DIRECT EXAMINATION

8 BY MR. FREEDMAN:

9 Q. John Freedman for the plaintiffs. Could you state
10 your name for the record, sir.

11 A. Sure. It's Christopher Warshaw.

12 Q. And how are you currently employed?

13 A. I am an associate professor at George Washington
14 University in Washington DC.

15 Q. Do you have tenure?

16 A. I do.

17 Q. Do you have any previous academic appointments?

18 A. I do. I was an assistant and an associate professor
19 at the Massachusetts Institute of Technology in
20 Cambridge, Massachusetts.

21 Q. And where did you receive your training?

22 A. I received a PhD and a law degree from Stanford
23 University. I finished my J.D. in 2011 and my PhD
24 in 2012.

25 Q. Your CV is Exhibit 742, which I believe has been

1 previously admitted. Does that include your
2 experience and qualifications?

3 A. It does.

4 Q. What are your general fields of academic expertise?

5 A. Broadly speaking I focus primarily on American
6 politics. Within the field of American politics, I
7 focus on political representation, elections, public
8 opinion, polarization, redistricting, and partisan
9 gerrymandering.

10 Q. In your academic research, what methodology do you
11 use to study representation, gerrymandering, and
12 polarization?

13 A. I use a wide variety of methods. When I'm studying
14 the redistricting process and the relationship
15 between the redistricting process and the political
16 process, I typically use the metric called the
17 efficiency gap.

18 Q. We'll talk about the efficiency gap in some detail
19 in a little bit, but for now can you broadly
20 speaking tell the court what is the efficiency gap?

21 A. It captures the efficiency with which political
22 parties are able to translate their votes into seats
23 in the Legislature, which is really the primary goal
24 of the redistricting process from the point of view
25 from political parties.

1 Q. Why does the efficiency gap make sense as a tool to
2 examine partisan bias in a redistricting plan?

3 A. Well, it has excellent theoretical properties I just
4 described. It captures well this notion that we
5 should look at the efficiency of the translation of
6 votes it receives.

7 It also captures the theoretical notion of
8 cracking and packing very well, which is that
9 parties are trying to crack the disadvantaged party
10 across many districts, and pack them into a smaller
11 number of districts or pack them into a small number
12 of districts.

13 Then, in an empirical level in competitive
14 states, it's highly correlated with other metrics of
15 partisan bias.

16 And it, finally, we know is that, when a
17 party controls the redistricting process, they
18 typically shift the map in their favor. The
19 efficiency gap captures this well.

20 What we've seen in my research over the
21 past 70 years is that when a political party
22 controls the redistricting process, the efficiency
23 gap does indeed shift in their favor.

24 So that, if republicans control the
25 process, it shifts in a republican direction. If

1 democrats control the process, it shifts in a
2 democratic direction, which indicates to me this
3 metric is capturing exactly what we expect it to
4 capture.

5 Then I guess I would say lastly there have
6 been other studies that have validated using its
7 various methodologies and efficiency gap performs
8 well using each of these methodologies.

9 Q. Okay. Thank you. Just taking a step back, I want
10 to just lay a foundation for your expertise. Can
11 you describe your scholarship on elections.

12 A. Sure. I've written widely on both Congressional
13 elections and State Legislative elections. On
14 Congressional elections, I've examined the effect of
15 the political positions of candidates on the vote
16 shares that they receive as well as the consequences
17 of elections for the political process.

18 Q. Have your writings been peer reviewed?

19 A. They do. I published widely on elections in peer
20 review journals such as Legislative studies
21 quarterly, political behavior, and other journals.

22 Q. Can you describe your scholarship on polarization.

23 A. Sure. I've also written broadly on polarization,
24 both studying it in its own right and trying to
25 measure the difference between democrats and

1 republicans both in the legislature as well as in
2 the mass public, and that's been published in a peer
3 review journal called Public Choice.

4 I have also published widely on the
5 consequences of polarization for the political
6 process. One example of that is a paper I wrote
7 that was in Election Law Journal.

8 Q. Thank you. Can you describe your scholarship on
9 political representation.

10 A. Sure. Political representation is perhaps the core
11 of my research agenda, and I've published numerous
12 articles and a book manuscript on political
13 representation.

14 And just broadly speaking, political
15 representation, you can think of it as how well does
16 our democracy actually work?

17 And I published articles on representation
18 of state governments, municipal governments, in the
19 flagship journal and political science called the
20 American Political Science Review, which is peer
21 reviewed.

22 Q. Thank you. Have you published peer reviewed
23 academic papers on the efficiency gap, techniques
24 you applied in this case?

25 A. I have. I have published two peer reviewed articles

1 on using the efficiency gap to quantify the
2 redistricting partisan bias in the redistricting
3 process and examined its consequences for the
4 political process.

5 Those appear in Election Law Journal in an
6 2017 article and Legislative Studies Quarterly in
7 2022 or, sorry, 2020 article. And Legislative
8 Studies Quarterly is really the flagship journal on
9 Congress and Legislatures in political science.

10 And I'm also working on an early stage
11 working paper on redistricting that uses the
12 efficiency gap extensively, and I use the efficiency
13 gap as one of the principal metrics in my book
14 manuscript, which is forthcoming with University of
15 Chicago Press as well. It's currently in production
16 or in press.

17 Q. Thank you. Do you teach classes on these topics?

18 A. I do. I teach classes on each of these topics.

19 Q. Can you describe some your teaching.

20 A. Of course. I'm teaching a class right now on
21 elections for undergraduates. This class broadly
22 covers the campaigns and elections including, of
23 course, redistricting.

24 I'm also teaching classes on political
25 representation for both undergraduates and graduate

1 students.

2 And my courses on political representation
3 also extensively cover the role of redistricting
4 process, partisan gerrymandering, and
5 malapportionment in the representational process.

6 And then, finally, I taught courses on
7 Congress and political institutions, which broadly
8 cover polarization.

9 Q. Thank you. Which academics developed the efficiency
10 gap theory?

11 A. The efficiency gap was originally developed by a
12 political scientist named Eric McGhee, and it was
13 published in an article in 2014 in the peer review
14 journal, Legislative Studies Quarterly.

15 Q. Have you ever worked with either Eric McGhee or Nick
16 Stephanopoulos who is also credited with developing
17 the efficiency gap theory?

18 A. Exactly. There was a subsequent article in 2015
19 that was coauthored by Nick Stephanopoulos and Eric
20 McGhee and that's brought the efficiency gap to a
21 broader audience perhaps.

22 So I've collaborated with both Professor
23 Stephanopoulos and Professor McGhee. Professor
24 Stephanopoulos and I have a peer reviewed article in
25 Legislative Studies Quarterly on the effect of

1 partisan gerrymandering on political parties, and
2 I'm currently collaborating with Professor McGhee
3 on an article.

4 Q. Is that the one you described to me a little bit
5 earlier?

6 A. Exactly. In that article, we're providing initial
7 evaluation of the new districts that have been
8 passed, the new redistricting plans that have been
9 passed around the country, and placing them into
10 historical context in the same way that I do in my
11 work on this case.

12 Q. Have you presented expert reports and testimony on
13 other cases on redistricting using the efficiency
14 gap method you applied in this case?

15 A. I have.

16 Q. Did the trial courts in those cases credit your
17 analysis?

18 A. Did.

19 Q. Has every court proceeding, which you've testified,
20 accepted your testimony?

21 A. To my knowledge, yes.

22 MR. FREEDMAN: Your Honor, at this time
23 plaintiffs tender Dr. Warshaw as an expert in
24 American politics with specialties in political
25 representation, elections, and polarization.

1 MR. KAISER: We renew our objection, Your
2 Honor.

3 THE COURT: All right. The Court finds
4 based upon his testimony that he is adequately
5 qualified as an expert in a number of fields, but
6 certainly in the ones that the plaintiffs wish for
7 him to testify about today.

8 MR. FREEDMAN: Thank you, Your Honor.

9 Q. (By Mr. Freedman) So, Dr. Warshaw, do you have a
10 copy of your report in front of you?

11 A. I do.

12 Q. The report has been admitted into evidence as
13 Exhibit 105. I may refer to you at various points
14 of your testimony to the report.

15 Before we get into the details, can you
16 describe broadly speaking what was the first thing
17 plaintiffs asked you to do evaluate in this case.

18 A. I was asked to evaluate the newly enacted plan in
19 Kansas, which is the Ad Astra 2 plan, and evaluate
20 any partisan bias that may be present in that plan,
21 and, if there is any partisan bias in that plan as
22 measured via the efficiency gap in this case, to
23 place that into historical context.

24 Q. And just broadly speaking, we'll get, obviously
25 spend some time on the details, but what did you

1 find?

2 A. Well, what I found is that the Ad Astra 2 plan has a
3 very substantial level of pro-republican bias that
4 is historically extreme relative both to the other
5 plans that I've examined in my research.

6 As part of my research, I've quantified the
7 efficiency gap in Congressional plans over the last
8 48 years, and the Ad Astra 2 plan is historically
9 extreme relative to the 10,000 Congressional
10 elections over the past 48 years.

11 And it's also extreme relative to the other
12 plans that Kansas considered in its redistricting
13 process.

14 Q. Thank you. Now, broadly speaking, what was the
15 other major thing you address in your report?

16 A. Sure. I was asked to examine the effect of partisan
17 gerrymandering on the broader representational and
18 political process, so we can evaluate what are the
19 consequences of partisan gerrymandering for all of
20 us in our democracy.

21 Q. And, broadly speaking, what did you find?

22 A. What I found is that partisan gerrymandering really
23 substantially harms our democracy and leads to a
24 substantial bias in the political process and in so
25 doing it degrades democracy for everyone.

1 Q. Okay. I want to spend a little bit of time talking
2 about the theory behind the methodology you applied
3 in this case maybe just to lay a foundation. Can
4 you talk about how you evaluated the Ad Astra 2 map?

5 A. Sure. Well, the first thing that I had to do was to
6 project what was going to happen on this map in
7 certain terms of election outcomes.

8 In order to do that, I analyzed the 10
9 statewide elections where precinct level data is
10 available between 2012 and 2020. Unfortunately,
11 there's no precinct data for elections in 2014.

12 And based on those elections, I was able to
13 estimate in each of those elections what the two
14 party vote share would be on each of the four
15 districts in the Ad Astra 2 plan, and as well as the
16 seat chairs, and the efficiency gap.

17 And then in order to calculate -- measured
18 the efficiency gap that I presented in my report, it
19 averaged across the statewide elections first within
20 years and then across years.

21 Q. Okay. Just so that our record is nice and clear,
22 why don't we talk about some basic concepts so we
23 understand what you're doing. Can you describe how
24 a gerrymander works.

25 A. Sure. The way a gerrymander works is that a party

1 is trying to convert its votes into seats as
2 efficiently as possible and in order to do that what
3 a party will typically do is they'll do some
4 combination of cracking and packing.

5 And the idea of cracking is that you crack
6 your opposing party, the disadvantaged party, across
7 a large number of districts such that they
8 constitute the minorities in each of those
9 districts, and they don't have the ability to win
10 any of those districts or you might pack them into a
11 very small number of districts so they win those by
12 overwhelming margins.

13 And, of course, in Kansas, the gerrymander
14 here appears to -- the redistricting process here
15 appears to have proceeded by cracking.

16 Q. Okay. I want to just turn to the methodology. Can
17 you explain what is the efficiency gap methodology?

18 A. So, broadly speaking, the efficiency gap is
19 mathematically capturing this relative
20 inefficiencies in the translation of votes to seats
21 between the two parties based on the number of
22 inefficient votes cast for each party divided by the
23 total number of votes.

24 Q. We're about to do some math, and I want to try to
25 make it as simple as possible. So, why don't we

1 turn to -- Exhibit 105 is up -- turn to page 5, the
2 middle, not PDF five, but the page 5, Mitch, yes,
3 and, if you could blow up the formula in the middle
4 of the page, okay.

5 Dr. Warshaw, using this formula, can you
6 explain one way to calculate the efficiency gap.

7 A. Exactly. So this was the original way proposed to
8 calculate the efficiency gap and in this formula EG
9 indicates the efficiency gap.

10 What it's saying is the efficiency gap is
11 equal to the wasted or inefficient votes casted for
12 republicans candidates divided by N, which is the
13 total number of votes, minus the wasted votes for
14 democratic candidates divided by the total number of
15 votes.

16 So this indicates the relative share of
17 inefficient votes for the two parties.

18 Q. Okay. Who first proposed this formula?

19 A. So this was the formula proposed by Eric McGhee in
20 his 2014 article in Legislative Studies Quarterly.

21 Q. Okay. And I want to walk through an example and
22 explain how you calculated the wasted votes for each
23 but just kind of what's expressed here is it
24 expresses a percentage or raw number of votes?

25 A. Well, it's expressed as a percentage and that makes

1 it -- we do that by taking by, again, taking the
2 wasted votes for republicans over the total number
3 of votes, minus the votes cast for democrats, and
4 that gives us a percentage, which in theory could
5 range from zero to 100 typically lies between zero
6 and, say, 25 percent, and this gives us a measure
7 that's really comparable across states and across
8 time.

9 Q. Okay. Does this formula in any way imply
10 proportional representation is required?

11 A. Absolutely not.

12 Q. Okay. I want to pull up Exhibit 117, Mitch, which
13 is table one from Dr. Warshaw's report. Dr.
14 Warshaw, can you walk us through how your
15 calculating the wasted votes and how you calculate
16 the overall efficiency gap using this hypothetical.

17 A. Exactly. So this gives us a really a very simple
18 illustrative example of how the efficiency gap would
19 be calculated with a very simple plan with only
20 three districts.

21 So, on this plan overall across the entire
22 state, democrats land the majority of votes. So
23 they get 52 percent of the votes to 48 percent for
24 republicans, but democrats only win one of the three
25 seats, and that's because the democratic votes here

1 are packed into District 1 and they're cracked
2 across District 2 and 3.

3 So, in District 1, the way we actually
4 calculate the inefficient votes is there's 20 -- you
5 only need 50 votes to win the race. Some any vote
6 in excess of 50 votes is wasted. Moreover any vote
7 you don't actually need to win the seat is wasted.

8 So, in this case, republicans waste 25
9 votes and democrats waste 24 votes. In the other
10 two elections, however, democrats waste all 40 of
11 their votes that were cast, because they don't
12 translate into seats; whereas, republicans only
13 waste nine votes.

14 When you tally the inefficient or wasted
15 votes across the three districts what you get is
16 there's only 43 inefficient republican votes that
17 don't lead to seats and there's 104 inefficient
18 democratic votes; and this equates to an efficiency
19 gap of 20 percentage points, which is similar to
20 what we see in Kansas.

21 MR. FREEDMAN: Can I ask did the Court
22 follow that or do we need to do the math a little
23 bit more slowly?

24 THE COURT: So, counsel, I appreciated your
25 earlier comment about let's really try and dumb it

1 down, and I expected that was directed right to me.

2 MR. FREEDMAN: I think that I was phrasing
3 it I want a nice clean record for the Supreme Court,
4 because I know, Your Honor, can follow it, but I
5 want to make sure they can.

6 THE COURT: Great recovery. So, counsel,
7 the Court has had the opportunity over about the
8 last two or three weeks to at least become very
9 familiar, not only with the law in this area, all
10 though some might disagree with the conclusions that
11 the Court has reached, but I follow this.

12 Chris's explanation and the numbers here
13 are so simple even a guy like me can follow it.
14 Now, if you think that you need to develop it
15 further for the Supreme Court, which the Court
16 wishes to make sure that it notes on the record is a
17 bunch of guys and girls that are much smarter than
18 me, I don't think that they will struggle with the
19 concept, but I would not presume to tell you how to
20 try your case.

21 MR. FREEDMAN: Thank you, Your Honor.
22 Well, I think the benefit that they will have is
23 they will have a transcript where they can read and
24 go over this carefully with the exhibits. So, I
25 think with that we can probably move along.

1 THE COURT: Thank you, John. I'm sorry.
2 It took me a long time to answer your question, yes,
3 I get it.

4 MR. FREEDMAN: Thank you.

5 THE COURT: Counsel, if you can slow down
6 just a bit, and, Chris, I'm guessing it's probably
7 going both ways; and, gentlemen, the Court
8 understands that this is a high profile case and
9 everybody is a little bit nervous today, but, if we
10 could take some deep breaths and understand the
11 vital importance of creating a really good record,
12 and just slow it down a little bit.

13 MR. FREEDMAN: Thank you, and, sorry, Rose,
14 we'll do better.

15 Q. Okay. So, why don't we go back to Exhibit 105,
16 Mitch? It's where we were looking at before, and if
17 we could blow up the formula in the middle of the
18 page again.

19 So, Dr. Warshaw, does this version of the
20 efficiency gap account for unequal population or
21 turnout?

22 A. No. I think that's a weakness of this formulation
23 of the efficiency gap.

24 Q. And why is that a weakness?

25 A. Well, I think as we're evaluating partisan bias and

1 redistricting process, it's really important to look
2 at differences in population across districts as
3 well as difference in turn out, because those are
4 really the kinds of things that parties might try to
5 manipulate in order to gain partisan advantage.

6 So, I think it's important to include that
7 in our metric of the partisan bias in the
8 redistricting process.

9 Q. Okay. And, Mitch, sorry. Can we go back to 117,
10 again. Professor Warshaw, using the hypothetical
11 that you developed, can you just explain why it's
12 important to account for unequal turn out or
13 population?

14 A. Exactly. Well, imagine that if we didn't have one
15 person one vote and you could draw districts however
16 you wanted such as in the 1940s and 50s where there
17 were vast population differences across districts,
18 and then imagine in District 3, there was two
19 republican votes and one democratic vote.

20 So they mapped it so that now republicans
21 have won two out of the three seats with much fewer
22 than 48 percent of the vote. So that enabled the
23 republicans to translate their votes into seats
24 vastly more efficiently by having a malapportioned
25 Third District.

1 So, equation one would inappropriately sort
2 of think that there were now fewer wasted democratic
3 votes and would actually incorrectly think that
4 there was a smaller efficiency gap.

5 And I think it's important to account for
6 this possible malapportionment as we're calculating
7 the efficiency gap.

8 Q. In addition to malapportionment, there also may be
9 an issue of unequal turn out, right?

10 A. Exactly.

11 Q. So, is there a second way of calculating the
12 efficiency gap that addresses unequal turn out of
13 population?

14 A. There is.

15 Q. Mitch, can we go back to 105 and look at the bottom
16 of the page, the formula at the bottom? Professor
17 Warshaw, can you explain what this formula is.

18 A. Thank you. So, once again on the left, the EG here
19 means the efficiency gap. So, now this formula is
20 saying the efficiency gap equals the two party seat
21 margin. So the seat margin would be if democrats
22 got one, say, 55 percent of the seats, then that
23 would be a five percent democratic seat margin,
24 because it's 55 percent minus 50 percent, and then
25 you would subtract from that twice time, two times

1 the two party vote margin.

2 So, in this hypothetical example, if
3 democrats won 52 and a half percent of the vote,
4 there would be a two and a half percent democratic
5 vote margin; and, if you multiply that by two, you
6 would get 55 percent minus 55 percent, which would
7 give you a zero percent efficiency gap.

8 And this formula, unlike equation one, now
9 takes into account differences in votes or turn out
10 across districts, and this is what both the authors
11 of the efficiency gaps, Professors McGhee and
12 Stephanopoulos, do in their later work.

13 They use this formula, and it's what I do
14 in all of my academic work as well as all of expert
15 reports is to use equation two.

16 Q. Does equation two in any way imply proportional
17 representation is required?

18 A. It does not.

19 Q. Professor Warshaw, how robust is the scholarship on
20 the efficiency gap?

21 A. It's very robust.

22 Q. So just -- I want to circle back and just kind of --
23 I'm going to move a little bit into how you actually
24 calculate in this case, but why do you use the
25 efficiency gap to measure the partisan effect of a

1 gerrymander?

2 A. Well, as I spoke to earlier, what -- I think there's
3 a number of reasons. One is, again, theoretically
4 it captures the intuition behind partisan
5 gerrymandering very well.

6 Second, it's been extensively empirically
7 validated, both in my own research as well as by
8 others, which has found, you know, there's no one.
9 There's certainly a variety of metrics that have
10 been proposed to measure partisan gerrymandering.

11 So we hope is that in competitive states
12 where each of them are designed to work well that
13 they would all capture the same similar dynamics and
14 would look very similar to each other and, in fact,
15 that's exactly what we find.

16 In competitive states, the efficiency gap
17 is very highly correlated with other metrics.
18 Moreover scholars have found that it captures
19 simulated packing and cracking very well, and it
20 also performs exactly as you would expect if a party
21 gains seats without actually gaining any votes.

22 And then, finally, as I discussed earlier,
23 if democrats control the redistricting process, the
24 efficiency gap correctly shifts in their direction,
25 and if republicans control the efficiency gap it

1 generally shifts in the republican direction.

2 So for all these reasons I think that the
3 efficiency gap is an excellent metric for
4 redistricting that I use throughout my academic
5 research.

6 Q. You mentioned in that answer that there were other
7 ways of measuring partisan bias. Can you just
8 describe some of those.

9 A. Of course. Well, I briefly discussed in my report
10 there's a wide range of methods that scholars have
11 used to measure partisan bias in the redistricting
12 process.

13 And three of the most widely used ones are
14 called partisan symmetry, which was developed by
15 Professors Gelman and King about 25 years ago, mean
16 median difference, which was developed maybe five or
17 six years ago, and the declination metric, which was
18 also developed about five or six years ago.

19 Typically, in my academic research and in
20 my expert reports, I'll use a wide variety of
21 metrics, but unfortunately for a variety of reasons
22 these other three metrics aren't applicable to the
23 situation in Kansas.

24 Q. So, can you just explain why you would use one
25 method over another in a particular jurisdiction?

1 A. Of course. Well, you want to evaluate the context
2 of that jurisdiction and crucially both the partisan
3 symmetry and mean median difference are really
4 designed to be used in more closely contested states
5 where the two parties get routinely get between 45
6 and 55 percent of the vote, and they're both less
7 applicable outside of that range.

8 And there's been a number of studies that
9 have shown this in different ways.

10 The declination metric is really designed
11 to be used in situations where each party always
12 wins at least one seat. And in Kansas that's also
13 not necessarily true. Particularly on that Ad Astra
14 2 plan.

15 So the declination metric two is
16 unfortunately not applicable to Kansas.

17 Q. Are there situations where the efficiency gap is not
18 a suitable for measuring partisan bias?

19 A. Absolutely. So the efficiency gap doesn't work when
20 you have only two party vote share either is less
21 than 25 percent or it exceeds 75 percent.

22 So, in those situations, you certainly
23 wouldn't use the efficiency gap.

24 Q. Are there situations where the efficiency gap
25 doesn't produce meaningful results?

1 A. The other I should say in that by the way there's
2 not a single state that has the vote share between
3 outside of the range of 25 and 75 percent. So at
4 least empirically this is not a major concern at
5 least since the 1950s.

6 And then the other situation where the
7 efficiency gap wouldn't be applicable is, of course,
8 if you have plans with only one or two districts.
9 They're certainly no reason to think the efficiency
10 gap would capture anything meaningful in those
11 scenarios.

12 Q. Can you just explain why for one or two seats the
13 efficiency gap doesn't produce meaningful results.

14 A. One seat there is no redistricting. There's no --
15 there are no lines included in the entire state. So
16 certainly no measure of partisan bias is going to be
17 applicable to a single state that only has one
18 district.

19 And then, if you have two districts, of
20 course, there's only one line that you can draw.
21 So there too certainly the authors of the efficiency
22 gap, and I don't think any scholar would use the
23 efficiency gap to try to capture the situation of
24 the states.

25 Q. Okay. What about uncontested seats? How does the

1 efficiency gap methodology deal with uncontested
2 elections?

3 A. Well, typically in my academic research and in other
4 situations, I might, if you're evaluating a partisan
5 bias in a plan where elections have already taken
6 place under that plan, then we might look and we
7 would look to observe Legislative elections to
8 capture the partisan bias in that plan, and we would
9 do that, because, of course, the object of a
10 gerrymander and the object of the redistricting
11 process more generally are Legislative seats. So,
12 those are the elections we probably use to evaluate
13 it.

14 And, if you're using Legislative elections,
15 you would have to account for the fact that some of
16 them might be uncontested, and it's certainly not
17 true that an uncontested election 100 percent of the
18 public would support the party that wins the
19 election, if the election had been contested.

20 So, scholars since the 1990s have always
21 done when they're evaluating redistricting plans, is
22 to impute those uncontested elections and there's a
23 variety of approaches that scholars use to do that
24 but all of them yield very similar results.

25 Q. What do you mean by impute?

1 A. Exactly. So at a very abstract level, what you want
2 to figure out is what would have happened in that
3 election if both parties had run a candidate?

4 So, if we imagine it's a very republican
5 district, and in the observed election, there was no
6 democratic candidate. Perhaps, if the democrats
7 would have run a candidate, they would have received
8 25 or 30 percent of the vote. So, we could assume
9 that it was 25 to 30 percent.

10 In my own work, and I would say, broadly
11 speaking, most political scientists say use some
12 sort of statistical model to estimate what would
13 have happened in that district.

14 Q. Is imputation a common technique in the social
15 sciences where there's incomplete data?

16 A. It is very common.

17 Q. Do consider the efficiency gap to be a reliable
18 method for measuring partisan bias in a
19 redistricting plan?

20 A. I do.

21 Q. Can you explain why?

22 A. Well, again, for all the reasons that we talked
23 about earlier, both theoretically captures what's
24 going on, and it's been empirically very well
25 validated by a number of different studies.

1 Moreover, on my own research, an additional
2 point I should mention that I didn't mention
3 earlier, is my own research is really focused on
4 evaluating the consequences of the redistricting
5 process.

6 And the efficiency gap performs, you know,
7 exactly as you would expect, which is that bias in
8 the redistricting process indeed leads to bias in
9 the composition of the Legislature and then affects
10 downstream policies.

11 I'm sure we'll talk about that later
12 substantively, but I think this is another way to
13 think about validating what we think the bias and the
14 redistricting process is doing. Again, the
15 efficiency gap captures that well.

16 Q. Okay. And just can you explain in a little bit more
17 detail what your own personal research has been on
18 the reliability of the efficiency gap.

19 A. Of course. So, my own research, I used a number of
20 different approaches to validate the efficiency gap.
21 One is that I looked at the correlation between
22 evaluating or calculating the efficiency gap based
23 on Legislative elections and statewide elections and
24 found that they're extremely highly correlated in
25 the modern era, which as you would expect as

1 elections are increasingly nationalized.

2 I also looked at the relationship between
3 the efficiency gap and other partisan bias metrics.
4 Once again, they're very highly correlated
5 particularly in the modern era.

6 And then, finally, I looked at the effect
7 of partisan control of the redistricting process on
8 the efficiency gap, and I've done this most
9 prominently perhaps in my book manuscript that I
10 said is in press right now with the University of
11 Chicago Press.

12 Q. In addition to your book, have you published peer
13 reviewed articles discussing the reliability of the
14 efficiency gap?

15 A. Of course. I published an article on the effect of
16 the efficiency gap on the political process in 2017
17 and election law and Election Law Journal, and I've
18 published an article on Legislative Studies
19 Quarterly, which is also peer reviewed on the effect
20 of partisan gerrymandering in the political process.

21 Q. So turning back to the reliability of the efficiency
22 gap as a methodology, can other social scientists
23 replicate the methodology?

24 A. Absolutely.

25 Q. Can other social scientists determine if you make an

1 error in applying the methodology?

2 A. Absolutely.

3 Q. Are there situations -- actually I covered that.

4 Has any court in which you have testified ever ruled
5 that the efficiency gap is not admissible?

6 A. No, not to my knowledge.

7 Q. Are you aware of any court ever ruling that the
8 efficiency gap is not admissible?

9 A. I can't say for sure. I'm not aware of any court's
10 ruling that.

11 Q. I would like to move to your analysis of Kansas
12 here. Just to recap at a very high level, can you
13 tell us how you approached the analysis of Ad Astra
14 2?

15 A. On a very high level, the first step was to
16 calculate how the two parties would perform on the
17 Ad Astra 2 plan based on previous statewide
18 elections over the past decade, and the second step
19 was based on that analysis was to calculate the
20 efficiency gap on this plan and place it into
21 historical context.

22 Q. Okay. Can you say how you went about calculating
23 the vote share for each election?

24 A. Of course. So, I obtained data from a variety of
25 sources on the precinct level results in 10

1 statewide elections in 2012, '16, '18 and '20.

2 I aggregated those precinct double results
3 to the Ad Astra 2 plan as well as to a variety of
4 other plans that the Legislature considered, and in
5 each of those elections I calculated the two party
6 vote shares in each of the districts on the plan,
7 which enabled me to also calculate the statewide
8 vote shares for the two parties as well as how many
9 seats each party would actually win on the Ad Astra
10 2 plan and other plans.

11 Q. So just so we're clear, when you calculate the vote
12 share, are you calculating historically from
13 election results?

14 A. Exactly. For these calculations, I'm only using
15 statewide election results. So, in this case, no
16 imputation is necessary. Of course, if you were
17 using Congressional election results, then you would
18 need to impute the uncontested elections in order to
19 reach any kind of a valid conclusion.

20 Q. Just in terms of the number of elections you looked
21 at, is there a reason you looked at all the
22 available recent elections rather than a subset of
23 the election?

24 A. My view is I wanted to get the most robust view of
25 the plan as possible. So I wanted to use all of the

1 available information over the last decade that I
2 could find during the past redistricting cycle, and
3 I think this averages away much of the variability
4 across the individual elections.

5 Also, I worried about sort of, you know,
6 cherry picking a certain election year and being,
7 you know, having some concern about that. So, you
8 know, in all of my research and in all of my
9 analyses I try to use as much relevant information
10 as I can, rather than looking at a single piece of
11 data.

12 Q. Just so the record is clear, what are the reasons
13 you looked at statewide races rather than
14 Congressional races to calculate vote share here?

15 A. Well, on this plan, we haven't actually observed any
16 Congressional elections, and we know Congressional
17 elections are affected by incumbency, by specific
18 candidates, and things like that.

19 So, I don't know of, you know, of a
20 political science study that has aggregated old
21 Congressional elections to analyze a new plan.
22 Most political science studies are evaluating plans
23 that have been in place for a number of elections
24 and that's why they might use Congressional
25 elections.

1 I think the other obstacle in Kansas is
2 that unfortunately there are no precinct level data
3 that I could find for previous Congressional
4 elections.

5 And, in fact, even the 2020 data where
6 there is some data, I had trouble matching to the
7 precincts that were available.

8 Q. Could you just explain why that's a limitation on
9 your ability to figure out what is going to happen
10 on the new map?

11 A. Well, in order to evaluate the new map, we really
12 need precinct level data, and that's really the
13 building block for all of my analysis; and,
14 unfortunately, you know, some states make huge data
15 files publicly available to researchers that are
16 very easy to download.

17 Unfortunately, Kansas has chosen not to do
18 that. So, for instance, in 2014, there's no
19 precinct level data available at all. There's
20 certainly no Congressional election data available.

21 Q. And for the years the elections you looked at, 2012,
22 2016, 2018, 2020, there was state level precinct
23 data available but not Congressional level data
24 available, right?

25 A. Exactly. So researchers had compiled the statewide

1 election results, and even in some cases in
2 painstaking fashion. And so that was available for
3 2016, '18, '20 and '12.

4 Q. Okay. I want to turn to your actual efficiency gap
5 calculation here. Which formula did you use in this
6 case?

7 A. I used equation two as I do in all of my academic
8 research and all the reports I conduct for
9 individual states.

10 Q. We talked a little bit earlier about imputation.
11 Did you need to impute data for your Kansas vote
12 share calculations?

13 A. No, because, once again, I was using statewide
14 elections. There was no need to impute anything
15 here.

16 Q. And there was no need to impute anything, because
17 all the statewide elections were contested?

18 A. Exactly.

19 Q. If you looked only at Kansas Congressional results
20 to compute vote share, assuming hypothetically
21 precinct level data had been available, would you
22 have needed to impute anything?

23 A. Again, I think even if it had been available,
24 there's some challenges with that, but, if I had
25 used it, its further challenge would have been that

1 there were, I believe, two uncontested races in 2012
2 and one in 2016, and indeed it would be totally
3 invalid to use those results without some sort of
4 imputation of what might have happened in the
5 uncontested elections.

6 Q. Mitch, can be pull up Exhibit 132, which is table
7 two from page 12 of your report?

8 A. That's not my report.

9 Q. All right. Let's go back to 105, and, if we can go
10 to page 12, table two. If you could just blow up
11 the table at the top, Mitch. Okay. Dr. Warshaw,
12 can you walk us through this table.

13 A. On this table, we see that on -- so on this table I
14 calculate the two parties vote share, seat share,
15 and the efficiency gap for the 2012 through '20
16 plan, which, of course, had been in place for the
17 past decade as well as on the enacted Ad Astra 2
18 plan.

19 Q. Okay. And what did you find?

20 A. What I found is the enacted Ad Astra 2 plan reduces
21 the democratic projected democratic seat share from
22 16 percent to about 9 percent, and this increases
23 the efficiency gap to a historically extreme level
24 of 22 and a half percentage points based on at least
25 10 statewide elections that we discussed earlier.

1 Q. Okay. And just for comparison sake, what was the
2 efficiency gap under the old map?

3 A. It was about 15.6 percent in the republican
4 direction.

5 Q. That's calculated at the top of the chart, correct?

6 A. That's exactly right.

7 Q. So just what does the -- I'm trying to think how --
8 what does the 22 and half percent represent? Like,
9 has there been analysis in the academic literature
10 of what an efficiency gap of 22 and a half percent
11 would mean in terms of Congressional seats for
12 Kansas?

13 A. When you look at Kansas, that would be the
14 equivalent of about one Congressional seat.

15 Q. One Congressional seat per cycle?

16 A. Yes.

17 Q. Now, you also looked at -- did you also analyze how
18 Kansas's efficiency gap compares historically to
19 other states?

20 A. I did. And this is where I was able to build on my
21 academic research where I estimated the efficiency
22 gap and a wide variety of partisan bias metrics, not
23 just for Kansas, of course, but for almost every
24 state around the country since the first equal
25 populous elected districts sort of kicked into place

1 in 1972.

2 So, in all, I've estimated it for 25
3 election cycles across 48 years for about 10,000
4 individual elections.

5 Q. I want to get into the details about how you did
6 that in a minute but, broadly, what did your
7 comparison find?

8 A. What it found is the enacted Ad Astra 2 plan is far
9 more extreme than the vast majority of these
10 previous historical results. Do you want me to go
11 through columns two and three?

12 Q. Yeah, if you could just go through the columns and
13 explain that.

14 A. Column two in this chart shows the percentage of
15 previous Congressional elections that the Ad Astra 2
16 -- the absolute value of the Ad Astra 2 plan is more
17 extreme.

18 So, it's more extreme than about 95 percent
19 of previous Congressional elections over the past 48
20 years, and it's more pro-republican than about 98
21 percent of previous Congressional elections over the
22 past five decades.

23 That's, of course, across the country,
24 again, including about over 10,000 individual
25 elections.

1 Q. Now, to do this analysis, did you need to impute
2 anything?

3 A. So, for this analysis, I'm comparing it to observed
4 Congressional election results. So, for this
5 analysis, I needed to impute the uncontested
6 elections that have actually taken place, and I
7 describe that process in my peer review research.

8 Q. Okay. So, just so we're clear, when you went
9 through in your academic research looking at the
10 10,000 elections that you looked at, where the
11 elections were uncontested, did you need to impute
12 results there?

13 A. Of course. I don't know of any political scientist
14 who would analyze uncontested elections and use them
15 to calculate any partisan bias metric without some
16 sort of imputation. This is very standard in the
17 profession.

18 Q. Now, this is going to be a challenge but without
19 getting too technical, can you describe how you
20 imputed the results of an election where it was
21 uncontested?

22 A. Of course. So this builds on a variety of research
23 that I conducted and, essentially, the idea is that
24 there's two ways to think about predicting the
25 results in uncontested election. We don't observe

1 any actual results.

2 One would be used past and future results
3 in that district. So, if republicans typically win
4 75 percent of the vote share in a district, then the
5 model will assume that in the election that wasn't
6 contested, they also probably would have gotten
7 about 75 percent.

8 Second, I use the presidential vote, the
9 distribution of presidential vote shares across
10 districts. Such that, if the republican
11 presidential candidates typically get 75 percent in
12 this district, then that's further evidence that
13 probably in a contested election the republican
14 candidate would have gotten about 75 percent.

15 And then the third thing the model adjusts
16 for is electoral cycles. These are, of course, the
17 two party vote shares can swing depending on which
18 -- what kind of cycle it is.

19 MR. FREEDMAN: Okay. Can we pull up
20 demonstrative five.

21 THE COURT: Counsel, excuse me for just one
22 moment. I'll be right back.

23 MR. FREEDMAN: Sure.

24 (Recess.)

25 THE COURT: Thank you, counsel. I'm sorry

1 for the interruption.

2 MR. FREEDMAN: It's quite all right, Your
3 Honor.

4 Q. (By Mr. Freedman) Professor Warshaw, can you tell
5 us what this demonstrative is?

6 A. This shows the historical distribution of the
7 efficiency gaps in states with more than four
8 districts across the last 48 years, and it places
9 the enacted plan into this historical context.

10 Q. I'm sorry. You said four or more or more than four?

11 A. I'm sorry, four or more.

12 Q. So this is -- just so we're clear, this is when you
13 looked at the 10,000 elections, this is,
14 essentially, plotting a distribution of the
15 efficiency gap?

16 A. Exactly.

17 Q. And what can you tell us about how the Ad Astra 2
18 plan compared to last plan?

19 A. Well, first of all what I would say looking at the
20 overall chart is it indicates that the average plan
21 has an efficiency gap of about zero percent over the
22 last five decades.

23 So, there's not a clear partisan skew in
24 the distribution of efficiency gaps. Moreover most
25 plans lie relatively close to zero. Over two-thirds

1 of the plans over the last five decades lie between
2 negative 10 and 10 percent, and only a small
3 fraction are more extreme than 20 percent in either
4 direction.

5 So then looking at the enacted Ad Astra 2
6 plan, this really shows its historical extremity
7 both in relationship to all of these other plans
8 enacted around the country over the last five
9 decades but also it shows graphically how much more
10 extreme it is than the 2012 through '20 plan.

11 Q. I want to turn to your analysis of District 3 under
12 Ad Astra 2. Why did you focus on District 3 in your
13 analysis?

14 A. Well, District 3 on this plan is the most
15 potentially closely contested plan. So, when you're
16 evaluating how this plan is going to perform in
17 terms of whether it's going to elect how many
18 democrats or republicans it's going to elect,
19 District 3 is really the main district that it's
20 important to focus on.

21 Q. And, generally speaking, what do you find concerning
22 Ad Astra 2 treatment of District 3?

23 A. Well, the Ad Astra 2 plan shifted. It made it from
24 being a closely contested slightly democratic
25 leaning district to being a republican leaning

1 district.

2 Q. Okay. Let's walk through some of your analysis.

3 Mitch, can we pull up Exhibit 109, which is figure
4 four from page 9 in the report. Professor Warshaw,
5 what is this?

6 A. This is a map of the votes both in the Kansas City
7 area as well as in other parts of my report
8 throughout the state, and the shadings in this map
9 show how democratic or republican various regions of
10 the state are, and they are size proportional to the
11 number of voters in each year.

12 Q. What can we tell from this map about how the lines
13 were drawn in the Kansas City Metro Area?

14 A. What you can see is that it really separated the
15 democratic voters in the two parts of the Kansas
16 City Metropolitan Area. So it cracked the
17 democratic voters in Wyandotte County from the
18 democratic leaning voters in Johnson County such
19 that in neither of those districts would democrats
20 constitute the majority; where as, if the democratic
21 voters in the Kansas City area had been drawn into
22 one compact district, they would have clearly
23 constituted the majority of that district.

24 Q. And what can we tell from this map about how the
25 lines were drawn in Douglas County?

1 A. Here we can see is that the city there, Lawrence, is
2 separated from District 2 into District 1 and that
3 was necessary in order to obviously ensure
4 population equality but also ensure that District 2
5 continued to be a republican district, because the
6 democratic voters there had been combined with the
7 democratic voters in Wyandotte County then that
8 would have been a much more closely contested
9 district.

10 You can really see graphically here how
11 those democratic voters were really cracked out of
12 District 2 into the heavily republican District 1.

13 Q. And, Mitch, can we pull up Exhibit 112, which is
14 figure seven from page 13 of your report. Dr.
15 Warshaw, what is this?

16 A. This shows the expected democratic vote shares in
17 District 3 on the enacted Ad Astra 2 plan, but here
18 for the first time I compare it to not just the 2012
19 through '20 plan, but now to all of the other plans
20 the non-Ad Astra plans that were considered by the
21 Kansas Legislature, and what it shows is that the
22 democratic -- the projected democratic vote share
23 based on the 10 statewide elections is much lower in
24 District 3 compared to previous plan, but it's also
25 much lower relative to every other plan that the

1 Kansas State Legislature considered.

2 Q. How did you select the plans analyzed here?

3 A. I obtained from the Kansas State Legislative
4 Research Service all of the shape files and JAS
5 information for all of the plans that were
6 considered by the Kansas State Legislature, and I
7 also crosschecked those with a widely sort of
8 popular 538 website, which has also analyzed
9 redistricting in different states.

10 Q. Mitch, can we pull up Exhibit 114, which is figure
11 nine from page 15 of your report. Dr. Warshaw, this
12 looks like the demonstrative. Can you tell us what
13 this shows.

14 A. Absolutely. So now what this does is it adds the
15 previous demonstrative, the previous version of this
16 graph compared the enacted plan to the 2012 through
17 '20 plan as well as the other plans around the
18 country, of course, but now I've added to it the
19 other plans that were considered by the Kansas State
20 Legislature and what it shows is the efficiency gap
21 on the enacted plan was much more extreme than,
22 again, not just the 2012 through '20 plan, but
23 indeed all of the other plans the State Legislature
24 considered.

25 And what this indicates to me is, of

1 course, is a couple of things. One is that it was
2 certainly possible to draw a plan in Kansas that
3 didn't have the extreme level of partisan bias that
4 the Ad Astra 2 plan does.

5 Moreover the intent of the Legislature
6 appears to have been to draw the most extreme plan
7 among the plans they had available to them.

8 Q. Is it possible that the large efficiency gap in the
9 Ad Astra 2 plan could be caused by geography or some
10 other neutral factor?

11 A. Well, I think this clearly shows that it couldn't,
12 that there were other plans that were available to
13 the State Legislature that had much less bias than
14 the enacted plan, which clearly indicates that
15 geography can't be the only explanation for this
16 plan.

17 Q. Thank you, Professor Warshaw. I want to ask you
18 briefly about some of the other experts in this case
19 on the efficiency gap.

20 Did you review Dr. Alford's report in this
21 case?

22 A. I did.

23 Q. Are you aware that Dr. Alford says in his report
24 that the efficiency gap is problematic when it is
25 applied to states with fewer than eight

1 Congressional Districts?

2 A. I am.

3 Q. Do you have any reaction to this?

4 A. Well, I think this is a rule of thumb people have
5 used when looking at observed Congressional election
6 results, because election to election there can be
7 variability, but there's certainly no research that
8 has said definitively any bright line, and I don't
9 think anybody to my knowledge has asserted or found
10 that there's no way to use elections below seven
11 seats as long as you're averaging the variability
12 appropriately.

13 Q. Can we pull up demonstrative two, which I think,
14 Mitch, is demonstrative six. Dr. Warshaw, can you
15 tell us what this is?

16 A. Well, this plot is looking at the efficiency gap
17 and, but here, again, the lines on the chart
18 replicate what I showed you earlier, which is the
19 efficiency gap on the enacted Ad Astra 2 plan using
20 the 10 statewide elections is about 22 and a half
21 percent, but one of the things that Professor
22 Miller, in his report, asserted was that, if you
23 focus in on smaller states, states with a smaller
24 number of districts that somehow the Ad Astra 2 plan
25 is substantially less historically extreme.

1 So what I did is I replicated the type of
2 analysis that he did in his report where I focused
3 in on states between four and seven seats, and you
4 find that this chart looks substantially similar to
5 the earlier chart I showed you, which included all
6 states with more than four seats.

7 So it's simply not the case that the Ad
8 Astra 2 plan is somehow not extreme even if you
9 focus on smaller states.

10 And indeed I was able to also conduct a
11 wide variety of robustness tests where I find really
12 no matter what threshold you use the Ad Astra 2 plan
13 is historically extreme.

14 Q. Okay. Now I have one other question about
15 Dr. Alford's analysis. He also says that looking at
16 statewide results is inconsistent with what the
17 original proponents of the efficiency gap, McGhee
18 and Stephanopoulos say; are you familiar with that?

19 A. Of course.

20 Q. Do you have any reaction to that?

21 A. Well, what they were talking about is when you're
22 evaluating actual Congressional election results
23 that have taken place over a number of cycles. So
24 perhaps when they wrote their articles, they were
25 writing about 2017, and they were evaluating

1 Congressional elections that had taken place in 2012
2 through 2016.

3 So their point was, if you're evaluating
4 the results of these elections that have now taken
5 place over a number of years, that the most sensible
6 thing to use would be to use the actual
7 Congressional election results, but, of course, if
8 we're evaluating a new plan, we don't have any
9 Congressional election results that have taken place
10 on this plan yet.

11 So, in that case, they would say that you
12 should use statewide election results as an
13 indicator of that plan and try to use a variety of
14 data sources to indicate how this plan is likely to
15 perform.

16 Q. Thank you. Did you review Dr. Alan Miller's report
17 in this case?

18 A. I did.

19 Q. That's the one that we received last Thursday,
20 right?

21 A. Yes, I believe it is.

22 Q. I want to ask you about a couple specific
23 observations Dr. Miller has. Are you aware
24 Dr. Miller criticizes your use of Kansas statewide
25 election results and vote shares and contends that

1 if you had used prior Congressional elections it
2 would have reduced democratic vote share by five
3 percentage points from the 41 percent that you
4 calculated by 36 percent?

5 A. I am.

6 Q. Do you have any reaction to that?

7 A. Well, he did that in kind of a strange way, because
8 estimates of the Congressional vote shares were
9 based on the -- included the uncontested elections
10 from 2012 and '16; and, of course, as we talked
11 about earlier there's really no political scientist
12 that would say we should analyze Congressional
13 election results from some sort of descriptive
14 fashion without first imputing an uncontested
15 election.

16 So, when you properly impute the
17 uncontested election, what you find is that the
18 democrats two party vote share looks almost
19 identical to what I find that it is for statewide
20 races.

21 So, in the 2012, '16, '18, and '20
22 elections, which are comparable to the statewide
23 elections that I have, what I find is that democrat
24 had 40 percent of the two party vote share in
25 Congressional elections, which is only one

1 percentage different than what I found in statewide
2 elections.

3 Q. So do you have any reaction to Dr. Miller including
4 uncontested elections in his Kansas vote share
5 calculations?

6 A. Well, again, I think I can't think of any peer
7 reviewed study that would do that or that has done
8 that in the last few decades.

9 Q. How big of an error does that result in his
10 calculation?

11 A. Well, it leads to a quite substantial error and you
12 can see that in his reporter where he reaches
13 nonsensical conclusions such as on the 2012 plan
14 what he argues is that somehow even though
15 republicans won all four seats that there was a
16 pro-democratic efficiency gap, and it just doesn't,
17 you know, pass even a first approximation, like,
18 what we know is happening in elections, and that's
19 because he's taking methodologically inappropriate
20 step of not imputing the uncontested elections,
21 which, again, no peer reviewed political social
22 science study would do.

23 Q. Dr. Miller also says in his report that he had to
24 infer that you imputed results and that it's
25 important to be able to evaluate the method of

1 imputation. Do you have any reaction to this?

2 A. Of course. I certainly agree with that. So that's
3 in my report on page 2 I cited a peer reviewed study
4 that I conducted with Nick Stephanopoulos in 2020
5 called the effect of partisan gerrymandering on
6 political parties.

7 And, in that study we used, it was heavily
8 based on my estimates of the efficiency gap, which,
9 of course, includes imputing uncontested elections.

10 So, in that paper, I extensively discussed
11 the methodology of our paper, and I included
12 replication materials so that somebody could
13 replicate our estimates.

14 Q. Did Dr. Miller present any analysis of your
15 imputation in his report?

16 A. I don't think he analyzed it. He took my data and
17 made some graphs with it.

18 Q. Okay. Dr. Miller criticizes the efficiency gap
19 noting that it generates nonsense results results
20 when it applies to states with one seat, right?
21 You're familiar with that?

22 A. Yes.

23 Q. Do you agree with that observation?

24 A. Of course. So I think certainly I wouldn't
25 calculate -- I wouldn't use the efficiency gap for a

1 state with one seat.

2 And I'll note that he used my data without
3 properly, I think, thinking through that piece of
4 it. And the reason that I include that in my data
5 is because the seats with one -- the states with one
6 seat -- I also include other information about them
7 like the vote share and the seat share, which might
8 be useful as you're aggregating up to a nationwide
9 level, but, of course, the efficiency gap there
10 would never be used on its own as part of an
11 academic study or part of any analysis.

12 Q. Dr. Miller also criticizes the efficiency gap noting
13 it can't be applied in states where there's more
14 than 75 percent vote share, right?

15 A. That's correct. I fully agree with that
16 observation.

17 Q. I think you talked about this earlier, as a
18 practical matter, which states in the United States
19 does one party have a vote share of more than 75
20 percent?

21 A. None of the 50 states does one party have a vote
22 share more than 75 percent. I don't think that's
23 been true since at least the 1960s that any of the
24 50 states has there been a two party vote share
25 greater than 75 percent.

1 At a very abstract level, this might be a
2 theoretical concern. Indeed, you know, there is no
3 actual empirical state where this is a real life
4 concern.

5 So I don't think it's a major concern of
6 mine as I'm analyzing redistricting across time and
7 place.

8 Q. On page 25 of his report, Dr. Miller discusses
9 comparing the efficiency gap in Kansas against
10 states with four and only four Congressional
11 Districts. Do you have any reaction to that?

12 A. Well, it's not obvious to me why you would take that
13 approach. That data set is both going to be
14 extremely small, which means that it will be a lot
15 of just 180 across those estimates, but also that's
16 going to be a sort of an unrepresented set of states.

17 Q. And on the same page, Dr. Miller includes a chart.
18 It's his figure three mapping out the efficiency gap
19 since 1972. Would you care to comment on that?

20 A. Well, in that chart since his figure three in his
21 report?

22 Q. Yes.

23 A. I believe in this chart what he's showing is the
24 efficiency gaps for different states with different
25 numbers of seats based on the data that I provided

1 as part of my replication materials, and I think the
2 point of the graph is to show that the variability
3 and the efficiency gap is much higher if there's
4 only, say, one or two seats and somehow invalidate
5 the efficiency gap, but, again, no political
6 scientist would use the efficiency gap in a
7 situation with one or two seats.

8 If you take those up invalid situations out
9 of the chart, then the variability is much smaller
10 in the chart, and it starts to, I think, sort of
11 undermines the conclusions that it's designed to
12 make.

13 Q. Can we pull up the third demonstrative, which is
14 demonstrative seven. Dr. Warshaw, what is this?

15 A. So here I replicated the chart that Professor Miller
16 made, which, again, was based on my data so it was
17 very easy to replicate, and here though instead of
18 including districts with one, two, or three seats or
19 states with only one, two, or three seats, I now
20 included only states with four or more seats as I do
21 throughout my report.

22 And here we can see unlike in the figure
23 that Professor Miller showed, while the extremely
24 larger efficiency gaps in states with smaller seats,
25 the differences are much more modest than in the

1 chart that he gave.

2 And here just as in the rest of my
3 analysis, I don't show the Ad Astra 2 plan, but, if
4 I did, it would be one of those dots in sort of the
5 bottom left of the chart and that here even if you
6 subset, no matter what subset of states you look at,
7 the Ad Astra 2 plan is historically extreme.

8 Q. And the line that's drawn across the bottom, that's
9 22 and a half percent?

10 A. Exactly.

11 Q. Is that where Ad Astra would be on this map?

12 A. Exactly. That's where Ad Astra 2 would be. What
13 you can see is that even among the smaller states,
14 they're still very, very few elections where there's
15 an efficiency gap of more than 22 and a half
16 percent. So it really doesn't substantially change
17 my conclusions at all.

18 Q. Dr. Warshaw, we're about to move onto the next thing
19 you discuss in your report but before we do that can
20 you just summarize your conclusions about partisan
21 bias in the Ad Astra 2 plan.

22 A. What I find in the Ad Astra 2 plan has historically
23 extreme efficiency gap that is more extreme than the
24 vast majority indeed 95 percent of previous
25 Congressional elections over the past 48 years over

1 the past five decades around the country. Moreover
2 it's much more extreme than the other plans that
3 were considered in Kansas.

4 So, in my view the Ad Astra 2 plan really
5 is a historically level of extreme level of partisan
6 bias.

7 Q. Thank you. Mitch, we can pull that down. So, Dr.
8 Warshaw, let's turn to the second part of your
9 report. The effect of partisan bias and
10 representation people receive in Congress. Did you
11 evaluate that question in the context of
12 polarization in Congress?

13 A. I did.

14 Q. Can you give us some background on polarization in
15 Congress.

16 A. So at a very broad level it's broadly known, I
17 think, you know, everybody in this room probably
18 knows at some level that polarization in our country
19 has increased dramatically, and the way political
20 scientists typically look at it is based on the
21 differences between the average position of
22 democrats and republicans. This is called partisan
23 polarization.

24 I'm sure we'll get into the details in a
25 minute, but at a broad level what political

1 scientists including my own research has found is
2 that partisan polarization has really increased both
3 in the mass public and particularly in Congress
4 quite a lot over the past 50 years.

5 Q. What do political scientists look at when they're
6 analyzing polarization?

7 A. Typically political scientists look at the roll call
8 votes in Congress when they're analyzing
9 Congressional polarization in Congress. Roll calls
10 are the central part of the representational process
11 as they lead to the laws that affect all of us.

12 Q. Did you conduct an analysis of polarization in this
13 case?

14 A. I did. I conducted two separate pieces of original
15 analysis based on existing polarization scores in
16 the academic literature.

17 Q. Thanks. Mitch, can we pull up Exhibit 115? This is
18 figure 10 from page 16 of your report, Dr. Warshaw,
19 but what does this show?

20 A. Well, what this shows is this is based on a metric
21 that was calculated by Professors Hall and Fowler,
22 and they calculated the percentage of the time that
23 each member of Congress over this timeframe from
24 about 1974 to 2014 voted in a conservative
25 direction, and they calculated the average

1 percentage of the time that democrats and
2 republicans voted in a conservative direction, and
3 that's what is shown on the Y axis.

4 Each of the dots here shows the average
5 difference between democrats and republicans in a
6 given Congress over this span of time. And what you
7 can really see is that this big polarization in
8 Congress as measured via the percentage of time that
9 people vote in a conservative direction has
10 increased really dramatically over time. In fact,
11 doubling over this time span.

12 Q. Okay. Let's pull up you're analysis. Mitch, can we
13 see Exhibit 116. Let's pull up what you got and see
14 how it goes.

15 A. There you go.

16 Q. That's the right one. So, Professor Warshaw, this
17 is figure 11-A from page 18 of your report. Can you
18 tell the court what this shows.

19 A. So this is based on another metric of polarization
20 called the DW nominate score, which is an aggregate
21 statistical measure using all of the roll call votes
22 in Congress that have really been conducted actually
23 since the Constitutional Convention, and it
24 estimates how liberal or conservative members of
25 Congress are on a one dimensional scale, sort on a

1 left to right continuum.

2 And the red dots here show how conservative
3 each republican member of Congress is. Well, the
4 blue dots show how conservative or how liberal on
5 this case each democratic member of Congress is.

6 So that negative numbers here indicate more
7 liberal members of Congress and positive numbers
8 indicate more conservative members of Congress.

9 Q. Okay. And over time what does this analysis show?

10 A. Well, it shows a couple things. I mean, first of
11 all, I have another graph that also shows this
12 perhaps more clearly, but you can see the divergence
13 of the blue and red lines, which are, essentially, a
14 moving average of how polarized or the average
15 preferences of democrats and republicans.

16 So you can see democrats and republicans
17 visually moving apart. Moreover you can see that
18 early in the time period there were a lot of
19 moderate democrats and moderate republicans such
20 that, if you had a Congressional election, there was
21 no guarantee that if you elected a republican they
22 were going to be substantially more conservative
23 than the democrat you might have elected, but today
24 there is, essentially, no overlap between the
25 parties, and you can see that in the white space on

1 the right that there are no members in Congress that
2 are in the middle of the ideological distribution
3 between the parties.

4 So, if you elect a democrat, they're always
5 going to be more liberal than the equivalent
6 republican you would have elected and, likewise, if
7 you would have elected a republican, 100 percent of
8 the time they're going to be far more liberal than
9 the democrat you might have elected.

10 Q. Mitch, can we pull up the other 116. Professor
11 Warshaw, this is figure 11-B from page 18 of your
12 report. Can you tell us what this analysis shows.

13 A. Of course. This graph is a different representation
14 of data that I just showed you, but now instead of
15 charting each member of Congress over time, I am now
16 charting the average difference between democrats
17 and republicans in a similar manner to what I did
18 using the conservative votes.

19 So that here each dot now represents the
20 average difference between democrats and republicans
21 in a given Congress, and what you can see is that,
22 again, that over time polarization has increased
23 quite substantially. Based on this measure, its
24 increased by 50 percent since 1974, which creates a
25 host of representational issues in Congress and our

1 democracy, but one of them is that we'll talk about
2 in a second is it magnifies the consequences of
3 gerrymandering.

4 Q. So you've shown that democrats and republicans in
5 Congress vote very differently from each other.
6 Could that difference be explained by the
7 possibility that they represent different kinds of
8 districts so that more moderate districts will
9 produce representatives who take more moderate
10 positions?

11 A. No. In fact, what a wide variety of political
12 science studies have found it that, essentially,
13 identical districts will still -- a moderate
14 district will elect democrats and republicans that
15 are very different from each other.

16 You don't, in fact, have convergence to the
17 middle, even in moderate districts, and both in
18 people -- I'm happy to talk about the details if you
19 like, but there's a number of methodological
20 approaches that have been used to study this that
21 all reached the same conclusion.

22 Moreover what political scientists have
23 found is that, if you go back to the previous chart,
24 is that the difference between the parties swamps
25 the differences within the parties.

1 So that there's just very large differences
2 consequences for the elected democrat or republican
3 for the kind of roll calls they're going to cast in
4 Congress.

5 Q. Thank you. I'm coming up to our last chart, so
6 you've spoken about the efficiency gap as a measure
7 of partisan bias, and we've also been talking about
8 the increase of partisan divide in the House. Is
9 there a reason to think that there is a relationship
10 between partisan bias as measured by the efficiency
11 gap and voting how members vote in Congress?

12 A. Sure. Well, in a world, you know, if we rewind back
13 to 1970, in a world where democrats and republicans
14 didn't vote that differently from each other, then
15 you might think partisan gerrymandering is kind of
16 like watching sports.

17 Like, it didn't matter that much for the
18 representational process, but in a world where
19 there's increasing divergence between democrats and
20 republicans, we know that, if you elect more
21 democrats or more republicans, that's going to
22 effect the ideological composition of Congress.

23 And so what I looked at was what is the
24 relationship between the efficiency gap, which again
25 calculates partisan bias in the redistricting

1 process, and the ideological composition of a
2 Congressional delegation?

3 And this builds upon work I've done in my
4 academic research wherein my 2017 article, I
5 conducted, essentially, identical analysis but
6 focusing on State Legislatures.

7 In my view this is the way to capture what
8 is the affect of partisan gerrymandering at an
9 empirical level on the ideological composition of
10 Congress and indeed on the representation that we
11 all receive in Congress.

12 Q. Okay. Let's pull up your analysis on this. Mitch,
13 that's Exhibit 120, which is table four from page 19
14 of your report. Dr. Warshaw, what did you find when
15 you examined whether there was evidence of a
16 relationship between and efficiency gap and the
17 ideological composition of Congress?

18 A. Sure. What I found was that the left hand column
19 shows that obstructing over the details of the
20 regression that basically within state there is a
21 very large and substantial statistically significant
22 substantial relationship between the efficiency gap
23 and the average ideology of members of Congress from
24 that state so that a more republican efficiency gap
25 is going to shift members of Congress to the right

1 and a more pro-democratic efficiency gap is going
2 shift members of Congress to the left.

3 And in the second column I examined how
4 that has changed over time, because as we discussed
5 due to the growing polarization we might expect
6 there's lots of theoretical reasons to think that
7 the effect of partisan gerrymandering on the
8 ideological composition of Congress is probably
9 growing over time due to this growing polarization
10 in Congress.

11 Indeed, what I find is that that's right,
12 that we see the efficiency gap is causing more and
13 more of a shift in the ideological composition of
14 Congress over the last five decades.

15 Q. And how big is that connection now?

16 A. Well, if we look at the right column and we look at
17 sort of the bottom right the .01 what this is saying
18 that at 10 percent shift in the efficiency gap would
19 lead to about a .1 shift in the or .11 shift in the
20 DW nominate score of that member of Congress.

21 And just to sort of place that in context,
22 that's roughly the difference between Mitt Romney's
23 nominee score who, of course, is a moderate Senator
24 that often voted against President Trump and, of
25 course, voted to impeach President Trump, and Pat

1 Roberts here in Kansas who, of course, is a strong
2 conservative that voted to support President Trump
3 the vast majority of the time.

4 So this is a quite substantial difference.
5 This efficiency gap difference leads to a quite
6 substantial difference in the type of congressperson
7 that is going to get elected.

8 Q. Dr. Warshaw, are you familiar with Dr. Miller's
9 analysis on partisanship where he says the use of
10 the efficiency gap can lead to an increase in the
11 number of relatively extreme candidates who are
12 elected?

13 A. I am familiar with that critique.

14 Q. Do you have a reaction to that?

15 A. Well, in my view there's little theoretical reason
16 for that to be true and there's no empirical
17 evidence for that to be true. You know, in my view,
18 I can't think of, and I don't think anyone can think
19 of a single state where the efficiency gap has led
20 to some increase in polarization or decrease
21 competition.

22 So I think that, you know, even the
23 theoretical concern is itself is probably
24 exaggerated, but I think in terms of the empirical
25 effect of this, I don't see any reason to think this

1 is true.

2 Q. Are you also familiar with Dr. Miller's analysis
3 that says the efficiency gap -- use of the
4 efficiency gap can harm the minority party?

5 A. Yes, I saw that in his report.

6 Q. Do you have a reaction to that?

7 A. Well, here at least on the first one I can see some
8 theoretical grounds for it, but here I'm
9 hard-pressed to even understand the theoretical
10 argument. And certainly in reality I can't point to
11 any example in history where a shift in their
12 efficiency gap in favor of the advantaged party
13 somehow helped the disadvantaged party in terms of
14 the ideological composition of the Legislature.

15 And as I said as part of my peer review
16 research, I've studied the relationship between
17 partisan gerrymandering and the ideological
18 composition of both Congressional delegations, but
19 more importantly state legislatures quite
20 extensively.

21 And, you know, I certainly can't think of
22 any examples of this phenomenon. Nor can I think of
23 any peer reviewed studies that have reached similar
24 conclusions.

25 Q. Now, to close out my last question taking a step

1 back with respect to your overall analysis of the
2 effects of partisan bias on representation, what do
3 you conclude?

4 A. In my view, partisan bias is an interesting process.
5 Bias is the type of ideological composition of the
6 Legislature and as part of my peer review research,
7 I found that it also biases the policy outcomes that
8 state governments and by extension the Federal
9 Government produce.

10 And so by biasing the representational
11 process, I think partisan gerrymandering harms our
12 democracy and, in fact, degrades representation all
13 of us receive from our government.

14 MR. FREEDMAN: Thank you, Dr. Warshaw, no
15 further questions. We tender the witness.

16 THE COURT: Thank you, John. When you're
17 ready, counsel. You doing okay, Chris?

18 MS. BRETT: Your Honor, if I step out, am I
19 allowed to step in?

20 THE COURT: You can't come back. Yes,
21 Sharon. Come and go as you need to.

22 MS. BRETT: Thank you so much.

23 THE COURT: Counsel, before you get
24 started, everybody doing okay? Give me one of these
25 or one of those, because I can't read your mind. So

1 I take this as a yes.

2 MR. WOODS: I think I'm going to step out
3 for a moment.

4 MR. RUPP: I may do the same thing in a
5 minute.

6 THE COURT: Fine. Whatever you need to.
7 Counsel, the Court is proposal is that we work
8 through this witness yet. Ballpark me on
9 cross-examination.

10 MR. KAISER: Forty-five minutes to an hour.

11 THE COURT: Curtis, can you wait for us to
12 do a lunch break and do cross after lunch? Matter
13 to you one way or the other, Chris?

14 THE WITNESS: No, sir.

15 THE COURT: Good. I assume they'll be some
16 redirect.

17 MR. FREEDMAN: You never know, Your Honor.

18 THE COURT: I'll air on the side of
19 thinking there will be. Why don't we have lunch
20 then? It's noon. Why don't we come back at 1:05
21 and start all over again? Does that work, counsel?

22 MR. KAISER: I was on the edge of my chair,
23 but I'll come back.

24 THE COURT: Accept my apologies. Thank you
25 for your testimony thus far.

1 (Lunch recess.)

2 THE COURT: Let's get back on the record in
3 Frick, Alonzo, Rivera versus Schwab. When we took
4 our lunch recess, the defense was just getting ready
5 to begin its cross-examination. When you're ready.

6 CROSS-EXAMINATION

7 BY MR. KAISER:

8 Q. May it please the Court. Dr. Warshaw, I want to
9 pick up where you sort of ended up with Mr.
10 Freedman. It's my understanding that in this case
11 that you believe that there's an extreme bias in
12 favor of the republicans; is that correct?

13 A. That's correct.

14 Q. And isn't it true that in every Congressional
15 redistricting case that you have testified in you
16 have found extreme bias in favor of the republican
17 map drawers?

18 A. No. Well, no actually. So in I testified in a
19 number of states, and I've been asked, first of all,
20 I've been asked to testify in more states than that
21 and in several cases I wasn't able to, you know, I
22 didn't find it was an extreme level of partisan
23 bias, but even in the cases for which I've testified
24 in Pennsylvania, for instance, I gave testimony
25 before their bipartisan commission.

1 In there I found the plan did have a
2 pro-republican bias, but in that case the
3 pro-republican bias I didn't find to be substantial
4 enough to constitute, you know, any sort of extreme
5 bias that courts should intervene on.

6 Q. That last case you just mentioned matter in
7 Pennsylvania, that was regarding the State House,
8 correct?

9 A. Correct. That was for the State House plan. That
10 was actually initially I testified before their
11 commission and then my report was submitted as part
12 of litigation challenging the map.

13 Q. But, in every Congressional redistricting case that
14 you have testified in, you have found an extreme
15 bias in favor of the republican lawmakers who drew
16 the map in question, correct?

17 A. I think that's true. All though I've only testified
18 in -- I think this is my fifth. I think that's
19 right. Congressional case. So, you know, it's not
20 a very large sample size. In each of those cases,
21 these were extremely large levels of partisan bias.

22 Q. And we'll get to those four other cases here in just
23 a moment, but I want to clear just a little of the
24 underbrush before we get to that. Now, I just want
25 to clarify sort of the capacity in which you're

1 testifying today, Dr. Warshaw. It's my
2 understanding, and I do know that you went to law
3 school, you graduated, but you're not here today as
4 a law or Constitutional law scholar, correct?

5 A. That's correct.

6 Q. Relatedly, you're not here to tell the court what
7 you think the legal standard is for determining
8 whether partisan gerrymandering is permissible or
9 not?

10 A. That's absolutely correct.

11 Q. And also you're not here as an expert either on
12 Kansas history or the Kansas Constitution?

13 A. Yes, that's correct.

14 Q. Okay. And relatedly looking at the guidelines that
15 the revisors office put out you're not testifying
16 about those guidelines here today, are you?

17 A. No. I'm not offering any legal opinion about those
18 guidelines.

19 Q. In fact, you didn't even consider the guidelines in
20 performing or completing your analysis in this case?

21 A. No. In this case, and I think this goes back to
22 earlier question. In this case, I did exactly the
23 same kind of partisan fairness analysis that I do in
24 my academic research. So the work I did in this
25 case builds directly on the work I've done for

1 hundreds of other state plans, indeed thousands of
2 other state plans over the last 45, 48 years.

3 Q. And sort of building off of that, in light of that,
4 you're not relying on, I guess, any sort of
5 expertise on the political geography in Kansas, are
6 you, for your report?

7 A. My critique is on Congressional elections at large
8 and on the relationship between the partisanship of
9 the electorate and the type of outcome of elections
10 and the type of representatives that are elected.

11 So I'm not offering any granular expertise
12 on the particular very local voting patterns in
13 Kansas. All though I think I'm familiar broadly
14 with the geography of Kansas.

15 Q. Fair to say you don't hold yourself out as an expert
16 on the community of interest to the extent they
17 exist in Kansas in this case, are you?

18 A. That's correct.

19 Q. Likewise, you're not an expert on the various
20 socioeconomic units that may or may not exist in the
21 state?

22 A. That's correct.

23 Q. And basically you have a test, the efficiency gap,
24 that you have applied to data, and that I guess
25 you're sort of expounding on here today and in your

1 report?

2 A. That is correct. I use the same type of analysis
3 here that I would use in other states.

4 Q. Now, we started off talking a little bit about your
5 testifying in Congressional redistricting cases, and
6 it's my understanding you've testified in four other
7 cases; is that correct?

8 A. I have to look at my CV to be sure.

9 Q. We'll walk through them. My understanding is that
10 they kind of fall into two different categories.
11 The first being the 2017 to 2019 timeframe, and then
12 the second being the current redistricting, I guess,
13 season that we're in; is that correct?

14 A. That's correct.

15 Q. All right. So starting with that first timeframe
16 2017 to 2019, it's my understanding you had three
17 cases. The first one was the League of Women Voters
18 of Pennsylvania; is that correct?

19 A. I believe that's correct.

20 Q. Okay. And Pennsylvania at that time had 18
21 Congressional Districts, correct?

22 A. I have to look at my report, but I think that's
23 correct from my memory.

24 Q. The next case that I have is League of Women Voters
25 versus Johnson and that was a Michigan case,

1 correct?

2 A. Correct.

3 Q. And Michigan at that time had 14 seats?

4 A. Yes.

5 Q. And then the next was APRI versus Ohio, obviously an
6 Ohio case, and at that time Ohio had 16
7 Congressional seats, correct?

8 A. Yes. I believe that's correct.

9 Q. And all though not the lead plaintiff, the League of
10 Women Voters, was also a named plaintiff in that
11 case, correct?

12 A. I think that's true. I'm not 100 percent sure but
13 that sounds right.

14 Q. Now, for this most recent round of redistricting
15 litigation, you participated in the case of League
16 of Women Voters versus Ohio Redistricting
17 Commission, correct?

18 A. Yes.

19 Q. And it's my understanding that the League of Women
20 Voters have filed a new suit in Utah challenging a
21 plan redrawn by the republican majority there; are
22 you aware of that case?

23 A. Not really. I think maybe I've seen it on Twitter,
24 but I'm not aware of any details of that case.

25 Q. So you're not participating in it?

1 A. In Utah you said?

2 Q. Yeah.

3 A. No, I'm not participating in that.

4 Q. Now, we talked a little bit, and it seemed like
5 there was a little bit of question as to what you
6 had actually concluded in those four other cases.

7 So I want to start with the League of Women
8 Voters versus Pennsylvania, the 2017 case. It's my
9 understanding that there you concluded that, "There
10 was an extreme bias in the map that you reviewed for
11 the state of Pennsylvania," and that it was, "An
12 extreme historical outlier." Is that correct?

13 A. I'll assume you're quoting correctly.

14 Q. Do you want to clarify or make sure?

15 A. I mean, it sounds right. I can't say for sure
16 without my report in front of me.

17 Q. In there isn't it true when looking at the
18 efficiency gap that you calculated for the state in
19 the state of Pennsylvania Congressional
20 redistricting case that you were comparing the
21 results that you had for your analysis to a
22 historical distribution table that included only
23 those states that had six or more Congressional
24 Districts?

25 A. Again, I have to look at my report but that sounds

1 probably right.

2 Q. Do you remember a time prior to this case in which
3 you testified and you relied on a historical
4 distribution table that had less than six
5 Congressional state or states with less than six
6 Congressional seats?

7 A. I can't.

8 Q. In the next case that I have is League of Women
9 versus Johnson, which, again, is that Michigan case.
10 In there, it's my understanding that you concluded
11 that the redistricting map that was passed and
12 enacted by the republican Legislature was an extreme
13 outlier; is that correct?

14 A. Indeed. I'll note that in both of those cases the
15 court agreed with my analysis and credited me
16 extensively in their opinion. And I think that in
17 both of those cases, there's no disagreement among
18 social scientists that those were extreme partisan
19 outliers.

20 Q. Moving to APRI versus Ohio, the 2017 case, there you
21 concluded that it was a historical outlier as well,
22 didn't you?

23 A. I did. It was, in fact.

24 Q. And those last two cases I mentioned League of Women
25 versus Johnson and then APRI versus Ohio, you had

1 indicated that the court credited your analysis in
2 reaching its conclusion, correct?

3 A. I believe that's true.

4 Q. When I say court, I mean District Court, correct?

5 A. Exactly. The Pennsylvania court was decided by a
6 Trial Judge, then it went to the Pennsylvania
7 Supreme Court. That was the posture. In Michigan
8 and Ohio it was decided by three judge panels. Both
9 decided in our favor. They said extensively, I
10 believe, crediting some of my analysis, and then it
11 went to the Supreme Court where matters of law it
12 was overturned not findings of fact.

13 Q. It was vacated by the Rucho versus Common Cause
14 decision, correct?

15 A. Exactly. That was based on justiciability concerns.
16 There was no overturning the findings of facts in
17 the cases.

18 Q. Now, and then fast forwarding here to the 2021 case,
19 the one that is currently in Ohio, it's my
20 understanding that you authored a report and
21 submitted it roughly a month ago. So March 7th
22 timeframe; is that correct?

23 A. It sounds right.

24 Q. In there, you found that there was an efficiency gap
25 of negative 16 and that was more extreme than 91

1 percent of the previous Congressional plans
2 nationwide over the past five decades, correct?

3 A. Uh-huh. That sounds right.

4 Q. Also, that it was more pro-republican than 96
5 percent of the previous plans?

6 A. Again, it's hard to say without my report in front
7 of me, but that sounds approximately right. I think
8 to put that in more context what the Ohio plan would
9 do is there's 15 seats.

10 Ohio is a very closely divided state, and
11 the map there would lead to a plan with 13
12 republican Congress people and two democratic
13 Congress people.

14 So, again, I think in none of these cases
15 were these borderline calls. In each of these, I
16 think there would be broad agreement by political
17 scientists that these were all extreme partisan
18 outliers.

19 Q. Isn't it true that unlike Kansas, Ohio has a
20 redistricting committee that draws these maps?

21 A. They have a partisan redistricting commission as
22 opposed to a bipartisan commission or a nonpartisan
23 commission, which purports to be the best practice.

24 Q. At bottom the Legislature is not drawing the
25 boundaries for the Congressional Districts in Ohio,

1 correct?

2 A. I think that's right. I think they ended up drawing
3 them for the Congressional map or the State
4 Legislative map and not the Congressional map, but I
5 can't remember precisely. It's been very
6 complicated there.

7 Q. Mr. Freedman talked to you at the beginning of your
8 testimony here about the different methodologies
9 that exist now to, I guess, distill or to ferret out
10 potential impermissible partisanship in
11 Congressional redistricting, correct?

12 A. That's correct.

13 Q. And while there are 10, there are I guess
14 effectively four that you favored, correct?

15 A. Exactly. There's four that I typically use both in
16 my academic research as well as when I write reports
17 when they're applicable.

18 Q. And those four are declination, partisan symmetry,
19 mean median differences, and efficiency gap,
20 correct?

21 A. Exactly.

22 Q. Here the first declination partisan symmetry, and
23 mean median differences you did not rely upon,
24 correct?

25 A. That's correct.

1 Q. And that's, because you didn't think they were
2 appropriate in a case like this?

3 A. Exactly.

4 Q. With the partisan symmetry and mean median it was
5 because the results, I guess, too republican heavy,
6 because they, I guess, were above that 55 percent
7 threshold that you like, correct?

8 A. Correct. In both of those cases, you have to
9 imagine the counterfactual or hypothetical swing
10 where you're imagining a tied 50 percent election
11 and the farther you get from 50 percent from two
12 parties having roughly splitting the statewide vote
13 50-50, sort of the less realistic those metrics are.

14 And there's been a variety of studies now
15 that have found that really they just don't work
16 very well in less competitive states.

17 Q. Likewise, declination doesn't work when one party
18 predominantly wins every race, correct?

19 A. Exactly. If a non dominus number or percentage of
20 the time one party wins every seat, then it's not
21 actually possible to calculate the declination,
22 because it relies on the vote shares of sort of a
23 mathematical transformation using the vote shares of
24 parties in each of their seats.

25 So, if there are no seats for one of the

1 parties, then you can't actually calculate it.

2 Q. In essence, you found the results to be so lopsided
3 in favor of the republicans that those other three
4 measures were not, I guess, applicable here?

5 A. Well, again, more specifically what I found was they
6 weren't close enough to 50 percent to use the mean
7 median difference or partisan symmetry, and in the
8 case of declination, I found that a large percentage
9 of the time, the democrats didn't win any seats
10 under the Ad Astra 2 plan. So it wasn't reasonable
11 to use.

12 Q. You'd agree with me though that republicans win a
13 lopsided share of the statewide vote in Kansas?

14 A. Well, I think what I said in my report was that they
15 win 41 percent or democrats win about 41 percent and
16 republicans win about 59 percent to be more
17 specific.

18 Q. Jamie, will you pull up Plaintiffs' Exhibit 105?
19 Go to page 4, please. It might be PDF page 6. Keep
20 going, please. Right there.

21 MR. FREEDMAN: I'm sorry, counsel. We
22 can't see the exhibit on our monitor.

23 MR. KAISER: Is there a way, Jamie, we can
24 turn that on? All right. Jamie, can you -- would
25 go down to the third line where it begins with

1 however and blow that up. There you go. The very
2 bottom line it says one party wins a lopsided share
3 of the statewide vote, which is the case in Kansas.
4 Am I reading that correct?

5 A. Yeah. That was correct.

6 Q. And so when you say, "lopsided," what did you mean
7 by that?

8 A. Well, you know, this is a qualitative evaluation,
9 but I think as you get closer to 40 percent of one
10 party meaning getting close to 60 percent in
11 statewide vote, that's where I would start to call
12 that a more lopsided statewide vote distribution.

13 Q. And how does that conclusion --

14 A. I would say this is a little bit of a qualitative
15 use of this term rather than some very statistically
16 precise usage.

17 Q. And kind of drawing that qualitative conclusion,
18 what effect does the lopsided share of the statewide
19 vote have on the efficiency gap?

20 A. It has no effect on the efficiency gap as long as
21 they're the two party vote share is less than 75
22 percent. So, if it was extremely lopsided, and the
23 two parties, and the republicans were expected to
24 get more than 75 percent of the statewide vote, then
25 the efficiency gap would be inapplicable.

1 Q. So, if the majority party receives between 51 and 75
2 percent, there's really no discernible difference in
3 the efficiency gap?

4 A. Correct. It works fine in that range.

5 Q. But at 76 or 75.5 that's when the methodology goes
6 haywire?

7 A. That's actually true. A very sharp line to the
8 efficiency gap at 75 percent where it doesn't work
9 right anymore. And you could make possibly make
10 adaptation to try to make it work better, but at
11 least in its initial formulation it doesn't work
12 there.

13 Q. And, when you say, "statewide vote here," that's
14 important because you're not saying that the
15 lopsided share of the vote is due to gerrymandering,
16 correct?

17 A. No, I'm talking about the statewide vote here.

18 Q. Basically the idea that there are, I guess, more
19 people in Kansas that are voting for republican
20 candidates than there are not in a sort of lopsided
21 way, correct?

22 A. Yeah, that's correct. And I want to be careful,
23 because my analysis here is based on statewide
24 elections. So my analysis here has nothing or
25 virtually nothing to do with it's not a consequence

1 of gerrymandering, but if you were using
2 Congressional election results perhaps from a
3 previous decades, those indeed could be affected by
4 gerrymandering.

5 So this is a case where I'm not saying that
6 vote shares even aggregated to the statewide level
7 could never be affected by gerrymandering, but, if,
8 as in this case I'm using statewide elections, then
9 they wouldn't be affected by gerrymandering. If
10 they were, it would be at a de minimis amount.

11 Q. When we say, "statewide," is that exogenous?

12 A. Scholars and experts in this area typically call
13 those exogenous elections. Now, I will say it's a
14 little bit of term of art here and it's now how
15 political scientists often use the word exogenous
16 but in this particular area that's how that term is
17 often used.

18 Q. I want to focus a little bit now or more
19 specifically at the efficiency gap test and Mr.
20 Freedman had walked through, I guess, sort of the
21 lineage of it.

22 My understanding is that it began in 2014
23 as, "A purely social science based concept." Are
24 you familiar with that vernacular or that phrase or
25 description for the efficiency gap analysis that Mr.

1 McGhee came up with?

2 A. Well, I don't remember that exact phrase, but as we
3 mentioned as we discussed earlier with Mr. Freedman
4 it was proposed in 2014 in a peer reviewed article
5 in Legislative Studies Quarterly, and it was
6 originally I think again I don't remember that exact
7 phrase, but I do think it was originally designed as
8 a purely political science metric.

9 And certainly he didn't have in mind, you
10 know, legal applications or things like that. It
11 was really designed as a social science metric to
12 describe the world.

13 Q. And what is the difference between a social science
14 metric and a legal standard or legal test?

15 A. Well, I think that social scientists often we rarely
16 have for a legal test you would often you might need
17 to apply various legal tools, but for a social
18 science evaluation of something, like, there's no --
19 usually we evaluate things continuously.

20 There isn't like a sharp line where if it's
21 below X number, it is definitely a gerrymander or a
22 something, and, if it's below that, then it's
23 definitely not. Usually social scientists think of
24 things in a more continuous fashion.

25 Q. So, when Mr. Stephanopoulos and Mr. McGhee, I

1 guess, draft that sort of seminal 2015 University of
2 Chicago law review article, did they fundamentally
3 change the test, because my understanding what they
4 attempted to do in that law review article was to
5 make it effectively a legal test; is that correct?

6 A. Exactly. They tried to take this very social
7 science metric and sort of convert it into a legal
8 test.

9 Q. And in doing so did they lose properties or did they
10 change the way that the analysis works?

11 A. No.

12 Q. Is the only change sort of on the back end where
13 they were coming up with the test of determining, I
14 guess, when I guess extreme bias was significant
15 enough to constitute a Constitutional violation; is
16 that the idea or was there some other difference
17 that was baked into this when they were trying to
18 make what was a social science metric into a legal
19 test?

20 A. No. I think on the back end they had doctrinal
21 analysis that argued for some legal standard, but
22 obviously that was a very small part of their
23 article and most of that article actually did some
24 really interesting historical analysis.

25 Q. Isn't it true that Mr. McGhee and Mr. Stephanopoulos

1 in that seminal article where they're attempting to
2 create this legal test for efficiency gap advocate
3 for a two-seat test for Congressional redistricting?

4 A. I think that's true, although, I've never --
5 certainly, again, I'm not offering legal opinions.
6 So I don't have a view on that test nor have I ever
7 advocated for it in any of my own writing. And to
8 my knowledge, no court has ever adopted that precise
9 test. So, in my view, the precise test that they
10 proposed isn't particularly relevant.

11 Q. Do you know if Mr. Stephanopoulos and Mr. McGhee,
12 the original proponents or creators of this test
13 continue to believe that a two-seat standard is
14 appropriate?

15 A. Actually I don't know. I have no idea.

16 Q. Now, the efficiency gap, I believe Mr. Freedman
17 referred to as having sort of a robust discussion.
18 Some would say that it's also been subject to
19 significant criticism, correct?

20 A. Can you repeat the question?

21 Q. Yes. The efficiency gap Mr. Freedman had referred
22 to as being subject to robust discussion some could
23 characterize that discussion as being, I guess,
24 debate about it's merit, correct?

25 A. Well, I think there's been an extensive back and

1 forth about the efficiency gap as there has been on
2 every significant social science metric in the
3 political science or economic literature, but
4 overall I think the conclusion of that literature is
5 that the efficiency gap does an excellent job of
6 capturing various properties of partisan bias in the
7 redistricting process and, in general, has very
8 similar both theoretical and empirical properties as
9 does other metrics.

10 Q. And, in your expert opinion, what is the court to
11 do, I guess, with this efficiency gap analysis that
12 you perform?

13 A. So, I think, in my view, this is one indication of
14 the partisan bias that is in this -- that is present
15 in this plan. What I tried to do in my report was
16 to place this both in absolute terms but also show
17 the extreme level of bias compared to other
18 historical plans over the last 48 years and compared
19 to other plans of the Kansas Legislature considered.

20 Q. Now, I want to unpack, I guess, the nuts and bolts
21 at least how I understand the efficiency gap and how
22 it works. My understanding and your testimony with
23 Mr. Freedman is that there's really only two
24 scenarios in which you do not believe the efficiency
25 gap hands down is not appropriate.

1 One is when you have margins that exceed
2 sort of the 25-75 divide.

3 A. Exactly.

4 Q. The other being when you have one or two
5 Congressional Districts in a state?

6 A. Exactly.

7 Q. One thing I thought was curious though that there
8 was a demonstrative exhibit that Mr. Freedman had
9 put up towards the end of your testimony in which
10 you had referred to I think a distribution that you
11 had created that included four or more states; is
12 that correct?

13 A. That's correct.

14 Q. Why didn't we include three on that?

15 A. Well, I think as we discussed in deposition, I don't
16 have a clear view. Like, I think if pushed, I would
17 say that probably I wouldn't use the efficiency gap
18 with states with three seats, but I don't have as
19 clear a view on that, which is why I didn't include
20 it in my demonstrative, but I think that's a little
21 bit more of a judgment call; whereas, I think that
22 in calculating our showing the efficiency gap for
23 states with one or two seats is really wholly
24 inappropriate.

25 Q. So what changes from two Congressional seats to

1 three Congressional seats?

2 A. Well, in the case of two Congressional seats,
3 there's only one line you can draw between the two
4 Congressional Districts and the efficiency gaps that
5 you would get would be extraordinarily large,
6 because there's only two seats.

7 And I think that that was shown in
8 Professor Miller's chart I think illustrated why no
9 one would actually use the efficiency gap to
10 evaluate a plan with one or two seats. And, of
11 course, I wouldn't do that either.

12 Q. So my understanding is one to two that's the no go
13 zone, correct? Three is iffy?

14 A. I'm sorry, yes.

15 THE COURT: Thank you, Chris.

16 Q. (By Mr. Kaiser) Three is iffy?

17 A. That's correct. I don't think I would do so, but I
18 think that's a little bit I would need to think
19 about it further.

20 Q. But four we're confident in our results?

21 A. Well, I think four you need to use caution. That's
22 why the analysis I did here used the wide variety of
23 statewide elections and really investigated it's
24 properties quite carefully.

25 So I think that if you were going to use,

1 for instance, one Congressional election cycle to
2 calculate the efficiency gap, then certainly I
3 wouldn't recommend doing it with only four seats.

4 Q. So, if I'm following, you believe that you can
5 mitigate, I guess, the volatility that can exist in
6 states with smaller Congressional Districts by
7 looking at more election results; is that correct?

8 A. Exactly. I think that's something I talked about
9 more explicitly in my report.

10 Q. And here how many election results do you need to
11 look at, in your expert opinion, in order to be
12 comfortable or confident in your results for a state
13 with four Congressional Districts?

14 A. I don't have a precise number in mind, but I think
15 that nine or 10 statewide elections is sufficient.

16 Q. And, in a situation like this, my understanding of
17 your testimony is that there was a gap. There was a
18 gap between 2012 and 2016; is that correct?

19 A. Exactly.

20 Q. Okay. Did that cause you any pause in your
21 analysis?

22 A. Well, I think that in an ideal world, I would love
23 to have included 2014, because I've stated a number
24 of times earlier in my report I think that having
25 all the statewide elections over the course of the

1 decade would make the conclusions as robust as
2 possible.

3 I tried to find it and the only place that
4 has it is there's a crowd source website called open
5 elections that has something, but, A, I couldn't
6 validate it; and, B, I couldn't match it with the
7 precinct level results in order to aggregate it out,
8 sorry, to the precinct level shape files in order to
9 aggregate it out.

10 I think that in this case one thing that
11 gave me less pause is not including the 2014
12 elections actually worked against all of my
13 conclusions because we would find in the 2014
14 elections that the republicans won all four
15 Congressional seats, almost surely find, given that
16 they won all the statewide elections by large
17 margins.

18 What you would find is that they won all
19 four Congressional seats, which would lead to a
20 quite large efficiency gap calculation. Probably
21 something somewhere between 25 and 30 percentage
22 points just doing back of the envelope math, which
23 would have increased my estimate of the efficiency
24 gap, the pro-republican nature of the efficiency
25 gap, not decrease it.

1 So actually not including the republican
2 waive year in 2014 worked against my conclusions.
3 It didn't actually help me. So I think the social
4 scientist, I'm always more concerned about the type
5 of data, omitting certain types of data, if I'm
6 worried about that might bias the results in favor
7 of whatever my hypothesis is or whatever conclusion
8 I reach.

9 But, if that nature of omitting some part
10 of the data if you have problems with the data
11 generating process, you know, lead to a bias against
12 your conclusions, then I think that's less
13 problematic.

14 Q. My understanding is the way that you went about your
15 analysis in this case is different than the way you
16 went about collecting your data in the Ohio and
17 Michigan cases.

18 Specifically my understanding is that in
19 those two states you are looking at Congressional
20 Districts; whereas in this state, you were looking
21 at statewide elections; is that correct?

22 A. No. In both of those cases, my analysis was
23 primarily focused on while -- sorry. Let me be
24 clear. So, in all of the cases that I worked on all
25 three cases between 2017 and '19, I used observed

1 Congressional election results, because several
2 Congressional elections had taken place on those
3 maps.

4 So, in my view, when you have -- certainly,
5 if you have two, three or more Congressional cycles,
6 that's what you should use to evaluate the plan.

7 In the new redistricting cycle where I've
8 worked, we haven't, of course, had a Congressional
9 election yet. So, in this case, I don't think it
10 makes sense to primarily rely on Congressional
11 election results when you're evaluating new plans.

12 So all my analysis this cycle have the
13 bedrock have been looking at statewide election
14 results.

15 Q. I apologize. I wasn't trying to say one is better
16 than the other. I'm just saying that there's a
17 difference there in the data that you used for the
18 Michigan, Ohio, and Pennsylvania cases, because the
19 way I understand it is that data you were looking
20 back; where as here, you're trying to predict
21 forward; is that correct?

22 A. It is. The one thing I'll note is that one thing we
23 might be concerned about is if the efficiency gap we
24 would estimate from the statewide races was
25 dramatically different than when you estimate with

1 Congressional races.

2 When I checked this for the 2012 through
3 '16 plan in Kansas, the efficiency gap that I
4 reported in my report is almost identical to what we
5 observed in the actual Congressional elections.

6 So there's really no major difference here
7 between using the statewide elections and
8 Congressional elections over the past decade when
9 you're evaluating 2012 through '20 plan.

10 Q. Jamie, will you please pull up Plaintiffs' Exhibit
11 105 and go to PDF page 14 and zoom in on table two,
12 please. When you're talking about actual results
13 and comparing it, is this what you're look at?

14 A. Exactly. What I mean is that, if you look at the
15 observed efficiency gaps using the actual
16 Congressional results on the '12 through '20 plan,
17 what you find is an efficiency gap of, I believe,
18 it's 15 percent if you compare apples to apples
19 elections. And so it's almost identical to what you
20 observe with the statewide elections.

21 Q. So the way I understand that looking at that top
22 line there the 2012 to 2020 plan, your prediction
23 was that the democratic seat chair would be 16
24 percent, correct?

25 A. Correct. If you're looking to the 2012, '16, '18

1 and '20 elections, which I had data. In fact, in
2 those elections the democratic seat chair was 12 1/2
3 percent. So it's very similar to what I find here.

4 Q. When we look down here to the second plan, you're
5 predicting that the way I read this anyway is that
6 over the next, I guess, the life of this plan, which
7 is effectively five election cycles, correct?

8 A. Yes.

9 Q. So five times assuming -- I guess we're not going to
10 assume, there's going to be four Congressional
11 Districts for the next 10 years. There's 20 seats,
12 correct?

13 A. That's correct.

14 Q. So based on your prediction, the democratic
15 candidate is going to win roughly two of those 20
16 seats?

17 A. That's roughly correct, a little bit less than two,
18 if you're averaging across lots of uncertainty but,
19 yes.

20 Q. It's my understanding in listening to your testimony
21 or your colloquy or discussion with Mr. Freedman was
22 that that you believe that absent there being any
23 sort of pro-republican bias that the democratic
24 candidate should win at least one of the four
25 Congressional Districts every election cycle over

1 the next 10 years; is that correct?

2 A. Well, that would lead to an efficiency gap of close
3 to zero percent, but I'm not saying that that would
4 -- I think there's other things we may look to in
5 Kansas to evaluate the plan. And it might be that
6 the political geography here, for instance, so you
7 wouldn't expect an unbiased plan democrats would
8 always win one seat.

9 Q. So as we sit here today --

10 A. I'm not saying exactly that's what a nonpartisan
11 commission would necessarily come up with.

12 Q. So, under this plan, I read this table, how many
13 seats during this next election cycle so 2022 should
14 the democratic candidate win if there was no
15 pro-republican bias?

16 A. If there was no pro-republican bias in the
17 translation of votes to seats, then you would expect
18 them to win about one seat.

19 Q. And do you know currently, and when we say one seat
20 presumably based on your report and earlier
21 testimony, you're referring to CD3; is that correct?

22 A. That's correct.

23 Q. And you're a political scientist, correct?

24 A. That's correct.

25 Q. You look at polls, correct?

1 A. I do.

2 Q. Okay. One of those polls is one that's put out by
3 an organization called the Campaign Legal Center,
4 correct?

5 A. I have no idea. I don't ever remember seeing a poll
6 out of Campaign Legal Center.

7 Q. You have heard of a project. I'm going to say CLC;
8 is that okay?

9 A. Yeah.

10 Q. CLC has a project called PlanScore, correct?

11 A. Yes, I'm familiar with PlanScore.

12 Q. Jamie, will you please pull up defense exhibit --

13 A. I think the characterization is incorrect. There's
14 no polling done as part of PlanScore.

15 Q. Okay. Will you please pull up Defense Exhibit 1045,
16 Jamie. Scroll down to page 2, please. All right.
17 So this looks to me like someone is attempting to do
18 some sort of polling here on Defense Exhibit 1045.
19 What do you understand this to be doing on PlanScore
20 by the CLC?

21 A. Great. So this is not based on any polls. This is
22 based primarily on the 2020 presidential election,
23 and what it's saying here it's trying to predict
24 based solely on the relationship between
25 presidential elections and legislative votes and

1 especially the 2020 presidential election, what's
2 likely to happen in each district. That's what the
3 shading is. It's not based on any polling.

4 Q. It's a predictive tool, though, that's what the
5 point of this is, correct?

6 A. Correct. It's offering one type of predictive tool.

7 Q. And you have some affiliation to PlanScore, correct?

8 A. I do. I'm on the Social Science Advisory Board. So
9 I help think through the social science methodology
10 and the goal of PlanScore is enable people to
11 provide an initial national level evaluation of the
12 partisan bias in their own state as well as the bias
13 in new plans. What you see in PlanScore, if you
14 scroll down a little bit in the exhibit is that --

15 Q. Will you scroll down, please.

16 A. What PlanScore shows is that even though the details
17 of the predictive model in PlanScore differ a little
18 bit from what I did, that in PlanScore just as in my
19 analysis, the Ad Astra 2 plan.

20 So, if you scroll down it shows the same
21 kind of comparison to the rest of the country that I
22 do in my report and, broadly speaking, any PlanScore
23 conclusion is exactly the same as mine, which is
24 that this plan has a historically extreme level of
25 bias in favor of republicans, and you chopped a page

1 here to not show the table, but, if you scroll down,
2 that's exactly what the table on PlanScore would
3 should.

4 Q. We're going to get to that in just a minute. All
5 I'm doing for this exhibit right now is I want to
6 look at this column that says chance of democratic
7 win, do you see that?

8 A. I do.

9 Q. I go down here, and I look at CD3. And I go across.
10 It says 62 percent. What does that mean?

11 A. So, again, it's saying that based primarily on the
12 2020 presidential election where on the new -- this
13 is basically the best performing candidate maybe be
14 outside of Kelly, but Joe Biden did very well in
15 Kansas.

16 And so, if you project, if you assume the
17 future is going to look exactly like the 2020
18 presidential election where Joe Biden did reasonably
19 well in Kansas, he won nationally by four and a half
20 percentage points, then it suggests District 3 is
21 closely contested and slightly leaning towards
22 democrats.

23 I included that projection basically
24 implicitly in the district level conference
25 intervals that are in my report. What you can see

1 is the confidence intervals from my projections of
2 Ad Astra 2 does extend above 50 percent, and that's
3 based largely on the 2020 presidential election.

4 So what it's saying is that, yes, there are
5 circumstances where a democrat could win Ad Astra 2,
6 and that's what we saw in the 2020 presidential
7 election, but if you look broadly over the past
8 decade, you know, that's a high water mark for
9 democrats and usually they do worse than that.

10 Q. Now, I mean this is just not planned score that
11 believes that the Third Congressional District is
12 competitive, is it? There are other sources as
13 well?

14 A. No. I never asserted it's not competitive. Yes. I
15 do believe sources including my own analysis suggest
16 that it's competitive. I wouldn't say that District
17 3 is impossible for democrat to win.

18 Q. So how would your efficiency gap analysis change, if
19 let's say instead of Representative Davids having a
20 predicted chance of winning of 62 percent, she had a
21 predicted chance of winning of zero? How would that
22 change your efficiency gap analysis?

23 A. If it was zero percentage chance that she would win,
24 then it would lead to a pro-republican efficiency
25 gap of something like 30 percentage points, 32

1 percentage points, I believe.

2 Q. Have you ever seen a percentage point that high?

3 A. I can't say. Not off the top of my head. I mean,
4 that would be an extremely high bias in the
5 efficiency gap.

6 Q. So you agree with me. Again, I know you use this
7 qualitatively, but in a state in which republicans
8 lopsidedly win the vote share statewide, you're
9 saying that it's extreme pro-republican bias for
10 them to win four of the four Congressional
11 Districts?

12 A. Exactly. I mean, that's exactly what the historical
13 data shows is there's very few instances. I don't
14 want to say zero, but there's few instances where
15 that's true, and that's looking over hundreds, if
16 not thousands, of Congressional elections over the
17 past 48 years.

18 Q. And, when you say those thousands of election
19 results, you're referring to that historical
20 distribution that you've created, correct?

21 A. That's correct.

22 Q. Okay. Now, I'm going to cover imputation later on,
23 but I want to make sure I cover this. With respect
24 to the efficiency gap that you calculated for Kansas
25 for this case, you did not impute any votes to any

1 party, because you used statewide elections; is that
2 correct?

3 A. That's correct. The imputations only came in as
4 part of the comparison to the historical data from
5 other states and from Kansas in the past.

6 Q. In cases in which you have to impute votes, does
7 that change the analysis in any material way?

8 A. Well, if you don't impute the results, it can lead
9 to extremely inaccurate results. So, as I said
10 earlier, I think that if you're evaluating actual
11 Congressional elections to use those to calculate
12 any partisan bias metric, which would include the
13 efficiency gap, it would also include the other
14 ones, which talked about earlier.

15 You would always impute the results in a
16 contested election. I don't know of any peer
17 reviewed study in the past 20 or 30 years that
18 hasn't done that.

19 Q. Is it true that there's no standard way to formulate
20 the imputation of votes for a particular race?

21 A. We're going to come back to that page?

22 Q. Are we?

23 A. Before we take it off the screen?

24 Q. Sure. We can go back to it.

25 A. Because I think what you highlighted here is

1 implying that PlanScore gives you something
2 substantially different, but, again, if you scroll
3 down --

4 Q. I think that's the end of it.

5 A. Then you saved the PDF. If this was the actual
6 website, what it would show you if you scrolled down
7 that some of the details differ but even in
8 PlanScore just as in my analysis it's a historical
9 extreme pro-republican efficiency gap.

10 MR. FREEDMAN: Your Honor, I'll move that
11 1,045 appears to be an incomplete document, and I
12 will plan to show the website.

13 MR. KAISER: I'm fine with that. We can
14 substitute for the record, if that is all right.

15 MR. FREEDMAN: That would be great.

16 MR. KAISER: Awesome. I have no problem
17 with that at all.

18 MR. FREEDMAN: Thank you.

19 MR. KAISER: Sorry about that.

20 THE COURT: Let's make sure that we're
21 clear about what we're doing, counsel. You're going
22 to substitute -- I forgot the number of your
23 exhibit.

24 MR. KAISER: 1045, sir.

25 THE COURT: You're going to substitute 1045

1 for Plaintiffs' 145?

2 MR. KAISER: No. My understanding is that
3 this got cut off, and we need to, I guess, to have
4 to -- do you have 145 that's complete?

5 MR. FREEDMAN: I don't, but what I'd
6 suggest is rather than have that why don't
7 plaintiffs introduce a new exhibit, the full website
8 that corresponds to this page?

9 MR. KAISER: Okay. I have no objection to
10 that, sir.

11 MR. FREEDMAN: I will do that during
12 recess.

13 MR. KAISER: I apologize for that.

14 THE COURT: Thank you, counsel.

15 Q. (By Mr. Kaiser) Do we need this anymore, Dr.
16 Warshaw?

17 A. No, thank you.

18 Q. You can pull that down, Jamie. Are there risks in
19 performing analysis in which you look at your data
20 set is composed of just three election cycles; is
21 that in your mind good methodology for performing
22 the types of tests that you do?

23 A. Well, I think that -- I think that if those three
24 election cycles are all very consistent with one
25 another and show a durable and extreme partisan

1 advantage, then I would say that's probative in
2 useful information.

3 Q. Focusing just on CD3 here, and my understanding is
4 that you wrote a chapter or a case study on the 2018
5 gubernatorial race in Kansas; is that correct?

6 A. It plays a part in my book manuscript. Exactly. It
7 wasn't a full-blown case study, but we talked about
8 it rather extensively in my book.

9 Q. But for some reason you became familiar to a degree
10 with Kansas politics of late?

11 A. Exactly.

12 Q. And would you say that the candidates at the top of
13 the ticket in 2016, '18 and '20 are candidates that
14 you believe would appeal to Johnson County voters or
15 Third Congressional District voters based on
16 historical, I guess, review of the election results?

17 A. I guess I'm not sure what the question means.

18 Q. So, for instance, they had in 2016 top of the ticket
19 for republican party would have been President
20 Donald Trump, correct?

21 A. That's correct.

22 Q. 2018 it would be then gubernatorial candidate, Kris
23 Kobach, correct?

24 A. That's correct.

25 Q. And in 2020 it was President Donald J. Trump,

1 correct?

2 A. That's correct.

3 Q. Okay. And my question is, if you're able to answer
4 it, is that in my understanding you looked over
5 eight, nine, 10 election results in the State of
6 Kansas, correct?

7 A. Ten, I believe.

8 Q. Or 10. Are the results that would have come back
9 for CD3 during 2016, '18, and '20 representative of
10 the entire whole that you would see for those 10
11 elections that you reviewed?

12 A. Well, I think including 2012 is going to increase is
13 going to improve the results. So, if we have it
14 available, I don't see any reason why you wouldn't
15 include 2012.

16 Q. But isn't that the danger in having small sample
17 size? You may end up with candidates that may be
18 less appealing so the results tell us less about
19 ideology and more about dislike for a particular
20 candidate. Isn't that the risk in a small sample
21 size?

22 A. Well, I think there's certainly candidate factors
23 can matter, but in this case I think when you
24 average across these results, they do give you a
25 very accurate sense of the partisan leaning of both

1 Kansas as a whole as well as the geographic areas,
2 and we can see that in part, because, again, recall
3 that during my discussion with Mr. Freedman that in
4 the Congressional elections, once you improperly
5 impute the uncontested races, democrats received
6 about 40 percent of the vote.

7 So, too, in the statewide races they also
8 received about 41 percent of the results there. So,
9 the results are very similar across these different
10 offices once you average them properly across the
11 decades.

12 Q. Would you have felt comfortable in performing your
13 analysis to only look at election results from 2016,
14 '18, and '20?

15 A. If that was the only data available, yes. Again, I
16 think that my results are very similar if I only
17 look at 2016 through '20.

18 Q. Even in a case in which we only have four
19 Congressional seats?

20 A. Yes. I don't think that looking at three election
21 cycles versus four is substantially different.

22 Q. What about if there's only two?

23 A. I haven't thought about that.

24 Q. I want to switch gears a little bit, and I want to
25 focus on -- Jamie, can we pull up Plaintiffs'

1 Exhibit 105, specifically PDF page 17, and I may
2 have misheard you, Dr. Warshaw, but I believe I
3 heard you say, "That all the other plans that the
4 legislature considered along with Ad Astra 2 are
5 reflected on this graph in figure nine; is that
6 correct?"

7 A. I think what I said in responding to the earlier
8 questioning from where I first introduced the chart
9 as well as in my report is that I didn't include the
10 other two Ad Astra plans, because they were
11 substantially identical to Ad Astra 2.

12 Q. So, basically, they were an iteration of Ad Astra 2.
13 So you thought they were too close, I guess, to
14 provide any sort of value to this graph; is that
15 correct or table?

16 A. That was my understanding.

17 Q. Jamie, would go to PDF page 15. All right. As I
18 look through here, can you scroll in on that table
19 three, please, on the top. There we go.

20 When I look through here, again, these
21 plans, I understand, are all the plans you included
22 in this table or I keep saying table, in this
23 figure, figure nine, which I guess this looks to be
24 a historical distribution table, and the plans that,
25 I guess, that you reviewed; is that correct?

1 A. Yes, that's correct.

2 Q. But as I look through here my understanding why you
3 did not include Ad Astra 1 and 3 is because they
4 were earlier or later iterations of Ad Astra 2, but
5 there are other plans that are iterations of either
6 I guess a later plan or an earlier plan shown on
7 table three, correct?

8 A. That's correct.

9 Q. I see sunflower three and sunflower and I see
10 Meadowlark five and Meadowlark six. Why didn't you,
11 I guess, take out those plans that were either
12 earlier or later iterations of another plan?

13 A. Well, I thought that I wanted to include the full
14 suite of other plans that they considered, and I
15 think, you know, certainly I could have, if I had
16 more time, do more analysis to try to figure out
17 which ones were nearly identical, which other ones
18 were nearly identical, but I think if you scroll
19 down to the figure in figure nine that right now the
20 density of other plans the Legislature considered
21 like many of them are overlapping with each other
22 and aren't really distinguishable.

23 So it's not that this -- it wouldn't change
24 the interpretation of this figure if I were to take
25 out one or two or three of the other plans. It

1 would still show the substantive point of this
2 figure is that it enacted Ad Astra 2 plan is the
3 most extreme plan the Legislature considered and
4 it's far more extreme than this range of other
5 plans.

6 So that wouldn't be affected if there were
7 one or two less lines on the right hand of that
8 figure.

9 Q. It's possible and you don't know the answer too,
10 correct? Ad Astra 1 and Ad Astra 3 could have
11 actually been on the left-hand side of Ad Astra 2,
12 correct?

13 A. I don't know that. I didn't analyze that.

14 Q. But you do know that it was very close in
15 characteristic to Ad Astra 2, correct?

16 A. That was my understanding. I mean, I didn't conduct
17 a very detailed extensive analysis of it.

18 Q. My understanding of your report is there are two key
19 conclusions. One is you're comparing Ad Astra 2 to
20 your historical distribution table and all 10,000
21 election results.

22 That's one, and the other one is you're
23 comparing Ad Astra 2 to the other plans that the
24 Legislature considered; is that correct?

25 A. I think that's mostly correct. The other point is

1 that even in the absence of the historical
2 distribution, what the negative 22 percent
3 efficiency gap shows just mathematically is that
4 republican votes are being translated into seats
5 much more efficiency than democrats.

6 And we can really see that even without any
7 of the comparisons, but I include the comparisons in
8 part to sort of clarify how extreme the nature of
9 that bias is.

10 Q. So looking at this what are we to take from, I
11 guess, this figure and I guess this legal setting.
12 What does this tell me?

13 A. It tells us two things. One is that the enacted Ad
14 Astra 2 plan was more extreme than other plans that
15 were enacted over the last 48 years in states across
16 the country.

17 Second it tells us it was more extreme than
18 the other non-Ad Astra 2 plans that were considered
19 by the State Legislature.

20 Q. As I look at this here, is there any reason I guess
21 I didn't notice this before on the right-hand side,
22 figure nine goes all the way out to 30 percent, but
23 on the left-hand side it stops at negative 20; why
24 is that?

25 A. It's actually because it's an interesting question.

1 That's because of the nature of the empirical
2 distribution of the efficiency gap. And what we
3 find is that in -- there were far more
4 pro-democratic efficiency gaps historically in the
5 1970s and 80s than extreme republican ones. So
6 really what you see off on the right are some very
7 pro-democratic efficiency gaps.

8 Q. And just to be clear, when we say that Ad Astra 2 is
9 more extreme than any other plan that the
10 Legislature considered, that's with the caveat that
11 Ad Astra 1 and Ad Astra 3 may actually be more
12 extreme, correct?

13 A. I don't know. That's correct. I don't know
14 anything like that. I didn't analyze that. I
15 provide them as being substantially similar so I
16 never plotted them in this chart. It's not that I
17 plotted them and then took them off. I never
18 plotted them.

19 Q. As I look here at these lines, you did not, I guess,
20 this report does not analyze and assign, I guess,
21 any value to any other plans. All I know is that
22 there's plans and there's lines. I don't know which
23 line goes with which plan, do I?

24 A. That's correct. Because I'm not trying to make --
25 it didn't play a role substantively in my report.

1 Q. Do you think the results here are meaningful with
2 regard to Ad Astra 2?

3 A. I do.

4 Q. What does meaningful mean?

5 A. Well, again, I think that's a qualitative evaluation
6 but here in this case I think that what this shows
7 is the extreme level of how much of an outlier the
8 Ad Astra 2 plan is compared to this historical
9 distribution and compared to the other plans.

10 Q. You just used the word extreme. Is extreme and
11 meaningful the same thing in your field or are they
12 different?

13 A. No. Extreme, I think I would certainly use extreme
14 to mean something that was more of an outlier.

15 Q. And, when you say more than an outlier, is there a
16 threshold for determining what is extreme and what
17 is not extreme?

18 A. I don't have a single threshold in mind, but I think
19 that in for Congressional plans, you know, certainly
20 it would have to be out to the tails of this
21 distribution.

22 Q. And when you say tail?

23 A. Maybe 15 percent. Certainly I wouldn't call a plan
24 that was less than 15 percent extreme.

25 Q. Now, maybe the judge was a better statistic student

1 than I was, but when I looked at this, and we had a
2 discussion about this, this looks to me almost like
3 standard deviations. Is this what this is showing?

4 A. No.

5 Q. Why does this look like a standard deviation table?

6 A. Well, it's showing that the distribution of
7 efficiency gaps in Congressional elections over the
8 past 40 years is approximately normally distributed,
9 which is what a standard deviation is.

10 A standard deviation is, essentially,
11 capturing a normal distribution of some data but
12 there's nothing that's not necessarily true. That
13 just happened to be how the data looks.

14 Q. Yeah, I'm not a statistics student. My
15 understanding is that randomness plays some role in
16 standard deviation; is that correct?

17 A. Perhaps, I mean, if you're doing a statistical
18 comparison often in a frequent statistics, you're
19 assuming that there's some sort of random sample
20 from a broader distribution of data.

21 Q. And that's the value of the standard deviations is
22 you can determine where you are versus that random
23 table?

24 A. Exactly. You might evaluate, like, basically
25 whether the results could occur by chance in some,

1 you know, in your analysis.

2 Q. You'd agree with me that these plans you would not
3 view as random acts, correct?

4 A. No. I'm not saying these are some random -- from a
5 random sample. In my report, I don't purport to do
6 statistical analysis of them.

7 Q. So, when I see negative 20, I see negative two
8 standard deviation. Are you saying there's no
9 correlation at all between 20 percent and two
10 standard deviations?

11 A. Between 20 percent, no. I mean, there might be, but
12 I am not trying to argue that today. I haven't
13 looked at that.

14 Q. So the creation of this table where it looks like a
15 bell curve, that has nothing to do with standard
16 deviations; is that correct?

17 A. I mean, I would have to think about it more. You
18 could certainly standardize this and then analyze
19 where this plan fell in that standard normal
20 distribution but I am not doing that here in some
21 formal way.

22 Q. So, when I see this, if I'm beyond negative 20,
23 that's not an indication that that plan was enacted
24 and that it could not have been the cause of some
25 randomness? That's not how that figure is supposed

1 to be read, correct?

2 A. No, I'm not doing a statistical test. You would
3 have to say what are you comparing it to? So, in
4 the case where is it statistically different from an
5 efficiency gap of zero, then surely would that be
6 true.

7 Is it statistically different from the
8 others, probably, but I haven't done a formal
9 analysis of that. You'd have to go into much more
10 detail of what exactly you're comparing it to.

11 Q. And now we've seen a number of figures both today as
12 well as in your report with, again, this sort of
13 bell curve shape. Is that bell curve shape is that
14 consistent throughout the report and throughout I
15 guess your analysis or does that bell curve change
16 in some way or another?

17 A. I don't believe it changes.

18 Q. Now, we discussed during your deposition the
19 possibility of, I guess, states with Congressional
20 Districts of three or of three or more being in your
21 distribution table. Since our deposition, have you
22 gone back and confirmed whether or not your
23 distribution table includes states with
24 Congressional seats of at least three or more or
25 just four or more?

1 A. It was confirmed that it was a typo in my report.

2 What I actually did was look at states with four or
3 more seats.

4 Q. And why did you not include three?

5 A. Well, as I think we discussed earlier I don't have a
6 clear view of whether the efficiency gap is
7 applicable with states with three seats. So I think
8 in general I tried to be conservative with my
9 approach and therefore not include those.

10 Q. You do have a clear view, though, with regard to
11 four, states with four Congressional Districts?

12 A. In my view, the efficiency gap is meaningful in
13 states with four seats.

14 Q. My understanding is that you basically start in the
15 '70s and collect all this election data and compile
16 it, I guess, through pretty much the present day; is
17 that correct to create your data set?

18 A. That's correct.

19 Q. And while collecting that data set, are you
20 distinguishing between the different types of plans
21 that you're collecting? So, for instance, whether
22 or not a nonpartisan commission or a highly partisan
23 Legislature has adopted the plan that you're
24 collecting. Did you distinguish between those
25 possibilities?

1 A. Well, that information plays no role in the
2 calculation of the efficiency gap or indeed of any
3 other partisan bias metric, but instead what you
4 might want to do, and I've done this in my work, in
5 my book manuscript, we do this, for instance, is
6 look at how much it matters for the efficiency gap,
7 which is how the redistricting process is designed.
8 That wouldn't play any role in how you would compute
9 the efficiency gap.

10 Q. I agree it wouldn't play a part of calculating the
11 efficiency gap, but it would play a part in
12 determining how much more extreme the plan in
13 question is than the plans that have historically
14 proceeded it, correct?

15 A. I guess that's a question I hadn't considered
16 before, but, if you look broadly over American
17 history, the vast majority of plans have been drawn
18 via partisan processes. So it certainly is not the
19 case that, like, you know, the entire middle part of
20 that distribution was drawn by nonpartisan
21 commissions since prior to the current redistricting
22 cycle, for instance, there were very few nonpartisan
23 commissions in place.

24 So I think this is another thing that, you
25 know, just wouldn't change the nature of this

1 distribution very much.

2 Q. My understanding of your testimony in a different
3 part of your report is that America has got more
4 partisan, correct?

5 A. That's correct. More well -- I don't say more
6 partisan actually. I do think they have gotten more
7 partisan. I say more polarized.

8 Q. What's the distinction between polarization and
9 partisanship?

10 A. Well, you could have somebody who prefers very
11 moderate policy positions, but persistently also
12 prefers one political party. So for instance in
13 past years you had many moderate voters, and to some
14 extent today that hold moderate political positions
15 but vote, say, especially in the south in the 1960s
16 and '70s and 80s would consistently vote democratic;
17 where as today, the ideological preferences of the
18 American public as well as the Congress have --
19 there's many fewer moderates than there were in
20 previous eras.

21 Q. Have you seen a shift in your compilation of all
22 this data and election results to where the
23 efficiency gap has gotten greater as we get closer
24 to the present day or was it greater, you know, when
25 you started collecting it 50 years ago?

1 A. I don't think there's been a big change in the
2 extremity. This is something I have looked at. I
3 think it's in State Legislative plans it's decreased
4 a tiny bit but not in a substantial way. The big
5 shift in the extremity of the efficiency gap
6 occurred when one person one vote kicked in. So
7 when malapportionment -- when the horrible
8 malapportionment that we had before one person one
9 vote ended, then the efficiency gap surely decreased
10 in size. Since 1972 there hasn't been substantial
11 changes in the nature of the absolute level of the
12 efficiency gap.

13 Q. Staying with your historical distribution, isn't it
14 true that while you may have a floor on how many or
15 strike that. You have a floor for determining how
16 low the number may be to be included on this
17 historical distribution map. You do not have a
18 ceiling on how many seats are included in your
19 historical distribution data set, correct?

20 A. I'm sorry. Can you repeat that question?

21 Q. Yeah, it was horrible. Sorry. Scratch that. Your
22 data set here includes states with Congressional
23 Districts of at least four or states with at least
24 four Congressional Districts, correct?

25 A. That's correct.

1 Q. You did not cut off or set in place a ceiling on
2 which states you're going to include like for
3 instance California. You include California in this
4 analysis?

5 A. That's correct, but I think one thing I've done as
6 part of my preparation for trial was to examine
7 whether to verify that, if my findings held, if I
8 looked at smaller states, which I expected them to,
9 which is one of the reasons I haven't done that
10 analysis explicitly here.

11 So what I found is that when you focus in
12 on smaller states, I believe we showed this chart
13 earlier during the direct examination, that the
14 results are substantially similar than if you focus
15 on all states.

16 So, it's simply not the case if taking
17 California out of the analysis substantially changes
18 the results. That's in part because there's a lot
19 of states that have relatively small numbers of
20 seats, whereas only one California. So it simply
21 doesn't change the nature of my conclusions very
22 much.

23 Q. Maybe I just miss saw a chart or table or
24 demonstrative that was put up, but it looked like to
25 me with the lower number of Congressional seats you

1 have, you typically a greater spread in the
2 efficiency gap both plus and negative, but the
3 farther or further out you got i.e. the larger
4 number of Congressional seats that you were looking
5 at, the efficiency spread got smaller; is that
6 correct?

7 A. That's correct. All though, again, once you get rid
8 of districts -- states with only one through three
9 seats as I did in the chart that we showed earlier
10 then the nature of that sort of the relationship
11 between the size of the state and the variance and
12 efficiency gap actually declines quite a lot.

13 So it's not to say there's no relationship,
14 but it's much smaller that is implied in the chart
15 that Professor Miller put together.

16 Q. So are you saying that you compared just states with
17 four Congressional Districts in between our
18 deposition and now?

19 A. I looked at states that had between four and seven
20 and states that had between four and six, I believe,
21 and in both of those cases, the Kansas plan was more
22 extreme than about 90 or 91 percent of those
23 elections.

24 So it is slightly smaller than the 95
25 percent that are in my report here, but, you know,

1 relatively that's a de minimis difference in my
2 view.

3 Q. But did you run just four Congressional Districts
4 against four Congressional Districts?

5 A. I haven't because as we discussed earlier during my
6 direct examination with Mr. Freedman that in my view
7 looking at states with just four seats, I can't
8 think of a reason why one would do that.

9 Q. You'd agree with me that your confidence in the
10 analysis grows with the number of Congressional
11 Districts that you're looking at, correct?

12 A. I think that's true, all though I don't think it's
13 by a lot. That's true at a marginal level.

14 Q. When you say marginal level, what does that mean?

15 A. Well, I think that certainly the less variants you
16 have then the more confident I would be in the
17 conclusion. So too if I had 100 -- there were 100
18 statewide elections in Kansas over the last decade
19 that would be better than 10, and if you had more
20 districts that would be better, but I think that
21 none of that suggests not confident in the
22 conclusions here.

23 Q. And the idea being with the lower number of
24 Congressional seats, the more volatile the results
25 are?

1 A. Exactly. I think that's why in my report I focused
2 on making sure to aggregate across these many
3 statewide elections.

4 Q. But now I'm talking about the distribution table,
5 which is a different thing, correct?

6 A. Sorry, yes. The distribution table, but, again, if
7 you only look at from a smaller number of the seats
8 the results are substantively identical to if you
9 focused on the full disposition that we showed here.
10 So it's not true that that dramatically changes any
11 of the results in my report.

12 Q. Now, you mentioned to me, I think you said when you
13 compared four to six or four to seven, it was like
14 90 to 91 percent?

15 A. Uh-huh.

16 Q. When we say 90 to 91 percent, is that more extreme?

17 A. More extreme. So the 95 percent went to about, I
18 believe, 90 or 91 percent.

19 Q. Okay?

20 A. I don't have it in front of me.

21 Q. That's not pro-republican? That's just more biased?

22 A. Exactly.

23 Q. What does that mean to be 91 percent?

24 A. Well, I think it's straightforward that it means the
25 absolute value of the efficiency gap here is higher

1 than 91 percent of the plans in those states.

2 Q. Now, I want to focus here on table two on PDF page
3 12, Jamie, please, on 105. I apologize. PDF page
4 14. There we go. I want to focus here on that very
5 top or those very top rows, the 2012 to the 2020
6 plan. So it's my understanding that 90 percent is
7 very extreme. What about 80 percent; is that
8 extreme?

9 A. I still think that would be relatively extreme, but
10 it's clearly less extreme than 95 percent.

11 Q. Can you quantify? I mean, I know it appears to be
12 15 percent less, but what does that mean in a
13 practical sense?

14 A. I mean, again I think it's straightforward that if
15 it's 80 percent than 90 percent, it means that it's
16 not as much of a historical outlier.

17 Q. And, when we look at 2012 to 2020, you understand
18 that that plan was adopted by a three judge panel,
19 correct?

20 A. In 2012 to '20?

21 Q. Yes.

22 A. I haven't examined that closely.

23 Q. Okay. Would you think that that's weird that you
24 would have what would be presumably -- I guess
25 arguably a nonpartisan three judge panel end up with

1 an efficiency gap of negative 15.6, which I
2 understand that to be pro-republican leaning or I
3 guess based on the percentage over there extreme
4 leaning towards republicans; is that correct?

5 A. No, I wouldn't find that surprising.

6 Q. And why not?

7 A. Well, I think there's two reasons. One is that
8 there could be the underlying political geography of
9 Kansas could imply that there should be some small
10 pro-republican efficiency gap, and in addition
11 there's no guarantee that courts -- while certainly
12 in the past courts have done more fair plans than
13 legislatures that you know it wasn't necessarily
14 true that court was tasked with making the most fair
15 plan possible.

16 Q. So, when I look at this, should I assume that the
17 three judge panel had an extreme republican bias in
18 drafting that plan?

19 A. I don't have an opinion about 2012 through '20 plan.
20 I mean, I think that plan is clearly less extreme
21 than the enacted Ad Astra 2 plan.

22 Q. But you are saying that this court should look at
23 the enacted Ad Astra plan and find that the
24 Legislature had a strong republican bias when
25 enacting Ad Astra 2; is that correct?

1 A. Can you repeat the question?

2 Q. Yes. My understanding is that in looking at 2012 to
3 2020, you are not willing to, I guess, apply or
4 subscribe or give the three judge panel or draw the
5 conclusion that the three judge panel had an extreme
6 pro-republican bias; is that correct?

7 A. No. I'm not willing to say they had a strong
8 pro-republican bias.

9 Q. But when we look at Ad Astra 2, you are willing to
10 say that the Legislature had an extreme
11 pro-republican bias; is that correct?

12 A. Well, I want to be careful here. My report is
13 primarily not about the intent of the Legislature.
14 I know other experts are speaking to that. My
15 report is on the affect of the plan on the
16 representation that citizens in Kansas receive and
17 on the translation between votes and seats in
18 Kansas.

19 And I think that that's the primarily sort
20 of metric that I focus on in my report. I think
21 that the comparison to the other plans that they
22 consider is indicative of the intent, but that's not
23 the primary focus of my report.

24 MR. KAISER: I just have two more areas of
25 questioning, and I'm almost done, Your Honor.

1 THE COURT: Take your time. This is
2 expedited enough without the court thinking that you
3 need to ask questions faster. Are you doing okay,
4 Chris? All right.

5 Q. (By Mr. Kaiser) I want to talk a little about
6 PlanScore now. You are very familiar with
7 PlanScore, correct?

8 A. I am.

9 Q. And what does that familiarity stem from?

10 A. I'm on the Social Science Advisory Board for
11 PlanScore so I help advise on statistical modeling
12 and the historical data on PlanScore primarily based
13 on data that I've developed or solely based on data
14 that I've developed.

15 Q. And among other things that you're helping PlanScore
16 with is, I guess, performing, calculating efficiency
17 gaps for various plans; is that correct?

18 A. No. I mean, I have no role in the evaluation of
19 individual plans on PlanScore. PlanScore is -- the
20 goal of PlanScore is to enable journalists and
21 citizens and even perhaps elected officials to do
22 really an initial take on the partisan fairness of
23 plans historically in their state as well as current
24 plans that are being proposed.

25 It's not designed to be dispositive in any

1 way but it is designed to take national level data
2 and enable people to do an initial evaluation of how
3 things look.

4 Q. When you say, initial evaluation, the media, random
5 citizens, they're not coming up with the scores or
6 information that's put on PlanScore's website, are
7 they?

8 A. Well, what PlanScore does is enable citizens to be
9 able to upload a plan as it appears that you did
10 with the Ad Astra 2 plan, so it enables where as in
11 previous cycles, you know, for all of us here, if we
12 wanted to evaluate what was going on in the
13 redistricting process, you would have to wait many
14 years to see how things played out, to have any
15 sense of what was going on, and it meant that the
16 public and journalists were really in the dark about
17 what was going on in the redistricting process.

18 So PlanScore is really designed to enable
19 all of us to be more engaged in the redistricting
20 process to give people some initial information
21 about how things are playing out in their state.

22 Q. Well, the consumer of that information may be mere
23 commoners, the people who are creating that are
24 people or the information on PlanScore's website is
25 controlled by PlanScore, correct?

1 A. Yes. I don't know what sense you mean controlled.

2 Q. People aren't randomly creating their own efficiency
3 gap and then pasting it or posting it on PlanScore.

4 The efficiency gap, the information that's posted on
5 PlanScore, that's coming from PlanScore, correct?

6 A. Of course.

7 Q. And when you're talking about enabling news people,
8 every day people, what PlanScore is doing is
9 allowing them to, I guess, have a greater
10 understanding where they maybe otherwise would not
11 have had it, correct?

12 A. Exactly. It's enabling people without a lot of
13 statistical or GIS or hundreds of hours on their
14 hands to analyze this to really perform initial
15 evaluations and PlanScore has been used not just by
16 advocates but it's quoted and used extensively by
17 the New York Times, by the Guardian, by a number of
18 other journalists over the past several months. So
19 it's a widely used tool.

20 Q. And not only used by journalists. It's actually
21 been used by you, correct?

22 A. Correct. I've used it both in an article that I'm
23 working on evaluating the redistricting cycle so far
24 and occasionally in other reports.

25 Q. When you say, "other reports," we're talking reports

- 1 submitted to court, correct?
- 2 A. Correct.
- 3 Q. Okay. Most recently the one you submitted a month
4 ago to the Ohio Supreme Court?
- 5 A. Actually I don't remember if I did.
- 6 Q. An Ohio Court?
- 7 A. There's been so many different plans in Ohio. I
8 think in the Congressional case, I used PlanScore,
9 but not the State Legislative case.
- 10 Q. So, fair to say in your estimation PlanScore is a
11 reliable source?
- 12 A. Yeah. I think it's one indicator. I think it gives
13 you a nice particularly a nice first cut at what's
14 going on if you're providing, doing national
15 analyses in a particular state. It might be useful
16 as one indicator.
- 17 Q. And PlanScore, essentially, has the A team, don't
18 they? They have you?
- 19 A. I mean, there's a lot of great social scientists
20 working on redistricting, and, you know, some really
21 good social scientists are working on PlanScore.
- 22 Q. Among others Nicholas Stephanopoulos?
- 23 A. That's correct.
- 24 Q. Eric McGhee?
- 25 A. That's correct.

1 Q. Both of whom are the creators of the efficiency gap,
2 both the legal standard as well as the social
3 science metric, correct?

4 A. That's correct.

5 Q. Along with you, correct?

6 A. That's correct. I wasn't involved, as we discussed
7 earlier, in the legal, you know, development, yeah,
8 the proposal of any legal tests for the efficiency
9 gap.

10 Q. Can you think of a greater authority on the
11 efficiency gap than that team at PlanScore?

12 A. I think this is three of the principal scholars that
13 have worked on the efficiency gap.

14 Q. Jamie, will you pull up please 1044. I believe this
15 is the complete website, so I apologize for that
16 earlier. Scroll down a little bit more, please,
17 Jamie.

18 Now, I was a little bit confused by this,
19 because when I come to this website, are you
20 familiar with this website?

21 A. Of course.

22 Q. CLC. Can you scroll up just a little bit, Jamie.
23 Sorry. All right. Right there. That's good. I
24 read this to mean this is Kansas page on PlanScore.
25 Is that how you understand this?

1 A. That's correct.

2 Q. Okay. So, when I read this it says no plan data is
3 available for the selected district group. It goes
4 on to say we do not show data on the partisan
5 fairness metrics in states with less than seven
6 districts, because the metrics in these states tend
7 to be more volatile and less informative about
8 partisan bias.

9 For example, in a state with only three
10 Congressional seats, a change in the winner of one
11 seat could cause a huge shift in their efficiency
12 gap. Did I read that correctly?

13 A. That's correct.

14 Q. Okay. That seems to be at odds with your test or
15 your conclusion that you can be confident in an
16 efficiency gap analysis in a state in which there's
17 only four Congressional Districts. What am I
18 missing?

19 A. So our concern on PlanScore was that we show
20 elections particularly for plans that have only been
21 in place for a cycle or two. You know, you might be
22 able to see a cycle specific efficiency gap and our
23 concern was that in certainly election to election,
24 you can have volatility. And we were worried, and
25 we were developing this quickly, and as a result, we

1 were worried that, you know, there were going to be
2 cases where you had a plan in place for one or two
3 cycles where you could get weird results.

4 I think that, frankly, with, you know, with
5 hindsight probably, if we had more time, we would
6 have built out functionality so it did show
7 states with less than seven seats, if the plan had
8 been in place for a full decade, but at the time we
9 just didn't have time to figure that out.

10 So we decided we wanted to be as
11 conservative as we could on PlanScore and make sure
12 that we were quite confident that regardless of how
13 many election cycles that we had data on that the
14 results weren't going to be too volatile.

15 Q. When did you guys adopt, I guess, this test that's
16 put here on this Kansas page?

17 A. I don't know to be honest.

18 Q. It sounds like you guys have, when I say you guys,
19 it's the PlanScore team, have re-evaluated, I guess,
20 the methodology to some degree that I guess you
21 utilized at the beginning or at least when you
22 posted this note on PlanScore; is that correct?

23 A. Yeah. I think what we observed -- I can say that,
24 frankly, we observed is that you if you had edge
25 cases where you had plans in place, you know,

1 historically for one or two cycles and people had
2 weird results, because there was only one or two
3 cycles that had been in place and people would write
4 us with sort of, like, weird questions.

5 And I think that specifically we got some
6 weird questions about states with, like, two or
7 three districts, and we just decided we wanted to be
8 very conservative here in part so we didn't have to
9 sort of trouble shoot for people trying to figure
10 out their state.

11 Q. And this is currently PlanScore's policy as of
12 today?

13 A. That's my understanding.

14 Q. Now, it's not just PlanScore that is set in place
15 this sort of greater than six or seven Congressional
16 Districts. You've also written a paper with Mr.
17 Stephanopoulos in which you-all advocated or
18 utilized only states with more than six
19 Congressional Districts; is that correct?

20 A. I think that's correct, but, again, in that paper we
21 were looking at election by election. We were
22 analyzing the efficiency gap in election by election
23 way.

24 We weren't averaging it over some broader
25 set of statewide results or broader period of time.

1 I think there, you know, again, we were concerned by
2 the volatility.

3 Now, you know, I don't know would I do that
4 differently having thought about it more? I don't
5 know, but at the time we were -- because we were
6 analyzing it election by election that volatility
7 concerned us.

8 Q. When you say you don't know if you would do it
9 differently, does that mean you may still think that
10 evaluating other applying or creating efficiency
11 gaps in states in which there are less than six
12 Congressional Districts maybe too volatile to be
13 informative about partisan bias?

14 A. Well, we don't state here that it's too volatile to
15 be informative. I want to be careful about here
16 what PlanScore says, which I think is different than
17 what you just said.

18 It tends to be more volatile and that's
19 less informative, but it doesn't mean that it's
20 uninformative. So I think in a case where we have
21 many elections such as in Kansas where we can
22 average over many statewide elections, then as we
23 discussed earlier, sure.

24 I think that, if we had many more statewide
25 elections, it can be more informative, but I think

1 that it can still be quite informative even in
2 smaller states. And PlanScore certainly doesn't say
3 that it can't be informative.

4 Q. And when you say, "informative," what would it be
5 informative on if we're concerned about it being too
6 volatile?

7 A. Well, again, in the case of Kansas in my analysis
8 here what I'm doing is averaging over many statewide
9 elections, and so here that dampens that volatility.

10 If I was analyzing the Congressional
11 election results cycle by cycle in Kansas, so, if we
12 were holding this case two years from now, and I was
13 asked to analyze the results of one Congressional
14 cycle in Kansas, and that was the only data I was
15 allowed to use for some reason, then sure I would be
16 concerned about one election cycle being volatile.

17 Q. Jamie, can we go to PDF page 17 on Plaintiffs'
18 Exhibit 105. I want to wrap up here with you, Dr.
19 Warshaw, on a couple points that Mr. Freedman had
20 made.

21 Will you go down a little bit more, Jamie.
22 And specifically I want to focus on section seven
23 the partisan gerrymandering and representation in
24 Congress.

25 A. Sure.

1 Q. I think I heard the words original or new with
2 regard to analysis that you had performed, and I
3 just want to be clear and you can keep scrolling
4 Jamie, please.

5 There are a number of figures, figures 10,
6 11, none of these are focused on Kansas, correct?

7 A. Well, that's true, but that's for two reasons. One
8 is that at a theoretical level, I wouldn't expect
9 representatives of Kansas to vote differently than
10 than you would see elsewhere in the country and be
11 more or less extreme, but also because for most of
12 this period we haven't had democrats in the Kansas
13 Congressional delegation.

14 So that was actually why principally I
15 didn't draw Kansas. So it wouldn't make sense to
16 focus on changes in partisan polarization in Kansas
17 when for much of this time period you had four
18 Kansas republicans.

19 Q. How does the election of Representative Davids
20 affect that analysis that we're looking at right
21 here on page 18? Was that a figure? 11?

22 A. I don't think it would change it at all. I'm not an
23 expert on Representative Davids, but I think that
24 her ideological positions are somewhere in the
25 middle of the democratic party.

1 The only way it would change my conclusions
2 is if she was in that white space between the
3 parties and, of course, we can see in this chart
4 that even in the Congressional session after she was
5 elected there's still no democrat in that white
6 space between the parties.

7 Q. How far does that go?

8 A. That goes to 2020.

9 Q. Okay.

10 A. I think it's based on Congressional so 2016, '18,
11 and '20.

12 Q. Did you perform an analysis on any of the four
13 representatives that Kansas had with regard to
14 partisan polarization?

15 A. As I was preparing for today, I looked at the
16 Senators from Kansas, and they're certainly right in
17 the middle of the republican party.

18 Q. And, when you say right in the middle, if I'm
19 looking at one of these figures, where does that
20 match up on that analysis?

21 A. Right around the middle of the red line basically.

22 Q. So it follows this trend line or is it somewhere?

23 A. No. In today's Senate, the Senators from Kansas
24 look just like the average republican member of
25 Congress. They're neither distinctively extreme nor

1 are they distinctively moderate, but that's what we
2 should expect that in today's Congress partisanship
3 is far and away the most important feature to know
4 about Congress and, again, the ideological divides
5 between the parties really dwarfs the divides within
6 the parties.

7 Q. While you may have looked at the Kansas Senate, you
8 did not look at the members of the United States
9 House from Kansas, correct?

10 A. Certainly not in any systematic way.

11 Q. And then I've got to do this. Look at table four,
12 Jamie, which you covered with Mr. Freedman. It's on
13 PDF 21, sorry.

14 A. Sure.

15 Q. All right. I'm going to try to break this down so I
16 make sure I understand it. What this table is
17 showing me is that, one, republicans tend to be more
18 conservative; two, if republicans have more seats,
19 they're going to draw more favorable lines, which
20 will result in more republicans being in the
21 Legislature?

22 A. It's not showing you that second thing.

23 Q. It's not?

24 A. It's merely focused on the fact that, if the
25 efficiency gap moves in a more pro-republican

1 direction or symmetrically in a pro-democratic
2 direction, it's going to make ideological
3 composition of Congress more conservative.

4 So it's not the case that partisan
5 gerrymandering, again, is like watching baseball
6 with no consequences. This is something that deeply
7 effects the type of representation all of us receive
8 in the Legislature.

9 Q. And how do you measure ideology through that test or
10 what sort of algorithm or how do you come up with
11 numbers, negative .0108?

12 A. Sure. So this is based on the DW nominate scores,
13 which I, again, as I describe in the report are sort
14 of the gold standard for evaluating ideology in
15 Congress. And this is using a statistical model
16 called a two way fixed effects, which is the work
17 horse model for social scientists for estimating the
18 first approximation causal effects.

19 So what this implies is that a 10
20 percentage point shift in the efficiency gap in
21 recent years is going to shift to the ideological
22 composition of Congress by about .11 in a
23 conservative direction.

24 Q. And that's because more conservators are going to
25 Congress, correct?

1 A. If you have a republican bias, that's going to elect
2 more republicans and given the polarization in
3 Congress that's going to mean that Congress will be
4 more conservative than it was before and so too for
5 democrats, obviously, symmetrically.

6 Q. I just want to end on one last point here, because
7 all this is in the context of gerrymandering, you're
8 not claiming that gerrymandering causes more
9 polarization, are you?

10 A. No. I don't have a view on that. The main
11 political science study that's investigated that
12 found no evidence that gerrymandering caused
13 polarization.

14 That was an article I believe in 2009 by
15 Nolan McCarty and Howard Rosenthal and another
16 coauthor.

17 Since then, there hasn't been to my
18 knowledge a reanalysis of that study, so certainly
19 it's possible the world has changed since 2009, but
20 certainly in my report I'm making no claim that
21 gerrymandering causes polarization.

22 We have to consider the polarization in our
23 country to evaluate the consequences of
24 gerrymandering for the political process.

25 Q. And while Legislators may have become more partisan

1 or polarized, that maybe because the electorate is
2 becoming more polarized; is that correct?

3 A. Certainly. I don't offer any opinion in my report
4 about the link between the mass public and members
5 of Congress.

6 Q. So just because I see polarization, I shouldn't
7 necessarily conclude that those representatives are
8 not representing their constituents, because they're
9 becoming more polarized; is that correct?

10 A. Well, what political scientists have generally
11 found, the literature here -- there's huge
12 literature on this, and I think what it's found is
13 two things.

14 One is that at the district level, members
15 of Congress are increasingly extreme, and that's in
16 part because there are a wide number of reasons for
17 that but probably too much to go into right now, but
18 probably there certainly more extreme than the
19 median voter.

20 It's not the case the members of Congress
21 are converging on the median voter.

22 And they're probably even more extreme than
23 they are partisan supporters, all though the
24 evidence is more tenuous.

25 And so even at the district level, members

1 of Congress are probably more extreme than the
2 public wants but when you aggregate up to the
3 statewide level, what my analysis has shown is that
4 in a place like Kansas where the redistricting
5 process is going to skew the electoral process in
6 favor of one party, it's going to mean that the
7 members of Congress that are elected from Kansas
8 have a very large conservative skew relative to the
9 mass public.

10 So that's going to be more conservative than
11 what the average voter in Kansas would prefer, and
12 it's certainly going to leave democrats in Kansas
13 including in District 3 with no political voice.

14 MR. KAISER: Thank you for your time, Dr.
15 Warshaw. I have no further questions, Your Honor.

16 THE COURT: Thank you, counsel. Whoa.
17 Don't jump up like that.

18 MR. FREEDMAN: Your Honor, with the caveat
19 that baring technical difficulties, I think I can
20 finish redirect in, like, five minutes, but that's
21 an important caveat.

22 THE COURT: I work for you-all. Can you
23 stand another might be a little bit more recross.
24 Can you stand 10 minutes? 15 minutes? 20 minutes?
25 Let's go. You doing all right, Chris?

1 THE WITNESS: Yes.

2 REDIRECT EXAMINATION

3 BY MR. FREEDMAN:

4 Q. We're going to start with the one technical
5 difficulty part, so that if we have it, we have some
6 time to work it out.

7 So, Professor Warsaw, at about 1:45 you
8 were shown Exhibit 1045, which was an excerpt from
9 the PlanScore website concerning Ad Astra 2?

10 A. Exactly.

11 Q. And you asked to be able to scroll to the bottom to
12 be able to talk about what was found so --

13 A. Exactly. So --

14 Q. Can you scroll down.

15 A. Now, at the bottom it shows their are differences in
16 evaluation of District 3, but it's still in
17 PlanScore evaluation so PlanScore calculates the
18 comparison to historical plans a little differently
19 than I do in my report where here it looks at the
20 average within plans versus individual elections,
21 but the broad takeaway is similar.

22 The efficiency gap here is 18 percent in a
23 pro-republican direction, which is more skewed in
24 this case than 98 percent of the plans that
25 PlanScore compares it to and more pro-republican

1 than all but one percent.

2 So despite the small differences between my
3 analysis and PlanScore, the overall takeaway here
4 despite methodological differences is broadly
5 identical, which is that this plan is an extreme
6 historical outlier and is more skewed than the vast,
7 vast majority of plans in history.

8 MR. FREEDMAN: Okay. On the proffer that
9 we will print this out accurately, Plaintiffs will
10 offer this as Exhibit 746.

11 MR. KAISER: No objection, Your Honor. I
12 just ask that you leave it up when you're done so I
13 can use it.

14 THE COURT: 746 is admitted without
15 objection.

16 Q. (By Mr. Freedman) Dr. Warshaw, at 1:05 Mr. Kaiser
17 asked you a series of questions about your prior
18 testimony in Congressional races; do you remember
19 that?

20 A. Yes.

21 Q. And he asked you if you always testified that there
22 was a partisan bias in favor of republicans?

23 A. Yes.

24 Q. And he went over four cases that you've testified in
25 over the last five years?

1 A. That's correct.

2 Q. Now, you have looked at a lot more state plans than
3 are in those four cases, right?

4 A. Of course. For academic research, I've evaluated
5 over 10,000 Congressional elections and thousands of
6 Congressional plans.

7 Q. Right.

8 A. Over 1,000.

9 Q. And did you find it overwhelming republican,
10 pro-republican bias, in most of those plans?

11 A. No. As I described in that figure, that most plans
12 have no bias toward either party.

13 Q. Now, I think you started to testify about this and
14 then the question moved on, but you've been
15 approached to testify in other cases, right?

16 A. Yes.

17 Q. Beyond the ones where you actually appeared in court
18 and testified?

19 A. Correct.

20 Q. And, in conjunction with approaching you, have you
21 concluded that those plans that you were asked to
22 evaluate involved an extreme republican bias?

23 A. No.

24 Q. The cases that you've testified in -- you're
25 selective, right?

1 A. Exactly.

2 Q. You are testifying in cases where you have something
3 to say, because the plan is an extreme
4 gerrymandering, right?

5 A. Exactly. So, first of all, I've only in general
6 I've been approached in places where people thought
7 there was extreme bias and then among the cases
8 where I've been approached, there were some of them
9 where I said that the evidence didn't actually
10 indicate that there was an extreme level of partisan
11 bias. So, therefore, of course I wasn't asked to
12 testify.

13 So we're seeing selection bias in the set
14 of cases that I've actually offered a report to the
15 court on.

16 Q. Now, at 1;25 Mr. Kaiser over the course of the
17 examination said I made various points during your
18 direct examination. We all know that counsel's
19 questions aren't actually evidence; only your
20 answers are evidence, right?

21 A. That's correct. I assume that's correct. I don't
22 know.

23 Q. He said that I said that there was robust discussion
24 about the efficiency gap, and I think what he was
25 referring to is when I asked you to describe the

1 academic literature on the efficiency gap. Could
2 you so the record is clear could you describe the
3 state of the academic literature on the efficiency
4 gap.

5 A. Sure. I mean, there's vigorous literature on
6 partisan gerrymandering and redistricting in the
7 academic literature, and there's certainly debates
8 about the pros and cons of different metrics, but
9 the consensus of that literature is that when you
10 empirically evaluate whether different metrics are
11 capturing partisan bias in the redistricting
12 process, the efficiency gap performs very well.

13 It performs very well in evaluating the
14 consequences of redistricting.

15 Q. Mitch, could you pull up Exhibit 105. I want to go
16 to table three. I forgot the page number. It's
17 page 13. It's the top table. Dr. Warshaw, do you
18 recall about 1:55 Mr. Kaiser showed you this table?

19 A. I do.

20 Q. Do you see that in the plans you consider there was
21 a plan called Mushroom Rock 2?

22 A. Yes.

23 Q. Were you in the courtroom this morning and present
24 for the testimony of about Mushroom Rock 2 being a
25 plan that keeps Johnson County together but also

1 keeps most of Kansas City Metro Area together?

2 A. I was.

3 Q. Now, if we scroll down, Mitch, to the bottom chart,
4 is Mushroom Rock 2 reflected in figure seven in your
5 report?

6 A. It is. I don't recall exactly where, because it's
7 not the plan that is to the left of 50. It's one of
8 the plans that's to the right. I think it's to the
9 right of the 2012 through '20 plan.

10 Q. Okay. And can you tell how Mushroom Rock 2 compared
11 to the Ad Astra 2 plan?

12 A. Well, again, without going precisely into the
13 number, because I don't have that in my head, on
14 that plan you would expect the democrat to win
15 District 3 most of the time, maybe not all the time,
16 but, you know, that's the way elections work. Most
17 of the time.

18 Where as on the enacted plan the
19 republicans would have a clear advantage in District
20 3.

21 Q. And certainly fair to say there's less of an
22 efficiency gap for Mushroom Rock 2 than Ad Astra 2,
23 right?

24 A. Correct. That's what I showed on one of the other
25 plots.

1 Q. And so it was possible to do a map where Johnson
2 County was kept together and have much less
3 pro-republican efficiency gap than the Ad Astra 2
4 plan, right?

5 A. That's correct.

6 Q. Final question, can we, Mitch, go back up to table
7 two, which, yes, you're faster than I am. You were
8 asked at about 2:15 this afternoon by Mr. Kaiser
9 about the 2012 plan. Do you recall that testimony?

10 A. That's correct.

11 Q. Is 22 and a half percent bigger than 15.6 percent?

12 A. It is, and I think what's useful as a comparison is
13 it's an apples to apples comparison with the
14 statewide elections. There's no candidate specific
15 differences between these two evaluations. So it
16 really shows how much the Ad Astra 2 plan was really
17 designed to advantage republican candidates versus
18 the previous plan.

19 Q. You testified this morning, and I just want to
20 recap, and I'll close on this. I asked you what
21 does the academic literature say about a 22 and a
22 half percent efficiency gap in terms of the
23 Congressional seat in the State of Kansas?

24 A. That would be equivalent of about one Congressional
25 seat.

1 Q. One Congressional seat per cycle?

2 A. Per cycle.

3 MR. FREEDMAN: Thank you, no further
4 questions.

5 THE COURT: Thank you. Off the record,
6 Rose.

7 (Recess.)

8 THE COURT: Back on the record, Rose.

9 MR. KAISER: I have nothing further, Your
10 Honor. You didn't give me a shot to save you for
11 it.

12 THE COURT: All right. So not pursuant to
13 a subpoena I take it?

14 MR. FREEDMAN: No, he can be released.

15 THE COURT: All right then.

16 MR. KAISER: No objection.

17 THE COURT: Chris, thank you so much for
18 your testimony. Sorry we had to break it up a
19 little bit, but you are free to go or stay if you
20 choose.

21 THE WITNESS: Thank you.

22 (Witness excused.)

23 THE COURT: Okay. Outline the rest of the
24 day for me, if you would, please, counsel, whoever
25 is going to do it.

1 MS. BRETT: Sure. I think plaintiffs are
2 going to be calling Professor Patrick Miller after
3 the break and then we have two fact witnesses, Your
4 Honor, and maybe ambitiously we have another expert,
5 but we'll see how we are after those two fact
6 witnesses and Professor Miller's testimony, if
7 that's all right.

8 THE COURT: Sharon, I would have to say to
9 you if the past is any indication of the future, if
10 we get through Professor Miller's testimony by 6:00
11 o'clock tonight, that that would be a wonderful day,
12 but we'll see how that goes. And 15 minutes long
13 enough break for plaintiffs?

14 MS. BRETT: 15 minutes is great.

15 THE COURT: Anything we need to talk about
16 before we take our break?

17 MR. RUPP: Not from the defense.

18 THE COURT: All right. I'll take that no
19 from the plaintiffs, too. Thank you-all. I'll see
20 you at 3:05, please.

21 (Recess.)

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25

1 C E R T I F I C A T E

2 STATE OF KANSAS)
3 COUNTY OF WYANDOTTE) SS:

4 I, ROSEMARIE A. VIETH, a Certified Court
5 Reporter, and regularly appointed, qualified, and
6 acting official reporter of Division 6 of the 29th
7 Judicial District of the State of Kansas, do hereby
8 certify that as such official reporter I was present
9 at and reported in stenotype shorthand the above and
10 foregoing proceedings FAITH RIVERA, ET AL, VS. SCOTT
11 SCHWAB, CASE NO. 2022-CV-89, heard on April 5, 2022,
12 before the HONORABLE BILL KLAPPER, Judge of said
13 court.

14 I further certify that a transcript of my
15 shorthand notes was prepared; and that the foregoing
16 transcript, consisting of 216 pages, is a true
17 record of all the proceedings.

18 SIGNED AND ELECTRONICALLY FILED WITH THE CLERK
19 OF THE DISTRICT COURT OF WYANDOTTE COUNTY, KANSAS,
20 this 6th day of April, 2022.

21 /s/Rosemarie A. Vieth
22 Rosemarie A. Vieth, CCR
23 KS CCR NO. 1094
24 Official Court Reporter
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Rosemarie A. Vieth, Official Court Reporter